

TEXAS PENSION REVIEW BOARD

ACTUARIAL COMMITTEE MEETING May 7, 2020

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TEXAS PENSION REVIEW BOARD ACTUARIAL COMMITTEE MEETING AGENDA

Thursday, May 7, 2020 - 11:00 AM

By Teleconference Public Participation Dial-in Number: (877) 853-5247 (Toll-free) Meeting ID: 858 7524 2572

The May 7, 2020 meeting of the Actuarial Committee of the PRB will be held by teleconference call as authorized under Sections 551.125 and 551.127 of the Texas Government Code. THIS MEETING WILL BE CONDUCTED BY TELECONFERENCE IN ACCORDANCE WITH THE GOVERNOR'S AUTHORIZATION OF MARCH 16, 2020, CONCERNING SUSPENSION OF CERTAIN OPEN MEETING LAW REQUIREMENTS IN RESPONSE TO THE DECLARATION OF STATE DISASTER OF MARCH 13, 2020 CONCERNING THE COVID-19 (CORONAVIRUS) PANDEMIC. A quorum of members of the committee will participate in the meeting and will be audible to the public. Members of the public may provide public comment by registering first with the Office Manager by submitting an email to Lindsay.Seymour@prb.texas.gov identifying the name of the speaker and topic, no later than 8:00 am on May 7, 2020. The presiding officer will call roll of committee members, followed by calling roll of members of the public who have registered. The presiding officer will then ask if other attendees wish to provide comment, at which time each such attendees shall identify themselves by name and topic of the comment. Members of the public who have registered during roll call will be called by name at the appropriate time in the agenda. Attendees are requested to mute their connections when not addressing the committee members.

Access to the agenda materials of the meeting is provided at <u>www.prb.texas.gov</u>. A recording of the meeting will be available at <u>www.prb.texas.gov</u>.

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

- 1. Meeting called to order
- 2. Roll call of Committee members
- 3. Roll call of members of the public
- 4. September 19-20, 2019 Committee meeting minutes

- 5. Actuarial Standard of Practice 4 Second Exposure Draft
- 6. Funding policies received as required by Government Code Section 802.2011 (SB 2224)
- 7. Review of Funding Soundness Restoration Plan (FSRP) requirements under Sections 802.2015 and 802.2016 of the Government Code
- 8. Date and location of next Actuarial Committee meeting TBD
- 9. Invitation for public comment
- 10. Adjournment

NOTE: The Committee may go into closed session concerning any item on this agenda if authorized under the Texas Open Meetings Act, Government Code, Code Ch. 551. Persons with disabilities who plan to attend this meeting and who may need special assistance are requested to contact Mr. Wes Allen at (800) 213-9425/ (512) 463-1736 three to five (3-5) working days prior to the meeting date so that appropriate arrangements can be made.

1. Meeting called to order

2. Roll call of Committee members

3. Roll call of members of the public

4. September 1	9-20, 2019	Committee	meeting	minutes



Actuarial Committee Meeting Minutes September 19-20, 2019

1. Meeting called to order (0:05)

The Pension Review Board (PRB) Actuarial Committee was called to order by Chair Keith Brainard on Thursday, September 19, 2019 at 1:00 PM at Capitol Extension, Committee Room E1.012, 1100 N. Congress Avenue, Austin, Texas 78701.

2. Roll call of Committee members (0:17)

Board Members Present:

Chair Keith Brainard Marcia Dush Stephanie Leibe

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

3. Approval of the September 13, 2018 Committee meeting minutes (0:47)

Chair Brainard entertained a motion to suspend the reading of the minutes of the Actuarial Committee meeting held September 13, 2018, and to approve them as circulated.

Motion made by Mr. Dush and seconded by Ms. Leibe.

Motion Approved Unanimously

4. Intensive actuarial reviews of the following: (1:14)

a. Odessa Firemen's Relief & Retirement Fund (1:53)

Kenny Herbold, Staff Actuary, stated that the Odessa Firemen's Relief and Retirement Fund (Odessa Fire or the Fund) intensive review was unique because the City requested the review; however, he noted that PRB staff likely would have selected the Fund for a review regardless of the request, based on the metrics staff used to select plans for review. Mr. Herbold noted that Odessa Fire previously submitted a funding soundness restoration plan (FSRP) and made several benefit changes for active members and new hires, as well as increased employee and employer contributions.

Mr. Herbold stated that the Fund was projected to run out of money within 25 years. He further noted that Odessa Fire's unfunded actuarially accrued liability had been increasing while assets remained relatively stagnant.

Mr. Herbold provided staff's recommendations, including: for Odessa Fire to adopt a funding policy that would achieve full funding and for the Fund and the City to go beyond the revised FSRP changes by implementing a cash infusion to help mitigate the rapidly approaching fund exhaustion.

Travis Jones, Chairman for the Fund, stated that Odessa Fire anticipated adding new members to the Fund after they build a new fire station. He stated that the actuary conducted a study to calculate the impact of the new employees, and the result was that the amortization period would fall below 40 years by 2026, which was the FSRP goal year.

Brad Heinrichs, Odessa Fire's Actuary from Foster and Foster, noted that in his initial evaluation of the fund, he found that the Fund's rate of return and payroll growth assumptions were not in line with what the Fund experienced. He stated that the payroll growth assumption was recently updated to reflect the anticipated new hires in connection to the new fire station.

Ms. Dush raised a concern that the high assumed rate of return could cause problems in the future due to not meeting new assumptions. Mr. Heinrichs noted that the Fund had intentions of performing an asset allocation study in the future.

Jeff Swanson, Odessa Fire's Investment Consultant, noted that there was a performance issue with the past investments, and since starting as the new investment consultant in 2014, the Fund has begun moving to a less risky asset allocation to mitigate volatility. He stated that they intended to conduct an asset allocation study in the first quarter of the following year.

Cindy Muncy, City of Odessa representative, noted that the City was very concerned about the Fund. She stated that she would take feedback to the City Council and they would do what they needed to do to help improve the Fund. She stated that the City was working to improve the firefighter hiring issues.

Ms. Dush stated that the firefighters contributing nearly a quarter of their salary to the Fund was negatively affecting the City's ability to hire new firefighters.

Chair Brainard noted that Odessa's economy was thriving, and that the City needed to fulfill their commitment to Fund by paying the actuarially determined contribution (ADC). Ms. Dush agreed and cautioned against including negative amortization in the ADC calculation.

Chair Brainard entertained a motion to direct staff to finalize the draft intensive review of the Odessa Firemen's Relief and Retirement Fund, incorporating changes agreed upon by the committee and any technical changes, to present to the full Board for a final review at its October 17th meeting.

Motion made by Mr. Dush and seconded by Ms. Leibe.

Motion Approved Unanimously

b. Paris Firemen's Relief & Retirement Fund (58:27)

Mr. Herbold provided a summary of the Paris Firemen's Relief and Retirement Fund (Paris Fire or the Fund) intensive review. He noted that there were many similarities between Paris Fire and Odessa Fire, but particularly notable for Paris Fire was that assets were decreasing over time despite positive investment returns. He added that contributions were not sufficient to cover the benefits being paid out of the Fund.

He explained that the Fund has had an amortization period of less than 30 years throughout its history, which could generally indicate a healthier plan; however, trends indicated that the Fund had funding issues.

Mr. Herbold noted that given the flat benefit design of the Fund, it would be difficult for Paris Fire to make any benefit changes because benefits were not based on changes in salary.

Mr. Herbold provided staff's recommendations, including: that the City and the Fund work together to develop a funding policy to evaluate their short- and long-term funding plan, to consider the PRB's Guidance on Investment Practices and Performance Evaluations, to reevaluate the asset allocation in their investment portfolio, and for trustees of the fund to complete their required Minimum Educational Training (MET). He noted that based on the available data, Paris Fire's investment returns for previous fiscal years consistently fell short of their benchmarks.

David Kent, Paris Fire's Actuary from RHI, noted that the contribution rates for both the City and the employees increased in the previous year. Mr. Kent noted that long term, there did not appear to be major issues with the Fund despite experiencing short-term problems. He cited the positive working relationship between the City and the Fund for mitigating future long-term problems.

Chair Brainard noted that the Fund's investment performance consistently fell short of its benchmarks. Kim Calhoun of Westwood Wealth Management (Westwood), the Investment Consultant and Manager for the Fund, acknowledged there were periods of underperformance but that overall, she believed the Fund's investment performance was positive.

Bob Rast, Chairman of the Fund, gave an overview of a typical board meeting with regards to the investment management process and stated that the Fund had not issued any requests for proposals (RFPs) for investment consultants for at least the past two years. He stated that the board did not question Westwood's ability to invest on behalf of the board.

Mr. Rast also acknowledged that most of the Fund's board was not compliant with the PRB's MET requirements due to system administrator turnover. Chair Brainard encouraged the Fund's members to complete the required training.

Ms. Dush encouraged the Fund to evaluate asset allocations considering the negative cash flow. She also encouraged Mr. Kent to reconsider the Fund's assumed rate of return.

Ms. Dush stated that Paris Fire could benefit from considering asset pooling with other public pension funds to achieve better investment returns after expenses.

Mr. Kent stated that he intended to do both short-term and long-term modeling of the Fund to consider the investment return assumption.

Ms. Calhoun stated that the intensive review overstated Westwood's fees, since Westwood provided several services to the Fund. Ms. Dush asked Mr. Herbold if those fees would still be higher than the peer group after Ms. Calhoun's clarification. Mr. Herbold stated that he was unsure about the peer group comparison but that based on

the most recent investment report, the Fund's net returns were still lower than the benchmark.

Chair Brainard entertained a motion to direct staff to finalize the draft intensive review of Paris Firemen's Relief & Retirement Fund, incorporating changes agreed upon by the Committee and any technical changes, to present to the full Board for final review at its October 17th meeting.

Motion made by Mr. Dush and seconded by Ms. Leibe.

Motion Approved Unanimously

5. Informal guidance for developing a Funding Policy (SB 2224) (1:32:14)

Michelle Downie Kranes addressed the Board regarding the status of the Draft Guidance for Developing a Funding Policy. Ms. Kranes stated staff intended to provide systems and their sponsors practical guidance showing how funding policies could be implemented, even for fixed-rate plans. She covered highlights of the draft policy and emphasized that the law required systems to target a funded ratio that is equal to or greater than 100%.

Ms. Dush requested the addition of language discouraging systems from utilizing negative amortization. Chair Brainard stated that there might be instances where negative amortization may be appropriate and asked if Ms. Dush would be amenable to language that cautioned systems against the use of negative amortization while encouraging adequate transparency in its usage. Ms. Dush stated that she was comfortable with cautioning against negative amortization at this time.

Ms. Kumar stated that the bill allowed the Board the option of formalizing the informal guidance into rules and added that staff intended to post the draft guidance for public comment following the meeting.

Ms. Kranes stated that staff would be available for assistance to any plans regarding this requirement.

Chair Brainard opened the discussion to public comment.

Chuck Campbell, a public pension attorney with Jackson Walker, noted that many systems' governing boards were limited in their ability to adjust benefits or contributions because their statute may require them to hold an election or obtain city approval to adjust benefits and/or contributions. Chair Brainard acknowledged the difficulty that some systems may have and encouraged systems to work with their sponsors when developing funding policies.

Chair Brainard entertained a motion to direct staff to finalize the Guidance for Developing a Funding Policy, incorporating changes agreed upon by the Committee and any technical changes, for recommendation to the full Board for final review at its October 17th meeting.

