Intensive Review:

Abilene Firemen's Relief and Retirement Fund

September 2023

PENSION REVIEW BOARD

Contents

Executive Summary

Introduction

The Texas Pension Review Board (PRB) selected Abilene Firemen's Relief & Retirement Fund (Abilene Fire) as the next Texas public retirement system for intensive review. For the first time since the PRB started the intensive review process in 2018, a Texas state representative requested a review of a system located in their district. The PRB selected Abilene Fire for review in response to both this legislative request in combination with the system's concerning funding metrics. The intent of this review is to assist the pension system's board of trustees and the City of Abilene in assessing the system's ability to meet its long-term funding obligations. While the system's amortization period has consistently remained near or under 30 years for over two decades, the actuarial funded ratio has steadily declined— currently under 50 percent. The primary reasons for this funding decline were actual investment returns falling short of the assumed rate and contributions into the fund that were less than the normal cost plus interest on the unfunded liability, also known as negative amortization. The amortization period likely has appeared to remain around 30 years, despite the clear funding issues, due to a mixture of aggressive assumptions and a benefit cap that appears unsustainable with assumptions and methodologies that do not reflect the cap's true impact.

Overview

Abilene Fire should consider adjusting assumptions and plan provisions to align with reasonable expectations. The system and the city should then work together to develop a contribution arrangement based on those more reasonable expectations. The following challenges should be addressed by both parties:

- Since 2001, the gap between the system's actuarial value of assets and actuarial accrued liability has more than quintupled, which has resulted in assets only covering 75 percent of the retiree liability and none of the active member liability.
- Historically, contributions have not been enough to cover the normal cost and interest on the unfunded liability. However, Abilene's firefighters cannot increase their contributions without resulting in a pension benefit that is more of an employee expense than a piece of their compensation package.
- Average investment returns have consistently fallen below the system's assumed rate of return and the system appears to have taken on more risk as a result. This is especially concerning given the system's mature demographics and precarious funding situation.
- The system's $90,000 benefit cap is not currently indexed to inflation and is likely to impact the city's ability to hire new firefighters in the near future.
- Multiple assumptions, including mortality, salary growth, and payroll growth, do not appear to align with actual experience.
- Prior to the review, Abilene Fire's website was not hosting its most current reports for its members and the public to easily view and access, limiting transparency. In addition, prior to the review multiple board trustees were out of compliance with Texas minimum education training requirements, and new trustees were not being timely reported to the PRB.

Conclusion

Abilene Fire needs a thorough review of its assumptions as well as an overhaul or removal of the $90,000 benefit cap to get a clearer picture of what the funding needs truly are. The system should also work with its investment advisors to develop a more conservative investment assumption and a strategy that can consistently meet that assumption while minimizing volatility. Once these assumptions and the investment strategy are in place, the system and the city can then work together to come up with benefit and contribution adjustments that will be both fair and equitable to members and taxpayers.

Finally, improving plan transparency and compliance with basic training requirements is a necessary step to ensure stakeholders have the information they need and that the system administrator and trustees are all equipped to act in the best interests of members they serve.

Background

The Texas Pension Review Board (PRB) selected Abilene Firemen's Relief and Retirement Fund (Abilene Fire) for an intensive review to examine challenges the retirement system is facing and to provide a starting point to identify solutions. Abilene Fire's concerningly low funded ratio and relatively aggressive actuarial valuation assumptions despite a funding period below 30 years were the primary reasons the PRB selected the system for review. The PRB also received a formal request for this intensive review from Texas State Representative Stan Lambert, who represents Abilene as part of District 71. Overall, this review is intended to assist the system's board and its sponsor, the City of Abilene, in assessing the system's ability to pay promised benefits for the firefighters serving the city. The review also serves as an educational resource and case study for other Texas public retirement systems or stakeholders that may be facing similar challenges.

