

Intensive Actuarial Review:

Beaumont Firemen's Relief and Retirement Fund

April 2018



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Executive Summary

Introduction

This intensive actuarial review of Beaumont Firemen's Relief and Retirement Fund ("Beaumont Fire" or "the Fund") is intended to assist the Fund's board of trustees and the City of Beaumont ("the City") in assessing the Fund's ability to meet its long-term pension obligation. Overall, the review shows the Fund is taking considerable risks in its approach to funding the system, as well as with respect to its asset-liability profile. The Pension Review Board encourages the Fund and the City to review the findings and conclusions of this report carefully and jointly adopt a forward-looking plan to address these risks and guide the Fund towards a path of long-term sustainability. The Pension Review Board can provide technical assistance in formulating such a plan.

Overview

Beaumont Fire faces significant risk associated with its post-retirement option plan (PROP) because it offers: a guaranteed 6.00% annual rate of return, which is calculated as 2.0% less than the actuarial investment return assumption; a virtually unlimited amount of time to accrue this guaranteed return; and the ability to withdraw these funds with little to no restriction. In an era of extremely low interest rates, offering a guaranteed 6% rate of return on accounts that can be withdrawn on short notice is virtually unheard of and presents great risk. It is impossible for the Fund to back these liabilities with assets with a similar investment horizon while providing a similar return. The Fund's PROP balance has grown from less than 3% of total plan assets in 2007 to nearly 1/3 of total assets in 2016.

The expansion of Beaumont Fire's DROP/PROP over time, particularly in more recent years as interest rates plummeted worldwide, provides some insight into the risks associated with the Fund's decision-making processes. The Fund did not have the benefit of written funding or benefit policies to guide its consideration of DROP/PROP enhancements over time and may have benefitted from more formal involvement of the City.

In addition, the Fund's amortization period spiked from 39 years as of December 31, 2014 to 104 years as of December 31, 2016. This jump in expected funding period highlights certain funding risks associated with contributions that are a fixed rate of pay set through statute or negotiation, including the lack of any built-in mechanisms to adjust to changes in a plan's financial condition.

Conclusion

To address the immediate risks posed by the PROP, the board should consider performing an in-depth asset-liability study to better understand the potential risks associated with its existing asset mix and the liabilities they support and seriously consider the risk a guaranteed rate of return places on all the Fund's stakeholders while considering the impact changes could have on PROP participant behavior.

To address the funding and governance risks, the Fund and the City should develop written funding, benefit, and investment policies that are linked to provide a formal risk-/cost-sharing arrangement. A strong funding policy that requires payment of an actuarially determined contribution (ADC) is encouraged. In addition to helping maintain a sound plan funding level, putting such forward-looking policies into place can help reduce uncertainty for stakeholders who would know, in advance, how adverse experience will be managed.

Background

Texas Government Code Section 801.202(2) requires the Pension Review Board (PRB) to conduct intensive studies of potential or existing problems that threaten the actuarial soundness of or inhibit an equitable distribution of benefits in one or more public retirement systems. The PRB identified the following key metrics, in addition to amortization period, to determine and prioritize retirement systems for intensive actuarial review. The PRB selected Beaumont Firemen's Relief and Retirement Fund ("Beaumont Fire" or "the Fund") for review based on the 2016 actuarial valuation data shown below. Unless otherwise noted, the following metrics were calculated as of December 31, 2016.

Amort. Period (Years)	Funded Ratio	UAAL as % of Payroll	Assumed Rate of Return	Payroll Growth Rate	Actual Cont. as % of ADC ¹	DROP as % of FNP	Non-Investment Cash Flow as % of FNP
104	67.53%	274.69%	8.00%	3.50%	74.37%	27.95%	-4.27%

Contribution, DROP, and cash flow data are from the Fund's 12/31/2016 financial audit.

Plan Profile

Actuarial Accrued Liability: \$162,841,573

Market Value of Assets: \$102,435,664

Normal Cost: 18.93% of payroll

Contributions: 15.50% employee
15.50% employer

Membership: 232 active
217 annuitants

Social Security Participation: No

At the time the Fund was selected for review:

- Its amortization period was the highest finite period of all defined benefit pension plans in Texas and was the highest amongst Texas Local Fire Fighter's Retirement Act (TLFFRA) plans with assets of more than \$50 million.
- Its unfunded actuarial accrued liability (UAAL or "unfunded liability") as a percent of payroll was the third highest amongst TLFFRA plans with assets of more than \$50 million.
- It was one of only 17 plans in Texas with an assumed rate of return of 8.00% or above, which is more than half a percent above both the Texas and national averages for

public pension plans.

- Actual contribution as a percent of its actuarially determined contribution (ADC) was the lowest amongst TLFFRA plans with assets of more than \$50 million.
- Members' deferred retirement option plan (DROP) balances accounted for nearly one third of the Fund's total assets.
- Its non-investment cash flow as a percent of assets ((fiduciary net position (FNP) was the lowest amongst TLFFRA plans with assets of more than \$50 million.

¹ For plans whose contributions are made as a fixed rate based on statutory or contractual requirements, the ADC for this purpose is the contribution needed to fund the benefits accrued in the current year and maintain an amortization period that does not exceed 30 years, as required to be reported under Texas Government Code §802.101(a).

Risk Analysis

The various risks faced by a pension fund all boil down to one relatively simple question, "Will there be enough money to pay benefits when due?" This section discusses three main risk factors facing the Fund: asset-liability mismatch, governance, and funding risks. Measuring Beaumont Fire based on these factors reveals a significant amount of risk being taken in each of these areas, increasing the probability of a continued period of severe financial stress for the Fund. This also raises the likelihood of deteriorating funding conditions in the coming years, further imperiling the Fund's ability to pay promised benefits.

Asset-Liability Mismatch Risk

Beaumont Fire faces significant asset-liability mismatch risk associated with its post-retirement option plan (PROP) because it offers:

- a guaranteed 6.00% annual rate of return;²
- a virtually unlimited amount of time to accrue this guaranteed return; and
- the ability to withdraw these funds with little to no restriction.

Background

Most of the benefits expected to be distributed from a public defined benefit pension plan are not expected to be paid in the short, or even medium, term. Thus, many believe investments such as equities that are more likely to provide a higher return over a longer time horizon provide a superior risk-return profile to support these long-term liabilities. This has led public pension plans to allocate a large proportion of assets to riskier and longer-term investments. Beaumont Fire is no exception. However, Beaumont Fire has unique plan design features that present additional risks which must be examined when considering the reasonableness of this common asset allocation.

The Fund offers two versions of its retroactive deferred retirement option plan (Retro DROP) based on achieving various age and service requirements. The Retro DROP benefits can simply be viewed as an additional benefit payment option like any other option but allowing a portion of the total benefit to be taken as a lump sum in exchange for a smaller annuity. Actuarially, these distributions are reasonably

Deferred Retirement Option Plan Examples*

Regular/Forward DROP -

Active employee retires on paper and continues working. DROP account is credited with monthly pension benefit plus contributions and interest.

Back/Retro DROP - At

retirement the employee can elect to retire on paper as of a previous date and receive the monthly pension benefits that would have been paid had the employee truly retired at the elected date plus contributions.

PROP - After retirement a retiree can elect to credit their DROP account balance and/or their pension benefit into a PROP account with interest.

*DROP features vary.

² The annual rate of return is defined as 2.0% less than the actuarial investment return assumption.

predictable given sufficient plan experience, and do not include accumulated interest but only provide the hypothetical "missed" distributions plus a return of employee contributions. Therefore, the Retro DROP does not appear to present significant risk to the Fund.

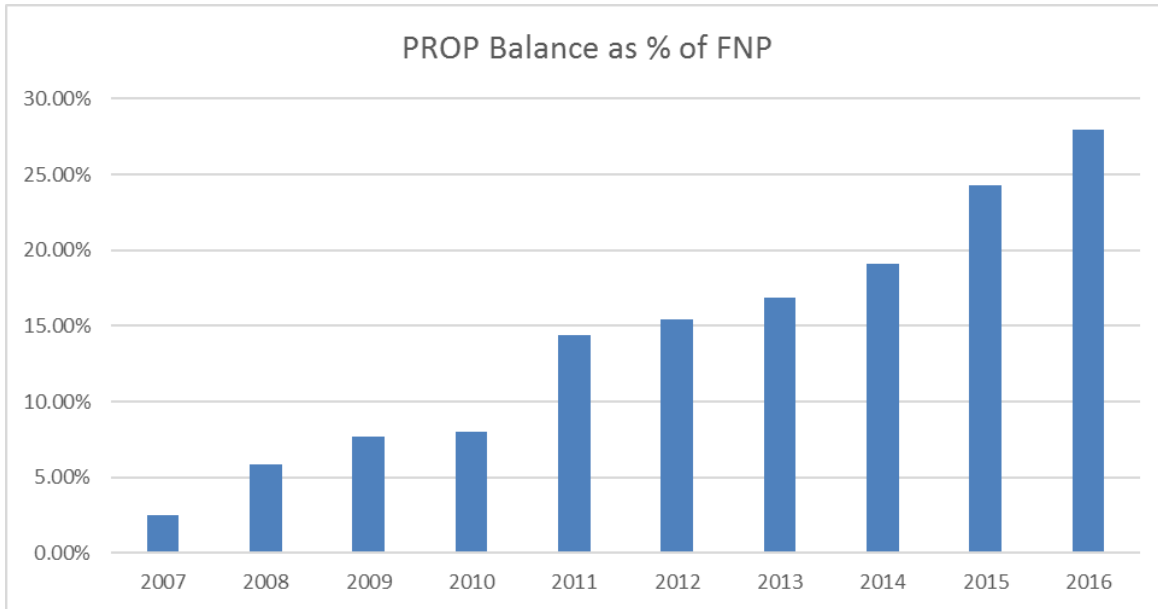
In contrast, the plan feature that presents unique challenges for Beaumont Fire is its PROP. The PROP allows the DROP lump sum distributions to remain in the plan, as well as allows *any* retiree the option to redirect annuity distributions back to the plan. The PROP account earns a guaranteed 6.00% annual rate of return and can be withdrawn in virtually any manner and at any time. The only limit to this option is that distributions must begin in accordance with Internal Revenue Service Required Minimum Distribution rules³.