Motion made by Mr. Dush and seconded by Ms. Leibe.

Motion Approved Unanimously

6. Invitation for audience participation

Chair Brainard allowed for audience participation throughout the meeting.

Chair Brainard recessed the meeting at 2:50 PM, until 9:30 AM Friday, September 20, 2019.

In Attendance:

PRB Staff

Anumeha Kumar Bryan Burnham Joey Evans

Guests:

Jeff Swanson – Odessa Fire Jill Jones – Odessa Fire Cindy Muncy – Odessa Fire Seth Boles – Odessa Fire

Brad Heinrichs – Foster & Foster

Charles Hodge – Milliman Bradley Reese – Odessa Fire Wayne Oberhoff – TESRS Paul Brown – TEXPERS James Marts – Odessa Fire John Alvarez – Odessa Fire Dan Jones – Odessa Fire James Perry – Maples Group

Josh Yager – Anodos Art Alfaro – TEXPERS

Benita Harper – Fort Worth Employees'

Retirement Fund

Jason McElvaney - Fort Worth Employees'

Retirement Fund & TCDRS Steve Waas – HMEPS Travis Jones – Odessa Fire Dan Wattles – TMRS Benjamin Warden Kenny Herbold

Michelle Downie Kranes

Mariah Miller Ashley Rendon

Jeff Patterson – Wilshire Associates

Kim Calhoun – Westwood

David Kent - RHI

Sandy Collard – City of Paris Bob Rast – City of Paris Leslee Hardy – TMRS Eddie Solis – TEXPERS

Lisa Hughes – El Paso Fire & Police Shanna Wadsworth - CPS Energy

Robert Nathan - CPS Energy

Jerry Villanueva – El Paso Fire & Police Amanda Lopez – Speaker Bonnen's Office

Ariana Whaley – ERS of Texas

Pat Haggerty

Andrew Poreda – Sage Advisory Bob Smith – Sage Advisory

David Keller

Joe Gimenez – TEXPERS

Kelly Gottschalk - Dallas Police & Fire Pension

System

Alyca Riley – Jackson Walker

On Friday, September 20, 2019, the PRB Actuarial Committee reconvened for a meeting at 9:32 AM at Capitol Extension, Committee Room E1.012, 1100 N. Congress Avenue, Austin, Texas 78701.

The following members were present:

Chair Keith Brainard Marcia Dush Stephanie Leibe

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

7. Update on revised Funding Soundness Restoration Plan from City of Irving and Irving Firemen's Relief & Retirement Fund (0:38)

Ms. Kumar gave a brief background of Irving Firemen's Relief and Retirement Fund (Irving Fire or the Fund). She stated that the City and the Fund increased their contributions and began hiring new firefighters, which lowered their amortization period. However, the Fund also lowered their investment return and payroll growth assumptions, and as a result, their amortization period increased to infinite. Ms. Kumar reminded the Board of Irving Fire's Intensive Review and stated that one of the biggest concerns was the Fund's deferred retirement option program (DROP). She stated that the Irving Fire's recent actuarial experience study recommended to further decrease the investment return assumption and adopt a revised mortality table.

Chair Brainard invited the representatives of the City of Irving and the Irving Firemen's Relief & Retirement Fund to provide testimony.

Jeff Litchfield, Chief Financial Officer for the City of Irving and Trustee of the Fund, informed the Board that the Fund recently hired a new actuary and an investment advisor with the expectation of lowering the investment return assumption within the next 15 years.

Chair Brainard requested clarification on the time period. Mr. Litchfield replied that they have not consulted with their actuary about lowering their investment return assumption yet because they are tied up with the FSRP and that the change in assumption would impact payroll growth.

Ms. Dush asked for clarification on the City's contributions. Mr. Litchfield stated that the City was currently contributing less than the ADC due to a charter cap that limited total contributions to all City-sponsored pension plans but the City Council would hold a vote in November to lift the cap to allow for an increase in their contributions to target an ADC.

Mr. Litchfield noted that some of the other changes that the Fund was considering included an adjustment in the assumptions for salary increases, including payroll growth assumptions. He explained that the Fund was targeting a 30-year amortization period and planned to amend the DROP to be more financially reasonable.

Ms. Leibe asked when the FSRP would be submitted to the Board.

Micah Johnson, Vice-Chairman of the Fund, stated that they were waiting for the November vote to finalize the FSRP, and added that the charter cap had been an obstacle for the Fund. Mr.

Litchfield added that the Fund's board would meet after the election to address options going forward based on the results. He explained that the Fund would then need approximately four months to submit the FSRP. Chair Brainard mentioned that the Fund's DROP was similar to the Dallas Fire & Police Pension System DROP. Mr. Johnson stated that the Fund waited for the Supreme Court's decision before implementing changes to the DROP's guaranteed interest rate.

Mr. Litchfield added that interest rate adjustments would be made to current and future retirees, not to the accrued benefits.

Chair Brainard stated that cities have been reporting in their comprehensive annual financial report (CAFR) that they are paying the ADC, when in reality they are not, which he stated was a problem that ought to be resolved. Mr. Litchfield agreed that the City was not paying the ADC.

Chair Brainard asked why it would take 15 years for the Fund to lower the investment return assumption. Mr. Litchfield explained that the Fund was looking to lower its assumed rate of return to be more realistic. He stated that they must lower the risk associated with the Fund's asset allocation before lowering the return assumption.

Mr. Johnson added that the board was currently discussing reducing the amount of risk involved in their portfolio.

Chair Brainard stated that the Fund should not require an extended time frame to lower their assumed rate of return. He asked the Fund to clarify when to expect a completed FSRP. Mr. Litchfield replied that it would be finalized in roughly four to six months.

Ms. Dush stated that actuaries were required by law to document if they were uncomfortable with assumptions in the transmission of the results. She advised that the Fund and City contribute the ADC, calculated with a fixed period and a layered amortization component. She cautioned against the use of negative amortization and urged the Fund to work with the investment consultant to consider amending the DROP.

Mr. Litchfield assured the Board that the Fund was looking to develop a long-term plan that would address future contributions and any adjustments as they arise.

Chair Brainard thanked the representatives from the City and the Fund and asked that they keep the Board updated with the results of the vote.

8. Informal guidance for conducting Investment Practices and Performance Evaluations (31:39)

Mr. Herbold gave a brief overview of SB 322 and provided an update on the PRB's informal Guidance for Investment Practices and Performance Evaluations. He stated that the Guidance was intended to inform stakeholders of the basic elements of the evaluations as required by statute.

Mr. Herbold stated that the deadline for completing the report was May 1 and that those reports would be due to the PRB 31 days later. He advised that it may be beneficial for plans that are exempt from the requirement to perform a self-evaluation of their investments, even though they are not required to do so.

Mr. Herbold provided two options for board discussion as different interpretations of the definition of "indirectly managing assets," which were intended to clarify ambiguity in statute.

Chair Brainard opened the discussion for public comment.

David Stacy, Midland Firemen's Relief & Retirement Fund, voiced his concern about the qualifications of an independent firm and stated that several funds may already use the same company to manage their assets as they do for advisement on their asset allocations. Mr. Stacy provided an example where a fund used an investment consultant to conduct an Investment Practices and Performance Evaluation and the consultant's company manages assets and advises the Fund. He asked whether this example would constitute as directly managing the assets of the fund.

Mr. Herbold responded that it was not uncommon for investment consulting firms to have different divisions, where one division may be making investment recommendations and the other might only be performing research or analysis. He stated that the Securities Exchange Commission restricts business interactions between divisions in those cases to keep information separate.

Ms. Kumar added that statute allows a retirement system to use an existing consultant to perform the evaluation; however, that firm cannot be directly or indirectly involved in managing the assets of the system. One of the proposed alternatives to the options would be a fee-based investment consultant. Because of this ambiguity, the PRB intended to define and clarify what "directly or indirectly managing assets" meant. She further stated that it was the PRB staff's belief that the legislature sought to prohibit a parent company that manages assets and advises clients from conducting the evaluations if they were already under contract with that system.

Ms. Kumar recommended that the PRB post the draft guidance on the agency's website to give systems the opportunity to provide written comments so that staff could provide the Board with comments from the systems at its October meeting.

Lisa Ivy Miller, from Southwest Money Management, requested a distinction between a registered investment advisor and a broker-dealer, and the acceptable relationship between the two entities. She further stated that the evaluation ought to remain simple and cost efficient for the plans.

Mr. Josh Yager, Anodos Investment Governance Advisors, raised a concern about the word "independent," when referring exclusively to the management of a fund's assets. He added that the word "independent" in the financial community did not exclusively pertain to the management of assets and that "independence" referred to the freedom of influence when conducting an evaluation.

Chair Brainard commented on the balance that the Board was charged with striking, between getting complete information from systems and keeping the process sufficiently simple.

Mr. Campbell recommended clarifying in the guidance that the sample questions were optional.

Chair Brainard encouraged systems and their sponsors to reach out to PRB staff in the coming weeks with comments and concerns regarding the guidance.

Chair Brainard made a motion to direct staff to finalize the guidance for conducting investment performance evaluations, incorporating the changes that the Board has agreed to, and bring comments received from the public to the Board meeting in October.

Motion was made by Ms. Dush and seconded by Ms. Leibe.

Motion Approved Unanimously

9. Rulemaking relating to fee disclosures (SB 322) (1:06:32)

Ashley Rendon provided a brief background of the investment fee disclosures required under SB 322. She explained that this section of the bill required systems to include in their CAFRs a listing by asset class of all direct and indirect investment management fees paid by the system during the previous fiscal year. She added that the bill authorized the PRB to adopt rules to implement this requirement.

Ms. Kumar reminded the Committee that the report was the potential content to be considered for formal rulemaking and staff would include input from systems before presenting the rules to the full Board in October.

Ms. Dush asked for staff to consider fees from companies that provide several investment-related services as well as how to report fees for funds containing multiple asset classes.

Chair Brainard sought clarification on whether investment consulting, custodial services, investment related legal services, and investment research would be individually reported or if those fees would be intermingled. Ms. Rendon and Ms. Kranes confirmed those fees should be individually reported.

Chair Brainard opened the discussion to public comment.

Mr. Campbell emphasized that systems categorize assets differently. He added that profitsharing and/or carried interest fees might be difficult for some plans to report.

Mr. Yager urged the Board to clarify how funds should report performance fees that are realized at the end of a transaction and noted the potential for a discrepancy in reporting those fees. He further stated that it was the trustees' duty to know the investment data and they had an obligation to be able to explain investment selections to their constituents.

Ms. Dush added that it was important for systems to be aware of what they were invested in, especially concerning high-risk investments, and that those fees should be reported. Mr. Yager stated that trustees had a great responsibility to maintain the financial soundness of their respective retirement systems.

Mary Kathryn Campion, with Intelligent Fiduciary Excellence, urged systems to compare the fees stated in the investment contract to the fees actually being paid by the system. She noted that there was often a disparity between what the contract said the system would pay and what the system actually pays. Ms. Dush asked if that would fall under the auditor's responsibility. Ms.

Campion affirmed and urged that the agreements ought to be looked at a little bit more closely by the systems and investment consultants.

Chair Brainard urged the speakers to reach out to staff in the coming weeks to provide feedback and the staff would consider that feedback when drafting the rules related to fee disclosures.