Key metrics

Intensive reviews assess issues that threaten a system's actuarial soundness and an equitable distribution of benefits.[1] Since financial health is dependent on a system's liabilities in relation to its assets, intensive reviews focus on both liabilities and assets as well as funded status, actuarial methods and assumptions, and investment management practices and performance. To address equitable distribution of benefits, intensive reviews may also focus on the structure of benefits provided to different member groups and the quality of benefits provided for the level of employee contributions. The PRB uses nine key metrics to determine and prioritize retirement systems for intensive review. The PRB selected Abilene Fire for review based on its October 2021 actuarial valuation data. The table shows the nine key metrics for Abilene Fire

Plan Profile (2021 AV)

Actuarial Accrued Liability: $124,501,852

Market Value of Assets: $64,944,840

Normal Cost: 17.04% of payroll

Contributions: 15.20% employee
21.25% employer

Membership: 192 active
192 annuitants

Social Security Participation: No

Assumptions: 3% payroll growth
7.5% rate of return

Amort. Period (Years)	Funded Ratio	UAAL as % of Payroll	Assumed Rate of Return	Payroll Growth Rate	Actual Cont. as % of ADC[2]	Non-Investment Cash Flow as % of FNP[3]	DROP as % of FNP[3]	Fund Exhaustion Date
29.4	49.38%	377.55%	7.50%	3.00%	97.34%	-4.04%	0.00%	N/A

Contribution, cash flow and fund exhaustion data are from the system's 12/31/2021 financial audit.

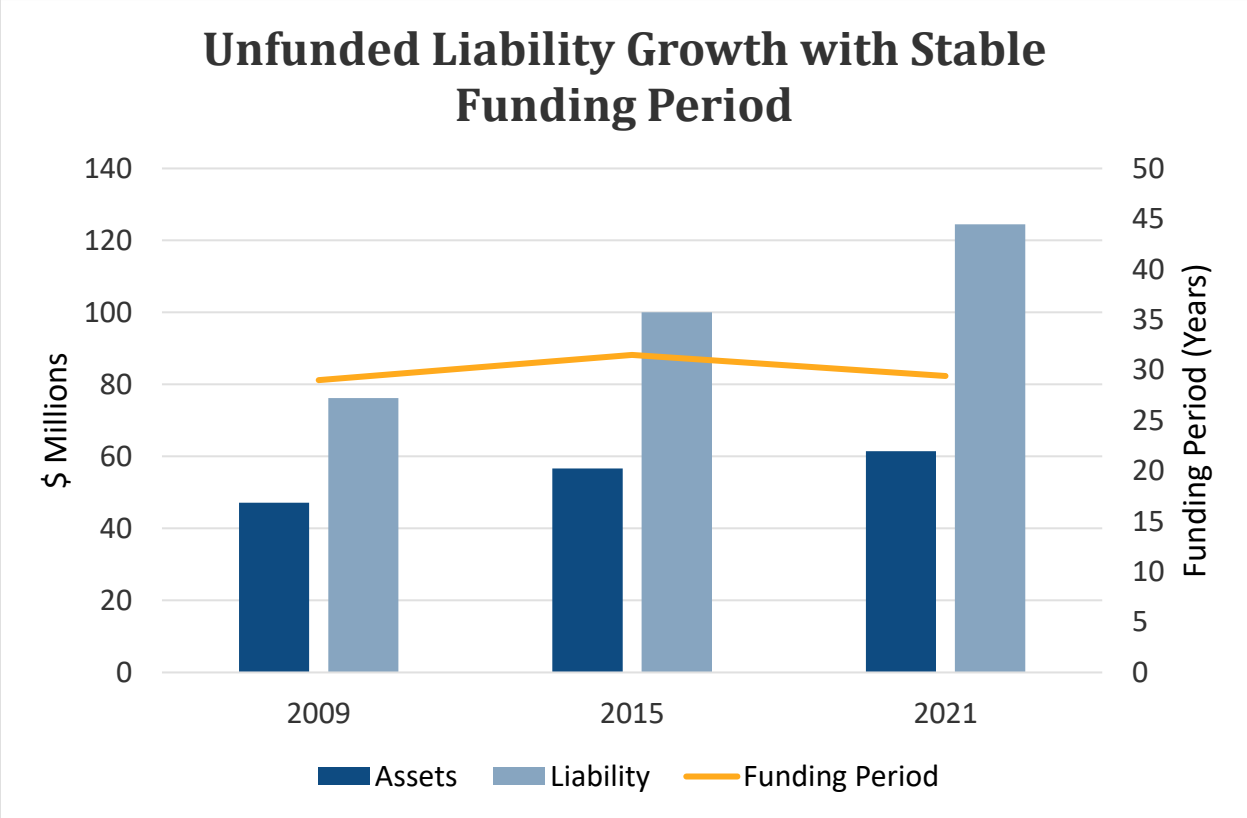
[1] Section 801.202(2), Texas Government Code