Risks Associated with Beaumont Fire's PROP

In an era of extremely low interest rates, offering a guaranteed 6% rate of return on accounts that can be withdrawn on short notice is virtually unheard of and presents great risk. It is impossible for the Fund to back these liabilities with assets with a similar investment horizon while providing a similar return. In fact, the Fund has struggled to earn a 6% annual rate of return on its entire portfolio, much less its short-term assets. In the past 10 years, Beaumont Fire has surpassed a 6% return five times, but three times saw negative returns resulting in an average annual return of less than 4% for this period.

A major concern is the lack of a trigger mechanism to lower or cease the guaranteed interest rate for years with sub-par returns. Participants are incentivized by the nature of this program to treat it like a risk-free savings account – one that earns roughly 6 times more than even the best savings accounts on the market, while the active plan members and taxpayers absorb all the risk. The combined effect of the 6% guaranteed return on PROP accounts, the average actual return on assets lower than the interest rate paid, and the option for all participants to place their entire retirement benefit in the PROP for up to 20 years explains why the Fund's PROP balance has grown from less than 3% of total plan assets in 2007 to nearly 1/3 of total assets in 2016.

³ The PROP balance must remain with the fund for 90 days before members may elect PROP distributions. Should the PROP participant fail to file a PROP Benefit Distribution Form before age 70 ½, distributions will automatically be in the form of annual payments over three years and will begin at age 70 ½.



Beaumont Fire has amended the plan design to decrease the guaranteed PROP return for a calendar year following a year in which actual returns are lower than 6%, but only for members hired on or after January 1, 2017. Thus, this specific amendment will not impact the Fund for decades. The PROP account balance for Beaumont Fire is currently just below 28% of its net plan assets based on market value (fiduciary net position (FNP)) and can only be expected to continue to increase exponentially absent any intervention from the Fund's board.

While it makes economic sense for members to continue to participate in the PROP as it currently exists, any attempt to modify future interest accruals may change this calculation, potentially causing the Fund significant issues. Currently, less than 3% of the Fund's net assets are in short-term investments, leaving the Fund at risk of needing to sell off assets, potentially with less than ideal market timing, if a larger than expected number of PROP members decide to withdraw their funds.

Conclusion/Recommendation

The Fund's board should consider performing an in-depth asset-liability study to better understand the potential risks associated with its existing asset mix and the liabilities they support. This should include scenario testing large PROP withdrawals coupled with potential adverse investment experience. In addition, the board should seriously consider the risk a guaranteed rate of return places on all the Fund's stakeholders while considering the impact changes could have on PROP participant behavior.

Governance Risk

The expansion of Beaumont Fire's DROP/PROP over time, particularly in more recent years as interest rates plummeted, provides some insight into risks associated with the Fund's decision-making processes. The Fund did not have the benefit of written funding or benefit policies to guide its consideration of DROP/PROP enhancements over time and may have benefitted from more formal involvement of the City.

Background

Governance is essentially decision-making, and decision-making for public pension plans must balance the competing interests of plans and their sponsors and should feature collaboration between the two. The primary source of governance risk is the potential lack of involvement of key parties or stakeholders (members, the sponsor government, and taxpayers) in important areas of decision-making for a pension plan including plan design (benefits) and funding (contributions). When a key party is not engaged in important decisions, the risk increases that benefit levels and the contributions required to fund them will diverge, potentially putting the Fund's funding stability at risk.

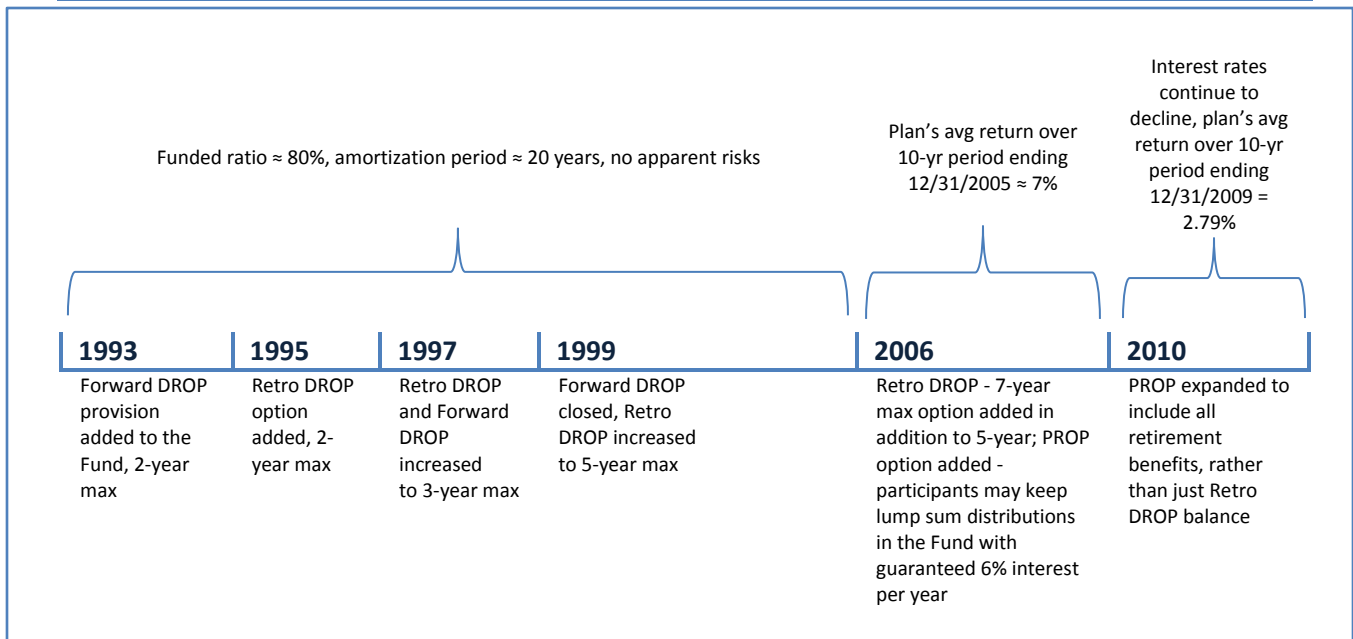
For example, TLFFRA allows boards of trustees to make prospective benefit modifications, both increases and reductions. These changes must be approved by an actuary and a majority of participating members and may not deprive an eligible participant of vested accrued benefits. Although jointly responsible for funding the retirement plan along with plan members, the sponsoring city may have limited involvement in benefit decision-making, a structure which generates the risk that benefit levels adopted could be unsustainable.

Benefit increases are not the only potential risk related to a potential lack of sponsor involvement under TLFFRA; unwillingness to reduce benefits prospectively when necessary to address funding challenges can be an obstacle to getting things back on track. It should be noted that even plans with very engaged boards and sponsors can be susceptible to increasing benefits to unsustainable levels in good times or failing to lower them when necessary in bad times. Governance risk related to an imbalance in decision-making can only exacerbate these risks. The history of the Fund's DROP/PROP accounts illustrates this point.

Governance Risk Case Study: Beaumont Fire's DROP/PROP

In 1993, a provision for a simple 2-year forward DROP account was added to the Fund. By 2006, the provision was changed to a Retro DROP only, and expanded to allow up to 7 years of participation. In 2006, the PROP provision was also introduced, allowing DROP participants to keep their lump sum DROP distributions in the Fund and accrue interest at a guaranteed 6% per year, which is calculated as 2.0% less than the actuarial investment return assumption. Up until this point, the Fund remained reasonably well-funded with a funded ratio hovering just under 80% and an amortization period in the 20s, within the PRB's then-preferred 15-25-year range per the *Guidelines for Actuarial Soundness*, and the DROP provisions did not appear to pose significant risks.

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However, in 2006 savings accounts returned a little more than 1% per year, 10-year Treasury bonds returned less than 5% per year, and the Fund's average return over the 10-year period ending December 31, 2005 was just scarcely over 7%. In 2010, the PROP option was expanded to include all retirement benefits rather than just the Retro DROP balance even though interest rates had continued to decline and the Fund's average return over the 10-year period ending December 31, 2009 was just 2.79% with just 4 of those years returning more than 6% and 4 resulting in negative returns. As noted above, the Fund has taken recent measures to lower future interest accruals on the PROP accounts, but it will take a minimum of 20 years for this change to have any impact on actual plan benefits. Waiting this long to address the PROP account's significant and growing risks points to a lack of proactive decision-making by key stakeholders.

Funding Soundness Restoration Plan

State law recognizes the potential risks of underfunding and a lack of engagement by some key stakeholders and imposes cooperation between the system and sponsoring governmental entity by requiring retirement systems having trouble meeting their long-term obligations work with their sponsors to develop a restoration plan for addressing those issues.⁴ This framework helps ensure that both the system and its sponsoring employer are involved in retirement system reform decisions, but it comes at a point when actuarial health is already threatened. Beaumont Fire has not yet become subject to the statutory requirement to develop a funding soundness restoration plan, but since their last actuarial valuation showed an amortization period of greater than 40 years, it will become subject if the December 31, 2018 valuation does not show an amortization period of 40 years or fewer.

⁴ Texas Government Code 802.2015 and 802.2016 require public retirement systems whose amortization period exceeds 40 years for 2 or 3 consecutive actuarial valuations to develop, with their sponsor, a funding soundness restoration plan designed to bring their amortization period within 40 years over 10 or fewer years.

