

TEXAS PENSION REVIEW BOARD

BOARD MEETING MARCH 6, 2024

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TEXAS PENSION REVIEW BOARD MEETING AGENDA

Wednesday, March 6, 2024 – 10:00 AM Capitol Extension, Committee Room E2.028 1100 N. Congress Avenue, Austin, TX, 78701

Board members may attend this meeting by videoconference pursuant to Texas Government Code §551.127. One or more board members, including the presiding officer, will be physically present at the physical location of the meeting listed above. The meeting will be accessible to the public at the physical location listed above. The public may access the meeting virtually by joining via the Zoom link https://us02web.zoom.us/j/84978808845. A livestream of this meeting, agenda materials of the meeting, and a recording of the meeting will be made available at www.prb.texas.gov.

The board may discuss or take action regarding any of the items on this agenda.

- 1. Meeting called to order
- 2. Roll call of board members and consideration to excuse absence
- 3. Administrative matters
 - a. Consideration and possible action to approve November 21, 2023, board meeting minutes
 - b. Election of vice chair for 2024
- 4. Public comment
- 5. Update on database and reporting portal projects
- 6. Update on rule review and possible revision of 40 T.A.C. Chapters 601-605
- 7. Education Committee
 - a. Update on MET Core noncompliance
- 8. Investment Committee
 - a. Investment data report draft
 - b. Investment policy statement guidelines, guidance, and tools
- 9. Actuarial Committee
 - a. Actuarial Valuation Report

- b. Funding Soundness Restoration Plan (FSRP) report, including compliance
- c. Report on FSRP Implementation Update and Case Studies
- d. Public retirement system reporting and compliance, including noncompliant retirement systems under Texas Government Code §801.209
- e. Update on PRB Pension Funding Guidelines and Guidance for Developing a Funding Policy
- f. Update on Texas Local Fire Fighters Retirement Act (TLFFRA) governance project
- g. Update on research on systems authorized under Texas Government Code Chapter 810 that offer 100 percent lump sum options

10. Executive Director Report

- a. 2024 TLFFRA Pension Report
- b. 2024 TEXPERS Annual Conference
- c. 2024 Customer Service Survey
- d. Staff update
- e. Updated Fiscal Year 2024 Operating Budget
- 11. Future meetings: agenda items, dates, locations, and other arrangements

12. Adjournment

NOTE: The board may go into closed session concerning any item on this agenda as authorized under the Texas Open Meetings Act, Government Code, Chapter 551. Persons with disabilities who plan to attend this meeting and who may need special assistance are requested to contact Lindsay Seymour at (800) 213-9425/ (512) 463-1736 as far in advance as possible, but no less than three business days prior to the meeting date so that appropriate arrangements can be made.

How to provide public comment: Members of the public who wish to provide public comment to the board may attend the meeting in person at the address above or register for the meeting using the Zoom link provided above. If you wish to provide comment remotely by Zoom, you must contact Lindsay Seymour (<u>lindsay.seymour@prb.texas.gov</u>) no later than Tuesday, March 5, 2024. Note that public comments will be limited to no more than three minutes.

Item 3a. November 21, 2023, meeting minutes





Board Meeting Minutes November 21, 2023

1. Meeting called to order (10:37)

The third meeting of 2023 of the Pension Review Board (PRB) was called to order Tuesday, November 21, 2023, at 10:07 a.m. in the William P. Clements building, room 402, 300 W. 15th Street, Austin, Texas, 78701.

2. Roll call of board members and consideration to excuse absence (11:04)

Board members present:

Chair Stephanie Leibe Keith Brainard Marcia Dush, via videoconference Rob Ries Christopher Zook

Board members absent:

Christopher "Chris" Gonzales

A quorum being present, the meeting was called to order by Chair Leibe.

Chair Leibe entertained a motion to excuse Christopher Gonzales' absence from the meeting.

The motion was made by Mr. Zook and seconded by Mr. Brainard.

The motion passed unanimously.

3. Administrative matters (12:25)

a. Consideration and possible action to approve September 21, 2023, board meeting minutes

Chair Leibe entertained a motion to suspend reading the minutes of the September 21, 2023, board meeting and approve them as circulated.

The motion was made by Mr. Zook and seconded by Mr. Ries.

The motion passed unanimously.

b. Consider excusing the absence of board member from the September 21, 2023, board meeting

Mr. Brainard entertained a motion to excuse Chair Leibe's absence from the September 21, 2023, board meeting.

The motion was made by Mr. Zook and seconded by Mr. Ries.

The motion passed unanimously.

c. Update on committee assignments

Chair Leibe assigned Christopher Gonzales to the Education Committee. All other assignments will remain the same.

4. **Public comment (14:15)**

There were no public comments.

5. Consideration and possible action on revisions to bylaws (14:38)

Tamara Aronstein explained key revisions to the board's bylaws.

Chair Leibe entertained a motion to adopt the revisions to the bylaws as presented.

The motion was made by Mr. Zook and seconded by Mr. Brainard.

The motion passed unanimously.

6. Rule review and possible revision of 40 T.A.C. 607 Public Retirement System Minimum Educational Training Program rules; and 40 T.A.C. Chapter 609, Public Retirement System Investment Expense Reporting rules (19:55)

Jasmin Loomis noted that the notice of intent to review rules was published in the Texas Register earlier in the year and the agency received no comments. She added that staff would focus on the Minimum Educational Training (MET) rules and the investment expense rules, where staff expected more extensive revisions. She stated that potential changes to the MET rules include possible adjustments made to definitions, core training requirements, compliance deadlines, and the accreditation process for MET sponsors and individual course approval.

Chair Leibe noted that revisions to the MET rules should prioritize helping bring system trustees and administrators into compliance with training requirements.

Ms. Aronstein presented a project timeline and process for updating the MET and investment expense reporting rules.

Chair Leibe entertained a motion to direct staff to work with the Education Committee on MET rule review and with the Investment Committee on investment expense reporting rule review and possible revisions to be presented to the full board for final adoption in fall of 2024.

The motion was made by Mr. Brainard and seconded by Mr. Zook.

The motion passed unanimously.

7. Actuarial Committee (31:10)

a. Actuarial Valuation Report

David Fee provided an overview of changes systems have made to address funding issues, including making contribution changes, implementing a new tier of benefits, or changing other benefit calculations. Ms. Dush noted that knowing the normal cost for each plan tier would provide a higher level of transparency.

Mr. Fee noted that Laredo Fire and Longview Fire have both completed the FSRP requirement and Paris Fire is now fully funded after receiving pension obligation bonds.

Mr. Fee provided a summary of current metrics, including:

- significant assumption changes
- funding progress
- expected returns
- payroll growth rates
- amortization periods
- actuarial terminology
- funded ratios
- fund exhaustion
- normal cost
- contributions

The board discussed the information. They suggested potentially studying discount rates related to the risk each system is taking through asset allocations and making sure to keep an eye on systems that do not pay into social security.

b. Funding Soundness Restoration Plan (FSRP) report, including compliance

Mr. Fee noted as previously mentioned, both Laredo Fire and Longview Fire completed the requirement. Austin Fire, Greenville Fire, Laredo Fire, and the Nacogdoches County Hospital District were added to the list of systems at risk of triggering the 30-year FSRP requirement. Cleburne Fire and Lubbock Fire were removed from the list of systems with amortization periods between 30-40 years.

Mr. Fee provided an overview of FSRP progress updates. Atlanta Fire has increased city contributions. Beaumont Fire is planning to meet with their sponsor to discuss potential funding options. Brownwood Fire's actuary recommended that the sponsor and system increase contributions by 2 percent each, but instead the system increased member contributions by 4 percent. The board discussed the progress that systems have made towards achieving the FSRP requirement.

c. Public retirement system reporting and compliance, including noncompliant retirement systems under Texas Government Code §801.209

Bryan Burnham noted that nine systems with reports due July 30, 2023, were noncompliant for over 60 days. The board discussed current steps staff takes when a system is noncompliant with reporting requirements, and whether additional steps should be taken.

d. Review of PRB Pension Funding Guidelines and Guidance for Developing a Funding Policy

Mariah Miller explained that the guidelines were last revised in 2017 and the guidance was first created in 2019. Since then, there have been changes to statute and best practices that warrant updates to both documents. Ms. Miller detailed the PRB staff's plan to update these documents, including a timeline leading to the presentation to the board for final approval. Ms. Dush requested that staff consider addressing benefit equity and the roles of member versus employer contributions.

Mr. Brainard entertained a motion to direct staff to work with the Actuarial Committee to review and propose revisions to the PRB Pension Funding Guidelines and Guidance for Developing a Funding Policy.

The motion was made by Mr. Zook and seconded by Chair Leibe.

The motion passed unanimously.

e. Texas Local Fire Fighters Retirement Act (TLFFRA) governance project overview

Ms. Miller explained that prior research, legislative charges, and board requests have set the background for a larger study into TLFFRA governance. Ms. Miller noted that TLFFRA systems have underperformed as a group, but since all TLFFRA systems operate under the same statute the study could have a wide impact. She noted that the PRB established a work group composed of TLFFRA systems and sponsors to help staff form preliminary recommendations. Ms. Miller presented a timeline for deliverables, stakeholder feedback, and potential board approval. Mr. Brainard and Chair Leibe noted the potential benefits of the study. Chair Leibe also asked about the possibility of an interim charge related to TLFFRA and asked that staff prepare any recommendations to be in place for the next legislative session. Amy Cardona noted that there has not been any discussion of interim charges yet, but staff will make efforts to keep the project on a timeline to align with the next legislative session.

Mr. Brainard entertained a motion to direct staff to work with the Actuarial Committee to research and provide recommendations to the board regarding TLFFRA governance.

The motion was made by Mr. Ries and seconded by Chair Leibe.

The motion passed unanimously.

8. Executive Director Report (1:46:50)

a. 2023 TEXPERS Summer Educational Forum update

Ms. Cardona noted that she and Ashley Rendon attended the 2023 TEXPERS Summer Educational Forum held in the Woodlands in August.

b. 2023 TLFFRA Educational Conference update

Ms. Cardona announced that PRB staff attended the TLFFRA Educational Conference held in Corpus Christi in October. Mr. Fee moderated an actuarial panel at the conference.

c. Staff Update

Ms. Cardona announced that Matthew Featherston had resigned and that the PRB would be hiring two part-time interns. One position would be an actuarial intern and the other position would be a financial analyst intern.

d. Updated Fiscal Year 2024 Operating Budget

Ms. Cardona discussed the updated fiscal year 2024 operating budget.

9. Future meetings: agenda items, dates, locations, and other arrangements (1:49:08)

Chair Leibe announced that the Investment Committee will meet on the same day following the board meeting at 2:00 p.m. in the same location. The Actuarial Committee meeting will take place on January 25, 2024, at 10:00 a.m. with the location to be determined. The next PRB meeting would take place on March 6, 2024, at 10:00 a.m. with the location to be determined. Chair Leibe also announced that all meetings for 2024 have been scheduled and can be found on the PRB's website.

10. Adjournment (1:50:07)

The meeting was adjourned at 11:46 a.m.

PRB staff in attendance:

| Amy Cardona | David Fee | Mariah Miller | Tamara Aronstein |
|------------------|---------------|-------------------|------------------|
| Ashley Rendon | Robert Munter | Wes Allen | Jasmin Loomis |
| Durion Dirambono | Neck James | Lindon Course aux | |

Bryan Burnham Noah Jones Lindsay Seymour

Members of the public in attendance:

| Lisa Hughes- El Paso Firemen & Policemen's Pension | Erik Brown- Odessa Firemen's Relief and Retirement Fund | Scott Olguin Eddie Solis |
|--|---|-----------------------------|
| 5 | | |

Pat Haggerty- El Paso John Posey- Legislative Firemen & Policemen's Budget Board

Pension

Stephanie Leibe, Chair

Item 5. Update on database and reporting portal projects

Ashley Rendon



Background

Last session (88R), agency was provided an extension of money from the 87th session to complete two IT projects over the 2024-2025 biennium.

- Project 1: database rewrite migrating data from multiple servers to the cloud and creating a web-based interface for the current internal databases
- Project 2: reporting portal creating a portal to allow retirement systems to access a self-service portal to upload their reports and to complete required forms online

Project 1: Database Rewrite

- Completed with ongoing maintenance
- Use daily, old databases are completely defunct
- Able to run reports from new data
- Backfilling data for newer reports
 - funding policy
 - funding soundness restoration plans
 - investment expenses
 - benefits capturing additional datapoints
- Able to upload files from internal database, to eventually be made available on Data Center



Project 2: Reporting Portal

Project goals:

- Improve overall customer service
- Decrease security risks from receiving reports via email
- Streamline report submission
- Provide efficient information sharing
- Allow users to view agency correspondence



Reporting Portal, cont.

Features

- Login screen for administrators
- Ability to see previously submitted reports or upload new reports
- Upload screen allows user to choose report type and fiscal year to improve internal report tracking process
- Reports listed in dashboard once uploaded for easy confirmation of receipt
- User can view system annual and MET compliance status



Reporting Portal, cont.

Timeline

- Began working with IT contractor in April 2023 to outline project
- Identified necessary intermediate storage and infrastructure steps between IT projects
- Began storage/infrastructure steps Dec/Jan
- Currently programming portal
- User testing with systems in the spring
- Estimate completion and full launch by summer/fall



Item 6: Update on rule review and possible revision of 40 T.A.C. Chapters 601-605

Tamara Aronstein



Overview

- Rule review requirement
- Timeline
- Recommended rule actions
- Next steps



Rule Review Requirement

- The Administrative Procedure Act requires state agencies to review each of its rules every four years.
- The agency must readopt, readopt with amendments, or repeal each rule as part of the rule review.
- Generally, the rule review process must follow the statutory requirements for rulemaking. Any rule amendments or repeals identified through the rule review process must be published in the Texas Register.
- The review must include an assessment of whether the reasons for initially adopting the rule continue to exist.



Timeline

- September 21, 2023 Presented on notice of intent to review rules (40 T.A.C. Chapters 601-609)
- October 6, 2023 Notice of rule review published in Texas Register
- November 7, 2023 30-day comment period ended. No formal comments received.
- Note:
 - May 2, 2024 Chapter 609 (Investment Expense Reporting) draft rules to Investment Committee
 - May 9, 2024 Chapter 607 (MET) draft rules to Education Committee
 - July 25, 2024 Chapters 607 and 609 proposed rules to full board



Rule Recommendations - Chapter 601

- General provisions pertaining to the rules and agency administration
- Readopt Chapter 601
- Propose new section, 601.70, adopting rules for the operation of two state employee leave pools:
 - Sick leave pool
 - Family leave pool



Rule Recommendations – Chapters 603 & 604

- Chapter 603 Officers and meetings
- Chapter 604 Historically Underutilized Business Program
- Readopt all rules



Rule Recommendations – Chapter 605

- Standardized forms
- Propose amendments to both sections
- Section 605.1:
 - Add reference to statutory requirement for PRB to adopt these rules.
 - Split one form currently required into two separate forms, creating an additional form for reporting benefit information to reflect current practice.
- Section 605.3:
 - Add reference to new standalone form.
 - Update URL to reflect prb.texas.gov address.
 - Correct typographical error.



Overview of Recommended Rule Actions

| Chapter | Subject | Recommended Action |
|---------|--|---|
| 601 | General Provisions | Readopt; and propose new section regarding state employee leave pools |
| 603 | Officers and Meetings | Readopt |
| 604 | Historically Underutilized Business Program | Readopt |
| 605 | Standardized Form | Propose amendments |



Next Steps

- If board so moves:
 - Publish notice of adopted rule reviews (Chapters 601-604) – no further action needed
 - Proposed rulemaking:
 - Propose new rules Section 601.70 (state employee leave pools).
 - Propose amendments Chapter 605 (standardized forms)
 - Publication of proposed rules triggers 30-day public comment period.
 - Final adoption at July 25, 2024, board meeting.



Adopted Rule Reviews

Adopted Rule Review

The Texas Pension Review Board (Board) has completed its rule review of 40 Texas Administrative Code Chapter 601, concerning general provisions, in accordance with Texas Government Code §2001.039. Texas Government Code §2001.039 requires a state agency to review and consider for readoption, readoption with amendments, or repeal each of its rules every four years. The Board published its Notice of Intent to Review these rules in the October 6, 2023, issue of the Texas Register (48 TexReg 5830). The Board did not receive comments on the proposed rule review.

The review assessed whether the initial reasons for adopting the rules continue to exist and the Board has determined that those reasons exist. As a result of the review, the Board finds that the reasons for adopting the rules in 40 TAC §§601.1, 601.20, 601.30, 601.40, 601.50 and 601.60 continue to exist and readopts these sections in accordance with the requirements of Texas Government Code §2001.039.

This concludes the Board's review of Chapter 601 as required by Texas Government Code §2001.039.

Adopted Rule Review

The Texas Pension Review Board (Board) has completed its rule review of 40 Texas Administrative Code Chapter 603, concerning officers and meetings, in accordance with Texas Government Code §2001.039. Texas Government Code §2001.039 requires a state agency to review and consider for readoption, readoption with amendments, or repeal each of its rules every four years. The Board published its Notice of Intent to Review these rules in the October 6, 2023, issue of the Texas Register (48 TexReg 5830). The Board did not receive comments on the proposed rule review.

The review assessed whether the initial reasons for adopting the rules continue to exist and the Board has determined that those reasons exist. As a result of the review, the Board finds that the reasons for adopting the rules in 40 TAC §603.1 continue to exist and readopts this section in accordance with the requirements of Texas Government Code §2001.039.

This concludes the Board's review of Chapter 603 as required by Texas Government Code §2001.039.

Adopted Rule Review

The Texas Pension Review Board (Board) has completed its rule review of 40 Texas Administrative Code Chapter 604, concerning the Historically Underutilized Business Program, in accordance with Texas Government Code §2001.039. Texas Government Code §2001.039 requires a state agency to review and consider for readoption, readoption with amendments, or repeal each of its rules every four years. The

Board published its Notice of Intent to Review these rules in the October 6, 2023, issue of the Texas Register (48 TexReg 5831). The Board did not receive comments on the proposed rule review.

The review assessed whether the initial reasons for adopting the rules continue to exist and the Board has determined that those reasons exist. As a result of the review, the Board finds that the reasons for adopting the rules in 40 TAC Chapter §604.1 continue to exist and readopts this section in accordance with the requirements of Texas Government Code §2001.039.

This concludes the Board's review of Chapter 604 as required by Texas Government Code §2001.039.

Proposed Rule

TITLE 40. SOCIAL SERVICES AND ASSISTANCE

PART 17. STATE PENSION REVIEW BOARD

CHAPTER 601. GENERAL PROVISIONS

The Texas Pension Review Board (board) proposes a new rule in Texas Administrative Code, Title 40, Part 17, Chapter 601, §601.70, related to employee leave pools. The proposed new rule implements statutory requirements for state agencies to adopt rules relating to the operation of the state employee sick leave and family leave pools. The board identified the need for these rules as part of its recent quadrennial review of rules in accordance with Texas Government Code §2001.039.

BACKGROUND AND PURPOSE

Chapter 661, Texas Government Code creates two leave pools for state employees.

The sick leave pool is intended to assist employees and their immediate families in dealing with catastrophic illnesses or injuries that force the employees to exhaust all of their available sick leave. Section 661.002(c), Texas Government Code requires state agencies to adopt rules for the operation of the sick leave pool.

The legislature passed H.B. 2063 in 2021, creating the family leave pool. The family leave pool is intended to provide eligible state employees more flexibility in bonding with and caring for children during a child's first year following birth, adoption, or foster placement and for caring for a seriously ill family member or the employee. Section 661.022(c), Texas Government Code requires the governing body of a state agency to adopt rules and prescribe procedures relating to the operation of the pool.

SUMMARY

The proposed new rule specifies that the executive director or designee serves as the administrator of both leave pools and must establish operating procedures and forms for administration of the leave pools, which must be consistent with Chapter 661, Texas Government Code.

FISCAL NOTE

The Board's director of business operations, Westley Allen, has determined that for each year of the first five-year period the proposed new rule is in effect there will be no fiscal implications for state or local government.

ECONOMIC IMPACT STATEMENT AND REGULATORY FLEXIBILITY ANALYSIS FOR SMALL BUSINESSES, MICROBUSINESSES, AND RURAL COMMUNITIES.

There will be no adverse effect on small businesses or rural communities, micro-businesses, or local or state employment. There will be no additional economic costs to persons required to comply with the new rule as proposed. An Economic Impact Statement and Regulatory Flexibility Analysis are not required because the proposed new rule will not have an adverse economic impact on small businesses, micro-businesses, or rural communities as defined in Texas Government Code §2006.001.

ECONOMIC COSTS TO PERSONS AND IMPACT ON LOCAL EMPLOYMENT.

There are no anticipated economic costs to persons who are required to comply with the new rule, as proposed. There is no effect on local economy for the first five years that the proposed new rule is in effect; therefore, no local employment impact statement is required under Government Code, §2001.022 and 2001.024(a)(6).

ENVIRONMENTAL IMPACT STATEMENT

The Board has determined that the proposed new rule does not require an environmental impact analysis because the rule is not a major environmental rule under Government Code, §2001.0225.

COSTS TO REGULATED PERSONS

The proposed new rule does not impose a cost on regulated persons, including another state agency, a special district, or a local government and, therefore, is not subject to Government Code, §2001.0045.

PUBLIC BENEFIT/COST NOTE

Mr. Allen has determined that for each year of the first five years the proposed new rule will be in effect the public benefit is consistency and clarity in the agency's sick leave pool and state employee family leave pool rules.

GOVERNMENT GROWTH IMPACT STATEMENT

The Board provides this Government Growth Impact Statement, pursuant to Texas Government Code §2001.0221, for the proposed new rule, 40 TAC §§601.70. For each year of the first five years the proposed new rule is in effect, Mr. Allen has determined:

- (1) The proposed rule does not create or eliminate a government program.
- (2) Implementation of the proposed rule does not require the creation of new employee positions or the elimination of existing employee positions.
- (3) Implementation of the proposed rule does not require an increase or decrease in future legislative appropriations to the Board.
- (4) The proposed rule does not require a decrease or increase in fees paid to the Board.
- (5) The proposed rule will create a new regulation, required by §§661.002(c) and 661.022(c), Texas Government Code.
- (6) The proposed rule will not expand or repeal existing rules.
- (7) The proposed rule does not decrease the number of individuals subject to the rule's applicability.
- (8) The proposed rule does not positively or adversely affect the state economy.

TAKINGS IMPACT ASSESSMENT

This proposed rulemaking will not impact private real property as defined by Texas Government Code §2007.003, so a takings impact assessment under Government Code §2007.043 is not required.

REQUEST FOR PUBLIC COMMENT

Comments on the proposed new rule may be submitted to Tamara Aronstein, General Counsel, Texas Pension Review Board, P.O. Box 13498, Austin, Texas 78711-3498, or via email: rules@prb.texas.gov, no later than 30 days from the date that this proposed rule is published in the Texas Register. Please include the rule name and number in the subject line of any comments submitted by email.

STATUTORY AUTHORITY

The new rule is proposed under Government Code §661.022(c), which requires state agencies to adopt rules relating to the operation of the agency family leave pool, and Government Code, §661.002(c), which requires state agencies to adopt rules relating to the operation of the agency sick leave pool.

CROSS REFERENCE TO STATUTE

Chapter 661, Texas Government Code.

§601.70 State Employee Sick and Family Leave Pools

- (a) A sick leave pool is established to help alleviate hardship caused to an employee and the employee's immediate family if a catastrophic injury or illness forces the employee to exhaust all eligible leave time earned by that employee and to lose compensation from the state.
- (b) A family leave pool is established to help alleviate hardship caused to provide eligible state employees more flexibility in bonding with and caring for children during a child's first year following birth, adoption, or foster placement and for caring for a seriously ill family member or the employee.
- (c) The executive director or designee shall administer both pools.
- (d) The executive director or designee will establish operating procedures and forms for the administration of this section for inclusion in the agency's personnel policies and procedures manual.
- (e) Operation of both pools shall be consistent with Chapter 661, Texas Government Code.

The agency certifies that legal counsel has reviewed the proposal and found it to be within the agency's legal authority to adopt.

Filed with the Office of the Secretary of State on March XX, 2024.

Proposed Rule

TITLE 40. SOCIAL SERVICES AND ASSISTANCE

PART 17. STATE PENSION REVIEW BOARD

CHAPTER 605. STANDARDIZED FORM

The Texas Pension Review Board (Board) proposes amendments to 40 TAC §605.1, Adoption of Standard Forms, and §605.3, Submission of Forms. This rulemaking action was identified as part of the agency's four-year review of rules pursuant to Texas Government Code §2001.039.

BACKGROUND AND PURPOSE

Section 801.201(c), Texas Government Code requires the Board to adopt a standard form to assist the Board in determining the actuarial soundness and financial condition of each public retirement system. The purpose of the proposed amendments is to make minor technical corrections to the agency's rules.

The Board's senior actuary, David Fee, has determined that for each year of the first five-year period the proposed amendment is in effect there will be no fiscal implications for state or local government.

There will be no adverse effect on small businesses or rural communities, micro-businesses, or local or state employment. There will be no additional economic costs to persons required to comply with the amendment as proposed. An Economic Impact Statement and Regulatory Flexibility Analysis are not required because the proposed amendment will not have an adverse economic impact on small businesses or rural communities as defined in Texas Government Code §2006.001(1-a) and (2).

Mr. Fee has determined that for each year of the first five years the proposed amendment will be in effect the public benefit is to clarify the provisions in the current rule for ease of reference and understanding by the public.

SUMMARY

The proposed amendments to 40 TAC §605.1 reference the section of state law that requires the PRB to adopt these rules. The amendments also split one form currently required into two separate forms, creating an additional form for reporting benefit information. This change better reflects the way in which public retirement systems typically report information to the PRB. The proposed amendments also update the PRB's website address.

The proposed amendments to 40 TAC §605.3 reflect the change to create a new, separate form, the benefits report, and correct a typographical error.

FISCAL NOTE

Mr. Fee has determined that for each year of the first five-year period the proposed amendments are in effect there will be no fiscal implications for state or local government.

ECONOMIC IMPACT STATEMENT AND REGULATORY FLEXIBILITY ANALYSIS FOR SMALL BUSINESSES, MICROBUSINESSES, AND RURAL COMMUNITIES.

There will be no adverse effect on small businesses or rural communities, micro-businesses, or local or state employment. There will be no additional economic costs to persons required to comply with the amendments as proposed. An Economic Impact Statement and Regulatory Flexibility Analysis are not required because the proposed amendments will not have an adverse economic impact on small businesses, micro-businesses, or rural communities as defined in Texas Government Code §2006.001.

ECONOMIC COSTS TO PERSONS AND IMPACT ON LOCAL EMPLOYMENT.

There are no anticipated economic costs to persons who are required to comply with the amendments, as proposed. There is no effect on local economy for the first five years that the proposed amended rule is in effect; therefore, no local employment impact statement is required under Government Code, §2001.022 and 2001.024(a)(6).

ENVIRONMENTAL IMPACT STATEMENT

The board has determined that the proposed amendments do not require an environmental impact analysis because the rule is not a major environmental rule under Government Code, §2001.0225.

COSTS TO REGULATED PERSONS

The proposed amendments do not impose a cost on regulated persons, including another state agency, a special district, or a local government and, therefore, is not subject to Government Code, §2001.0045.

PUBLIC BENEFIT/COST NOTE

Mr. Fee has determined that for each year of the first five years the proposed amendments will be in effect the public benefit is clarity, efficiency, and effectiveness in certain reporting requirements for public retirement systems.

GOVERNMENT GROWTH IMPACT STATEMENT

The Board provides this Government Growth Impact Statement, pursuant to Texas Government Code §2001.0221, for the proposed amendments to 40 TAC §§605.1 and 605.3. For each year of the first five years the proposed amendment is in effect, Mr. Fee has determined:

- (1) The proposed amendments do not create or eliminate a government program.
- (2) Implementation of the proposed amendments do not require the creation of new employee positions or the elimination of existing employee positions.
- (3) Implementation of the proposed amendments do not require an increase or decrease in future legislative appropriations to the Board.
- (4) The proposed amendments do not require a decrease or increase in fees paid to the Board.
- (5) The proposed amendments do not create a new regulation.
- (6) The proposed amendments will not expand or repeal existing rules.
- (7) The proposed amendments do not decrease the number of individuals subject to the rule's applicability.

(8) The proposed amendments do not positively or adversely affect the state economy.

TAKINGS IMPACT ASSESSMENT

This proposed rulemaking will not impact private real property as defined by Texas Government Code §2007.003, so a takings impact assessment under Government Code §2007.043 is not required.

REQUEST FOR PUBLIC COMMENT

Comments on the proposed amendment may be submitted to Tamara Aronstein, General Counsel, Texas Pension Review Board, P.O. Box 13498, Austin, Texas 78711-3498, or via email: rules@prb.texas.gov, no later than 30 days from the date that this proposed amendment is published in the Texas Register. Please include the rule name and number in the subject line of any comments submitted by email.

STATUTORY AUTHORITY

The amendments are proposed under Government Code §801.201(c), which requires the board to adopt standard forms to assist the board in efficiently determining the actuarial soundness and current financial condition of public retirement systems.

CROSS REFERENCE TO STATUTE

Section 801.201(c), Texas Government Code.

No other statutes or rules are affected by this proposed amendment.

§605.1 Adoption of Standard Forms

- (a) The Board hereby adopts by reference the standard forms identified under subsection (b) of this section to assist in efficiently determining the actuarial soundness and current financial condition of public retirement systems and to assist in the conduct of the Board's business, <u>pursuant to Section</u> 801.201(c), Texas Government Code.
- (b) The standard forms hereby adopted by the Board are the following:
- (1) Pension System Registration--Form Series PRB-100;
- (2) Benefits and Membership Report--Form Series PRB-200;
- (3) Financial Statement Report--Form Series PRB-300;
- (4) Actuarial Report--Form Series PRB-400;
- (5) Benefits Report--Form Series PRB-500;
- (65) Investment Returns and Assumptions Report--Form Series PRB-1000.
- (c) A public retirement system can obtain the most current version of these forms from the offices of the State Pension Review Board and from its web site at http://www.prb.state.tx.ustexas.gov.

§605.3 Submission of Forms

- (a) A public retirement system must complete and submit to the Board the standard forms identified as Form numbers PRB-100, PRB-200, PRB-300, PRB-400, <u>PRB-500</u>, and PRB-1000 in §605.1 of this chapter relating to Adoption of Standard Forms.
- (b) A public retirement system must submit the forms with the information the system submits to the Board as a result of reviews and studies conducted by the Board regarding the actuarial soundness and current financial condition of the fund the system administers.
- (c) Defined contribution plans as defined by Texas Government Code, §802.001(1-a) and retirement systems consisting exclusively of volunteers organized under the Texas Local Fire Fighters' Retirement Act as defined by Texas Government Code, §802.002(d), are not required to submit to the Board Form PRB-1000.

The agency certifies that legal counsel has reviewed the proposal and found it to be within the agency's legal authority to adopt.

Filed with the Office of the Secretary of State on March XX, 2024.

Item 7a: Update on MET Core noncompliance

Jasmin Loomis



Introduction to Minimum Educational Training (MET) Program

- System trustees and administrators are required to complete seven hours of core training within their first year and four hours of continuing education (CE) every two years thereafter.
- Training is reported through the PRB-2000 form and must be submitted by September 1 annually.
- Board composition changes are reported through the PRB-150 form within 30 days of the change.
- In November 2023, the board requested staff to study MET core compliance, which was last presented at the July 2023 Education Committee meeting.



Methodology

- Two emails were sent to systems with trustees and administrators noncompliant with their Core cycle.
- First email (12/8/23) included:
 - List of the system's noncompliant trustees and administrators
 - Courses required under the core requirement
 - Information about MET reporting forms (PRB-150 and PRB-2000)
 - Options for completing core requirements
 - Notification of the upcoming compliance report
- Second email (1/22/24) additions:
 - Questions seeking the reasons for noncompliance
 - Request for feedback regarding MET requirements and rules



Results

Noncompliant metrics prior to the first email:

| | Noncompliant Trustees/Administrators by System Type As of December 8, 2023 | | | | | | | | | | | |
|-----------|--|-----------------------------------|---|--|--|--|--|--|--|--|--|--|
| | Noncompliant Systems | Total Trustees/Admin Noncompliant | Total Trustees Noncompliant with ≥ 1 CE cycles* | | | | | | | | | |
| Statewide | 1 | 2 | 1 | | | | | | | | | |
| Municipal | 4 | 11 | 8 | | | | | | | | | |
| TLFFRA | 25 | 52 | 29 | | | | | | | | | |
| 810 | 11 | 31 | 13 | | | | | | | | | |
| Total: | 41 | 96 | 51 | | | | | | | | | |

^{*}Trustees that are noncompliant with their Core cycle and noncompliant with at least one CE cycle.



Results After the First Email

Noncompliant Trustees/Administrators After First Email As of December 31, 2023

| | Noncompliant Systems | Total Trustees/Admin. Noncompliant | Total Trustees Noncompliant with ≥ 1 CE Cycles | | |
|---------------------|-------------------------|--|--|--|--|
| Total before email: | 41 | 96 | 51 | | |
| Total after email: | 37 | 81 | 41 | | |



Results after January 1, 2024

- First day of the year is a common MET cycle start date.
- Saw a larger number of noncompliant trustees at the start of the new year.

Total Noncompliant Trustees/Administrators As of January 1, 2024

| | Noncompliant Systems | Total Trustees/Admin. Noncompliant | Total Trustees Noncompliant with ≥ 1 CE Cycles |
|--------------------------|-------------------------|--|--|
| Total Before 01/01/2024: | 37 | 81 | 41 |
| Total After 01/01/2024: | 49 | 100 | 49 |



Results

| Noncompliant Trustees/Administrators by System Type |
|--|
| As of February 27, 2024 |

| | Noncompliant Systems | Total Trustees/Admin. Noncompliant | Total Trustees Noncompliant with ≥ 1 CE Cycles |
|-----------|-------------------------|--|--|
| Statewide | 1 | 2 | 0 |
| Municipal | 4 | 7 | 6 |
| TLFFRA | 16 | 36 | 22 |
| 810 | 8 | 29 | 14 |
| Total: | 29 | 74 | 42 |

| As of January 22, 2024 | | | | | | | | | |
|------------------------|----|-----|----|--|--|--|--|--|--|
| Total: | 49 | 100 | 49 | | | | | | |



Findings

- Some trustees needed more courses to become compliant and the systems were not aware.
- Many systems were behind on reporting board changes which added to noncompliance numbers.
- Some trustees had fully completed core courses, but the information was not reported to the PRB.
- Trustees with one or more noncompliant CE cycles were less likely to complete core requirements than more recent noncompliant trustees.
- Noncompliant Core cycles lead to a larger number of trustees noncompliant with multiple CE cycles.



MET Compliance Next Steps

- Work alongside ongoing rule review to discuss potential changes resulting from those findings.
- Continue monitoring core compliance to limit the occurrence of extended noncompliance.
- Focusing on CE cycle compliance to try to bring as many trustees and administrators into compliance as possible.
- Report MET compliance in Biennial Report.



Item 8a: Investment data report draft, and Item 8b: Investment policy statement guidelines, guidance, and tools

Robert Munter



Investment data report draft



Investment Data Report Draft

- New, investment-focused PRB report
- Combines previously collected data with newly available investment expense information resulting from SB 322 (86R).
- Goals:
 - Provide useful report for the board, systems, legislature, and the public.
 - Increase transparency by making consolidated investment data publicly available.



Investment Data Report Draft

Investment Data Report

- Investment returns
- Investment expenses both previously reported method in annual audits and new SB 322 investment expense reporting
- Asset allocation

Future Additions

- Quarterly investment data from publicly available reports
- Liquidity metrics

Other Suggestions

- Additional requests from the Investment Committee
- Feedback from systems and stakeholders

Investment Data Report Overview

See appendix for full tables

Investment Data Returns and Expenses Report

- Last reported fiscal year end
- Net total assets
- Funded ratio
- Investment return assumption
- Investment returns
- Investment expenses
- 10-year vs. assumption

Investment Data Asset Class and Expenses Report

- Asset allocations as reported in annual audits
- New investment expense details by asset class and fee type
- Total fees associated with asset class

Investment Data Services Report

- Investment services
- Investment consultant
- Custodial
- Legal
- Research
- Other
- Total



Investment Data Returns and Expenses Report November 21, 2023

(Dollars in Millions) (Fees as Percent of Net Total Assets)

| | (= 0 | | -, (| as Percent o | | , | | CD 222 Total | | | |
|--|--------------------|---------------------|-----------------|------------------------------------|----------------------|----------------------|-----------------------|---|---------------------------------------|---------------------------------------|------------------------------|
| System | Fiscal Year End | Net Total Assets | Funded Ratio | Investment Return Assumption | 1-Year Net Return | 3-Year Net Return | 10-Year Net Return | SB 322 Total Direct & Indirect Expenses | SB 322 Total Investment Expense | Annual Audit Investment Expense | 10YR Return Vs Assumption |
| Midland Firemen's Relief & Retirement Fund | 12/31/2021 | \$94 | 26.58% | 7.50% | N/A | N/A | N/A | 1.36% | 1.46% | 1.52% | N/A |
| The Woodlands Firefighters' Retirement System | 12/31/2022 | \$56 | 102.05% | 7.00% | -15.43% | 4.50% | N/A | 0.34% | 0.45% | 0.28% | N/A |
| Odessa Firemen's Relief & Retirement Fund | 12/31/2022 | \$44 | 33.97% | 7.00% | -12.84% | 5.55% | 4.36% | 1.35% | 1.50% | 1.20% | N/A |
| Conroe Fire Fighters' Retirement Fund | 12/31/2022 | \$37 | 53.60% | 7.25% | -13.46% | 3.83% | 5.28% | 0.54% | 0.59% | 0.59% | N/A |
| Lower Neches Valley | 12/31/2022 | \$12 | 60.47% | 6.50% | -16.22% | 3.00% | N/A | 0.31% | 0.31% | 0.27% | N/A |
| El Paso Firemen & Policemen's Pension Staff Plan | 12/31/2022 | \$1 | 110.63% | 7.75% | -10.32% | 5.01% | N/A | 0.62% | 0.66% | 0.19% | N/A |
| Nacogdoches County Hospital District | 6/30/2021 | \$51 | 82.50% | 4.99% | 22.63% | 10.44% | 8.87% | N/A | N/A | 0.00% | 3.88% |
| Law Enforcement & Custodial Off Sup. Ret. Fund | 8/31/2022 | \$1,042 | 43.38% | 4.45% | -1.59% | 9.66% | 8.30% | 0.85% | 0.86% | 0.15% | 3.85% |
| Capital MTA Admin Employees | 12/31/2021 | \$53 | 85.38% | 6.75% | 12.63% | 16.03% | 10.15% | N/A | N/A | 0.08% | 3.40% |
| Dallas Co. Hospital Dist. Retirement Income Plan | 12/31/2021 | \$1,599 | 80.63% | 6.00% | 12.22% | 14.87% | 9.24% | 0.35% | 0.38% | 0.22% | 3.24% |
| Northeast Medical Center Hospital Retirement Plan | 6/30/2022 | \$4 | 66.24% | 5.75% | -8.98% | 8.75% | 8.83% | 1.46% | 2.10% | 0.00% | 3.08% |
| Houston Municipal Employees Pension System | 6/30/2022 | \$3,952 | 71.06% | 7.00% | 5.00% | 12.88% | 10.00% | 2.20% | 2.24% | 0.23% | 3.00% |
| Citizens Medical Center | 2/28/2022 | \$150 | 121.16% | 6.75% | 7.31% | 11.55% | 9.66% | 0.17% | 0.20% | 0.08% | 2.91% |
| Judicial Retirement System of Texas Plan Two | 8/31/2022 | \$566 | 78.65% | 5.77% | -1.59% | 9.66% | 8.30% | 0.85% | 0.86% | 0.13% | 2.53% |
| Amarillo Firemen's Relief & Retirement Fund | 12/31/2022 | \$218 | 90.80% | 7.50% | -14.66% | 6.93% | 9.28% | 0.28% | 0.32% | 0.32% | 1.78% |
| Harris County Hospital District Pension Plan | 12/31/2022 | \$821 | 70.46% | 5.75% | -16.58% | 3.23% | 7.35% | 0.24% | 0.30% | 0.00% | 1.60% |
| Houston Police Officers' Pension System | 6/30/2022 | \$6,862 | 90.46% | 7.00% | -1.40% | 9.60% | 8.40% | 2.31% | 2.34% | 0.25% | 1.40% |
| Guadalupe Regional Medical Center | 12/31/2022 | \$94 | 90.31% | 6.75% | -15.09% | 3.48% | 8.12% | 0.19% | 0.23% | 0.08% | 1.37% |
| Houston Firefighters' Relief & Retirement Fund | 6/30/2022 | \$5,094 | 102.63% | 7.25% | 0.01% | 10.86% | 8.58% | 1.24% | 1.25% | 0.16% | 1.33% |
| Sweeny Community Hospital | 12/31/2022 | \$3 | 82.96% | 5.75% | -16.69% | 1.72% | 7.08% | 0.19% | 0.23% | 0.09% | 1.33% |
| Employees Retirement System of Texas | 8/31/2022 | \$31,986 | 69.74% | 7.00% | -1.59% | 9.66% | 8.30% | 0.85% | 0.86% | 0.13% | 1.30% |
| Teacher Retirement System of Texas | 8/31/2022 | \$184,186 | 75.62% | 7.00% | -6.72% | 7.73% | 8.14% | 1.25% | 1.34% | 0.14% | 1.14% |
| Denton Firemen's Relief & Retirement Fund | 12/31/2022 | \$137 | 89.80% | 6.75% | -4.62% | 7.88% | 7.76% | 0.14% | 0.32% | 0.26% | 1.01% |
| Big Spring Firemen's Relief & Retirement Fund | 12/31/2021 | \$18 | 63.36% | 7.75% | 12.40% | 15.66% | 8.69% | 0.68% | 0.89% | 0.38% | 0.94% |
| University Health System Pension Plan | 12/31/2022 | \$527 | 71.60% | 7.00% | -11.99% | 5.65% | 7.92% | 0.49% | 0.58% | 0.29% | 0.92% |
| San Angelo Firemen's Relief & Retirement Fund | 12/31/2021 | \$83 | 68.00% | 7.80% | 10.25% | 13.28% | 8.61% | 0.42% | 0.57% | 0.33% | 0.81% |
| Texas County & District Retirement System | 12/31/2022 | \$41,969 | N/A | 7.50% | -5.80% | 8.29% | 8.27% | 0.79% | 0.82% | 0.12% | 0.77% |
| Brownwood Firemen's Relief & Retirement Fund | 12/31/2021 | \$6 | 51.30% | 7.00% | 10.61% | 14.81% | 7.74% | 0.23% | 1.02% | 0.79% | 0.74% |
| City of El Paso Employees Retirement Trust | 8/31/2022 | \$908 | 81.20% | 7.25% | -5.27% | 9.10% | 7.91% | 0.55% | 0.60% | 0.27% | 0.66% |
| University Park Firemen's Relief & Retirement Fund | 12/31/2021 | \$13 | 48.00% | 7.25% | 9.90% | 13.31% | 7.88% | 0.50% | 0.80% | 0.80% | 0.63% |
| Plano Retirement Security Plan | 12/31/2022 | \$186 | 92.83% | 6.75% | -15.19% | 3.90% | 7.29% | 0.34% | 0.40% | 0.22% | 0.54% |
| San Antonio Metropolitan Transit Retirement Plan | 9/30/2022 | \$322 | 65.90% | 7.25% | -14.80% | 5.02% | 7.76% | 0.47% | 0.50% | 0.50% | 0.51% |
| Port of Houston Authority Retirement Plan | 7/31/2022 | \$199 | 90.08% | 6.00% | -8.58% | 5.04% | 6.49% | 0.48% | 0.65% | 0.29% | 0.49% |
| Galveston Wharves Pension Plan | 12/31/2022 | \$13 | 79.84% | 7.25% | -17.44% | 2.54% | 7.72% | 0.81% | 0.81% | 0.52% | 0.47% |
| Travis County ESD #6 FRRF | 12/31/2022 | \$40 | 81.90% | 6.50% | -14.83% | 3.22% | 6.81% | 0.49% | 0.73% | 0.33% | 0.31% |
| Austin Fire Fighters Relief & Retirement Fund | 12/31/2022 | \$1,116 | 80.00% | 7.30% | -10.78% | 5.80% | 7.57% | 0.60% | 0.63% | 0.31% | 0.27% |
| | | | | | | | | | | | |

| System | Fiscal Year End | Net Total Assets | Funded Ratio | Investment Return Assumption | 1-Year Net Return | 3-Year Net Return | 10-Year Net Return | SB 322 Total Direct & Indirect Expenses | SB 322 Total Investment Expense | Annual Audit Investment Expense | 10YR Return Vs Assumption |
|---|--------------------|---------------------|-----------------|------------------------------------|----------------------|----------------------|-----------------------|--|---------------------------------------|---------------------------------------|------------------------------|
| JPS - Tarrant County Hospital District | 9/30/2022 | \$370 | 86.20% | 6.75% | -16.41% | 2.94% | 7.01% | 0.33% | 0.38% | 0.10% | 0.26% |
| CPS Energy Pension Plan | 12/31/2022 | \$1,919 | 81.62% | 7.00% | -10.51% | 4.19% | 7.24% | 0.63% | 0.66% | 0.31% | 0.24% |
| Employees of Brownsville Navigation District | 12/31/2022 | \$9 | 87.76% | 6.00% | -12.80% | 3.94% | 6.24% | 1.02% | 1.02% | 1.02% | 0.24% |
| Northwest Texas Healthcare System Retirement Plan | 9/30/2022 | \$19 | 86.85% | 6.00% | -12.61% | 4.79% | 5.95% | 0.19% | 0.28% | 0.28% | -0.05% |
| Denison Firemen's Relief & Retirement Fund | 12/31/2022 | \$20 | 73.50% | 7.50% | -17.61% | 2.20% | 7.41% | 0.22% | 0.72% | 0.50% | -0.09% |
| DFW Airport Board | 12/31/2022 | \$587 | 80.11% | 7.00% | -6.30% | 5.60% | 6.90% | 0.66% | 0.66% | 0.66% | -0.10% |
| DFW Airport Board DPS | 12/31/2022 | \$254 | 82.19% | 7.00% | -6.20% | 5.60% | 6.90% | 0.70% | 0.70% | 0.65% | -0.10% |
| El Paso Police Pension Fund | 12/31/2022 | \$979 | 75.18% | 7.75% | -10.32% | 5.01% | 7.45% | 0.61% | 0.65% | 0.26% | -0.30% |
| El Paso Firemen's Pension Fund | 12/31/2022 | \$684 | 75.76% | 7.75% | -10.32% | 5.01% | 7.45% | 0.61% | 0.65% | 0.28% | -0.30% |
| Colorado River Municipal Water Dist. | 12/31/2022 | \$6 | 64.81% | 5.75% | -15.82% | 0.70% | 5.44% | 0.78% | 1.45% | 0.00% | -0.31% |
| Irving Firemen's Relief & Retirement Fund | 12/31/2022 | \$242 | 82.90% | 7.00% | -9.90% | 2.80% | 6.60% | 0.36% | 0.46% | 0.14% | -0.40% |
| DART Employees | 9/30/2022 | \$183 | 75.59% | 6.64% | -12.01% | 4.97% | 6.17% | 0.29% | 0.53% | 0.37% | -0.47% |
| Dallas Employees' Retirement Fund | 12/31/2022 | \$3,516 | 54.07% | 7.25% | -8.38% | 3.92% | 6.65% | 0.54% | 0.56% | 0.55% | -0.60% |
| San Antonio Fire & Police Pension Fund | 12/31/2022 | \$3,586 | 80.08% | 7.25% | -10.60% | 4.60% | 6.60% | 1.19% | 1.22% | 0.41% | -0.65% |
| Houston MTA Workers Union Pension Plan | 12/31/2022 | \$291 | 64.26% | 6.25% | -14.10% | 2.40% | 5.60% | 0.26% | 0.37% | 0.29% | -0.65% |
| Fort Worth Employees' Retirement Fund | 9/30/2022 | \$2,504 | 49.69% | 7.00% | -8.80% | 5.41% | 6.35% | 1.00% | 1.08% | 0.23% | -0.65% |
| Fort Worth Employees' Retirement Fund Staff Plan | 9/30/2022 | \$8 | 69.41% | 7.00% | -8.67% | 5.41% | 6.35% | 1.00% | 1.08% | 0.22% | -0.65% |
| Anson General Hospital | 6/30/2022 | \$1 | 98.06% | 6.00% | -17.30% | -1.59% | 5.34% | 0.46% | 0.50% | 0.08% | -0.66% |
| Lubbock Fire Pension Fund | 12/31/2022 | \$240 | 68.90% | 7.50% | -4.72% | 7.10% | 6.79% | 0.72% | 0.78% | 0.07% | -0.71% |
| Austin Employees' Retirement System | 12/31/2022 | \$2,960 | 50.30% | 6.75% | -15.58% | 1.86% | 6.02% | 0.28% | 0.31% | 0.19% | -0.73% |
| Corpus Christi Regional Transportation Authority | 12/31/2022 | \$43 | 79.41% | 7.00% | -14.71% | 3.26% | 6.26% | 0.59% | 0.59% | 0.00% | -0.74% |
| Texas Municipal Retirement System | 12/31/2022 | \$35,600 | N/A | 6.75% | -7.35% | 4.02% | 5.93% | 1.31% | 1.33% | 0.08% | -0.82% |
| Houston MTA Non-Union Pension Plan | 12/31/2022 | \$177 | 56.49% | 6.25% | -14.00% | 2.30% | 5.40% | 0.28% | 0.31% | 0.31% | -0.85% |
| Texas Emergency Services Retirement System | 8/31/2022 | \$124 | 75.20% | 7.50% | -13.21% | 4.75% | 6.62% | 0.62% | 0.75% | 0.42% | -0.88% |
| Beaumont Firemen's Relief & Retirement Fund | 12/31/2022 | \$104 | 40.65% | 7.50% | -15.56% | 3.69% | 6.60% | 0.67% | 0.78% | 0.62% | -0.90% |
| Wichita Falls Firemen's Relief & Retirement Fund | 12/31/2022 | \$51 | 41.46% | 7.50% | -14.21% | 4.10% | 6.59% | 0.92% | 0.97% | 0.84% | -0.91% |
| Austin Police Retirement System | 12/31/2022 | \$933 | 55.21% | 7.25% | -11.54% | 5.14% | 6.27% | 0.83% | 0.88% | 0.21% | -0.98% |
| Brazos River Authority Retirement Plan | 2/28/2023 | \$22 | 70.34% | 6.50% | -6.33% | 6.55% | 5.51% | N/A | N/A | 0.00% | -0.99% |
| Guadalupe-Blanco River Authority | 12/31/2022 | \$32 | 79.60% | 6.25% | -16.19% | 2.32% | 5.24% | 0.15% | 0.26% | 0.00% | -1.01% |
| Tyler Firefighters' Relief & Retirement Fund | 12/31/2022 | \$75 | 64.05% | 7.00% | -14.35% | 3.03% | 5.90% | 0.54% | 0.76% | 0.76% | -1.10% |
| Arlington Employees Deferred Income Plan | 6/30/2021 | \$4 | 120.00% | 5.00% | 8.11% | 6.28% | 3.75% | 0.74% | 0.74% | 0.00% | -1.25% |
| Irving Supplemental Benefit Plan | 12/31/2022 | \$99 | 90.18% | 6.75% | -13.93% | 3.39% | 5.49% | 0.45% | 0.53% | 0.40% | -1.26% |
| Texarkana Firemen's Relief & Retirement Fund | 12/31/2022 | \$37 | 75.50% | 7.50% | -12.81% | 3.89% | 6.07% | 0.57% | 0.66% | 0.57% | -1.43% |
| Port Arthur Firemen's Relief & Retirement Fund | 12/31/2022 | \$49 | 65.10% | 7.25% | -16.85% | 1.01% | 5.81% | 0.55% | 0.71% | 0.71% | -1.44% |
| Corpus Christi Fire Fighters' Retirement System | 12/31/2022 | \$166 | 55.30% | 7.25% | -14.20% | 2.20% | 5.78% | 0.54% | 0.64% | 0.29% | -1.47% |
| Cleburne Firemen's Relief & Retirement Fund | 12/31/2022 | \$23 | 55.21% | 7.35% | -10.83% | 4.22% | 5.86% | 0.22% | 0.78% | 0.54% | -1.49% |
| Corsicana Firemen's Relief & Retirement Fund | 12/31/2022 | \$11 | 55.40% | 7.00% | -15.16% | 5.52% | 5.41% | 0.46% | 0.46% | 0.46% | -1.59% |
| Galveston Employees' Retirement Fund | 12/31/2022 | \$59 | 70.08% | 7.25% | -16.71% | 1.81% | 5.65% | 0.40% | 0.46% | 0.18% | -1.60% |
| Lower Colorado River Authority Retirement Plan | 12/31/2022 | \$426 | 66.40% | 7.00% | -14.40% | 3.40% | 5.10% | 0.43% | 0.43% | 0.43% | -1.90% |

| System | Fiscal Year End | Net Total Assets | Funded Ratio | Investment Return Assumption | 1-Year Net Return | 3-Year Net Return | 10-Year Net Return | SB 322 Total Direct & Indirect Expenses | SB 322 Total Investment Expense | Annual Audit Investment Expense | 10YR Return Vs Assumption |
|---|--------------------|---------------------|-----------------|------------------------------------|----------------------|----------------------|-----------------------|--|---------------------------------------|---------------------------------------|------------------------------|
| Harlingen Firemen's Relief & Retirement Fund | 9/30/2022 | \$34 | 56.00% | 7.75% | -14.50% | 2.90% | 5.80% | 0.90% | 1.01% | 0.58% | -1.95% |
| Greenville Firemen's Relief & Retirement Fund | 12/31/2022 | \$14 | 37.20% | 7.25% | -14.82% | 1.56% | 5.23% | 0.41% | 0.69% | 0.69% | -2.02% |
| Temple Firemen's Relief & Retirement Fund | 9/30/2022 | \$47 | 64.55% | 7.75% | -14.21% | 4.37% | 5.67% | 0.85% | 1.01% | 0.19% | -2.08% |
| Marshall Firemen's Relief & Retirement Fund | 12/31/2022 | \$8 | 33.69% | 7.25% | -15.28% | 1.09% | 5.12% | 0.81% | 0.81% | 0.81% | -2.13% |
| Lufkin Firemen's Relief & Retirement Fund | 12/31/2022 | \$21 | 46.80% | 7.25% | -15.03% | 1.47% | 5.07% | 0.43% | 0.68% | 0.51% | -2.18% |
| Refugio County Memorial Hospital | 10/31/2022 | \$2 | 88.11% | 6.00% | -14.91% | 3.93% | 3.82% | 0.56% | 1.12% | 0.00% | -2.18% |
| Galveston Employees' Retirement Plan for Police | 12/31/2022 | \$23 | 38.58% | 7.00% | -14.06% | 1.72% | 4.81% | 0.40% | 0.40% | 0.26% | -2.19% |
| Atlanta Firemen's Relief & Retirement Fund | 12/31/2022 | \$4 | 66.32% | 7.00% | -15.18% | 1.10% | 4.79% | 0.65% | 0.87% | 0.66% | -2.21% |
| Laredo Firefighters Retirement System | 9/30/2022 | \$180 | 54.60% | 7.40% | -16.13% | 3.32% | 5.18% | 0.71% | 0.79% | 0.21% | -2.22% |
| Galveston Firefighter's Relief & Retirement Fund | 12/31/2022 | \$49 | 58.50% | 7.50% | -15.12% | 1.98% | 5.25% | 0.40% | 0.76% | 0.54% | -2.25% |
| Killeen Firemen's Relief & Retirement Fund | 9/30/2022 | \$54 | 66.22% | 7.25% | -14.98% | 3.54% | 4.98% | 0.86% | 0.96% | 0.26% | -2.27% |
| Orange Firemen's Relief & Retirement Fund | 12/31/2022 | \$8 | 48.26% | 7.75% | -17.19% | 2.27% | 5.41% | 0.53% | 0.91% | 0.00% | -2.34% |
| Weslaco Firemen's Relief & Retirement Fund | 9/30/2022 | \$15 | 70.20% | 7.25% | -12.01% | 3.16% | 4.88% | 0.08% | 0.64% | 0.60% | -2.37% |
| Waxahachie Firemen's Relief & Retirement Fund | 9/30/2022 | \$19 | 63.00% | 7.00% | -23.49% | -0.05% | 4.48% | 0.80% | 0.93% | 0.21% | -2.52% |
| Sweetwater Firemen's Relief & Retirement Fund | 12/31/2022 | \$8 | 35.06% | 7.50% | -15.61% | 1.03% | 4.88% | 0.47% | 0.87% | 0.63% | -2.62% |
| Longview Firemen's Relief & Retirement Fund | 12/31/2022 | \$86 | 59.85% | 7.50% | -11.80% | 3.95% | 4.79% | 0.58% | 0.68% | 0.58% | -2.71% |
| McAllen Firemen's Relief & Retirement Fund | 9/30/2022 | \$53 | 59.50% | 7.50% | -18.14% | 1.51% | 4.79% | 1.56% | 1.96% | 0.72% | -2.71% |
| San Benito Firemen Relief & Retirement Fund | 9/30/2022 | \$4 | 59.20% | 7.50% | -12.85% | 2.24% | 4.72% | 0.79% | 1.29% | 1.05% | -2.78% |
| Plainview Firemen's Relief & Retirement Fund | 12/31/2022 | \$7 | 37.69% | 7.50% | -16.22% | 0.96% | 4.71% | 0.46% | 1.08% | 0.88% | -2.79% |
| Texas City Firemen's Relief & Retirement Fund | 12/31/2022 | \$15 | 38.36% | 7.25% | -15.49% | 1.04% | 4.32% | 0.39% | 0.67% | 0.45% | -2.93% |
| Capital MTA Bargaining | 12/31/2022 | \$34 | 53.77% | 6.50% | -18.39% | 2.05% | 3.55% | N/A | N/A | 0.37% | -2.95% |
| Abilene Firemen's Relief & Retirement Fund | 9/30/2022 | \$52 | 40.51% | 7.50% | -16.63% | 1.57% | 4.36% | 0.48% | 0.69% | 0.41% | -3.14% |
| Dallas Police & Fire Pension System-Combined Plan | 12/31/2021 | \$2,158 | 41.79% | 6.50% | 5.00% | 6.00% | 2.90% | 0.64% | 0.78% | 0.51% | -3.60% |
| Dallas Police & Fire Pension System-Supplemental | 12/31/2021 | \$19 | 45.66% | 6.50% | 5.00% | 6.00% | 2.90% | 0.65% | 0.65% | 0.51% | -3.60% |
| Paris Firefighters' Relief & Retirement Fund | 12/31/2022 | \$16 | 101.39% | 7.25% | -16.02% | 1.04% | 3.57% | 0.23% | 0.31% | 0.31% | -3.68% |