[2] For systems with fixed rate contributions, based on statutory or contractual requirements, the actuarially determined contribution (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 in the system's regular actuarial valuation pursuant to Section 802.101(a), Texas Government Code.

[3] Fiduciary net position

Abilene Fire has the 13th lowest funded ratio in Texas despite maintaining a steady funding period near 30 years.

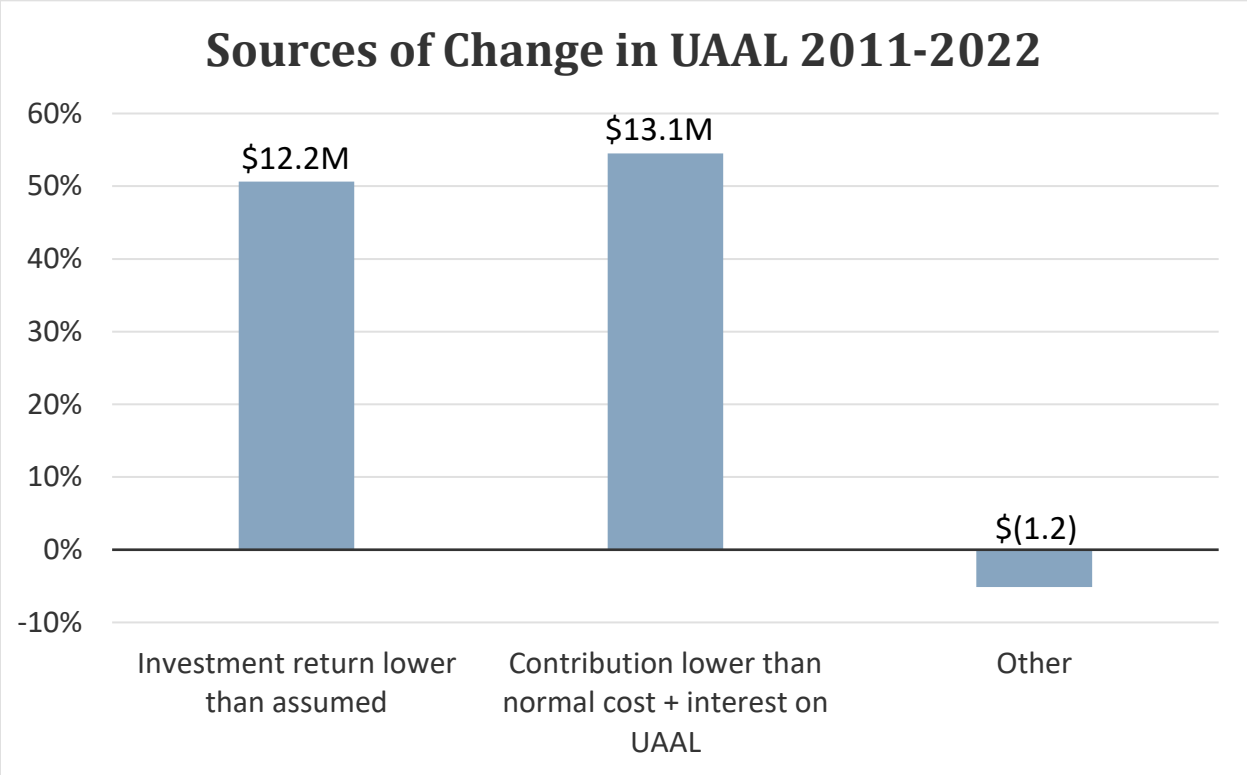
With an amortization period of under 30 years, Abilene Fire is below the *PRB Pension Funding Guidelines*' maximum amortization period and the statutory threshold for triggering a funding soundness restoration plan (FSRP).[4,5] However, the amortization period alone is not the only measure needed to determine whether a retirement system is properly funded. Out of 100 actuarially funded defined benefit plans in Texas, Abilene Fire's funded ratio is the 13th lowest. The system's unfunded actuarially accrued liability (UAAL) has grown at a rapid rate over time, causing the funded ratio to decline from 71 percent in 2001 to 49 percent in 2021. Such a sizeable decline in funded ratio is concerning for many reasons, especially due to the doubts it raises about benefit security for Abilene Fire's members particularly since they do not receive Social Security benefits.