Conclusion/Recommendation

It is imperative to the long-term health of the Fund that all stakeholders are involved in plan decisions in good times as well as bad. One step to help address these issues is for the Fund and the City to develop written funding, benefit, and investment policies which are linked to provide a formal risk-/cost-sharing arrangement. For example, a funding policy might state that future benefit enhancements, cost of living adjustments, and/or contribution rate reductions can only be considered or made if the Fund's funded ratio remains greater than a threshold. A funding policy can also state that if the funded ratio falls below a certain threshold, the stakeholders would be required to come back to the table to make necessary contribution and benefit adjustments.

In addition to helping maintain a sound plan funding level, putting such trigger mechanisms into place can help reduce uncertainty for stakeholders who would know, in advance, how adverse experience will be managed. If Beaumont Fire together with the City had adopted such a forward-looking policy in the past, its DROP/PROP may not have grown to represent the level of risk for the Fund that it does today.

Funding Risk

Beaumont Fire's recent investment experience, with actual returns far below the assumed rate of return, coupled with the Fund's fixed-rate funding structure which does not adjust to cover those actuarial losses presents serious funding risks that must be mitigated for the Fund to meet its long-term obligations.

Background

Beaumont Fire experienced a significant spike in its amortization period from 39 years as of December 31, 2014 to 104 years as of December 31, 2016. This increase was largely driven by significant asset losses in 2015, and since they are not yet fully recognized in the actuarial value of assets, will continue to hold down the funded ratio and maintain an extremely high amortization period as they are recognized in 2017 and 2018. Without significant offsetting asset gains and/or immediate changes to contributions or benefits, the Fund is likely to become subject to the Funding Soundness Restoration Plan statutory requirement following its next actuarial valuation, as mentioned above.

Fixed-Rate Funding Model and Contribution Insufficiency Risk

This jump in expected funding period highlights certain risks associated with contributions that are a fixed rate of pay set through statute or negotiation:

- 1) Contributions to percent-of-pay plans are inherently back-loaded because the expected contributions to a percent-of-pay plan grow on a nominal basis at the assumed rate of total payroll growth.
- 2) Fixed contributions (whether as a rate of pay or a specific dollar amount) provide budgetary stability for the employer in the short term, but do not include any inherent mechanisms for reacting to changes in a plan's financial condition.

As of October 1, 2017, active members of the Fund contribute 15.50% of pay and the City also contributes 15.50% of pay. The City's and member's contribution rates reflect an increase from 15.00% in 2014.

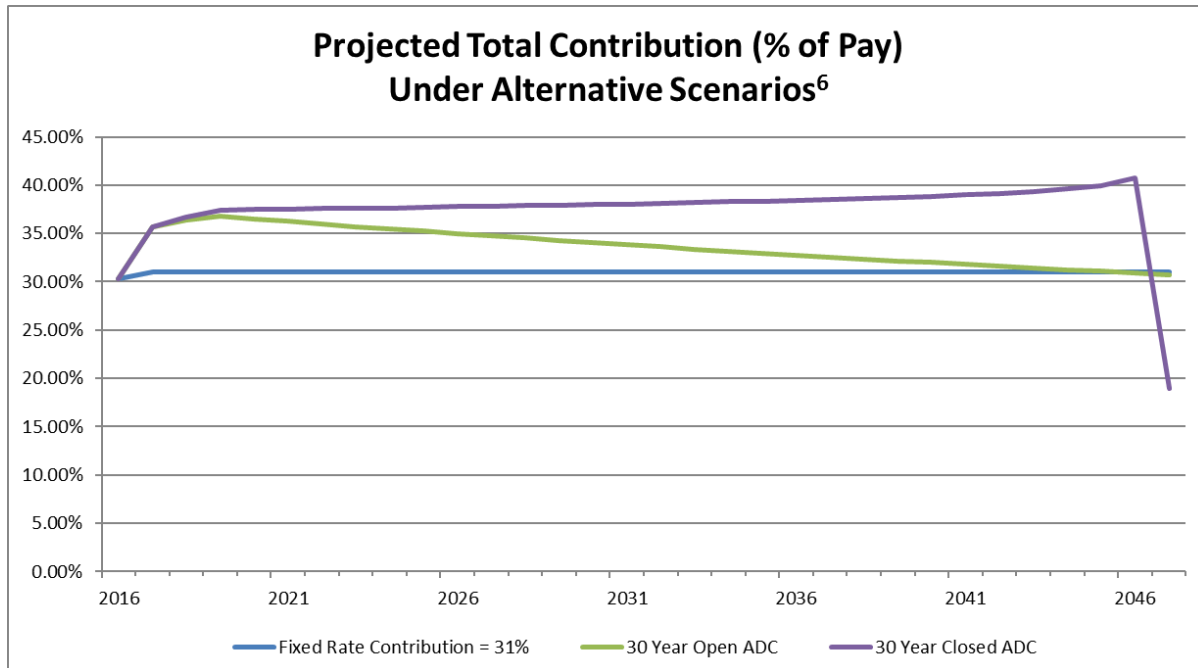
Despite the increase in the contribution rates in 2016, the Fund's UAAL increased by \$13.46 million. This increase in the UAAL was caused by total contributions that were not sufficient to cover the cost of both the new benefits being accrued (normal cost) and the interest accumulated on the unfunded benefits already earned (amortization payment), or to start reducing the total UAAL. This resulted in *negative amortization* because contributions were not sufficient or large enough to cover the interest that accrued on the unfunded liability or pay down the unfunded liability during the year. In part this can be attributed to the lack of a written funding policy and the nature of contributions that are a fixed-rate of pay set through statute or negotiation.

According to its actuarial valuations, Beaumont Fire has not received the reported ADC in any year since 2008. Even with contribution increases in 2012 and 2016, employer contributions have averaged 85% of the Fund's ADC since 2008. Furthermore, the reported ADC is calculated using an open amortization period that results in perpetual negative amortization. If the Fund were to use this ADC as a funding policy, the UAAL would grow indefinitely and the "pension debt" would never be paid off. For the fiscal year ending December 31, 2016, the expected contributions were less than 75% of the reported ADC. This shortfall of \$970,986 is equal to 0.84% of the City's total General Fund expenditures for the fiscal year ending December 31, 2016 and is greater than all its peer TLFFRA plans.

Contribution Levels vs. Actuarially Determined Contribution									
Fiscal Year (12/31)	2000	2002	2004	2006	2008	2010	2012	2014	2016 ⁵
Employee Contribution	13.00%	13.00%	13.00%	13.00%	13.00%	14.00%	15.00%	15.00%	15.13%
Employer Contribution	13.00%	13.00%	13.00%	13.00%	13.00%	13.00%	15.00%	15.00%	15.13%
Employer 30-Year ADC	10.05%	13.26%	11.86%	11.17%	13.79%	15.78%	17.60%	16.43%	20.17%
% of ADC funded	129.35%	98.04%	109.61%	116.38%	94.27%	82.38%	85.23%	91.30%	74.99%
Covered Payroll (in millions)	\$10.56	\$11.28	\$12.65	\$15.3	\$16.59	\$16.42	\$17.89	\$18.41	\$19.25
Contribution Shortfall (in millions)	-	\$0.29	-	-	\$0.13	\$0.46	\$0.46	\$0.26	\$0.97

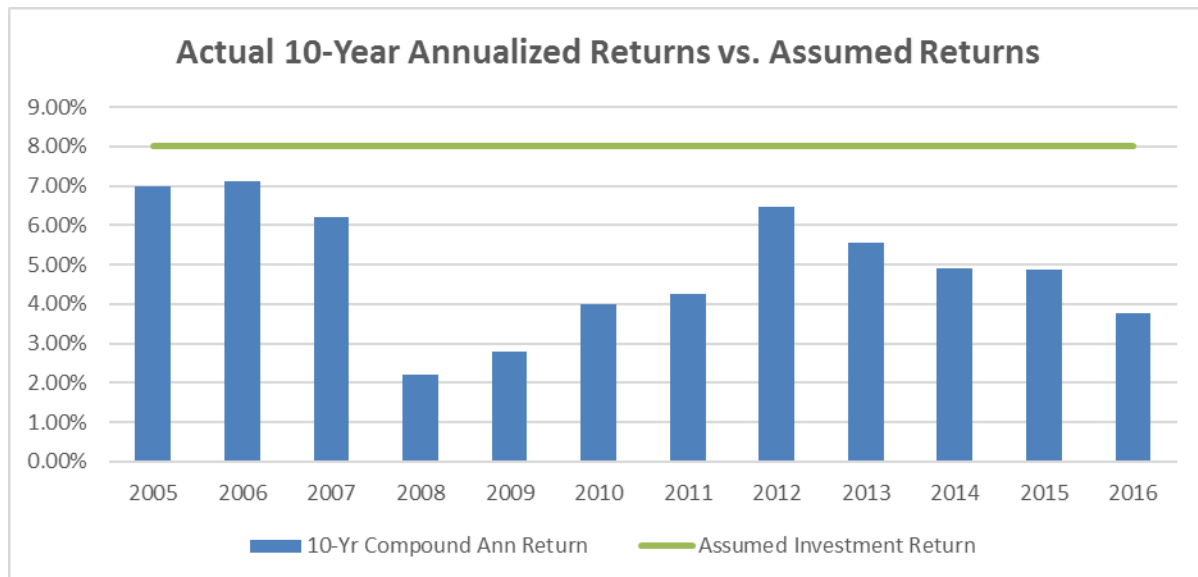
The projection below illustrates the expected total contributions (both employer and employee) under 3 contribution scenarios. The scenarios are 1) maintaining the current fixed contribution rates; 2) adopting a funding policy that utilizes a 30-year open amortization approach; and 3) adopting a funding policy that utilizes a single-layer 30-year closed amortization approach (i.e. will fully fund the Fund in 30 years). As illustrated here, the Fund's current fixed contribution structure under scenario 1 is not sufficient to pay down the unfunded liability and in fact allows the UAAL to continue to grow, resulting in negative amortization.