Chair Brainard entertained a motion to direct staff to draft rules on fee disclosures, incorporate recommendations agreed upon by the committee, and separate the asset classes into an appendix.

Motion was moved by Ms. Dush and seconded by Ms. Leibe.

Motion Approved Unanimously

7. Adjournment (1:36:45)

Chair Brainard adjourned the meeting at 11:08 AM.

In Attendance:

PRB Staff:

Anumeha Kumar Kenny Herbold

Bryan Burnham Michelle Downie Kranes

Joey Evans Mariah Miller Benjamin Warden Ashley Rendon

Guests:

Josh Yager – Anodos Jeff Litchfield – Irving Fire Amanda Lopez – Speaker Bonnen's Office Eddie Solis – TEXPERS

Micah Johnson – Irving Firemen's Relief & Jerry Villanueva – El Paso Fire & Police Pension

Retirement Fund Fund
Steve Waas – HMEPS Art Alfaro – TEXPERS

Trey Coleman – HPOPS Jason McElvaney – Fort Worth Employees

Benita Harper – Fort Worth Employees'Retirement Fund / TCDRSRetirement FundSteve Madden – TCDRSTravis Jones – Odessa FireJill Jones – Odessa Fire

James Marts – Odessa Fire

James Perry – Maples Group

Chuck Campbell – Jackson Walker, LLP

Ann McGeehan – TCDRS

Jeff Patterson – Wilshire Associates Andrew Poreda – Sage Advisory

Dan Wattles – TMRS

Leslee Hardy – TMRS

Joe Gimenez – TEXPERS

Pat Francy – HPOPS

Wayne Oberhoff – TESRS Kelly Gottschalk – Dallas Police & Fire Pension

David Keller

Paul Brown – TEXPERS System

Chair Keith Brainard

Shanna Wadsworth - CPS Energy

5.	Actuarial S	Standard	of Practice	4 Second	Exposure
	Draft				

6. Funding policies received as required by Government Code Section 802.2011 (SB 2224)

Summary of Funding Policies Received by the Pension Review Board

As of May 1, 2020

Texas Government Code Section 802.2011 requires all public retirement systems to "adopt a written funding policy that details the governing body's plan for achieving a funded ratio that is equal to or greater than 100 percent." The first funding policies were due from systems by February 1, 2020.

- Funding policies received from 92 of 100 plans
- 8 plans still have not sent funding policies:

Colorado River Muni Water Dist DB Retirement Plan*	DART Employees' DB Retirement Plan & Trust*
Midland Firemen's Relief & Retirement Fund*	Refugio Co. Memorial Hospital Dist Retirement Plan
Northeast Medical Center Hospital Retirement Plan	Temple Firemen's Relief & Retirement Fund*
San Antonio Metropolitan Transit Retirement Plan	University Park Firemen's Relief & Retirement Fund

^{*}Plan has been in contact with the PRB and has indicated that they are working towards completing this requirement.

Summary of Funding Policies from Plans with Non-ADC Contribution Structures

Under a fixed-rate funding structure, the contribution rate is a set percentage of payroll specified in statute or ordinance or local bargaining agreements rather than the actuarially determined contribution (ADC). In this summary, **Non-ADC** plans include fixed-rate and other funding structures that do not receive the ADC. The PRB has received funding polices from 54 Non-ADC plans.

Joint Funding Policy Development with Sponsor

1 Non-ADC system developed the funding policy jointly with its sponsor, which was adopted by City Council and signed by the Mayor. At least 3 other systems worked with the sponsor to include risk-sharing elements supported by both parties.

Risk-Sharing

11 of 54 Non-ADC plans used risk-sharing elements within their funding policy, such as:

- Proportionate employer/employee contribution increases when benchmark not met
- Consideration/recommendation of benefit and additional contribution changes if proportionate increases insufficient
- Cost-of-living increases tied to investment returns

Contribution/Benefit Parameters

13 of 54 Non-ADC plans utilized parameters on contributions and/or benefit changes, such as:

- Considering contribution decreases/benefit enhancements only if funded ratio or amortization period maintains certain threshold after the action taken
- Reinstating previous benefit reductions prior to decreasing contribution rate
- Tying COLA to CPI

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ADC Benchmarking

Fifty-one of 54 funding policies from Non-ADC plans utilized ADC benchmarking, as presented in the table below. **Three of 54** Non-ADC plans use alternative approaches from utilizing an ADC benchmark, which are detailed in the following section.

Number of Plans	Benchmark Amortization Period	Total
	CLOSED	
1	15-year	
1	25-year	20
18	30-year	
	LAYERED-CLOSED	
1	20-year	
1	25-year	8
5	30-year	8
1	40-year	
CLOSED W	// ULTIMATE LAYERED-CLOSED BEN	CHMARK
1	25-year to 15-year layered	
1	30-year to 15-year layered	
2	30-year to 20-year layered	7
2	35-year to 20-year layered	
1	35-year to 30-year layered	
	OPEN/ROLLING	
1	10-year	
10	30-year	13
2	40-year	
	OTHER	
3	31-year open to ultimate	3
	layered according to plan's avg	
	yrs/svc*	
Total Fixed Ra	te/Other Plans	51

^{*31} years is the "Actuarially Sound Contribution" (ASC) rate per Section 811.006 of the Texas Government Code. As an example, 22.1 years was the average years of service at retirement for a service retiree in the ERS plan as of 8/31/17.

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ADC Benchmark Comparison: Conditions that Trigger Actions and Actions Resulting from Trigger

The following table summarizes the various actions resulting from ADC benchmark comparisons for the 54 Non-ADC plans that utilized benchmarking. Numbers represent the number of plans with the particular provision in their funding policy.

		ADC Benchmarking				
	If the A	DC benchmark rate differs from the plan's contribution rate, the board will:				
3	With t	he City, develop plan of action to bring combined contribution to benchmark				
2	Recon	Recommend additional sponsor contribution				
12	Notify	the sponsor and/or member association and:				
	4	Consider or recommend contribution changes				
	8	Request a meeting to develop a 20-yr plan to establish fixed contributions to achieve				
		100% funding over a 30-yr closed period				
1	Take a	Il appropriate measures to maintain a fiscally responsible fund				
	If th	ne ADC benchmark differs from the plan's funding period, the board will:				
1	Work	with sponsor to address contribution rate and/or plan modifications				
8	Notify	the sponsor and/or member association and work with the sponsor to consider				
	modifi	modifications to benefits and/or contribution levels				
3	Adher	Adhere to FSRP requirements in their governing statute, resulting in contribution increase				
If the	ADC be	nchmark differs from the plan's <u>funding period or contribution rate</u> , the board will:				
18	Notify	the sponsor and/or member association and:				
	17	May consider whether contribution rate increases and/or benefit formula reductions				
		should be pursued				
	1	Engage in planning as needed to ensure progress toward goals				
48	Total	utilizing ADC benchmarking				
		Alternative Benchmark				
3	The Bo	pard will request a contribution rate change in appropriations request if the funding				
	period	is greater than the benchmark				
1	The Bo	pard will request a contribution change if the UAAL is not projected to decline				
		No Benchmark				
1	Fundir	ng policy reflects statutory provisions				
1		ng with its sponsor to review and update funding policy from original policy, which was				
	·	ed in 2014				
54	Total I	Non-ADC plans				

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Summary of Funding Policies from ADC and Modified ADC Plans

In this summary, **Modified ADC Plans** includes fourteen plans that contribute on an actuarially determined basis but may not receive the full ADC each year.

Risk-Sharing

11 of 36 ADC/Modified ADC plans used risk-sharing elements within their funding policy, such as:

- Proportionate employer/employee contribution increases
- A "target contribution rate," along with an associated min/max corridor, is established via a risk sharing valuation study (RSVS)

Contribution/Benefit Parameters

25 of 36 ADC/Modified ADC plans utilized parameters on contributions and/or benefit changes, such as:

 Considering contribution decreases/benefit enhancements only if funded ratio or amortization period maintains certain threshold after the action taken

Amortization Policy

The following table summarizes these plans' amortization policies.

Number of Plans	Amortization Period	Total
1	Fully Funded	
17	Closed at/under 30 years	20
14	Layered-Closed at/under 30 years	36
4	Rolling at/under 30 years	

			Benchmark and Act	ions Resulting		Additional Compon	ents	
	Contribution		Condition(s) that Trigger					Additional Amortization
System Name	Туре	ADC Benchmark Am Pd	Actions	Actions Resulting from Trigger	Risk Sharing narks at/under 30 yrs	Contribution Change Parameters	Benefit Change Parameters	Policy Provisions
Weslaco Firemen's	Fixed	15-yr closed	2 AVs showing funding period >		None	City may change its rate by:	Before any changes:	None
Relief & Retirement	Tixeu	13-yi ciosed	ADC benchmark am pd	- Notify the City and member employee groups	None	- Formal action by governing body, provided it		None
Fund			Abe benefittark uiti pu	- Work with the City and the active members to		does not reduce City contribution rate below	and a majority of members	
				consider changes to benefit and contribution levels		minimum required TLFFRA rate	and a majority of members	
						Members may change rate by:		
						- Majority member vote as recommended by		
						the Board, after actuary approval		
San Antonio Fire &	Fixed	25-yr closed	Effective am pd not sufficient to		None	Board may not recommend any changes that	Board may not recommend any changes	30-yr amort of surpluses
Police Pension Fund			reach a 100% FR by 12/31/2044	- Work with the City to address contribution rate		result in:	that result in:	
				and/or plan modifications		- a FR < 90%; or	- a FR < 90%; or	
						- an effective am pd > 15 yrs	- an effective am pd > 15 yrs	
Amarillo Firemen's	Fixed	30-yr closed	- Am pd is not reasonably in	Positive Divergence:	None	Contribution changes as per TLFFRA statute ¹	Benefit changes as per TLFFRA statute ²	None
Relief & Retirement			line with ADC benchmark am	- Board may consider benefit increase, such as ad				
Fund			pd, such as within 5 yrs; or	hoc COLA, that results in am pd somewhat less than				
			- Total contribution rate is not reasonably in line with ADC	ADC benchmark am pd				
			benchmark rate, such as within	Negative Divergence:				
			2% of payroll	- Board will notify the City and member employee				
				group/assn				
				- Board may consider contrib rate increase, benefit				
				formula reduction or combination				
Atlanta Firemen's	Fixed	30-yr closed	- Am pd is not reasonably in	Positive Divergence:	None	Contribution changes as per TLFFRA statute ¹	Benefit changes as per TLFFRA statute ²	None
Relief & Retirement			line with ADC benchmark am	- Board may consider benefit increase, such as ad		- '		
Fund			pd, such as within 5 yrs; or	hoc COLA, that results in am pd somewhat less than				
				ADC benchmark am pd				
			reasonably in line with ADC					
			benchmark rate, such as within	Negative Divergence: - Board will notify the City and member employee				
			2% of payroll	group/assn				
				- Board may consider contrib rate increase, benefit				
				formula reduction or combination				
Beaumont Firemen's	Fixed	30-yr closed	- Am pd is not reasonably in	Positive Divergence:	None	Contribution changes as per TLFFRA statute ¹	Benefit changes as per TLFFRA statute ²	None
Relief & Retirement		,	line with ADC benchmark am	- Board may consider benefit increase, such as ad		contribution changes as per remark statute	benefit changes as per rei ma statute	
Fund			pd, such as within 5 yrs; or	hoc COLA that results in am pd somewhat less than				
			- Total contribution rate is not	ADC benchmark am pd				
			reasonably in line with ADC					
			benchmark rate, such as within	Negative Divergence:				
			2% of payroll	- Board will notify the City and member employee				
				group/assn - Board may consider contrib rate increase, benefit				
				formula reduction or combination				
Brownwood Firemen's	Fixed	30-yr closed	- Am pd is not reasonably in	Positive Divergence:	None	Contribution shapes as not TIFFDA	Donofit changes as not TIFFDA 2	None
Relief & Retirement	incu	Jo yi cioseu	line with ADC benchmark am	- Board may consider benefit increase, such as ad		Contribution changes as per TLFFRA statute ¹	Benefit changes as per TLFFRA statute ²	THORE
Fund			pd, such as within 5 yrs; or	hoc COLA, that results in am pd somewhat less than				
				ADC benchmark am pd				
			reasonably in line with ADC					
			benchmark rate, such as within	Negative Divergence:				
			2% of payroll	- Board will notify the City and member employee				
				group/assn				
				- Board may consider contrib rate increase, benefit				
				formula reduction or combination				