The system's current funding policy focuses on a benchmark that resets every year to ensure the fund stays at or below a rolling 30-year funding period goal. Though the system has kept its funding period below FSRP maximums over time, its unfunded liability has continued to grow, showing that the system's funding policy and overall focus on a 30-year funding period is not effectively moving the system toward full funding. The graph, *Unfunded Liability Growth with Stable Funding Period*, illustrates the growth in

[4] Pension Review Board, *PRB Pension Funding Guidelines*, accessed July 5, 2023, https://www.prb.texas.gov/actuarial/prb-pension-funding-guidelines/
[5] Sec. 802.2015, Texas Government Code. Funding Soundness Restoration Plan.

the system's UAAL over more than a decade, while the funding period remained near 30 years. This growth in the UAAL, coupled with the concerningly low funded ratio, shows that systems should not rely solely on the amortization period to measure system health. While amortization period is an important and useful measure, a retirement system's goal should be to eliminate the UAAL over a reasonable amount of time and ultimately fully fund the plan, which requires gradual decreases in the UAAL from year to year. An expected decrease in the UAAL in the upcoming year requires funding equal to or greater than the sum of the normal cost and interest on the UAAL, otherwise the system experiences negative amortization—essentially, an increase in the UAAL from one year to the next. In Abilene Fire's case, the system was expected to receive $6.1 million in 2022 contributions while the necessary contributions to avoid an expected increase in UAAL were $7.6 million.[6] The chart, *Sources of Change in UAAL 2011-2022*, shows that contributing less than the normal cost plus interest on the UAAL has been the highest contributor to the increase in the UAAL over the period, with investment returns not meeting assumptions as a close second. If the system instead targeted a decreasing amortization period (30 years in year one, 29 in year two, 28 in year three, and so on), it would eventually cross the threshold and avoid such negative amortization.



Abilene Fire's actuarial assumptions are in the most aggressive quartile of Texas public retirement systems.

[6] The $6.1 million in contributions is 36.45 percent of $16.7 million in payroll. The $7.6 million in contributions needed to avoid an increase in the UAAL were 7.5 percent of the $63 million UAAL (or $4.8 million) plus the $2.8 million normal cost.