Investment Data Asset Class and Expenses Report November 21, 2023

(Dollars in Millions) (Fees as Percent of Net Total Assets)

| | ,- | | | | | , | | | |
|---|-------------------------|----------------------------|---------------------|---------------------|--------------------------------------|---|--------------------------------------|-------------------------------------|----------------------------------|
| System | Fiscal Year End Date | Asset Class | Net Total Assets | Asset Allocation | Managment Fees Paid From Trust | Management Fees Netted From Returns | Brokerage Fees and Commissions | Profit Share Carried Interest | Total Asset Class Expenses |
| | | Real Assets | \$52 | 11.21% | 0.00% | 0.15% | 0.00% | 0.00% | 0.16% |
| | | Fixed Income | \$52 | 20.59% | 0.00% | 0.10% | 0.00% | 0.00% | 0.10% |
| Abilene Firemen's Relief & Retirement Fund | 9/30/2022 | Equities | \$52 | 61.10% | 0.06% | 0.13% | 0.00% | 0.00% | 0.19% |
| | | Alternative Investments | \$52 | 5.59% | 0.00% | 0.03% | 0.00% | 0.00% | 0.03% |
| | | Fixed Income | \$218 | 20.33% | 0.05% | 0.00% | 0.00% | 0.00% | 0.05% |
| Amarillo Firemen's Relief & Retirement Fund | 12/31/2022 | Equities | \$218 | 75.21% | 0.21% | 0.00% | 0.00% | 0.00% | 0.21% |
| | | Cash | \$218 | 4.46% | 0.01% | 0.00% | 0.00% | 0.00% | 0.01% |
| | | Fixed Income | \$4 | 76.72% | 0.38% | 0.18% | 0.00% | 0.00% | 0.56% |
| Arlington Employees Deferred Income Plan | 6/30/2021 | Equities | \$4 | 19.98% | 0.10% | 0.06% | 0.00% | 0.00% | 0.16% |
| | | Cash | \$4 | 3.30% | 0.01% | 0.00% | 0.00% | 0.00% | 0.02% |
| | | Fixed Income | \$4 | 31.07% | 0.12% | 0.06% | 0.00% | 0.00% | 0.18% |
| | | Equities | \$4 | 50.29% | 0.21% | 0.06% | 0.00% | 0.00% | 0.27% |
| Atlanta Firemen's Relief & Retirement Fund | 12/31/2022 | Cash | \$4 | 4.57% | 0.02% | 0.00% | 0.00% | 0.00% | 0.02% |
| | | Alternative Investments | \$4 | 0.00% | 0.11% | 0.07% | 0.00% | 0.00% | 0.18% |
| | | Real Assets | \$2,960 | 10.64% | 0.01% | 0.07% | 0.00% | 0.00% | 0.08% |
| | | Fixed Income | \$2,960 | 18.91% | 0.02% | 0.01% | 0.00% | 0.00% | 0.03% |
| Austin Employees' Retirement System | 12/31/2022 | Equities | \$2,960 | 53.38% | 0.13% | 0.03% | 0.01% | 0.00% | 0.16% |
| , , | | Cash | \$2,960 | 6.86% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Alternative Investments | \$2,960 | 9.91% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Real Assets | \$1,116 | 10.05% | 0.00% | 0.11% | 0.00% | 0.00% | 0.11% |
| | | Fixed Income | \$1,116 | 27.85% | 0.05% | 0.01% | 0.00% | 0.00% | 0.06% |
| Austin Fire Fighters Relief & Retirement Fund | 12/31/2022 | Equities | \$1,116 | 38.51% | 0.13% | 0.13% | 0.02% | 0.00% | 0.27% |
| | | Alternative Investments | \$1,116 | 22.96% | 0.00% | 0.16% | 0.00% | 0.00% | 0.16% |
| | | Real Assets | \$933 | 15.89% | 0.00% | 0.16% | 0.00% | 0.21% | 0.37% |
| | | Fixed Income | \$933 | 11.24% | 0.01% | 0.04% | 0.00% | 0.00% | 0.05% |
| Austin Police Retirement System | 12/31/2022 | Equities | \$933 | 66.08% | 0.15% | 0.09% | 0.01% | 0.00% | 0.25% |
| | | Cash | \$933 | 0.77% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Alternative Investments | \$933 | 5.96% | 0.00% | 0.12% | 0.00% | 0.04% | 0.16% |

| System | Fiscal Year End Date | Asset Class | Net Total Assets | Asset Allocation | Managment Fees Paid From Trust | Management Fees Netted From Returns | Brokerage Fees and Commissions | Profit Share Carried Interest | Total Asset Class Expenses | | | |
|---|-------------------------|----------------------------|---------------------|---------------------|--------------------------------------|---|--------------------------------------|-------------------------------------|----------------------------------|--|--|--|
| | | Real Assets | \$104 | 6.60% | 0.14% | 0.00% | 0.00% | 0.00% | 0.14% | | | |
| Beaumont Firemen's Relief & Retirement Fund | 12/31/2022 | Fixed Income | \$104 | 22.38% | 0.19% | 0.07% | 0.00% | 0.00% | 0.26% | | | |
| bedding it i wonten's realist a realisment rand | 12/01/2022 | Equities | \$104 | 58.00% | 0.15% | 0.12% | 0.00% | 0.00% | 0.27% | | | |
| | | Alternative Investments | \$104 | 10.52% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | | | |
| | | Real Assets | \$22 | 4.44% | 0.00% | 0.11% | 0.00% | 0.00% | 0.11% | | | |
| Brazos River Authority Retirement Plan | 2/28/2023 | Fixed Income | \$22 | 21.62% | 0.00% | 0.20% | 0.00% | 0.00% | 0.20% | | | |
| brazos River Additiontly Redifernent Flan | 2/20/2023 | Equities | \$22 | 54.99% | 0.00% | 0.12% | 0.00% | 0.00% | 0.12% | | | |
| | | Alternative Investments | \$22 | 18.10% | 0.00% | 0.05% | 0.00% | 0.00% | 0.05% | | | |
| | | Fixed Income | \$6 | 8.94% | 0.00% | 0.06% | 0.00% | 0.00% | 0.06% | | | |
| | 12/31/2021 | Equities | \$6 | 85.16% | 0.00% | 0.15% | 0.00% | 0.00% | 0.15% | | | |
| Brownwood Firemen's Relief & Retirement Fund | | Cash | \$6 | 1.18% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | | | |
| | | Alternative Investments | \$6 | 4.32% | 0.00% | 0.02% | 0.00% | 0.00% | 0.02% | | | |
| | | Fixed Income | \$53 | 31.42% | | | Not Reported | | | | | |
| Capital MTA Admin Employees | 12/31/2021 | Equities | \$53 | 68.44% | Not Reported | | | | | | | |
| | | Cash | \$53 | 0.26% | Not Reported | | | | | | | |
| | | Fixed Income | \$34 | 26.05% | | Not Reported | | | | | | |
| Capital MTA Bargaining | 12/31/2022 | Equities | \$34 | 73.69% | | | Not Reported | | | | | |
| | | Cash | \$34 | 0.08% | | | Not Reported | | | | | |
| | | Real Assets | \$908 | 11.91% | 0.03% | 0.06% | 0.00% | | 0.09% | | | |
| | | Fixed Income | \$908 | 16.65% | 0.03% | 0.00% | 0.00% | 0.00% | 0.03% | | | |
| City of El Paso Employees Retirement Trust | 8/31/2022 | Equities | \$908 | 53.77% | 0.14% | 0.08% | 0.00% | 0.00% | 0.22% | | | |
| | | Cash | \$908 | 1.80% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | | | |
| | | Alternative Investments | \$908 | 15.63% | 0.18% | 0.00% | 0.00% | 0.03% | 0.21% | | | |
| | | Real Assets | \$23 | 5.43% | 0.00% | 0.01% | 0.00% | 0.00% | 0.01% | | | |
| Cleburne Firemen's Relief & Retirement Fund | 12/31/2022 | Fixed Income | \$23 | 35.96% | 0.00% | 0.06% | 0.00% | 0.00% | 0.06% | | | |
| | | Equities | \$23 | 54.99% | 0.00% | 0.15% | 0.00% | 0.00% | 0.15% | | | |
| | | Cash | \$23 | 3.37% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | | | |
| | | Real Assets | \$6 | 0.00% | 0.03% | 0.00% | 0.00% | 0.08% | 0.12% | | | |
| Colorado River Municipal Water Dist. | 12/31/2022 | Fixed Income | \$6 | 38.40% | 0.08% | 0.00% | 0.00% | 0.20% | 0.28% | | | |
| | | Equities | \$6 | 51.68% | 0.11% | 0.00% | 0.00% | 0.27% | 0.38% | | | |

| System | Fiscal Year End Date | Asset Class | Net Total Assets | Asset Allocation | Managment Fees Paid From Trust | Management Fees Netted From Returns | Brokerage Fees and Commissions | Profit Share Carried Interest | Total Asset Class Expenses |
|---|-------------------------|----------------------------|---------------------|---------------------|--------------------------------------|---|--------------------------------------|--|----------------------------------|
| | | Real Assets | \$37 | 1.26% | 0.02% | 0.00% | 0.00% | 0.00% | 0.02% |
| Course Fire Finishers Detical and France | 40/04/0000 | Fixed Income | \$37 | 27.79% | 0.14% | 0.00% | 0.00% | 0.00% | 0.14% |
| Conroe Fire Fighters' Retirement Fund | 12/31/2022 | Equities | \$37 | 69.92% | 0.36% | 0.00% | 0.00% | 0.00% | 0.36% |
| | | Cash | \$37 | 0.47% | 0.02% | 0.00% | 0.00% | 0.00% | 0.02% |
| Corpus Christi Fire Fighters' Retirement System | 12/31/2022 | Fixed Income | \$166 | 33.78% | 0.10% | 0.00% | 0.00% | 0.00% | 0.10% |
| Corpus Crinsti Fire Fighters Retirement System | 12/31/2022 | Equities | \$166 | 53.67% | 0.44% | 0.00% | 0.00% | 0.00% | 0.44% |
| | | Real Assets | \$43 | 2.53% | 0.01% | 0.03% | 0.00% | 0.00% | 0.04% |
| Corpus Christi Regional Transportation Authority | 12/31/2022 | Fixed Income | \$43 | 37.61% | 0.11% | 0.09% | 0.00% | 0.00% | 0.20% |
| Corpus Christi Regional Transportation Authority | 12/31/2022 | Equities | \$43 | 55.42% | 0.16% | 0.17% | 0.00% | 0.00% | 0.33% |
| | | Cash | \$43 | 2.01% | 0.01% | 0.00% | 0.00% | 0.00% | 0.01% |
| | | Fixed Income | \$11 | 26.82% | 0.10% | 0.00% | 0.00% | 0.00% | 0.10% |
| Corsicana Firemen's Relief & Retirement Fund | 12/31/2022 | Equities | \$11 | 69.90% | 0.32% | 0.00% | 0.00% | 0.00% | 0.32% |
| | | Cash | \$11 | 2.82% | 0.03% | 0.00% | 0.00% | 0.00% | 0.03% |
| | 12/31/2022 | Real Estate | \$1,919 | 0.00% | 0.03% | 0.04% | 0.00% | 0.02% | 0.09% |
| | | Fixed Income | \$1,919 | 20.32% | 0.05% | 0.03% | 0.00% | 0.00% | 0.07% |
| CPS Energy Pension Plan | | Equities | \$1,919 | 54.03% | 0.04% | 0.07% | 0.00% | 0.00% | 0.11% |
| o, | | Cash | \$1,919 | 0.66% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Alternative Investments | \$1,919 | 16.31% | 0.00% | 0.20% | 0.00% | 0.16% | 0.35% |
| | | Real Estate | \$1,599 | 10.53% | 0.08% | 0.00% | 0.00% | 0.00% | 0.08% |
| | | Fixed Income | \$1,599 | 25.14% | 0.03% | 0.02% | 0.00% | 0.00% | 0.05% |
| Dallas Co. Hospital Dist. Retirement Income Plan | 12/31/2021 | Equities | \$1,599 | 59.63% | 0.09% | 0.13% | 0.00% | 0.00% | 0.22% |
| | | Cash | \$1,599 | 1.09% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Alternative Investments | \$1,599 | 3.99% | 0.00% | 0.00% | 0.00% | 0.00% 0.00% 0.00% <td>0.00%</td> | 0.00% |
| | | Real Assets | \$3,516 | 9.85% | 0.00% | 0.07% | 0.00% | 0.00% 0.02% 0.00% 0.00% 0.00% 0.16% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% | 0.07% |
| | | Fixed Income | \$3,516 | 25.44% | 0.00% | 0.05% | 0.00% | 0.00% | 0.05% |
| Dallas Employees' Retirement Fund | 12/31/2022 | Equities | \$3,516 | 51.30% | 0.00% | 0.30% | 0.00% | 0.00% | 0.30% |
| | | Cash | \$3,516 | 3.12% | 0.00% | 0.00% | 0.01% | 0.00% | 0.01% |
| | | Alternative Investments | \$3,516 | 10.86% | 0.00% | 0.10% | 0.00% | 0.00% | 0.10% |
| | | Real Assets | \$2,158 | 18.81% | 0.13% | 0.05% | 0.11% | 0.00% | 0.29% |
| | | Fixed Income | \$2,158 | 19.90% | 0.03% | 0.03% | 0.00% | 0.00% | 0.06% |
| Dallas Police & Fire Pension System-Combined Plan | 12/31/2021 | Equities | \$2,158 | 44.49% | 0.16% | 0.00% | 0.02% | 0.00% | 0.18% |
| · | | Cash | \$2,158 | 2.76% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Alternative Investments | \$2,158 | 13.31% | 0.00% | 0.10% | 0.00% | 0.00% | 0.10% |

| System | Fiscal Year End Date | Asset Class | Net Total Assets | Asset Allocation | Managment Fees Paid From Trust | Management Fees Netted From Returns | Brokerage Fees and Commissions | Profit Share Carried Interest | Total Asset Class Expenses |
|--|-------------------------|----------------------------|---------------------|---------------------|--------------------------------------|---|--------------------------------------|-------------------------------------|----------------------------------|
| | | Real Assets | \$19 | 18.84% | 0.13% | 0.05% | 0.12% | 0.00% | 0.30% |
| | | Fixed Income | \$19 | 19.93% | 0.03% | 0.03% | 0.00% | 0.00% | 0.06% |
| Dallas Police & Fire Pension System-Supplemental | 12/31/2021 | Equities | \$19 | 44.56% | 0.16% | 0.00% | 0.02% | 0.00% | 0.19% |
| Zanac i once di noi i onceni o jetom o appromenta. | 12/01/2021 | Cash | \$19 | 2.76% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Alternative Investments | \$19 | 13.33% | 0.00% | 0.10% | 0.00% | 0.00% | 0.10% |
| | | Real Assets | \$254 | 7.60% | 0.15% | 0.00% | 0.00% | 0.05% | 0.20% |
| | | Fixed Income | \$254 | 25.66% | 0.12% | 0.00% | 0.00% | 0.01% | 0.13% |
| DFW Airport Board DPS | 12/31/2022 | Equities | \$254 | 38.27% | 0.14% | 0.00% | 0.00% | 0.00% | 0.14% |
| | | Cash | \$254 | 3.04% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Alternative Investments | \$254 | 25.41% | 0.19% | 0.00% | 0.00% | 0.04% | 0.24% |
| | | Real Assets | \$587 | 7.60% | 0.15% | 0.00% | 0.00% | 0.04% | 0.19% |
| | | Fixed Income | \$587 | 25.66% | 0.11% | 0.00% | 0.00% | 0.01% | 0.12% |
| DFW Airport Board | 12/31/2022 | Equities | \$587 | 38.27% | 0.13% | 0.00% | 0.00% | 0.00% | 0.13% |
| ' | | Cash | \$587 | 3.04% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Alternative Investments | \$587 | 25.41% | 0.18% | 0.00% | 0.00% | 0.04% | 0.22% |
| | | Real Estate | \$183 | 0.00% | 0.00% | 0.05% | 0.00% | 0.00% | 0.05% |
| DART Employees | 9/30/2022 | Fixed Income | \$183 | 37.67% | 0.00% | 0.05% | 0.00% | 0.00% | 0.05% |
| DART Employees | 9/30/2022 | Equities | \$183 | 43.40% | 0.08% | 0.10% | 0.00% | 0.00% | 0.18% |
| | | Cash | \$183 | 2.42% | 0.01% | 0.00% | 0.00% | 0.00% | 0.01% |
| | | Equities | \$20 | 73.01% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Alternative Investments | \$20 | 5.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Denison Firemen's Relief & Retirement Fund | 12/31/2022 | Real Assets | \$20 | 4.69% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Cash | \$20 | 5.46% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Fixed Income | \$20 | 11.68% | 0.00% | 0.22% | 0.00% | 0.00% | 0.22% |
| | | Real Assets | \$137 | 11.01% | 0.03% | 0.00% | 0.00% | 0.00% | 0.03% |
| Denton Firemen's Relief & Retirement Fund | 12/31/2022 | Fixed Income | \$137 | 14.57% | 0.03% | 0.02% | 0.00% | 0.00% | 0.04% |
| | | Equities | \$137 | 59.95% | 0.05% | 0.01% | 0.00% | 0.00% | 0.06% |
| | | Real Assets | \$1 | 9.20% | 0.01% | 0.10% | 0.00% | 0.00% | 0.11% |
| | | Fixed Income | \$1 | 18.45% | 0.03% | 0.05% | 0.01% | 0.00% | 0.09% |
| El Paso Firemen & Policemen's Pension Staff Plan | 12/31/2022 | Equities | \$1 | 51.15% | 0.18% | 0.03% | 0.01% | 0.00% | 0.22% |
| | | Cash | \$1 | 2.56% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Alternative Investments | \$1 | 18.66% | 0.12% | 0.08% | 0.00% | 0.00% | 0.20% |

| System | Fiscal Year End Date | Asset Class | Net Total Assets | Asset Allocation | Managment Fees Paid From Trust | Management Fees Netted From Returns | Brokerage Fees and Commissions | Profit Share Carried Interest | Total Asset Class Expenses |
|--|-------------------------|----------------------------|---------------------|---------------------|--------------------------------------|---|--------------------------------------|-------------------------------------|----------------------------------|
| | | Real Estate | \$684 | 0.00% | 0.01% | 0.09% | 0.00% | 0.00% | 0.11% |
| | | Fixed Income | \$684 | 19.08% | 0.03% | 0.04% | 0.01% | 0.00% | 0.08% |
| El Paso Firemen's Pension Fund | 12/31/2022 | Equities | \$684 | 52.92% | 0.18% | 0.03% | 0.01% | 0.00% | 0.22% |
| | | Alternative Investments | \$684 | 19.31% | 0.12% | 0.08% | 0.00% | 0.00% | 0.20% |
| | | Real Estate | \$979 | 0.00% | 0.01% | 0.09% | 0.00% | 0.00% | 0.11% |
| | | Fixed Income | \$979 | 19.37% | 0.03% | 0.04% | 0.01% | 0.00% | 0.08% |
| El Paso Police Pension Fund | 12/31/2022 | Equities | \$979 | 53.73% | 0.18% | 0.03% | 0.01% | 0.00% | 0.22% |
| | | Alternative Investments | \$979 | 19.60% | 0.12% | 0.08% | 0.00% | 0.00% | 0.20% |
| | | Real Assets | \$31,986 | 0.00% | 0.16% | 0.00% | 0.00% | 0.11% | 0.27% |
| | | Fixed Income | \$31,986 | 17.24% | 0.02% | 0.00% | 0.00% | 0.00% | 0.02% |
| Employees Retirement System of Texas | 8/31/2022 | Equities | \$31,986 | 33.25% | 0.00% | 0.04% | 0.01% | 0.01% | 0.06% |
| , | | Cash | \$31,986 | 1.91% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Alternative Investments | \$31,986 | 46.28% | 0.16% | 0.00% | 0.00% | 0.33% | 0.50% |
| | | Real Assets | \$2,504 | 15.23% | 0.05% | 0.01% | 0.00% | 0.00% | 0.07% |
| | | Fixed Income | \$2,504 | 33.10% | 0.05% | 0.00% | 0.00% | 0.00% | 0.05% |
| Fort Worth Employees' Retirement Fund | 9/30/2022 | Equities | \$2,504 | 41.91% | 0.09% | 0.02% | 0.01% | 0.01% | 0.13% |
| | | Alternative Investments | \$2,504 | 22.03% | 0.01% | 0.21% | 0.00% | 0.54% | 0.75% |
| | | Real Assets | \$8 | 15.16% | 0.05% | 0.01% | 0.00% | 0.00% | 0.07% |
| | | Fixed Income | \$8 | 32.95% | 0.05% | 0.00% | 0.00% | 0.00% | 0.05% |
| Fort Worth Employees' Retirement Fund Staff Plan | 9/30/2022 | Equities | \$8 | 41.71% | 0.09% | 0.02% | 0.01% | 0.01% | 0.13% |
| • • | | Cash | \$8 | 0.01% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Alternative Investments | \$8 | 21.93% | 0.01% | 0.21% | 0.00% | 0.54% | 0.75% |
| | | Fixed Income | \$59 | 23.39% | 0.13% | 0.04% | 0.00% | 0.00% | 0.16% |
| Galveston Employees' Retirement Fund | 12/31/2022 | Equities | \$59 | 64.61% | 0.08% | 0.10% | 0.00% | 0.00% | 0.18% |
| Galveston Employees' Retirement Fund | | Alternative Investments | \$59 | 10.41% | 0.06% | 0.00% | 0.00% | 0.00% | 0.06% |
| | | Fixed Income | \$23 | 29.32% | 0.07% | 0.04% | 0.00% | 0.00% | 0.11% |
| | 10/0/: | Equities | \$23 | 59.70% | 0.14% | 0.04% | 0.00% | 0.00% | 0.19% |
| Galveston Employees' Retirement Plan for Police | 12/31/2022 | Cash | \$23 | 3.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Alternative Investments | \$23 | 5.77% | 0.02% | 0.09% | 0.00% | 0.00% | 0.10% |

| System | Fiscal Year End Date | Asset Class | Net Total Assets | Asset Allocation | Managment Fees Paid From Trust | Management Fees Netted From Returns | Brokerage Fees and Commissions | Profit Share Carried Interest | Total Asset Class Expenses |
|--|-------------------------|----------------------------|---------------------|---------------------|--------------------------------------|---|--------------------------------------|-------------------------------------|----------------------------------|
| | | Real Assets | \$49 | 2.69% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Fixed Income | \$49 | 19.48% | 0.02% | 0.00% | 0.00% | 0.00% | 0.02% |
| Galveston Firefighter's Relief & Retirement Fund | 12/31/2022 | Equities | \$49 | 61.05% | 0.16% | 0.04% | 0.00% | 0.00% | 0.20% |
| ٩ | | Cash | \$49 | 5.93% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Alternative Investments | \$49 | 10.73% | 0.00% | 0.18% | 0.00% | 0.00% | 0.18% |
| | | Fixed Income | \$13 | 19.38% | 0.10% | 0.00% | 0.00% | 0.00% | 0.10% |
| Galveston Wharves Pension Plan | 12/31/2022 | Equities | \$13 | 79.18% | 0.40% | 0.29% | 0.00% | 0.00% | 0.69% |
| | | Cash | \$13 | 0.62% | 0.02% | 0.00% | 0.00% | 0.00% | 0.02% |
| | | Fixed Income | \$14 | 32.04% | 0.06% | 0.06% | 0.00% | 0.00% | 0.12% |
| | | Equities | \$14 | 48.90% | 0.10% | 0.06% | 0.00% | 0.00% | 0.15% |
| Greenville Firemen's Relief & Retirement Fund | 12/31/2022 | Cash | \$14 | 3.66% | 0.01% | 0.00% | 0.00% | 0.00% | 0.01% |
| | | Alternative Investments | \$14 | 15.50% | 0.05% | 0.08% | 0.00% | 0.00% | 0.13% |
| | | Fixed Income | \$32 | 0.00% | 0.05% | 0.00% | 0.00% | 0.00% | 0.05% |
| | | Equities | \$32 | 13.01% | 0.06% | 0.00% | 0.00% | 0.00% | 0.06% |
| Guadalupe-Blanco River Authority | 12/31/2022 | Cash | \$32 | 6.52% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Alternative Investments | \$32 | 80.44% | 0.04% | 0.00% | 0.00% | 0.00% | 0.04% |
| | | Real Assets | \$34 | 14.11% | 0.17% | 0.00% | 0.00% | 0.00% | 0.17% |
| | | Fixed Income | \$34 | 22.37% | 0.00% | 0.11% | 0.00% | 0.00% | 0.11% |
| Harlingen Firemen's Relief & Retirement Fund | 9/30/2022 | Equities | \$34 | 60.45% | 0.32% | 0.30% | 0.00% | 0.00% | 0.62% |
| · · | | Cash | \$34 | 0.13% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Alternative Investments | \$34 | 2.95% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Real Assets | \$821 | 5.23% | 0.02% | 0.00% | 0.00% | 0.00% | 0.02% |
| | | Fixed Income | \$821 | 30.75% | 0.04% | 0.00% | 0.00% | 0.00% | 0.04% |
| Harris County Hospital District Pension Plan | 12/31/2022 | Equities | \$821 | 58.75% | 0.18% | 0.00% | 0.00% | 0.00% | 0.18% |
| · | | Cash | \$821 | 4.93% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Alternative Investments | \$821 | 4.70% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Real Assets | \$5,094 | 6.70% | 0.00% | 0.11% | 0.00% | 0.18% | 0.28% |
| | | Fixed Income | \$5,094 | 13.93% | 0.02% | 0.02% | 0.00% | 0.01% | 0.05% |
| Houston Firefighters' Relief & Retirement Fund | 6/30/2022 | Equities | \$5,094 | 32.39% | 0.06% | 0.00% | 0.00% | 0.00% | 0.06% |
| - | | Cash | \$5,094 | 1.22% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Alternative Investments | \$5,094 | 43.32% | 0.01% | 0.40% | 0.00% | 0.43% | 0.84% |

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|--|-------------------------|----------------------------|---------------------|---------------------|--------------------------------------|---|--------------------------------------|-------------------------------------|----------------------------------|
| | | Real Estate | \$177 | 0.00% | 0.00% | 0.16% | 0.00% | 0.00% | 0.16% |
| Lleusten MTA Nen Union Dension Dien | 12/31/2022 | Fixed Income | \$177 | 25.94% | 0.00% | 0.04% | 0.00% | 0.00% | 0.04% |
| Houston MTA Non-Union Pension Plan | 12/31/2022 | Equities | \$177 | 55.57% | 0.00% | 0.08% | 0.00% | 0.00% | 0.08% |
| | | Cash | \$177 | 1.47% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Real Estate | \$291 | 0.00% | 0.00% | 0.15% | 0.00% | 0.00% | 0.15% |
| Houston MTA Workers Union Pension Plan | 12/31/2022 | Fixed Income | \$291 | 25.33% | 0.00% | 0.04% | 0.00% | 0.00% | 0.04% |
| Houston with workers officin Pension Plan | 12/31/2022 | Equities | \$291 | 57.47% | 0.00% | 0.07% | 0.00% | 0.00% | 0.07% |
| | | Cash | \$291 | 0.79% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Real Assets | \$3,952 | 10.66% | 0.00% | 0.10% | 0.00% | 0.34% | 0.44% |
| | | Fixed Income | \$3,952 | 28.24% | 0.06% | 0.16% | 0.00% | 0.52% | 0.74% |
| Houston Municipal Employees Pension System | 6/30/2022 | Equities | \$3,952 | 25.81% | 0.09% | 0.01% | 0.01% | 0.00% | 0.10% |
| , , , | | Cash | \$3,952 | 0.32% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Alternative Investments | \$3,952 | 34.63% | 0.00% | 0.34% | 0.00% | 0.57% | 0.91% |
| | | Real Assets | \$6,862 | 10.64% | 0.00% | 0.01% | 0.00% | 0.85% | 0.85% |
| | | Fixed Income | \$6,862 | 25.40% | 0.03% | 0.00% | 0.00% | 0.00% | 0.03% |
| Houston Police Officers' Pension System | 6/30/2022 | Equities | \$6,862 | 33.31% | 0.02% | 0.00% | 0.01% | 0.00% | 0.03% |
| | | Cash | \$6,862 | 0.01% | 0.01% | 0.00% | 0.00% | 0.00% | 0.01% |
| | | Alternative Investments | \$6,862 | 30.33% | 0.00% | 0.15% | 0.00% | 1.23% | 1.38% |
| | | Real Assets | \$242 | 10.59% | 0.02% | 0.08% | 0.00% | 0.00% | 0.10% |
| | | Fixed Income | \$242 | 39.23% | 0.00% | 0.03% | 0.00% | 0.00% | 0.03% |
| Irving Firemen's Relief & Retirement Fund | 12/31/2022 | Equities | \$242 | 47.27% | 0.13% | 0.06% | 0.01% | 0.00% | 0.20% |
| | | Cash | \$242 | 1.37% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Alternative Investments | \$242 | 1.47% | 0.00% | 0.01% | 0.00% | 0.01% | 0.02% |
| | | Real Assets | \$99 | 6.22% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Fixed Income | \$99 | 32.29% | 0.07% | 0.04% | 0.00% | 0.00% | 0.12% |
| Irving Supplemental Benefit Plan | 12/31/2022 | Equities | \$99 | 51.94% | 0.18% | 0.05% | 0.00% | 0.00% | 0.23% |
| | | Cash | \$99 | 2.09% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Alternative Investments | \$99 | 5.37% | 0.00% | 0.10% | 0.00% | 0.00% | 0.10% |
| | | Fixed Income | \$370 | 25.38% | 0.00% | 0.01% | 0.00% | 0.00% | 0.01% |
| JPS - Tarrant County Hospital District | 9/30/2022 | Equities | \$370 | 70.37% | 0.13% | 0.19% | 0.00% | 0.00% | 0.32% |
| | | Cash | \$370 | 4.25% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |

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|--|-------------------------|----------------------------|---------------------|---------------------|--------------------------------------|---|--------------------------------------|-------------------------------------|----------------------------------|
| | | Real Assets | \$566 | 0.00% | 0.16% | 0.00% | 0.00% | 0.11% | 0.27% |
| | | Fixed Income | \$566 | 17.28% | 0.02% | 0.00% | 0.00% | 0.00% | 0.02% |
| Judicial Retirement System of Texas Plan Two | 8/31/2022 | Equities | \$566 | 33.32% | 0.00% | 0.04% | 0.01% | 0.01% | 0.06% |
| | | Cash | \$566 | 2.14% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Alternative Investments | \$566 | 46.38% | 0.16% | 0.00% | 0.00% | 0.33% | 0.50% |
| | | Real Assets | \$54 | 7.64% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Fixed Income | \$54 | 27.94% | 0.43% | 0.14% | 0.00% | 0.00% | 0.57% |
| Killeen Firemen's Relief & Retirement Fund | 9/30/2022 | Equities | \$54 | 49.63% | 0.00% | 0.13% | 0.00% | 0.00% | 0.13% |
| | | Cash | \$54 | 9.65% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Alternative Investments | \$54 | 4.93% | 0.16% | 0.00% | 0.00% | 0.01% | 0.17% |
| | | Real Assets | \$180 | 0.00% | 0.00% | 0.08% | 0.00% | 0.00% | 0.08% |
| | | Fixed Income | \$180 | 17.15% | 0.00% | 0.08% | 0.00% | 0.00% | 0.08% |
| Laredo Firefighters Retirement System | 9/30/2022 | Equities | \$180 | 63.68% | 0.15% | 0.16% | 0.02% | 0.02% | 0.35% |
| | | Cash | \$180 | 0.25% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Alternative Investments | \$180 | 18.94% | 0.00% | 0.20% | 0.00% | 0.00% | 0.20% |
| | _ | Real Assets | \$1,042 | 0.00% | 0.16% | 0.00% | 0.00% | 0.11% | 0.27% |
| | | Fixed Income | \$1,042 | 17.33% | 0.02% | 0.00% | 0.00% | 0.00% | 0.02% |
| Law Enforcement & Custodial Off Sup. Ret. Fund | 8/31/2022 | Equities | \$1,042 | 33.43% | 0.00% | 0.04% | 0.01% | 0.01% | 0.06% |
| | | Cash | \$1,042 | 2.11% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Alternative Investments | \$1,042 | 46.52% | 0.16% | 0.00% | 0.00% | 0.33% | 0.50% |
| | | Fixed Income | \$86 | 32.54% | 0.00% | 0.16% | 0.00% | 0.00% | 0.16% |
| Languiou Eiraman'a Poliaf & Patirament Fund | 12/21/2022 | Equities | \$86 | 59.68% | 0.00% | 0.32% | 0.00% | 0.00% | 0.32% |
| Longview Firemen's Relief & Retirement Fund | 12/31/2022 | Cash | \$86 | 0.03% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Alternative Investments | \$86 | 7.69% | 0.09% | 0.00% | 0.00% | 0.00% | 0.09% |
| | | Real Assets | \$426 | 7.57% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Fixed Income | \$426 | 26.87% | 0.05% | 0.00% | 0.00% | 0.00% | 0.05% |
| Lower Colorado River Authority Retirement Plan | 12/31/2022 | Equities | \$426 | 58.98% | 0.11% | 0.00% | 0.00% | 0.00% | 0.11% |
| Long. Goldage Niver Authority Netheriter (all | | Cash | \$426 | 1.41% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Alternative Investments | \$426 | 6.10% | 0.00% | 0.28% | 0.00% | 0.00% | 0.28% |
| | | Fixed Income | \$12 | 28.10% | 0.03% | 0.01% | 0.00% | 0.00% | 0.04% |
| Lower Neches Valley | 12/31/2022 | Equities | \$12 | 71.81% | 0.24% | 0.04% | 0.00% | 0.00% | 0.27% |
| | | Cash | \$12 | 0.09% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |

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|--|-------------------------|----------------------------|---------------------|---------------------|--------------------------------------|---|--------------------------------------|-------------------------------------|----------------------------------|
| | | Real Assets | \$240 | 15.76% | 0.00% | 0.16% | 0.00% | 0.00% | 0.16% |
| | | Fixed Income | \$240 | 19.02% | 0.00% | 0.11% | 0.00% | 0.00% | 0.11% |
| Lubbock Fire Pension Fund | 12/31/2022 | Equities | \$240 | 50.83% | 0.00% | 0.28% | 0.00% | 0.00% | 0.28% |
| | | Cash | \$240 | 0.61% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Alternative Investments | \$240 | 13.65% | 0.03% | 0.13% | 0.00% | 0.00% | 0.16% |
| | | Fixed Income | \$21 | 31.12% | 0.08% | 0.06% | 0.00% | 0.00% | 0.14% |
| | | Equities | \$21 | 49.47% | 0.13% | 0.05% | 0.00% | 0.00% | 0.18% |
| Lufkin Firemen's Relief & Retirement Fund | 12/31/2022 | Cash | \$21 | 3.83% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Alternative Investments | \$21 | 15.70% | 0.07% | 0.04% | 0.00% | 0.00% | 0.11% |
| | | Fixed Income | \$8 | 26.17% | 0.16% | 0.06% | 0.00% | 0.00% | 0.22% |
| | | Equities | \$8 | 45.59% | 0.28% | 0.06% | 0.00% | 0.00% | 0.34% |
| Marshall Firemen's Relief & Retirement Fund | 12/31/2022 | Cash | \$8 | 3.73% | 0.02% | 0.00% | 0.00% | 0.00% | 0.02% |
| | | Alternative Investments | \$8 | 23.57% | 0.15% | 0.08% | 0.00% | 0.00% | 0.23% |
| | | Real Assets | \$53 | 0.00% | 0.00% | 0.19% | 0.00% | 0.19% | 0.38% |
| | 9/30/2022 | Fixed Income | \$53 | 8.11% | 0.02% | 0.06% | 0.00% | 0.00% | 0.09% |
| McAllen Firemen's Relief & Retirement Fund | | Equities | \$53 | 54.26% | 0.28% | 0.09% | 0.00% | 0.00% | 0.37% |
| | | Cash | \$53 | 3.04% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Alternative Investments | \$53 | 34.45% | 0.00% | 0.31% | 0.00% | 0.41% | 0.72% |
| | | Real Assets | \$94 | 15.87% | 0.15% | 0.00% | 0.00% | 0.00% | 0.15% |
| | | Fixed Income | \$94 | 11.74% | 0.06% | 0.00% | 0.00% | 0.00% | 0.06% |
| Midland Firemen's Relief & Retirement Fund | 12/31/2021 | Equities | \$94 | 39.39% | 0.19% | 0.00% | 0.00% | 0.00% | 0.19% |
| | | Cash | \$94 | 15.46% | 0.01% | 0.00% | 0.00% | 0.00% | 0.01% |
| | | Alternative Investments | \$94 | 19.00% | 0.07% | 0.00% | 0.00% | 0.88% | 0.95% |
| | | Fixed Income | \$51 | 40.06% | | | Not Reported | | |
| Nacogdoches County Hospital District Retirement Plan | 6/30/2021 | Equities | \$51 | 54.05% | | | Not Reported | | |
| | | Real Assets | \$51 | 5.89% | | | Not Reported | | |
| | | Real Assets | \$4 | 4.88% | 0.00% | 0.08% | 0.00% | 0.00% | 0.08% |
| Northeast Medical Center Hospital Retirement Plan | 6/30/2022 | Fixed Income | \$4 | 38.98% | 0.00% | 0.46% | 0.00% | 0.00% | 0.46% |
| | | Equities | \$4 | 56.14% | 0.00% | 0.88% | 0.00% | 0.00% | 0.88% |
| | | Cash | \$4 | 0.00% | 0.00% | 0.03% | 0.00% | 0.00% | 0.03% |
| | | Fixed Income | \$19 | 42.01% | 0.07% | 0.00% | 0.01% | 0.00% | 0.08% |
| Northwest Texas Healthcare System Retirement Plan | 9/30/2022 | Equities | \$19 | 52.75% | 0.09% | 0.00% | 0.01% | 0.00% | 0.10% |
| | | Cash | \$19 | 4.21% | 0.01% | 0.00% | 0.00% | 0.00% | 0.01% |