			Benchmark and Act	ions Resulting		Additional Compon	ents	
	Contribution		Condition(s) that Trigger					Additional Amortization
System Name Cleburne Firemen's	Type Fixed	ADC Benchmark Am Pd 30-yr closed	Actions - Am pd is not reasonably in	Actions Resulting from Trigger Positive Divergence:	Risk Sharing None	Contribution Change Parameters	Benefit Change Parameters	Policy Provisions None
Relief & Retirement Fund	rixeu	So-yi closed	line with ADC benchmark am pd, such as within 5 yrs; or	- Board may consider benefit increase, such as ad hoc COLA, that results in am pd somewhat less than ADC benchmark am pd Negative Divergence: - Board will notify the City and member employee group/assn - Board may consider contrib rate increase, benefit formula reduction or combination	Note	Contribution changes as per TLFFRA statute ¹	Benefit changes as per TLFFRA statute ²	Note
Corpus Christi Fire Fighters' Retirement System	Fixed	30-yr closed	reasonably in line with ADC	Positive Divergence: - Board may consider benefit increase, such as ad hoc COLA, that results in am pd somewhat less than ADC benchmark am pd Negative Divergence: - Board will notify the City and member employee group/assn - Board may consider contrib rate increase, benefit formula reduction or combination	None	Contribution changes as per TLFFRA statute ¹	Benefit changes as per TLFFRA statute ²	None
Corsicana Firemen's Relief & Retirement Fund	Fixed	30-yr closed	- Am pd is not reasonably in line with ADC benchmark am pd, such as within 5 yrs; or - Total contribution rate is not reasonably in line with ADC benchmark rate, such as within 2% of payroll	Positive Divergence: - Board may consider benefit increase, such as ad hoc COLA, that results in am pd somewhat less than ADC benchmark am pd Negative Divergence: - Board will notify the City and member employee group/assn - Board may consider contrib rate increase, benefit formula reduction or combination	None	Contribution changes as per TLFFRA statute ¹	Benefit changes as per TLFFRA statute ²	None
Galveston Firefighter's Relief & Retirement Fund	Fixed	30-yr closed	- Am pd is not reasonably in line with ADC benchmark am pd, such as within 5 yrs; or - Total contribution rate is not reasonably in line with ADC benchmark rate, such as within 2% of payroll	Positive Divergence: - Board may consider benefit increase, such as ad hoc COLA, that results in am pd somewhat less than ADC benchmark am pd Negative Divergence: - Board will notify the City and member employee group/assn - Board may consider contrib rate increase, benefit formula reduction or combination	None	Contribution changes as per TLFFRA statute ¹	Benefit changes as per TLFFRA statute ²	None
Killeen Firemen's Relief & Retirement Fund	Fixed	30-yr closed	reasonably in line with ADC	Positive Divergence: - Board may consider benefit increase, such as ad hoc COLA, that results in am pd somewhat less than ADC benchmark am pd Negative Divergence: - Board will notify the City and member employee group/assn - Board may consider contrib rate increase, benefit formula reduction or combination	None	Contribution changes as per TLFFRA statute ¹	Benefit changes as per TLFFRA statute ²	None
Laredo Firefighters Retirement System	Fixed	30-yr closed	- Am pd is not reasonably in line with ADC benchmark am pd, such as within 5 yrs; or - Total contribution rate is not reasonably in line with ADC benchmark rate, such as within 2% of payroll	Positive Divergence: - Board may consider benefit increase, such as ad hoc COLA, that results in am pd somewhat less than ADC benchmark am pd Negative Divergence: - Board will notify the City and member employee group/assn - Board may consider contrib rate increase, benefit formula reduction or combination	None	Contribution changes as per TLFFRA statute ¹	Benefit changes as per TLFFRA statute ²	None

			Benchmark and Act	ions Resulting		Additional Compon	ents	
	Contribution		Condition(s) that Trigger					Additional Amortization
System Name	Туре	ADC Benchmark Am Pd	Actions	Actions Resulting from Trigger	Risk Sharing	Contribution Change Parameters	Benefit Change Parameters	Policy Provisions
Lufkin Firemen's Relief & Retirement Fund	Fixed	30-yr closed	- Am pd is not reasonably in line with ADC benchmark am pd, such as within 5 yrs; or - Total contribution rate is not reasonably in line with ADC benchmark rate, such as within 2% of payroll	Positive Divergence: - Board may consider benefit increase, such as ad hoc COLA, that results in am pd somewhat less than ADC benchmark am pd Negative Divergence: - Board will notify the City and member employee group/assn - Board may consider contrib rate increase, benefit formula reduction or combination	None	Contribution changes as per TLFFRA statute ¹	Benefit changes as per TLFFRA statute ²	None
McAllen Firemen's Relief & Retirement Fund	Fixed	30-yr closed	- Am pd is not reasonably in line with ADC benchmark am pd, such as within 5 yrs; or - Total contribution rate is not reasonably in line with ADC benchmark rate, such as within 2% of payroll	Positive Divergence: - Board may consider benefit increase, such as ad hoc COLA, that results in am pd somewhat less than ADC benchmark am pd Negative Divergence: - Board will notify the City and member employee group/assn - Board may consider contrib rate increase, benefit formula reduction or combination	None	Contribution changes as per TLFFRA statute ¹	Benefit changes as per TLFFRA statute ²	None
Texarkana Firemen's Relief & Retirement Fund	Fixed	30-yr closed	- Am pd is not reasonably in line with ADC benchmark am pd, such as within 5 yrs; or - Total contribution rate is not reasonably in line with ADC benchmark rate, such as within 2% of payroll	Positive Divergence: - Board may consider benefit increase, such as ad hoc COLA, that results in am pd somewhat less than ADC benchmark am pd Negative Divergence: - Board will notify the City and member employee group/assn - Board may consider contrib rate increase, benefit formula reduction or combination	None	Contribution changes as per TLFFRA statute ¹	Benefit changes as per TLFFRA statute ²	None
Texas City Firemen's Relief & Retirement Fund	Fixed	30-yr closed	- Am pd is not reasonably in line with ADC benchmark am pd, such as within 5 yrs; or - Total contribution rate is not reasonably in line with ADC benchmark rate, such as within 2% of payroll	Positive Divergence: - Board may consider benefit increase, such as ad hoc COLA, that results in am pd somewhat less than ADC benchmark am pd Negative Divergence: - Board will notify the City and member employee group/assn - Board may consider contrib rate increase, benefit formula reduction or combination	None	Contribution changes as per TLFFRA statute ¹	Benefit changes as per TLFFRA statute ²	None
Travis County ESD #6 Firefighters' Relief and Retirement Fund	Fixed	30-yr closed	- Am pd is not reasonably in line with ADC benchmark am pd, such as within 5 yrs; or - Total contribution rate is not reasonably in line with ADC benchmark rate, such as within 2% of payroll	Positive Divergence: - Board may consider benefit increase, such as ad hoc COLA, that results in am pd somewhat less than ADC benchmark am pd Negative Divergence: - Board will notify the City and member employee group/assn - Board may consider contrib rate increase, benefit formula reduction or combination	None	Contribution changes as per TLFFRA statute ¹	Benefit changes as per TLFFRA statute ²	None
Tyler Firefighters' Relief & Retirement Fund	Fixed	30-yr closed	- Am pd is not reasonably in line with ADC benchmark am pd, such as within 5 yrs; or - Total contribution rate is not reasonably in line with ADC benchmark rate, such as within 2% of payroll	Positive Divergence: - Board may consider benefit increase, such as ad hoc COLA, that results in am pd somewhat less than ADC benchmark am pd Negative Divergence: - Board will notify the City and member employee group/assn - Board may consider contrib rate increase, benefit formula reduction or combination	None	Contribution changes as per TLFFRA statute ¹	Benefit changes as per TLFFRA statute ²	None

			Benchmark and Act	ions Resulting		Additional Compon	ents	
	Contribution		Condition(s) that Trigger					Additional Amortization
System Name	Туре	ADC Benchmark Am Pd	Actions	Actions Resulting from Trigger	Risk Sharing	Contribution Change Parameters	Benefit Change Parameters	Policy Provisions
Galveston Employees' Retirement Fund	Fixed	30-yr closed	- Am pd is not reasonably in line with ADC benchmark am pd, such as within 5 yrs; or - Total contribution rate is not reasonably in line with ADC benchmark rate, such as within 1% of payroll	Positive Divergence: - Board may consider benefit increases, such as inc in dollar cap on benefits or ad hoc COLA, or lowering investment return assumptions, that results in am pd somewhat less than ADC benchmark am pd Negative Divergence: - Board will notify the City and member employee group/assn		None	None	None
Lubbock Fire Pension Fund	TMRS Linked	30-yr closed	None	Board may consider contrib rate increase, benefit formula reduction or combination Board will: Take all appropriate measures to maintain a fiscally responsible fund such as make changes to benefits	None	Contribution changes as per TLFFRA statute ¹	Benefit changes as per TLFFRA statute ²	None
				and eligibility requirements, inc/dec in member's contribution rate, changes to investment portfolio sector allocations, or changes to the assumed rate of return				
		1			Closed Benchmarks at/under 30 yrs	T		
Irving Supplemental Benefit Plan	Fixed	20-yr layered closed	2 AVs showing actual contribution over/under ADC benchmark by more than 0.5%	Board will: - Notify the City - Consider and may recommend combined rate change ADC Contribution - It is the intent of the Board that the ADC determined by a given AV will be contributed in the calendar yr beginning 1 yr after the AV date	Contributions: - Increases capped for members/City at 0.5% of pay in one yr, or 1% total - If max contribution increase has been applied and contribution still insufficient, Board shall recommend corrective action, including benefit or contribution changes	Employer rate decreases only considered if: - FR ≥ 105% - Total contribution rate is not < normal cost	Enhancements may only occur when: - FR ≥ 110% after incorporating enhancement - ADC rate ≤ actual contribution rate	Negative Amortization: - Board's goal is to eliminate negative amortization as quickly as possible and ultimately maintain a contribution rate above the threshold that results in negative amortization
City of El Paso Employees Retirement Trust	Fixed	25-yr layered closed	ADC benchmark > City contribution rate in any yr	Board will: - Recommend additional City contribution	None	None	Enhancements may only occur when: - FR > 80% after the increase - Decrease in FR due to enhancement not > 1% - Max COLA not > CPI since last COLA	None
San Benito Firemen Relief & Retirement Fund	Fixed	30-yr layered closed	2 AVs showing actual contributions > 2% over/under ADC benchmark	Board will: - Notify City - Recommend a contribution rate change	Jointly Developed with City: - Funding policy presented, approved and adopted by the City of San Benito City Commission. Signed by Mayor Contributions: - Increases split 60% sponsor/40% employee, max 2% each (or 4% total) - If max contribution increase has been applied and contribution still insufficient, Board shall recommend corrective action, including benefit or contribution changes Benefits: - COLAs tied to investment returns. Crediting rate the lesser of CPI or 100% of 5-yr smoothed return minus 5%, min 0%, max 4%	Employer contribution reductions considered if: $ - FR \ge 105\% \\ - Benefit reductions for current active members implemented within the last 10 yrs reinstated; - Regular COLAs \ built into \ funding \ assumptions; \\ - Total \ contribution \ rate \ not < normal \ cost$	Enhancements considered if: - Annual COLAs built into funding assumptions; - FR > 120% after incorporating benefit enhancement; - ADC \(\) actual contrib rate Benefit changes as per TLFFRA statute ²	Negative Amortization: - Board's goal is to eliminate negative amortization as quickly as possible and ultimately maintain a contribution rate above the threshold that results in negative amortization