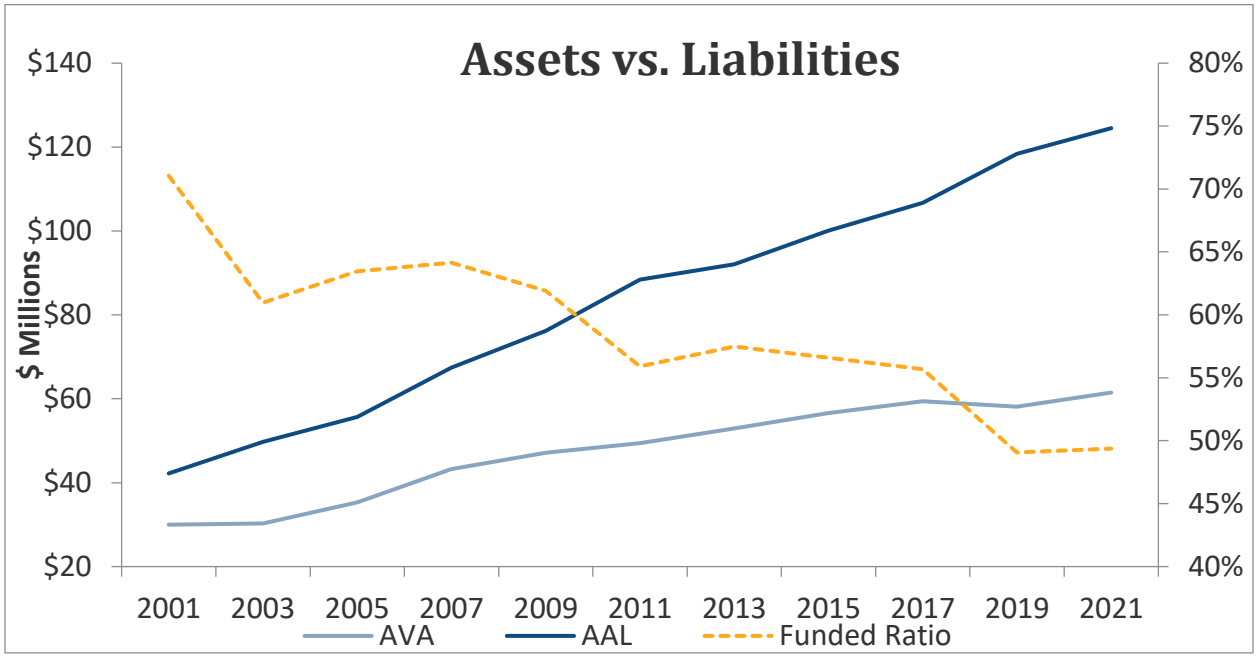
Actuarial assumptions have a profound effect on the amortization period and other aspects of pension health. Setting those assumptions appropriately is vital to ensuring a retirement system can accurately address the system's needs, such as determining appropriate contribution levels. Higher economic assumptions, such as the discount rate and payroll growth rate, decrease the amortization period due to the assumption of more money coming into the system in the future. When a system expects more income in the future, it reduces the amount that must be contributed now. However, eventually the future becomes the present, and if the money coming into the system does not meet assumptions, the retirement system will have fewer assets than expected and the system's unfunded liability will grow more quickly.

Compared with the other defined benefit plans in Texas, Abilene Fire's 7.5 percent assumed investment return and 3 percent assumed payroll growth rate are both in the highest quartiles. Being in the highest quartile does not necessarily mean these assumptions are unreasonable, but it merits examining whether they are contributing to the appearance of a lower amortization period than reflected in actual performance.