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|--|-------------------------|----------------------------|---------------------|---------------------|--------------------------------------|---|--------------------------------------|-------------------------------------|----------------------------------|
| | | Real Assets | \$44 | 29.73% | 0.00% | 1.05% | 0.00% | 0.00% | 1.05% |
| Odessa Firemania Baliaf & Bakinamant Fund | 40/04/0000 | Fixed Income | \$44 | 10.87% | 0.00% | 0.04% | 0.00% | 0.00% | 0.04% |
| Odessa Firemen's Relief & Retirement Fund | 12/31/2022 | Equities | \$44 | 55.85% | 0.00% | 0.27% | 0.00% | 0.00% | 0.27% |
| | | Cash | \$44 | 2.18% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Real Assets | \$8 | 14.05% | 0.00% | 0.15% | 0.00% | 0.00% | 0.15% |
| | | Fixed Income | \$8 | 19.07% | 0.00% | 0.06% | 0.00% | 0.00% | 0.06% |
| Orange Firemen's Relief & Retirement Fund | 12/31/2022 | Equities | \$8 | 66.87% | 0.08% | 0.23% | 0.00% | 0.00% | 0.31% |
| g . | | Cash | \$8 | 1.68% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Alternative Investments | \$8 | 0.00% | 0.00% | 0.01% | 0.00% | 0.00% | 0.01% |
| | | Fixed Income | \$16 | 24.25% | 0.04% | 0.02% | 0.00% | 0.00% | 0.05% |
| | | Equities | \$16 | 57.36% | 0.06% | 0.06% | 0.00% | 0.00% | 0.12% |
| Paris Firefighters' Relief & Retirement Fund | 12/31/2022 | Cash | \$16 | 2.37% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Alternative Investments | \$16 | 15.76% | 0.03% | 0.02% | 0.00% | 0.00% | 0.05% |
| | | Fixed Income | \$7 | 25.92% | 0.05% | 0.09% | 0.00% | 0.00% | 0.14% |
| | l [| Equities | \$7 | 62.49% | 0.17% | 0.10% | 0.00% | 0.00% | 0.27% |
| Plainview Firemen's Relief & Retirement Fund | 12/31/2022 | Cash | \$7 | 5.19% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Alternative Investments | \$7 | 6.39% | 0.00% | 0.06% | 0.00% | 0.00% | 0.06% |
| | | Real Assets | \$186 | 11.01% | 0.00% | 0.12% | 0.00% | 0.00% | 0.12% |
| | | Fixed Income | \$186 | 23.45% | 0.00% | 0.04% | 0.00% | 0.00% | 0.04% |
| Plano Retirement Security Plan | 12/31/2022 | Equities | \$186 | 65.36% | 0.00% | 0.13% | 0.00% | 0.00% | 0.13% |
| · | | Cash | \$186 | 0.19% | 0.03% | 0.00% | 0.00% | 0.00% | 0.03% |
| | | Alternative Investments | \$186 | 0.00% | 0.00% | 0.03% | 0.00% | 0.00% | 0.03% |
| | | Real Assets | \$49 | 3.08% | 0.00% | 0.01% | 0.00% | 0.00% | 0.01% |
| | | Fixed Income | \$49 | 33.67% | 0.00% | 0.17% | 0.00% | 0.00% | 0.17% |
| Port Arthur Firemen's Relief & Retirement Fund | 12/31/2022 | Equities | \$49 | 61.97% | 0.00% | 0.33% | 0.00% | 0.00% | 0.33% |
| | | Cash | \$49 | 1.03% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Alternative Investments | \$49 | 0.00% | 0.00% | 0.03% | 0.00% | 0.00% | 0.03% |
| | | Real Assets | \$199 | 5.20% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Port of Houston Authority Retirement Plan | 7/31/2022 | Fixed Income | \$199 | 44.21% | 0.12% | 0.04% | 0.00% | 0.00% | 0.16% |
| . S. S | | Equities | \$199 | 48.35% | 0.16% | 0.14% | 0.01% | 0.00% | 0.32% |
| | | Cash | \$199 | 2.01% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |

| System | Fiscal Year End Date | Asset Class | Net Total Assets | Asset Allocation | Managment Fees Paid From Trust | Management Fees Netted From Returns | Brokerage Fees and Commissions | Profit Share Carried Interest | Total Asset Class Expenses |
|--|-------------------------|----------------------------|---------------------|---------------------|--------------------------------------|---|--------------------------------------|-------------------------------------|----------------------------------|
| | | Real Assets | \$2 | 2.55% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Refugio County Memorial Hospital | 10/31/2022 | Fixed Income | \$2 | 17.83% | 0.00% | 0.21% | 0.00% | 0.00% | 0.21% |
| relugio county memorial mospital | 10/31/2022 | Equities | \$2 | 63.41% | 0.00% | 0.26% | 0.00% | 0.00% | 0.26% |
| | | Cash | \$2 | 16.09% | 0.00% | 0.09% | 0.00% | 0.00% | 0.09% |
| | | Fixed Income | \$1 | 58.25% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Anson General Hospital | 6/30/2022 | Equities | \$1 | 40.90% | 0.09% | 0.14% | 0.00% | 0.23% | 0.46% |
| | | Cash | \$1 | 0.91% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Fixed Income | \$9 | 16.82% | 0.18% | 0.00% | 0.00% | 0.00% | 0.18% |
| Employees of Brownsville Navigation District | 12/31/2022 | Equities | \$9 | 68.50% | 0.74% | 0.00% | 0.00% | 0.00% | 0.74% |
| | | Cash | \$9 | 14.68% | 0.10% | 0.00% | 0.00% | 0.00% | 0.10% |
| | | Fixed Income | \$94 | 24.22% | 0.00% | 0.07% | 0.00% | 0.00% | 0.07% |
| Guadalupe Regional Medical Center | 12/31/2022 | Equities | \$94 | 74.74% | 0.06% | 0.06% | 0.00% | 0.00% | 0.12% |
| | | Cash | \$94 | 1.03% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Fixed Income | \$3 | 24.22% | 0.00% | 0.07% | 0.00% | 0.00% | 0.07% |
| Sweeny Community Hospital | 12/31/2022 | Equities | \$3 | 74.74% | 0.06% | 0.06% | 0.00% | 0.00% | 0.12% |
| | | Cash | \$3 | 1.03% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Real Assets | \$83 | 3.97% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Fixed Income | \$83 | 25.35% | 0.00% | 0.06% | 0.00% | 0.00% | 0.06% |
| San Angelo Firemen's Relief & Retirement Fund | 12/31/2021 | Equities | \$83 | 60.80% | 0.22% | 0.14% | 0.00% | 0.00% | 0.36% |
| | | Cash | \$83 | 2.42% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Alternative Investments | \$83 | 7.47% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Real Assets | \$3,586 | 9.12% | 0.00% | 0.12% | 0.00% | 0.15% | 0.27% |
| | | Fixed Income | \$3,586 | 31.53% | 0.00% | 0.20% | 0.02% | 0.14% | 0.36% |
| San Antonio Fire & Police Pension Fund | 12/31/2022 | Equities | \$3,586 | 43.26% | 0.00% | 0.20% | 0.00% | 0.00% | 0.21% |
| | | Cash | \$3,586 | 1.74% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Alternative Investments | \$3,586 | 14.56% | 0.00% | 0.16% | 0.01% | 0.18% | 0.35% |
| | | Real Assets | \$322 | 13.60% | 0.09% | 0.00% | 0.00% | 0.00% | 0.09% |
| Can Antonio Motropolitan Transit Detiroment Dis- | 0/20/2022 | Fixed Income | \$322 | 28.10% | 0.08% | 0.00% | 0.00% | 0.00% | 0.08% |
| San Antonio Metropolitan Transit Retirement Plan | 9/30/2022 | Equities | \$322 | 57.22% | 0.28% | 0.00% | 0.01% | 0.00% | 0.29% |
| | | Cash | \$322 | 1.90% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Equities | \$4 | 59.02% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| San Benito Firemen Relief & Retirement Fund | 9/30/2022 | Fixed Income | \$4 | 27.56% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Cash | \$4 | 5.30% | 0.79% | 0.00% | 0.00% | 0.00% | 0.79% |

| System | Fiscal Year End Date | Asset Class | Net Total Assets | Asset Allocation | Managment Fees Paid From Trust | Management Fees Netted From Returns | Brokerage Fees and Commissions | Profit Share Carried Interest | Total Asset Class Expenses |
|---|-------------------------|----------------------------|---------------------|---------------------|--------------------------------------|---|--------------------------------------|-------------------------------------|----------------------------------|
| | | Fixed Income | \$8 | 42.64% | 0.07% | 0.06% | 0.00% | 0.00% | 0.13% |
| | | Equities | \$8 | 48.61% | 0.10% | 0.09% | 0.00% | 0.00% | 0.19% |
| Sweetwater Firemen's Relief & Retirement Fund | 12/31/2022 | Cash | \$8 | 3.57% | 0.01% | 0.00% | 0.00% | 0.00% | 0.01% |
| | | Alternative Investments | \$8 | 6.13% | 0.09% | 0.05% | 0.00% | 0.00% | 0.14% |
| | | Real Assets | \$184,186 | 0.00% | 0.00% | 0.15% | 0.00% | 0.17% | 0.32% |
| | | Fixed Income | \$184,186 | 20.01% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Teacher Retirement System of Texas | 8/31/2022 | Equities | \$184,186 | 32.63% | 0.02% | 0.07% | 0.03% | 0.20% | 0.32% |
| | | Cash | \$184,186 | 0.52% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Alternative Investments | \$184,186 | 53.32% | 0.00% | 0.19% | 0.00% | 0.42% | 0.61% |
| | | Real Assets | \$47 | 4.22% | 0.04% | 0.00% | 0.00% | 0.00% | 0.04% |
| | | Fixed Income | \$47 | 20.10% | 0.00% | 0.19% | 0.00% | 0.00% | 0.19% |
| Temple Firemen's Relief & Retirement Fund | 9/30/2022 | Equities | \$47 | 61.57% | 0.00% | 0.50% | 0.00% | 0.00% | 0.50% |
| · | | Cash | \$47 | 1.12% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Alternative Investments | \$47 | 12.71% | 0.00% | 0.12% | 0.00% | 0.00% | 0.12% |
| | | Real Assets | \$37 | 4.60% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Fixed Income | \$37 | 25.53% | 0.08% | 0.00% | 0.00% | 0.00% | 0.08% |
| Texarkana Firemen's Relief & Retirement Fund | 12/31/2022 | Equities | \$37 | 34.09% | 0.25% | 0.14% | 0.00% | 0.00% | 0.38% |
| | | Cash | \$37 | 3.41% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Alternative Investments | \$37 | 32.31% | 0.11% | 0.00% | 0.00% | 0.00% | 0.11% |
| | | Fixed Income | \$15 | 32.19% | 0.05% | 0.06% | 0.00% | 0.00% | 0.11% |
| T 0" 5" D " (0 D " 15 1 | 40/04/0000 | Equities | \$15 | 49.39% | 0.09% | 0.06% | 0.00% | 0.00% | 0.15% |
| Texas City Firemen's Relief & Retirement Fund | 12/31/2022 | Cash | \$15 | 3.11% | 0.01% | 0.00% | 0.00% | 0.00% | 0.01% |
| | | Alternative Investments | \$15 | 15.40% | 0.04% | 0.08% | 0.00% | 0.00% | 0.12% |
| | | Real Assets | \$41,969 | 1.82% | 0.01% | 0.00% | 0.00% | 0.00% | 0.01% |
| | | Fixed Income | \$41,969 | 2.18% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Texas County & District Retirement System | 12/31/2022 | Equities | \$41,969 | 24.66% | 0.02% | 0.00% | 0.02% | 0.00% | 0.03% |
| | | Cash | \$41,969 | 2.53% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Alternative Investments | \$41,969 | 68.58% | 0.04% | 0.86% | 0.00% | -0.16% | 0.75% |
| | | Real Assets | \$124 | 11.84% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Fixed Income | \$124 | 21.12% | 0.06% | 0.00% | 0.00% | 0.00% | 0.06% |
| Texas Emergency Services Retirement System | 8/31/2022 | Equities | \$124 | 54.26% | 0.19% | 0.32% | 0.01% | 0.00% | 0.51% |
| | | Cash | \$124 | 2.54% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |

| System | Fiscal Year End Date | Asset Class | Net Total Assets | Asset Allocation | Managment Fees Paid From Trust | Management Fees Netted From Returns | Brokerage Fees and Commissions | Profit Share Carried Interest | Total Asset Class Expenses |
|---|-------------------------|----------------------------|---------------------|---------------------|--------------------------------------|---|--------------------------------------|-------------------------------------|----------------------------------|
| | | Alternative Investments | \$124 | 8.59% | 0.05% | 0.00% | 0.00% | 0.00% | 0.05% |
| | | Real Assets | \$35,600 | 13.45% | 0.00% | 0.13% | 0.00% | 0.17% | 0.31% |
| | | Fixed Income | \$35,600 | 24.99% | 0.01% | 0.12% | 0.00% | 0.05% | 0.18% |
| Town Marie of Defendant Contain | 40/04/0000 | Equities | \$35,600 | 37.55% | 0.04% | 0.00% | 0.01% | 0.00% | 0.05% |
| Texas Municipal Retirement System | 12/31/2022 | Cash | \$35,600 | 0.02% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Alternative | Ψου,σου | 0.0270 | 0.0070 | 0.0070 | 0.0070 | 0.0070 | 0.0070 |
| | | Investments | \$35,600 | 23.72% | 0.00% | 0.40% | 0.00% | 0.37% | 0.77% |
| | | Fixed Income | \$56 | 18.46% | 0.04% | 0.02% | 0.00% | 0.00% | 0.06% |
| T. W. H. J. F. C. J. J. D. J. | 40/04/0000 | Equities | \$56 | 65.98% | 0.00% | 0.16% | 0.00% | 0.00% | 0.16% |
| The Woodlands Firefighters' Retirement System | 12/31/2022 | Cash | \$56 | 0.40% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Alternative Investments | \$56 | 14.74% | 0.12% | 0.00% | 0.00% | 0.00% | 0.12% |
| | | Real Assets | \$40 | 0.03% | 0.00% | 0.03% | 0.00% | 0.00% | 0.03% |
| Travis County ESD #6 Firefighter's Relief & Retirement | 12/31/2022 | Fixed Income | \$40 | 31.84% | 0.07% | 0.09% | 0.00% | 0.00% | 0.16% |
| Fund | 12/01/2022 | Equities | \$40 | 66.66% | 0.03% | 0.28% | 0.00% | 0.00% | 0.30% |
| | | Cash | \$40 | 0.99% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Real Estate | \$75 | 0.00% | 0.00% | 0.01% | 0.00% | 0.00% | 0.01% |
| Tyler Firefighters' Relief & Retirement Fund | 12/31/2022 | Fixed Income | \$75 | 31.67% | 0.00% | 0.17% | 0.00% | 0.00% | 0.17% |
| Tyler Firefighters Relief & Retirement Fund | 12/31/2022 | Equities | \$75 | 63.51% | 0.00% | 0.34% | 0.00% | 0.00% | 0.34% |
| | | Cash | \$75 | 1.79% | 0.00% | 0.01% | 0.00% | 0.00% | 0.01% |
| | | Real Assets | \$527 | 7.73% | 0.07% | 0.02% | 0.00% | 0.00% | 0.09% |
| | | Fixed Income | \$527 | 21.19% | 0.03% | 0.05% | 0.00% | 0.00% | 0.08% |
| University Health System Pension Plan | 12/31/2022 | Equities | \$527 | 42.79% | 0.13% | 0.14% | 0.00% | 0.00% | 0.27% |
| | | Cash | \$527 | 2.83% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Alternative Investments | \$527 | 25.55% | 0.00% | 0.05% | 0.00% | 0.00% | 0.05% |
| | | Real Assets | \$13 | 0.21% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Fixed Income | \$13 | 24.37% | 0.05% | 0.05% | 0.00% | 0.00% | 0.11% |
| University Park Firemen's Relief & Retirement Fund | 12/31/2021 | Equities | \$13 | 58.28% | 0.13% | 0.12% | 0.00% | 0.00% | 0.25% |
| , in the second | | Cash | \$13 | 2.23% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Alternative Investments | \$13 | 15.04% | 0.06% | 0.08% | 0.00% | 0.00% | 0.14% |
| | | Real Assets | \$19 | 6.54% | 0.00% | 0.06% | 0.00% | 0.00% | 0.06% |
| | | Fixed Income | \$19 | 33.95% | 0.00% | 0.15% | 0.00% | 0.00% | 0.15% |
| Waxahachie Firemen's Relief & Retirement Fund | 9/30/2022 | Equities | \$19 | 49.19% | 0.08% | 0.49% | 0.00% | 0.00% | 0.58% |
| | | Cash | \$19 | 2.04% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |

| System | Fiscal Year End Date | Asset Class | Net Total Assets | Asset Allocation | Managment Fees Paid From Trust | Management Fees Netted From Returns | Brokerage Fees and Commissions | Profit Share Carried Interest | Total Asset Class Expenses |
|--|-------------------------|----------------------------|---------------------|---------------------|--------------------------------------|---|--------------------------------------|-------------------------------------|----------------------------------|
| | | Alternative Investments | \$19 | 7.84% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Real Assets | \$15 | 3.68% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Weslaco Firemen's Relief & Retirement Fund | 9/30/2022 | Fixed Income | \$15 | 24.98% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Westaco Filemens Nellet & Nethernett Fund | 9/30/2022 | Equities | \$15 | 68.16% | 0.02% | 0.00% | 0.04% | 0.00% | 0.06% |
| | | Cash | \$15 | 3.18% | 0.02% | 0.00% | 0.00% | 0.00% | 0.02% |
| | | Real Estate | \$51 | 0.00% | 0.01% | 0.20% | 0.00% | 0.07% | 0.27% |
| | | Fixed Income | \$51 | 23.52% | 0.16% | 0.01% | 0.00% | 0.01% | 0.18% |
| Wichita Falls Firemen's Relief & Retirement Fund | 12/31/2022 | Equities | \$51 | 58.69% | 0.37% | 0.07% | 0.00% | 0.00% | 0.44% |
| Wichita Fans Finement's Relief & Retirement Fund | | Cash | \$51 | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| | | Alternative Investments | \$51 | 6.39% | 0.01% | 0.03% | 0.00% | 0.00% | 0.03% |

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(Dollars in Millions) (Fees as Percent of Net Total Assets)

| (= 5 5 | | is) (1 ccs as 1 credit of Net Total Assets) | | | | | | |
|---|--------------------|---|--------------------------|-----------|--------|----------|-------|-------|
| System | Fiscal Year End | Net Total Assets | Investment Consultant | Custodial | Legal | Research | Other | Total |
| Abilene Firemen's Relief & Retirement Fund | 9/30/2022 | \$52 | 0.09% | 0.12% | 0.00% | 0.00% | 0.00% | 0.21% |
| Amarillo Firemen's Relief & Retirement Fund | 12/31/2022 | \$218 | 0.01% | 0.03% | 0.00% | 0.00% | 0.00% | 0.04% |
| Arlington Employees Deferred Income Plan | 6/30/2021 | \$4 | | | Not Re | ported | | |
| Atlanta Firemen's Relief & Retirement Fund | 12/31/2022 | \$4 | 0.13% | 0.10% | 0.00% | 0.00% | 0.00% | 0.22% |
| Austin Employees' Retirement System | 12/31/2022 | \$2,960 | 0.01% | 0.01% | 0.00% | 0.00% | 0.01% | 0.03% |
| Austin Fire Fighters Relief & Retirement Fund | 12/31/2022 | \$1,116 | 0.02% | 0.01% | 0.00% | 0.00% | 0.00% | 0.03% |
| Austin Police Retirement System | 12/31/2022 | \$933 | 0.02% | 0.02% | 0.00% | 0.00% | 0.00% | 0.05% |
| Beaumont Firemen's Relief & Retirement Fund | 12/31/2022 | \$104 | 0.08% | 0.03% | 0.00% | 0.00% | 0.00% | 0.11% |
| Big Spring Firemen's Relief & Retirement Fund | 12/31/2021 | \$18 | 0.18% | 0.03% | 0.00% | 0.00% | 0.00% | 0.21% |
| Brazos River Authority Retirement Plan | 2/28/2023 | \$22 | 0.16% | 0.00% | 0.00% | 0.00% | 0.00% | 0.16% |
| Brownwood Firemen's Relief & Retirement Fund | 12/31/2021 | \$6 | 0.79% | 0.00% | 0.00% | 0.00% | 0.00% | 0.79% |
| Capital MTA Admin Employees | 12/31/2021 | \$53 | | | Not Re | ported | | |
| Capital MTA Bargaining | 12/31/2022 | \$34 | | | Not Re | ported | | |
| City of El Paso Employees Retirement Trust | 8/31/2022 | \$908 | 0.03% | 0.02% | 0.00% | 0.00% | 0.00% | 0.06% |
| Cleburne Firemen's Relief & Retirement Fund | 12/31/2022 | \$23 | 0.56% | 0.00% | 0.00% | 0.00% | 0.00% | 0.56% |
| Colorado River Municipal Water Dist. | 12/31/2022 | \$6 | 0.00% | 0.59% | 0.00% | 0.08% | 0.00% | 0.67% |
| Conroe Fire Fighters' Retirement Fund | 12/31/2022 | \$37 | 0.05% | 0.00% | 0.00% | 0.00% | 0.00% | 0.05% |
| Corpus Christi Fire Fighters' Retirement System | 12/31/2022 | \$166 | 0.05% | 0.04% | 0.00% | 0.00% | 0.00% | 0.09% |
| Corpus Christi Regional Transportation Authority | 12/31/2022 | \$43 | | | Not Re | ported | | |
| Corsicana Firemen's Relief & Retirement Fund | 12/31/2022 | \$11 | | | Not Re | ported | | |
| CPS Energy Pension Plan | 12/31/2022 | \$1,919 | 0.01% | 0.01% | 0.01% | 0.00% | 0.01% | 0.04% |
| Dallas Co. Hospital Dist. Retirement Income Plan | 12/31/2021 | \$1,599 | 0.01% | 0.02% | 0.00% | 0.00% | 0.00% | 0.03% |
| Dallas Employees' Retirement Fund | 12/31/2022 | \$3,516 | 0.01% | 0.00% | 0.00% | 0.00% | 0.00% | 0.01% |
| Dallas Police & Fire Pension System-Combined Plan | 12/31/2021 | \$2,158 | 0.02% | 0.01% | 0.11% | 0.00% | 0.00% | 0.14% |
| Dallas Police & Fire Pension System-Supplemental | 12/31/2021 | \$19 | | | Not Re | ported | | |
| DFW Airport Board DPS | 12/31/2022 | \$254 | | | Not Re | ported | | |
| DFW Airport Board | 12/31/2022 | \$587 | | | Not Re | ported | | |
| DART Employees | 9/30/2022 | \$183 | 0.22% | 0.03% | 0.00% | 0.00% | 0.00% | 0.24% |
| Denison Firemen's Relief & Retirement Fund | 12/31/2022 | \$20 | 0.50% | 0.00% | 0.00% | 0.00% | 0.00% | 0.50% |
| Denton Firemen's Relief & Retirement Fund | 12/31/2022 | \$137 | 0.15% | 0.03% | 0.00% | 0.00% | 0.00% | 0.18% |
| El Paso Firemen & Policemen's Pension Staff Plan | 12/31/2022 | \$1 | 0.03% | 0.01% | 0.01% | 0.00% | 0.00% | 0.04% |
| El Paso Firemen's Pension Fund | 12/31/2022 | \$684 | 0.03% | 0.01% | 0.01% | 0.00% | 0.00% | 0.04% |
| El Paso Police Pension Fund | 12/31/2022 | \$979 | 0.03% | 0.01% | 0.01% | 0.00% | 0.00% | 0.04% |
| Employees Retirement System of Texas | 8/31/2022 | \$31,986 | 0.01% | 0.00% | 0.00% | 0.00% | 0.00% | 0.01% |
| Fort Worth Employees' Retirement Fund | 9/30/2022 | \$2,504 | 0.05% | 0.03% | 0.01% | 0.00% | 0.00% | 0.08% |
| Fort Worth Employees' Retirement Fund Staff Plan | 9/30/2022 | \$8 | 0.05% | 0.03% | 0.01% | 0.00% | 0.00% | 0.08% |
| Galveston Employees' Retirement Fund | 12/31/2022 | \$59 | 0.00% | 0.06% | 0.00% | 0.00% | 0.00% | 0.06% |
| Galveston Employees' Retirement Plan for Police | 12/31/2022 | \$23 | | | Not Re | ported | | |
| Galveston Firefighter's Relief & Retirement Fund | 12/31/2022 | \$49 | 0.34% | 0.02% | 0.00% | 0.00% | 0.00% | 0.36% |
| Galveston Wharves Pension Plan | 12/31/2022 | \$13 | | | Not Re | ported | | |
| Greenville Firemen's Relief & Retirement Fund | 12/31/2022 | \$14 | 0.18% | 0.10% | 0.00% | 0.00% | 0.00% | 0.28% |
| Guadalupe-Blanco River Authority | 12/31/2022 | \$32 | 0.11% | 0.00% | 0.00% | 0.00% | 0.00% | 0.11% |
| Harlingen Firemen's Relief & Retirement Fund | 9/30/2022 | \$34 | 0.09% | 0.00% | 0.03% | 0.00% | 0.00% | 0.11% |
| Harris County Hospital District Pension Plan | 12/31/2022 | \$821 | 0.01% | 0.04% | 0.00% | 0.00% | 0.00% | 0.06% |
| Houston Firefighters' Relief & Retirement Fund | 6/30/2022 | \$5,094 | 0.00% | 0.00% | 0.01% | 0.00% | 0.00% | 0.01% |
| Houston MTA Non-Union Pension Plan | 12/31/2022 | \$177 | 0.03% | 0.00% | 0.00% | 0.00% | 0.00% | 0.03% |
| Houston MTA Workers Union Pension Plan | 12/31/2022 | \$291 | 0.03% | 0.09% | 0.00% | 0.00% | 0.00% | 0.11% |
| Houston Municipal Employees Pension System | 6/30/2022 | \$3,952 | 0.02% | 0.01% | 0.00% | 0.00% | 0.00% | 0.04% |
| Houston Police Officers' Pension System | 6/30/2022 | \$6,862 | 0.01% | 0.00% | 0.00% | 0.00% | 0.01% | 0.03% |
| Irving Firemen's Relief & Retirement Fund | 12/31/2022 | \$242 | 0.08% | 0.00% | 0.02% | 0.00% | 0.00% | 0.10% |
| Irving Supplemental Benefit Plan | 12/31/2022 | \$99 | 0.06% | 0.03% | 0.00% | 0.00% | 0.00% | 0.09% |
| JPS - Tarrant County Hospital District | 9/30/2022 | \$370 | 0.04% | 0.02% | 0.00% | 0.00% | 0.00% | 0.05% |
| | | | | | | | | |

| System | Fiscal Year End | Net Total Assets | Investment Consultant | Custodial | Legal | Research | Other | Total |
|--|--------------------|---------------------|--------------------------|-----------|--------|----------|-------|-------|
| Judicial Retirement System of Texas Plan Two | 8/31/2022 | \$566 | 0.01% | 0.00% | 0.00% | 0.00% | 0.00% | 0.01% |
| Killeen Firemen's Relief & Retirement Fund | 9/30/2022 | \$54 | 0.08% | 0.02% | 0.00% | 0.00% | 0.00% | 0.09% |
| Laredo Firefighters Retirement System | 9/30/2022 | \$180 | 0.05% | 0.02% | 0.00% | 0.00% | 0.00% | 0.07% |
| Law Enforcement & Custodial Off Sup. Ret. Fund | 8/31/2022 | \$1,042 | 0.01% | 0.00% | 0.00% | 0.00% | 0.00% | 0.01% |
| Longview Firemen's Relief & Retirement Fund | 12/31/2022 | \$86 | 0.11% | 0.00% | 0.00% | 0.00% | 0.00% | 0.11% |
| Lower Colorado River Authority Retirement Plan | 12/31/2022 | \$426 | | | Not Re | ported | | |
| Lower Neches Valley | 12/31/2022 | \$12 | Not Reported | | | | | |
| Lubbock Fire Pension Fund | 12/31/2022 | \$240 | 0.03% | 0.02% | 0.01% | 0.00% | 0.00% | 0.06% |
| Lufkin Firemen's Relief & Retirement Fund | 12/31/2022 | \$21 | 0.16% | 0.10% | 0.00% | 0.00% | 0.00% | 0.26% |
| Marshall Firemen's Relief & Retirement Fund | 12/31/2022 | \$8 | Not Reported | | | | | |
| McAllen Firemen's Relief & Retirement Fund | 9/30/2022 | \$53 | 0.22% | 0.16% | 0.03% | 0.00% | 0.00% | 0.40% |
| Midland Firemen's Relief & Retirement Fund | 12/31/2021 | \$94 | 0.06% | 0.01% | 0.03% | 0.01% | 0.00% | 0.10% |
| Nacogdoches County Hospital District | 6/30/2021 | \$51 | Not Reported | | | | | |
| Northeast Medical Center Hospital Retirement Plan | 6/30/2022 | \$4 | 0.00% | 0.64% | 0.00% | 0.00% | 0.00% | 0.64% |
| Northwest Texas Healthcare System Retirement Plan | 9/30/2022 | \$19 | 0.09% | 0.00% | 0.00% | 0.00% | 0.00% | 0.09% |
| Odessa Firemen's Relief & Retirement Fund | 12/31/2022 | \$44 | 0.12% | 0.03% | 0.00% | 0.00% | 0.00% | 0.15% |
| Orange Firemen's Relief & Retirement Fund | 12/31/2022 | \$8 | 0.30% | 0.08% | 0.00% | 0.00% | 0.00% | 0.37% |
| Paris Firefighters' Relief & Retirement Fund | 12/31/2022 | \$16 | 0.05% | 0.03% | 0.00% | 0.00% | 0.00% | 0.08% |
| Plainview Firemen's Relief & Retirement Fund | 12/31/2022 | \$7 | 0.62% | 0.00% | 0.00% | 0.00% | 0.00% | 0.62% |
| Plano Retirement Security Plan | 12/31/2022 | \$186 | 0.04% | 0.02% | 0.00% | 0.00% | 0.00% | 0.06% |
| Port Arthur Firemen's Relief & Retirement Fund | 12/31/2022 | \$49 | 0.15% | 0.02% | 0.00% | 0.00% | 0.00% | 0.17% |
| Port of Houston Authority Retirement Plan | 7/31/2022 | \$199 | 0.01% | 0.06% | 0.04% | 0.05% | 0.00% | 0.17% |
| Refugio County Memorial Hospital | 10/31/2022 | \$2 | 0.56% | 0.00% | 0.00% | 0.00% | 0.00% | 0.56% |
| Anson General Hospital | 6/30/2022 | \$1 | 0.03% | 0.01% | 0.00% | 0.00% | 0.00% | 0.04% |
| Citizens Medical Center | 2/28/2022 | \$150 | 0.02% | 0.01% | 0.00% | 0.00% | 0.00% | 0.03% |
| Employees of Brownsville Navigation District | 12/31/2022 | \$9 | Not Reported | | | | | |
| Guadalupe Regional Medical Center | 12/31/2022 | \$94 | 0.03% | 0.01% | 0.00% | 0.00% | 0.00% | 0.04% |
| Sweeny Community Hospital | 12/31/2022 | \$3 | 0.03% | 0.01% | 0.00% | 0.00% | 0.00% | 0.04% |
| San Angelo Firemen's Relief & Retirement Fund | 12/31/2021 | \$83 | 0.05% | 0.06% | 0.02% | 0.03% | 0.00% | 0.16% |
| San Antonio Fire & Police Pension Fund | 12/31/2022 | \$3,586 | 0.02% | 0.01% | 0.00% | 0.00% | 0.00% | 0.03% |
| San Antonio Metropolitan Transit Retirement Plan | 9/30/2022 | \$322 | 0.03% | 0.01% | 0.00% | 0.00% | 0.00% | 0.04% |
| San Benito Firemen Relief & Retirement Fund | 9/30/2022 | \$4 | 0.22% | 0.28% | 0.00% | 0.00% | 0.00% | 0.49% |
| Sweetwater Firemen's Relief & Retirement Fund | 12/31/2022 | \$8 | 0.18% | 0.22% | 0.00% | 0.00% | 0.00% | 0.40% |
| Teacher Retirement System of Texas | 8/31/2022 | \$184,186 | 0.06% | 0.03% | 0.00% | 0.00% | 0.00% | 0.09% |
| Temple Firemen's Relief & Retirement Fund | 9/30/2022 | \$47 | 0.11% | 0.05% | 0.00% | 0.00% | 0.00% | 0.16% |
| Texarkana Firemen's Relief & Retirement Fund | 12/31/2022 | \$37 | 0.05% | 0.04% | 0.00% | 0.00% | 0.00% | 0.09% |
| Texas City Firemen's Relief & Retirement Fund | 12/31/2022 | \$15 | 0.18% | 0.10% | 0.00% | 0.00% | 0.00% | 0.28% |
| Texas County & District Retirement System | 12/31/2022 | \$41,969 | 0.01% | 0.00% | 0.00% | 0.00% | 0.02% | 0.03% |
| Texas Emergency Services Retirement System | 8/31/2022 | \$124 | 0.09% | 0.03% | 0.00% | 0.00% | 0.00% | 0.13% |
| Texas Municipal Retirement System | 12/31/2022 | \$35,600 | 0.00% | 0.00% | 0.00% | 0.00% | 0.02% | 0.03% |
| The Woodlands Firefighters' Retirement System | 12/31/2022 | \$56 | 0.07% | 0.04% | 0.00% | 0.00% | 0.00% | 0.11% |
| Travis County ESD #6 FRRF | 12/31/2022 | \$40 | 0.15% | 0.09% | 0.00% | 0.00% | 0.00% | 0.24% |
| Tyler Firefighters' Relief & Retirement Fund | 12/31/2022 | \$75 | 0.13% | 0.09% | 0.00% | 0.00% | 0.00% | 0.22% |
| University Health System Pension Plan | 12/31/2022 | \$527 | 0.07% | 0.01% | 0.00% | 0.00% | 0.00% | 0.09% |
| University Park Firemen's Relief & Retirement Fund | 12/31/2021 | \$13 | 0.20% | 0.10% | 0.00% | 0.00% | 0.00% | 0.30% |
| Waxahachie Firemen's Relief & Retirement Fund | 9/30/2022 | \$19 | 0.08% | 0.05% | 0.00% | 0.00% | 0.00% | 0.13% |
| Weslaco Firemen's Relief & Retirement Fund | 9/30/2022 | \$15 | 0.56% | 0.00% | 0.00% | 0.00% | 0.00% | 0.56% |
| Wichita Falls Firemen's Relief & Retirement Fund | 12/31/2022 | \$51 | 0.05% | 0.00% | 0.00% | 0.00% | 0.00% | 0.05% |

Investment Policy Statement



Investment Policy Statement Background

- At its July 14, 2022, meeting, the board tasked the Investment Committee to work with PRB staff to develop guidelines on investment matters as laid out under Section 802.109, Texas Government Code (IPPE statute).
- Staff focus on investment policy statements (IPS)
 - Foundational document for systems' investment programs
- Project goal: Analyze and consolidate best practices to assist systems in ensuring a high-quality IPS that meets their needs and helps them achieve their goals.



IPS Guidelines, Guidance, Tools and Templates

IPS Guidelines

Combination of GFOA and CFAI best practices

Takes into consideration funding policy, investment practices, and benefits.

Based on best practices, expert recommendations found in IPPE reports and governing statutes

Guidance

Elaborates on the identified industry best practice policies

A resource for constructing policies

Tools and Templates

Useful for evaluating current IPS documents periodically

Example policy language provides a starting point in drafting language and a document specific to a system's needs.



Next steps on Guidelines, Guidance, and Tools/Templates

- Feedback period ended <u>Feb 23, 2024.</u>
- Staff is reviewing feedback and following up with certain systems regarding input.
- Staff will work to revise materials using stakeholder and committee feedback.
- Present revisions at May 2, 2024, Investment Committee meeting.
- Propose final draft for possible adoption by the board at a future meeting.





Investment Policy Statement Guidelines

State law requires Texas public retirement system governing bodies in management of their investments to develop and adopt a written investment policy. This policy must be maintained for public review and filed with the Pension Review Board (PRB). ¹

The PRB provides these guidelines to assist systems in developing and maintaining a complete, well-developed investment policy statement (IPS) consistent with various industry best practices. They offer a high-level overview and minimum framework but also allow flexibility for systems and their investment consultants, advisors, and/or investment staff to construct an IPS that fits their needs. A complete, well-developed IPS forms the foundation of any well-managed investment program and establishes clear goals and direction. The IPS aids trustees in understanding the expectations of various roles involved in investing a system's assets. Clearly articulated roles and responsibilities in the IPS also ensure continuity between outgoing and newly appointed trustees.

An IPS may contain sections and language that are very similar among Texas retirement systems. However, each system will naturally have some differences based on their unique needs and decisions and need to tailor their IPS to reflect those differences. The following recommended policy categories reflect accepted industry best practices established by the Chartered Financial Analyst Institute and the Government Finance Officers Association as well as investment expert reports analyzing Texas retirement system investment practices and performance summarized in the PRB's 2020 Investment Performance Report. References are listed at the end of this document.

A thorough investment policy statement should contain the policies listed below.

- 1. Fund mission or goals
- 2. Roles and responsibilities
- 3. Investment objective
- 4. Liquidity
- 5. Risk tolerance
- 6. Investment assets
- 7. Proxy voting²
- 8. Performance evaluation
- 9. Cost management
- 10. Investment manager selection and monitoring
- 11. Ethics

¹ Sec. 802.202. Texas Government Code

² While not all systems pursue investments that have proxy voting rights, every system should have a policy in place acknowledging its approach to proxy voting, even if the investment practice is to not invest in assets with proxy voting rights.

Governance procedures based on best practices and state law

- 1. The system's board should periodically review the IPS and related governing documents at least every two years if not annually and should re-adopt them at least every five years. By statute, changes to an IPS are required to be filed with the PRB not later than 90 days after the change is adopted.³
- 2. The board should acknowledge and consider both the individual system's pension funding constraints and benefit payment requirements when creating the IPS.
- 3. The IPS should document existing practices for future trustees' benefit and overall investment program continuity.
- 4. The system is required by statute to make the IPS available on a publicly available website and make a physical copy available at a system's main office.⁴



³ Sec. 802.202, Texas Government Code

⁴ Sec. 802.202

Reference Materials

Bailey, J & Richards, T (2017). A Primer for Investment Trustees: Understanding Investment Committee Responsibilities

Chambers, D, Black, K & Lacey, N (2018). Alternative Investments: A Primer for Investment Professionals Drew, M & Walk, A (2019). Investment Governance for Fiduciaries

Stewart, Scott (2013). Manager Selection

Government Finance Officers Association (GFOA), *Adopting Financial Policies*, accessed November 5, 2023, https://www.gfoa.org/materials/adopting-financial-policies

GFOA, *Investment Policies for Defined Benefit Plans*, accessed November 5, 2023, https://www.gfoa.org/materials/investment-policies-for-defined-benefit-plans

GFOA, *Investment Fee Guidelines*, accessed November 5, 2023, https://www.gfoa.org/materials/investment-fee-guidelines

GFOA, Alternative Investments Checklist, accessed November 5, 2023, https://gfoaorg.cdn.prismic.io/gfoaorg/7f4e42b6-8b46-4124-b62d-93d76fd9fe24 Alternative Investments Checklist.pdf

GFOA, *GFOA Sample Investment Policy*, accessed November 5, 2023, https://gfoaorg.cdn.prismic.io/gfoaorg/76b137b8-17e3-42bd-ae9f-7f7be8be50bd GFOA sample investment policy.pdf



Guidance for Developing Investment Policy Statements

This guidance is intended to provide more in-depth descriptions of the high-level policies identified and recommended in the Guidelines for Investment Policy Statements. Some of the policies described below may not be necessary for all systems and are for unique situations, such as systems with specific governing laws or those with more complex investments. These types of policies are distinguished by the designation "(if appropriate)." Similar to the Guidelines for Investment Policy Statements, this guidance reflects accepted industry best practices established by the Chartered Financial Analyst Institute and the Government Finance Officers Association as well as investment expert reports analyzing retirement system investment practices and performance summarized in the PRB's 2020 Investment Performance Report. Examples of these policies and a glossary of common terms can be found in the PRB Investment Policy Statement Example document.

Description of each type of recommended policy:

- 1. **Fund mission or goal:** This section states the foundational beliefs, purpose of the fund, and any laws that govern the fund.
 - a. State fund mission that acknowledges all relevant parties This section at its core can appear obvious; however, a holistic view of the defined benefit fund is encouraged. A holistic view considers all parties involved including active members, retired members, and the system's sponsor. It should also define the goals related to the benefits being provided, such as providing benefits that are both equitable and serve as an employer retention tool. This section should reference the system's funding policy and recognize the sponsor as an integral part of meeting the fund's mission to pay benefits.
 - b. State investment program purpose This section should also focus on the specific purpose of the investment program.

Fiduciary Responsibility

In making and supervising investments of the reserve fund of a public retirement system, an investment manager or the governing body shall discharge its duties solely in the interest of the participants and beneficiaries:

- Providing benefits to participants and their beneficiaries; and
- Defraying reasonable expenses of administering the system

- c. (If appropriate) Reference relevant governing statutes.
- 2. **Roles and responsibilities:** This section specifies the parties involved in the investment program and describes each party's responsibilities.
- a. Identify fiduciary standards and related requirements Various roles will follow certain fiduciary responsibilities and prudent investor standards consistent with applicable statute, as described in the textbox.¹
- b. List the important roles and define corresponding responsibilities This policy should thoroughly cover the responsibilities of all major parties such as the board trustees, investment consultants, investment managers, custodians, and others. It should also define their levels of

¹ Sec. 802.203, Texas Government Code

- authority and reporting requirements and include clear descriptions for monitoring and accountability of the assigned responsibilities. With these important roles clearly defined, the IPS helps provide continuity of the investment program by ensuring this important information can be passed on to future trustees.
- c. Describe how a role is reviewed Role policies should include a description of how roles will be reviewed including what metrics will be used, how frequently they will be reviewed, and who is responsible for reviewing the results.
 - Example: "The consultant will use the IPS-specified performance metrics to review investment managers quarterly and present to the board for review."
- d. Document the frequency of competitive procurement For third-party consultants and other relevant service providers, the policy should provide for a regular competitive procurement process, typically every 3-5 years. Regular re-procurement helps ensure quality services for a competitive cost.
- 3. Investment objective: This policy defines the focus of the investment program using objective goals that can be measured and monitored. These objectives can be both short-term and long-term in nature and should be used to evaluate the overall success of the investment program. Examples of investment objectives are listed in the textbox, Example Investment Objectives.
 - a. Document the investment objective The goal or should be actionable, attainable, unambiguous, and specified in advance. See examples in the textbox.
- 4. Liquidity: Liquidity policies can influence different aspects of a pension fund depending on the specific funding situation. For example, mature plans will require more cash flow liquidity to make benefit payments. A liquidity policy can be a subsection to a larger policy such as risk tolerance or investment assets—but may be a significant enough factor to merit a dedicated policy section.
 - a. Liquidity as a standalone policy This section
 - should include procedures for staff or the system to notify investment managers of expected future distribution needs, fund liquidity level requirements, illiquid investment restrictions, and notification policies or actions that the fund will take in the case of insufficient liquid assets.
 - b. Liquidity as a relevant subsection to another policy Since the term liquidity can have different meanings in investments and in terms of pension funds, subsections can sometimes be a better option.
- 5. **Risk tolerance:** This policy defines the risks that the fund accepts in exchange for investment returns. Identifying acceptable risk can be done in several ways, which may include risk budgeting, statements accepting market volatility in exchange for believed higher returns over the long term, risk measures or metrics, and diversification goals. The goal of this section is to identify the risk factors that could impede success and how the system will ensure the risk is monitored and managed. This policy should:
 - a. Identify risk factors Examples can include market risk, economic risk, interest rate risk,

Example Investment Objectives

- Achieve a long-term rate of return that exceeds the assumed actuarial rate of return.
- The fund's nominal net of fee return should meet or exceed the investment return assumption of 7 percent over a rolling five-year period.
- The actively managed investments performance should net return 1 percent alpha (excess return over a benchmark).

- inflation risk, and credit risk.²
- b. Define risk metrics Examples can include standard deviation, expected volatility, value-at-risk (VaR), and drawdown risk.
- c. (If appropriate) Liquidity Depending on the funding level or cashflow requirements to meet benefit payments, adequate liquidity levels might be a significant risk that requires detailed policies and monitoring.
- 6. **Investment assets:** This policy describes the asset classes considered investable by the fund and determines what percentage the fund will invest in each asset class, also known as the asset allocation. Refer to the example IPS document for more information and an example asset allocation. Assets can be grouped in different ways by various distinctions. However, the most common asset classes include equities, fixed income, real assets, alternatives, and cash. The policy should:
 - a. Establish investable asset classes Specify asset class allocation targets and rebalancing ranges.
 - b. Specify portfolio process Establish portfolio asset allocation target determination process and frequency of review.
 - c. (If appropriate) Define expected volatility and risk levels, including expected volatility and risk levels in any asset allocation target tables.
 - d. (If appropriate) Specify how often an asset liability study is to be performed, with every three to five years as industry best practice.
 - e. (If appropriate) If investing in alternative assets, document additional policies, such as legal reviews, valuation methodologies, liquidity, and others.
 - f. (If appropriate) Document any cash flow or liquidity concerns or needs that would impact the investment options or allocation.
- 7. **Proxy voting:** Systems that have investment proxy voting rights should include this policy in the IPS. A proxy policy should state which party is responsible for voting, define guidelines or limitations that must be followed, and specify notification/reporting procedures to the board on votes placed. If a system chooses not to have investments with proxy voting rights and therefore has no related guidelines or procedures, the IPS should still include this section to state this fact.
- 8. **Performance evaluation:** This section describes how the system's board will assess the success of the investment program and use that information to improve future decision making. The evaluation of performance can be delegated to a third party such as an investment consultant, who can consolidate, validate, analyze, and present the findings to the system's board.
 - a. Specify metrics Time-weighted, or internal rate of returns (TWR, IRR). Net of fee returns should always be provided, and gross returns are optional.

3

² PRB, *MET Investments Course*, accessed November 5, 2023, https://education.prb.texas.gov/course/investments/

- Identify benchmarks An acronym to use when identifying benchmarks is SAMURAI.
 See the textbox, SAMURAI, for a description of each aspect of benchmarks meeting this standard.
- c. Cost management This section can be written as a standalone section or as subsection to the performance evaluation policy. In any case, it should require that that both direct and indirect fees be monitored and specify frequency of review. The policy should include:
 - Reporting requirements of investment expenses, both net and gross of fees.
 - ii. Statutory reporting requirements –
 Texas retirement systems are required to report investment expenses in their annual financial reports. As a result, a fee policy should be tailored to capture and use the required information. This policy should require that both direct and indirect fees be evaluated and indicate the party responsible for providing this information.³

<u>SAMURAI</u>

- Specified in advance The benchmark should be specified prior to evaluation.
- Appropriate The benchmark should be a good proxy for the investment and its characteristics.
- Measurable The benchmark should be easily calculable and available.
- Unambiguous The benchmark should be clearly understood by all parties involved.
- Reflective of current investment opinion
 The benchmark should match the investment style deployed by the fund.
- Accountable The benchmark should be accepted as appropriate by the party who is ultimately accountable for the investment's performance.
- Investable The benchmark should be purchasable or able to passively replicate.
- d. (If appropriate) Performance attribution This policy would specify if performance attribution should be required with performance evaluations. These additional details can be extremely useful for a board to understand investment performance while making it easier to engage investment staff or consultants on potential actions.
- e. (If appropriate) Performance appraisal and active vs. passive This policy would focus on evaluating investment managers' ability to deliver alpha using metrics and excess return analysis. The policy could include procedures to review active managed investments vs. passive investment alternatives.
- 9. **Investment manager selection and monitoring:** Investment managers are those who manage a portion of the system's assets. As such, the IPS should include policies to specify the due diligence necessary to ensure those assets are invested in the best interest of fund. As conducting investment manager due diligence is a skilled practice, it is highly encouraged that systems that lack internal expertise rely on a third-party consultant with relevant expertise to create or provide policies and guidance to govern the process.⁴
 - a. Selection criteria Include qualitative, quantitative, or other factors.

³ <u>Sec. 802.103, Texas Government Code, 40 TAC, §609.105(9)</u>

⁴ Secs. 802.204-802.207, Texas Government Code

- b. Procedure and metrics used for monitoring Use benchmarks established in the performance evaluation section. Performance should be reviewed at least quarterly.
- c. Compliance Review compliance with all applicable laws, fund guidelines, and monitoring policies.
- d. Watch list policy Include a watch list process in the policy as part of the monitoring process for investment managers. This type of policy allows a system to notify managers of their watch list status, which occurs when performance deficiencies or other issues arise that can lead to termination and withdrawal of assets. This process may include:
 - i. A notification to the investment manager of their placement on the watch list and the reason for the decision.
 - ii. A request for the manager to respond or provide any qualitative or quantitative analysis regarding the underlying issue.
 - iii. A contingency to research alternative investment opportunities if the investment manager is terminated.
 - iv. A requirement to review watch list managers every year to decide on removing, maintaining watch list status, or terminating.
- 10. **Ethics:** A section can be created to outline the core ethical principles that all parties should follow. Alternatively, this section may reference an additional document the system maintains, such as a code of conduct or broader ethics policy. These types of polices help clarify acceptable practices and document the core ethical beliefs trustees and other third parties will follow.



Investment Policy Statement Review Tool

| investment Foncy Statement Neview 1001 | | | | | | | |
|--|------------|--|---------------------------|---------------|--|--|--|
| | | Policy | Does policy exist? Y/N | Action needed | Status (such as in progress, complete, etc.) | | |
| 1. | <u>Fun</u> | d mission or goal | | | | | |
| | a. | Acknowledge relevant parties | | | | | |
| | b. | Stated purpose | | | | | |
| | c. | (If appropriate) Reference relevant governing statutes | | | | | |
| 2. | Role | s and responsibilities | | | | | |
| | a. | Identify fiduciary standards and related requirements | | | | | |
| | b. | List of important roles and define responsibilities | | | | | |
| | c. | <u>Describe how a role is reviewed</u> | | | | | |
| | d. | Document the frequency of competitive procurement | | | | | |
| 3. | Inve | stment objective | | | | | |
| 4. | Liqu | <u>idity</u> | | | | | |
| 5. | Risk | <u>tolerance</u> | | | | | |
| | a. | <u>Identify risk factors</u> | | | | | |
| | b. | <u>Define risk metrics</u> | | | | | |
| | c. | (If appropriate) Liquidity | | | | | |
| 6. | Inve | stment assets | | | | | |
| | a. | <u>Establish investable asset classes</u> | | | | | |
| | b. | Specify portfolio process | | | | | |
| | c. | (If appropriate) Expected volatility and risk levels | | | | | |
| | d. | (If appropriate) Asset liability study | | | | | |
| | e. | (If appropriate) Alternative investments | | | | | |
| | f. | (If appropriate) Cash flow and liquidity | | | | | |
| 7. | Prox | ry voting | | | | | |
| 8. | Perf | ormance evaluation | | | | | |
| | a. | Specify metrics | | | | | |
| | b. | <u>Identify benchmarks</u> | | | | | |
| | c. | <u>Cost management</u> | | | | | |

| | d. (If appropriate) Performance attribution | | | | |
|-----|--|-----------------------------|------------------|-------------------------------------|--|
| | e. (If appropriate) Performance appraisal and active vs. passive | | | | |
| 9. | Investment manager selection and monitoring | | | | |
| | a. <u>Selection criteria</u> | | | | |
| | b. <u>Procedure and metrics used for monitoring</u> | | | | |
| | c. <u>Compliance</u> | | | | |
| | d. <u>Watch list policy</u> | | | | |
| 10. | <u>Ethics</u> | | | | |
| | Governance Procedures | Procedure Completed? Y/N | Action Needed | Policy Creation or Update Status | |
| | IPS reviewed within last 2 years and reapproved within the last 5 years with documented changes filed with the PRB | | | | |
| | The IPS consider both pension funding constraints and benefit liabilities | | | | |
| 3. | Existing practices are documented | | <u> </u> | | |
| | The IPS document is on a publicly available website and a physical copy is available at the main office | | | | |
| Boa | ard Meeting Date: | IPS Last Approved Date: | | | |
| Con | nments and Notes | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
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Investment Policy Statement Example

Overview

The Guidance for Developing an Investment Policy Statement, adopted by the Pension Review Board (PRB), provides a description of policies and sections that systems are encouraged to include in their investment policy statement (IPS), as applicable. This IPS example is an additional reference tool provided by the PRB to demonstrate what each type of policy might look like in an IPS. This document is not intended to be a fully functioning IPS since certain policy sections have been shortened for brevity and each IPS should be tailored to each system's needs. Furthermore, this IPS example is not intended to replace any system's existing IPS, but systems may use it as a starting point of a new IPS or to develop new policy language to update an existing policy.

This document contains example language from industry entities such as the Government Finance Officers Association (GFOA) and the Chartered Financial Analyst Institute (CFAI). Specific references are provided at the end of this document. The PRB also used policy language from actual IPS documents adopted by several Texas public retirement systems including, but not limited to, the Texas Municipal Retirement System (TMRS), Texas County and District Retirement System (TCDRS), Teacher Retirement System of Texas (TRS), City of Austin Employees' Retirement System (COAERS), Irving Firemen's Relief and Retirement Fund, City of El Paso Employees Retirement Trust, and Abilene Firemen's Relief and Retirement Fund, among others. In addition, a glossary of common terms used in IPS documents can be found at the end of this example IPS as an additional resource.

Example Language

I. Fund Mission

The investment policy statement (IPS) governs the pension system investment program and is established to provide a framework for management of those assets to conform with governing legislation and other legal requirements. This IPS outlines the foundational beliefs, purpose, objectives, benchmarks, restrictions, risks, and responsibilities of the board, staff, investment managers, service providers, sponsoring entity, members, and other stakeholders in how they impact the investment program.

The board has a fiduciary duty to the members and beneficiaries of the system to prudently allocate contributions from the sponsoring governmental entity and system members in accordance with the IPS to pay future benefits. The investment program relies on incoming funds in accordance with the established funding policy to meet a reasonable investment return assumption that matches future benefits.

II. Roles and Responsibilities

All parties involved in the investment program will act responsibly in accordance with their fiduciary duty and standards of care.¹

Prudence: The standard of prudence to be used by investment officials shall be the Uniform Prudent Investor Act standard and shall be applied in the context of managing an overall portfolio. Investment officers acting in accordance with written procedures, this investment policy, and exercising due diligence, shall be relieved of personal responsibility for an individual security's credit risk or market price changes, provided deviations from expectations are reported in a timely fashion and the liquidity and the sale of securities are carried out in accordance with the terms of this policy.

Ethics and Conflicts of Interest: Officers and employees involved in the investment process shall refrain from personal business activity that could conflict with the proper execution and management of the investment program, or that could impair their ability to make impartial decisions. Employees and investment officials shall disclose any material interests in financial institutions with which they conduct business, in accordance with applicable laws. They shall further disclose any personal financial or investment positions that could be related to the performance of the investment portfolio. Trustees and investment officials shall refrain from undertaking personal investment transactions with the same individual with whom business is conducted on behalf of the system.

- 1. The board of trustees is ultimately responsible for the administration of the system and its investment program assets following governing statute and applicable law. The board establishes investment objectives and policy, contracts with experts for advice and expertise, oversees the distribution of benefit payments, actively monitors investment performance, and as part of its fiduciary duty, ensures any delegated authority of investment assets are invested in accordance with the Prudent Investor Act. The board's fiduciary duty can be delegated to service providers but the board is ultimately responsible for monitoring the investment program. The board:
 - a. Establishes the fund mission, investment objectives, and investment philosophy consistent with the funding policy.
 - b. Creates and maintains a written IPS consistent with the identified mission and objectives and applicable laws.
 - c. Approves an investment asset allocation that diversifies the assets to reduce risk of loss.
 - d. Monitors and evaluates the system's investment performance and compliance with provisions outlined in the IPS or manager contracts and all applicable state or federal laws.
 - e. Efficiently manages the costs associated with implementation of its investment program.
 - f. Periodically reviews the performance of all service providers that directly report to the board including investment staff, investment managers, investment consultants, and custodians.
- 2. The **investment consultant** is hired by, and reports to, the board. The consultant provides advice and expertise on all investment-related matters, including:
 - a. Developing investment objectives and relevant policies.
 - b. Determining optimal asset allocation targets and investment strategies.
 - c. Leading investment manager searches, selection process, monitoring, and termination

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¹ Sec. 802.203, Texas Government Code

- following the policies outlined in the IPS.
- d. Providing monthly investment performance reports net of fees and liquidity status.
- e. Providing quarterly reviews of investment fees incurred.
- f. Providing the board with educational opportunities to improve trustees' investment knowledge.
- g. Reviewing the IPS annually and providing the board any suggestions for improvement.
- 3. The **investment managers** are retained by the board to manage or advise on specific strategies and asset classes, through a manager search process and according to specific criteria as set forth in this IPS. The manager must be registered under the Investment Advisers Act of 1940 and remain in good standing with all applicable laws. Investment managers:
 - a. Manage allocated assets in accordance with the policy guidelines and objectives as set forth in the investment management agreement between the manager and the board.
 - b. On a quarterly basis, provide a written report affirming compliance with the policy guidelines and any separate written agreement with the board.
 - c. On a quarterly basis, provide a report detailing the performance of allocated assets, a forecast of the market and economy, and portfolio analysis of invested assets.
 - d. Provide immediate written notice to the system of any significant market related or non-market related event that has impacted or may impact investment objectives.
- 4. The custodian bank serves as the master custodian of the system's assets and is responsible for maintaining the official book of record under the supervision of the board, calculating investment performance, and using the system's assets in accordance with the terms of a separate agreement.

III. Investment Objectives

The investment objective is to maximize the probability of achieving the actuarial return assumption without exceeding the risk tolerance specified by the board. The actuarial consultant's recommended return assumption for the system should be created after consulting with the system's investment consultant to determine appropriate expectations surrounding long-term investment returns for a well-diversified investment portfolio considering system future liabilities.