			Benchmark and Act	ions Resulting		Additional Compor	nents	
	Contribution		Condition(s) that Trigger					Additional Amortization
System Name	Type	ADC Benchmark Am Pd	Actions	Actions Resulting from Trigger	Risk Sharing	Contribution Change Parameters	Benefit Change Parameters	Policy Provisions
Denison Firemen's Relief & Retirement Fund	Fixed	30-yr layered closed	2 AVs showing actual contributions < ADC benchmark by more than 2%	Board and City will: - Develop a plan of action including contribution increases or benefit changes to bring the contribution rate to ≥ ADC benchmark	Contributions: - Increases either split evenly between City and members or different agreed- upon amounts - May be phased in over time	Contribution changes per TLFFRA statute ¹	Benefit changes as per TLFFRA statute ²	Negative Amortization: - Board will periodically review whether contributions are sufficient to pay normal cost plus interest on UAAL
Sweetwater Firemen's Relief & Retirement Fund	Fixed	30-yr layered closed	2 AVs showing fixed contrib rates < ADC benchmark by more than 2%	Board and City will: - Develop a plan of action including contribution increases or benefit changes so that combined contribution rate will be ≥ ADC benchmark	Contributions: - Increases either split evenly between City and members or different agreed- upon amounts - May be phased in over time	Contribution changes per TLFFRA statute ¹	Benefit changes as per TLFFRA statute ²	Negative Amortization: - Board will periodically review whether contributions are sufficient to pay normal cost plus interest on UAAL
Longview Firemen's Relief & Retirement Fund	Fixed	30-yr layered closed	4 AVs showing actual contrib > 2% over/under ADC benchmark	Board will: - Notify the City - Recommend City and member contributions to increase by no more than 1% of pay in one yr or 2% total - Employees will have option to increase contribution or make benefit changes	Contributions: - Increases split 50%/50% City and members	Reductions should only be considered if: - FR >105% and total contribution rate not < normal cost Contribution changes per TLFFRA statute ¹	Board supports enhancements only when: - FR ≥ 105% after incorporating enhancement - ADC rate ≤ actual contrib rate Benefit changes as per TLFFRA statute ²	Negative Amortization: - Board's goal is to eliminate negative amortization as quickly as possible and ultimately maintain a contribution rate above the threshold that results in negative amortization
Port Arthur Firemen's Relief & Retirement Fund	TMRS Linked	30-yr layered closed	2 AVs showing fixed contrib rates < ADC benchmark by more than 2%	Board and City will: - Develop a plan of action including contribution increases or benefit changes so that combined contribution rate will be ≥ ADC benchmark	Contributions: - Increases either split evenly between City and members or different agreed- upon amounts - May be phased in over time	Contribution changes per TLFFRA statute ¹	Benefit changes as per TLFFRA statute ²	Negative Amortization: - Board will periodically review whether contributions are sufficient to pay normal cost plus interest on UAAL
					Ultimate Layered Benchmark at/under	30 yrs		
Waxahachie Firemen's Relief & Retirement Fund	TMRS Linked	25-yr closed to ultimate 15 yr layered closed	2 AVs showing funding period > ADC benchmark am pd	Board will: - Notify City and member group/assn of difference - Work with City and active members to consider benefit/contribution modifications to return funding pd to ADC benchmark	None	Contribution changes as per TLFFRA statute ¹	Benefit changes as per TLFFRA statute ²	None
Greenville Firemen's Relief & Retirement Fund	Fixed	30-yr closed to ultimate 15 yr layered	2 AVs showing funding period > ADC benchmark am pd	Board will: - Notify City and member group/assn of difference - Work with City and active members to consider benefit/contribution modifications to return funding pd to ADC benchmark	None	Contribution changes as per TLFFRA statute ¹	Benefit changes as per TLFFRA statute ²	None
Conroe Fire Fighters' Retirement Fund	Fixed	30-yr closed to ultimate 20 yr layered	2 AVs showing funding period > ADC benchmark am pd	Board will: - Notify City and member group/assn of difference - Work with City and active members to consider benefit/contribution modifications to return funding pd to ADC benchmark	None	Contribution changes as per TLFFRA statute ¹	Benefit changes as per TLFFRA statute ²	None
Paris Firemen's Relief & Retirement Fund	Fixed	30-yr closed to ultimate 20 yr layered	2 AVs showing funding period > ADC benchmark am pd	Board will: - Notify City and member group/assn of difference - Work with City and active members to consider benefit/contribution modifications to return funding pd to ADC benchmark	None	Contribution changes as per TLFFRA statute ¹	Benefit changes as per TLFFRA statute ²	None
	le	las i i i	dans to the man	•	ltimate Layered Benchmark at/under 30			To
Plainview Firemen's Relief & Retirement Fund	Fixed	35-yr closed to ultimate 20 yr layered	2 AVs showing funding period > ADC benchmark am pd	Board will: - Notify the City and member group/assn of difference - Work with City and active members to consider benefit/contribution modifications to return funding pd to ADC benchmark	None	Contribution changes as per TLFFRA statute ¹	Benefit changes as per TLFFRA statute ²	None
Marshall Firemen's Relief & Retirement Fund	Fixed	35-yr closed to ultimate 20 yr layered	2 AVs showing funding period > ADC benchmark am pd	Board will: Notify the City and member/group assn of difference Work with City and active members to consider benefit/contribution modifications to return funding pd to ADC benchmark	None	Contribution changes as per TLFFRA statute ¹	Benefit changes as per TLFFRA statute ²	None

System Name Type ADC Benchmark Am Pd Actions Actions Resulting from Trigger None Pixed ADC benchmark am pd ADC	Contribution Change Parameters Contribution changes as per TLFFRA statute Benefit Changes as per TLFFRA statute None Additional Amortization Policy Provisions None
Harlingen Firemen's Relief & Retirement Fund ADC benchmark am pd ADC benchmark am pd Board will: None Notify the City and member group/assn of difference Work with City and active members to consider benefit/contribution modifications to return funding	
Relief & Retirement Fund ADC benchmark am pd - Notify the City and member group/assn of difference - Work with City and active members to consider benefit/contribution modifications to return funding	Contribution changes as per TLFFRA statute ¹ Benefit changes as per TLFFRA statute ² None
Fund difference - Work with City and active members to consider benefit/contribution modifications to return funding	
- Work with City and active members to consider benefit/contribution modifications to return funding	
benefit/contribution modifications to return funding	
Layered Closed Benchmarks over 30	
Irving Firemen's Relief Fixed 40-yr layered closed and Retirement Fund 40-yr layered closed contribution over/under ADC 5 Notify the City 5 Contributions: - Increases capped a	Reductions in employer rate should only be to .5% of pay in one considered if: Negative Amortization: when: - Board's goal is to elimin
and Retirement Fund contribution over/under ADC - Notify the City - Increases capped a benchmark by more than 0.5% - Consider and may recommend combined rate yr or 1% total	t 0.5% of pay in one considered if: - FR \geq 105% when: - FR \geq 110% after incorporating negative amortization as
- Unique and may recommend commend are year of the total change change change in creases split 60%	
uldinge - increases spin down and employees and employees	members implemented within the last 10 yrs - ADC rate ≤ actual contribution rate ultimately maintain a
and employees	
ADC Contribution applied and contrib	
- It is the intent of the Board that the ADC insufficient, Board si	
determined by a given AV will be contributed in the corrective action, in	
calendar yr beginning 1 yr after the AV date contribution change	9
Alternative Benchmark	
Employees Retirement Fixed 31-yr rolling. Once Funding period > ADC Board will: None Non	Min 6% contribution for members and a range Board recommends that enhancements None
System of Texas - System of Te	of 6-10% of agreggate compensation for State should occur only if:
including ERS, LECOS & close the am pd. to achieve a 31-year funding period	contributions as per Texas Constitution - Before and after enhancement,
JRS II - After 31-yr period achieved, staff will request	funding period is < 25 yrs
ADC benchmark then reset funding from the legislature to achieve the ADC	- Enhancement does not increase
to match the avg yrs/svc benchmark	normal cost
at retirement for the plan	- FR ≥ 90% before and after
as of the AV date when	enhancement
the 31-yr pd was	
achieved. ³	ERS statute requires the am period to be
	< 31 yrs for the legislature to consider a
	benefit enhancement
Teacher Retirement Fixed Declining UAAL If after the phase-in of Board will: Contributions:	A minimum of 6% contribution for members TRS statute requires the am period to be None
System of Texas scheduled contribution rate - Request a contribution change in legislative - All contributions (s	ponsor, member, and a range of 6-10% of agreggate under 31 years in order for the
increases, AV projects UAAL will appropriations request district) will increase	per statutorily set compensation for State contributions as per legislature to consider a benefit
not begin to decline by the 5th schedule (5-year pha	se-in) Texas Constitution enhancement.
yr following AV	
Rolling Benchmarks	
El Paso Firemen's & Fixed 10-yr rolling 2 AVs showing am pd > ADC Board and City shall adhere to FSRP policy set forth Contributions:	Contributions may decrease if: Benefit increases may only occur if: None
Policemen's Staff Plan benchmark am pd in El Paso F&PPF Statute: - Contribution chan	
and Trust - Will increase employer and member contribution proportional for employer rates - Will increase employer and member contribution proportional for employer	
rates employer - If City rate inc/dec	- Sum of contribution decrease cannot exceed - Increase approved by an actuary member rate what is necessary to amortize UAAL over 0 yrs - Approved by majority of members
- in City rate in Encycle. must change propor	
Dallas Police & Fire Fixed 30-yr rolling 2 AVs showing actual Negative Divergence: Contributions/Bene	
	4 an analysis will be - 2/3rds Board vote and City in agreement age/ Reduction am pd of DROP
Combined Plan ADC benchmark by > 2% increase in City rate conducted to assest	
funding of the plan a	
Positive Divergence: changes may be made	All other enhancements may only occur:
- With 2/3rds vote, Board may recommend a reduction in City rate if the reduction does not	- If funding pd would not exceed 25 yrs
extend funding pd	after adoption
extend runding pu	arter adoption
Abilene Firemen's Fixed 30-yr rolling 2 (or 3 if annual) AVs showing Board will: None	Contribution changes as per TLFFRA statute Benefit changes as per TLFFRA statute Payroll Growth Assumpti
Relief & Retirement fixed contrib rates < ADC - Notify City, members and member assn	for Benchmark:
Fund benchmark by more than 2% - Request meeting with City/members to develop a	- Lesser of 3% and avg
20-yr (at the latest) plan that will establish fixed	payroll growth of fire dep
contrib rates that will result in 100% funding over a	over the last 10 yrs
30-yr closed period	
- Provide updates on progress after each AV	