⁵ The contribution rate of 15.13% was calculated by the PRB due to the increase in contributions from 15.00% to 15.50% not being effective until October 1, 2017.



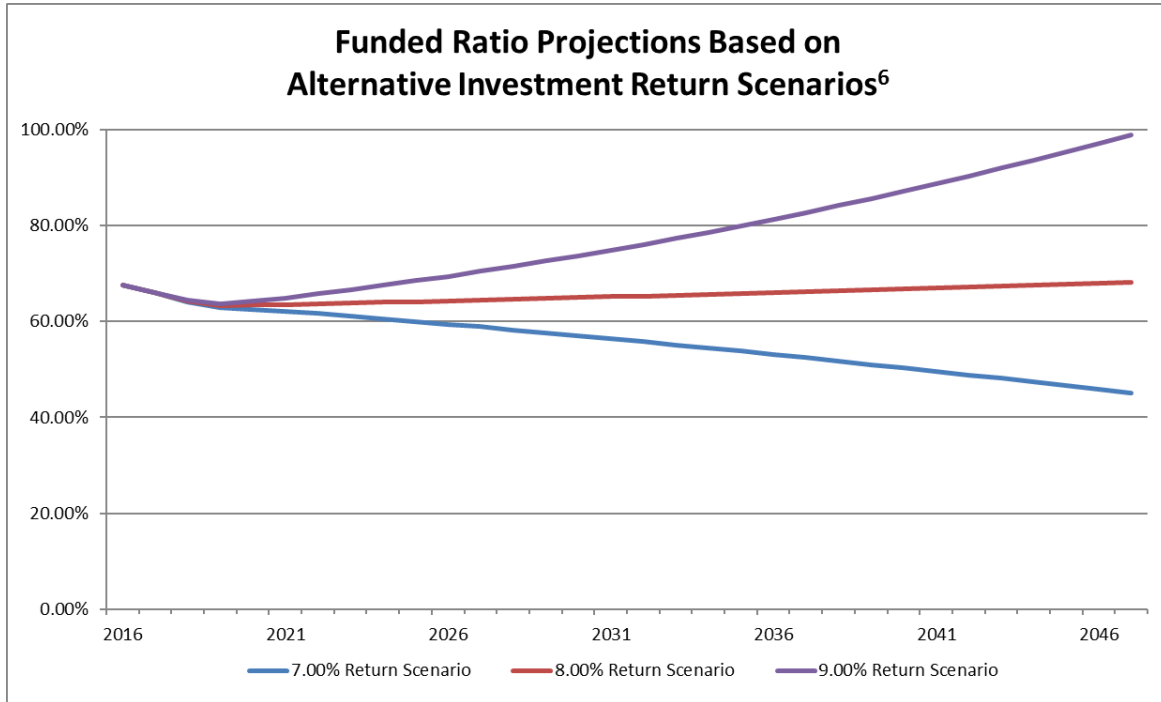
Investment Experience Compared with Investment Return Assumption

Actual investment returns lower than the assumed return has been a large contributor to the Fund's increasing UAAL. The Fund currently assumes an 8.00% interest rate, which exceeds the 2017 national average of 7.52% (reported by NASRA) and most of its peer systems in Texas. As illustrated below, the Fund has not achieved an 8.00% annualized return over a consecutive 10-year period in any of the 10 periods ending December 31, 2007 through December 31, 2016.



The graph below projects the funded ratio for the next 30 years, assuming the member and the city contribution rates remain at a fixed 15.50% each and the investments return 7.00%, 8.00% or 9.00%. The impact of consistently earning less than the expected return on assets (EROA) *but even as high as 7.00%*

over the next 30 years, results in the funded status sinking to 45%. Earning 9.00% over the next 30 years would put Beaumont Fire at 99% funded. However, based on the current asset allocation, the PRB estimates the probability of earning less than or equal to a 7.00% annualized return is approximately twice as likely as achieving a 9.00% or greater annualized return over the next 30-year period.



Conclusion/Recommendation

The investment return assumption is the sole assumption that allocates expected costs between contributions and investment income and the assumed payroll growth rate drives the determination of whether the existing contribution rate is sufficient to meet those needs. Funding risk arises when these assumptions understate the contributions needed in the short and medium term, forcing future members and tax-payers to bear the burden of increased contributions and/or lower benefits.

To address these concerns, a strong funding policy that requires payment of an ADC is encouraged. Numerous actuarial methods can be utilized to help mitigate contribution volatility, including directly smoothing contribution rates or adding “guardrails” that require the stakeholders to come back to the table if the contribution rate falls outside a specified range. If funding according to an ADC is not adopted, a funding policy that fully funds the Fund over a finite period, such as 30 years, is recommended.

⁶ Total payroll and projected benefit payments are assumed to grow at 3.50%. All other current and projected assets and liabilities reflect the actuarial accrued liabilities, actuarial value of assets, plan provisions, and actuarial assumptions and methods as reported in the 12/31/2016 Actuarial Valuation prepared by Foster & Foster Actuaries and Consultants.

Appendix

Key Metrics

Metric	Amortization period (104 years)
What it measures	Approximately how long it would take to fully fund the unfunded actuarial accrued liability (UAAL) based on the current funding policy.
Why it is important	Given the Fund's current assumptions, an amortization period above 18 years indicates the contributions to the Fund in the coming year are less than the interest accumulated for that same period and therefore the total UAAL is expected to grow over the near term. In addition, for a plan that contributes on a fixed-rate basis such as Beaumont Fire, the higher the amortization period, the more sensitive it is to small changes in the UAAL.
Peer Comparison	Beaumont Fire currently has one of the highest amortization periods of all defined benefit pension plans in Texas and ranks highest amongst its peer TLFFRA plans (TLFFRA plans with the 11 highest market value of assets).

Metric	Funded ratio (67.53%)
What it measures	The percent of a fund's actuarially accrued liabilities covered by its actuarial value of assets.
Why it is important	The lower the funded ratio, the fewer assets a fund must pay its current and future benefit payments.
Peer Comparison	Beaumont Fire's funded ratio is below the State's average of 72.53%

Metric	UAAL as a percent of payroll (274.69%)
What it measures	The size of a plan's unfunded liability compared to the annual payroll of its active members.
Why it is important	Provides a way to compare plans of various sizes and expresses the outstanding "pension debt" relative to current personnel costs.
Peer comparison	The Fund's UAAL as a percent of payroll is the third highest amongst the 11 largest TLFFRA funds.

Metric	Assumed rate of return (8.00%)
What it measures	The estimated annual rate of return on the Fund's assets.
Why it is important	If actual future returns are lower than the assumed rate of return, future contributions will need to increase significantly, especially for a poorly funded plan. Beaumont Fire's assumed rate of return is 8.00%, while its actual ten-year investment rate of return for the period ending December 31, 2016 was only 3.77%.
Peer comparison	Beaumont Fire is one of five funds with an assumed rate of return in its peer group with an assumed rate of return at 8.00% or above.

Metric	Payroll growth rate (3.50%)
What it measures	The estimated annual growth in the total payroll of active members contributing into the Fund.
Why it is important	Contributions are calculated as a percent of active members' pay and are back-loaded based on the expected growth in total payroll. If payroll does not increase at this rate, actual contributions will not meet those expected in the Fund's actuarial valuations. Given the Fund's inactive and active liabilities are not fully funded; contributions below expected levels will have serious consequences on the Fund's long-term solvency.
Peer comparison	The Fund's payroll growth rate of 3.50% percent is average for their peer group.

Metric	Actual contributions as a percent of actuarially determined contributions (74.37%)
What it measures	Whether the current employer contributions have met a theoretical minimum threshold. ⁷
Why it is important	The employer's portion of the contribution is less than 75% of the amount needed to fund the Fund on a rolling 30-year amortization period. The PRB's 2014 Study of the Financial Health of Texas Public Retirement Systems found that plans that have consistently received adequate funding are in a better position to meet their long-term obligations.
Peer comparison	This is one of the largest shortfall percentages in the state and the largest in its peer group.

Metric	DROP/PROP as a percent of fiduciary net position (27.95%)
What it measures	The amount of the Fund's assets that are designated for lump-sum payouts to retired members as a percent of its total assets.
Why it is important	Viewing this metric as a percent of total net assets (or fiduciary net position (FNP)) shows how large a decrease in the Fund's assets could be if most or all DROP participants decided to take their balances out in a short amount of time.
Peer comparison	This is the fifth largest percentage in the state and the second largest in its peer group.

⁷ The theoretical minimum threshold, or actuarially determined contribution (ADC), is a target or recommended contribution "to the plan as determined by the actuary using a contribution allocation procedure," as defined in Actuarial Standards of Practice No 4. If contributions to the plan are made as a fixed rate based on statutory or contractual requirements, the ADC for this purpose is the contribution needed to fund the benefits accrued in the current year and maintain an amortization period that does not exceed 30 years, as required to be reported under Texas Government Code §802.101(a).

Metric	Non-investment cash flow as a percent of fiduciary net position (-4.27%)
What it measures	Non-investment cash flow shows how much the Fund is receiving through contributions in relation to its outflows: benefit payments, withdrawals and expenses.
Why it is important	Viewing this metric as a percent of total net assets (or fiduciary net position (FNP)), in conjunction with the funded ratio and recognition of the relative maturity of a plan, provides information about the stability of a plan's funding arrangement.
Peer comparison	Beaumont Fire's non-investment cash flow as a percent of FNP is the lowest in its peer group. If this trend continues, the Fund could face the potential risk of needing to liquidate a portion of existing assets to pay current benefits and/or expenses.

Plan Summary

The Beaumont Firemen's Relief and Retirement Fund ("Beaumont Fire" or "the Fund") was established in 1937 under what is now entitled the Texas Local Fire Fighter's Retirement Act (TLFFRA). TLFFRA provides general guidelines for fund management, but leaves administration, plan design, contributions, and specific investments to the discretion of the board of trustees. Beaumont Fire, as with all TLFFRA systems, is entirely locally-funded.