- 1. The investment assets nominal net of fee return should meet or exceed the return assumption of 7 percent over a rolling five-year period. The total fund portfolio performance will be compared using the relative benchmarks and asset weights specified in the IPS.
- 2. The actively managed investment performance should net return 1 percent alpha (excess return over the specified benchmark).

IV. Liquidity

The investment portfolio shall remain sufficiently liquid to meet all operating requirements that may be reasonably anticipated. This is accomplished by structuring the portfolio so that securities mature concurrent with cash needs to meet anticipated demands (static liquidity). Furthermore, since all possible cash demands cannot be anticipated, the portfolio should consist largely of securities with active secondary or resale markets (dynamic liquidity). Alternatively, a portion of the portfolio may be placed in

money market mutual funds or local government investment pools which offer same-day liquidity for short-term funds.

The investment consultant is responsible for monitoring and providing a liquidity report monthly to the board. As liquidity can vary by asset class and investment vehicle, the board shall limit portfolio asset investments based on redemption periods. The consultant will provide notice of known distribution liquidity needs to the investment managers in advance.

- 1. No more than 60 percent of the portfolio can be invested in vehicles that provide liquidity on a greater than annual basis.
- 2. No more than 20 percent of the portfolio can be invested in vehicles that provide liquidity on a greater than three-year lock-up period.

V. Risk Tolerance

The investment consultant will establish a framework for measuring the total fund portfolio and the policy benchmark. At a minimum, this framework must include a quantitative risk assessment for downside risk (e.g., value-at-risk (VaR), estimated shortfall, or various parametric and non-parametric statistics).

Investments shall be undertaken in a manner that seeks to ensure the preservation of capital in the overall portfolio. The objective will be to mitigate market risk, credit risk, inflation risk, and interest rate risk.

Market Risk

The system will minimize market risk, which is the risk that prices for stocks, bonds, and other assets may fall, by:

- Limiting investments to the types of securities listed in Section VI of this investment policy.
- Pre-qualifying and conducting ongoing due diligence of the financial institutions, broker/dealers, intermediaries, and advisers with which the system will do business in accordance with Section VI.
- Diversifying the investment portfolio so that the impact of potential losses from any one type of security or from any one individual issuer will be minimized.

2. Credit Risk

The system will minimize credit risk, which is the risk of loss of all or part of the investment due to the failure of the security issuer or backer, by:

- Limiting investments to the types of securities listed in Section VI of this investment policy.
- Pre-qualifying and conducting ongoing due diligence of the financial institutions, broker/dealers, intermediaries, and advisers with which the system will do business in accordance with Section VI.
- Requiring a minimum credit quality for certain investments and counterparties in accordance with Section VI.
- Diversifying the investment portfolio so that the impact of potential losses from any one type of security or from any one individual issuer will be minimized.

3. Interest Rate Risk

The system will minimize interest rate risk, which is the risk that rising of falling interest rates will reduce the value of the system's assets, by:

- Structuring the investment portfolio so that security maturities match cash requirements for ongoing operations, thereby avoiding the need to sell securities on the open market prior to maturity
- Investing operating funds primarily in shorter-term securities, money market mutual funds, or similar investment pools and limiting individual security maturity as well as the average maturity of the portfolio in accordance with this policy.

VI. Investment Assets

The board recognizes that the asset allocation decision will be the single most important factor determining the long-term performance of the fund. The board therefore wishes to retain complete discretion with respect to the asset allocation decision. Investment managers are expected to manage the funds for which they have been allocated at their discretion within the constraints of their mandates.

The current needs of the fund require a diversified portfolio, and the asset allocation percentages specified in this section are determined by the board as the optimal allocation for the fund. The determination of the optimal allocation is reviewed annually and is based on the advice of the investment consultant and available asset-liability studies that should be performed every 3-5 years. The fund's time horizon is long-term, and the allocation considers the various preferences, risk tolerances, return objective, and the desired diversification from this IPS.

Strategic Asset Allocation

| Asset Class | Minimum Range | Strategic Target | Maximum Range |
|-------------------------|---------------|------------------|---------------|
| Public Equity | 40% | 50% | 60% |
| Fixed Income | 15% | 30% | 40% |
| Real Assets | 5% | 10% | 15% |
| Alternative Investments | 5% | 10% | 15% |
| Cash | 0% | 0% | 5% |

Rebalancing Policy

The goal of the rebalancing policy is to maintain the board-approved strategic allocation and its risk-to-return profile. The board has delegated rebalancing to the investment consultant which will review allocation levels for rebalancing at least quarterly.

Authorized Investments

1. Public Equity

- a. Investments in public equity securities must be traded on a national exchange or electronic network.
- b. No more than 5 percent of the system's total assets may be invested in the common stock, capital stock or convertible stock of any single issuing company. Additionally, the aggregate investment in any single company shall not exceed 5 percent of the outstanding capital stock of that company.

c. Investable options:

- i. Index fund, mutual fund, common stocks, exchange traded funds (ETFs), preferred stocks, or broad market benchmarks
- ii. Active and passive commingled funds
- iii. Separately managed accounts for actively managed, rules-based, passively managed, or custom strategies.
- iv. Other equity instruments including exchange-traded futures, options, or other derivatives are permitted only with approval from the board.

2. Fixed Income

- a. Domestic and Yankee Bonds, mortgages and mortgage-backed securities, asset-backed securities, global corporate bonds, global sovereign debt, fixed income futures, interest rate futures.
- b. No more than 5 percent of the fund' total assets may be invested in the securities of any single corporate issuer.
- c. All securities must be rated at least B- or equivalent.
- d. Competitive bids shall be obtained from at least three brokers or financial institutions on all purchases and sales of investment instruments transacted on the secondary market if possible.

3. Real Assets

a. Inflation-linked securities, commodities, REITS, real estate, listed infrastructure, natural resources.

4. Alternative Investments

a. Private equity, hedge funds, private real estate

5. **Cash**

a. Custodian bank STIF vehicles, AAA rated money market mutual funds, US Treasuries with maturity less than 365 days.

Alternative Investment Legal Requirements

Due to the unique nature of alternative investments, all investment entry documents, and any accompanying side letters will be reviewed by the system's contracted legal counsel to determine if the documents are sufficient for the system's legal requirements and needs. An alternative investment may not be made if certain legal requirements cannot be satisfied and the system is not willing to assume the legal exposure.

Alternative Valuation Policy

Due to certain alternative investment pricing limitations and complexities, the board will delegate to the investment consultant confirmation of compliance with industry best practice valuation procedures on an annual basis.

For all real estate investments, the investment consultant will confirm compliance with industry best practices. These investments should preferably have quarterly valuations, but valuations must be conducted no less than semi-annually. Exceptions to this policy can be approved by the board, such as for non-stabilized properties which include but are not limited to those under construction or renovation as well as land held for future expansion or entitlement.

1. Valuation Requirements – The scope must be sufficient to demonstrate that the value of each property held has been appropriately determined. The scope should include, but not be limited,

to the following:

- a. Must have and follow their own written valuation policies.
- b. Must notify the system in writing if the internal valuation policy is changed.
- c. Must be appropriate, established valuation techniques.
- d. Valuation process oversight, review, and approval must be independent of the portfolio manager with approval so documented.
- e. Sufficient documentation for real estate auditors to recompute the calculations during audit.
- f. Reconciliation of any significant variance from the previous appraisal.

VII. Proxy Voting

The board by default does not intend to invest in investment vehicles that provide proxy voting rights; however, when applicable, the investment manager is granted the authority to represent the system and shall vote shares in the best interest of the fund and its beneficiaries. A listing of all proxy votes showing the date each proxy was voted, the issue as to which each proxy was voted, and how each proxy was voted shall be provided to the board at least annually. If a proxy was not voted, the investment manager will provide a written statement indicating the reason that a particular proxy was not voted to the board as soon as reasonably practicable.

VIII. Performance Evaluation

Performance measurement will be based on total rate of return and will be monitored over a sufficient period to reflect the investment expertise of the manager(s) over one full market cycle, or five years, whichever is less. Performance results and evaluation relative to objectives will be reported to the board on a quarterly basis. A time-weighted return formula (which minimizes the effect of contributions and withdrawals) will be utilized in performance calculations. For alternatives, time-weighted returns will be used for consolidated reporting; however, internal rates of return and comparison to relevant peer groups and vintages will be used for evaluation of managers.

Asset Class Benchmarks

| Asset Class | Policy Benchmark | Asset Class Goal | Strategic Target |
|-------------------------|---|--|------------------|
| Public Equity | MSCI ACWI IMI (Net) | Benchmark | 50% |
| Fixed Income | Bloomberg Barclays US Aggregate Bond Index | Benchmark | 30% |
| Real Assets | Real Estate – (NCREIF-ODCE Index) Real Assets – (Rollup of underlying manager benchmarks) | Real Estate – (CPI+5%) Real Assets – (CPI+4%) | 10% |
| Alternative Investments | Hedge Funds – (HFRI FoF) Private Equity – (Rollup of underlying manager benchmarks) | Russel 3000 + 3% | 10% |
| Cash | 30-Day T-Bill | Benchmark | 0% |

Marking to Market

The market value of the portfolio shall be calculated at least quarterly [or monthly] and a statement of the market value of the portfolio shall be issued at least quarterly [or monthly]. This will ensure that review of the investment portfolio, in terms of value and price volatility, has been performed consistent with the GFOA Recommended Practice on "Mark-to-Market Practices for State and Local Government Investment Portfolios and Investment Pools." In defining market value, considerations should be given to the GASB Statement 31 pronouncement.

Quarterly Report

Each quarter, the investment consultant will prepare a report that compares the performance of the total investment fund against the benchmarks for the preceding quarter, fiscal year-to-date and annualized periods. The report shall provide the current allocation to each strategy and asset class. The report will also provide a synopsis of the performance of each active manager and a list of currently scheduled commitments or redemptions, if any, as well as any activity for the preceding quarter. Performance attribution analysis shall be provided that will show the impact of any asset class divergences over the past quarter and year as well as the performance of active managers.

The investment consultant should provide the report to the board and any investment committee. The report will include the following:

- 1. Listing of individual securities held at the end of the reporting period including type, acquisition cost, book cost, and market value.
- Realized and unrealized gains or losses resulting from appreciation or depreciation by listing the
 cost and market value of securities over one-year duration that are not intended to be held until
 maturity (in accordance with Governmental Accounting Standards Board (GASB) requirements).
- 3. Average weighted return on investments as compared to applicable benchmarks.
- 4. Percentage of the total portfolio which each type of investment represents.
- 5. A statement that the investment portfolio is compliant with the investment policy and is meeting the investment policy objectives.

<u>Investment Expenses</u>

Each quarter, the investment consultant will prepare a report that reviews both the direct and indirect expenses against relevant benchmarks and peers for the preceding quarter, fiscal year-to-date and one-year. Total fund expenses compared to peers will be reviewed annually with recommendations for improvements or confirmation of reasonable expenses.

The report must show each investment's expenses, both direct and indirect, accrued or estimated for the applicable period if available. Alternative investments will show the most recent incurred expenses. The expenses incurred must be aggregated based on the type of fee incurred (e.g., management fee paid from trust, management fee netted from returns, commission/brokerage fees, and profit share carried interest) and by asset class.

IX. Investment Manager Selection and Monitoring

To better ensure that managers will successfully manage to the system's objectives for their specific mandates, the board supports disciplined processes for manager selection, monitoring, watch list, and termination. In addition, the manager selection process is intended to protect against unethical behavior

including bribery and corruption and contact between the board and managers during the search process that is related to the pending selection and intended to influence the search outcome. Contact will be limited during the search process and directed through the investment consultant or third-party provider assisting in the investment manager search. Direct inquiries by managers to individual board members regarding the investment program will be referred to the investment consultant. As the investment needs of the system are ever-changing, so are the criteria appropriate for the selection of investment managers. Additional criteria and/or amendments to these criteria may be made by the board when appropriate.

Investment Manager Selection Criteria

- 1. Manager candidates should have a real-time performance record of five years or more for the specific investment product that the system is seeking. However, recognizing that past performance is not indicative of future results and the fact that attractive opportunities may be available without this target, qualitative exceptions to this rule may be adopted by the board.
- 2. Manager candidates must have demonstrated a long-term record of superior performance.
- 3. Manager candidates must have registered with the U.S. Securities and Exchange Commission (SEC) as investment advisors or be exempt from registration.
- 4. Manager candidates should have a material amount of assets under management for that specific investment product unless a waiver is authorized by the board.

Alternative Investment Manager Selection Criteria

- 1. The general partners or sponsors of alternative investment funds must possess the management skill and industry knowledge to exercise influence or have an impact on the portfolio companies that the funds invest.
- 2. The contract terms must not grossly favor the general partners over the limited partners (investors).
- 3. Capital commitment by the general partners should be significant.

Watch List

A manager retention decision is very important to the continued success of a pension system's investment strategy. The Watch List Policy applies to managers in the following asset classes: public equities, fixed income, and real assets. The watch list may not necessarily lead to any needed action but rather is intended to place a manager under increased scrutiny based on failure to meet quantitative or qualitative standards.

Quantitative Factors Resulting in Watch List Additions

Several factors may contribute to a manager's over- or under-performance at any given time, such as: market dynamics, investment skill, and/or pure chance. Given this uncertainty, it is unwise to mandate termination purely for lagging performance at any specific point. The following represent guidelines to be used in making a recommendation to the Board with regards to placing a traditional asset class manager on the watch list:

- Test 1 If the manager's rolling, five-year return (net of fees) falls below the rolling, five-year benchmark return for three consecutive quarters.
- Test 2 If the manager's rolling, five-year return (net of fees) for three consecutive quarters ranks in the bottom third of the investment consultant's peer group universe.

At the discretion of the board, a manager may be included on the watch list based on these criteria. The board may place the manager on the watch list at any time. Once a manager is placed on the watch list for performance reasons, performance will be closely monitored and scrutinized. All the qualitative criteria should be reviewed along with an explanation of the underperformance from the manager. Additional actions could include meetings with the manager and a formal re-interview of the manager by the board.

The manager will continue to be closely monitored during the watch list period and will remain under scrutiny until the board and investment consultant agree that the quantitative and qualitative criteria for removal from the watch list have been satisfied. Generally, one period of a rolling, five -ear return above the benchmark or above the bottom third of the investment consultant's peer group universe following placement on the watch list will be required for a manager's removal from the watch list for performance reasons. The observation process will at this point begin again.

Qualitative Factors Resulting in Watch List Additions

A significant and potentially adverse event related, but not limited, to any of the following qualitative issues or events, will be considered a reason to add the manager to the watch list. Examples include, but are not limited to, these events:

- Violation of investment guidelines
- Deviation from stated investment style and/or shifts in the firm's philosophy or process
- Turnover of one or more key personnel
- Change in firm ownership or structure
- Significant loss of clients and/or assets under management
- Significant and persistent lack of responsiveness to client requests
- Litigation
- Failure to disclose significant information, including potential conflicts of interest
- Chronic violations of the system's investment policy
- Any other issue or situation of which the board, the investment consultant and/or trustees become aware that is deemed material

Should any of these events occur, the recommended courses of action are similar to those contained in the preceding subsection (Quantitative Factors Resulting in Watch List Additions). After an assessment of the nature of the problem or potential problem, the investment consultant should then make a recommendation as to the appropriate course of action at the meeting after notification for the board to make a final determination of any action to take.

Because of the subjective nature of qualitative analysis, both additions and removals to and from the list should be handled by the investment consultant and the board on a case-by-case basis.

X. Ethics

The board recognizes the responsibility and fiduciary duty it has to the members and beneficiaries of the system and requires all trustees, service providers, and fiduciaries to the system to always act ethically in accordance with the system's Ethics Policy.



XI. Glossary And Resources

Active Management – A process employed by the system to produce better returns than those of passively managed indexed funds by use of, for example, investment managers, investment advisors, ETFs, or TAA, which typically rely on analytical research, quantitative models, forecast, regime analysis, judgment and experience in making investment decisions.

Asset Liability Management Study (ALM Study) – A comprehensive periodic study commissioned by the board to examine various aspects of the system's assets and liabilities including, but not limited to, asset allocation and investment strategies along with key asset and liability risk exposures.

Cash (Cash and Cash Equivalents) – An asset class characterized by liquidity of one year or less and described in greater detail in Section VI of this IPS as an investment category.

Commingled Fund – An investment fund consisting of assets from several accounts, which may include non-system accounts, that are blended so investors may benefit from economies of scale, lower trading cost, and diversification. Commingled funds are not publicly traded.

Exchange-Traded Fund (ETF) – A marketable security that tracks an index, a commodity, bonds, or a basket of assets like an index fund, and can be traded like a common stock on an exchange.

Fiscal Year (FY) – The period unique to the system for annual reports.

Investment Management Agreement (IMA) – A formal agreement between an investment manager and the system stipulating the terms under which the investment manager is authorized to act on behalf of the system to manage the assets listed in the agreement. The agreement establishes the extent to which the investment manager may act in a discretionary capacity to make investment decisions based on a prescribed strategy.

Investment Manager – An entity that manages system assets, usually in a separately managed account, with discretionary authority to invest within the confines of a system-mandated investment strategy or similar system directive, and where the account holdings are typically maintained in the custody of the fund's custodian bank.

Investment Policy Statement (IPS) – The investment policy statement of the system as approved by the board/investment committee that provides for the system's general investment goals and objectives.

Investment Program (IP) – A system for the investment and administration of the system's assets as outlined in the system's IPS and all applicable laws and regulations.

Internal Rate of Return (IRR) – The annual rate of growth for an investment that nets all expected future cash flows to zero. Often used in alternative investments that have large cash outflows during the beginning of the investment cycle with expected return distributions experienced in the future.

Market-Based Strategies – Investment strategies which are traded on public markets and are based on publicly traded securities. Market based strategies are highly liquid and valued daily.

Net Asset Value (NAV) – Market value per unit of the investment vehicle. For public markets, market value is determined daily. For private investments, market value is estimated periodically.

Passive Management (Indexing) – The process of buying and holding a well-diversified portfolio designed to produce substantially the same returns as a specified market index.

Peer Group – A set of investors (funds or managers) whose returns are used for a comparison with those of a given fund to determine how the given fund ranks among similar funds.

Performance Appraisal – The part of the performance evaluation process that attempts to determine whether the investment returns over an evaluation period have been achieved by skill or luck.

Performance Attribution – The part of the performance evaluation process that identifies sources of returns for a portfolio relative to a designated benchmark over an evaluation period.

Performance Evaluation – A component of the investment process involving periodic analysis of how a portfolio performed in terms of both returns earned and risks incurred.

Performance Measurement – The part of the performance evaluation process that calculates a portfolio's rate of return over an evaluation period.

Policy Benchmark – The specific standards against which the performance of securities held by the fund in certain asset classes can be measured. The specific benchmarks are detailed under Section VI - Investment Assets.

Private Investment – Strategies in which the system invests (typically through an interest in a limited partnership, limited liability company, or through some other binding agreement) in private equity, debt, real assets, or other assets not listed on a public exchange.

Risk Appetite – The amount of risk that the system is willing to take to meet its strategic objectives.

Risk Factors – Underlying characteristics of the portfolio that define risk, return and correlation.

Risk Tolerance – The degree of variability of investment returns relative to the assigned benchmark that the system is willing to accept.

Sharpe ratio – A risk-adjusted measure of portfolio performance in which risk is measured by the standard deviation of the portfolio's returns. It is the annualized ratio of the excess return (the actual return less the risk-free return) of the portfolio divided by the portfolio's standard deviation over a specified period.

Strategic Asset Allocation (SAA) – A portfolio strategy that sets long term target allocations for various asset classes and includes periodic rebalancing to maintain these allocations.

Tactical Asset Allocation (TAA) – A portfolio strategy that shifts, for a short period of time, the percentage of assets held in various allocation categories to capitalize or manage risk on market or economic environments.

Time Weighted Return (TWR) – A method for calculating investment returns such as an annualized return using the geometric mean of returns each year over a specified period.

Tracking Error – A measure of deviation between a portfolio's return and the benchmark or index it was meant to mimic or beat.

Reference Materials

Chartered Financial Analyst Institute (CFAI) Materials

J Bailey and T Richards,. A Primer for Investment Trustees: Understanding Investment Committee Responsibilities (2017).

D Chambers, K Black, and N Lacey, Alternative Investments: A Primer for Investment Professionals (2018). M Drew and A Walk, Investment Governance for Fiduciaries (2019). Scott Stewart, Manager Selection (2013).

Government Financial Officers Association (GFOA) Materials

GFOA Best Practice, *Adopting Financial Policies* (Sept. 30, 2015). https://www.gfoa.org/materials/adopting-financial-policies

- GFOA Best Practice, *Investment Policies for Defined Benefit Plans* (Sept. 30, 2017). https://www.gfoa.org/materials/investment-policies-for-defined-benefit-plans
- GFOA Best Practice, *Investment Fee Guidelines for External Management of Defined Benefit Plans* (Sept. 28. 2018). https://www.gfoa.org/materials/investment-fee-guidelines
- GFOA <u>Alternative Investments Checklist</u>
- GFOA <u>Sample Investment Policy</u>



Item 9a: AV Report and Item 9b: FSRP Report

David Fee



Summary

- AV report
 - Changes since November board meeting
 - System news
 - Major assumption changes
 - Funding progress
 - System overview
 - Summary analysis
 - Discount rate
 - Payroll growth rate
 - Amortization period
 - Funded ratio
 - Fund exhaustion
 - UAAL percent of payroll
 - Contributions
- FSRP Report
 - FSRP status changes since November board meeting
 - FSRP status by category



Actuarial Valuation Report



Texas Public Pension System News

Atlanta Fire

- FSRP submitted
- City additional contributions had brought amortization period down to 40 years from infinite
- Demographic experience brought amortization period down from 40 to 26.6 years

Beaumont Fire

- Presenting FSRP to City for approval
- Brownwood Fire
 - FSRP submitted
 - Increased member contributions by 4 percent of pay



Texas Public Pension System News

Corsicana Fire

- City passed resolution to fund additional \$100,000 per year for as long as needed to maintain a 30-year amortization period
- Demographic experience brought amortization period to 25 years

Dallas ERF

Submitted preliminary FSRP

Dallas Police & Fire

 Fund, city, and independent actuary presented progress at January Actuarial Committee meeting

Lufkin Fire

City increased contributions 1.7 percent to avoid at risk status



Texas Public Pension System News

- Midland Fire
 - City increased contributions 2 percent
- Northeast Medical Center
 - Completed plan termination
- Supplemental Retirement Plan for University Medical Center
 - Newly registered system added to reports
- Sweetwater Fire
 - City increasing contributions 6.25 percent over two years



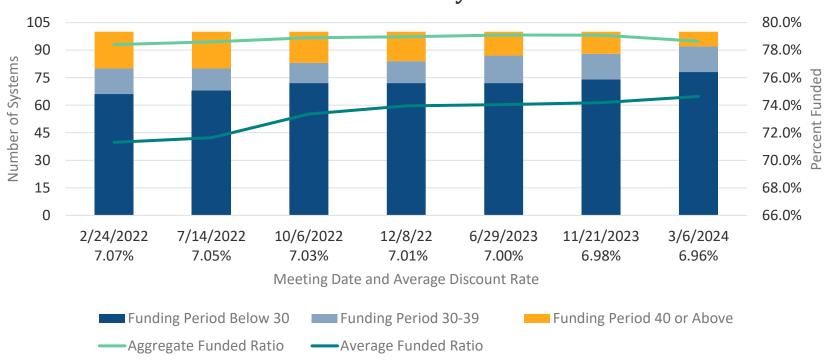
Significant Economic Assumption Changes

| | Changed Discount Rate 11/21/23 → 3/6/24 | | Changed Payroll Growth Rate 11/21/23 → 3/6/24 | |
|------------------------|--|------------|--|------------|
| System | Current Rate | Prior Rate | Current Rate | Prior Rate |
| Anson General Hospital | 5.75% | 6.00% | | |
| Corsicana Fire | | | 2.50% | 2.75% |
| McAllen Fire | 7.25% | 7.50% | 2.85% | 3.00% |



Funding Progress 2022-2024

Example 2022 Example 2022 Example 2022





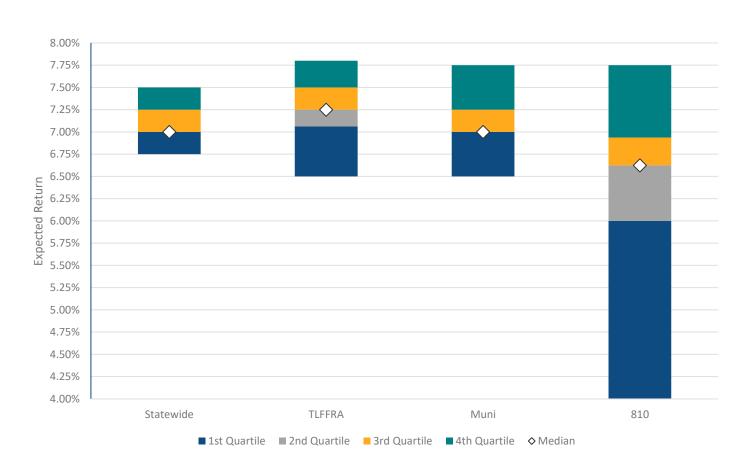
System Overview By Type

| System Type | System Count | Median Expected Return | Median Amortization Period | Median Funded Ratio |
|----------------|-----------------|---------------------------|----------------------------------|------------------------|
| Statewide | 7 | 7.00% | 15 | 89% |
| TLFFRA | 42 | 7.25% | 27 | 64% |
| Muni | 17 | 7.00% | 24 | 77% |
| 810 | 34 | 6.63% | 10 | 87% |
| Total | 100 | 7.00% | 20 | 75% |

Numbers in **teal** denote improvements from the previous report



Expected Return on Assets (Discount Rate)



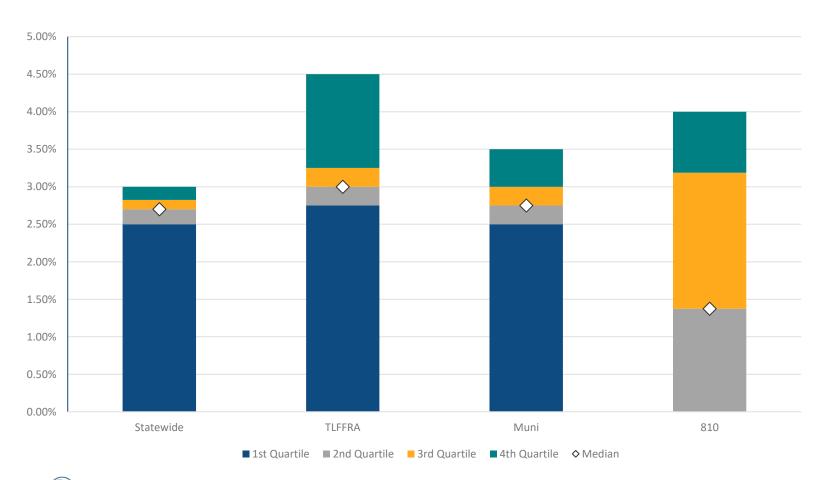


Systems with Discount Rate Above 7.5 Percent

| System Name | Discount Rate | System Type |
|--|---------------|-------------|
| San Angelo Firemen's Relief & Retirement Fund | 7.80% | TLFFRA |
| Big Spring Firemen's Relief & Retirement Fund | 7.75% | TLFFRA |
| El Paso Firemen & Policemen's Pension Staff Plan | 7.75% | 810 |
| El Paso Firemen's Pension Fund | 7.75% | Muni |
| El Paso Police Pension Fund | 7.75% | Muni |
| Harlingen Firemen's Relief & Retirement Fund | 7.75% | TLFFRA |
| Orange Firemen's Relief & Retirement Fund | 7.75% | TLFFRA |
| Temple Firemen's Relief & Retirement Fund | 7.75% | TLFFRA |
| Wichita Falls Firemen's Relief & Retirement Fund | 7.75% | TLFFRA |



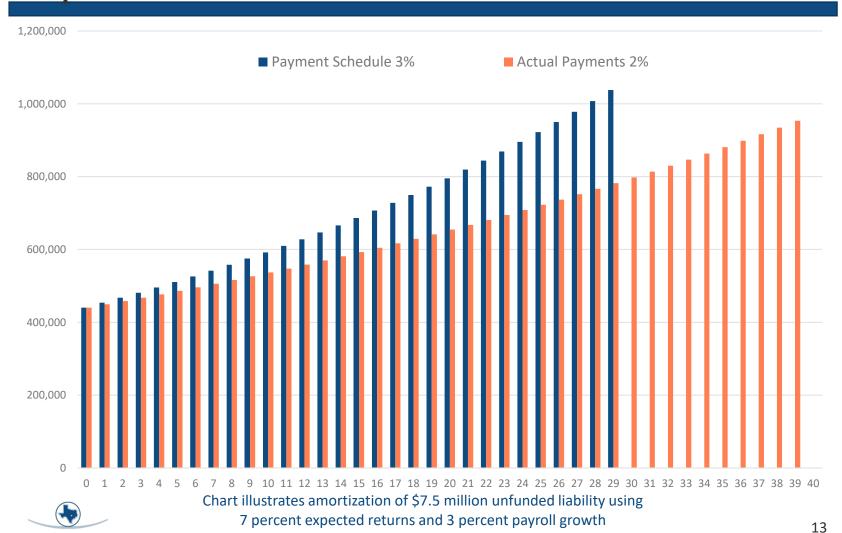
Expected Payroll Growth Rate





What if payroll growth is less than expected?

PENSION REVIEW BOARD



Systems With Actual 10-Year Payroll Growth Missing Expectations by More Than 1 Percent

| System Name | Expected Payroll Growth Rate | Actual Payroll Growth Rate | City Population Growth Rate ¹ | Expected Inflation ² | System Type | | |
|---------------------|------------------------------|-------------------------------------|---|------------------------------------|-------------|--|--|
| Arlington Employees | 3.00% | 1.10% | 0.76% | 2.50% | 810 | | |
| Austin Police | 3.00% | 1.89% | 2.33% | 2.50% | Muni | | |
| Big Spring Fire | 4.50% | 2.83% | -0.43% | 3.00% | TLFFRA | | |
| Houston Fire | 3.00% | 0.01% | 0.94% | 2.50% | Muni | | |
| Marshall Fire | 3.75% | 2.71% | -0.06% | 2.50% | TLFFRA | | |
| Texarkana Fire | 2.90% | 1.05% | -0.06% | 2.90% | TLFFRA | | |

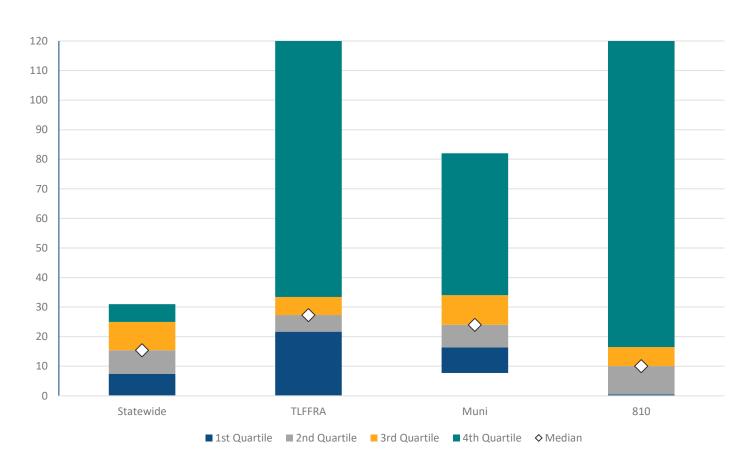
¹A growing city supports a higher payroll growth assumption

Arlington Employees was added to the list since the previous report Atlanta Fire and Corsicana Fire were removed since the previous report



² A payroll growth assumption equal to expected inflation may not be considered aggressive

Amortization Period





Systems With Funding Periods > 50 Years

| System Name | Funding Period | System Type | Notes |
|---|-------------------|----------------|--------------------------------|
| Midland Firemen's Relief & Retirement Fund | Infinite | TLFFRA | Increased city contributions |
| Sweetwater Firemen's Relief & Retirement Fund | Infinite | TLFFRA | Increased city contributions |
| Nacogdoches County Hospital District | Infinite | 810 | |
| Dallas Police & Fire Pension System-Combined Plan | 82.0 | Muni | |
| Beaumont Firemen's Relief & Retirement Fund | 67.0 | TLFFRA | Studying payroll increases |
| Brownwood Firemen's Relief & Retirement Fund | 52.8 | TLFFRA | Increased member contributions |
| Dallas Employees' Retirement Fund | 51.0 | Muni | Submitted preliminary FSRP |

Atlanta Fire, Corsicana Fire, JRS II and LECOSRF were removed from the list since the previous report

All other amortization periods greater than 40 have legacy FSRPs



Avoiding Negative Amortization

- Unfunded liability growth over next year
 - The unfunded liability will grow with:
 - Interest
 - Normal cost
 - The unfunded liability will decrease with:
 - Contributions
- To avoid an expected increase in unfunded liability
 - Expected contributions must cover
 - · Interest on the unfunded liability
 - To avoid growth in the existing unfunded liability
 - Normal cost
 - To avoid creating new unfunded liability



Systems With Funding Periods < 50 Years Contributing < 85 Percent of Amt to Avoid Negative Amortization

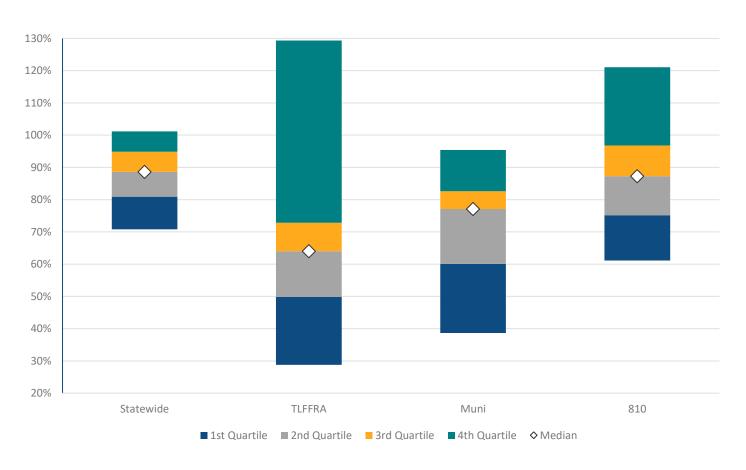
| System Name | Interest on UAAL (\$Millions) | Normal Cost (\$Millions) | Necessary Funding | Actual Projected Funding | Necessary Funding Percent | Funding Period |
|--------------------------------|-------------------------------------|--------------------------------|----------------------|--------------------------------|---------------------------------|-------------------|
| Marshall Fire ¹ | 1.0 | 0.5 | 1.5 | 1.1 | 73.0% | 41.0 |
| Big Spring Fire ¹ | 0.9 | 0.8 | 1.7 | 1.3 | 74.6% | 33.7 |
| Wichita Falls Fire 1,2 | 2.6 | 1.7 | 4.3 | 3.3 | 76.2% | 32.1 |
| Paris Fire ¹ | 0.8 | 0.3 | 1.1 | 0.9 | 78.8% | 33.6 |
| Greenville Fire1 | 1.6 | 1.1 | 2.7 | 2.2 | 79.9% | 35.0 |
| Plainview Fire ² | 0.7 | 0.3 | 1.1 | 0.9 | 81.2% | 33.0 |
| Austin ERS ^{2,3} | 128.3 | 140.9 | 269.2 | 218.7 | 81.3% | 34.0 |
| Abilene Fire ² | 4.7 | 2.7 | 7.5 | 6.1 | 81.5% | 29.4 |
| Atlanta Fire² | 0.1 | 0.2 | 0.3 | 0.2 | 83.4% | 26.6 |
| San Angelo Fire ^{1,2} | 3.3 | 3.2 | 6.6 | 5.5 | 83.8% | 29.7 |
| Austin Police ³ | 48.8 | 40.3 | 89.1 | 75.5 | 84.8% | 29.0 |

¹ Payroll growth rate assumption of 3.5 percent or greater

² Lesser tier of benefits for newer hires

³ Transition period with contributions less than ADC in early years

Funded Ratio





Systems with Funded Ratios < 50 Percent

| System Name | Total Funded Ratio | Retiree Funded Ratio | System Type | | | | | |
|---|-----------------------|-------------------------|-------------|--|--|--|--|--|
| Paris Firefighters' Relief & Retirement Fund | 28.8 | 43.0 | TLFFRA | | | | | |
| Odessa Firemen's Relief & Retirement Fund* | 36.2 | 47.8 | TLFFRA | | | | | |
| Dallas Police & Fire Pension System-Supplemental* | 38.7 | 51.4 | Muni | | | | | |
| Dallas Police & Fire Pension System-Combined Plan | 39.1 | 57.6 | Muni | | | | | |
| Marshall Firemen's Relief & Retirement Fund | 40.2 | 67.1 | TLFFRA | | | | | |
| Greenville Firemen's Relief & Retirement Fund | 41.0 | 77.1 | TLFFRA | | | | | |
| University Park Firemen's Relief & Retirement Fund* | 42.3 | 67.0 | TLFFRA | | | | | |
| Galveston Employees' Retirement Plan for Police* | 42.8 | 70.8 | Muni | | | | | |
| Plainview Firemen's Relief & Retirement Fund | 43.6 | 72.1 | TLFFRA | | | | | |
| Texas City Firemen's Relief & Retirement Fund* | 45.4 | 67.8 | TLFFRA | | | | | |
| Midland Firemen's Relief & Retirement Fund | 45.7 | 85.8 | TLFFRA | | | | | |
| Brownwood Firemen's Relief & Retirement Fund | 46.2 | 78.9 | TLFFRA | | | | | |
| Orange Firemen's Relief & Retirement Fund | 47.8 | 73.2 | TLFFRA | | | | | |
| Abilene Firemen's Relief & Retirement Fund* | 49.4 | 75.7 | TLFFRA | | | | | |



Additional Systems with Retiree Funded Ratios < 100 Percent

| System Name | Total Funded Ratio | Retiree Funded Ratio | System Type |
|---|--------------------------|----------------------------|-------------|
| Sweetwater Firemen's Relief & Retirement Fund | 55.1 | 76.2 | TLFFRA |
| Capital MTA Bargaining* | 63.4 | 77.6 | 810 |
| Beaumont Firemen's Relief & Retirement Fund | 55.4 | 92.4 | TLFFRA |
| Fort Worth Employees' Retirement Fund | 54.8 | 93.5 | TLFFRA |
| Brazos River Authority Retirement Plan* | 73.5 | 96.7 | 810 |
| DART Employees* | 84.5 | 99.3 | 810 |

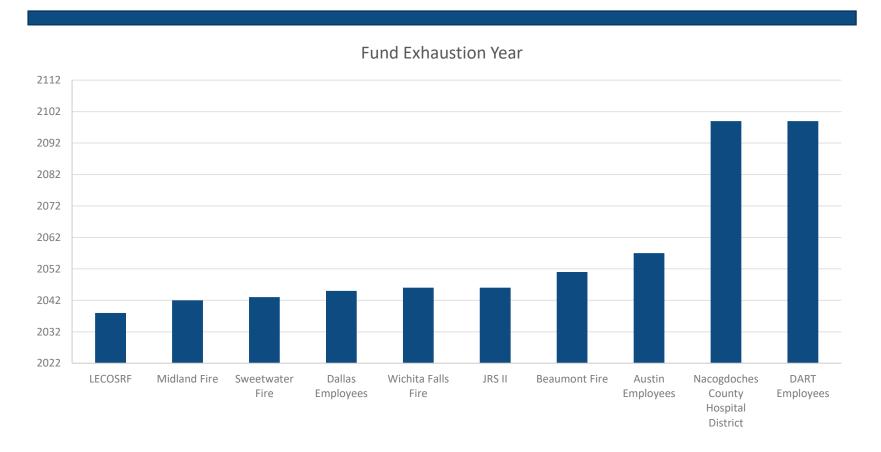
Corsicana Fire, LECOSRF and Northeast Medical Center were removed from the list since the previous report.

No systems were added to the list

*Amortization period is under 30



Systems with Fund Exhaustion Year

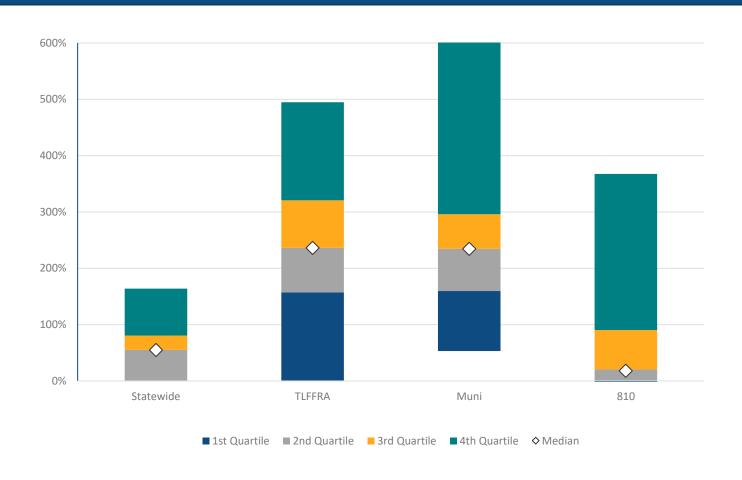


Capital MTA Admin was removed from the list since the previous report.

LECOSRF and JRS II are expected to be removed once an updated financial filing is received.



UAAL as Percentage of Payroll



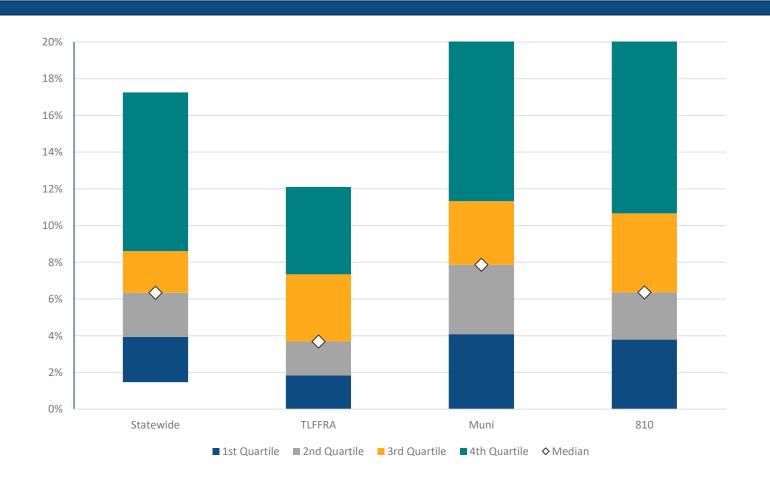


Systems With UAAL as Percent of Pay > 300 Percent and Funding Period > 30

| System Name | UAAL % of Pay | Funding Period | System Type |
|---|------------------|-------------------|----------------|
| Midland Firemen's Relief & Retirement Fund | 495% | Infinite | TLFFRA |
| Sweetwater Firemen's Relief & Retirement Fund | 440% | Infinite | TLFFRA |
| Dallas Police & Fire Pension System-Combined Plan | 690% | 82.0 | Muni |
| Beaumont Firemen's Relief & Retirement Fund | 400% | 67.0 | TLFFRA |
| Brownwood Firemen's Relief & Retirement Fund | 304% | 52.8 | TLFFRA |
| Marshall Firemen's Relief & Retirement Fund | 457% | 41.0 | TLFFRA |
| Fort Worth Employees' Retirement Fund | 406% | 36.0 | Muni |
| Greenville Firemen's Relief & Retirement Fund | 380% | 35.0 | TLFFRA |
| Orange Firemen's Relief & Retirement Fund | 321% | 34.5 | TLFFRA |
| Paris Firefighters' Relief & Retirement Fund | 393% | 33.6 | TLFFRA |
| Plainview Firemen's Relief & Retirement Fund | 451% | 33.0 | TLFFRA |
| Laredo Firefighters Retirement System | 314% | 31.1 | TLFFRA |



Employer Normal Cost



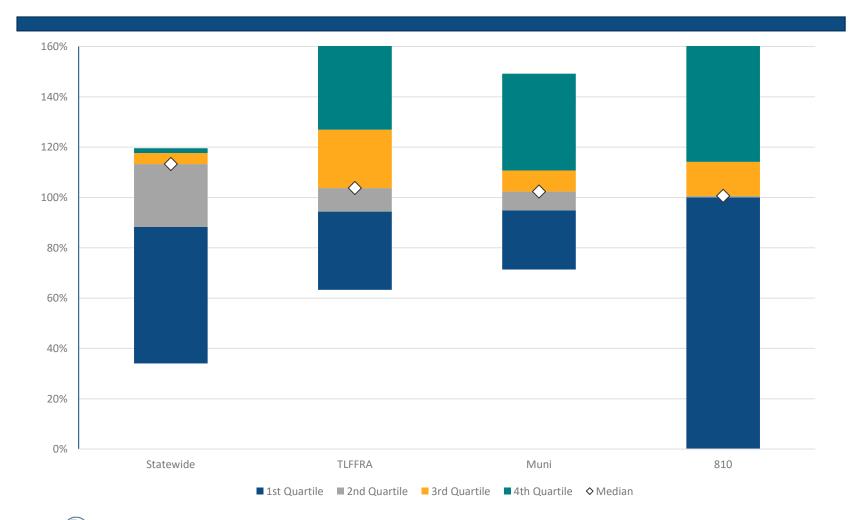


Systems With Employer Normal Costs < 1 Percent

| System Name | Employer Normal Cost | Normalized Employer Normal Cost | Social Security | System Type |
|--------------------|-------------------------|---------------------------------------|-----------------|-------------|
| El Paso Police | -2.4% | 0.0% | N | Muni |
| Texas City Fire | -1.9% | -1.1% | N | TLFFRA |
| Galveston Police | -0.9% | -0.9% | Υ | Muni |
| Orange Fire | -0.9% | 1.1% | Υ | TLFFRA |
| Longview Fire | 0.0% | 1.7% | N | TLFFRA |
| Plainview Fire | 0.4% | 2.0% | N | TLFFRA |
| Odessa Fire | 0.6% | 0.6% | Υ | TLFFRA |
| Wichita Falls Fire | 0.7% | 2.8% | Υ | TLFFRA |
| El Paso Fire | 0.9% | 3.8% | N | Muni |
| Corsicana Fire | 0.3% | 0.3% | Υ | TLFFRA |



Employer Percent of Recommended Contribution





Employers Contributing < 90 Percent of Recommended Contribution

| System Name | Employer Portion | System Type |
|---|-------------------------|-------------|
| Law Enforcement & Custodial Off Sup. Ret. Fund | 34% | Statewide |
| Midland Firemen's Relief & Retirement Fund | 52% | TLFFRA |
| Beaumont Firemen's Relief & Retirement Fund | 63% | TLFFRA |
| Judicial Retirement System of Texas Plan Two | 67% | Statewide |
| Dallas Employees' Retirement Fund | 71% | Muni |
| Dallas Police & Fire Pension System – Combined Plan | 75% | Muni |
| El Paso Firemen & Policemen's Pension Staff Plan | 81% | 810 |
| Colorado River Municipal Water District | 81% | 810 |
| Fort Worth Employees' Retirement Fund | 81% | Muni |
| Galveston Firefighters Relief & Retirement Fund | 82% | TLFFRA |
| Sweetwater Firemen's Relief & Retirement Fund | 85% | TLFFRA |
| Atlanta Firemen's Relief & Retirement Fund | 86% | TLFFRA |
| Brownwood Firemen's Relief & Retirement Fund | 87% | TLFFRA |
| Austin Employees' Retirement System | 89% | Muni |



FSRP Updates

March 6, 2024



FSRP Status Changes

- FSRPs Submitted
 - Atlanta Fire
 - Brownwood Fire
- Removed from Systems at Risk of 30-Year FSRP Formulation Requirement
 - Corsicana Fire
 - Galveston Fire
 - Laredo Fire
- Added to Systems at Risk of 30-Year FSRP Formulation Requirement
 - McAllen Fire
- Removed from Systems With Amortization Periods Between 30-40 Years (not yet at risk)
 - Lufkin Fire

Galveston Fire and Laredo Fire were originally shown here as At Risk after submitting actuarial valuation reports showing funding periods greater than 30 years. However, both systems had previously submitted FSRPs that were due in 2025, and both systems remain on track to be fully funded prior to 2055.

Systems Immediately Subject to 30-Year FSRP Formulation Requirement

These systems had amortization periods above the applicable threshold (40 years prior to September 1, 2021 and 30 years thereafter) for three consecutive annual actuarial valuations (AVs), or two consecutive non-annual AVs. An FSRP must now be developed under the new law, **targeting 30 years by Sept. 1, 2025**, and must be developed by the public retirement system and the associated governmental entity in accordance with the system's governing statute.

| Systems Immediately Subject to an FSRP Formulation Requirement | | | | | | | | | | |
|--|----------|------------|----------|------------|----------|--------------|----------|--|--|--|
| | Am | | Am | | Am | Date of most | FSRP | | | |
| Retirement System | Period | Date of AV | Period | Date of AV | Period | recent AV | Due Date | | | |
| Midland Firemen's Relief & Retirement Fund ¹ | Infinite | 12/31/2017 | Infinite | 12/31/2019 | Infinite | 12/31/2021 | 9/1/2025 | | | |
| Beaumont Firemen's Relief & Retirement Fund ¹ | 104.0 | 12/31/2016 | Infinite | 12/31/2018 | Infinite | 12/31/2020 | 9/1/2025 | | | |
| Dallas Employees' Retirement Fund ^{1,3} | 51 | 12/31/2020 | 50 | 12/31/2021 | 51 | 12/31/2022 | 9/1/2025 | | | |
| Sweetwater Firemen's Relief & Retirement Fund ² | 63.3 | 12/31/2018 | 68.9 | 12/31/2020 | Infinite | 12/31/2022 | 9/1/2025 | | | |
| Atlanta Firemen's Relief & Retirement Fund ⁴ | Infinite | 12/31/2018 | Infinite | 12/31/2020 | 26.6 | 12/31/2022 | 9/1/2025 | | | |
| Dallas Police & Fire Pension System (Combined Plan) | 63.0 | 1/1/2021 | 68.0 | 1/1/2022 | 82.0 | 1/1/2023 | 9/1/2025 | | | |
| Brownwood Firemen's Relief & Retirement Fund | 38.6 | 12/31/2017 | 94.7 | 12/31/2019 | 52.8 | 12/31/2021 | 9/1/2025 | | | |

¹ Previously submitted an FSRP or Revised FSRP under previous law.

Orange font indicates the triggering valuation.



² Previously completed an FSRP or Revised FSRP under previous law.

³ Triggering valuation was 12/31/2019

⁴ Will satisfy requirement once FSRP is officially submitted and reviewed.