			Benchmark and Act	ions Resulting		Additional Compor	ients	
	Contribution		Condition(s) that Trigger					Additional Amortization
System Name	Туре	ADC Benchmark Am Pd	Actions	Actions Resulting from Trigger	Risk Sharing	Contribution Change Parameters	Benefit Change Parameters	Policy Provisions
Big Spring Firemen's Relief & Retirement Fund	Fixed	30-yr rolling	2 (or 3 if annual) AVs showing fixed contrib rates < ADC benchmark by more than 2%	Board will: Notify City, members and member assn Request meeting with City/members to develop a 20-yr (at the latest) plan that will establish fixed contrib rates that will result in 100% funding over a 30-yr closed period Provide updates on progress after each AV	None	Contribution changes as per TLFFRA statute ¹	Benefit changes as per TLFFRA statute ²	Payroll Growth Assumption for Benchmark: - Lesser of 4.5% and avg payroll growth of fire dept over the last 10 yrs
Odessa Firemen's Relief & Retirement Fund	Fixed	30-yr rolling	2 (or 3 if annual) AVs showing fixed contrib rates < ADC benchmark by more than 2%	Board will: - Notify City and member assn - Request meeting with City/members to develop a 20-yr plan (at the latest) that will establish fixed contrib rates that will result in 100% funding over a 30-yr closed period - Provide updates on progress after each AV	None	Contribution changes as per TLFFRA statute ¹	Benefit changes as per TLFFRA statute ²	Payroll Growth Assumption for Benchmark: - Lesser of 3% and avg payroll growth of fire dept over the last 10 yrs
Orange Firemen's Relief & Retirement Fund	Fixed	30-yr rolling	2 (or 3 if annual) AVs showing fixed contrib rates < ADC benchmark by more than 2%	Board will: - Notify City and member assn - Request meeting with City/members to develop a 20-yr plan (at the latest) that will establish fixed contrib rates that will result in 100% funding over a 30-yr closed period - Provide updates on progress after each AV	None	Contribution changes as per TLFFRA statute ¹	Benefit changes as per TLFFRA statute ²	Payroll Growth Assumption for Benchmark: - Lesser of 3% and avg payroll growth of fire dept
San Angelo Firemen's Relief & Retirement Fund	Fixed	30-yr rolling	2 (or 3 if annual) AVs showing fixed contrib rates < ADC benchmark by more than 2%	Board will: - Notify City and member assn - Request meeting with City/members to develop a 20-yr plan (at the latest) that will establish fixed contrib rates that will result in 100% funding over a 30-yr closed period - Provide updates on progress after each AV	None	Contribution changes as per TLFFRA statute ¹	Benefit changes as per TLFFRA statute ²	Payroll Growth Assumption for Benchmark: - Lesser of 3% and avg payroll growth of fire dept over the last 10 yrs
The Woodlands Firefighters' Retirement System	Fixed	30-yr rolling	2 (or 3 if annual) AVs showing fixed contrib rates < ADC benchmark by more than 2%	Board will: - Work with system's actuary to develop proposals for changes to the system that in 20 yrs results in 100% funding over 30-yr closed pd - Notify Township governing body and member assn - Request work together with Township and member assn to develop 20-yr plan that will establish fixed	None	Contribution changes as per TLFFRA statute ¹	Benefit changes as per TLFFRA statute ²	Payroll Growth Assumption for Benchmark: - Lesser of 3% and avg payroll growth of fire dept over the since Jan, 2016, or once 10 Avs have been performed, over the last 10
Wichita Falls Firemen's Relief & Retirement Fund	TMRS Linked	30-yr rolling	2 AVs showing fixed contrib rates < ADC benchmark by more than 2%	Board will: Notify City and member assn Request meeting with City/members to develop a 20-yr plan (at the latest) that will establish fixed contrib rates that will result in 100% funding over 30- yr closed pd Provide updates on progress after each AV	None	Contribution changes as per TLFFRA statute ¹	Benefit changes as per TLFFRA statute ²	Payroll Growth Assumption for Benchmark: - Lesser of 3% and avg payroll growth of fire dept
Austin Police Retirement System	Fixed	30-yr rolling System currently working with the City towards a	- 2 AVs showing effective funding period > ADC benchmark by 3+ yrs; OR	Board will: Notify the City Engage in planning as needed to ensure continued progress toward policy goals	Board intends to maintain cost-sharing arrangement with City where: - City contributes ≥ 60% of increases - Members contribute ≤ 40%	Per APRS statute: - Any member contribution rate change must be approved by majority vote of contributory members	Per APRS statute, before any enhancements: - Must be approved by Fund's actuary and otherwise permitted under the	None
		goal to develop a schedule for contribution/plan changes to achieve 30-yr closed pd.	- 2 AVs showing ADC benchmark > fixed contribution rates by 2% or more		- If the increase is insufficent, the Board will consider/recommend corrective action including possible benefit changes and/or additional contribution increases	- City council must approve City contribution changes	System's statute and policies	
Austin Fire Fighters Relief & Retirement Fund	Fixed	30-yr rolling	3 AVs showing fixed contrib rates < ADC benchmark by more than 2%	Board will: - Notify City and member assn - Request meeting with City/members to develop a 20-yr plan (at the latest) that will establish fixed contrib rates that will result in 100% funding over 30-yr closed pd - Provide updates on progress after each AV	None	None	Enhancements: - Policy references that enhancements must meet the requirements of the fund's Benefit Improvement Policy COLAs: - Policy references COLA Adjustment Policy, which contains parameters to determine when COLAs may be provided	None

			Benchmark and Act	ions Resulting		Additional Compon	ents	
System Name	Contribution Type	ADC Benchmark Am Pd	Condition(s) that Trigger Actions	Actions Resulting from Trigger	Risk Sharing	Contribution Change Parameters	Benefit Change Parameters	Additional Amortization Policy Provisions
El Paso Firemen's &	Fixed	40-yr rolling	2 AVs showing funding period >	Board and City shall adhere to FSRP policy set forth	Contributions:	City/member contribution decreases may be	Enhancement may only occur if:	None
Policemen's Pension			40 yrs	in El Paso F&PPF Statute:	- Contribution changes (inc/dec) are	considered if:	- Am pd is not increased	
Fund				- City may increase contribution rate	proportional for employee and	- 2 AVs showing funding pd < 25 yrs		
					employer	- Decrease cannot exceed what is necessary		
					- If City rate inc/dec, member rate must change proportionately	to amortize UAAL over a 25-yr period		
						City/member increases:		
						- Sum of contribution increase cannot exceed		
						what is necessary to amortize UAAL over 40		
				No	Benchmark	lure		
Texas Emergency	Fixed	None	None	None	None	Contributions:	Enhancements:	None
Services Retirement						- Members do not contribute	- Prohibited if am period > 30 yrs	
System						- If am pd > 30 yrs, state contributions		
						required and limited to 1/3 of all contributions		
						made by the governing bodies of participating	- Future benefit accruals if local and	
						departments	state contributions are inadequate to	
						- Participating departments may contribute	bring am pd below 30 yrs	
						more if local and state contributions are		
						inadequate to bring am pd below 30 yrs		
Austin Employees	Fixed	None	None	None	None	Reductions may only occur if:	Enhancements may only occur after:	None
Retirement System						- COLAs built into assumptions; and	- COLA included in assumptions;	
		Funding policy originally				- FR will remain ≥ 105%.	- FR <u>></u> 120% after incorp; and	
		developed in 2014. System	1				- Employer ADC <u><</u> statutory rate	
		awaiting results of City				Increases may occur after:		
		retirement study. System					COLAs only considered when:	
		expects that not later than	1			members	- Financially supported on a regular,	
		the fall of 2020, COAERS's					periodic basis;	
		review of its Funding					- FR ≥ 80% after incorporating COLA;	
		Policy will be complete					- Am pd ≤ 20 yrs after incorp COLA; and	
		and the updated version					- Actual employer contrib rate ≥ ADC	
		will be provided to both					rate but no more than 18% after incorp	
l		the City and PRB.					COLA	

¹ Per TLFFRA statute, City may change its rate by formal action by governing body, provided it does not reduce City contribution rate below minimum required TLFFRA rate. Members may change rate by majority member vote as recommended by the Board, after actuary approval.

² Per TLFFRA statute, any benefit changes must be approved by Fund's actuary and a majority of members.

³ 31 years is the "Actuarially Sound Contribution" (ASC) rate per Section 811.006 of the Texas Government Code. As an example, 22.1 years was the average years of service at retirement for a service retiree in the ERS plan as of 8/31/17.