Benefits

Retirement Eligibility	Age: 50 years; Years of Credited Service (YCS): 20 years
Vesting	Fully vested after 20 YCS
Benefit Formula	63.15% x Final Average Salary + \$123 per month for each year of service in excess of 20
Final Average Salary (FAS)	Highest 36-Month Average Salary
COLA	None
Retirement Benefit Options	<p>5 –Year Retro DROP: Attainment of age 50 and 20 YCS, not to exceed 60 months</p> <p>7 – Year Retro DROP: Attainment of age 55 and 25 YCS, not to exceed 84 months</p> <p>Post Retirement Option Plan (PROP): For Retro DROP balances on or after January 1, 2006 and for all monthly benefits on or after March 1, 2010. Members can elect to defer receipt of their monthly benefit into a PROP account earning interest at a rate 2% below the actuarial assumed rate of return.</p> <p>For firefighters hired on or after January 1, 2017, interest will be credited at an annual rate equal to:</p> <ul style="list-style-type: none"> • 6% if the actual investment return for the previous calendar year is 6% or greater • 4% if the actual investment return is greater than 2% but less than 6% • 2% if actual investment return is 2% or less. <p>Members can keep their benefit in the PROP until age 70-1/2 when the PROP will then be distributed in annual payments over three years.</p>
Social Security	No

Contributions

As of October 1, 2017, active members of Beaumont Fire contribute 15.50% of pay while the City of Beaumont (the City) also contributes 15.50% of pay.

Membership

Total Active Members	Retired Members	Terminated	Total Members	Active-to-Annuitant Ratio
232	217	1	450	1.07

TLFFRA Board Structure

Active Members	3 - Members of the retirement system; elected by fund members. Three-year terms.
Sponsor Government	1 - Mayor or designated representative, or the political subdivision's Chief Operating Officer or designated representative. 1 - Chief Financial Officer of the political subdivision, or designated representative. Terms correspond to term of office.
Taxpayer, Not Affiliated With Fund/Sponsor Govt.	2 - Residents of the State of Texas, must not be officers/employees of the political subdivision; elected by other Board of Trustee members. Two-year terms.

Contribution and Benefit Decision-Making

TLFFRA authorizes members of the retirement systems to determine their contribution rates by voting. The statute requires cities to make contributions at the same rate paid by employees or 12%, whichever is smaller. TLFFRA also allows a city to contribute at a higher rate than employees do through a change in city ordinance.

TLFFRA gives the board the power to make decisions to modify the benefits (increases and reductions). However, a proposed addition or change must be approved by the actuary and a majority of participating plan members. Benefit changes cannot deprive a member, retiree or beneficiary of the right to receive vested accrued benefits.

Historical Trends

To conduct an intensive review of risks associated with the long-term funding of a pension Fund, it is important to analyze trends in multiple metrics. A plan with an asset level lower than its accrued liability has insufficient funds to cover benefits. A plan can experience an increase in unfunded liability due to various factors, including insufficient investment returns, inadequate contributions and inaccurate or overly aggressive assumptions. Hence, a single metric cannot effectively capture the different drivers contributing to the increase of a plan's unfunded pension obligation. This section analyzes historical trends in various metrics identified by the PRB and makes comparisons to understand the sources of growth in unfunded liability for Beaumont Fire.

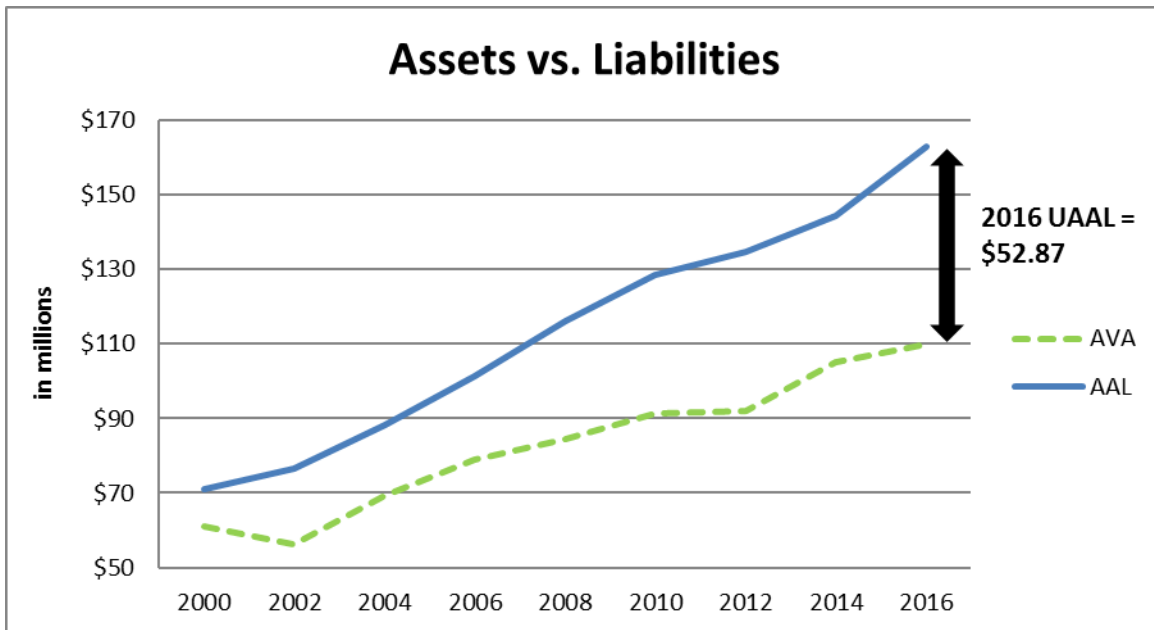
Beaumont Fire's funded status has been steadily declining since 2000. Numerous factors have contributed to this deterioration, including inadequate contributions, investment returns being lower than the chosen

assumption, increased benefit payments, and the inclusion and expansion of PROP accounts accruing interest. The following sections discuss these and other factors in detail.

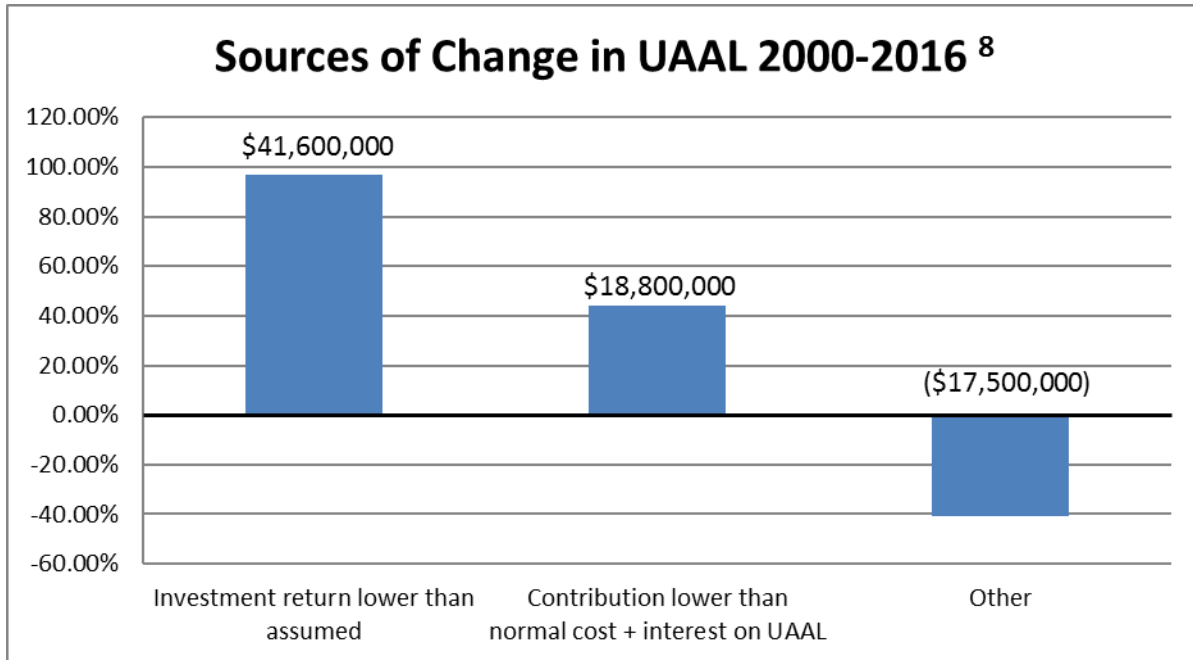
Assets and Liabilities

Funding Trends									
Funded Ratio, Assets, Liabilities and Year over Year Growth									
Fiscal Year (12/31)	2000	2002	2004	2006	2008	2010	2012	2014	2016
Funded Ratio	85.91%	73.67%	78.58%	77.93%	72.65%	71.24%	68.25%	72.72%	67.53%
Am Period (years)	15	32	24	22	34.9	53.6	49.6	39.1	104
UAAL (in millions)	\$9.99	\$20.14	\$18.90	\$22.36	\$31.73	\$36.93	\$42.80	\$39.41	\$52.87
AVA (in millions)	\$60.92	\$56.38	\$69.32	\$78.96	\$84.29	\$91.47	\$92.03	\$105.07	\$109.97
AVA Growth (YoY)	-	-3.80%	10.88%	6.73%	3.32%	4.17%	0.31%	6.85%	2.31%
AAL (in millions)	\$70.91	\$76.52	\$88.22	\$101.32	\$116.02	\$128.40	\$134.84	\$144.48	\$162.84
AAL Growth (YoY)	-	3.88%	7.37%	7.17%	7.01%	5.20%	2.48%	3.51%	6.16%

Beaumont Fire's actuarial accrued liability (AAL) increased by nearly 130% between 2000 and 2016. The Fund's actuarial value of assets (AVA) increased by only 80% over the same period. The Fund was nearly 85% funded in 2000 but fell to just above 67% in 2016.