Systems at Risk of 30-Year FSRP Formulation Requirement

These at-risk systems' most recent actuarial valuation shows an amortization period that exceeds the applicable threshold but does not yet trigger the FSRP requirement.

| Systems at Risk of an FSRP - Not Yet Subject to FSRP Requirement | | | | | | | | | |
|--|----------|------------|----------|------------|----------|------------|--------|--|--|
| | Am | | Am | | Am | | Funded | | |
| Retirement System | Period | Date of AV | Period | Date of AV | Period | Date of AV | Ratio | | |
| Austin Employees Retirement System | 32 | 12/31/2020 | 33 | 12/31/2021 | 34 | 12/31/2022 | 64.1% | | |
| Austin Fire Fighters Relief & Retirement Fund | 23.3 | 12/31/2020 | 17.5 | 12/31/2021 | 35.7 | 12/31/2022 | 86.7% | | |
| Greenville Firemen's Relief & Retirement Fund | 40.7 | 12/31/2018 | 36.6 | 12/31/2020 | 35.0 | 12/31/2022 | 41.0% | | |
| McAllen Firemen's Relief & Retirement Fund | Infinite | 9/30/2018 | 27.7 | 9/30/2020 | 34.6 | 9/30/2022 | 68.7% | | |
| Nacogdoches County Hospital District | 20 | 7/1/2020 | Infinite | 7/1/2021 | Infinite | 7/1/2022 | 85.7% | | |

Orange font indicates the amortization period above the applicable threshold. **Teal font** indicates funded ratio less than 65%



Systems with Amortization Periods between 30-40 Years (not yet at risk)

These systems have not yet triggered the requirement to notify their sponsors that their amortization period is above the FSRP threshold of 30 years. This list is intended to keep the board apprised of systems that may receive a subsequent AV showing an amortization period above 30 years, thus becoming at-risk of triggering the FSRP requirement.

| Systems not yet at Risk of an FSRP - Not Subject to FSRP Requirement | | | | | | | | | |
|--|------------------------------------|----------------|----------------|------------|--------|------------|--------|--|--|
| | Am | | Am | | Am | | Funded | | |
| Retirement System | Period | Date of AV | Period | Date of AV | Period | Date of AV | Ratio | | |
| Big Spring Firemen's Relief & Retirement Fund | 36.2 | 12/31/2017 | 38.3 | 1/1/2019 | 33.7 | 1/1/2021 | 54.7% | | |
| Galveston Firemen's Relief & Retirement Fund ¹ | Cor | mpleted FSRP p | rior to 12/31, | /22 AV | 30.9 | 12/31/2022 | 67.2% | | |
| Laredo Firefighters Retirement System ¹ | Completed FSRP prior to 9/30/22 AV | | | | 31.1 | 9/30/2022 | 59.1% | | |
| Paris Firefighters' Relief & Retirement Fund | 41.9 | 12/31/2016 | 32.1 | 12/31/2018 | 33.6 | 12/31/2020 | 28.8% | | |

¹ System remains on track to be fully funded by 9/1/2055 according to pre-9/1/2025 FSRP requirement.

Teal font indicates funded ratio less than 65%



Progress Report on Previously Submitted FSRPs – Legacy FSRPs

The following systems formulated and submitted an FSRP before Sept. 1, 2021. The table below outlines their progress towards the FSRP requirement.

| Systems Still Working Towards Meeting the Target Amortization Period Requirement | | | | | | | | |
|--|----------|------------|-------------------------------|------------|-------------------|----------|--|--|
| | FSRI | P Trigger | Current Progress ¹ | | | | | |
| | Am | | Am | | Target | Next AV | | |
| Retirement System | Period | Date | Period | Date | Date ² | Expected | | |
| Plainview Firemen's Relief & Retirement Fund | 79.7 | 12/31/2019 | 33.0 | 12/31/2021 | 2031 | 2024 | | |
| Fort Worth Employees' Retirement Fund | 72.5 | 12/31/2015 | 36.0 | 12/31/2022 | 2029 | 2023 | | |
| Wichita Falls Firemen's Relief & Retirement Fund – Revised FSRP | Infinite | 1/1/2015 | 32.1 | 1/1/2022 | 2026 | 2024 | | |
| Marshall Firemen's Relief & Retirement Fund – Revised FSRP | 59.0 | 12/31/2018 | 41.0 | 12/31/2020 | 2028 | 2023 | | |

¹ Based on the most recent actuarial valuation or FSRP.



² The year in which a system must reach an amortization period target.

Systems That Previously Completed FSRP Requirement

The following systems have submitted an FSRP or subsequent actuarial valuation that has lowered their amortization period below 30 years.

Systems that Have Submitted Post-FSRP Actuarial Valuations Showing Amortization Period at or Below 30 Years

| | FSRP 7 | Trigger | Completed Progress ¹ | | |
|---|-----------|------------|---------------------------------|------------|--|
| Retirement System | Am Period | Date | Am Period | Date | |
| Galveston Employees' Retirement Plan for Police | 55.1 | 1/1/2014 | 27 | 1/1/2021 | |
| Galveston Firefighter's Relief & Retirement Fund | 51.6 | 12/31/2021 | 30 ² | 12/31/2021 | |
| Irving Firemen's Relief & Retirement Fund - Revised FSRP | 63.4 | 1/1/2014 | 27.3 ³ | 12/31/2021 | |
| Laredo Firefighters Retirement System | 56.8 | 9/30/2020 | 26 ² | 9/30/2020 | |
| Longview Firefighter's Relief & Retirement Fund | Infinite | 12/31/2018 | 27.5 ² | 12/31/2021 | |
| Orange Firemen's Relief & Retirement Fund – Second Revised FSRP | Infinite | 1/1/2019 | 20.7 | 1/1/2021 | |
| University Park Firemen's Relief & Retirement Fund – Revised FSRP | 81.3 | 12/31/2012 | 26.8 | 12/31/2020 | |

¹ Based on the valuation in which the system completed its FSRP requirement.



² Based on the additional analysis provided with the FSRP submission

³ Based on the market value of assets

Appendix



Illustration of 30-Year Amortization Period

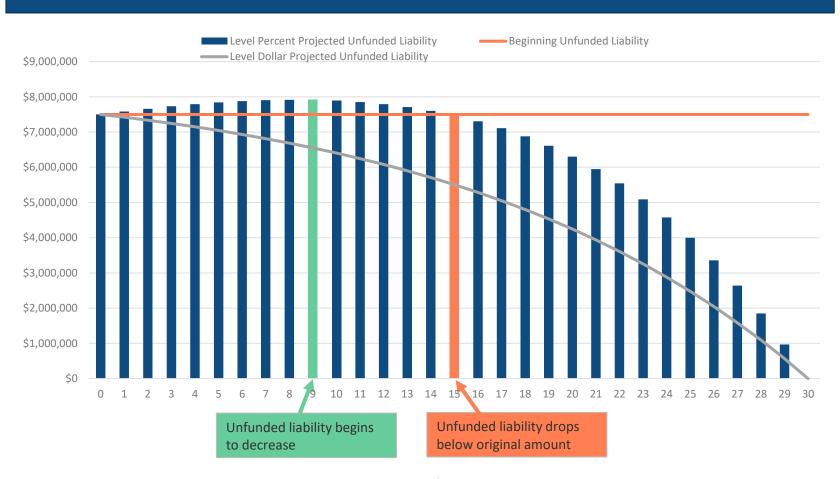
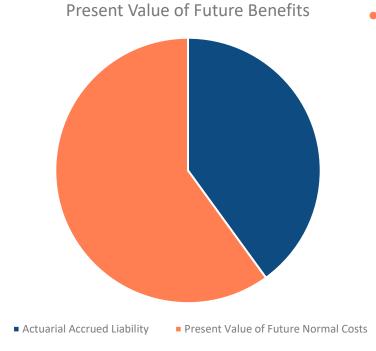




Chart illustrates amortization of \$7.5 million unfunded liability using 7 percent expected returns and 3 percent payroll growth

Actuarial Terminology



- Example: Member with 10 years of service
 - Expected to retire with 25 years of service
 - Present value of future benefits
 (PVFB) is the whole pie (25 years)
 - Actuarial accrued liability is the blue section of pie only (10 years)
 - The remainder of the PVFB will be recognized over 15 future years through normal cost



Actuarial Valuation Report March 6, 2024

Summary of Key Statistics

Assets and Liabilities

| | Current Actua | | | |
|-----------------------------------|-----------------------|-----------------------|------|-----------------------|
| | 3/6/2024 | 11/21/2023 | Prio | r Actuarial Valuation |
| Market Value of Assets (MVA) | \$ 348,828,479,046 | \$ 342,598,778,516 | \$ | 350,571,566,149 |
| Actuarial Value of Assets (AVA) | \$ 363,490,562,077 | \$ 353,818,464,504 | \$ | 347,786,221,269 |
| | | | | |
| Actuarial Accrued Liability (AAL) | \$ 462,181,175,563 | \$ 447,391,393,030 | \$ | 439,979,424,066 |
| Unfunded Actuarial Accrued | | | | |
| Liability (UAAL = AAL - AVA) | \$ 98,690,613,486 | \$ 93,572,928,526 | \$ | 92,193,202,797 |

Funded Ratios

| | Current Actua | arial Valuation | |
|-------------------------------|---------------|-----------------|---------------------------|
| | 3/6/2024 | 11/21/2023 | Prior Actuarial Valuation |
| Aggregate | 78.6% | 79.1% | 79.0% |
| Low | 28.8% | 28.8% | 30.5% |
| High | 129.3% | 129.3% | 120.3% |
| Average | 74.6% | 74.2% | 73.4% |
| National Average ¹ | 74.5% | 74.4% | 54.9% |

Amortization Periods

| | Current Actua | arial Valuation | |
|-------------------------------|---------------|-----------------|---------------------------|
| | 3/6/2024 | 11/21/2023 | Prior Actuarial Valuation |
| Infinite | 3 | 6 | 8 |
| >= 40 years, but not infinite | 5 | 6 | 11 |
| > 30 years, < 40 years | 14 | 14 | 15 |
| > 25 years, <= 30 years | 15 | 16 | 17 |
| >= 10 years, <= 25 years | 39 | 36 | 32 |
| > 0 years, < 10 years | 12 | 12 | 5 |
| 0 years | 12 | 10 | 11 |
| Total Plans Registered | 100 | 100 | 99 |

System Discount Rates

| | Oyotom Bioocai | it itatoo | |
|------------------------|----------------|-----------------|---------------------------|
| | Current Actua | arial Valuation | |
| | 3/6/2024 | 11/21/2023 | Prior Actuarial Valuation |
| >=8% | 0 | 0 | 1 |
| > 7.50%, < 8.00% | 9 | 9 | 10 |
| 7.50% | 13 | 14 | 19 |
| > 7.00%, < 7.50% | 21 | 20 | 20 |
| 7.00% | 26 | 26 | 21 |
| > 6.50%, < 7.00% | 11 | 11 | 10 |
| <= 6.50% | 20 | 20 | 18 |
| Total Plans Registered | 100 | 100 | 99 |

| | Current Actua | arial Valuation | |
|-------------------------------|---------------|-----------------|---------------------------|
| | 3/6/2024 | 11/21/2023 | Prior Actuarial Valuation |
| Average | 6.96% | 6.98% | 6.98% |
| Standard Deviation | 0.62% | 0.55% | 0.89% |
| Median | 7.00% | 7.00% | 7.10% |
| National Average ¹ | 6.95% | 6.93% | 5.00% |

¹ Source: https://publicplansdata.org/



Actuarial Valuation Report March 6, 2024

| | | | | | | Current Actuarial Va | luation | | | Prior A | uation | |
|--|-----------------------|-------------------|------------------|----------------------------------|-------------------|------------------------------------|---------------------------------------|---|----------------------------|-------------------|---|-------------------|
| Plan Name | Plan Status (1) | Effective Date | Discount Rate | Effective Amort Period (2) | Funded Ratio % | Market Value of Assets (MVA) | Actuarial Value of Assets (AVA) | Unfunded Actuarial Accrued Liability (UAAL = AAL - AVA) | UAAL as % of Payroll | Effective Date | Prior Effective Amort Period (2) | Funded Ratio % |
| Midland Firemen's Relief & Retirement Fund | Active | 12/31/2021 | 7.00% | Infinite | 45.7 | \$ 93,771,847 | \$ 91,653,825 | \$ 109,123,112 | 494.83% | 12/31/2019 | Infinite | 51.1 |
| Nacogdoches County Hospital District (4) | Frozen | 7/1/2022 | 6.75% | Infinite | 85.7 | \$ 36,540,899 | \$ 40,253,488 | \$ 6,719,508 | 0.00% | 7/1/2021 | Infinite | 96.6 |
| Sweetwater Firemen's Relief & Retirement Fund | Active | 12/31/2022 | 7.50% | Infinite | 55.1 | \$ 8,221,613 | \$ 9,718,394 | \$ 7,916,180 | 439.95% | 12/31/2020 | 68.9 | 63.2 |
| Dallas Police & Fire Pension System-Combined Plan | Active | 1/1/2023 | 6.50% | 82.0 | 39.1 | \$ 1,806,567,341 | \$ 2,053,388,085 | \$ 3,195,626,728 | 690.47% | 1/1/2022 | 68.0 | 41.1 |
| Beaumont Firemen's Relief & Retirement Fund | Active | 12/31/2022 | 7.50% | 67.0 | 55.4 | \$ 103,648,786 | \$ 116,003,342 | \$ 93,371,350 | 400.32% | 12/31/2020 | Infinite | 55.4 |
| Brownwood Firemen's Relief & Retirement Fund | Active | 12/31/2021 | 7.00% | 52.8 | 46.2 | \$ 5,789,089 | \$ 5,307,594 | \$ 6,190,796 | 304.42% | 12/31/2019 | 94.7 | 42.8 |
| Dallas Employees' Retirement Fund | Active | 12/31/2022 | 7.25% | 51.0 | 73.3 | \$ 3,516,280,000 | \$ 3,866,412,000 | \$ 1,410,057,000 | 295.86% | 12/31/2021 | 50.0 | 76.0 |
| Marshall Firemen's Relief & Retirement Fund | Active | 12/31/2020 | 7.25% | 41.0 | 40.2 | \$ 8,905,327 | \$ 8,905,327 | \$ 13,252,936 | 457.07% | 12/31/2018 | 59.0 | 36.7 |
| Fort Worth Employees' Retirement Fund | Active | 12/31/2022 | 7.00% | 36.0 | 54.8 | \$ 2,576,294,075 | \$ 2,740,773,791 | \$ 2,257,341,250 | 405.94% | 12/31/2021 | 37.0 | 55.0 |
| Austin Fire Fighters Relief & Retirement Fund | Active | 12/31/2022 | 7.30% | 35.7 | 86.9 | \$ 1,115,832,870 | \$ 1,211,321,297 | \$ 183,374,435 | 174.03% | 12/31/2021 | 17.5 | 89.6 |
| Greenville Firemen's Relief & Retirement Fund | Active | 12/31/2022 | 7.25% | 35.0 | 41.0 | \$ 13,876,059 | \$ 15,263,665 | \$ 21,999,653 | 380.00% | 12/31/2020 | 36.6 | 42.6 |
| McAllen Firemen's Relief & Retirement Fund | Active | 9/30/2022 | 7.25% | 34.6 | 68.7 | \$ 53,418,206 | \$ 63,703,117 | \$ 29,032,232 | 200.37% | 9/30/2020 | 27.7 | 69.5 |
| Orange Firemen's Relief & Retirement Fund (8) | Active | 1/1/2023 | 7.75% | 34.5 | 47.8 | \$ 8,441,989 | \$ 8,441,989 | \$ 9,232,787 | 320.54% | 1/1/2021 | 20.7 | 56.6 |
| Conroe Fire Fighters' Retirement Fund (7) | Active | 12/31/2021 | 7.25% | 34.3 | 58.7 | \$ 41,176,186 | \$ 37,578,226 | \$ 26,448,907 | 184.69% | 12/31/2019 | Infinite | 58.4 |
| Austin Employees' Retirement System | Active | 12/31/2022 | 6.75% | 34.0 | 64.1 | \$ 2,959,775,761 | \$ 3,394,988,979 | \$ 1,900,952,826 | 234.67% | 12/31/2021 | 33.0 | 66.0 |
| Big Spring Firemen's Relief & Retirement Fund | Active | 1/1/2021 | 7.75% | 33.7 | 54.7 | \$ 15,021,388 | \$ 13,874,163 | \$ 11,496,272 | 255.37% | 1/1/2019 | 38.3 | 53.2 |
| Paris Firefighters' Relief & Retirement Fund | Active | 12/31/2020 | 7.25% | 33.6 | 28.8 | \$ 4,771,104 | \$ 4,567,572 | \$ 11,295,163 | 393.40% | 12/31/2018 | 32.1 | 30.5 |
| Plainview Firemen's Relief & Retirement Fund | Active | 12/31/2021 | 7.50% | 33.0 | 43.6 | \$ 8,106,289 | \$ 7,639,776 | \$ 9,901,935 | 450.82% | 12/31/2019 | 79.7 | 34.0 |
| Wichita Falls Firemen's Relief & Retirement Fund | Active | 1/1/2022 | 7.75% | 32.1 | 65.0 | \$ 62,360,750 | \$ 62,360,750 | \$ 33,563,000 | 267.68% | 1/1/2020 | 43.3 | 56.8 |
| Laredo Firefighters Retirement System (5) | Active | 9/30/2022 | 7.40% | 31.1 | 59.1 | \$ 180,152,638 | \$ 198,167,902 | \$ 136,942,650 | 313.67% | 9/30/2020 | 56.8 | 59.6 |
| Employees Retirement System of Texas | Active | 8/31/2023 | 7.00% | 31.0 | 70.8 | \$ 34,234,697,324 | \$ 33,976,699,535 | \$ 14,015,751,489 | 163.94% | 8/31/2022 | 32.0 | 68.9 |
| Galveston Firefighter's Relief & Retirement Fund (5) | Active | 12/31/2022 | 7.50% | 30.9 | 67.2 | \$ 49,199,796 | \$ 56,290,610 | \$ 27,477,701 | 277.08% | 12/31/2021 | 51.6 | 68.3 |
| San Angelo Firemen's Relief & Retirement Fund | Active | 12/31/2021 | 7.80% | 29.7 | 65.0 | \$ 83,445,130 | \$ 79,696,498 | \$ 42,942,341 | 301.55% | 12/31/2019 | 37.6 | 62.0 |
| Abilene Firemen's Relief & Retirement Fund | Active | 10/1/2021 | 7.50% | 29.4 | 49.4 | \$ 64,944,840 | \$ 61,480,455 | \$ 63,021,397 | 377.55% | 10/1/2019 | 31.4 | 49.1 |
| Teacher Retirement System of Texas | Active | 8/31/2023 | 7.00% | 29.0 | 77.5 | \$ 187,170,535,558 | \$ 199,663,655,982 | \$ 57,879,603,456 | 100.16% | 8/31/2022 | 26.0 | 79.0 |
| Austin Police Retirement System | Active | 12/31/2022 | 7.25% | 29.0 | 60.1 | \$ 933,084,477 | \$ 1,015,080,603 | \$ 673,675,081 | 415.85% | 12/31/2021 | 30.0 | 60.2 |
| Odessa Firemen's Relief & Retirement Fund | Active | 1/1/2023 | 7.00% | 29.0 | 36.2 | \$ 44,453,367 | \$ 48,209,749 | \$ 85,030,030 | 483.26% | 1/1/2022 | 34.3 | 36.5 |
| Lufkin Firemen's Relief & Retirement Fund | Active | 12/31/2022 | 7.25% | 28.0 | 51.3 | \$ 20,511,287 | \$ 23,602,777 | \$ 22,371,091 | 363.72% | 12/31/2020 | 31.9 | 50.7 |
| Longview Firemen's Relief & Retirement Fund | Active | 12/31/2022 | 7.50% | 27.6 | 74.8 | \$ 85,609,883 | \$ 94,187,530 | \$ 31,742,042 | 205.06% | 12/31/2021 | Infinite | 40.5 |

Actuarial Valuation Report March 6, 2024

| | | | | | | Current Actuarial Va | luation | | | Prior A | ctuarial Val | uation |
|--|-----------------------|-------------------|------------------|----------------------------------|-------------------|------------------------------------|---------------------------------------|---|----------------------------|-------------------|---|-------------------|
| Plan Name | Plan Status (1) | Effective Date | Discount Rate | Effective Amort Period (2) | Funded Ratio % | Market Value of Assets (MVA) | Actuarial Value of Assets (AVA) | Unfunded Actuarial Accrued Liability (UAAL = AAL - AVA) | UAAL as % of Payroll | Effective Date | Prior Effective Amort Period (2) | Funded Ratio % |
| Texarkana Firemen's Relief & Retirement Fund | Active | 12/31/2021 | 7.50% | 27.5 | 84.6 | \$ 43,910,070 | \$ 40,273,543 | \$ 7,320,444 | 156.60% | 12/31/2019 | 58.3 | 80.0 |
| Waxahachie Firemen's Relief & Retirement Fund | Active | 10/1/2022 | 7.00% | 27.1 | 63.0 | \$ 19,023,702 | \$ 19,023,702 | \$ 11,159,806 | 177.90% | 10/1/2020 | 17.5 | 74.9 |
| Fort Worth Employees' Retirement Fund Staff Plan (4) | Active | 12/31/2022 | 7.00% | 27.0 | 77.1 | \$ 8,295,941 | \$ 8,787,499 | \$ 2,610,417 | 122.01% | 12/31/2021 | 27.0 | 75.7 |
| Tyler Firefighters' Relief & Retirement Fund | Active | 12/31/2021 | 7.00% | 26.8 | 73.0 | \$ 89,297,890 | \$ 82,134,149 | \$ 30,449,465 | 227.63% | 12/31/2019 | 29.0 | 71.1 |
| University Park Firemen's Relief & Retirement Fund | Closed | 12/31/2020 | 7.25% | 26.8 | 42.3 | \$ 11,856,807 | \$ 11,317,536 | \$ 15,469,293 | 463.40% | 12/31/2018 | 28.8 | 43.4 |
| Atlanta Firemen's Relief & Retirement Fund | Active | 12/31/2022 | 7.00% | 26.6 | 72.6 | \$ 4,161,658 | \$ 4,577,824 | \$ 1,726,808 | 203.32% | 12/31/2020 | Infinite | 77.4 |
| Temple Firemen's Relief & Retirement Fund | Active | 9/30/2022 | 7.75% | 25.6 | 71.0 | \$ 47,415,090 | \$ 52,156,599 | \$ 21,300,957 | 202.12% | 9/30/2020 | 26.6 | 70.5 |
| Cleburne Firemen's Relief & Retirement Fund | Active | 12/31/2022 | 7.35% | 25.6 | 60.7 | \$ 23,463,033 | \$ 25,776,697 | \$ 16,722,894 | 281.39% | 12/31/2020 | 37.3 | 59.6 |
| CPS Energy Pension Plan | Active | 1/1/2022 | 7.00% | 25.0 | 87.6 | \$ 2,190,958,467 | \$ 1,993,536,984 | \$ 281,341,933 | 92.40% | 1/1/2021 | 26.0 | 85.4 |
| Corsicana Firemen's Relief & Retirement Fund | Active | 12/31/2022 | 7.00% | 25.0 | 55.6 | \$ 10,935,219 | \$ 11,870,828 | \$ 9,463,300 | 206.72% | 12/31/2020 | 52.2 | 54.7 |
| Lubbock Fire Pension Fund | Active | 12/31/2022 | 7.50% | 24.8 | 70.8 | \$ 239,588,162 | \$ 246,194,850 | \$ 101,553,086 | 236.15% | 12/31/2020 | 33.7 | 69.5 |
| Houston Municipal Employees Pension System | Active | 7/1/2023 | 7.00% | 24.1 | 69.0 | \$ 4,072,345,000 | \$ 3,836,122,000 | \$ 1,721,686,000 | 235.85% | 7/1/2022 | 25.1 | 65.8 |
| Houston Police Officers' Pension System | Active | 7/1/2023 | 7.00% | 24.0 | 89.3 | \$ 7,208,455,000 | \$ 6,876,727,000 | \$ 822,628,000 | 159.44% | 7/1/2022 | 25.0 | 87.5 |
| University Health System Pension Plan | Active | 1/1/2022 | 7.00% | 23.0 | 77.0 | \$ 605,035,891 | \$ 535,748,937 | \$ 160,240,293 | 33.99% | 1/1/2021 | 23.0 | 74.4 |
| Harlingen Firemen's Relief & Retirement Fund | Active | 9/30/2021 | 7.75% | 23.0 | 71.7 | \$ 40,775,588 | \$ 40,775,588 | \$ 16,097,875 | 206.06% | 9/30/2019 | 38.0 | 64.5 |
| Irving Firemen's Relief & Retirement Fund (4) | Active | 12/31/2022 | 7.00% | 22.2 | 90.8 | \$ 242,409,713 | \$ 265,393,830 | \$ 27,028,326 | 64.49% | 12/31/2021 | 37.0 | 63.8 |
| Corpus Christi Fire Fighters' Retirement System | Active | 12/31/2020 | 7.25% | 21.5 | 60.9 | \$ 176,686,804 | \$ 167,695,254 | \$ 107,525,430 | 300.15% | 12/31/2018 | 29.8 | 60.2 |
| Dallas Co. Hospital Dist. Retirement Income Plan | Active | 1/1/2023 | 6.00% | 21.0 | 72.9 | \$ 1,426,685,005 | \$ 1,573,245,250 | \$ 584,880,948 | 73.78% | 1/1/2022 | 22.0 | 73.3 |
| Texas Emergency Services Retirement System | Active | 8/31/2022 | 7.50% | 21.0 | 84.3 | \$ 124,345,593 | \$ 139,476,860 | \$ 25,898,809 | 0.00% | 8/31/2020 | 19.0 | 83.3 |
| Killeen Firemen's Relief & Retirement Fund | Active | 9/30/2022 | 7.25% | 21.0 | 70.6 | \$ 53,899,683 | \$ 61,179,128 | \$ 25,456,247 | 133.71% | 9/30/2020 | 28.4 | 70.3 |
| San Antonio Fire & Police Pension Fund | Active | 1/1/2023 | 7.25% | 20.1 | 85.5 | \$ 3,586,483,199 | \$ 3,925,443,660 | \$ 666,617,002 | 179.55% | 1/1/2022 | 13.6 | 88.6 |
| Houston MTA Workers Union Pension Plan | Closed | 1/1/2023 | 6.25% | 20.0 | 70.7 | \$ 290,562,545 | \$ 325,081,142 | \$ 134,714,649 | 202.70% | 1/1/2022 | 21.0 | 70.5 |
| Houston MTA Non-Union Pension Plan | Closed | 1/1/2023 | 6.25% | 20.0 | 61.1 | \$ 177,050,322 | \$ 197,842,214 | \$ 125,789,388 | 383.91% | 1/1/2022 | 21.0 | 64.5 |
| Capital MTA Admin Employees (6) | Active | 1/1/2023 | 6.75% | 20.0 | 84.3 | \$ 47,786,903 | \$ 53,512,742 | \$ 9,984,525 | 22.64% | 1/1/2022 | 20.0 | 87.0 |
| Port Arthur Firemen's Relief & Retirement Fund | Active | 12/31/2021 | 7.25% | 19.7 | 77.8 | \$ 59,837,587 | \$ 56,103,170 | \$ 16,009,955 | 157.39% | 12/31/2019 | 27.3 | 75.0 |
| Texas City Firemen's Relief & Retirement Fund | Active | 12/31/2022 | 7.25% | 19.4 | 42.2 | \$ 14,756,200 | \$ 16,231,820 | \$ 22,239,202 | 272.69% | 12/31/2020 | 28.2 | 45.4 |
| San Antonio Metropolitan Transit Retirement Plan | Active | 10/1/2022 | 7.00% | 19.0 | 71.0 | \$ 322,119,763 | \$ 357,737,701 | \$ 146,294,545 | 294.54% | 10/1/2021 | 20.0 | 72.7 |
| Lower Colorado River Authority Retirement Plan | Closed | 1/1/2023 | 7.00% | 17.0 | 74.5 | \$ 425,541,750 | \$ 477,440,557 | \$ 163,062,201 | 176.28% | 1/1/2022 | 18.0 | 74.4 |
| Dallas Police & Fire Pension System-Supplemental | Active | 1/1/2023 | 6.50% | 17.0 | 38.7 | \$ 16,640,402 | \$ 16,640,402 | \$ 26,409,288 | 1380.42% | 1/1/2022 | 18.0 | 45.7 |

Actuarial Valuation Report March 6, 2024

| | | | | | | Current Actuarial Va | luation | | | Prior Actuarial Valuation | | | | |
|---|-----------------------|-------------------|------------------|----------------------------------|-------------------|------------------------------------|---------------------------------------|---|----------------------------|---------------------------|---|-------------------|--|--|
| Plan Name | Plan Status (1) | Effective Date | Discount Rate | Effective Amort Period (2) | Funded Ratio % | Market Value of Assets (MVA) | Actuarial Value of Assets (AVA) | Unfunded Actuarial Accrued Liability (UAAL = AAL - AVA) | UAAL as % of Payroll | Effective Date | Prior Effective Amort Period (2) | Funded Ratio % | | |
| San Benito Firemen Relief & Retirement Fund | Active | 9/30/2021 | 7.50% | 16.9 | 70.7 | \$ 4,765,739 | \$ 4,765,739 | \$ 1,980,217 | 127.12% | 9/30/2019 | 26.1 | 60.9 | | |
| El Paso Firemen's Pension Fund | Active | 1/1/2022 | 7.75% | 16.6 | 82.6 | \$ 795,068,511 | \$ 720,058,987 | \$ 151,696,510 | 211.21% | 1/1/2020 | 26.6 | 76.5 | | |
| El Paso Police Pension Fund | Active | 1/1/2022 | 7.75% | 16.4 | 81.8 | \$ 1,146,703,603 | \$ 1,033,540,265 | \$ 230,787,866 | 238.96% | 1/1/2020 | 29.9 | 76.3 | | |
| Galveston Employees' Retirement Plan for Police | Active | 1/1/2023 | 7.00% | 16.0 | 42.8 | \$ 23,124,492 | \$ 25,653,169 | \$ 34,287,705 | 250.43% | 1/1/2021 | 27.0 | 38.0 | | |
| Texas County & District Retirement System (3) | Active | 12/31/2022 | 7.50% | 15.4 | 88.6 | \$ 41,968,517,717 | \$ 40,924,046,489 | \$ 5,270,408,579 | 60.88% | 12/31/2021 | 16.4 | 88.5 | | |
| Sweeny Community Hospital | Closed | 1/1/2023 | 5.75% | 15.0 | 93.3 | \$ 3,077,843 | \$ 3,471,202 | \$ 251,075 | 131.35% | 1/1/2022 | 16.0 | 95.2 | | |
| Texas Municipal Retirement System (3) | Active | 12/31/2022 | 6.75% | 14.9 | 89.7 | \$ 35,600,740,860 | \$ 38,208,743,118 | \$ 4,388,787,393 | 55.07% | 12/31/2021 | 15.3 | 90.5 | | |
| Weslaco Firemen's Relief & Retirement Fund | Active | 9/30/2022 | 7.25% | 14.5 | 77.3 | \$ 14,565,196 | \$ 16,021,716 | \$ 4,719,234 | 92.90% | 9/30/2020 | 16.3 | 73.3 | | |
| City of El Paso Employees Retirement Trust | Active | 9/1/2022 | 7.25% | 14.0 | 80.9 | \$ 907,610,032 | \$ 947,404,127 | \$ 224,055,610 | 124.11% | 9/1/2020 | 16.0 | 80.0 | | |
| DFW Airport Board (4) | Active | 1/1/2022 | 7.00% | 13.6 | 84.5 | \$ 651,080,013 | \$ 606,279,339 | \$ 111,351,626 | 365.07% | 1/1/2021 | 15.0 | 88.9 | | |
| Harris County Hospital District Pension Plan (4) | Closed | 1/1/2023 | 5.75% | 13.2 | 78.1 | \$ 821,202,643 | \$ 917,386,688 | \$ 257,816,477 | 203.35% | 1/1/2022 | 14.3 | 76.1 | | |
| DFW Airport Board DPS (4) | Active | 1/1/2022 | 7.00% | 12.7 | 87.2 | \$ 271,569,789 | \$ 253,346,612 | \$ 37,250,524 | 113.60% | 1/1/2021 | 15.0 | 84.6 | | |
| Employees of Brownsville Navigation District (4) | Active | 1/1/2023 | 6.00% | 11.4 | 92.7 | \$ 8,895,467 | \$ 9,653,185 | \$ 755,634 | 13.36% | 1/1/2022 | 12.1 | 85.0 | | |
| Corpus Christi Regional Transportation Authority | Active | 1/1/2023 | 7.00% | 11.0 | 87.4 | \$ 42,537,443 | \$ 46,791,187 | \$ 6,773,731 | 53.74% | 1/1/2022 | 12.0 | 94.2 | | |
| Capital MTA Bargaining | Frozen | 1/1/2023 | 6.50% | 11.0 | 63.4 | \$ 33,872,134 | \$ 39,904,358 | \$ 23,085,445 | 0.00% | 1/1/2022 | 8.5 | 60.0 | | |
| Denison Firemen's Relief & Retirement Fund | Active | 12/31/2021 | 7.50% | 11.0 | 81.1 | \$ 24,957,398 | \$ 21,674,231 | \$ 5,051,349 | 132.39% | 12/31/2019 | 12.2 | 75.3 | | |
| DART Employees (4) | Closed | 10/1/2022 | 6.75% | 10.1 | 84.5 | \$ 182,666,320 | \$ 202,297,624 | \$ 37,076,034 | 963.73% | 10/1/2021 | 11.2 | 84.4 | | |
| Lower Neches Valley | Frozen | 1/1/2022 | 6.50% | 10.0 | 73.1 | \$ 13,742,325 | \$ 13,742,325 | \$ 5,067,527 | 134.66% | 1/1/2021 | 10.0 | 65.4 | | |
| Denton Firemen's Relief & Retirement Fund | Active | 12/31/2021 | 6.75% | 9.1 | 88.8 | \$ 140,537,577 | \$ 126,483,819 | \$ 15,955,827 | 67.52% | 12/31/2019 | 18.3 | 80.8 | | |
| Galveston Employees' Retirement Fund | Active | 12/31/2022 | 7.25% | 9.1 | 80.4 | \$ 58,666,288 | \$ 67,268,293 | \$ 16,444,758 | 53.00% | 12/31/2021 | 10.8 | 85.1 | | |
| Brazos River Authority Retirement Plan | Frozen | 3/1/2023 | 6.50% | 9.0 | 73.5 | \$ 21,750,139 | \$ 22,767,471 | \$ 8,218,196 | 0.00% | 3/1/2022 | 10.0 | 72.3 | | |
| Houston Firefighters' Relief & Retirement Fund | Active | 7/1/2022 | 7.00% | 7.7 | 95.4 | \$ 5,093,736,000 | \$ 4,843,737,000 | \$ 231,779,000 | 85.44% | 7/1/2021 | 14.0 | 93.2 | | |
| Colorado River Municipal Water Dist. (4) | Active | 1/1/2023 | 5.75% | 7.4 | 62.3 | \$ 6,499,196 | \$ 6,499,196 | \$ 3,928,635 | 93.96% | 1/1/2022 | 6.1 | 87.2 | | |
| Refugio County Memorial Hospital (4) | Frozen | 11/1/2022 | 6.00% | 7.0 | 88.1 | \$ 1,546,681 | \$ 1,546,681 | \$ 208,110 | 0.00% | 11/1/2021 | 0.0 | 103.0 | | |
| Amarillo Firemen's Relief & Retirement Fund | Active | 12/31/2021 | 7.50% | 6.0 | 94.8 | \$ 262,228,770 | \$ 219,849,119 | \$ 12,112,114 | 53.42% | 12/31/2019 | 38.1 | 82.0 | | |
| Port of Houston Authority Retirement Plan | Closed | 8/1/2022 | 6.00% | 6.0 | 89.4 | \$ 199,153,704 | \$ 199,153,704 | \$ 23,659,338 | 82.01% | 8/1/2021 | 0.0 | 107.6 | | |
| Guadalupe-Blanco River Authority | Frozen | 1/1/2023 | 6.25% | 6.0 | 88.8 | \$ 31,976,720 | \$ 36,255,883 | \$ 4,582,387 | 0.00% | 1/1/2022 | 7.0 | 90.3 | | |
| Travis County ESD #6 FRRF | Active | 12/31/2021 | 6.50% | 5.9 | 91.0 | \$ 43,124,916 | \$ 39,421,197 | \$ 3,922,061 | 45.43% | 12/31/2019 | 4.6 | 88.6 | | |
| Supplemental Retirement Plan of University Medical Center | Active | 1/1/2023 | 4.00% | 5.0 | 82.4 | \$ 4,673,313 | \$ 4,673,313 | \$ 999,386 | 0.00% | N/A | N/A | N/A | | |

Actuarial Valuation Report March 6, 2024

| | | | | | | Current Actuarial V | aluation | | | Prior A | uation | |
|---|-----------------------|-------------------|------------------|----------------------------------|-------------------|------------------------------------|---------------------------------------|---|----------------------------|-------------------|---|-------------------|
| Plan Name | Plan Status (1) | Effective Date | Discount Rate | Effective Amort Period (2) | Funded Ratio % | Market Value of Assets (MVA) | Actuarial Value of Assets (AVA) | Unfunded Actuarial Accrued Liability (UAAL = AAL - AVA) | UAAL as % of Payroll | Effective Date | Prior Effective Amort Period (2) | Funded Ratio % |
| JPS - Tarrant County Hospital District | Active | 10/1/2021 | 6.75% | 1.9 | 97.4 | \$ 431,767,721 | \$ 388,096,085 | \$ 10,405,928 | 3.18% | 10/1/2020 | 6.3 | 94.0 |
| Law Enforcement & Custodial Off Sup. Ret. Fund | Active | 8/31/2023 | 7.00% | 0.0 | 100.0 | \$ 1,818,670,314 | \$ 1,799,822,260 | \$ (111,127) | -0.01% | 8/31/2022 | Infinite | 58.6 |
| Judicial Retirement System of Texas Plan Two | Active | 8/31/2023 | 7.00% | 0.0 | 101.2 | \$ 690,103,596 | \$ 679,356,349 | \$ (7,767,971) | -8.26% | 8/31/2022 | Infinite | 86.2 |
| Plano Retirement Security Plan | Active | 12/31/2022 | 6.75% | 0.0 | 103.0 | \$ 185,800,514 | \$ 206,076,893 | \$ (5,924,925) | -3.37% | 12/31/2021 | 0.0 | 103.6 |
| Citizens Medical Center | Active | 3/1/2023 | 6.75% | 0.0 | 115.6 | \$ 139,828,346 | \$ 147,508,130 | \$ (19,868,908) | -28.46% | 3/1/2022 | 0.0 | 115.4 |
| Irving Supplemental Benefit Plan | Active | 1/1/2023 | 6.75% | 0.0 | 100.3 | \$ 98,561,717 | \$ 109,624,397 | \$ (335,971) | -0.26% | 1/1/2022 | 0.0 | 107.0 |
| Guadalupe Regional Medical Center | Active | 1/1/2023 | 6.75% | 0.0 | 101.9 | \$ 94,418,511 | \$ 103,856,257 | \$ (1,959,878) | -5.55% | 1/1/2022 | 0.0 | 100.1 |
| The Woodlands Firefighters' Retirement System | Active | 1/1/2022 | 7.00% | 0.0 | 129.3 | \$ 63,441,626 | \$ 63,441,626 | \$ (14,382,997) | -108.87% | 1/1/2020 | 0.0 | 107.0 |
| Northwest Texas Healthcare System Retirement Plan | Frozen | 10/1/2022 | 6.00% | 0.0 | 95.1 | \$ 19,091,445 | \$ 20,604,826 | \$ 1,067,088 | 0.00% | 10/1/2021 | 0.0 | 97.1 |
| Galveston Wharves Pension Plan | Closed | 1/1/2022 | 7.25% | 0.0 | 102.0 | \$ 16,713,180 | \$ 16,713,180 | \$ (330,183) | -31.71% | 1/1/2021 | 20.0 | 93.2 |
| Arlington Employees Deferred Income Plan | Active | 6/30/2022 | 5.00% | 0.0 | 103.5 | \$ 3,142,712 | \$ 3,142,712 | \$ (104,955) | -3.23% | 6/30/2021 | 0.0 | 120.3 |
| Anson General Hospital | Frozen | 7/1/2023 | 5.75% | 0.0 | 102.5 | \$ 1,455,858 | \$ 1,569,490 | \$ (38,689) | -61.66% | 7/1/2022 | 0.0 | 106.1 |
| El Paso Firemen & Policemen's Pension Staff Plan | Active | 1/1/2022 | 7.75% | 0.0 | 121.1 | \$ 1,135,811 | \$ 1,039,348 | \$ (180,708) | -20.22% | 1/1/2020 | 0.0 | 113.7 |
| Grand Totals: | | | | | 78.6% | \$ 348,828,479,046 | \$ 363,490,562,077 | \$ 98,690,613,486 | | | | 79.0% |

Notes

- (1) Plan status indicates whether a plan is active (admitting new hires), closed to new hires (but still accruing benefits), or frozen (not accruing benefits).
- (2) The effective amortization period is the time it would take to theoretically eliminate the UAAL assuming no future gains or losses and taking into account both the plan's stated and historical contribution policy.
- (3) Amortization period is calculated using system-wide aggregate UAAL and payroll amounts.
- (4) Amortization period is calculated by the PRB.
- (5) On track to satisfy FSRP requirements and be fully funded by September 1, 2055
- (6) Reported amortization period is based on an open amortization funding policy.
- (7) Amortization period is below 30 using market value of assets
- (8) Amortization period is below 30 using actuarial value of assets

AV Supplemental Report March 6, 2024 (Dollars in Millions)

| Plan Name | Fiscal Year End | Discount Rate | (a) tal Pension bility (TPL) (1) | (b) Fiduciary et Position (2) | (a) - (b) Net Pension ability (NPL) (3) | (b) / (a) NPL Funded Ratio % | PL at Disc. Rate -1% (4) | NPL -1% Funded Ratio % | 10 Year Net Return (5) | Expected Depletion Date (6) |
|--|--------------------|------------------|---|--|--|---------------------------------------|--------------------------------|------------------------------|------------------------------|-----------------------------|
| Law Enforcement & Custodial Off Sup. Ret. Fund | 8/31/2022 | 4.45% | \$ 2,402.63 | \$ 1,042.30 | \$ 1,360.33 | 43.4 | \$ 1,745.06 | 37.4 | 8.30% | 2038 |
| Midland Firemen's Relief & Retirement Fund (10) | 12/31/2022 | 4.11% | \$ 301.11 | \$ 80.98 | \$ 220.13 | 26.9 | \$ 268.05 | 23.2 | 4.30% | 2042 |
| Sweetwater Firemen's Relief & Retirement Fund | 12/31/2022 | 5.81% | \$ 23.45 | \$ 8.22 | \$ 15.23 | 35.1 | \$ 18.78 | 30.5 | 4.88% | 2043 |
| Dallas Employees' Retirement Fund | 12/31/2022 | 5.41% | \$ 6,502.68 | \$ 3,516.28 | \$ 2,986.40 | 54.1 | \$ 3,859.65 | 47.7 | 6.65% | 2045 |
| Wichita Falls Firemen's Relief & Retirement Fund | 12/31/2022 | 5.60% | \$ 123.10 | \$ 51.04 | \$ 72.06 | 41.5 | \$ 87.85 | 36.7 | 6.59% | 2046 |
| Judicial Retirement System of Texas Plan Two | 8/31/2022 | 5.77% | \$ 720.23 | \$ 566.44 | \$ 153.79 | 78.7 | \$ 229.22 | 71.2 | 8.30% | 2046 |
| Beaumont Firemen's Relief & Retirement Fund | 12/31/2022 | 5.67% | \$ 254.97 | \$ 103.65 | \$ 151.32 | 40.7 | \$ 179.77 | 36.6 | 6.60% | 2051 |
| Austin Employees' Retirement System | 12/31/2022 | 5.87% | \$ 5,884.13 | \$ 2,959.78 | \$ 2,924.35 | 50.3 | \$ 3,731.20 | 44.2 | 6.02% | 2057 |
| DART Employees (8) | 9/30/2022 | 6.64% | \$ 241.66 | \$ 182.67 | \$ 58.99 | 75.6 | \$ 81.61 | 69.1 | 6.17% | 2099 |
| Nacogdoches County Hospital District (8) | 6/30/2021 | 4.99% | \$ 61.47 | \$ 50.72 | \$ 10.75 | 82.5 | \$ 18.58 | 73.2 | 8.87% | 2099 |
| Abilene Firemen's Relief & Retirement Fund | 9/30/2022 | 7.50% | \$ 127.37 | \$ 51.59 | \$ 75.78 | 40.5 | \$ 90.37 | 36.3 | 4.36% | N/A |
| Amarillo Firemen's Relief & Retirement Fund | 12/31/2022 | 7.50% | \$ 240.47 | \$ 218.34 | \$ 22.13 | 90.8 | \$ 51.46 | 80.9 | 9.28% | N/A |
| Anson General Hospital | 6/30/2023 | 6.00% | \$ 1.55 | \$ 1.46 | \$ 0.10 | 93.8 | \$ 0.23 | 86.5 | 4.31% | N/A |
| Arlington Employees Deferred Income Plan | 6/30/2023 | 5.00% | \$ 3.37 | \$ 3.35 | \$ 0.01 | 99.7 | \$ 0.31 | 91.5 | 1.93% | N/A |
| Atlanta Firemen's Relief & Retirement Fund | 12/31/2022 | 7.00% | \$ 6.27 | \$ 4.16 | \$ 2.11 | 66.3 | \$ 2.87 | 59.2 | 4.79% | N/A |
| Austin Fire Fighters Relief & Retirement Fund | 12/31/2022 | 7.30% | \$ 1,394.15 | \$ 1,115.83 | \$ 278.32 | 80.0 | \$ 405.94 | 73.3 | 7.57% | N/A |
| Austin Police Retirement System | 12/31/2022 | 7.25% | \$ 1,690.00 | \$ 933.08 | \$ 756.92 | 55.2 | \$ 959.46 | 49.3 | 6.27% | N/A |
| Big Spring Firemen's Relief & Retirement Fund | 12/31/2022 | 7.75% | \$ 24.89 | \$ 14.21 | \$ 10.68 | 57.1 | \$ 13.88 | 50.6 | 5.80% | N/A |
| Brazos River Authority Retirement Plan | 2/28/2023 | 6.50% | \$ 30.92 | \$ 21.75 | \$ 9.17 | 70.3 | \$ 12.18 | 64.1 | 5.51% | N/A |
| Brownwood Firemen's Relief & Retirement Fund | 12/31/2022 | 7.00% | \$ 11.91 | \$ 4.66 | \$ 7.25 | 39.1 | \$ 8.78 | 34.7 | 4.45% | N/A |
| CPS Energy Pension Plan | 12/31/2022 | 7.00% | \$ 2,351.30 | \$ 1,919.16 | \$ 432.14 | 81.6 | \$ 719.40 | 72.7 | 7.24% | N/A |
| Capital MTA Admin Employees | 12/31/2022 | 6.75% | \$ 65.99 | \$ 47.79 | \$ 18.20 | 72.4 | \$ 27.50 | 63.5 | 7.02% | N/A |
| Capital MTA Bargaining | 12/31/2022 | 6.50% | \$ 62.99 | \$ 33.87 | \$ 29.12 | 53.8 | \$ 34.96 | 49.2 | 3.55% | N/A |
| Citizens Medical Center | 2/28/2023 | 6.75% | \$ 128.85 | \$ 139.79 | \$ (10.94) | 108.5 | \$ 5.94 | 95.9 | 7.81% | N/A |
| City of El Paso Employees Retirement Trust | 8/31/2022 | 7.25% | \$ 1,118.50 | \$ 908.27 | \$ 210.22 | 81.2 | \$ 337.20 | 72.9 | 7.91% | N/A |
| Cleburne Firemen's Relief & Retirement Fund | 12/31/2022 | 7.35% | \$ 42.50 | \$ 23.46 | \$ 19.04 | 55.2 | \$ 24.04 | 49.4 | 5.86% | N/A |
| Colorado River Municipal Water Dist. | 12/31/2022 | 5.75% | \$ 10.03 | \$ 6.50 | \$ 3.53 | 64.8 | \$ 4.35 | 59.9 | 5.44% | N/A |
| Conroe Fire Fighters' Retirement Fund | 12/31/2022 | 7.25% | \$ 69.24 | \$ 37.11 | \$ 32.12 | 53.6 | \$ 41.26 | 47.4 | 0.00% | N/A |
| Corpus Christi Fire Fighters' Retirement System | 12/31/2022 | 7.25% | \$ 300.58 | \$ 166.30 | \$ 134.28 | 55.3 | \$ 167.73 | 49.8 | 5.78% | N/A |
| Corpus Christi Regional Transportation Authority | 12/31/2022 | 7.00% | \$ 53.56 | \$ 42.54 | \$ 11.03 | 79.4 | \$ 17.26 | 71.1 | 6.26% | N/A |
| Corsicana Firemen's Relief & Retirement Fund | 12/31/2022 | 7.00% | \$ 19.72 | \$ 10.94 | \$ 8.79 | 55.4 | \$ 11.34 | 49.1 | 5.41% | N/A |
| DFW Airport Board | 12/31/2022 | 7.00% | \$ 732.55 | \$ 586.87 | \$ 145.68 | 80.1 | \$ 236.88 | 71.2 | 6.90% | N/A |
| DFW Airport Board DPS | 12/31/2022 | 7.00% | \$ 309.42 | \$ 254.31 | \$ 55.11 | 82.2 | \$ 99.70 | 71.8 | 6.90% | N/A |
| Dallas Co. Hospital Dist. Retirement Income Plan | 12/31/2022 | 6.00% | \$ 2,158.13 | \$ 1,426.69 | \$ 731.44 | 66.1 | \$ 1,041.79 | 57.8 | 6.39% | N/A |
| Dallas Police & Fire Pension System-Combined Plan | 12/31/2021 | 6.50% | \$ 5,163.73 | \$ 2,157.84 | \$ 3,005.89 | 41.8 | \$ 3,619.93 | 37.3 | 2.90% | N/A |
| Dallas Police & Fire Pension System-Supplemental | 12/31/2021 | 6.50% | \$ 40.87 | \$ 18.66 | \$ 22.21 | 45.7 | \$ 26.12 | 41.7 | 2.90% | N/A |
| Denison Firemen's Relief & Retirement Fund | 12/31/2022 | 7.50% | \$ 27.32 | \$ 20.07 | \$ 7.25 | 73.5 | \$ 10.65 | 65.3 | 7.41% | N/A |
| Denton Firemen's Relief & Retirement Fund | 12/31/2022 | 6.75% | \$ 152.38 | \$ 136.80 | \$ 15.57 | 89.8 | \$ 35.27 | 79.5 | 7.76% | N/A |
| El Paso Firemen & Policemen's Pension Staff Plan (9) | 12/31/2022 | 7.75% | \$ 1.01 | \$ 1.12 | \$ (0.11) | 110.6 | \$ 0.03 | 97.2 | 9.29% | N/A |