			Components		
Custom Name	Amoutination Dalis:	Diel Charina	Contribution Change Baramet	Bonefit Change Borometer	Additional Dravisions
System Name	Amortization Policy	Risk Sharing	Contribution Change Parameters Closed Amortization Periods at/under 30 yrs	Benefit Change Parameters	Additional Provisions
JPS Pension Plan - Tarrant County Hospital District (THA)	Preferred range of 10-25 yrs, never to exceed 30-yr am pd		None	Benefit increases should not occur if: - Resulting am pd exceeds 25 yrs	Negative Amortization: - Contributions should always be sufficient to pay normal cost plus interest on UAAL. Negative amortization is not permitted.
Retirement Plan for Anson General Hospital (THA)	Preferred range of 10-25 yrs, never to exceed 30-yr am pd	Contribution changes may be: - Phased in over a period not to exceed 5 yrs	None	Benefit increases should not occur if: - Resulting am pd exceeds 25 yrs	Negative Amortization: - Contributions should always be sufficient to pay normal cost plus interest on UAAL. Negative amortization is not permitted.
Retirement Plan for Citizens Medical Center (THA)	Preferred range of 10-25 yrs, never to exceed 30-yr am pd	Contribution changes may be: - Phased in over a period not to exceed 5 yrs	None	Benefit increases should not occur if: - Resulting am pd exceeds 25 yrs	Negative Amortization: - Contributions should always be sufficient to pay normal cost plus interest on UAAL. Negative amortization is not permitted.
Retirement Plan for Guadalupe Regional Medical Center (THA)	Preferred range of 10-25 yrs, never to exceed 30-yr am pd	Contribution changes may be: - Phased in over a period not to exceed 5 yrs	None	Benefit increases should not occur if: - Resulting am pd exceeds 25 yrs	Negative Amortization: - Contributions should always be sufficient to pay normal cost plus interest on UAAL. Negative amortization is not permitted.
Retirement Plan for Sweeny Community Hospital (THA)	Preferred range of 10-25 yrs, never to exceed 30-yr am pd	Contribution changes may be: - Phased in over a period not to exceed 5 yrs	None	Benefit increases should not occur if: - Resulting am pd exceeds 25 yrs	Negative Amortization: - Contributions should always be sufficient to pay normal cost plus interest on UAAL. Negative amortization is not permitted.
Capital MTA Retirement Plan for Bargaining Unit Employees	Greater of: - 19-yr closed am pd as of 1/1/2020 with 3% annual increases or \$4M minus non-investment admin expenses incurred during	None	None	Plan is frozen and no benefit enhancements are being considered.	- Plan frozen as of 8/18/2020
Fort Worth Employees' Retirement Fund	- 30-yr closed beginning 12/31/2018 - Goal of eliminating UAAL and attaining 100% funding by 12/31/2048	Contributions: - Increases split 60%/40% by City/members, capped at 2% of pay and 4% aggregate annually - If ADC benchmark < combined contribs 2 consecutive yrs, City Council may reduce contribs to the ADC (but not less), split 60%/40%	City rate reduction considered only if: - FR ≥ 120% - Member contribution reduced by same proportionate percentage - All members elig. for periodic COLA - Regular COLAs built into assumptions - Total contribution not < normal cost City rate changed/member rates increased after: - Actuary performs analysis of fiscal impact of proposed change - Majority of elig. members vote in favor; and - Approved by Board (if City called vote) or City Council (if Board called vote)	COLAs may be granted to certain groups if: - Am pd < 28 yrs Benefit enhancements considered only if: - Annual COLAs incorporated into funding assumptions for all members - FR > 120% after enhancement - ADC benchmark < City contribution	Negative Amortization: - Board's goal is to eliminate negative amortization as quickly as possible and ultimately maintain a contribution rate that expected to result in the reduction of the UAAL each year
			red Closed Amortization Periods at/under 30 yrs		
& Relief Fund	30-yr layered closed as of 7/1/2017	A "target contribution rate," along with an associated min/max corridor, is established via a risk sharing valuation	Contributions: - Contributions set by initial risk sharing valuation study unless rate falls outside of corridor.	Benefits: - Statutory corridor mechanism which allows for benefit changes if the plan's funded ratio and contribution rates reach certain thresholds.	- Per statute, if plan's FR falls below 65% any time after 6/30/2021, plan must establish separate cash balance plan for new hires
Houston Municipal Employees Pension System	30-yr layered closed as of 7/1/2017	Contributions: A "target contribution rate," along with an associated min/max corridor, is established via a risk sharing valuation	Contributions: - Contributions set by initial risk sharing valuation study unless rate falls outside of corridor.	Benefits: - Statutory corridor mechanism which allows for benefit changes if the plan's funded ratio and contribution rates reach certain thresholds.	- Per statute, if plan's FR falls below 60% any time after 6/30/2027, plan must establish separate cash balance plan for new hires
Houston Police Officers' Pension System	30-yr layered closed as of 7/1/2017	Contributions: A "target contribution rate," along with an associated min/max corridor, is established via a risk sharing valuation study (RSVS).	Contributions: - Contributions set by initial risk sharing valuation study unless rate falls outside of corridor.	Benefits: - Statutory corridor mechanism which allows for benefit changes if the plan's funded ratio and contribution rates reach certain thresholds.	- Per statute, if plan's FR falls below 65% any time after 6/30/2021, plan must establish separate cash balance plan for new hires

			Components			
System Name	Amortization Policy Risk Sharing		Contribution Change Parameters	Benefit Change Parameters	Additional Provisions	
Galveston Employee's Retirement Plan for Police	30-yr layered closed beginning 1/1/2019 - Per Galveston Ret Plan for Police statut beginning 1/1/2025, any increases will be split equally between members and City		- Am pd would not exceed 25 yrs	Enhancements may only occur if: - Am pd would not exceed 25 yrs	Negative Amortization: - Board's goal is to eliminate negative amortization as quickly as possible and ultimately maintain a contribution rate above the threshold that results in negative amortization	
	•		Rolling Amortization Periods			
Northwest Texas Healthcare System Retirement Plan	5-yr rolling	The UAAL measured in each annual actuarial valuation will be re-amortized over a 5-year period.	Contribution Changes Contributions may be reduced to provide a reasonable margin for adverse experience. A Partial ADC is permitted when the year-over-year ADC increase is greater than 25% and the funded ratio is over 105% after reduction. The shortfall will be amortized over a 10-year closed period.	None	None	
Dallas Employees' Retirement Fund	- 30-yr rolling for valuations prior to retirement of POBs - After retirement of POBs, determined by DERF board in place at the time	None	Contribution adjustments: - Automatically occur for both members and City under Chapter 40A - City contributions capped at 36% of payroll	Board supports enhancements only when: - FR >= 100% after enhancements	None	

		Co	omponents		
			D. Ci ol		
System Name	Amortization Policy	Contribution Change Parameters Fully Funded	Benefit Change Parameters	Additional Provisions	
Arlington Employees Deferred Income Plan	- Plan is over 100% funded and continues	,	None	None	
Arington Employees Deferred income Plan	to pay ADC	Notic	None	None	
	to pay ADC	Classed Amazantisation Basis de at/our des 20	<u> </u>		
Condelius - Blanca Birra Anthonia	10-yr closed period beginning 1/1/2019	Closed Amortization Periods at/under 30	<u>,</u>	T	
Guadalupe-Blanco River Authority	10-yr closed period beginning 1/1/2019	Plan participants do not make contributions	Benefit enhancements evaluated on a case-by-case basis taking into consideration:	- Targets 110% funding of TPL - Frozen plan as of 12/31/2018	
		Supplemental contributions recommended when	_	- Flozeli pian as of 12/31/2018	
		funds are available and deemed appropriate	- its relationship to targeted funding ratio,	Adverse experience:	
		itulius are avaliable and deemed appropriate	- stress testing of performance in down market	- Could work with actuary to test effects of	
			conditions	extending the closed am pd to mitigate	
			Conditions	contribution volatility	
Lower Neches Valley Authority Employee	10-yr closed	Plan trustees will notify LNVA and consider	None	None	
Benefits Plan	To yr closed	reductions only when:	TVOICE TO THE TOTAL THE TOTAL TO THE TOTAL TOTAL TO THE T	None	
		- 2 AVs showing actual contribution more than			
		2% over/under ADC			
		- FR >= 105% and total contribution rate is not <			
		normal cost. In such case, may consider			
		reduction in employer contribution			
Brazos River Authority Retirement Plan	- 20-yr closed period beginning 3/1/2012	Partial contribution reductions (i.e. deferral	None	- Plan closed to new members and frozen as of	
,	- As of 3/1/2019, there are 13 years	from the ADC) are permitted when:		9/30/2007	
	remaining	- Year-over-year ADC contribution increase			
		exceeds 25%. Shortfall amortized over 5-yr pd			
		and added to the ADC beginning with next AV			
Dallas/Fort Worth Airport Board	- 30-yr closed effective 1/1/2004	None	None	None	
Retirement Plan	- Will be fully funded by 12/31/2034				
Corpus Christi Regional Transportation	15-yr closed effective 1/1/2019	None	None	None	
Authority					
Lower Colorado River Authority Retirement	, , ,	None	None	- Closed plan to new hires effective 5/1/2012	
Plan	- As of 1/1/2019, there are 18 years				
	remaining			Adverse experience:	
				- Could work with actuary to test effects of	
				extending the closed am pd to mitigate	
				contribution volatility	
Houston MTA Non-Union Pension Plan	- 30-yr closed effective 2013	None	Enhancements only considered if:	- Closed to new hires effective 9/30/2007	
	- As of 2019, 24-yr period remaining		- Contributions meet or exceed the ADC		
Houston MTA Workers Union Pension Plan	- 30-yr closed effective 2013	None	Enhancements only considered if:	- Closed to new hires effective 10/1/2012	
	- As of 2019, 24-yr period remaining		- Contributions meet or exceed the ADC		
Dallas County Hospital District Retirement	- 25-yr closed period beginning 1/1/2019	None	None	None	
Income Plan	- Intent that the FR will be 100%				
	on/before 1/1/2044				
Denton Firemen's Relief & Retirement	- 25-yr closed	City contributions:	Benefit enhancements:	Funding Policy adopted through Meet and	
Fund	- City will maintain current contribution	- Not lowered based on actuarial experience	- May not be made during the term of the	Confer Agreement with City:	
	level of 18.5%.	unless am pd <= 20 yrs	agreement	- 4 yr agreement as of 9/2019	
	- Each yr, City's contribution level based	- Not < City's contribution to TMRS		Contributions	
	on actuarial study which calculates rated			Contributions:	
	needed to amortize UAAL over 25 yr closed pd			 Actuarial gains will be used to pay down UAAL rather than reducing contribution rate during the 	
	ιουσεα μα			first 5 yrs	
				111363 413	

		Co	mponents	
System Name	Amortization Policy	Contribution Change Parameters	Benefit Change Parameters	Additional Provisions
		Layered Closed Amortization Periods at/Und	,	
Dallas/Fort Worth Airport Board DPS Retirement Plan	- 15-yr layered closed effective 1/1/2020 - Each subsequent AV a new closed 15-yr amortization base will be established for any unanticipated changes in the UAAL from prior yr	None	None	None
Plano Retirement Security Plan	separately maintained for each AV	Contributions: - If net amortization cost is negative, then City's contribution will not be less than normal cost - expected earnings on surplus assets (determined as % payroll) to preserve assets to offset adverse experience that may occur in a future year	None	None
Harris County Hospital District Pension Plan	20-yr layered closed	None	None	- Closed plan to new hires effective 1/1/2007
Retirement Plan for Employees of	- 20-yr layered closed	Employee contribution increases may be	Benefit reductions may occur if:	If the ADC becomes unsustainable, District may
Brownsville Navigation District	- 15-yr amortization base for UAAL as of 1/1/2020 - 20-yr am pd base for actuarial gains/losses and assumption method	considered if: - ADC becomes unsustainable	- ADC becomes unsustainable	consider adjusting the funding policy by potentially extending the amortization periods
Texas County & District Retirement System	- 20-yr layered closed - Benefit enhancements amortized over 15-yr closed pd - All other changes in UAAL amortized over 20-yr closed pd	None	None	Investment Surpluses: - May be set aside to help offset future negative economic cycles and are not considered part of the plan's assets
Galveston Wharves Pension Plan	- 21-yr layered closed effective 1/1/2020 until ultimate 10-yr pd - Am pd base of lesser of avg expected remaining lifetime and 10 yrs for benefit inc for existing retirees	None	COLAs only considered when: - Plan is at least 80% funded	- Closed plan to new hires effective 1/1/2010
Texas Municipal Retirement System	- 25-yr layered closed beginning in 2015 - Amortization base for actuarial gains and losses ranging from 1 to 25 yrs - All new losses occurring after 1/1/2020 and benefit increases effective on/after 1/1/2021 amortized over max 20-yr pd	Contributions based on plan options selected within statutory guidelines	Benefits based on plan options selected within statutory guidelines	None
CPS Energy Pension Plan	- 30-yr layered closed effective 2017 - Will be fully funded by 2046	Contributions: - Any change requires approval of Employee Benefits Oversight Committee	Enhancements: - Factored into ADC calculation - Must be approved by Employee Benefits Oversight Committee	None