The graph below illustrates that the increase in the UAAL for the Fund was primarily caused by investment returns being lower than assumed and contributions being less than the ADC since 2000. Investment returns being lower than assumed accounted for over \$41 million in UAAL growth and contributions being below the normal cost and interest on the UAAL accounted for nearly \$19 million in UAAL growth. Other factors such as plan amendments, changes in assumptions and methods, and demographic experiences contributed to a roughly \$17.5 million reduction in the UAAL.



Investment Assumption and Returns

The 10-year net return on investments in 2016 was 3.77%, which is more than 420 basis points below its assumed interest rate. While most plans have been experiencing a difficult 10-year period since the 2008-2009 market downturn, Beaumont Fire's returns are the lowest 10-year average returns reported by its peer group (the 11 largest TLFFRA plans in Texas) over the same period, which is roughly 5.14%. PRB's AV Supplemental Report dated March 1, 2017 showed that out of 91 Texas Funds that reported a 10-year net investment return, Beaumont Fire stood at 69th.

Asset Allocation

As shown in the chart below, the Fund's actual asset allocation is close to its target allocation and within the ranges of the Fund's Investment Policy Statement.

Asset Allocation					
Asset Class	Equities	Fixed Income	Alternatives	Real Estate	Other
Current Allocation	63.03%	22.58%	6.26%	5.31%	2.82%
Target Allocation	62.50%	25.00%	7.50%	5.00%	0.00%

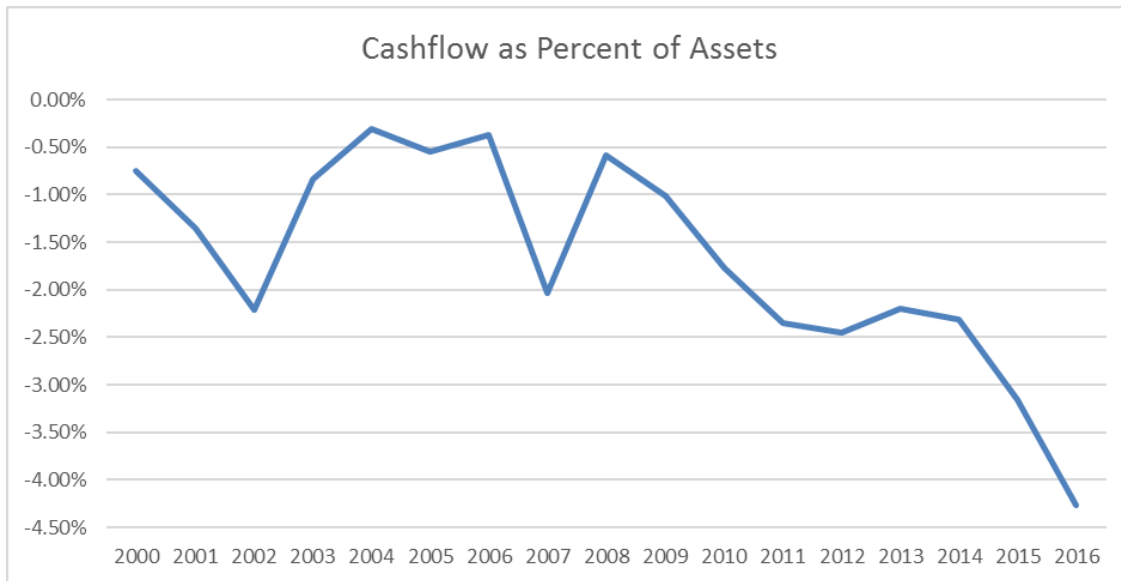
Cash flow

Beaumont Fire has the lowest non-investment cash flow among its peers. In 2016 the Fund's non-investment cash flow dipped to -4.27%, a large drop from before the market downturn in 2008 (-0.58%). The large dips in 2002 and 2007 were due to a decrease in total contributions received and large increases

⁸ The gains in the "Other" category consist of plan amendments, changes in assumptions and methods, and demographic experience. The PRB does not have sufficient detail to outline the exact split between the remaining items.

in total disbursements. Total contributions have grown on average by 2.45% annually since 2000 but are being outpaced by the average growth in yearly benefit disbursements of 4.07%. Total expenses are also the third highest in their peer group as a percentage of the Fund's total assets (0.75%).

A negative non-investment cash flow is not abnormal for mature defined benefit pension plans. However, a cash flow percentage this low is likely to be a drag on potential investment returns because a plan must either invest in a higher proportion of income-producing investments, which traditionally provide lower returns, or must liquidate existing assets to pay out current benefits and/or expenses.



Retroactive DROP and PROP

Beaumont Fire has a 5-year and a 7-year retroactive deferred retirement option plan (Retro DROP) provision that allows members to retroactively end their years of service before their actual retirement date and receive a lump sum payment equal to the total retirement benefits the member would have received plus the amount of contributions the member made into the Fund over that time.

The Fund also offers a post retirement option plan (PROP), which as of 2006 has allowed any member who entered the Retro DROP program to place their accrued Retro DROP Benefit into a PROP account which accrues interest at a rate of 2% less than the Fund's actuarially assumed investment return rate. This was expanded in 2010 to include all accrued benefits for members electing into the PROP account and not just the Retro DROP funds.

The PROP balance as of December 31, 2016 was \$28,627,514, which was a \$26 million increase from 2007's initial balance of \$2,172,699. When the PROP was expanded in 2010 to include all accrued benefits and not just Retro DROP funds, the PROP balance nearly doubled from \$6,930,008 in 2010 to \$12,066,367 in 2011. This PROP balance is 27.95% of the Fund's total net assets.

Peer Group Key Metric Comparison

		Funding Val Metrics						Fiscal Year End Metrics			
Peer Group Plans	MVA	Am Period Date	Am Period	Funded Ratio	UAAL as % of Payroll	Assumed Interest	Payroll Growth	FYE	Actual Cont. as % of ADC	DROP as % of FNP	Non-Investment Cash Flow as % of FNP
Lubbock Fire Pension Fund	\$ 176,016,821	12/31/2016	33.5	72.63%	240.47%	7.75%	4.00%	12/31/2016	100.00%	N/A	-3.63%
Irving Firemen's Relief & Retirement Fund	\$ 174,037,587	12/31/2015	33.0	74.92%	228.54%	8.25%	4.25%	12/31/2016	82.33%	29.63%	-1.24%
Amarillo Firemen's Relief & Retirement Fund	\$ 144,657,881	12/31/2015	34.5	81.82%	172.47%	8.00%	4.00%	12/31/2016	93.92%	N/A	-3.76%
Corpus Christi Fire Fighters' Retirement System	\$ 133,901,631	12/31/2016	23.1	62.14%	265.57%	7.75%	3.50%	12/31/2016	100.00%	N/A	-3.04%
Laredo Firefighters Retirement System	\$ 126,305,204	9/30/2016	28.0	59.28%	263.00%	7.90%	3.25%	9/30/2016	100.17%	N/A	1.58%
Beaumont Firemen's Relief & Retirement Fund	\$ 102,435,664	12/31/2016	104.0	67.53%	274.69%	8.00%	3.50%	12/31/2016	74.37%	27.95%	-4.27%
Midland Firemen's Relief & Retirement Fund	\$ 80,942,385	12/31/2015	44.7	65.78%	264.77%	8.00%	4.50%	12/31/2016	89.77%	0.32%	-2.44%
Denton Firemen's Relief & Retirement Fund	\$ 67,976,717	12/31/2015	31.6	80.82%	115.26%	6.75%	3.00%	12/31/2016	94.99%	N/A	0.42%
Tyler Firemen's Relief & Retirement Fund	\$ 59,949,406	12/31/2015	21.6	75.87%	178.30%	7.65%	3.50%	12/31/2016	106.92%	N/A	-4.21%
San Angelo Firemen's Relief & Retirement Fund	\$ 58,272,932	12/31/2015	38.5	65.65%	280.71%	7.90%	3.50%	12/31/2016	85.40%	N/A	-4.19%
Abilene Firemen's Relief & Retirement Fund	\$ 52,343,510	10/1/2015	31.5	56.60%	316.19%	8.00%	4.00%	9/30/2016	97.77%	N/A	-3.35%

Peer Group Sponsor Funding Comparison

Peer Group Plans	GF Expend	EOY GF Bal	UAAL	Expected Employer Contributions	ADC	30-yr Shortfall	30-Y SF % of ADC	30-Y SF % of GFE
Lubbock Fire Pension Fund	\$ 162,139,351	\$ 35,673,526	\$ 73,353,115	\$ 6,652,807	\$ 6,878,532	\$ 225,725	3.28%	0.14%
Irving Firemen's Relief & Retirement Fund	\$ 216,852,808	\$ 57,666,475	\$ 61,873,333	\$ 4,534,842	\$ 5,146,707	\$ 611,865	11.89%	0.28%
Amarillo Firemen's Relief & Retirement Fund	\$ 157,909,148	\$ 48,079,850	\$ 33,128,756	\$ 3,759,167	\$ 3,884,024	\$ 124,857	3.21%	0.08%
Corpus Christi Fire Fighters' Retirement System	\$ 218,749,071	\$ 41,873,537	\$ 85,995,868	\$ 6,728,823	\$ 6,728,823	\$ -	0.00%	0.00%
Laredo Firefighters Retirement System	\$ 173,176,192	\$ 42,167,732	\$ 87,733,185	\$ 7,047,691	\$ 7,861,156	\$ 813,465	10.35%	0.47%
Beaumont Firemen's Relief & Retirement Fund	\$ 115,988,300	\$ 26,709,699	\$ 52,869,076	\$ 2,911,034	\$ 3,882,020	\$ 970,986	25.01%	0.84%
Midland Firemen's Relief & Retirement Fund	\$ 116,701,277	\$ 62,991,568	\$ 44,243,979	\$ 3,795,617	\$ 4,176,888	\$ 381,271	9.13%	0.33%
Denton Firemen's Relief & Retirement Fund	\$ 97,686,459	\$ 28,169,848	\$ 17,249,607	\$ 2,319,631	\$ 2,743,151	\$ 423,520	15.44%	0.43%
Tyler Firemen's Relief & Retirement Fund	\$ 66,287,413	\$ 14,908,722	\$ 20,639,623	\$ 2,257,337	\$ 2,257,337	\$ -	0.00%	0.00%
San Angelo Firemen's Relief & Retirement Fund	\$ 72,209,393	\$ 38,842,353	\$ 32,163,039	\$ 2,314,444	\$ 2,714,316	\$ 399,872	14.73%	0.55%
Abilene Firemen's Relief & Retirement Fund	\$ 81,777,971	\$ 26,458,762	\$ 43,412,430	\$ 2,642,987	\$ 2,703,398	\$ 60,411	2.23%	0.07%