AV Supplemental Report March 6, 2024 (Dollars in Millions)

| Plan Name | Fiscal Year End | Discount Rate | (a) tal Pension ability (TPL) (1) | (b) Fiduciary et Position (2) | (a) - (b) Net Pension iability (NPL) (3) | (b) / (a) NPL Funded Ratio % | PL at Disc. Rate -1% (4) | NPL -1% Funded Ratio % | 10 Year Net Return (5) | Expected Depletion Date (6) |
|---|--------------------|------------------|--|--|---|---------------------------------------|--------------------------------|------------------------------|------------------------------|--------------------------------------|
| El Paso Firemen's Pension Fund | 12/31/2022 | 7.75% | \$ 902.69 | \$ 683.90 | \$ 218.80 | 75.8 | \$ 340.31 | 66.8 | 7.45% | N/A |
| El Paso Police Pension Fund | 12/31/2022 | 7.75% | \$ 1,301.90 | \$ 978.78 | \$ 323.13 | 75.2 | \$ 496.48 | 66.3 | 7.45% | N/A |
| Employees Retirement System of Texas | 8/31/2022 | 7.00% | \$ 45,862.49 | \$ 31,986.09 | \$ 13,876.39 | 69.7 | \$ 19,386.26 | 62.3 | 8.30% | N/A |
| Employees of Brownsville Navigation District | 12/31/2022 | 6.00% | \$ 10.14 | \$ 8.90 | \$ 1.24 | 87.8 | \$ 2.49 | 78.1 | 6.24% | N/A |
| Fort Worth Employees' Retirement Fund | 9/30/2022 | 7.00% | \$ 5,039.11 | \$ 2,504.06 | \$ 2,535.05 | 49.7 | \$ 3,146.64 | 44.3 | 6.35% | N/A |
| Fort Worth Employees' Retirement Fund Staff Plan | 9/30/2022 | 7.00% | \$ 11.09 | \$ 7.70 | \$ 3.39 | 69.4 | \$ 5.02 | 60.5 | 6.35% | N/A |
| Galveston Employees' Retirement Fund | 12/31/2022 | 7.25% | \$ 83.71 | \$ 58.67 | \$ 25.05 | 70.1 | \$ 33.99 | 63.3 | 5.65% | N/A |
| Galveston Employees' Retirement Plan for Police | 12/31/2022 | 7.00% | \$ 59.94 | \$ 23.12 | \$ 36.82 | 38.6 | \$ 44.18 | 34.4 | 4.81% | N/A |
| Galveston Firefighter's Relief & Retirement Fund | 12/31/2022 | 7.50% | \$ 83.77 | \$ 49.04 | \$ 34.73 | 58.5 | \$ 44.72 | 52.3 | 5.25% | N/A |
| Galveston Wharves Pension Plan | 12/31/2022 | 7.25% | \$ 16.31 | \$ 13.02 | \$ 3.29 | 79.8 | \$ 4.76 | 73.2 | 7.72% | N/A |
| Greenville Firemen's Relief & Retirement Fund | 12/31/2022 | 7.25% | \$ 37.26 | \$ 13.88 | \$ 23.39 | 37.2 | \$ 27.94 | 33.2 | 5.23% | N/A |
| Guadalupe Regional Medical Center | 12/31/2022 | 6.75% | \$ 104.56 | \$ 94.42 | \$ 10.13 | 90.3 | \$ 24.40 | 79.5 | 8.12% | N/A |
| Guadalupe-Blanco River Authority | 12/31/2022 | 6.25% | \$ 40.19 | \$ 31.98 | \$ 8.21 | 79.6 | \$ 12.42 | 72.0 | 5.24% | N/A |
| Harlingen Firemen's Relief & Retirement Fund | 9/30/2022 | 7.75% | \$ 60.82 | \$ 34.04 | \$ 26.78 | 56.0 | \$ 33.64 | 50.3 | 5.80% | N/A |
| Harris County Hospital District Pension Plan | 12/31/2022 | 5.75% | \$ 1,165.44 | \$ 821.20 | \$ 344.24 | 70.5 | \$ 481.79 | 63.0 | 7.35% | N/A |
| Houston Firefighters' Relief & Retirement Fund | 6/30/2023 | 7.25% | \$ 5,167.59 | \$ 5,109.18 | \$ 58.41 | 98.9 | \$ 582.69 | 89.8 | 7.86% | N/A |
| Houston MTA Non-Union Pension Plan | 12/31/2022 | 6.25% | \$ 313.41 | \$ 177.05 | \$ 136.36 | 56.5 | \$ 168.39 | 51.3 | 5.40% | N/A |
| Houston MTA Workers Union Pension Plan | 12/31/2022 | 6.25% | \$ 452.14 | \$ 290.56 | \$ 161.58 | 64.3 | \$ 209.06 | 58.2 | 5.60% | N/A |
| Houston Municipal Employees Pension System | 6/30/2023 | 7.00% | \$ 5,698.78 | \$ 4,072.35 | \$ 1,626.43 | 71.5 | \$ 2,202.98 | 64.9 | 9.27% | N/A |
| Houston Police Officers' Pension System | 6/30/2023 | 7.00% | \$ 7,892.17 | \$ 7,208.46 | \$ 683.72 | 91.3 | \$ 1,494.50 | 82.8 | 8.30% | N/A |
| Irving Firemen's Relief & Retirement Fund | 12/31/2022 | 7.00% | \$ 292.42 | \$ 242.41 | \$ 50.01 | 82.9 | \$ 86.45 | 73.7 | 6.60% | N/A |
| Irving Supplemental Benefit Plan | 12/31/2022 | 6.75% | \$ 109.29 | \$ 98.56 | \$ 10.73 | 90.2 | \$ 25.63 | 79.4 | 5.49% | N/A |
| JPS - Tarrant County Hospital District | 9/30/2022 | 6.75% | \$ 428.94 | \$ 369.75 | \$ 59.19 | 86.2 | \$ 114.99 | 76.3 | 7.01% | N/A |
| Killeen Firemen's Relief & Retirement Fund | 9/30/2022 | 7.25% | \$ 81.39 | \$ 53.90 | \$ 27.49 | 66.2 | \$ 39.67 | 57.6 | 4.98% | N/A |
| Laredo Firefighters Retirement System | 9/30/2022 | 7.40% | \$ 329.85 | \$ 180.15 | \$ 149.70 | 54.6 | \$ 193.66 | 48.2 | 5.18% | N/A |
| Longview Firemen's Relief & Retirement Fund | 12/31/2022 | 6.42% | \$ 143.03 | \$ 85.61 | \$ 57.42 | 59.9 | \$ 76.02 | 53.0 | 4.79% | N/A |
| Lower Colorado River Authority Retirement Plan | 12/31/2022 | 7.00% | \$ 640.50 | \$ 425.54 | \$ 214.96 | 66.4 | \$ 276.08 | 60.7 | 5.10% | N/A |
| Lower Neches Valley (10) | 12/31/2022 | 6.50% | \$ 20.52 | \$ 12.41 | \$ 8.11 | 60.5 | \$ 10.33 | 54.6 | 0.00% | N/A |
| Lubbock Fire Pension Fund | 12/31/2022 | 7.50% | \$ 347.75 | \$ 239.59 | \$ 108.16 | 68.9 | \$ 151.75 | 61.2 | 6.79% | N/A |
| Lufkin Firemen's Relief & Retirement Fund | 12/31/2022 | 7.25% | \$ 43.80 | \$ 20.51 | \$ 23.29 | 46.8 | \$ 27.94 | 42.3 | 5.07% | N/A |
| Marshall Firemen's Relief & Retirement Fund | 12/31/2022 | 7.25% | \$ 23.80 | \$ 8.02 | \$ 15.78 | 33.7 | \$ 18.90 | 29.8 | 5.12% | N/A |
| McAllen Firemen's Relief & Retirement Fund | 9/30/2022 | 7.50% | \$ 89.73 | \$ 53.42 | \$ 36.31 | 59.5 | \$ 47.40 | 53.0 | 4.79% | N/A |
| Northwest Texas Healthcare System Retirement Plan | 9/30/2022 | 6.00% | \$ 21.98 | \$ 19.09 | \$ 2.89 | 86.9 | \$ 5.07 | 79.0 | 9.13% | N/A |
| Odessa Firemen's Relief & Retirement Fund | 12/31/2022 | 7.00% | \$ 130.87 | \$ 44.45 | \$ 86.41 | 34.0 | \$ 102.95 | 30.2 | 0.00% | N/A |
| Orange Firemen's Relief & Retirement Fund | 12/31/2022 | 7.75% | \$ 17.49 | \$ 8.44 | \$ 9.05 | 48.3 | \$ 11.06 | 43.3 | 5.41% | N/A |
| Paris Firefighters' Relief & Retirement Fund | 12/31/2022 | 7.25% | \$ 15.47 | \$ 15.69 | \$ (0.21) | 101.4 | \$ 1.53 | 91.1 | 3.57% | N/A |
| Plainview Firemen's Relief & Retirement Fund | 12/31/2022 | 7.50% | \$ 17.96 | \$ 6.77 | \$ 11.19 | 37.7 | \$ 13.24 | 33.8 | 4.71% | N/A |
| Plano Retirement Security Plan | 12/31/2022 | 6.75% | \$ 200.15 | \$ 185.80 | \$ 14.35 | 92.8 | \$ 42.89 | 81.2 | 7.29% | N/A |
| Port Arthur Firemen's Relief & Retirement Fund | 12/31/2022 | 7.25% | \$ 74.76 | \$ 48.66 | \$ 26.10 | 65.1 | \$ 34.56 | 58.5 | 5.81% | N/A |



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| Plan Name | Fiscal Year End | Discount Rate | _ | (a) otal Pension ability (TPL) (1) | (b) Fiduciary et Position (2) | (a) - (b) Net Pension iability (NPL) (3) | (b) / (a) NPL Funded Ratio % | PL at Disc. Rate -1% (4) | NPL -1% Funded Ratio % | 10 Year Net Return (5) | Expected Depletion Date (6) |
|---|--------------------|------------------|----|---|--|---|---------------------------------------|--------------------------------|------------------------------|------------------------------|--------------------------------------|
| Port of Houston Authority Retirement Plan | 7/31/2022 | 6.00% | \$ | 221.09 | \$ 199.15 | \$ 21.94 | 90.1 | \$ 47.59 | 80.7 | 6.49% | N/A |
| Refugio County Memorial Hospital | 10/31/2022 | 6.00% | \$ | 1.75 | \$ 1.55 | \$ 0.21 | 88.1 | \$ 0.45 | 77.6 | 3.82% | N/A |
| San Angelo Firemen's Relief & Retirement Fund | 12/31/2022 | 6.48% | \$ | 146.72 | \$ 68.90 | \$ 77.81 | 47.0 | \$ 96.30 | 41.7 | 5.73% | N/A |
| San Antonio Fire & Police Pension Fund | 12/31/2022 | 7.25% | \$ | 4,478.78 | \$ 3,586.48 | \$ 892.30 | 80.1 | \$ 1,518.59 | 70.3 | 6.60% | N/A |
| San Antonio Metropolitan Transit Retirement Plan | 9/30/2022 | 7.25% | \$ | 488.90 | \$ 322.12 | \$ 166.78 | 65.9 | \$ 217.79 | 59.7 | 7.76% | N/A |
| San Benito Firemen Relief & Retirement Fund | 9/30/2022 | 7.50% | \$ | 7.07 | \$ 4.19 | \$ 2.89 | 59.2 | \$ 3.79 | 52.5 | 4.72% | N/A |
| Supplemental Retirement Plan of University Medical Center | N/A | N/A | | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Sweeny Community Hospital | 12/31/2022 | 5.75% | \$ | 3.71 | \$ 3.08 | \$ 0.63 | 83.0 | \$ 0.95 | 76.5 | 7.08% | N/A |
| Teacher Retirement System of Texas | 8/31/2022 | 7.00% | \$ | 243,553.05 | \$ 184,185.62 | \$ 59,367.43 | 75.6 | \$ 92,353.21 | 66.6 | 8.14% | N/A |
| Temple Firemen's Relief & Retirement Fund | 9/30/2022 | 7.75% | \$ | 73.46 | \$ 47.42 | \$ 26.04 | 64.6 | \$ 34.76 | 57.7 | 5.67% | N/A |
| Texarkana Firemen's Relief & Retirement Fund | 12/31/2022 | 7.50% | \$ | 49.27 | \$ 37.22 | \$ 12.05 | 75.5 | \$ 17.42 | 68.1 | 6.07% | N/A |
| Texas City Firemen's Relief & Retirement Fund | 12/31/2022 | 7.25% | \$ | 38.47 | \$ 14.76 | \$ 23.71 | 38.4 | \$ 28.33 | 34.2 | 4.32% | N/A |
| Texas County & District Retirement System (11) | 12/31/2022 | N/A | | N/A | N/A | N/A | N/A | N/A | N/A | 8.27% | N/A |
| Texas Emergency Services Retirement System | 8/31/2022 | 7.50% | \$ | 165.38 | \$ 124.35 | \$ 41.03 | 75.2 | \$ 64.37 | 65.9 | 6.62% | N/A |
| Texas Municipal Retirement System (11) | 12/31/2022 | N/A | | N/A | N/A | N/A | N/A | N/A | N/A | 5.93% | N/A |
| The Woodlands Firefighters' Retirement System (9) | 12/31/2022 | 7.00% | \$ | 55.26 | \$ 56.39 | \$ (1.13) | 102.1 | \$ 7.13 | 88.8 | 4.78% | N/A |
| Travis County ESD #6 FRRF | 12/31/2022 | 6.50% | \$ | 48.64 | \$ 39.81 | \$ 8.83 | 81.9 | \$ 16.24 | 71.0 | 6.81% | N/A |
| Tyler Firefighters' Relief & Retirement Fund | 12/31/2022 | 7.00% | \$ | 116.73 | \$ 74.77 | \$ 41.96 | 64.1 | \$ 55.92 | 57.2 | 5.90% | N/A |
| University Health System Pension Plan | 12/31/2022 | 7.00% | \$ | 736.73 | \$ 527.33 | \$ 209.40 | 71.6 | \$ 288.18 | 64.7 | 7.92% | N/A |
| University Park Firemen's Relief & Retirement Fund | 12/31/2021 | 7.25% | \$ | 27.37 | \$ 12.99 | \$ 14.38 | 48.0 | \$ 17.70 | 42.3 | 7.88% | N/A |
| Waxahachie Firemen's Relief & Retirement Fund | 9/30/2022 | 7.00% | \$ | 30.18 | \$ 19.02 | \$ 11.16 | 63.0 | \$ 15.14 | 55.7 | 4.48% | N/A |
| Weslaco Firemen's Relief & Retirement Fund | 9/30/2022 | 7.25% | \$ | 20.74 | \$ 14.57 | \$ 6.18 | 70.2 | \$ 9.36 | 60.9 | 4.88% | N/A |
| Grand Totals: | | | \$ | 360,451.52 | \$ 264,493.47 | \$ 95,958.05 | 73.4% | \$ 143,042.62 | 64.9% | | |

Notes

(1)

- (2) Total Pension Liability is the actuarial accrued liability calculated in accordance with GASB 67, as reported in the system's Annual Financial Report.
- (3) Fiduciary Net Position is the market value of assets as of the Fiscal Year End, as reported in the system's Annual Finaicial Report.
- (4) Net Pension Liability is measured as the Total Pension Liability less the amount of the pension plan's Fiduciary Net Position.
- (5) Net Pension Liability measured using a discount rate 1% lower than the stated discount rate.
- (6) 10 Year Net Return (gross return net of investment expenses) as reported for the Fiscal Year on the PRB-1000 Investment Returns and Assumptions Report.
- (7) Expected Depletion date is reported in GASB 67 when applicable.
- (8) Expected depletion date not provided. 2099 used as placeholder.
- (9) The plan is less than 10 years old; return is calculated since date of inception.
- (10) Recent 10-year returns are unavailable
- (11) Plan is an Agent Multiple Employer Defined Benefit Plan and is not subject to the majority of GASB 67 reporting requirements.



Contribution Report March 6, 2024

| | | | | (a) | (b) | (c) = (a) - (b) | (d) | (e) = (c) + (d) | (f) | | (f) / (e) |
|---|-----------------------|--------------------|---------------------|------------------------------------|------------------------------|---------------------------------|--------------------------------|---------------------------------------|--|------------------------|--------------------------------|
| Plan Name | Plan Status (1) | Fiscal Year End | Covered Payroll | Total NC (% of Pay) (2), (3) | EE Cont (% of Pay) (3) | ER Normal Cost (% of Pay) | Amort Pmt (% of Pay) (3) | ER Rec Cont (% of Pay) (3), (4) | Actual ER Cont (% of Pay) (5) | Actual ER Cont Type | Percent of Rec Cont Paid |
| Nacogdoches County Hospital District (6) | Frozen | 6/30/2021 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | Actuarial | 0% |
| Northwest Texas Healthcare System Retirement Plan (6) | Frozen | 9/30/2022 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | Actuarial | 0% |
| Law Enforcement & Custodial Off Sup. Ret. Fund | Active | 8/31/2022 | \$ 1,585,643,659 | 1.97% | 0.50% | 1.47% | 2.50% | 3.97% | 1.35% | Other | 34% |
| Midland Firemen's Relief & Retirement Fund | Active | 12/31/2022 | \$ 22,052,445 | 31.54% | 14.20% | 17.34% | 28.16% | 45.50% | 23.58% | Fixed | 52% |
| Beaumont Firemen's Relief & Retirement Fund | Active | 12/31/2022 | \$ 23,324,236 | 20.85% | 18.00% | 2.85% | 24.17% | 27.02% | 17.11% | Fixed | 63% |
| Judicial Retirement System of Texas Plan Two | Active | 8/31/2022 | \$ 90,868,738 | 26.64% | 9.39% | 17.25% | 6.46% | 23.71% | 15.83% | Fixed | 67% |
| Dallas Employees' Retirement Fund | Active | 12/31/2022 | \$ 442,863,000 | 21.19% | 13.32% | 7.87% | 13.42% | 21.29% | 15.19% | Other | 71% |
| Dallas Police & Fire Pension System-Combined Plan | Active | 12/31/2021 | \$ 427,440,530 | 19.22% | 13.50% | 5.72% | 46.05% | 51.77% | 38.73% | Other | 75% |
| Colorado River Municipal Water Dist. | Active | 12/31/2022 | \$ 3,750,043 | 10.69% | 0.00% | 10.69% | 9.34% | 20.03% | 16.14% | Actuarial | 81% |
| El Paso Firemen & Policemen's Pension Staff Plan | Active | 12/31/2022 | \$ 893,506 | 10.77% | 5.00% | 5.77% | 3.70% | 9.47% | 7.65% | Actuarial | 81% |
| Fort Worth Employees' Retirement Fund | Active | 9/30/2022 | \$ 523,485,600 | 17.60% | 11.39% | 6.21% | 26.08% | 32.29% | 26.17% | Actuarial | 81% |
| Galveston Firefighter's Relief & Retirement Fund | Active | 12/31/2022 | \$ 9,916,741 | 21.30% | 18.00% | 3.30% | 17.12% | 20.42% | 16.78% | Fixed | 82% |
| Sweetwater Firemen's Relief & Retirement Fund | Active | 12/31/2022 | \$ 1,711,845 | 21.40% | 17.00% | 4.40% | 18.49% | 22.89% | 19.55% | Fixed | 85% |
| Atlanta Firemen's Relief & Retirement Fund | Active | 12/31/2022 | \$ 607,518 | 21.05% | 13.00% | 8.05% | 11.58% | 19.63% | 16.79% | Fixed | 86% |
| Brownwood Firemen's Relief & Retirement Fund | Active | 12/31/2022 | \$ 2,033,658 | 15.81% | 10.00% | 5.81% | 18.45% | 24.26% | 21.15% | Fixed | 87% |
| Austin Employees' Retirement System | Active | 12/31/2022 | \$ 752,180,499 | 17.69% | 8.00% | 9.69% | 12.19% | 21.88% | 19.49% | Fixed | 89% |
| Harlingen Firemen's Relief & Retirement Fund | Active | 9/30/2022 | \$ 7,812,278 | 18.53% | 15.00% | 3.53% | 13.47% | 17.00% | 15.35% | Fixed | 90% |
| Conroe Fire Fighters' Retirement Fund | Active | 12/31/2022 | \$ 14,320,776 | 22.90% | 15.50% | 7.40% | 9.63% | 17.03% | 15.72% | Fixed | 92% |
| Marshall Firemen's Relief & Retirement Fund | Active | 12/31/2022 | \$ 2,899,527 | 18.38% | 16.00% | 2.38% | 23.01% | 25.39% | 23.45% | Fixed | 92% |
| Cleburne Firemen's Relief & Retirement Fund | Active | 12/31/2022 | \$ 5,942,994 | 19.75% | 15.00% | 4.75% | 17.36% | 22.11% | 20.63% | Other | 93% |
| Wichita Falls Firemen's Relief & Retirement Fund | Active | 12/31/2022 | \$ 12,538,296 | 13.71% | 13.00% | 0.71% | 13.15% | 13.86% | 13.13% | Fixed | 95% |
| Austin Fire Fighters Relief & Retirement Fund | Active | 12/31/2022 | \$ 105,372,248 | 30.73% | 18.70% | 12.03% | 10.73% | 22.76% | 21.60% | Fixed | 95% |
| Tyler Firefighters' Relief & Retirement Fund | Active | 12/31/2022 | \$ 13,376,935 | 22.19% | 13.50% | 8.69% | 13.80% | 22.49% | 21.37% | Fixed | 95% |
| Laredo Firefighters Retirement System | Active | 9/30/2022 | \$ 40,062,456 | 21.49% | 15.00% | 6.49% | 18.27% | 24.76% | 23.60% | Fixed | 95% |
| Odessa Firemen's Relief & Retirement Fund | Active | 12/31/2022 | \$ 16,910,173 | 16.81% | 16.00% | 0.81% | 27.01% | 27.82% | 27.01% | Fixed | 97% |
| University Park Firemen's Relief & Retirement Fund | Closed | 12/31/2021 | \$ 3,338,205 | 15.14% | 10.00% | 5.14% | 38.29% | 43.43% | 42.61% | Actuarial | 98% |
| San Angelo Firemen's Relief & Retirement Fund | Active | 12/31/2022 | \$ 14,240,771 | 21.23% | 18.50% | 2.73% | 17.37% | 20.10% | 20.05% | Fixed | 100% |
| San Antonio Metropolitan Transit Retirement Plan | Active | 9/30/2022 | \$ 54,786,319 | 12.56% | 6.53% | 6.03% | 18.71% | 24.74% | 24.73% | Actuarial | 100% |



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| | | | | (a) | (b) | (c) = (a) - (b) | (d) | (e) = (c) + (d) | (f) | | (f) / (e) |
|--|-----------------------|--------------------|--------------------|------------------------------------|------------------------------|--|--------------------------------|---------------------------------------|--|------------------------|--------------------------------|
| Plan Name | Plan Status (1) | Fiscal Year End | Covered Payroll | Total NC (% of Pay) (2), (3) | EE Cont (% of Pay) (3) | ER Normal Cost (% of Pay) (3) | Amort Pmt (% of Pay) (3) | ER Rec Cont (% of Pay) (3), (4) | Actual ER Cont (% of Pay) (5) | Actual ER Cont Type | Percent of Rec Cont Paid |
| DFW Airport Board DPS | Active | 12/31/2022 | \$ 32,790,767 | 24.33% | 7.00% | 17.33% | 11.57% | 28.90% | 28.90% | Actuarial | 100% |
| DFW Airport Board | Active | 12/31/2022 | \$ 30,501,477 | 18.87% | 0.00% | 18.87% | 42.55% | 61.42% | 61.42% | Actuarial | 100% |
| Dallas Police & Fire Pension System-Supplemental | Active | 12/31/2021 | \$ 642,583 | 71.95% | 13.93% | 58.02% | 268.57% | 326.59% | 326.59% | Actuarial | 100% |
| Brazos River Authority Retirement Plan (6) | Frozen | 2/28/2023 | \$ 5,989,476 | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 19.45% | Actuarial | 100% |
| JPS - Tarrant County Hospital District | Active | 9/30/2022 | \$ 326,804,235 | 6.18% | 1.87% | 4.31% | 1.94% | 6.25% | 6.25% | Other | 100% |
| Sweeny Community Hospital | Closed | 12/31/2022 | \$ 561,964 | 14.53% | 0.00% | 14.53% | 3.53% | 18.06% | 18.06% | Actuarial | 100% |
| Anson General Hospital | Frozen | 6/30/2023 | \$ 60,552 | 103.01% | 4.00% | 99.01% | -84.10% | 14.91% | 14.91% | Actuarial | 100% |
| Citizens Medical Center | Active | 2/28/2023 | \$ 61,683,953 | 8.35% | 3.96% | 4.39% | -1.62% | 2.77% | 2.77% | Other | 100% |
| University Health System Pension Plan | Active | 12/31/2022 | \$ 458,106,000 | 5.32% | 2.58% | 2.74% | 1.95% | 4.69% | 4.69% | Actuarial | 100% |
| Guadalupe Regional Medical Center | Active | 12/31/2022 | \$ 33,880,304 | 11.74% | 4.00% | 7.74% | 0.58% | 8.32% | 8.34% | Other | 100% |
| McAllen Firemen's Relief & Retirement Fund | Active | 9/30/2022 | \$ 13,110,143 | 16.98% | 14.00% | 2.98% | 11.55% | 14.53% | 14.57% | Fixed | 100% |
| CPS Energy Pension Plan | Active | 12/31/2022 | \$ 293,668,607 | 15.67% | 5.00% | 10.67% | 9.42% | 20.09% | 20.18% | Actuarial | 100% |
| Irving Supplemental Benefit Plan | Active | 12/31/2022 | \$ 119,771,217 | 3.28% | 2.50% | 0.78% | 0.00% | 0.78% | 0.79% | Other | 101% |
| Austin Police Retirement System | Active | 12/31/2022 | \$ 162,554,600 | 25.13% | 15.00% | 10.13% | 16.58% | 26.71% | 27.33% | Actuarial | 102% |
| Houston Municipal Employees Pension System | Active | 6/30/2023 | \$ 660,597,000 | 11.19% | 3.00% | 8.19% | 21.99% | 30.18% | 31.02% | Actuarial | 103% |
| Lufkin Firemen's Relief & Retirement Fund | Active | 12/31/2022 | \$ 5,657,886 | 16.69% | 14.20% | 2.49% | 21.11% | 23.60% | 24.37% | Fixed | 103% |
| Houston MTA Workers Union Pension Plan | Closed | 12/31/2022 | \$ 79,313,000 | 4.31% | 0.24% | 4.07% | 15.05% | 19.12% | 19.76% | Actuarial | 103% |
| Big Spring Firemen's Relief & Retirement Fund | Active | 12/31/2022 | \$ 4,501,839 | 17.74% | 13.00% | 4.74% | 12.48% | 17.22% | 17.81% | Fixed | 103% |
| Greenville Firemen's Relief & Retirement Fund | Active | 12/31/2022 | \$ 4,844,917 | 18.15% | 16.30% | 1.85% | 21.68% | 23.53% | 24.34% | Fixed | 103% |
| Houston MTA Non-Union Pension Plan | Closed | 12/31/2022 | \$ 32,168,000 | 10.27% | 0.00% | 10.27% | 29.69% | 39.96% | 41.37% | Actuarial | 104% |
| Corsicana Firemen's Relief & Retirement Fund | Active | 12/31/2022 | \$ 3,132,131 | 15.11% | 14.00% | 1.11% | 16.11% | 17.22% | 17.86% | Fixed | 104% |
| Lubbock Fire Pension Fund | Active | 12/31/2022 | \$ 35,973,408 | 22.15% | 14.98% | 7.17% | 15.44% | 22.61% | 23.46% | Other | 104% |
| Corpus Christi Regional Transportation Authority | Active | 12/31/2022 | \$ 11,319,943 | 8.73% | 0.00% | 8.73% | 3.02% | 11.75% | 12.21% | Actuarial | 104% |
| Houston Firefighters' Relief & Retirement Fund | Active | 6/30/2023 | \$ 258,896,000 | 25.48% | 10.50% | 14.98% | 11.91% | 26.89% | 27.99% | Actuarial | 104% |
| The Woodlands Firefighters' Retirement System | Active | 12/31/2022 | \$ 13,211,712 | 22.85% | 12.00% | 10.85% | 1.15% | 12.00% | 12.52% | Fixed | 104% |
| Port of Houston Authority Retirement Plan | Closed | 7/31/2022 | \$ 28,395,351 | 13.12% | 0.00% | 13.12% | 0.47% | 13.59% | 14.26% | Actuarial | 105% |
| El Paso Firemen's Pension Fund | Active | 12/31/2022 | \$ 71,821,803 | 18.87% | 18.00% | 0.87% | 17.83% | 18.70% | 19.78% | Fixed | 106% |
| El Paso Police Pension Fund | Active | 12/31/2022 | \$ 96,580,711 | 15.58% | 18.00% | 0.00% | 20.62% | 18.20% | 19.35% | | 106% |



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| | | | | (a) | (b) | (c) = (a) - (b) | (d) | (e) = (c) + (d) | (f) | | (f) / (e) |
|--|-----------------------|--------------------|----------------------|------------------------------------|------------------------------|--|--------------------------------|---------------------------------------|--|------------------------|--------------------------------|
| Plan Name | Plan Status (1) | Fiscal Year End | Covered Payroll | Total NC (% of Pay) (2), (3) | EE Cont (% of Pay) (3) | ER Normal Cost (% of Pay) (3) | Amort Pmt (% of Pay) (3) | ER Rec Cont (% of Pay) (3), (4) | Actual ER Cont (% of Pay) (5) | Actual ER Cont Type | Percent of Rec Cont Paid |
| Abilene Firemen's Relief & Retirement Fund | Active | 9/30/2022 | \$ 16,692,158 | 17.04% | 15.20% | 1.84% | 19.15% | 20.99% | 22.52% | Fixed | 107% |
| Texas City Firemen's Relief & Retirement Fund | Active | 12/31/2022 | \$ 5,845,298 | 15.00% | 17.00% | 0.00% | 20.32% | 18.32% | 19.82% | Fixed | 108% |
| Arlington Employees Deferred Income Plan | Active | 6/30/2023 | \$ 3,254,148 | 6.62% | 3.00% | 3.62% | 0.03% | 3.65% | 4.00% | Actuarial | 110% |
| Texas Emergency Services Retirement System (6) | Active | 8/31/2022 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | Other | 110% |
| Texarkana Firemen's Relief & Retirement Fund | Active | 12/31/2022 | \$ 4,674,742 | 23.06% | 13.50% | 9.56% | 9.85% | 19.41% | 21.38% | Fixed | 110% |
| Fort Worth Employees' Retirement Fund Staff Plan | Active | 9/30/2022 | \$ 1,862,109 | 22.23% | 10.50% | 11.73% | 11.68% | 23.41% | 25.93% | Actuarial | 111% |
| Employees Retirement System of Texas | Active | 8/31/2022 | \$ 7,144,623,435 | 14.12% | 9.50% | 4.62% | 12.52% | 17.14% | 19.42% | Actuarial | 113% |
| San Antonio Fire & Police Pension Fund | Active | 12/31/2022 | \$ 362,274,741 | 23.65% | 12.32% | 11.33% | 10.13% | 21.46% | 24.39% | Fixed | 114% |
| Denison Firemen's Relief & Retirement Fund | Active | 12/31/2022 | \$ 3,815,442 | 15.56% | 13.25% | 2.31% | 15.69% | 18.00% | 20.73% | Fixed | 115% |
| Capital MTA Admin Employees | Active | 12/31/2022 | \$ 38,516,483 | 8.16% | 0.00% | 8.16% | 1.38% | 9.54% | 11.10% | Actuarial | 116% |
| Lower Colorado River Authority Retirement Plan | Closed | 12/31/2022 | \$ 101,310,679 | 5.50% | 0.00% | 5.50% | 17.99% | 23.49% | 27.40% | Actuarial | 117% |
| Lower Neches Valley | Frozen | 12/31/2022 | \$ 3,763,098 | 7.38% | 0.00% | 7.38% | 18.15% | 25.53% | 29.82% | Actuarial | 117% |
| Texas County & District Retirement System | Active | 12/31/2022 | \$ 7,908,800,000 | 14.84% | 6.78% | 8.06% | 4.88% | 12.94% | 15.17% | Actuarial | 117% |
| Texas Municipal Retirement System | Active | 12/31/2022 | \$ 7,283,000,000 | 15.48% | 6.69% | 8.79% | 4.53% | 13.32% | 15.72% | Actuarial | 118% |
| Temple Firemen's Relief & Retirement Fund | Active | 9/30/2022 | \$ 9,733,785 | 19.77% | 16.00% | 3.77% | 11.67% | 15.44% | 18.39% | Fixed | 119% |
| Teacher Retirement System of Texas | Active | 8/31/2022 | \$ 51,356,116,304 | 11.71% | 8.00% | 3.71% | 5.16% | 8.87% | 10.60% | Fixed | 120% |
| Orange Firemen's Relief & Retirement Fund | Active | 12/31/2022 | \$ 2,842,141 | 12.00% | 13.80% | 0.00% | 17.11% | 15.31% | 18.47% | Fixed | 121% |
| Corpus Christi Fire Fighters' Retirement System | Active | 12/31/2022 | \$ 35,823,542 | 16.70% | 13.10% | 3.60% | 18.04% | 21.64% | 26.37% | Fixed | 122% |
| Dallas Co. Hospital Dist. Retirement Income Plan | Active | 12/31/2022 | \$ 721,278,999 | 10.34% | 6.20% | 4.14% | 4.29% | 8.43% | 10.37% | ADC | 123% |
| Killeen Firemen's Relief & Retirement Fund | Active | 9/30/2022 | \$ 15,387,077 | 17.43% | 11.00% | 6.43% | 8.33% | 14.76% | 18.20% | Fixed | 123% |
| Plano Retirement Security Plan | Active | 12/31/2022 | \$ 166,754,188 | 3.48% | 0.00% | 3.48% | -0.27% | 3.21% | 3.97% | Actuarial | 124% |
| Houston Police Officers' Pension System | Active | 6/30/2023 | \$ 476,665,000 | 24.90% | 10.50% | 14.40% | 12.37% | 26.77% | 33.55% | Actuarial | 125% |
| Port Arthur Firemen's Relief & Retirement Fund | Active | 12/31/2022 | \$ 10,172,298 | 16.07% | 15.00% | 1.07% | 9.90% | 10.97% | 14.06% | Other | 128% |
| Galveston Employees' Retirement Plan for Police | Active | 12/31/2022 | \$ 12,829,898 | 14.26% | 12.00% | 2.26% | 15.70% | 17.96% | 23.47% | Actuarial | 131% |
| Denton Firemen's Relief & Retirement Fund | Active | 12/31/2022 | \$ 23,631,852 | 22.23% | 12.60% | 9.63% | 4.65% | 14.28% | 19.24% | Actuarial | 135% |
| City of El Paso Employees Retirement Trust | Active | 8/31/2022 | \$ 167,790,370 | 11.94% | 8.95% | 2.99% | 8.53% | 11.52% | 15.55% | Fixed | 135% |
| Waxahachie Firemen's Relief & Retirement Fund | Active | 9/30/2022 | \$ 5,395,613 | 18.60% | 12.00% | 6.60% | 6.28% | 12.88% | 18.14% | Other | 141% |
| San Benito Firemen Relief & Retirement Fund | Active | 9/30/2022 | \$ 1,557,723 | 13.19% | 12.00% | 1.19% | 7.71% | 8.90% | 12.69% | Fixed | 143% |



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| | | | | (a) | (b) | (c) = (a) - (b) | (d) | (e) = (c) + (d) | (f) | | (f) / (e) |
|--|-----------------------|--------------------|--------------------|------------------------------------|------------------------------|--|--------------------------------|---------------------------------------|--|------------------------|--------------------------------|
| Plan Name | Plan Status (1) | Fiscal Year End | Covered Payroll | Total NC (% of Pay) (2), (3) | EE Cont (% of Pay) (3) | ER Normal Cost (% of Pay) (3) | Amort Pmt (% of Pay) (3) | ER Rec Cont (% of Pay) (3), (4) | Actual ER Cont (% of Pay) (5) | Actual ER Cont Type | Percent of Rec Cont Paid |
| Plainview Firemen's Relief & Retirement Fund | Active | 12/31/2022 | \$ 2,196,430 | 15.44% | 15.00% | 0.44% | 25.66% | 26.10% | 37.99% | Fixed | 146% |
| Weslaco Firemen's Relief & Retirement Fund | Active | 9/30/2022 | \$ 4,938,442 | 15.61% | 12.00% | 3.61% | 5.69% | 9.30% | 13.85% | Fixed | 149% |
| Galveston Employees' Retirement Fund | Active | 12/31/2022 | \$ 27,388,561 | 10.09% | 6.00% | 4.09% | 2.60% | 6.69% | 9.98% | Fixed | 149% |
| Travis County ESD #6 FRRF | Active | 12/31/2022 | \$ 8,633,614 | 30.48% | 20.00% | 10.48% | 2.61% | 13.09% | 19.93% | Fixed | 152% |
| Harris County Hospital District Pension Plan | Closed | 12/31/2022 | \$ 150,518,251 | 6.36% | 0.00% | 6.36% | 19.46% | 25.82% | 39.86% | Actuarial | 154% |
| Amarillo Firemen's Relief & Retirement Fund | Active | 12/31/2022 | \$ 22,673,309 | 24.45% | 14.00% | 10.45% | 3.41% | 13.86% | 22.82% | Fixed | 165% |
| DART Employees | Closed | 9/30/2022 | \$ 3,610,851 | 7.17% | 0.00% | 7.17% | 134.97% | 142.14% | 276.94% | Actuarial | 195% |
| Galveston Wharves Pension Plan | Closed | 12/31/2022 | \$ 1,041,242 | 12.10% | 0.00% | 12.10% | 0.43% | 12.53% | 38.42% | Actuarial | 307% |
| Employees of Brownsville Navigation District | Active | 12/31/2022 | \$ 4,338,705 | 6.19% | 4.00% | 2.19% | 4.16% | 6.35% | 28.82% | Actuarial | 454% |
| Irving Firemen's Relief & Retirement Fund (7) | Active | 12/31/2022 | \$ 40,382,350 | 21.50% | 13.00% | 8.50% | 13.44% | 21.94% | 216.63% | Fixed | 987% |
| Longview Firemen's Relief & Retirement Fund (7) | Active | 12/31/2022 | \$ 14,690,046 | 16.76% | 16.53% | 0.23% | 29.37% | 29.60% | 326.10% | Fixed | 1102% |
| Paris Firefighters' Relief & Retirement Fund (7) | Active | 12/31/2022 | \$ 2,871,131 | 9.57% | 16.00% | 0.00% | 21.71% | 15.28% | 436.13% | Fixed | 2854% |
| Capital MTA Bargaining (6) | Frozen | 12/31/2022 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | Actuarial | N/A |
| Guadalupe-Blanco River Authority (6) | Frozen | 12/31/2022 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | Actuarial | N/A |
| Refugio County Memorial Hospital (6) | Frozen | 10/31/2022 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | Actuarial | N/A |

Notes

- (1) Plan status indicates whether a plan is active (admitting new hires), closed to new hires (but still accruing benefits), or frozen (not accruing benefits).
- (2) Normal Cost includes any explicit provisions for administrative expenses.
- (3) Values may differ from that reported by the system due to differences in timing and/or rounding. For systems that do not indicate the fiscal year associated with this value (or the requisite valuation has not been provided to 1
- (4) Recommended Contribution needed for the system to achieve and maintain an amortization period that does not exceed 30 years, in accordance with Texas Code §802.101(a).
- (5) Actual contribution rate is determined as the employer contributions made to the plan during the fiscal year divided by the covered payroll shown. This may differ from the plan's stated contribution rate due to differences bet
- (6) Covered payroll is not reported for this plan.
- (7) Contribution amounts reflect one-time proceeds from pension obligation bond

Item 9c: FSRP Implementation Update & Case Studies

Bryan Burnham



Background and Purpose

- FSRPs under updated statute and rules due September 1, 2025
- Macro-level actuarial study in lieu of a standard intensive review for 2024
 - Focus on several systems, not just one
- Study aims to serve as a progress update with the following purposes:
 - Provide an overview of FSRP requirement and what was changed
 - Evaluate how the updated requirement is working
 - Present case studies to identify trends and serve as an educational tool



Evaluating How Updated Requirement is Working

- FSRPs encourage systems with funding periods over the threshold to work with sponsors to reduce the funding period to below 30 years.
 - Systems impacted by FSRPs:
 - Systems who have remained above the threshold and triggered an FSRP
 - Systems who would trigger an FSRP with one more actuarial valuation report showing a funding period above 30 years
 - Systems who are above the threshold but would not trigger the FSRP with the next actuarial valuation report
- Case studies will include systems that:
 - Completed FSRPs
 - Avoided FSRPs after reaching At Risk status
 - Avoided At Risk status



Case Studies

- Identify trends of successful systems and sponsors
- Serve as an educational tool to other systems and sponsors that need to make changes
- Study how retirement systems reduced funding period
 - Benefit changes
 - Contribution changes
 - Additional strategies
- Provide key metrics
 - Funding period before vs after changes
 - Funded ratio
 - Employer normal cost and Social Security participation



Timeline

- Initial planning and research underway
- Contact case study systems March-April
- Finalize report and present in the summer/fall



Item 9d. Reporting Compliance

Bryan Burnham



Overview

- Total net assets
 - Current: \$342,062,504,311
 - 11/21/2023: \$341,795,567,700
- Net Investment returns
 - 1-year: -11.54%
 - 10-year: 6.06%
- System membership
 - Active: 1,502,174
 - Annuitants: 884,955
 - Inactive: 1,012,241
 - Total: 3,398,688



PRB Noncompliance Policy

- Reminders sent to system 60 and 15 days before reporting deadline.
- Noncompliance notice sent to system 15 and 45 days after deadline.
- Staff contacts system when reports are 60 days past due.
 - Letter mailed to system's sponsor.
 - System name published to the <u>List of Plans Noncompliant Over 60</u> <u>Days</u> on PRB website.
- System may be asked to appear before the board to discuss noncompliance.
- The PRB may subpoena records or other documents (<u>Sec. 801.205</u>, <u>Texas Government Code</u>).



Systems Noncompliant Over 60 Days

This list includes all systems that have not submitted one or more of the following reports to the PRB by the 60th day after the date the reports are due: annual financial report (AFR), membership report (PRB-200), or Investment Returns and Assumptions Report (PRB-1000).¹

| System | Missing Report | FY | Due Date |
|--|------------------|------|-----------|
| Nacardachas County Haspital District Datiromant Dlan | AFR | 2021 | 1/27/2022 |
| Nacogdoches County Hospital District Retirement Plan | AFR | 2022 | 1/27/2023 |
| Midland Finance / Dalief Q Dating maget Freed | PRB-1000 | 2021 | 7/30/2022 |
| Midland Firemen's Relief & Retirement Fund | AFR ² | 2022 | 7/30/2023 |

²Sec. 802.103(3), listing of direct and indirect investment commissions and fees.



¹Sec. 801.209(b), Texas Government Code

Retirement System Updates

- Northeast Medical Center Hospital Retirement Plan
 - System's board approved plan termination in June 2023
 - Submitted zero balance report on February 12
 - System now considered defunct
- Currently have 101 systems reporting



FY 2023 Compliance Dates

| Fiscal Year End | Due Date | Number of Systems | 60-Day Noncompliance |
|--------------------|--------------------|----------------------|----------------------|
| February 28, 2023 | September 27, 2023 | 2 | December 1, 2023 |
| June 30, 2023 | January 27, 2024 | 6 | April 1, 2024 |
| July 31, 2023 | February 27, 2024 | 1 | May 1, 2024 |
| August 31, 2023 | March 30, 2024 | 7 | June 1, 2024 |
| September 30, 2023 | April 29, 2024 | 15 | July 1, 2024 |
| October 31, 2023 | May 30, 2024 | 1 | August 1, 2024 |
| December 31, 2023 | July 30, 2024 | 69 | October 1, 2024 |



Item 9e: Update on PRB Pension Funding Guidelines and Guidance for Developing a Funding Policy

Mariah Miller



Background and Approach

- Pension Funding Guidelines last revised in 2017
- Section 802.2011, Texas Government Code requires systems and their sponsors to jointly develop and adopt a funding policy
 - PRB developed guidance and an example policy in 2019
 - 97 of 101 plans have since adopted a funding policy.
- Focused on updating both documents to reflect statutory changes and updated best practices
 - Legislation: funding policy requirement in 2019 and subsequent updates to funding policy and funding soundness restoration plan (FSRP) statutes in 2021
 - Best practices: GFOA, ASOPs, GASB, and other updated guidance



Major Proposed Changes

Pension Funding Guidelines:

- Adding language to reflect statutory changes to FSRP and funding policy requirements, including:
 - Greater sponsor involvement
 - Funded ratio trigger for FSRPs starting 9/1/25
 - Funding policy requirement to detail a plan targeting full funding
- Encouraging intergenerational equity
- Discouraging negative amortization



Major Proposed Changes

Funding Policy Guidance:

- Adding language to reflect statutory changes
- Including new sections encouraging system/sponsor collaboration and periodic review of funding policies
- Adding guidance for surplus management
- Expanding information on implementing risksharing policies
- Providing Texas funding policy examples



Stakeholder Feedback

- Requested feedback from stakeholders on Feb. 5, following the Actuarial Committee meeting
- Accepting feedback until March 8, 2024
- Staff will discuss any comments received at the May Actuarial Committee meeting



Project Timeline

2023:

- Aug.-Sept. Research and review
- Oct. Drafting of updated guidelines/guidance
- Nov.-Dec. Revision and editing of guidelines/guidance

2024:

- Jan. Presented deliverables to the Actuarial Committee
- Feb.-Mar Collect stakeholder feedback and provide board update
- May Present updated materials and updated example policy to the Actuarial Committee
- July Present final drafts of the following to the board for possible approval:
 - Updated guidelines
 - Updated guidance
 - Updated example policy



PRB Pension Funding Guidelines

Introduction:

The purpose of the Pension Review Board's Pension Funding Guidelines is to provide guidance to public retirement systems and their sponsoring governmental entities in meeting their long-term pension obligations. The Guidelines are intended to foster communication between systems-plans and their sponsors as they determine a reasonable approach to responsible funding, whether the contribution rate is fixed or actuarially determined.

According to state law, each public retirement system and its sponsoring governmental entity shall jointly develop and adopt a written funding policy. The system and sponsor must revise this policy to reflect any significant changes, including changes required after implementing a funding soundness restoration plan (FSRP).¹

Public retirement systems should develop a funding policy, the primary objective of which is to fund the obligations over a time frame that ensures benefit security while balancing the additional, and sometimes competing, goals of intergenerational equity and a stable contribution rate.

Guidelines:

- 1. The funding of a pension plan should reflect all plan obligations and assets.
- 2. The allocation of the normal cost portion of the contributions should be level or declining as a percentage of payroll over all generations of taxpayers and should be calculated under applicable actuarial standards.
- 3. Funding of the unfunded actuarial accrued liability should be level or declining as a percentage of payroll over the <u>funding amortization</u> period. <u>State law requires a funding policy to include a plan for achieving a 100 percent or greater funded ratio.² Starting September 1, 2025, funded ratio will be a factor in the triggering mechanisms for the FSRP requirement.³</u>
- 4. Actual contributions made to the plan should be sufficient to cover the normal cost and to amortize the unfunded actuarial accrued liability over as brief a period as possible, but not to exceed 30 years, in accordance with state law. with 10 25 years being the preferable target range.* For plans that use multiple amortization layers, the weighted average of all

¹ Section 802.2011, Texas Government Code

² Section 802.2011, Texas Government Code

³ Section 802.2015, Texas Government Code specifies that on or after September 1, 2025, systems with a funding period of between 30 and 40 years and a funded ratio of less than 65 percent will trigger the FSRP requirement after one actuarial valuation.

⁴ Section 802.2015, Texas Government Code establishes a 30-year funding period as the state's minimum funding standard for public retirement systems as part of the Funding Soundness Restoration Plan (FSRP) requirement.

Any systems that subsequently become subject to the Revised FSRP requirement must meet a stricter 25-year funding period and implement an actuarially determined contribution, among other requirements.

amortization <u>funding</u> periods should not exceed 30 years. * <u>Benefit increases should not be</u> adopted if all plan changes being considered cause a material increase in the amortization period and if the resulting amortization period exceeds 25 years.] <u>Once a system reaches 100 percent funded, contributions should continue to cover the normal cost.</u>

- 5. The funding policy should include two reasonable target dates which do not change from year to year:
 - a. The intended date when the system will begin to reduce the unfunded actuarial accrued liability should not be more than 10 years in the future when the target date is first established.
 - b. The intended date when the system will eliminate the unfunded actuarial accrued liability should not be more than 30 years in the future when the target date is first established.
- 6. Benefit increases and contribution decreases should not be adopted if the proposed changes cause a material increase in the funding period and if the resulting funding period exceeds the average future working lifetime of the current active members. 5
- 7. Benefit decreases and contribution increases should not be adopted without studying how the resulting normal costs compare to the contribution rates of each tier, and board discussion of whether members in each tier will receive a benefit that is worth more than their contributions.
- $\underline{58}$. The choice of assumptions <u>used by a system</u> should be reasonable and should comply with applicable actuarial standards.
- $\underline{69}$. <u>Public</u> retirement systems should monitor, review, and report the impact of actual plan experience on actuarial assumptions at least once every five years.

*Plans with amortization periods that exceed 30 years as of 06/30/2017 should seek to reduce their amortization period to 30 years or less as soon as practicable, but not later than 06/30/2025.

⁵ For example, if members on average have accrued 12 years of service and are expected to retire after 25 years of service, any benefit increases should be paid for within the 13 expected remaining service years of the current active members.

PRB Pension Funding Guidelines

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The purpose of the Pension Review Board's Pension Funding Guidelines is to provide guidance to public retirement systems and their sponsoring governmental entities in meeting their long-term pension obligations. The Guidelines are intended to foster communication between systems-and their sponsors as they determine a reasonable approach to responsible funding, whether the contribution rate is fixed or actuarially determined.

According to state law, each public retirement system and its sponsoring governmental entity shall jointly develop and adopt a written funding policy. The system and sponsor must revise this policy to reflect any significant changes, including changes required after implementing a funding soundness restoration plan (FSRP).¹

Guidelines:

- 1. The funding of a pension plan should reflect all plan obligations and assets.
- 2. The allocation of the normal cost portion of the contributions should be level or declining as a percentage of payroll over all generations of taxpayers and should be calculated under applicable actuarial standards.
- 3. Funding of the unfunded actuarial accrued liability should be level or declining as a percentage of payroll over the funding-period. State law requires a funding policy to include a plan for achieving a 100 percent or greater funded ratio.² Starting September 1, 2025, funded ratio will be a factor in the triggering mechanisms for the FSRP requirement.³
- 4. Actual contributions made to the plan should be sufficient to cover the normal cost and to amortize the unfunded actuarial accrued liability over as brief a period as possible, but not to exceed 30 years, in accordance with state law.⁴ For plans that use multiple amortization layers, the weighted average of all funding periods should not exceed 30 years. Once a system reaches 100 percent funded, contributions should continue to cover the normal cost.
- 5. The funding policy should include two reasonable target dates which do not change from year to year:

¹ Section 802.2011, Texas Government Code

² Section 802.2011, Texas Government Code

³ Section 802.2015, Texas Government Code specifies that on or after September 1, 2025, systems with a funding period of between 30 and 40 years and a funded ratio of less than 65 percent will trigger the FSRP requirement after one actuarial valuation.

⁴ Section 802.2015, Texas Government Code establishes a 30-year funding period as the state's minimum funding standard for public retirement systems as part of the Funding Soundness Restoration Plan (FSRP) requirement. Any systems that subsequently become subject to the Revised FSRP requirement must meet a stricter 25-year funding period and implement an actuarially determined contribution, among other requirements.

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- 6. Benefit increases and contribution decreases should not be adopted if the proposed changes cause a material increase in the funding period and if the resulting funding period exceeds the average future working lifetime of the current active members.⁵
- 7. Benefit decreases and contribution increases should not be adopted without studying how the resulting normal costs compare to the contribution rates of each tier, and board discussion of whether members in each tier will receive a benefit that is worth more than their contributions.
- 8. The choice of assumptions used by a system should be reasonable and should comply with applicable actuarial standards.
- 9. Public retirement systems should monitor, review, and report the impact of actual plan experience on actuarial assumptions at least once every five years.

⁵ For example, if members on average have accrued 12 years of service and are expected to retire after 25 years of service, any benefit increases should be paid for within the 13 expected remaining service years of the current active members.



Guidance for Developing a Funding Policy

As required by Senate Bill <u>2224</u> (86R) (Adopted October 17, 2019TBD)

Overview

Section 802.2011, Texas Government Code §802.2011 requires the governing board of a Texas public retirement system to and its sponsor to jointly develop and adopt a written funding policy by January 1, 2020 and timely revise the policy to reflect any significant changes, including those made because of a funding soundness restoration plan (FSRP). The policy is intended to be used as a retirement system's a roadmap to fully fund its the system's long-term obligations. The policy should be created with input from the system's sponsoring governmental entity whenever possible.

The funding policy <u>is required to requirement includes several components</u>. By statute, the policy must be filed with <u>its sponsor and</u> the Texas Pension Review Board (PRB) no later than the 31st day after the date the policy is changed or adopted. <u>The most recent version of the funding policy must also be available on a publicly available website</u>.