	Components									
System Name	Amortization Policy	Contribution Change Parameters	Benefit Change Parameters	Additional Provisions						
Fort Worth Employees' Retirement Fund	- 30-yr layered closed effective	If FR < 80 and am pd > 28 for 2 calendar years,	If FR < 80 and am pd > 28 for 2 calendar years,	If FR < 80 and am pd > 28 for 2 calendar years,						
Staff Plan	12/31/2018	Board may consider:	Board may consider:	Board may consider:						
	- Additional 30-yr closed period layers	- Increase in contribution rate (requires	- Adoption of benefit reductions, after annual	- Non-recurring lump sum cash infusion to attain						
		participant election with majority agreement)	COLA is incorporated in funding assumptions	80% or higher funded status						
	for actuarial gains/losses for future years									
		If FR is > 120% and am pd < 5 yr for 2 calendar	If FR is > 120% and am pd < 5 yr for 2 calendar	If FR is \geq 120% and am pd \leq 5 yr for 2 calendar						
		[* · · · · · · · · · · · · · · · · · · ·	years, Board may consider (provided that the FR	1,						
		does not fall below 100% and am pd does not	does not fall below 100% and am pd does not	does not fall below 100% and am pd does not						
		exceed 25 yrs after changes):	exceed 25 yrs after changes):	exceed 25 yrs after changes):						
		- reduction in contrib rate, after annual COLA	- adoption of benefit enhancements, after	- Examination & possible action of de-risking						
		incorporated in funding assumptions	annual COLA incorporated in funding	plan						
		- adoption of temporary contribution holiday	assumptions							
Port of Houston Authority Retirement Plan	- 30-yr layered closed	None	None	- Plan closed to new hires effective 8/1/2012						
	- Amortization bases ranging from 5 to 30									
	yrs									
		Rolling Amortization Periods								
Dallas Police & Fire Pension System-	- 10-yr rolling	Contribution reductions may only occur if:	Granting COLA/Reduction of retirement age/	Contributions/Benefits:						
Supplemental		- Reduction does not increase am pd	Reduction am pd of DROP annuities:	- Normal cost rate for future members is less						
			- Per statute criteria	than current member contribution rates, so						
				Board does not believe it is appropriate to						
			Enhancements may only occur:	increase member rates or decrease benefits to						
			- If funding pd would not exceed 25 yrs after	decrease UAAL through 2024						
			adoption							
Capital MTA Retirement Plan for	- 20-yr rolling	Contribution changes may be recommended	None	None						
Administrative Employees		when:								
		- 2 AVS showing actual contribution > 2%								
		over/under ADC								

7. Review of Funding Soundness Restoration Plan (FSRP) requirements under Sections 802.2015 and 802.2016 of the Government Code

Timeline of Funding Measures in Texas

- I. **Funding Soundness Restoration Plan (FSRP) Legislation** In 2015, the 84th Legislature passed HB 3310, enabling the following FSRP requirement.
 - A public retirement system is required to notify its sponsoring entity if the system
 receives an AV indicating the system's contributions were insufficient to amortize the
 unfunded actuarial accrued liability (UAAL) within 40 years.
 - If a system receives several consecutive AVs showing that the system's amortization period exceeds 40 years, the system's governing body and sponsoring entity must formulate an FSRP and submit the plan to the PRB.
 - The joint FSRP must be designed to achieve a contribution rate that will be sufficient to amortize the UAAL within 40 years not later than the 10th anniversary of the date on which the final version of an FSRP is agreed to.
- II. **PRB Pension Funding Guidelines update** In 2017, the PRB updated its *Pension Funding Guidelines* (formerly *Guidelines for Actuarial Soundness*), **lowering the recommended maximum amortization period from 40 years to 30 years**, among other changes.
 - Funding of the unfunded actuarial accrued liability should be level or declining as a
 percentage of payroll over the amortization period.
 - The maximum amortization period was lowered to 30 years, with a preferred target range of 10-25 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.
- III. **Funding Policy Legislation** In 2019, the 86th Legislature passed SB 2224, enabling the following Funding Policy requirement.
 - All public retirement systems are required to "adopt a written funding policy that
 details the governing body's plan for achieving a funded ratio that is equal to or
 greater than 100 percent."



Summary of Funding Soundness Restoration Plans (FSRPs) Submitted Since the Prior PRB Meeting

Texas Government Code Section 802.2015(e) requires FSRPs to be developed by the public retirement system and the associated governmental entity in accordance with the system's governing statute; and be designed to achieve a contribution rate that will be sufficient to amortize the unfunded actuarial accrued liability within 40 years not later than the 10th anniversary of the date on which the final version of an FSRP is agreed to. The following table summarizes the FSRPs received by the PRB since the last board meeting.

	FSRP Trigger	Plan Changes					
Retirement System	Amortization Period	Employee Employer Contributions Contributions		Other			
University Park Firemen's Relief & Retirement Fund	Infinite	N/A	Before: 21.52% After: Closed 30-year ADC beginning October 1, 2017	 Employer contributing a biennially recalculated ADC rate. Plan is closed and new hires are required to participate in TMRS. 			

Systems Immediately Subject to FSRP Formulation Requirement

The FSRP requirement is triggered for retirement systems that have had amortization periods over 40 years for three consecutive annual actuarial valuations, or two consecutive actuarial valuations if the systems conduct the valuations every two or three years.

Systems Immediately Subject to an FSRP Formulation Requirement								
Retirement System	Am Period	Date of AV	Am Period	Date of AV	Am Period	Date of AV	FSRP Due Date	
Irving Firemen's Relief & Retirement Fund — Revised FSRP ¹	63.4	1/1/2014	46.5	12/31/2015	Infinite	12/31/2017	4/17/2019	
Midland Firemen's Relief & Retirement Fund - Revised FSRP ¹	59.1	1/1/2014	44.7	12/31/2015	Infinite	12/31/2017	8/21/2019	
Longview Firemen's Relief & Retirement Fund ²	50.7	12/31/2016	40.2	12/31/2017	Infinite	12/31/2018	2/12/2020	
Orange Firemen's Relief & Retirement Fund – Second Revised FSRP ¹	58.2	1/1/2015	69.3	1/1/2017	Infinite	1/1/2019	4/18/2020	
Marshall Firemen's Relief & Retirement Fund – Revised FSRP ¹	43.2	12/31/2014	56.4	12/31/2016	59.0	12/31/2018	5/5/2020	
Beaumont Firemen's Relief & Retirement Fund	39.1	12/31/2014	104.0	12/31/2016	Infinite	12/31/2018	7/17/2020	

¹Texas Government Code Section 802.2015(d) requires systems to formulate a revised FSRP if the system conducts an actuarial valuation showing that the system's amortization period exceeds 40 years, and the previously formulated FSRP has not been adhered to.

² An FSRP has been received from the system but an actuarial analysis of the changes made has not yet been confirmed by the PRB.

Systems at Risk of FSRP Formulation Requirement

These at-risk systems' most recent actuarial valuation shows an amortization period that exceeds 40 years but does not yet trigger the FSRP requirement.

Systems at	Systems at Risk of an FSRP - Not Yet Subject to FSRP Requirement								
Retirement System	Am Period	Date of AV	Am Period	Date of AV	Am Period	Date of AV	FSRP Due Date		
Amarillo Firemen's Relief & Retirement Fund	28.8	1/1/2014	34.5	12/31/2015	43.5	12/31/2017	N/A		
Plainview Firemen's Relief & Retirement Fund	31.4	12/31/2013	31.6	12/31/2015	44.8	12/31/2017	N/A		
Laredo Firefighters Retirement System	29.8	9/30/2014	28.0	9/30/2016	43.0	9/30/2018	N/A		
McAllen Firemen's Relief & Retirement Fund	29.0	10/1/2014	33.4 ¹	10/1/2016	Infinite	10/1/2018	N/A		
Atlanta Firemen's Relief & Retirement Fund	36.2	12/31/2014	28.4	12/31/2016	Infinite	12/31/2018	N/A		
Austin Police Retirement System	27.3	12/31/2016	35.0	12/31/2017	Infinite	12/31/2018	N/A		
Cleburne Firemen's Relief & Retirement Fund	27.3	12/31/2014	28.8	12/31/2016	48.6	12/31/2018	N/A		
Conroe Fire Fighter's Retirement Fund	31.4	12/31/2015	39.0	12/31/2017	Infinite	12/31/2018	N/A		
Lubbock Fire Pension Fund	27.6	1/1/2015	33.5	12/31/2016	52.8	12/31/2018	N/A		
Texas City Firemen's Relief & Retirement Fund	31.6	12/31/2014	28.0	12/31/2018	41.1	12/31/2018	N/A		

¹Reflects an increase in employee contribution from 11% to 12% effective April 9, 2018.

Progress Report on Previously Submitted FSRPs

The following systems have previously formulated an FSRP. The table below outlines their progress towards the FSRP requirement.

Systems Still Working Towards Meeting the 40-Year Amortization Period Requirement								
	FSRI	FSRP Trigger		Current Progress ¹				
Retirement System	Am Period	Date	Am Period	Date	Goal Year²	Update Required		
Fort Worth Employees' Retirement Fund	Infinite	12/31/2016	44.0	12/31/2018	2026	5/2021		
Harlingen Firemen's Relief & Retirement Fund – Revised FSRP	59.1	9/30/2017	30.0 ³	9/30/2017	2026	6/2021		
Dallas Employees' Retirement Fund	Infinite	12/31/2015	46.0	12/31/2018	2026	7/2021		
Wichita Falls Firemen's Relief & Retirement Fund – Revised FSRP	Infinite	1/1/2018	< 47	1/1/2018	2026	8/2021		
Greenville Firemen's Relief & Retirement Fund – Revised FSRP	55.0	12/31/2016	40.7	12/31/2018	2026	9/2021		
Odessa Firefighters' Relief & Retirement Fund – Revised FSRP	77.5	1/1/2019	< 48	1/1/2019	2026	12/2022		
Systems that Have Submitted Post-FSRP Actuarial Valuations Showing Amortization Period Below 40 Years						rs		
University Park Firemen's Relief & Retirement Fund – Revised FSRP	Infinite	12/31/2016	28.8	12/31/2018	2026	N/A		

¹ Based on the most recent actuarial valuation or FSRP.

² The year in which a system must reach an amortization period of 40 years or less.

³ The amortization period reflects estimates of actions that occurred after the valuation date. Systems will be removed from the list if a subsequent valuation reflects an amortization period of 40 years or less.

Previously Completed FSRP Requirement Systems

The following table is a list of all systems that have submitted an FSRP that has lowered their amortization period below 40 years in a subsequent actuarial valuation.

Systems that Have Submitted Post-FSRP Actuarial Valuations Showing Amortization Period Below 40 Years								
	FSRP '	Trigger	Complet	ed Progress ¹				
Retirement System	Am Period	Date	Am Period	Date	Goal Year ²			
Dallas Police & Fire Pension System (Combined Plan)	44.0	1/1/2017	38.0 ³	1/1/2019	2027			
Galveston Employees' Retirement Plan for Police	55.1	1/1/2014	35.3	1/1/2018	2026			
Galveston Firefighter's Relief & Retirement Fund – REVISED FSRP	Infinite	12/31/2016	26.8	12/31/2017	2026			
Lufkin Firemen's Relief & Retirement Fund	40.6	12/31/2014	33.1	12/31/2016	2026			
Sweetwater Firemen's Relief & Retirement Fund	58.8	12/31/2014	27.5	12/31/2016	2026			

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

² The year in which a system was expected to reach an amortization period of 40 years or less.

³ The amortization period reflects a payroll projection based upon the City of Dallas' Hiring Plan which has yet to materialize, a concern that was noted by the system's actuary in its latest actuarial valuation.

8. Date and location of next Actuarial Committee meeting – TBD

9. Invitation for public comment

10. Adjournment