Peer Group Expense Comparison

Peer Group Plans	10 yr. return (Net)	Active/ Annuitants	Average Benefit	NPL	Admin Expenses	Investment Expenses	Other Expenses	Total Expenses	Exp as % of Assets
Lubbock Fire Pension Fund	4.39%	1.39	\$ 54,610	\$ 90,715,999	\$ 322,882	\$ 651,091	\$ -	\$ 973,973	0.55%
Irving Firemen's Relief & Retirement Fund	5.28%	2	\$ 50,297	\$ 76,692,304	\$ 76,887	\$ 1,391,083	\$ 35,044	\$ 1,503,014	0.81%
Amarillo Firemen's Relief & Retirement Fund	6.80%	1.26	\$ 53,329	\$ 37,044,636	\$ 80,849	\$ 388,013	\$ -	\$ 468,862	0.31%
Corpus Christi Fire Fighters' Retirement System	5.53%	1.35	\$ 44,113	\$ 91,671,329	\$ 257,440	\$ 456,800	\$ -	\$ 714,240	0.53%
Laredo Firefighters Retirement System	4.33%	2.24	\$ 55,268	\$ 93,600,365	\$ 209,946	\$ 340,343	\$ -	\$ 550,289	0.44%
Beaumont Firemen's Relief & Retirement Fund	3.77%	1.07	\$ 41,483	\$ 91,716,980	\$ 479,503	\$ 292,841	\$ -	\$ 772,344	0.75%
Midland Firemen's Relief & Retirement Fund	3.88%	1.28	\$ 42,246	\$ 57,751,765	\$ 139,980	\$ 631,166	\$ 111,641	\$ 882,787	1.07%
Denton Firemen's Relief & Retirement Fund	6.52%	2.15	\$ 50,235	\$ 19,593,428	\$ 94,175	\$ 80,181	\$ -	\$ 174,356	0.23%
Tyler Firemen's Relief & Retirement Fund	4.77%	1.55	\$ 59,999	\$ 25,419,271	\$ 54,206	\$ 128,637	\$ -	\$ 182,843	0.29%
San Angelo Firemen's Relief & Retirement Fund	6.34%	1.20	\$ 41,084	\$ 41,242,389	\$ 55,543	\$ 239,681	\$ 19,648	\$ 314,872	0.52%
Abilene Firemen's Relief & Retirement Fund	4.96%	0.99	\$ 33,920	\$ 49,270,713	\$ 40,529	\$ 196,829	\$ -	\$ 237,358	0.43%

Comments from Beaumont Firemen's Relief and Retirement Fund

April 19, 2018

Mrs. Michelle Kranes
Texas Pension Review Board
P O Box 13498
Austin, TX 78711-3498

Dear Mrs. Kranes,

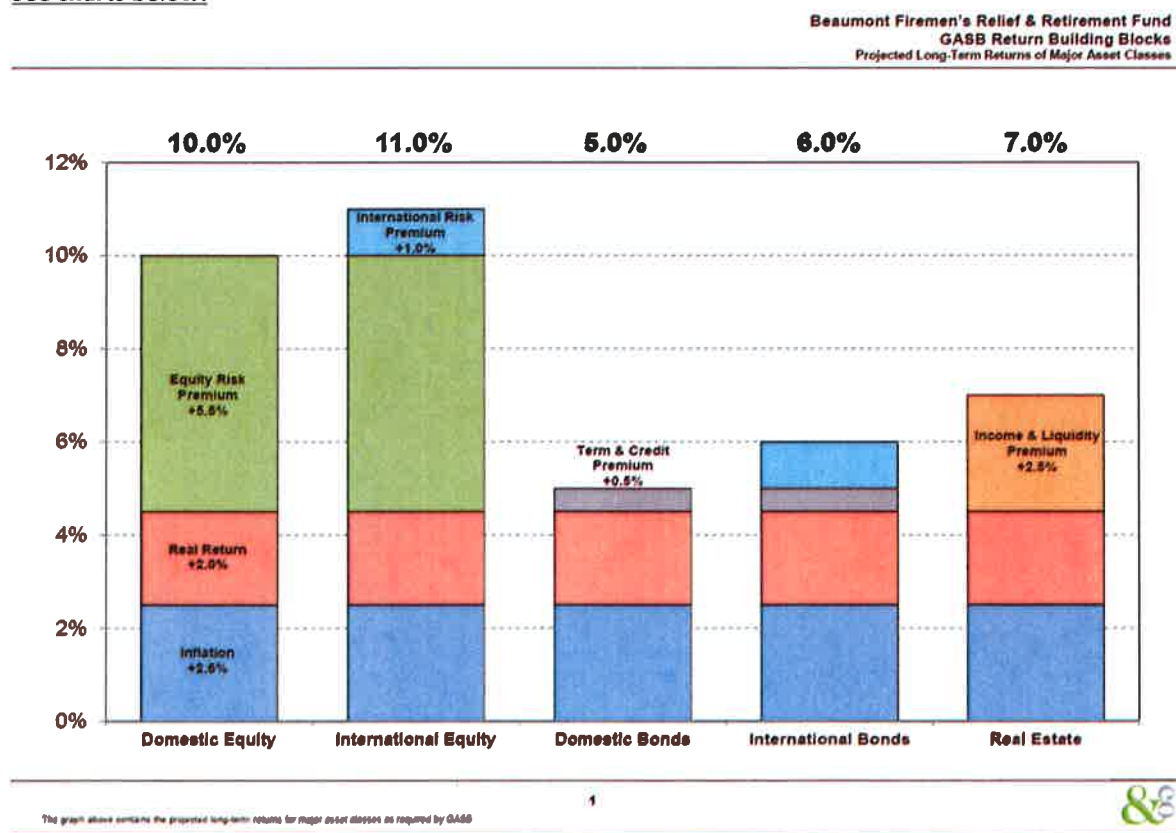
Thank you for providing your preliminary draft of the Actuarial Review of the Beaumont Firemen's Relief and Retirement Fund. The Fund's Board of Trustees (the "Board") wishes to provide a response to the main risk factors presented in the review. The Officers on the Board, the City's Chief Financial Officer Todd A. Simoneaux, CPA, the Fund's Actuary, Brad Heinrichs, the Fund's Attorney, Chuck Campbell, and the Fund's consultant, Jack Evatt will attend the meeting on April 24, 2018.

In the Executive Summary, three (3) main risk factors are presented:

Asset Liability Mismatch (Liquidity)

- a guaranteed 6.00% annual rate of return for the PROP
the annual rate of return is defined as 2.0% less than the actuarial investment return assumption.
The fund's investment assumption rate has been set at 8.00% and is supported by the fund's asset allocations and rates of returns

See charts below:



Beaumont Firemen's Relief & Retirement Fund
Asset Allocation History
As of December 31, 2017

Asset Allocation Attributes	Dec-2017		Dec-2016		Dec-2015		Dec-2014		Dec-2013		Dec-2012	
	(\$)	%	(\$)	%	(\$)	%	(\$)	%	(\$)	%	(\$)	%
Total Equity	76,536,760	66.43	65,193,026	63.81	66,906,068	69.89	61,637,811	59.87	60,871,738	66.75	48,987,817	51.28
Total Domestic Equity	59,757,670	51.87	52,404,860	51.29	46,020,416	46.79	47,589,737	46.23	38,857,306	38.13	28,710,624	31.33
Total International Equity	16,778,090	14.56	12,788,166	12.52	12,884,651	13.10	14,048,074	13.65	21,014,432	20.62	18,277,193	19.95
Total Fixed Income	24,251,955	21.05	24,077,275	23.57	27,784,879	28.25	31,827,075	30.72	33,239,283	32.82	38,140,980	41.82
Total Domestic Fixed Income	18,742,536	16.27	18,532,944	18.14	18,508,567	18.82	19,613,113	19.05	13,806,349	13.55	17,703,231	19.32
Total International Fixed Income	5,509,419	4.78	5,544,331	5.43	9,276,312	9.43	12,013,962	11.67	19,432,934	19.07	20,437,749	22.30
Total Alternative	7,916,141	6.87	6,114,056	5.98	6,017,529	6.10	5,149,812	5.00	3,984,844	3.91	4,314,087	4.71
Total Private Equity	13,239	0.01	319,417	0.31	330,261	0.34	637,333	0.62	1,273,486	1.26	2,146,234	2.24
Total Real Estate	5,942,128	5.16	5,840,098	5.72	6,789,333	6.99	3,615,757	3.51	3,414,665	3.35	-	0.00
Total Cash	657,226	0.48	627,519	0.61	527,780	0.54	277,539	0.27	121,760	0.12	48,849	0.06
Total Fund	115,216,448	100.00	102,171,393	100.00	98,353,850	100.00	102,845,327	100.00	101,905,776	100.00	91,637,947	100.00



- virtually unlimited amount of time to accrue this guaranteed return; and

8. If a PROP participant still has an account balance at the end of the calendar year in which he or she attains age 70 ½, then the following steps must be taken in order for the Fund and the participant to comply with Section 401(a)(9) of the Internal Revenue Code (IRC) and its minimum distribution requirements ("RMD requirements"):

By February 1st of the year following the year of attaining age 70 ½, the

- (a) Participant must file with the Fund's administrative office a new Distribution Form that is **irrevocable** and provides for a specific payment amount to be made in quarterly or annual installments that satisfies the RMD requirements. The participant may consult with the Fund administrative staff prior to filing the Distribution Form to determine what minimum amount is necessary to satisfy the RMD requirements and is encouraged to consult his or her personal tax or financial advisor as to the election. ***The Fund (including a Member of the Board or staff) will not provide under any circumstances tax or financial advice to a participant as to this irrevocable payment election.***
- (b) Once payments under the Distribution Form filed in (a) above have commenced, a participant can only take a different or additional distribution if (A) a participant

requests a distribution of his entire remaining PROP balance or (B) a participant requests an unforeseeable emergency distribution as provided in Section E. A distribution for an unforeseeable emergency will not change the election made by participant, but will be a separate one-time distribution in an amount necessary to satisfy the emergency.