A funding policy is required by law to be revised in a timely manner to reflect any changes a system and its sponsor make due to an FSRP. For purposes of a revised FSRP, the funding policy revisions must include any risk-sharing mechanisms, the adoption of an actuarially determined contribution structure, and other adjustable benefit or contribution mechanisms. For more information about the FSRP requirement, including applicable statute, rules and policy, see the PRB's FSRP webpage.

A funding policy helps a system achieve the three fundamental goals of public pension funding: benefit security, contribution stability, and intergenerational equity. While different pension plans Different retirement systems and their governmental sponsors may prioritize these goals differently, but the funding policy should strive to balance these three primary pension funding goals so that member. Member benefits are should be secure; employers and employees are should be afforded some level of contribution predictability from year to year; and liabilities are should be managed so that plan members and future taxpayers are not burdened with costs associated with a previous generation's service. For a more detailed discussion of the benefits of adopting a funding policy, please see the PRB's 2019 Interim Study: Funding Policies for Fixed-Rate Pension Plans.

A funding policy should include the following components:

Clear clear and concrete funding objectives;

II. Actuarial, actuarial methods;

III. A, a roadmap to achieve funding objectives; and

1

¹ Section 802.2011(c), Texas Government Code

Actions actions that will be taken to address actual experience that diverges from assumptions. The following material provides more detail on each of these necessary components of a funding policy. While this guidance uses examples of Texas retirement system funding policy provisions under various components, the use of such examples is for informational purposes and does not constitute endorsement or recommendation by the PRB.

Components of a Funding Policy

I. Establishing Clear and Concrete Funding Objectives

A funding policy should clearly establish the retirement system's funding objectives. Per Government Code §802.2011, the The funding policy must target a funded ratio of 100% percent or greater and be jointly developed and adopted with the system's sponsor. The PRB recommends that systems adopt a funding policy that fully funds the plan over as brief a period as possible, with 10 – 25 years being the preferable range, using a finite, or closed, funding period.

II. Selecting Actuarial Methods

An important role of a funding policy is to **set boundaries on what is allowable for actuarial calculations**. The system's actuary should be involved with the development of a funding policy by advising the board on selecting actuarial methods that align closely with the system's funding objectives, reducing volatility in returns, allowing a more predictable budget, and increasing the likelihood of meeting obligations.³ At a minimum, the three actuarial methods that should be addressed are the actuarial cost method, the assetsmoothing method, and the amortization policy.

Actuarial Cost Method

An actuarial cost method is a way to allocate pieces of a participant's total expected benefit to each year of their working career.

The most common actuarial cost method used in Texas, and the cost method required by GASB for financial reporting disclosures, is the entry age normal (EAN) method.

Under the EAN method, benefits are assumed to accrue as a level percentage of pay over the period from the member's entry into the plansystem until his/hertheir

Asset Smoothing Method

Asset smoothing techniques can help keep contributions stable and more predictable over time. Under smoothing, asset gains and losses are generally recognized over a period of years rather than immediately.

A five-year smoothing period where 20% percent of any gain or loss is recognized in each subsequent year is typically used in Texas.

The funding policy should specify the amount of return subject to smoothing (i.e., how much is deferred), the time period of the

Amortization Policy

An amortization method is a procedure for determining the amount, timing, and pattern of recognition of a plan's gains and losses. Amortization amounts can be level dollar amounts or determined as a percentage of covered payroll. Level dollar amounts are preferable unless payroll is expected to decrease in the future.

One approach that helps minimize annual contribution volatility while maintaining a finite, closed funding period is the use of layered amortization, where a single closed-period amortization base is established for each year's realized experience.

² Section 802.2011, Texas Government Code

³ "Sustainable Funding Practices for Defined Benefit Pensions and Other Postemployment Benefits (OPEB)" *Government Finance Officers Association* 3, 5-7, approved March 3, 2023, https://www.gfoa.org/materials/sustainable-funding-practices-for-defined-benefit-pensions

assumed termination or retirement.

A funding policy should state the desired goals and purpose of the cost method if it does not specify the exact cost method to be used.

deferral, and if the smoothed value is subject to a corridor.

FSRP rules allow a system to use the greater of the market value of assets and the actuarial smoothed value of assets when determining the funding period to compare against the FSRP 30-year threshold.

Another approach is to establish closed-period amortization bases with varying recognition periods dependent upon the cause of a gain or loss. For example, one approach might be to amortize investment and/or actuarial experience gains or losses over a <u>5five</u>-year period, gains or losses attributable to assumption changes over a 10-year period, and gains or losses attributable to plan amendments over <u>as short of a 25period as possible</u>.

A well-developed amortization policy will help a system maintain an amortization period below the 30-year period. statutory threshold and avoid triggering a funding soundness restoration plan.

A funding policy may also include directions on how to account for expected plansystem administrative expenses, how often experience studies should be completed to maintain up-to-date demographic actuarial assumptions, and how to set the interest discount rate.

Negative Amortization

Negative amortization occurs when contributions are insufficient to cover the cost of benefits accrued and the interest accrued on the unfunded liability during the year. PlansSystems should be careful in their use of negative amortization. If a plan's system's amortization policy results in negative amortization, the funding policy should outline the expected period over which negative amortization will occur and provide justification for the use of negative amortization.

III. Developing a Roadmap to Achieve Funding Objectives

A funding policy should provide a clear plan detailing how the system's funding goals will be met.

Contribution Rates

An actuarially determined contribution (ADC) structure requires the payment of an ADC rate. An ADC is defined as the cost of benefits earned by workers in the current year (the normal cost) plus an amortization payment to recognize prior gains and/or losses. ADC contribution structures inherentlyautomatically adjust to the plan'ssystem's changing funded status to maintain the overall trajectory towards fully funding benefit promises. This approach contrasts with fixed-rate funding structure which does not change from year-to-year unless proactive steps are taken.

If contributions are not made based on an ADC rate, the plan's governing body should establish and include the following items in the funding policy:

1. Determine an ADC that can be used as a benchmark to monitor whether the actual contributions are guiding the plansystem toward the stated funding objectives.

- 2. Establish what conditions will trigger action when the current actual contribution rate moves away from the benchmark ADC. For example, a certain funded ratio or difference between actual contribution and ADC could be used.
- 3. Identify tangible steps that will be taken to mitigate the differences between the actual and benchmark contribution rates, such as contribution and benefit changes. See Section IV for examples.

Benefit and Contribution Change Parameters

A funding policy should include elements designed to impede deviation from progress toward funding goals. This may be done by establishing parameters under which future benefit increases and contribution reductions can be considered.

Examples

A funding policy might state Irving Firemen's Relief and Retirement Fund. The board agrees that:

- <u>any</u> benefit enhancements <u>can/changes to</u> be <u>made only if submitted to</u> the <u>funded ratio</u> membership for vote will <u>remain at a certain level after the increase; or</u>:
 - <u>contribution reductions</u>require that member contributions solely cover any increases to the ADC as a result of such benefit enhancements/changes, to the extent such sole coverage by members is permitted under TLFFRA statute; and
 - have been analyzed pursuant to the actuarial analysis process agreed to with the sponsor.⁴
- Fort Worth Employees Retirement Fund. City and member rates may only occur be increased after:
 - o the actuary performs analysis of fiscal impact of proposed change;
 - o a majority of eligible members vote in favor; and
 - the change is approved by the board (if city called vote) or city council (if a minimumboard called vote).⁵
- San Antonio Fire & Police Pension Fund. Every two years, the board may review potential changes to the governing statute. The board may not recommend actions that result in a funding ratio less than 90 percent or an effective amortization period is maintained of over 15 years.
- **Longview Firemen's Relief and Retirement Fund.** The funding policy states that the board supports:
 - A reduction in the employer contribution rate only when the funding ratio would be above 105 percent and the total contribution rate is not less than the normal cost.

⁴ Funding Policy, *Irving Fireman's Relief and Retirement Fund*. 2023. https://www.prb.texas.gov/wp-content/uploads/2023/12/Irving-Funding-Policy.pdf

⁵ Funding Policy of the Fort Worth Employees' Retirement Fund, Fort Worth Employees' Retirement Fund. 2019. https://cms1files.revize.com/fortworthretirement/Funding Policy 12 18 19 Board Adopted.pdf

⁶ Actuarial Funding Policy, *San Antonio Police and Fire Pension Fund*. 2020. https://www.prb.texas.gov/wp-content/uploads/2023/12/SAFPPF-Funding-Policy.pdf

<u>o</u> Benefit enhancements only if the amortization period is below five years, the resulting amortization period after reflecting the enhancements is above 10 years, and the average experience of three consecutive annual actuarial valuations must be used to evaluate actual fund status before any plan improvements can be brought to a vote.⁷

Working With the Sponsor

A system and its sponsoring governmental entity are required to jointly create and approve a funding policy. Working together will allow a system and its sponsoring entity to craft a funding policy that will achieve the system's objectives while maintaining agreed upon boundaries. Some Texas systems have established parameters like contribution levels or funding objectives in agreements with sponsors such as collective bargaining or meet and confer agreements.

Example

Denton Firemen's Relief and Retirement Fund. The system and the City of Denton use a Meet and Confer Agreement to establish certain responsibilities and funding goals shared by both parties. For example, the members agree to not raise benefits during the term of the agreement and the city agrees to only adjust contributions based upon an actuarial valuation.⁹

Monitoring and Evaluation

A governing board should periodically review and revise their funding policy to better reflect the system's goals. A regular review policy could be adopted by the board by including a clause detailing the timeline or conditions for re-evaluating the funding policy using updated information from actuarial valuations and experience studies.

A board should proactively monitor its system's financial condition. Monitoring requires that a board continually analyze investment returns, contributions, and benefits. A board can also establish actions to provide the system with a roadmap when it encounters adverse investment returns, unexpected member behavior, or other unforeseen events.

Example

City of Austin Employees Retirement System. The Benefits and Services Committee will review the policy at least every two years and make recommendations to the COAERS board necessary to maintain progress towards the goals and objectives in this policy.¹⁰

⁷ Longview Firemen's Relief & Retirement Funding Policy, *Longview Firemen's Relief & Retirement Fund*, 2022. https://www.prb.texas.gov/wp-content/uploads/2023/12/Longview-Funding-Policy.pdf

⁸ Section 802.2011, Texas Government Code

⁹ Meet and Confer Agreement Between the City of Denton and the Denton Firefighters Association, *Denton Firemen's Relief and Retirement Fund.* 24 September 2019, https://www.prb.texas.gov/wp-content/uploads/2023/12/Denton-Funding-Policy.pdf ¹⁰ Funding Policy, *City of Austin Employees' Retirement System.* 2020. https://www.prb.texas.gov/wp-content/uploads/2024/01/2020.09-COAERS-Funding-Policy.pdf

San Antonio Fire & Police Pension Fund. Actuarial experience studies are completed no less than every five years or at the board's direction. The board will also review the Actuarial Funding Policy in conjunction with the experience review.¹¹

IV. Adopting Actions to Address Actual Experience That Diverges from Assumptions

A funding policy should develop predetermined steps for how a plansystem should respond to both positive and negative experiences that differ from the plan's system's assumptions. The following methods can be used to manage funding risk.

Risk-Sharing

A funding policy should identify key risks faced by the plansystem and how those risks, and their associated costs, will be distributed between the employer and employees. This structure prevents one party from bearing all the risk in a funding policy. Often when there is no formal risk-sharing policy, benefit reductions or cost increases are imposed on employees, retirees, or both after the plan's condition has deteriorated, rather than proactively, in advance, and in a manner transparent to members and stakeholders.¹

Example: If investment returns system's condition has deteriorated, rather than proactively, in advance, and in a manner transparent to members and stakeholders. 12

<u>There</u> are not as high as projected, the associated costs will need multiple methods a system can utilize to be covered by additional contributions or implement a formal risk-sharing policy:

| Total ADC Driven | Normal Cost Driven | Milestone Driven |
|---|--|--|
| Employee contributions are determined in relation to the ADC rate. Under this system, employees are given the most direct exposure to the system's total experience. Systems can also decide the exact risk sharing ratio (i.e., 50/50, 60/40, etc.). ¹³ | Employee contributions are calculated in relation to the normal cost. This may result in a variable contribution rate. Employees are exposed to less risk due to their contributions not accounting for the system's unfunded liability. ¹⁴ | A system keeps employee contributions fixed until certain funding or investment thresholds are met. 15 |

Examples:

Houston systems. The three Houston systems (Houston Firefighters' Relief & Retirement Fund, Houston Municipal Employees Pension System, Houston Police Officers' Pension System) have a statutory funding policy that established a target contribution rate and a corridor around that

¹¹ Actuarial Funding Policy, *San Antonio Police and Fire Pension Fund*. 2020. https://www.prb.texas.gov/wp-content/uploads/2023/12/SAFPPF-Funding-Policy.pdf

¹² Brainard, Keith, and Alex Brown, In Depth: Risk Sharing in Public Retirement Plans. National Association of State Retirement Administrators, January 2019, https://www.nasra.org/content.asp?contentid=124

¹³ Keith Brainard and Alex Brown, "In-depth: Risk Sharing Retirement Plans" National Association of State Retirement Administrators. 7-13, December 2018

https://www.nasra.org/files/Spotlight/Risk%20Sharing%20in%20Public%20Retirement%20Plans.pdf

¹⁴ Brainard and Brown, Risk Sharing

¹⁵ Brainard and Brown, Risk Sharing

rate. The systems and the city are required to take corrective action, including negotiating benefit reductions-distributed amongst, if the recommended contribution falls outside the corridor. 16, 17, 18

- ➤ Galveston Firefighters Relief & Retirement Fund. When the calculated amortization period deviates significantly from the benchmark ADC amortization period, the system and city will work together to implement a contribution rate that is reasonably close to the ADC. The rate increase will be no more than 2 percent of pay, can be phased in with two increases one year apart, and will initially be split equally between the members and the sponsor.city.¹⁹
- Fort Worth Employees Retirement Fund. If the contribution rate is less than the ADC rate for two consecutive years, city and employee contributions will be increased up to 4 percent of pay (no more than 2 percent of pay in one year), split 60 percent city/40 percent employee. The city council can reduce risk-sharing contribution increases if the ADC will be met for two consecutive years without the increases. If maximum allowed contribution is applied and ADC is still not met, the city council must consider additional benefit reductions.²⁰

Contributions

A solution to ensure the plansystem meets its funding objectives is to require that the actual contribution rate is equal to or exceeds the ADC. If that is not achievable, the funding policy should identify what the trigger should be for a required adjustment to actual contribution rates. If the contributions to the fund are consistently below the ADC, the fund becomes insolvent.²¹ Techniques such as the following could be used to help move the actual contribution rate in the proper direction.

Contribution Corridor

Example: If the actual total contribution rate is within 2% <u>percent</u> of the ADC, no change is required. However, if the total contribution is more than 2% <u>percent</u> over or under the ADC, a change in contribution rates is required.

Maximum and Minimum Contribution Rates

Example: If the ADC exceeds a pre-determined maximum contribution rate, the funding policy may require the plansystem to adopt benefit changes. Conversely, if the ADC drops beneath a pre-determined minimum rate, the funding policy may require certain benefit increases, such as a COLA.

Contribution Smoothing

¹⁶ Funding Policy, *Houston Firefighters' Relief and Retirement Fund*, 17 December 2019. https://www.hfrrf.org/ files/ugd/d179ef e3cad5759f124ee59364ccff4f4eb1b6.pdf

¹⁷ Houston Municipal Employees Pension System Funding Policy, *Houston Municipal Employees Pension System*, 19 December 2019. http://www.hmeps.org/assets/hmeps-funding-policy---12-19-19.pdf

¹⁸ Funding Policy, *Houston Police Officers' Pension System*, 12 March 2020. https://www.hpops.org/media/46525/funding-policy-20200312_reformatted.pdf

¹⁹ Galveston Firefighters' Pension Fund, Funding Policy, 1 February 2023, p. 4,

https://galvestonfirepension.com/GAFULF/GAFDCS/Funding Policy for the Galveston Firefighters PensionPOSTWEBSITE.pdf

20 Funding Policy of the Fort Worth Employees' Retirement Fund, Fort Worth Employees' Retirement Fund. 2019.

https://cms1files.revize.com/fortworthretirement/Funding Policy 12 18 19 Board Adopted.pdf

²¹ "The Role of the Actuarial Valuation Report in Plan Funding" *Government Finance Officers Association,* Approved February 28, 2013, https://www.gfoa.org/materials/the-role-of-the-actuarial-valuation-report-in-plan

Examples:

- Example: If the actual total contribution rate needs to be increased by 2%, percent, the rate could be increased in increments until the total contribution rate meets the ADC. Similarly, if the contribution rate needs to be decreased by 2%, percent, the rate may be slowly decreased over time. The funding policy may state that the contribution rate may not increase or decrease by more than a given percentage each fiscal year.
- **Texas County and District Retirement System**. The board sets aside investment reserves at its discretion to offset negative future returns. The reserves are not counted as a part of the participating employer's (district or county) assets until the reserves are used.²²

While the above techniques can stand alone, they are often included in risk-sharing provisions. The three Houston municipal plans' risk-sharing provisions mentioned in the previous section include contribution corridors. Galveston Fire's risk-sharing provisions include contribution smoothing.

Benefits

A funding policy may also establish when benefit adjustments will occur and include provisions that specify how both positive and negative experience will be addressed. PlansSystems may allow for increased benefits or an increased COLA as a result of a positive deviation, but planssystems will need to ensure they are able to consistently meet the new funding demands of the changes.

Example: The funding policy could require that if sponsor contributions are increased, member benefits must be decreased in some proportional manner. Or Alternatively, the policy may include provisions that grant a COLA to retirees if the funded ratio, after the benefit change, remains above a specified percentage. Caps may also be placed on maximum COLAs, or COLAs can be tied to inflation, to manage plansystem costs.

Examples of Funding Policy Components

- <u>Many pension plans across City of El Paso Employees Retirement Trust.</u> Any benefit increase (including COLAs) may be adopted if:
 - The funded ratio of the United States system is above 80 percent after the benefit increase, and the decrease of the funded ratio is not more than 1 percent after the benefit increase.

The system also outlines provisions specifically for COLAs:

- The maximum amount of a COLA should not exceed the actual increase in the Consumer
 Price Index since the last COLA was granted.
- A COLA will only apply to members who have already adopted a been retired for over one year.

²² TCDRS Funding Policy, *Texas County and District Retirement System.* 2015. https://www.tcdrs.org/globalassets/policy-documents/tcdrs-funding-policy.pdf

- The board can choose to grant the COLA as a one-time payment or a monthly benefit increase.²³
- San Benito Firemen Relief and Retirement Fund. COLAs are tied to investment returns. The crediting rate for the COLA is lesser of the consumer price index or 100 percent of the five-year smoothed return minus 5 percent, not less than 0 percent, not greater than 4 percent.²⁴

Some factors to keep in mind when setting such parameters:

- Evaluating the impact of the plan provision on the amortization period and funded ratio after the plan provision takes effect, including whether the system will still meet is target date to reach full funding.
- Putting thresholds in place such that an increase can take effect only if the amortization period is below a specified threshold and the funded ratio is above a specified threshold after the benefit increases are factored in.
- Assessing whether the benefit increases are paid for by current active members to avoid passing down benefit costs to future generations.

Surplus Management

If a system is consistently funded at a rate above the ADC, there is a stronger likelihood of the system achieving a high funded ratio. A funding policy, including several in should include provisions detailing steps to follow if a system achieves full funding. A surplus management policy should include the following elements:

- Reviewing system risk management policies to evaluate their efficacy.
- Evaluating current assumptions to ensure reasonableness.
- Considering what changes should be made to employer and employee contributions (if any) when the system is in a surplus.
- Working with the sponsor to establish acceptable conditions for possible benefit enhancements,
 especially permanent ones, and provide accurate estimations for the immediate and long-term costs.²⁵

Examples:

arripics.

- San Antonio Fire & Police Pension Fund. If the system is overfunded, the surplus will be amortized over an open amortization period of 30 years.²⁶
- > Texas. Below are examples of components from those funding policies. Municipal Retirement System. If the system is overfunded, all prior bases are erased, and one surplus base would be established. The asset surplus is used to generate a contribution credit for the year that is

²³ City of El Paso Employees Retirement Trust Funding Policy, *City of El Paso Employees Retirement Trust*, December 12, 2019. https://www.eppension.org/documents/fund-overview/Funding%20Policy%20and%20Resolution_19-12-12.pdf?1704385439 ²⁴ San Benito Firemen Relief and Retirement Fund Funding Policy, *San Benito Firemen Relief and Retirement Fund*. December 17, 2019. https://www.prb.texas.gov/wp-content/uploads/2024/01/2019-San-Benito-Firemen-Relief-and-Retirement-Fund-Funding-Policy.pdf

²⁵ "Core Elements of a Funding Policy for Governmental Pension and OPEB Plans" Government Finance Officers Association, approved March 23, 2023, https://www.gfoa.org/materials/core-elements-of-a-funding-policy

²⁶ Actuarial Funding Policy, *San Antonio Police and Fire Pension Fund*. 2019. https://www.prb.texas.gov/wp-content/uploads/2023/12/SAFPPF-Funding-Policy.pdf

projected to remain the same over time and keep the funded ratio constant year over year. This practice reduces contribution rate volatility.²⁷

| Component | Plan | Description |
|---|---|--|
| | South Dakota Retirement System | The system may not consider benefit improvements unless the fair value funded ratio is and will remain after fully funding the cost of the improvement, over 120%. Proposed benefit improvements must be consistent with both the Board's long-term benefit goals and sound public policy with regard to retirement practices. |
| Benefit and Contribution Change Parameters | City of Austin Employees' Retirement System | Employer contribution rate reductions should be considered only when annual COLA adjustments are built into funding assumptions and the funded ratio will remain greater than or equal to 105% after the reduction. ³ |
| | City of Austin Employees' Retirement System | A COLA may be adjusted only when the adjustment can be financially supported; the funded ratio is ≥ 80% after incorporating the COLA; the amortization period is ≤ 20 years after incorporating the COLA; and the actual employer contribution rate is ≥ the ADC but no more than 18% after incorporating the COLA.⁴ |
| Contribution Smoothing | Fort Worth Employees' Retirement Fund | The contribution rate may not increase more than 2% of pay in one year or 4% in total to account for the ADC increase. If the maximum contribution increase has been applied and the actual contribution is still insufficient, the City Council must consider additional benefit reductions. ⁵ |
| | South Dakota Retirement System | Should the funded ratio fall below 100% or if the fixed contribution rates are not sufficient to meet the actuarial requirement, the system is required to recommend corrective action, including benefit or contribution changes, in its annual report to the Legislature and Governor. ⁶ |
| Risk sharing | Houston Firefighters' Relief & Retirement Fund Houston Municipal Employees Pension System Houston Police Officers' Pension System | The 3 Houston plans have a statutory funding policy that established a target contribution rate and a corridor around that rate. The plans and the City are required to take corrective action, including negotiating benefit reductions, if the recommended contribution falls outside the corridor. ³ |

 $[\]frac{27}{Actuarial\ Funding\ Policy,} \\ \frac{27}{Content/uploads/2023/12/TMRS-Funding-Policy.pdf} \\ \frac{2019.\ https://www.prb.texas.gov/wp-content/uploads/2023/12/TMRS-Funding-Policy.pdf} \\ \frac{2019.\ https://www.prb.texas.gov/wp-content/uploads/2023/12/TMRS-Funding-Policy$

| Component | Plan | Description |
|------------------------------|--|---|
| | Galveston Employees Retirement Plan for Police | Beginning January 1, 2025, if the actuarial valuation recommends an ADC that exceeds the aggregate (employee and City) contribution rate, the excess contribution will be split equally as a percentage of pay between the City and employee contribution rates.8 |
| Risk-sharing | Maine Public Employees | COLAs are tied to investment returns. Reductions to COLAs may occur after severe market losses. The reductions will be removed once markets improve. ⁹ |
| Pennsylva Employee Pennsylva | Wisconsin State Retirement System | Retirement annuities are adjusted using a formula that factors in investment returns. 10 |
| | Pennsylvania State Employees' Pennsylvania Public School Employees' | The employee contribution rate increases or decreases based on investment plan returns. 11 |

Questions Systems and Sponsors Should Discuss During Funding Policy Development

The process of developing a funding policy presents an opportunity for a system's board of trustees to have an open, robust discussion of their priorities regarding the funding needs of the plansystem. The policy should be created with input from the system's sponsoring governmental entity whenever possible. The following checklist represents a set of fundamental questions trustees should consider during funding policy development but is not exhaustive.

| policy dev | velopment but is not exhaustive. |
|------------|---|
| ☐ Introd | duction |
| | What is the purpose of the policy? What are we trying to achieve in this policy? |
| | How often should we review the funding policy? |
| | How is the plansystem governed? What statutes or ordinances govern plansystem funding? |
| | What are our funding priorities? |
| 🗆 Fundi | ng Objectives <u>objectives</u> |
| C | Over what time period will we What is the target date to achieve 100% percent funding? |
| | How will we measure progress towards full funding? How will we measure if our funding objectives are being met? |
| ☐ Actua | rial Methods methods |
| | What valuation methods do we use to determine the ADC (or benchmark ADC)? |
| | How frequently should we calculate the ADC (or benchmark ADC)? |
| | How will we ensure we are meeting the ADC (or benchmark ADC)? |
| | Will we employ any asset smoothing methods? If so, what are they? |
| | What measures do our system and sponsor need to take to achieve 100% percent funding? |
| | How should we prepare for unanticipated changes? |
| | How frequently will actuarial experience studies occur? |
| | How is the interest discount rate determined? |
| | Is a negative amortization period ever acceptable, and if so, under what conditions? |
| 🗆 Plan f | or Achieving Funding Objectives achieving funding objectives |
| | How much money do we need today to pay for future promises? |
| | Will we use contribution smoothing methods? If so, what are they? |
| _ [| What conditions must be met for contribution decreases to occur? |
| Wher | to allow benefit increases |
| | What conditions must be met to adopt benefit increases or cost-of-living adjustments? |
| | What conditions must be met for contribution decreases to occur? |
| | What will the impact of the benefit increase be on the amortization period and funded ratio |
| | Will the system still meet its target date to achieve full funding? |
| <u>_</u> | Will the resulting amortization period be less than the average remaining future service for |
| _ | current active members? |
| | Will the resulting funded ratio be above the system's desired threshold? |
| O Contr | ibution distribution between members and city |
| | Will members contribute appropriately for the level of benefits received? |

| 0 | Is there a target employer normal cost as percent of pay (total normal cost percent less employee contribution percent)? |
|--|--|
| ☐ Risk ₩ | lanagement Policymanagement policy |
| 0 | What actions will we take should actual investment returns be less than the assumed investment returns used in the actuarial valuation? Should we consider action after a certain margin or threshold (positive or negative)? |
| | What actions will trigger changes to our assumptions at the next actuarial valuation? |
| | What conditions would trigger a contribution increase and what conditions must be met for contributions to return to their normal rate? |
| 0 | Could we increase contributions temporarily? |
| | What conditions would trigger a review of our system's funding policy? |
| Surplu | is management policy |
| 0 | What actions will we take should the system receive funding over the ADC? |
| Ē | What actions will we take when the system exceeds 100 percent funding? |
| ² -South Dako | ors, January 2019, https://www.nasra.org/content.asp?contentid=124 https://www.nasra.org/content.asp?contentid=124 https://www.nasra.org/content.asp?contentid=124 https://www.nasra.org/content.asp?contentid=124 https://www.nasra.org/content.asp?contentid=124 https://www.nasra.org/content.asp?contentid=124 https://www.nasra.org/content.asp?content.asp?content.asp?content.asp?content.asp?content.asp. |
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| | sd.gov/docs/SDRSFundingPolicy.pdf. |
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| ⁴ -ibid. | |
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| https://fortw | in Employees' Retirement System Benefits & Services Committee, City of Austin Employee's Retirement System ved Policy: Funding Policy and Guidelines, 20142014. https://www.coaers.org/Portals/0/Resources/Publications/2-Funding%20Policy%20and%20Guidelines%202014-11-25.pdf?ver=2015-06-17-102341-677. Retirement Fund of the City of Fort Worth, Annual Actuarial Valuation, 19 April 2019, p. 9, vorthretirementtx-investments.documents-on- |
| https://fortw demand.com | in Employees' Retirement System Benefits & Services Committee, City of Austin Employee's Retirement System ved Policy: Funding Policy and Guidelines, 20142014. https://www.coaers.org/Portals/0/Resources/Publications/2-Funding%20Policy%20and%20Guidelines%202014-11-25.pdf?ver=2015-06-17-102341-677. Retirement Fund of the City of Fort Worth, Annual Actuarial Valuation, 19 April 2019, p. 9, vorthretirementtx-investments.documents-on-n/?l=f419ce743442e5119795001fbc00ed84&d=64e81193956ae911a2cd000c29a59557. |
| https://fortw demand.com South Dako | in Employees' Retirement System Benefits & Services Committee, City of Austin Employee's Retirement System ved Policy: Funding Policy and Guidelines, 20142014. https://www.coaers.org/Portals/0/Resources/Publications/2-Funding%20Policy%20and%20Guidelines%202014-11-25.pdf?ver=2015-06-17-102341-677. Retirement Fund of the City of Fort Worth, Annual Actuarial Valuation, 19 April 2019, p. 9, vorthretirementtx-investments.documents-on- |
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| https://fortw demand.com ⁶ -South Dako https://sdrs ² -Retirement https://www ⁸ -H.B. 2763, { | in Employees' Retirement System Benefits & Services Committee, City of Austin Employee's Retirement System ved Policy: Funding Policy and Guidelines, 20142014. https://www.coaers.org/Portals/0/Resources/Publications/2-Funding%20Policy%20and%20Guidelines%202014-11-25.pdf?ver=2015-06-17-102341-677. Retirement Fund of the City of Fort Worth, Annual Actuarial Valuation, 19 April 2019, p. 9, vorthretirementtx-investments.documents-on-n/?l=f419ce743442e5119795001fbc00ed84&d=64e81193956ae911a2cd000c29a59557. Ita Retirement System, SDRS Funding and System Management Policies, sed.gov/docs/SDRSFundingPolicy.pdf. Horizons Incorporated, City of Houston HMEPS Pension Reform Cost Analysis, 15 March 2017, v-houstontx.gov/pensions/public/documents/rhi-HMEPS.pdf. 86 th Texas Legislature, Regular Session, 2019, |
| https://fortw demand.com ⁶ -South Dako https://sdrs.: ⁷ -Retirement https://www ⁸ -H.B. 2763, (https://capit | in Employees' Retirement System Benefits & Services Committee, City of Austin Employee's Retirement System ved Policy: Funding Policy and Guidelines, 20142014. https://www.coaers.org/Portals/0/Resources/Publications/2-Funding%20Policy%20and%20Guidelines%202014-11-25.pdf?ver=2015-06-17-102341-677. Retirement Fund of the City of Fort Worth, Annual Actuarial Valuation, 19 April 2019, p. 9, vorthretirementtx-investments.documents-on-n/?l=f419ce743442e5119795001fbc00ed84&d=64e81193956ae911a2cd000c29a59557. Atta Retirement System, SDRS Funding and System Management Policies, sd.gov/docs/SDRSFundingPolicy.pdf. Horizons Incorporated, City of Houston HMEPS Pension Reform Cost Analysis,15 March 2017, v.houstontx.gov/pensions/public/documents/rhi-HMEPS.pdf. 86th Texas Legislature, Regular Session, 2019, ol.texas.gov/tlodocs/86R/billtext/pdf/HB02763F.pdf#navpanes=0 |
| https://fortw demand.com ⁶ -South Dako https://sdrs.: ² -Retirement https://www ⁸ -H.B. 2763, § https://capit ⁹ -Maine Publ | in Employees' Retirement System Benefits & Services Committee, City of Austin Employee's Retirement System ved Policy: Funding Policy and Guidelines, 20142014. https://www.coaers.org/Portals/0/Resources/Publications/2-Funding%20Policy%20and%20Guidelines%202014-11-25.pdf?ver=2015-06-17-102341-677. Retirement Fund of the City of Fort Worth, Annual Actuarial Valuation, 19 April 2019, p. 9, worthretirementtx-investments.documents-on-n/?l=f419ce743442e5119795001fbc00ed84&d=64e81193956ae911a2cd000c29a59557. Ata Retirement System, SDRS Funding and System Management Policies, sd.gov/docs/SDRSFundingPolicy.pdf. Horizons Incorporated, City of Houston HMEPS Pension Reform Cost Analysis,15 March 2017, whoustontx.gov/pensions/public/documents/rhi-HMEPS.pdf. 86th Texas Legislature, Regular Session, 2019, ol.texas.gov/tlodocs/86R/billtext/pdf/HB02763F.pdf#navpanes=0 lic Employees Retirement System, Summary: PLD Plan Changes, www.mainepers.org/Pensions/PLD%202018- |
| https://fortw demand.com ⁶ South Dake https://sdrs.: ⁷ Retirement https://www ⁸ H.B. 2763, 8 https://capit ⁹ Maine Publ Summary.htm | in Employees' Retirement System Benefits & Services Committee, City of Austin Employee's Retirement System ved Policy: Funding Policy and Guidelines, 20142014. https://www.coaers.org/Portals/0/Resources/Publications/2-Funding%20Policy%20and%20Guidelines%202014-11-25.pdf?ver=2015-06-17-102341-677. Retirement Fund of the City of Fort Worth, Annual Actuarial Valuation, 19 April 2019, p. 9, vorthretirementtx-investments.documents-on-n/?l=f419ce743442e5119795001fbc00ed84&d=64e81193956ae911a2cd000c29a59557. Ata Retirement System, SDRS Funding and System Management Policies, sd.gov/docs/SDRSFundingPolicy.pdf. Horizons Incorporated, City of Houston HMEPS Pension Reform Cost Analysis,15 March 2017, v.houstontx.gov/pensions/public/documents/rhi-HMEPS.pdf. 86 th Texas Legislature, Regular Session, 2019, ol.texas.gov/tlodocs/86R/billtext/pdf/HB02763F.pdf#navpanes=0 ic Employees Retirement System, Summary: PLD Plan Changes, www.mainepers.org/Pensions/PLD%202018-m. |
| https://fortw demand.com ⁶ -South Dako https://sdrs.: ⁷ -Retirement https://www ⁸ -H.B. 2763, § https://capit ⁹ -Maine Publ Summary.hts ¹⁰ -Brainard, k | in Employees' Retirement System Benefits & Services Committee, City of Austin Employee's Retirement System ved Policy: Funding Policy and Guidelines, 20142014. https://www.coaers.org/Portals/0/Resources/Publications/2-Funding%20Policy%20and%20Guidelines%202014-11-25.pdf?ver=2015-06-17-102341-677. Retirement Fund of the City of Fort Worth, Annual Actuarial Valuation, 19 April 2019, p. 9, worthretirementtx-investments.documents-on-n/?l=f419ce743442e5119795001fbc00ed84&d=64e81193956ae911a2cd000c29a59557. Ata Retirement System, SDRS Funding and System Management Policies, sd.gov/docs/SDRSFundingPolicy.pdf. Horizons Incorporated, City of Houston HMEPS Pension Reform Cost Analysis,15 March 2017, whoustontx.gov/pensions/public/documents/rhi-HMEPS.pdf. 86th Texas Legislature, Regular Session, 2019, ol.texas.gov/tlodocs/86R/billtext/pdf/HB02763F.pdf#navpanes=0 lic Employees Retirement System, Summary: PLD Plan Changes, www.mainepers.org/Pensions/PLD%202018- |

Plans' Fiscal Health, January 2017, p. 8, https://www.pewtrusts.org/ /media/assets/2017/05/definedbenefitplansreport.pdf.

11-The Pew Charitable Trusts, Cost-Sharing Features of State Defined Benefit Pension Plans: Distributing Risk Can Help Preserve Plans' Fiscal Health, January 2017, p. 2, https://www.pewtrusts.org//media/assets/2017/05/definedbenefitplansreport.pdf.



Guidance for Developing a Funding Policy (Adopted TBD)

Overview

<u>Section 802.2011, Texas Government Code</u> requires the governing board of a Texas public retirement system and its sponsor to jointly develop and adopt a written funding policy and timely revise the policy to reflect any significant changes, including those made because of a funding soundness restoration plan (FSRP). The policy is intended to be a roadmap to fully fund the system's long-term obligations.

The funding policy requirement includes several components. By statute, the policy must be filed with the Texas Pension Review Board (PRB) no later than the 31st day after the date the policy is changed or adopted. The most recent version of the funding policy must also be available on a publicly available website.

A funding policy is required by law to be revised in a timely manner to reflect any changes a system and its sponsor make due to an FSRP. For purposes of a revised FSRP, the funding policy revisions must include any risk-sharing mechanisms, the adoption of an actuarially determined contribution structure, and other adjustable benefit or contribution mechanisms.¹ For more information about the FSRP requirement, including applicable statute, rules and policy, see the PRB's FSRP webpage.

A funding policy helps a system achieve the three fundamental goals of public pension funding: benefit security, contribution stability, and intergenerational equity. Different retirement systems and their governmental sponsors may prioritize these goals differently, but the funding policy should strive to **balance** these three primary pension funding goals. Member benefits should be secure, employers and employees should be afforded some level of contribution predictability from year to year, and liabilities should be managed so that plan members and future taxpayers are not burdened with costs associated with a previous generation's service. For a more detailed discussion of the benefits of adopting a funding policy, please see the PRB's 2019 Interim Study: Funding Policies for Fixed-Rate Pension Plans.

A funding policy should include clear and concrete funding objectives, actuarial methods, a roadmap to achieve funding objectives, and actions that will be taken to address actual experience that diverges from assumptions. The following material provides more detail on each of these necessary components of a funding policy. While this guidance uses examples of Texas retirement system funding policy provisions under various components, the use of such examples is for informational purposes and does not constitute endorsement or recommendation by the PRB.

Components of a Funding Policy

¹ <u>Section 802.2011(c), Texas Government Code</u>

I. Establishing Clear and Concrete Funding Objectives

A funding policy should clearly establish the retirement system's funding objectives. The funding policy must target a funded ratio of 100 percent or greater and be jointly developed and adopted with the system's sponsor.² The PRB recommends that systems adopt a funding policy that fully funds the plan over as brief a period as possible, using a finite, or closed, funding period.

II. Selecting Actuarial Methods

An important role of a funding policy is to **set boundaries on what is allowable for actuarial calculations**. The system's actuary should be involved with the development of a funding policy by advising the board on selecting actuarial methods that align closely with the system's funding objectives, reducing volatility in returns, allowing a more predictable budget, and increasing the likelihood of meeting obligations.³ At a minimum, the three actuarial methods that should be addressed are the actuarial cost method, the assetsmoothing method, and the amortization policy.

Actuarial Cost Method

An actuarial cost method is a way to allocate pieces of a participant's total expected benefit to each year of their working career.

The most common actuarial cost method used in Texas, and the cost method required by GASB for financial reporting disclosures, is the entry age normal (EAN) method.

Under the EAN method, benefits are assumed to accrue as a level percentage of pay over the period from the member's entry into the system until their assumed termination or retirement.

A funding policy should state the desired goals and purpose of the cost method if it does not specify the exact cost method to be used.

Asset Smoothing Method

Asset smoothing techniques can help keep contributions stable and more predictable over time. Under smoothing, asset gains and losses are generally recognized over a period of years rather than immediately.

A five-year smoothing period where 20 percent of any gain or loss is recognized in each subsequent year is typically used in Texas.

The funding policy should specify the amount of return subject to smoothing (i.e., how much is deferred), the time period of the deferral, and if the smoothed value is subject to a corridor.

FSRP rules allow a system to use the greater of the market value of assets and the actuarial smoothed value of assets when determining the funding period to compare against the FSRP 30-year threshold.

Amortization Policy

An amortization method is a procedure for determining the amount, timing, and pattern of recognition of a plan's gains and losses. Amortization amounts can be level dollar amounts or determined as a percentage of covered payroll. Level dollar amounts are preferable unless payroll is expected to decrease in the future.

One approach that helps minimize annual contribution volatility while maintaining a finite, closed funding period is the use of layered amortization, where a single closed-period amortization base is established for each year's realized experience.

Another approach is to establish closedperiod amortization bases with varying recognition periods dependent upon the cause of a gain or loss. For example, one approach might be to amortize investment and/or actuarial experience gains or losses over a five-year period, gains or losses attributable to assumption changes over a 10-year period, and gains or losses attributable to plan amendments over as short of a period as possible.

² <u>Section 802.2011, Texas Government Code</u>

³ "Sustainable Funding Practices for Defined Benefit Pensions and Other Postemployment Benefits (OPEB)" *Government Finance Officers Association* 3, 5-7, approved March 3, 2023, https://www.gfoa.org/materials/sustainable-funding-practices-for-defined-benefit-pensions

| | A well-developed amortization policy will help a system maintain an amortization period below the 30-year statutory threshold and avoid triggering a funding soundness restoration plan. |
|--|--|
|--|--|

A funding policy may also include directions on how to account for expected system administrative expenses, how often experience studies should be completed to maintain up-to-date demographic actuarial assumptions, and how to set the interest discount rate.

Negative Amortization

Negative amortization occurs when contributions are insufficient to cover the cost of benefits accrued and the interest accrued on the unfunded liability during the year. Systems should be careful in their use of negative amortization. If a system's amortization policy results in negative amortization, the funding policy should outline the expected period over which negative amortization will occur and provide justification for the use of negative amortization.

III. Developing a Roadmap to Achieve Funding Objectives

A funding policy should provide a clear plan detailing how the system's funding goals will be met.

Contribution Rates

An actuarially determined contribution (ADC) structure requires the payment of an ADC rate. An ADC is defined as the cost of benefits earned by workers in the current year (the normal cost) plus an amortization payment to recognize prior gains and/or losses. ADC contribution structures automatically adjust to the system's changing funded status to maintain the overall trajectory towards fully funding benefit promises. This approach contrasts with fixed-rate funding structure which does not change from year-to-year unless proactive steps are taken.

If contributions are not made based on an ADC rate, the system's governing body should establish and include the following items in the funding policy:

- 1. Determine an ADC that can be used as a benchmark to monitor whether the actual contributions are guiding the system toward the stated funding objectives.
- 2. Establish what conditions will trigger action when the current actual contribution rate moves away from the benchmark ADC. For example, a certain funded ratio or difference between actual contribution and ADC could be used.
- Identify tangible steps that will be taken to mitigate the differences between the actual and benchmark contribution rates, such as contribution and benefit changes. See Section IV for examples.

Benefit and Contribution Change Parameters

A funding policy should include elements designed to impede deviation from progress toward funding goals. This may be done by establishing parameters under which future benefit increases and contribution reductions can be considered.

Examples

- ➤ Irving Firemen's Relief and Retirement Fund. The board agrees that any benefit enhancements/changes to be submitted to the membership for vote will:
 - require that member contributions solely cover any increases to the ADC as a result of such benefit enhancements/changes, to the extent such sole coverage by members is permitted under TLFFRA statute; and
 - have been analyzed pursuant to the actuarial analysis process agreed to with the sponsor.⁴
- Fort Worth Employees Retirement Fund. City and member rates may be increased after:
 - o the actuary performs analysis of fiscal impact of proposed change;
 - o a majority of eligible members vote in favor; and
 - the change is approved by the board (if city called vote) or city council (if board called vote).⁵
- > San Antonio Fire & Police Pension Fund. Every two years, the board may review potential changes to the governing statute. The board may not recommend actions that result in a funding ratio less than 90 percent or an effective amortization period of over 15 years. 6
- Longview Firemen's Relief and Retirement Fund. The funding policy states that the board supports:
 - A reduction in the employer contribution rate only when the funding ratio would be above 105 percent and the total contribution rate is not less than the normal cost.
 - Benefit enhancements only if the amortization period is below five years, the resulting amortization period after reflecting the enhancements is above 10 years, and the average experience of three consecutive annual actuarial valuations must be used to evaluate actual fund status before any plan improvements can be brought to a vote.⁷

Working With the Sponsor

A system and its sponsoring governmental entity are required to jointly create and approve a funding policy. Working together will allow a system and its sponsoring entity to craft a funding policy that will achieve the system's objectives while maintaining agreed upon boundaries. Some Texas systems have established parameters like contribution levels or funding objectives in agreements with sponsors such as collective bargaining or meet and confer agreements.

⁴ Funding Policy, *Irving Fireman's Relief and Retirement Fund*. 2023. https://www.prb.texas.gov/wp-content/uploads/2023/12/Irving-Funding-Policy.pdf

⁵ Funding Policy of the Fort Worth Employees' Retirement Fund, Fort Worth Employees' Retirement Fund. 2019. https://cms1files.revize.com/fortworthretirement/Funding Policy 12 18 19 Board Adopted.pdf

⁶ Actuarial Funding Policy, *San Antonio Police and Fire Pension Fund*. 2020. https://www.prb.texas.gov/wp-content/uploads/2023/12/SAFPPF-Funding-Policy.pdf

⁷ Longview Firemen's Relief & Retirement Funding Policy, *Longview Firemen's Relief & Retirement Fund*, 2022. https://www.prb.texas.gov/wp-content/uploads/2023/12/Longview-Funding-Policy.pdf

⁸ <u>Section 802.2011, Texas Government Code</u>

Example

➤ Denton Firemen's Relief and Retirement Fund. The system and the City of Denton use a Meet and Confer Agreement to establish certain responsibilities and funding goals shared by both parties. For example, the members agree to not raise benefits during the term of the agreement and the city agrees to only adjust contributions based upon an actuarial valuation.⁹

Monitoring and Evaluation

A governing board should periodically review and revise their funding policy to better reflect the system's goals. A regular review policy could be adopted by the board by including a clause detailing the timeline or conditions for re-evaluating the funding policy using updated information from actuarial valuations and experience studies.

A board should proactively monitor its system's financial condition. Monitoring requires that a board continually analyze investment returns, contributions, and benefits. A board can also establish actions to provide the system with a roadmap when it encounters adverse investment returns, unexpected member behavior, or other unforeseen events.

Example

- ➤ City of Austin Employees Retirement System. The Benefits and Services Committee will review the policy at least every two years and make recommendations to the COAERS board necessary to maintain progress towards the goals and objectives in this policy.¹⁰
- San Antonio Fire & Police Pension Fund. Actuarial experience studies are completed no less than every five years or at the board's direction. The board will also review the Actuarial Funding Policy in conjunction with the experience review.¹¹

IV. Adopting Actions to Address Actual Experience That Diverges from Assumptions

A funding policy should develop predetermined steps for how a system should respond to **both positive** and negative experiences that differ from the system's assumptions. The following methods can be used to manage funding risk.

Risk-Sharing

A funding policy should identify key risks faced by the system and how those risks, and their associated costs, will be distributed between the employer and employees. This structure prevents one party from bearing all the risk in a funding policy. Often when there is no formal risk-sharing policy, benefit reductions or cost increases are imposed on employees, retirees, or both after the system's condition has deteriorated, rather than proactively, in advance, and in a manner transparent to members and

⁹ Meet and Confer Agreement Between the City of Denton and the Denton Firefighters Association, *Denton Firemen's Relief and Retirement Fund.* 24 September 2019, https://www.prb.texas.gov/wp-content/uploads/2023/12/Denton-Funding-Policy.pdf

¹⁰ Funding Policy, *City of Austin Employees' Retirement System.* 2020. https://www.prb.texas.gov/wp-content/uploads/2024/01/2020.09-COAERS-Funding-Policy.pdf

¹¹ Actuarial Funding Policy, *San Antonio Police and Fire Pension Fund*. 2020. https://www.prb.texas.gov/wp-content/uploads/2023/12/SAFPPF-Funding-Policy.pdf

stakeholders.12

There are multiple methods a system can utilize to implement a formal risk-sharing policy:

| Total ADC Driven | Normal Cost Driven | Milestone Driven | |
|--|--|---|--|
| determined in relation to the ADC rate. Under this system, | Employee contributions are calculated in relation to the normal cost. This may result in a variable contribution rate. Employees are exposed to less risk due to their contributions not accounting for the system's unfunded liability. ¹⁴ | contributions fixed until certain funding or investment | |

Examples:

- ➤ Houston systems. The three Houston systems (Houston Firefighters' Relief & Retirement Fund, Houston Municipal Employees Pension System, Houston Police Officers' Pension System) have a statutory funding policy that established a target contribution rate and a corridor around that rate. The systems and the city are required to take corrective action, including negotiating benefit reductions, if the recommended contribution falls outside the corridor. ^{16, 17, 18}
- ➤ Galveston Firefighters Relief & Retirement Fund. When the calculated amortization period deviates significantly from the benchmark ADC amortization period, the system and city will work together to implement a contribution rate that is reasonably close to the ADC. The rate increase will be no more than 2 percent of pay, can be phased in with two increases one year apart, and will initially be split equally between the members and city.¹⁹
- Fort Worth Employees Retirement Fund. If the contribution rate is less than the ADC rate for two consecutive years, city and employee contributions will be increased up to 4 percent of pay (no more than 2 percent of pay in one year), split 60 percent city/40 percent employee. The city council can reduce risk-sharing contribution increases if the ADC will be met for two consecutive years without the increases. If maximum allowed contribution is applied and ADC is still not met,

https://www.nasra.org/files/Spotlight/Risk%20Sharing%20in%20Public%20Retirement%20Plans.pdf

https://www.hfrrf.org/ files/ugd/d179ef e3cad5759f124ee59364ccff4f4eb1b6.pdf

¹² Brainard, Keith, and Alex Brown, *In Depth: Risk Sharing in Public Retirement Plans. National Association of State Retirement Administrators*, January 2019, https://www.nasra.org/content.asp?contentid=124

¹³ Keith Brainard and Alex Brown, "In-depth: Risk Sharing Retirement Plans" National Association of State Retirement Administrators. 7-13, December 2018

¹⁴ Brainard and Brown, Risk Sharing

¹⁵ Brainard and Brown, Risk Sharing

¹⁶ Funding Policy, Houston Firefighters' Relief and Retirement Fund, 17 December 2019.

¹⁷ Houston Municipal Employees Pension System Funding Policy, *Houston Municipal Employees Pension System*, 19 December 2019. http://www.hmeps.org/assets/hmeps-funding-policy---12-19-19.pdf

¹⁸ Funding Policy, *Houston Police Officers' Pension System*, 12 March 2020. https://www.hpops.org/media/46525/funding-policy-20200312 reformatted.pdf

¹⁹ Galveston Firefighters' Pension Fund, Funding Policy, 1 February 2023, p. 4, https://galvestonfirepension.com/GAFULF/GAFDCS/Funding Policy for the Galveston Firefighters PensionPOSTWEBSITE.pdf

the city council must consider additional benefit reductions.²⁰

Contributions

A solution to ensure the system meets its funding objectives is to require that the actual contribution rate is equal to or exceeds the ADC. If that is not achievable, the funding policy should identify what the trigger should be for a required adjustment to actual contribution rates. If the contributions to the fund are consistently below the ADC, the fund becomes insolvent.²¹ Techniques such as the following could be used to help move the actual contribution rate in the proper direction.

Contribution Corridor

Example: If the actual total contribution rate is within 2 percent of the ADC, no change is required. However, if the total contribution is more than 2 percent *over or under* the ADC, a change in contribution rates is required.

Maximum and Minimum Contribution Rates

Example: If the ADC exceeds a pre-determined maximum contribution rate, the funding policy may require the system to adopt benefit changes. Conversely, if the ADC drops beneath a pre-determined minimum rate, the funding policy may require certain benefit increases, such as a COLA.

Contribution Smoothing

Examples:

- ➤ If the actual total contribution rate needs to be increased by 2 percent, the rate could be increased in increments until the total contribution rate meets the ADC. Similarly, if the contribution rate needs to be decreased by 2 percent, the rate may be slowly decreased over time. The funding policy may state that the contribution rate may not increase or decrease by more than a given percentage each fiscal year.
- > Texas County and District Retirement System. The board sets aside investment reserves at its discretion to offset negative future returns. The reserves are not counted as a part of the participating employer's (district or county) assets until the reserves are used.²²

While the above techniques can stand alone, they are often included in risk-sharing provisions. The three Houston municipal plans' risk-sharing provisions mentioned in the previous section include contribution corridors. Galveston Fire's risk-sharing provisions include contribution smoothing.