- the ability to withdraw these funds with little to no restriction

A PROP participant may request to receive his/her entire account balance at any time, subject to certain restrictions which is payable the last day of the month following the month the written request is received by the pension office. In addition, a participant may request a partial payment from his/her account balance up to four times a year. To request a payment, either entire or partial, the PROP participant must file, a completed Distribution Form with Fund's administrative office 30 days prior to quarterly payment dates, which is the last day of March, June, September, and December with the requested amount.

The Chart below will hopefully address the issue of Liquidity.

Beaumont Firemen's Relief and Retirement Fund
Data as of March 31, 2018

Liquidity Analysis

Asset Allocation		
Manager/Strategy	Assets	% Plan
- Cash (mutual funds)	372,648	0.3%
- Cash (private equity)	214,909	0.2%
Total (Cash)	587,557	0.5%
- Vanguard Institutional Index (VINXXX)	15,300,733	13.5%
- Orleans Capital Fixed Income	12,178,254	11.6%
- Vanguard Russell 1000 Growth Fund (VRGWZ)	11,445,123	10.1%
- American Funds EuroPacific Growth Fund (REROX)	10,252,350	9.1%
- Cornerstone Small Cap Growth	8,448,617	7.5%
- WCM Focused Int'l Growth Fund (WCMGX)	6,746,866	6.0%
- Vanguard Extended Market Index Fund (VIEGX)	6,277,792	5.5%
- Wisdom Blue Small Cap Value	5,829,872	5.1%
- Westwood Income Opportunity Fund (WHOGX)	5,807,829	5.1%
- Delaware Large Cap Value	5,210,500	4.7%
- Hibbsack Fixed Income	5,219,486	4.6%
- DRZ Large Cap Value	5,215,234	4.6%
- Loomis Sayles Global Bond Fund (LSGBX)	2,891,813	2.6%
- Legg Mason Global Opp. Bond Fund (GOBDX)	2,765,222	2.4%
Total (Liquid)	104,691,719	92.5%
- American Core Realty Fund	5,665,875	5.0%
Total (Short-term Illiquid)	5,665,875	5.0%
- LBC Credit Partners IV	1,916,797	1.7%
- Beaumont Office Buildings	332,370	0.3%
- Franchise Equity III	13,239	0.0%
Total (Long-term Illiquid)	2,262,406	2.0%
Total	112,207,557	100%

Governance

The Board is comprised of three fire fighters, two city trustees, and two civilian trustees. The sponsor is represented by the two city trustees. The Board has and continues to exhibit governance to lower the unfunded

liability to the Fund. Recent examples that address the listed risk factors include, a meeting in March of 2012, the Board held a meeting that included the Mayor, the City Manager and Executive Officers of Local #399. The meeting was to inform the sponsor (City of Beaumont) and Labor Union (IAFF Local #399) of the results of the recent actuarial valuation. These parties are responsible for the negotiations of Beaumont Fire/Rescue Department's CBA (Collective Bargaining Agreement). The Beaumont Fireman's Relief and Retirement Fund Contribution rates are set in this CBA. The result of the meeting helped to increase the City's contributions percentages from 13% to 15%. In 2017 the contribution percentages were again raised to 15.5%. Also, in 2016 the Plan was amended to change the PROP interest rate for all new hires on or after January 1, 2017 and would be based on the actual investment return of the Fund. This was recommended by the Fund's Actuarial Firm to reduce the potential volatility of investment returns. Changes were also made to disability standards and the initial disability period.

The Fund's Benefit policy is covered in the Plan document on page 25, section I. Below is partial content of section I.

Future Increases- Future pensioner benefit increases will be based on the financial condition of the fund as determined by the fund's actuary in future actuarial valuations. The procedure for providing future pensioner increases is not a vested right by any current retiree or beneficiary or by any firefighter who becomes eligible for a benefit after December 1, 2001. It is applicable for both current and future pensioners. It can be removed from the plan or changed in the future by election of the firefighters and approval by the Board of Trustees and the fund's actuary. If this procedure is removed in the future, it will be removed on a prospective basis only and the removal would not apply to increases applicable under this section that would be effective on the

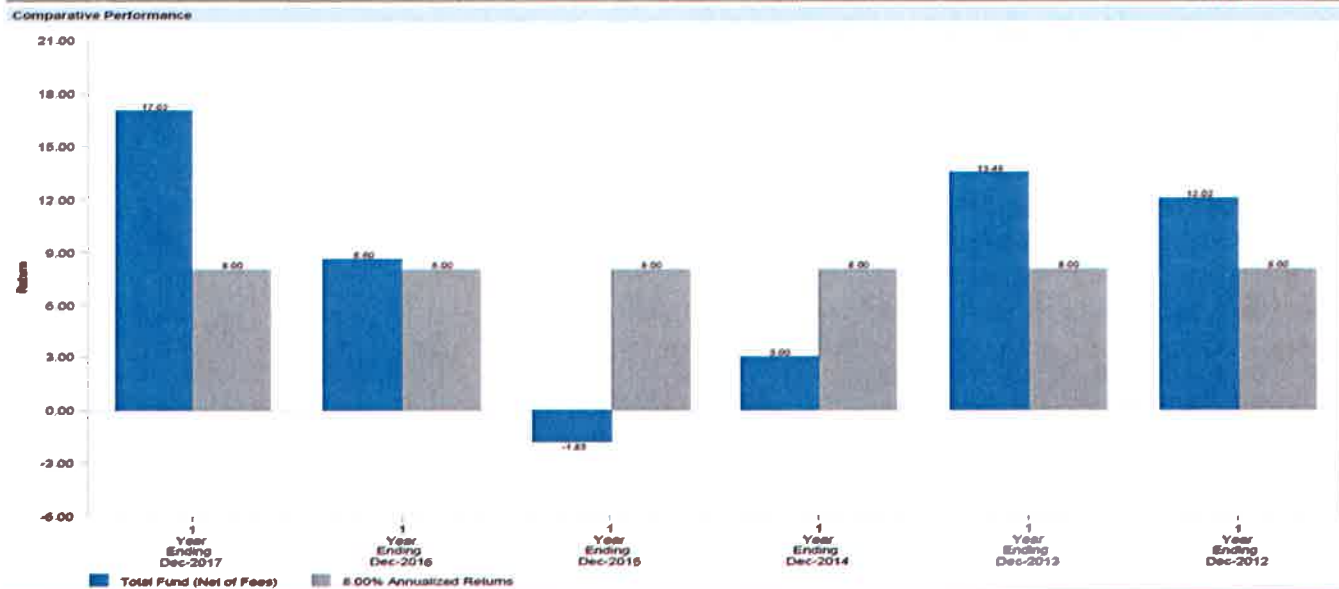
same effective date as the amendment removing the procedure. Unless this procedure is removed from the plan provisions in the future, the Board of Trustees and the Beaumont firefighters will not have the authority to disapprove benefit increases for all pensioners. However, the Board of Trustees will have discretion in determining the type of pensioner increase, the minimum monthly benefit payable to pensioners and any exclusion of types or groups of pensioners (but not the exclusion of pensioners on an individual basis). The procedure for determining future pensioner increases is as follows:

- a. The fund's actuary will determine whether the fund has had "Good Experience", i.e., whether the financial condition of the fund permits benefit improvements to be made to the plan. In making this determination, the actuary will make all appropriate changes in actuarial assumptions, actuarial cost methods, actuarial value of assets method and other technical changes. This determination will also be based on existing plan provisions. This determination will also be before the result of a recent increase in the firefighters' contribution rate when the recent increase was not recognized by the actuary in a prior actuarial study. Generally, the actuary will determine the maximum number of years that the amortization period of the unfunded actuarial accrued liability can be increased for benefit and eligibility changes of any type.

Funding Risk:

Investment Experience (6 Years 8.715%) (5 Years 8.054%)

City of Beaumont Firemen's Relief & Retirement Fund
Comparative Performance
As of December 31, 2017



The Board and the City will soon be in the process of actuarial audit that will follow Texas Government Code, Section 802.1012 which describes the requirements for actuarial audits. This along with a new Actuarial Valuation of the Fund for 2018 will give the Board the needed information to approach the two parties responsible for the Fund's contribution rates. The Fund will most likely follow the same process as in 2012, to inform the sponsor and Labor Union of the results of the actuarial valuation and hopefully influence the need of a rate increase for the 2020 CBA.

Thank you for considering this response. We look forward to meeting the PRB Actuarial Committee and are hopeful to answer and address the questions and concerns of the committee.

Please contact the Fund if you need any clarification regarding this response.

Sincerely,

Brian Hebert
Chairman
Beaumont Fireman's Relief and Retirement Fund