Benefits

A funding policy may also establish when benefit adjustments will occur and include provisions that specify how both positive and negative experience will be addressed. Systems may allow for increased

²⁰ Funding Policy of the Fort Worth Employees' Retirement Fund, Fort Worth Employees' Retirement Fund. 2019. https://cms1files.revize.com/fortworthretirement/Funding_Policy__12_18_19_____Board_Adopted.pdf

²¹ "The Role of the Actuarial Valuation Report in Plan Funding" *Government Finance Officers Association,* Approved February 28, 2013, https://www.gfoa.org/materials/the-role-of-the-actuarial-valuation-report-in-plan

²² TCDRS Funding Policy, *Texas County and District Retirement System.* 2015. https://www.tcdrs.org/globalassets/policy-documents/tcdrs-funding-policy.pdf

benefits or an increased COLA as a result of a positive deviation, but systems will need to ensure they are able to consistently meet the new funding demands of the changes.

Example: The funding policy could require that if sponsor contributions are increased, member benefits must be decreased in some proportional manner. Alternatively, the policy may include provisions that grant a COLA to retirees if the funded ratio, after the benefit change, remains above a specified percentage. Caps may also be placed on maximum COLAs, or COLAs can be tied to inflation, to manage system costs.

- City of El Paso Employees Retirement Trust. Any benefit increase (including COLAs) may be adopted if:
 - The funded ratio of the system is above 80 percent after the benefit increase, and the decrease of the funded ratio is not more than 1 percent after the benefit increase.

The system also outlines provisions specifically for COLAs:

- The maximum amount of a COLA should not exceed the actual increase in the Consumer
 Price Index since the last COLA was granted.
- o A COLA will only apply to members who have been retired for over one year.
- The board can choose to grant the COLA as a one-time payment or a monthly benefit increase.²³
- > San Benito Firemen Relief and Retirement Fund. COLAs are tied to investment returns. The crediting rate for the COLA is lesser of the consumer price index or 100 percent of the five-year smoothed return minus 5 percent, not less than 0 percent, not greater than 4 percent.²⁴

Some factors to keep in mind when setting such parameters:

- Evaluating the impact of the plan provision on the amortization period and funded ratio after the
 plan provision takes effect, including whether the system will still meet is target date to reach full
 funding.
- Putting thresholds in place such that an increase can take effect only if the amortization period is below a specified threshold and the funded ratio is above a specified threshold after the benefit increases are factored in.
- Assessing whether the benefit increases are paid for by current active members to avoid passing down benefit costs to future generations.

Surplus Management

If a system is consistently funded at a rate above the ADC, there is a stronger likelihood of the system achieving a high funded ratio. A funding policy should include provisions detailing steps to follow if a system achieves full funding. A surplus management policy should include the following elements:

• Reviewing system risk management policies to evaluate their efficacy.

²³ City of El Paso Employees Retirement Trust, December 12, 2019. https://www.eppension.org/documents/fund-overview/Funding%20Policy%20and%20Resolution_19-12-12.pdf?1704385439
²⁴ San Benito Firemen Relief and Retirement Fund Funding Policy, *San Benito Firemen Relief and Retirement Fund*. December 17, 2019. https://www.prb.texas.gov/wp-content/uploads/2024/01/2019-San-Benito-Firemen-Relief-and-Retirement-Fund-Funding-Policy.pdf

- Evaluating current assumptions to ensure reasonableness.
- Considering what changes should be made to employer and employee contributions (if any) when the system is in a surplus.
- Working with the sponsor to establish acceptable conditions for possible benefit enhancements, especially permanent ones, and provide accurate estimations for the immediate and long-term costs.²⁵

Examples:

- San Antonio Fire & Police Pension Fund. If the system is overfunded, the surplus will be amortized over an open amortization period of 30 years.²⁶
- ➤ Texas Municipal Retirement System. If the system is overfunded, all prior bases are erased, and one surplus base would be established. The asset surplus is used to generate a contribution credit for the year that is projected to remain the same over time and keep the funded ratio constant year over year. This practice reduces contribution rate volatility.²⁷



²⁵ "Core Elements of a Funding Policy for Governmental Pension and OPEB Plans" *Government Finance Officers Association*, approved March 23, 2023, https://www.gfoa.org/materials/core-elements-of-a-funding-policy

²⁶ Actuarial Funding Policy, *San Antonio Police and Fire Pension Fund*. 2019. https://www.prb.texas.gov/wp-content/uploads/2023/12/SAFPPF-Funding-Policy.pdf

²⁷ Actuarial Funding Policy, *Texas Municipal Retirement System*, 2019. https://www.prb.texas.gov/wp-content/uploads/2023/12/TMRS-Funding-Policy.pdf

Questions Systems and Sponsors Should Discuss During Funding Policy Development

The process of developing a funding policy presents an opportunity for a system's board of trustees to have an open, robust discussion of their priorities regarding the funding needs of the system. The policy should be created with input from the system's sponsoring governmental entity whenever possible. The following checklist represents a set of fundamental questions trustees should consider during funding policy development but is not exhaustive.

| Introduction |
|--|
| ☐ What is the purpose of the policy? What are we trying to achieve in this policy? |
| ☐ How often should we review the funding policy? |
| ☐ How is the system governed? What statutes or ordinances govern system funding? |
| ☐ What are our funding priorities? |
| Funding objectives |
| ☐ What is the target date to achieve 100 percent funding? |
| ☐ How will we measure progress towards full funding? How will we measure if our funding objectives are being met? |
| Actuarial methods |
| ☐ What valuation methods do we use to determine the ADC (or benchmark ADC)? |
| ☐ How frequently should we calculate the ADC (or benchmark ADC)? |
| ☐ How will we ensure we are meeting the ADC (or benchmark ADC)? |
| ☐ Will we employ any asset smoothing methods? If so, what are they? |
| ☐ What measures do our system and sponsor need to take to achieve 100 percent funding? |
| ☐ How should we prepare for unanticipated changes? |
| How frequently will actuarial experience studies occur? |
| How is the interest discount rate determined? |
| ☐ Is a negative amortization period ever acceptable, and if so, under what conditions? |
| Plan for achieving funding objectives |
| How much money do we need today to pay for future promises? |
| ☐ Will we use contribution smoothing methods? If so, what are they? |
| ☐ What conditions must be met for contribution decreases to occur? |
| When to allow benefit increases |
| ☐ What conditions must be met to adopt benefit increases or cost-of-living adjustments? |
| lacktriangle What will the impact of the benefit increase be on the amortization period and funded ratio? |
| ☐ Will the system still meet its target date to achieve full funding? |
| ☐ Will the resulting amortization period be less than the average remaining future service for current active members? |
| ☐ Will the resulting funded ratio be above the system's desired threshold? |
| Contribution distribution between members and city |
| ☐ Will members contribute appropriately for the level of benefits received? |

| U | Is there a target employer normal cost as percent of pay (total normal cost percent less employee contribution percent)? |
|---------|---|
| Risk ma | anagement policy |
| | What actions will we take should actual investment returns be less than the assumed investment returns used in the actuarial valuation? Should we consider action after a certain margin or threshold (positive or negative)? |
| | What actions will trigger changes to our assumptions at the next actuarial valuation? |
| | What conditions would trigger a contribution increase and what conditions must be met for contributions to return to their normal rate? |
| | Could we increase contributions temporarily? |
| | What conditions would trigger a review of our system's funding policy? |
| Surplus | s management policy |
| | What actions will we take should the system receive funding over the ADC? |
| | What actions will we take when the system exceeds 100 percent funding? |

Item 9f: Update on Texas Local Fire Fighters Retirement Act (TLFFRA) governance project

Mariah Miller



Project Overview

- Researching TLFFRA governance practices
 - TLFFRA systems historically have underperformed as a group, but have recently begun to improve
 - Groundwork for this study has been in development for years
- Used previous research to inform approach:
 - Intensive reviews
 - Funding Soundness Restoration Plans
 - LBJ student report
- Received input from stakeholder work group
- Identified four topic areas outlining issues:
 - System funding and decision-making practices
 - Board structure and membership
 - Transparency and communication
 - Additional areas for research and consideration



Identified Issues

- Staff identified the following issues:
 - Statutory limitations
 - Concerns with TLFFRA board structure and trustee compliance
 - Lack of readily available information and resources
 - Communication gaps between systems and sponsors
 - Incomplete or non-comprehensive minutes or board meeting material



Proposed Recommendations

- Possible statutory changes:
 - Requiring sponsor approval of benefit/contribution ballot options prior to member votes
 - Changing one citizen trustee to an additional city appointee
 - Providing authority for board to adopt a policy for removal of absentee/non-compliant trustees
 - Removing outdated statutory language
 - Requiring sponsors to post system reports on the sponsoring entity's website
- Potential new guidance and education:
 - Creating joint working agreements between system and sponsor
 - Using guardrails limiting benefit/contribution changes
 - Educating members prior to votes
 - Increasing transparency and communication



Stakeholder Feedback

- Requested feedback from TLFFRA systems and stakeholders on February 12, following the Actuarial Committee meeting
- Accepting feedback until March 15



Project Timeline

2023:

Oct.-Dec. - Met with stakeholder work group

2024:

- Jan. Presented draft findings to the Actuarial Committee
- Feb.-Mar. Collect stakeholder feedback and provide board update
- May Present updated materials and comments to Actuarial Committee
- July Present materials with committee input to board
- Sept. Final recommendations presented to board for possible approval
- Nov. Include any recommendations in PRB Biennial Report to the legislature



Potential TLFFRA Governance Issues and Recommendations January 25, 2024

Overview

In 2020, the Pension Review Board (PRB) directed staff to study Texas public retirement system governance structures and practices. Staff began the process of studying system governance of all 100 systems by completing reports on board structure, outlining each system's decision-making process, and providing data on board qualifications for some systems. Since that time, the PRB's focus on studying governance has shifted more specifically to the 42 systems that operate under the Texas Local Fire Fighters Retirement Act (TLFFRA).

The primary reason for focus on TLFFRA systems is that these systems tend to struggle more from a funding standpoint, accounting for 11 out of the 12 systems that have been subject to PRB intensive reviews, which typically prioritize poorly funded systems for review.¹ In addition, most of the systems currently subject to the Funding Soundness Restoration Plan (FSRP) requirement are TLFFRA systems.² While some TLFFRA systems are well-funded, on average, TLFFRA systems have the highest median expected return, highest median funding period, and lowest median funded ratio of all categories of Texas public retirement systems.³ In addition, TLFFRA systems have recently been in the legislative spotlight. In 2022, the Speaker's interim charges included a charge to the House Pensions, Investments, and Financial Services (PIFS) Committee to study governance of systems under TLFFRA.⁴ The PRB provided testimony during an interim committee hearing in August of 2022 and the PIFS committee issued a report in December of the same year.⁵

To complete preliminary research on TLFFRA governance, in the fall of 2022, PRB staff engaged a team of graduate students at the LBJ School of Public Affairs at the University of Texas at Austin to conduct a policy research project to study TLFFRA governance, develop research findings, and identify potential recommendations. The team completed their research and provided a report (LBJ student report) to the PRB in the spring of 2023.

In the fall of 2023, the PRB worked with TLFFRA stakeholders to form a workgroup comprised of stakeholders from multiple TLFFRA systems and sponsoring entities representing small, medium, and large systems. The PRB's goal in forming the TLFFRA Governance Work Group (Work Group) was to build on previous research and identify areas for improvement in TLFFRA governance by working directly with stakeholders. The intended outcome of this process is to help the PRB develop possible recommendations that can improve governance of these systems and ultimately help them succeed. Recommendations adopted by the board may include statutory changes, development of PRB guidance or other education/technical assistance, or direction for the PRB to engage in further studies.

¹ Texas Pension Review Board, Intensive Reviews, accessed January 11, 2024, https://www.prb.texas.gov/intensive-reviews/

² Texas Pension Review Board, FSRP Updates (Austin: Texas Pension Review Board, November 2023)

³ Pension Review Board November 2023 Actuarial Valuation Report

⁴ Texas House of Representatives, Interim Charges for the 87th Legislature, 24, accessed January 3, 2024, https://house.texas.gov/media/pdf/interim-charges-87th.pdf

⁵ House Committee on Pensions, Investments, and Financial Services, *Interim Report to the 88th Texas Legislature*, accessed January 12, 2024, https://house.texas.gov/media/pdf/committees/reports/87interim/Pensions-Investments-and-Financial-Services-Committee-Interim-Report-2022.pdf

This document is intended to outline the potential governance issues found through the research conducted thus far and propose possible recommendations to address those issues. The PRB used multiple sources and reports to identify issues and possible recommendations, primarily the Work Group meetings, the LBJ student report, and previous experience working with TLFFRA systems and sponsoring entities. This document reflects PRB staff's analysis and synthesis of those sources of information and is meant to be a concrete starting point for stakeholder and board feedback and deliberations in a public forum to result in finalized board recommendations later this year.

TOPIC AREA 1: SYSTEM FUNDING AND DECISION-MAKING PRACTICES

Background: The Texas Local Fire Fighters Retirement Act (TLFFRA) was originally created in 1937 by the 45th Legislature and named the Firemen's Relief and Retirement Fund. In 1989, the Act was restated under Article 6243e and renamed as the Texas Local Fire Fighters Retirement Act. The Act allows for paid and part-paid fire departments and volunteer fire departments in participating cities to administer their own local retirement systems.

The Act provides general guidelines for fund management, including some investment restrictions, but leaves administration, plan design, contributions, and specific investments to each system's local board. Systems operating under TLFFRA are entirely locally funded.

Local retirement systems established under TLFFRA have authority to determine member contribution rates, benefit levels, and other plan provisions locally through procedures outlined in TLFFRA. However, the composition of TLFFRA boards of trustees is set in statute. The composition of the TLFFRA board represents the interests of the member, governing entity, and taxpayers. Sponsoring entities of TLFFRA systems must meet a statutory minimum contribution rate but may adopt by ordinance a higher contribution rate than that set in statute.⁶

<u>Identified Issue:</u> TLFFRA statutory decision-making processes may hinder progress toward resolving funding issues faced by many TLFFRA systems and their sponsors.

TLFFRA systems must adhere to certain operational and funding guidelines set in statute, including minimum contribution rates and a pre-determined board structure. While sponsoring entities control their employer contribution levels, typically through city budget processes, changes to benefits and member contributions occur through board-initiated action rather than a statutory change or change to city charter, as is common with many non-TLFFRA systems. Prior to a benefit or contribution change being finalized, the changes must be first approved by the system's actuary, as well as by a majority vote of participating members of the system. At least 50 percent of all participating members must participate in the vote. Use of a membership vote to decide member contribution and benefit changes is mostly unique to TLFFRA when comparing these systems to others in Texas. While decision-making mechanisms vary from system to system, the PRB identified only two municipal systems that include a vote of members for certain decisions. El Paso Police and Fire Pension Fund has a member vote for making benefit and member contribution changes. However, the system's board must first submit any proposed benefit or member

⁶ TLFFRA Peer Review Committee et. all, Texas Local Fire Fighters Retirement Act Trustee Manual, 2022

⁷ Section 7(b), Article 6243e, Vernon's Texas Civil Statutes

contribution changes to the city's governing body for approval before the board is able to adopt a change.⁸ Fort Worth Employees Retirement Fund (FWERF) utilizes a member vote for changes to member contributions. Unlike El Paso Fire and Police, FWERF does not require proposed member contribution changes to first be approved by both the board and the system.⁹

The TLFFRA member vote mechanism allows for individual plan members to have influence over the management of their pension plan. Some Work Group members characterized the member vote requirement as a helpful and necessary check and balance; however, the goals of the system administration, sponsoring governmental entity, and plan membership may not always be in alignment, potentially preventing necessary changes from occurring. For example, some sponsoring entities may hesitate to provide increased contributions, or implement an actuarially determined contribution (ADC), out of the belief that plan members will vote to increase their own benefits and, in turn, increase the sponsor's financial burden since the sponsoring entity does not have a specific role in approving benefit changes, other than the two seats they hold on the seven-member system board. Conversely, plan members may be hesitant to vote for changes that would reduce their own benefits, even in cases where those changes are needed to address funding gaps.

The LBJ student report noted that system representatives interviewed were generally in favor of shifting to an ADC contribution structure that would allow for the system's contribution levels to adequately address the unfunded liability. The report's analysis also showed a correlation between high-performing TLFFRA systems and actual contribution rates above the ADC. However, the analysis also found that some sponsors are wary of moving towards an ADC structure because there are concerns that systems will raise benefits.¹⁰

Due to the current statutory decision-making structure, sponsors are not required to be directly involved in setting benefit levels unless more specific working agreements are developed between systems and sponsors, as discussed below. During Work Group meetings, members noted that there is often not a formalized communication or agreement structure between the system and sponsor, and the quality of the working relationship may vary depending on the specific people involved and their willingness to work together on pension issues. Without such an agreement, the system, sponsor, and plan members may not be able to effectively work together to resolve any existing funding issues or address issues in a timely manner when they arise. While nearly all TLFFRA systems have a funding policy as required under legislation passed in 2019, policies submitted initially were not required to be jointly developed and adopted by the system and sponsor. With amendments to the funding policy requirement passed by the legislature in 2021, funding policies now require involvement from both parties.¹¹

Through research and the Work Group meetings, PRB staff identified a trend of more sponsors and systems creating their own agreements or memorandums of understanding (MOUs) to outline parameters surrounding contributions and benefits changes. Some of these agreements are summarized in the chart, *Examples of Agreements*. These parameters, often referred to as "guardrails," allow for the

⁸ El Paso Firemen and Policemen's Pension Fund, *Statement of Funding Policy*, January 2019, https://www.elpasofireandpolice.org/index.php/about/board-documents-2/board-policies/961-epfppf-statement-of-funding-policy/file

⁹ Section 5.07, Article 6243i, Vernon's Texas Civil Statutes

¹⁰ Ryan Hurt, Richard Guzman, Noah Jones, *Putting Out the Fire: Pension Governance of TLFFRA Plans* (Austin: The Lyndon B. Johnson School of Public Affairs), 69.

¹¹ Section 802.2011, Texas Government Code

sponsor to have peace of mind that no unfunded benefit increases will occur, while allowing the system to obtain additional needed funding to resolve funding issues and ensure that members will ultimately receive the benefits they are promised. Such agreements can lead to improved funding and potentially allow for additional benefits when the plan is well-funded; for example, Denton Fire and the City of Denton agreed to an ad-hoc cost-of-living adjustment in 2022 while maintaining a funding period below 10 years. Joint working agreements may occasionally occur more informally, but the PRB recommends that any jointly agreed upon terms regarding contribution and benefit levels are eventually incorporated into a funding policy, particularly since the statute now provides a foundation for jointly developed and adopted funding policies.

| | Examples of Agreements |
|------------------------|---|
| Denton Fire | The system and the city use a Meet and Confer Agreement to establish certain responsibilities and funding goals shared by both parties. For example, the system agrees to not raise benefits during the term of the agreement and the city agrees to only adjust contributions based upon an actuarial valuation. ¹² |
| Longview Fire | The system and city entered into a memorandum of understanding that the city would provide the system a lump-sum contribution from the proceeds of a pension obligation bond and the system would not enhance benefits unless the funding period was less than five years and the enhancement would not increase the system's funding period above 10 years. ¹³ |
| Irving Fire | The system and the city entered into a formal agreement surrounding a pension obligation bond. The bond will pay down a portion of the system's UAAL and as a result, the system agrees that any benefit enhancement submitted for a membership vote will require that the member contributions solely cover the increase to the ADC. It further states that both the members and city will equally split the ADC if it is lower than 26 percent of pay, but if it goes above 26 percent, the members will only be responsible for a maximum of 13 percent. ¹⁴ |
| Corpus Christi Fire | The city informally agreed to increase contributions, with the understanding by the system that they could not use the additional contributions to increase benefits. |

Sometimes the system and sponsor may be in alignment about needed changes, but as previously mentioned, changes to benefits and member contributions require approval from plan members as a final step. During Work Group meetings, group members discussed past difficulties some systems have experienced in convincing members to support needed reforms; however, they identified proactive, robust education efforts as a key to success. Some of the Work Group members represent systems that have recently implemented significant reforms to address funding issues, and they discussed the measures that they have taken in the past to help ensure that their members are well informed about on the proposed changes, including conveying the potential repercussions of having an inadequately funded plan. They explained how they educated members prior to votes, including bringing the system actuary in to talk to the members directly, offering multiple options, and holding votes immediately following the

¹² Meet and Confer Agreement Between the City of Denton and the Denton Firefighters Association, *Denton Firemen's Relief and Retirement Fund.* 24 September 2019, https://www.prb.texas.gov/wp-content/uploads/2023/12/Denton-Funding-Policy.pdf

¹³ Longview Firemen's Relief and Retirement Fund and the City of Longview, *Agreement Regarding City of Longview Pension Obligation Bonds*, 23 June 2022.

¹⁴ Irving Firemen's Relief and Retirement Fund and the City of Irving, Texas, *Agreement Regarding City Pension Obligations Bonds*, 21 March 2022.

discussion. The members noted that when systems take proactive measures to educate the plan members, the overall process to obtain support from the membership tends to go smoothly and systems are able to make the changes needed to address funding challenges.

Preliminary Staff Recommendations

Statutory/legislative

1.1 Require the sponsoring entity to first approve any ballot options concerning benefit or contribution changes prior to a member vote. This recommendation would ensure sponsors and systems work collaboratively on potential changes before going to a member vote and could change the incentive structure to make it more likely sponsors would be less hesitant to provide necessary employer contributions.

PRB guidance/technical assistance

- 1.2 The PRB may publish guidance based on experiences of multiple TLFFRA systems for improving overall plan governance, such as best practices for creation of a joint working agreement (and ultimately jointly adopted funding policies) between the system and sponsor and methods to effectively educate members in preparation for a vote on plan changes. Included in this effort could be compiling actual agreements and funding policies as examples and making them publicly available.
- 1.3 The PRB may create a continuing education (CE) course on successful system reforms, potentially featuring a panel of TLFFRA stakeholders.

TOPIC AREA 2. BOARD STRUCTURE AND MEMBERSHIP

Background: TLFFRA boards are comprised of seven members:

- the mayor of the municipality or the mayor's designated representative
- the chief financial officer (CFO) of the municipality, the person who performs the functions of a CFO, or the CFO's designated representative
- three members of the retirement system elected by participating members
- two citizens of the state who are not officers or employees of the municipality and are elected by participating members.¹⁵

The distribution of trustee seats is set in statute.

<u>Identified Issue:</u> TLFFRA board structure may need updating to address identified concerns and ensure balanced representation.

The LBJ student report noted that filling citizen trustee positions is challenging for many TLFFRA systems regardless of overall system performance. The Work Group members echoed this concern. During Work Group sessions, members noted that excluding the statutory residency requirement – the citizen seat for any TLFFRA system must be filled by a Texas resident – there is currently no guidance available to systems about what qualifications they should look for when filling the citizen seat. However, filling citizen seats with individuals with relevant and helpful expertise—such as financial or legal expertise—can also be

¹⁵ Section 19, Article 6243e, Vernon's Texas Civil Statutes

¹⁶ Ryan Hurt, Richard Guzman, Noah Jones, *Putting Out the Fire: Pension Governance of TLFFRA Plans* (Austin: The Lyndon B. Johnson School of Public Affairs), 57.

difficult, especially for smaller TLFFRA systems. As a result of the difficulties associated with filling citizen seats, they are often filled by retired firefighters, many times retired firefighters who formerly served on the TLFFRA board. While this expertise and institutional knowledge can be useful, citizen seats filled by retired firefighters can also mean that firefighter/plan member perspectives outnumber others, especially sponsor perspectives.

Outside of TLFFRA systems, recent legislative reforms of some municipal public pension boards have resulted in shifting the balance towards having more representation from the sponsoring entity and adding required qualifications for certain trustees, as described in the table, *Examples of Recently Changed Board Structures and Qualifications*.¹⁷

| Examples of Recent Legislative Changes to Board Structures and Qualifications | | | | |
|---|--|--|--|--|
| Board Structure | | Required Qualifications | | |
| Galveston Police (2019) | Increased board from seven to eight total members, additional member designated by city representatives. | To be designated or elected a trustee, a person must have 1) demonstrated financial, accounting, business, investment, budgeting, or actuarial experience; 2) a bachelor's degree from an accredited institution of higher education; or 3) been vetted to verify that the person is capable of performing the duties and responsibilities of a trustee. ¹⁸ | | |
| Austin Police (2021) | One active member seat replaced with a citizen appointed by the city council. | The citizen trustee member must have demonstrated financial or investment experience. ¹⁹ | | |

Some Work Group members indicated their systems voluntarily try to find candidates for citizen seats that have expertise/qualifications, such financial or investment industry backgrounds. This became a discussion point amongst the members which indicated further guidance or sharing of best practices would be beneficial.

Identified Issue: TLFFRA boards occasionally struggle with disengaged and/or noncompliant trustees, but systems lack tools and policies to address these issues.

Work Group participants noted that some TLFFRA systems struggle with low engagement particularly from sponsor representatives sitting on the board, such as not attending board meetings. They further noted that typically sponsor representatives on the board are responsible for bringing pertinent information from the TLFFRA board to the attention of the sponsoring entity as a whole, making their role on the board and level of engagement critical to the overall working relationship between the system and the sponsor.

Members also raised the concern that there are some TLFFRA trustees who are not compliant with the PRB's Minimum Educational Training (MET) program requirements. They noted that system

¹⁷ For example, Section 2.021, Article 6243p, Vernon's Texas Civil Statutes, Section 3.02, Article 6243n-1, Vernon's Texas Civil Statutes, and Section 4, Article 6243n, Vernon's Texas Civil Statutes.

¹⁸ Section 2.021, Article 6243p, Vernon's Texas Civil Statutes

¹⁹ Section 3.02(a)(5), Article 6243(n-1), Vernon's Texas Civil Statutes

administrators make attempts but are still sometimes unable to get their trustees compliant. The PRB is currently pursuing a project working with all systems with trustees out of compliance, with core education specifically, to understand reasons for noncompliance and assist where possible.

A suggestion offered by Work Group members was adding statutory authority allowing TLFFRA systems to remove inactive or noncompliant members. The chart below, *Examples of Statutory Removal of Members*, provides some examples of mechanisms in current law for several Texas municipal systems.

| Examples of Statutory Removal of Members | | | | | |
|--|---|--|--|--|--|
| Removal by elector/appo | pinter | | | | |
| San Antonio Fire and | Allows firefighter or police officers to vote to remove their appointed | | | | |
| Police | representatives. Subsection (b) allows retiree members to vote to remove | | | | |
| | elected retiree representatives. ²⁰ | | | | |
| Attendance requirement | Attendance requirement | | | | |
| Austin Police | Provides that trustees who are absent from five consecutive regular board | | | | |
| | meetings will be removed. ²¹ | | | | |
| Board member vote, with hearing | | | | | |
| Houston Police | The board may vote to remove a board member, with agreement from a | | | | |
| | hearing examiner. ²² | | | | |

Through the Work Group discussions, PRB staff also learned that some systems have developed their own policies and procedures to promote board member engagement and education. In general, members indicated these policies are helpful in promoting engagement and compliance. The policies are as follows:

- Education policy. Odessa Firemen's Relief & Retirement Fund created an education policy which requires board members to complete 15 to 30 hours of MET training annually. If a board member does not complete their requirement, they must share their reason for noncompliance with the board chair and the board will decide what actions to take regarding the trustee's position on the board.
- Attendance policy. Irving Firemen's Relief and Retirement Fund created an attendance policy requiring trustees to attend at least 75 percent of regular board meetings each year. The board of trustees may excuse absences in the case of unusual circumstances, but otherwise a trustee who is noncompliant with the policy will be asked to consider resigning from the board.

Preliminary Staff Recommendations

Statutory/legislative

- 2.1 Consider changes to statutory TLFFRA board structure. A potential option could be to eliminate one citizen seat and make it an additional city appointee and retain one citizen seat. Such a change would provide even representation between city and plan members but still retain one citizen member meant to represent taxpayers.
- 2.2 Provide statutory authorization for TLFFRA boards to remove disengaged/noncompliant board members. Some options may include:

²⁰ Section 2.03(a), Article 6243o, Vernon's Texas Civil Statutes

²¹ Section 3.06(c), Article 6243n-1, Vernon's Texas Civil Statutes

²² Section 7(a), Article 6243g-4, Vernon's Texas Civil Statutes

- Authorize each board to adopt a policy for removing inactive or noncompliant board members. The specific criteria would be left up to each system's board.
- Include language allowing for appointed trustees to be removed by the mayor or elected trustees removed by members in accordance with procedures adopted by the board.
- Formalize in statute that absences beyond a certain percent of meetings or number of meetings is cause for removal, or a certain number of consecutive meetings.

PRB guidance/technical assistance

2.3 The PRB may compile information and guidance on processes used by TLFFRA systems for identifying citizen members with qualifications and example policies used by systems to set standards for engagement of their board members, including attendance policies and education policies. This recommendation would provide information and assistance to TLFFRA systems while not mandating specific qualifications for citizen members, which may be difficult for some systems to comply with.

TOPIC AREA 3. TRANSPARENCY AND COMMUNICATION

Background: In general, good communication practices and overall transparency help mitigate issues and help ensure stakeholders of any organization are all on the same page and have the information needed to effectively make decisions. The LBJ student report states that representatives of high-performing TLFFRA systems interviewed by the team described having consistent and reliable communications with plan members specifically as a key governance success factor.²³ In other words, improving communication and transparency could ultimately lead to improved overall performance of the system.

Through the Work Group meetings, communication among the systems, their sponsors, their members, and the PRB was a topic discussed at length. PRB staff aimed to understand current methods of communication and identify issues and found systems use a variety of methods to communicate with their members, which helps improve the member vote process and helps the plan members understand their benefits overall. Generally, TLFFRA systems have very few staff members, so most day-to-day communication occurs through the administrator and occasionally the board members themselves, particularly when systems are contemplating major reforms.

<u>Identified Issue:</u> Information may not be easily accessible by all parties, including sponsoring entity and membership.

Some existing statutory requirements already exist that are meant to promote transparency for all Texas retirement systems, such as the requirement for all reports submitted to the PRB to also be published on a website. Examples of required reports include actuarial valuations, annual financial reports, and funding policies. This statute does not require each system to have a website; instead, it allows for the information and reports to be posted on any public website, such as that of the sponsoring entity. The LBJ student report noted that many TLFFRA systems currently lack a website, or the website is missing information. The team arrived at this conclusion after conducting a search for and review of websites of

²³ Ryan Hurt, Richard Guzman, Noah Jones, *Putting Out the Fire: Pension Governance of TLFFRA Plans* (Austin: The Lyndon B. Johnson School of Public Affairs), 62.

²⁴ Section 802.107, Texas Government Code

all 42 TLFFRA systems.²⁵ In addition, the need for increased transparency was addressed in the most recent PRB intensive review; the system reviewed (Abilene Fire) has since made improvements to address the deficiencies highlighted in the report, such as missing and outdated reports on the system website.²⁶

For systems without their own website, the information required to be posted may be unavailable on any public website, including required reports. Sponsoring entities – a majority of which are cities – already have websites and post other publicly available documents online. It is an intuitive location for members of the public to go when looking for financial and actuarial information, and many cities' websites already include this information for local retirement systems. Work Group members noted that administering a website is difficult for systems because they do not typically have the in-house knowledge or bandwidth needed to manage it themselves and third-party administrators can be expensive.

<u>Identified Issue:</u> Some TLFFRA systems have difficulty contacting their sponsoring entity to discuss plan issues.

Work Group members noted that they are often dependent on the level of engagement from the sponsor representative on the system's board. Getting information in front of the sponsor has been a challenge for some TLFFRA systems, but a few who have completed an FSRP or been part of an intensive review by the PRB did mention that having to complete those processes improved communication and working relationships overall. During the Work Group sessions, it became apparent that there may also be a lack of understanding surrounding certain reporting cycles. In particular, actuarial valuations and experience studies are typically not completed on the same timeline as city budgeting cycles. This mismatch has led to some sponsors hesitating to make contribution decisions until they have a more recent report, which can increase the overall amount of time it takes to address funding issues. As a result, at least one system represented on the Work Group has moved to annual actuarial valuations to ensure stakeholders have updated actuarial information on a more frequent basis.

<u>Identified Issue:</u> Minutes and board meeting materials are sometimes incomplete or not comprehensive.

Governmental entities are required to keep minutes or a recording of their public meetings, but they are currently not required to keep detailed records of discussions or other information that may be pertinent to system status.²⁷ Beyond statutory compliance, the use of detailed and easily obtainable meeting minutes helps keep both the membership aware of the system's decisions, as well as provides a resource for the sponsor.

The LBJ student report found that high-performing TLFFRA systems were more likely to have detailed minutes and scored higher on various transparency measures than low- and medium-performing systems. However, the report found that TLFFRA board meeting minutes and materials were often unavailable for many systems. During their analysis, the student team discovered that they were unable to locate minutes

²⁵ Ryan Hurt, Richard Guzman, Noah Jones, *Putting Out the Fire: Pension Governance of TLFFRA Plans* (Austin: The Lyndon B. Johnson School of Public Affairs), 70.

²⁶ Texas Pension Review Board, Intensive Review: Abilene Firemen's Relief and Retirement Fund, September 2023, 25.

²⁷ Section 551.021, Texas Government Code

for 19 of the 42 TLFFRA systems. They noted that it was often due to being unable to find system websites overall.²⁸

Preliminary Staff Recommendations

Statutory/legislative

3.1 Require the sponsoring entity of a TLFFRA system to make publicly available on their website reports submitted to the PRB by the system. This change would facilitate access to information about TLFFRA systems even in situations where the system is unable to maintain an independent website.

PRB guidance/technical assistance

3.2 The PRB may issue guidance or conduct continuing education on transparency and communication topics.

TOPIC AREA 4. ADDITIONAL AREAS FOR RESEARCH AND CONSIDERATION

<u>Identified Issue:</u> Statutory language is potentially outdated in some areas and may not reflect current practices.

The Work Group members made PRB staff aware that TLFFRA statute contains some outdated language that needs revising to reflect current trends and practices. They noted that the statute was created in the 1930s and some sections have not been updated since then. For example, in various provisions, the statute still addresses volunteer systems within systems that have no volunteers. Not only does the current statute not always align with current system structures, it has also historically made it more difficult for struggling TLFFRA systems to close their plan to new members and join statewide systems. The Texas Municipal Retirement System (TMRS) statute allows for local systems to join TMRS through city ordinance; however, TLFFRA systems may still lack clarity on this process.²⁹

<u>Identified Issue:</u> Additional information-sharing mechanisms and resources may be helpful for TLFFRA systems.

The PRB often fields questions from TLFFRA systems about reporting requirements and Minimum Educational Training (MET) requirements. This has primarily occurred via technical assistance requests but was briefly brought up during Work Group meetings. Work Group members noted that when first joining the board, it is difficult to learn certain PRB reporting requirements, such as the MET reporting, especially when there is high turnover on the board or when a system has a new administrator. It was also noted that the sponsor representatives may need more information about how defined benefit plans work overall.

Work Group meetings often led to the participating systems sharing information about how they handle certain topics and issues. While PRB staff moderated the meetings, Work Group members chimed in asking questions of each other and sharing their own system's unique practices. One of the benefits of the Work Group sessions beyond information gathering for the PRB was providing an avenue for Work

²⁸ Ryan Hurt, Richard Guzman, Noah Jones, *Putting Out the Fire: Pension Governance of TLFFRA Plans* (Austin: The Lyndon B. Johnson School of Public Affairs), 53, 70.

²⁹ Section 852.005, Texas Government Code

Group members to share resources and information amongst themselves. For example, when filling citizen seat positions, some Work Group members shared that they ask the prior citizen seat member to provide a list of recommendations. Systems would benefit from having access to examples and templates to help them conduct daily operations without starting from scratch. TLFFRA systems in particular could benefit from such assistance because they tend to have few staff and resources to administer their plans.

Preliminary Staff Recommendations

Statutory/legislative

4.1 Propose statutory updates based on any specific feedback or suggestions received from TLFFRA stakeholders through this process. Proposing any such updates would depend on the PRB receiving specific suggestions from TLFFRA stakeholders.

PRB guidance/technical assistance

- 4.2 The PRB could create a new core or CE course on reporting requirements and the role of the PRB for new administrators and trustees. The PRB may also consider other topics based on TLFFRA stakeholder requests. Such a course could help trustees and administrators more easily learn statutory reporting and education requirements and make compliance easier.
- 4.3 The PRB could implement a process to collect, share and regularly update example polices, requests for proposal and other relevant resources. This process would ultimately make it easier for systems to access useful examples since they would just have to go to one place.

Item 9g: Updated Research on District/Supplemental Plan Lump Sum Assumptions

David Fee



Summary

- Methodology
- List of systems that offer complete cashouts
- Actuarial equivalence basics
- Actuarial equivalence used for lump sums
- Actuarial valuation assumptions
- Lump sum vs actuarial valuation comparisons
- Sample lump sum calculations
- Administrative practices
- Next steps



Methodology

- Requested and received latest plan documents from each special purpose district plan
- Identified key plan provisions
 - When are lump sums offered?
 - What interest rate is used to calculate lump sums?
 - What mortality table is used to calculate lump sums?
- Asked follow-up questions
 - Take rates
 - Social Security participation
 - Administrative practices
- Responses are self-reported, not verified



Systems That Offer Complete Cashouts

| | Full Lump Sums Offered | | 2022 Take Rate | | Social Security |
|--|------------------------|------------|--------------------|------------------|--------------------|
| System | Pre- Retirement | Retirement | Pre- Retirement | Retirement | Y/N |
| Citizens Medical Center | Υ | Υ | 52% | 36% | Y |
| Colorado River Municipal Water District | Υ | Y | 100% | 80% | Υ |
| CPS Energy | Υ | N | 24% | N/A | Υ |
| Houston MTA Non-Union | Υ | Υ | 25% | 55% | Υ |
| Irving Supplemental | Υ | Υ | Not Available | 55% | N |
| JPS Tarrant County Hospital District | Υ | Y | 46% | 29% | Υ |
| Lower Colorado River Authority | Υ | Υ | 100% | 26% | Υ |
| Lower Neches Valley Authority | Υ | Υ | 0% | 0% | Υ |
| Nacogdoches County Hospital District | Υ | Υ | 93% | 41% | Υ |
| Refugio County Memorial Hospital District | Υ | Y | Two lump sum e | lections in 2022 | Y |
| Sweeny Community Hospital | Υ | Y | 0% | 0% | Υ |
| University Health System | Υ | Υ | 14% | 18% | Υ |



Actuarial Equivalence Basics

- Two components
 - Interest Rate
 - Mortality Table
- Interest Rate
 - Works like a mortgage
 - \$3,000 monthly payment buys a more expensive house with a lower interest rate.
 - \$3,000 monthly payment results in a higher lump sum with a lower interest rate.
- Mortality Table
 - In general, more recent mortality tables reflect longer expected retiree lifetimes and generate higher lump sums.



Actuarial Equivalence for Lump Sums

| | Lump Sum Assumptions | | | |
|---|----------------------|----------------------|------------------------------------|--|
| System | Interest Rate | Mortality Table Year | Mortality Table Description | |
| Citizens Medical Center | 8.0% | 1984 | UP Unisex | |
| Colorado River Municipal Water District | 30-year Treasuries | 1994 | GAR Unisex | |
| CPS Energy | 8.5% | 1984 | UP Unisex set forward one year | |
| Houston MTA Non-Union | 7.0% | 1971 | GAM Female | |
| Irving Supplemental | 6.75% | 2010 | PUB (Safety) | |
| JPS Tarrant County Hospital District | 8.0% | 1984 | UP Unisex | |
| Lower Colorado River Authority | 6% | 2010 | PUB (General, Above Median Income) | |
| Lower Neches Valley Authority | 6.5% | Updated Annually | As mandated by IRS in 417(e)(3) | |
| Nacogdoches County Hospital District | 7.5% | 1983 | GAM Unisex | |
| Refugio County Memorial Hospital District | 7.0% | 1994 | GAR Unisex | |
| Sweeny Community Hospital | 8.0% | 1984 | UP Unisex | |
| University Health System | 8.0% | 1994 | GAM Unisex | |



Actuarial Valuation Assumptions

| | Actuarial Valuation Assumptions | | | |
|---|---------------------------------|----------------------|---|--|
| System | Interest Rate | Mortality Table Year | Mortality Table Description | |
| Citizens Medical Center | 6.75% | 2012 | Pri-2012 with projected improvements | |
| Colorado River Municipal Water District | 5.75% | 2012 | Pri-2012 white collar with projected improvements | |
| CPS Energy | 7.00% | 2010 | Pri-2012 with projected improvements | |
| Houston MTA Non-Union | 6.25% | 2010 | PubG-2010 with projected improvements | |
| Irving Supplemental | 6.75% | 2010 | PubS-2010 with projected improvements | |
| JPS Tarrant County Hospital District | 6.75% | 2012 | Pri-2012 with projected improvements | |
| Lower Colorado River Authority | 7.00% | 2010 | PubG-2010 with projected improvements | |
| Lower Neches Valley Authority | 6.50% | 2010 | PubG-2010 with projected improvements | |
| Nacogdoches County Hospital District | 6.75% | 2014 | RP-2014 with projected improvements | |
| Refugio County Memorial Hospital District | 6.00% | 2010 | PubG-2010 with projected improvements | |
| Sweeny Community Hospital | 5.75% | 2012 | Pri-2012 with projected improvements | |
| University Health System | 7.00% | 2010 | PubG-2010 with projected improvements | |



Lump Sum vs Actuarial Valuation Interest Rate Comparison

| | Interest Rates | | |
|---|----------------------------|---------------------------|--|
| System | Valuation Interest Rate | Lump Sum Interest Rate | |
| Citizens Medical Center | 6.75% | 8.00% | |
| Colorado River Municipal Water District | 5.75% | 30-year Treasuries | |
| CPS Energy | 7.00% | 8.50% | |
| Houston MTA Non-Union | 6.25% | 7.00% | |
| Irving Supplemental | 6.75% | 6.75% | |
| JPS Tarrant County Hospital District | 6.75% | 8.00% | |
| Lower Colorado River Authority | 7.00% | 6.00% | |
| Lower Neches Valley Authority | 6.50% | 6.50% | |
| Nacogdoches County Hospital District | 6.75% | 7.50% | |
| Refugio County Memorial Hospital District | 6.00% | 7.00% | |
| Sweeny Community Hospital | 5.75% | 8.00% | |
| University Health System | 7.00% | 8.00% | |



Lump Sum vs Actuarial Valuation Mortality Table Year Comparison

| | Mortality Table Year | | |
|---|-----------------------------------|----------------------------------|--|
| System | Valuation Mortality Table Year | Lump Sum Mortality Table Year | |
| Citizens Medical Center | 2012 | 1984 | |
| Colorado River Municipal Water District | 2012 | 1994 | |
| CPS Energy | 2010 | 1984 | |
| Houston MTA Non-Union | 2010 | 1971 | |
| Irving Supplemental | 2010 | 2010 | |
| JPS Tarrant County Hospital District | 2012 | 1984 | |
| Lower Colorado River Authority | 2010 | 2010 | |
| Lower Neches Valley Authority | 2010 | Updated Annually | |
| Nacogdoches County Hospital District | 2014 | 1983 | |
| Refugio County Memorial Hospital District | 2010 | 1994 | |
| Sweeny Community Hospital | 2012 | 1984 | |
| University Health System | 2010 | 1994 | |



Sample Lump Sum Calculations

| Calculations at Age 65 Retirement | | | | | | |
|---------------------------------------|------------------|--------------------|-----------------------|--|--|--|
| Mortality Table Description | Interest Rate | Monthly Annuity | Resulting Lump Sum | | | |
| UP 1984 Unisex | 8.00% | \$3,000 | \$294,840 | | | |
| PubG-2010 with projected improvements | 6.60% | \$3,000 | \$406,303 | | | |

| Calculations at Age 45 Termination | | | | | | |
|---------------------------------------|------------------|--------------------|-----------------------|--|--|--|
| Mortality Table Description | Interest Rate | Monthly Annuity | Resulting Lump Sum | | | |
| UP 1984 Unisex | 8.00% | \$500 | \$8,657 | | | |
| PubG-2010 with projected improvements | 6.60% | \$500 | \$18,874 | | | |

8.00 percent is the average lump sum interest rate for the five systems using 1983-1984 lump sum mortality 6.60 percent is the average valuation interest rate for the five systems using 1983-1984 lump sum mortality



Administrative Practices

These administrative practices do not affect the benefit amount. They affect the level of information provided to the member and spouse.

| System | Relative Value Language | Spouse Approval Required? |
|---|----------------------------|---------------------------|
| Citizens Medical Center | Υ | N |
| Colorado River Municipal Water District | N | Υ |
| CPS Energy | Υ | Υ |
| Houston MTA Non-Union | Υ | Υ |
| Irving Supplemental | N | N |
| JPS Tarrant County Hospital District | Υ | Υ |
| Lower Colorado River Authority | N | Υ |
| Lower Neches Valley Authority | N | Υ |
| Nacogdoches County Hospital District | N | Υ |
| Refugio County Memorial Hospital District | N | Υ |
| Sweeny Community Hospital | Υ | N |
| University Health System | Υ | N |



Summary

Lump Sum Calculations

- Irving Supplemental, LCRA, Lower Neches Valley
 Authority all calculate
 lump sums using similar
 assumptions to their best
 estimates used in the
 actuarial valuation
- All other systems are arguably providing lesser benefits to members who elect the lump sum than those who elect an annuity

Administrative Practices

- CPS, Houston MTA, and JPS self report that they fully inform the members
 - The member is made aware that the lump sum may be less valuable
 - The spouse is made aware that the member wants to choose the lump sum option

Overall

- LCRA and Lower Neches
 Valley Authority use
 reasonable assumptions to
 calculate the lump sum
 and reasonably inform the
 members
 - The lump sum is not less valuable, so the member does not need to be made aware
 - The spouse must agree to any lump sum election



Next Steps

- Share results with the respondents.
- Potential drafting of lump sum guidance.



Item 10. Executive Director's Report

Amy Cardona



10a: 2024 TLFFRA Pension Report

- Report overview
- Publication timeline



10b: TEXPERS Annual Conference

- April 6-10, 2024, in Dallas
- PRB staff presentation on April 10



10c: 2024 Customer Service Survey

Purpose

- Obtain stakeholder feedback on agency functions and services
- One of several components of the biennial strategic planning process
- Survey timeline:
 - Open mid-March
 - Close mid-April



10d: Staff Update

- New interns
 - Miranda Chen, Actuarial Intern
 - Stephanie Perez, Financial Analyst Intern



10e: Updated FY 2024 Operating Budget

See attachment





TEXAS PENSION REVIEW BOARD OPERATING BUDGET FISCAL YEAR 2024

As of January 31, 2024



| | LBB Obj. | GAA | ADJUSTED | TOTAL | TOTAL | | PERCENT | REMAINING | PERCENT |
|---|---------------|----------------|----------|----------------|-----------------------|---------------------|----------|---------------------------|------------------|
| METHOD OF FINANCING | Code | BUDGETED | BUDGETED | BUDGETED | EXPENDED | ENCUMBRANCES | EXPENDED | BALANCE | REMAINING |
| METHOD OF FINANCING | | | | | | | | | |
| General Revenue | | \$1,281,259.00 | | \$1,281,259.00 | | | | | |
| Add'l One-time GR Approp for IT Pojects | | | | | | | | | |
| Tatal Made a Lat Flancia la co | | | \$0.00 | \$0.00 | | | | | |
| Total Method of Financing | | \$1,281,259.00 | \$0.00 | \$1,281,259.00 | | | | | |
| OBJECT OF EXPENSE | | | | | | | | | |
| Exempt Salaries | 1001A | \$149,240.00 | | \$149,240.00 | \$62,183.30 | | 41.67% | \$87,056.70 | 58.33% |
| Classified Salaries | 1001B | \$1,024,229.00 | | \$1,024,229.00 | \$397,612.22 | | 38.82% | \$626,616.78 | 61.18% |
| Other Personal Exp / Longevity Pay | 1002A | \$19,600.00 | | \$19,600.00 | \$3,649.99 | | 18.62% | \$15,950.01 | 81.38% |
| Retirement Deduction .5% Salary | 1002B | \$5,000.00 | | \$5,000.00 | \$2,430.01 | | 48.60% | \$2,569.99 | 51.40% |
| Benefit Replacement Pay | 1004 | \$0.00 | | \$0.00 | \$0.00 | | 0.00% | \$0.00 | 100.00% |
| Non-Overnight Meals | 1001C | \$0.00 | | \$0.00 | \$0.00 | | 0.00% | \$0.00 | 100.00% |
| Sub-Total Salaries & Wages | | \$1,198,069.00 | \$0.00 | \$1,198,069.00 | \$465,875.52 | \$0.00 | 38.89% | \$732,193.48 | 61.11% |
| Professional Fees and Services | 2001 | \$12,500.00 | | \$12,500.00 | \$228.82 | \$0.00 | 1.83% | \$12,271.18 | 98.17% |
| Consumable Supplies | 2001 | \$3,500.00 | | \$3,500.00 | \$226.62 \$115.36 | \$0.00 | 3.30% | \$3,384.64 | 96.70% |
| Travel | 2005 2005A | \$26,000.00 | | \$26,000.00 | \$3,380.72 | \$0.00 | 13.00% | \$3,364.64 \$22,619.28 | 96.70% 87.00% |
| Rent-Building (Record Storage) | 2005A 2006 | \$26,000.00 | | | \$3,360.72 \$62.50 | \$0.00 \$0.00 | | \$22,619.26 \$937.50 | 93.75% |
| 3 , | | • , | | \$1,000.00 | • | · | 6.25% | · | |
| Rent-Machine & Other (Copier/Software) | 2007 | \$15,000.00 | | \$15,000.00 | \$0.00 | \$0.00 | 0.00% | \$15,000.00 | 100.00% |
| Operating Costs (Miscellaneous) | 2009A | \$6,214.25 | | \$6,214.25 | \$2,253.89 | \$0.00 | 36.27% | \$3,960.36 | 63.73% |
| Telecommunication Services | 2009D | \$2,000.00 | | \$2,000.00 | \$991.00 | \$0.00 | 49.55% | \$1,009.00 | 50.45% |
| Education and Training | 2009B | \$2,500.00 | | \$2,500.00 | \$1,840.00 | \$0.00 | 73.60% | \$660.00 | 26.40% |
| Postage | 2009C | \$500.00 | | \$500.00 | \$100.00 | \$0.00 | 20.00% | \$400.00 | 80.00% |
| Printing | 2009E | \$1,000.00 | | \$1,000.00 | \$650.53 | \$0.00 | 65.05% | \$349.47 | 34.95% |
| Subscription/Publications | 2009G | \$2,000.00 | | \$2,000.00 | \$740.00 | \$0.00 | 37.00% | \$1,260.00 | 63.00% |
| PHC Deduction 1% Salary | 2009H | \$8,476.75 | | \$8,476.75 | \$4,552.23 | | 53.70% | \$3,924.52 | 46.30% |
| Hardware & Software | 2009F | \$2,499.00 | | \$2,499.00 | \$5,856.13 | \$0.00 | 234.34% | (\$3,357.13) | -134.34% |
| Sub-Total Operating Cost | | \$25,190.00 | \$0.00 | \$25,190.00 | \$16,983.78 | \$0.00 | 67.42% | \$8,206.22 | 32.58% |
| Total Object of Expense | | \$1,281,259.00 | \$0.00 | \$1,281,259.00 | \$486,646.70 | \$0.00 | 37.98% | \$794,612.30 | 62.02% |