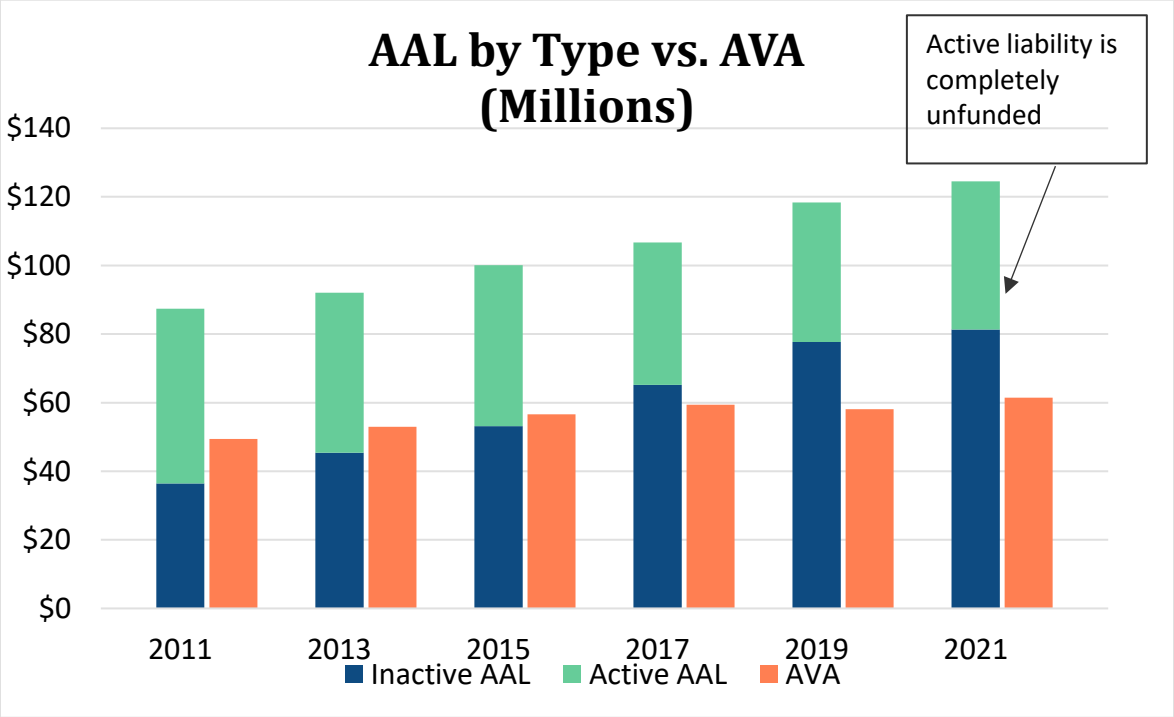
Findings

Abilene Fire's funding gap has more than quintupled since 2001, resulting in assets to support only 75 percent of the retiree liability and an ever-growing burden on active members and local taxpayers.

The graph, *Assets vs. Liabilities,* depicts the system's growing unfunded liability and declining funded ratio over the last two decades. As of October 1, 2001, the system was 71 percent funded with a $12 million unfunded liability. By October 1, 2021, the funded ratio had steadily declined to 49 percent, and the unfunded liability had snowballed by 425 percent to $63 million.



The graph, *AAL by Type vs. AVA,* shows the system's decline in assets compared to the liability for annuities in payment, or annuities for current retirees. As of October 1, 2015, the system's funded ratio was only 57 percent, but since the actuarial value of assets remained above the liability for annuities in payment, the system still had enough assets to support annuities for current retirees. However, by October 1, 2021, the funded ratio was 49 percent with assets supporting only 75 percent of the liability for annuities in payment.[7]



Actuarial funding methods are designed to fully fund each member's pension benefit during their working career, resulting in enough assets at the time of retirement to fully support the benefits to be paid during their retirement years. If a member retires without a fully funded benefit, taxpayers and current active members are tasked to make up the difference. In Abilene Fire's case, taxpayers and current active members are funding 25 percent of the retiree liability, with no contributions at all going toward the active member liability.

This shortfall in funding the active member liability is particularly troubling since the average active member is 40 years old and projected to retire or enter the deferred retirement option plan within the next 13 to 15 years. As older members retire, the retiree liability will increase while the level of contributions paid toward the UAAL will decline. This means that future members and taxpayers will be expected to carry an even larger portion of the funding burden, exacerbating the existing shortfall.

In fact, attempts thus far to remedy the funding situation have relied on newer members to take on the burden without changing benefits for established members. Employees hired after February 1, 2019, will

[7] The system had $124.5 million in total liability with $61.5 million in actuarial value of assets and $81.2 million liability for annuities in payment.

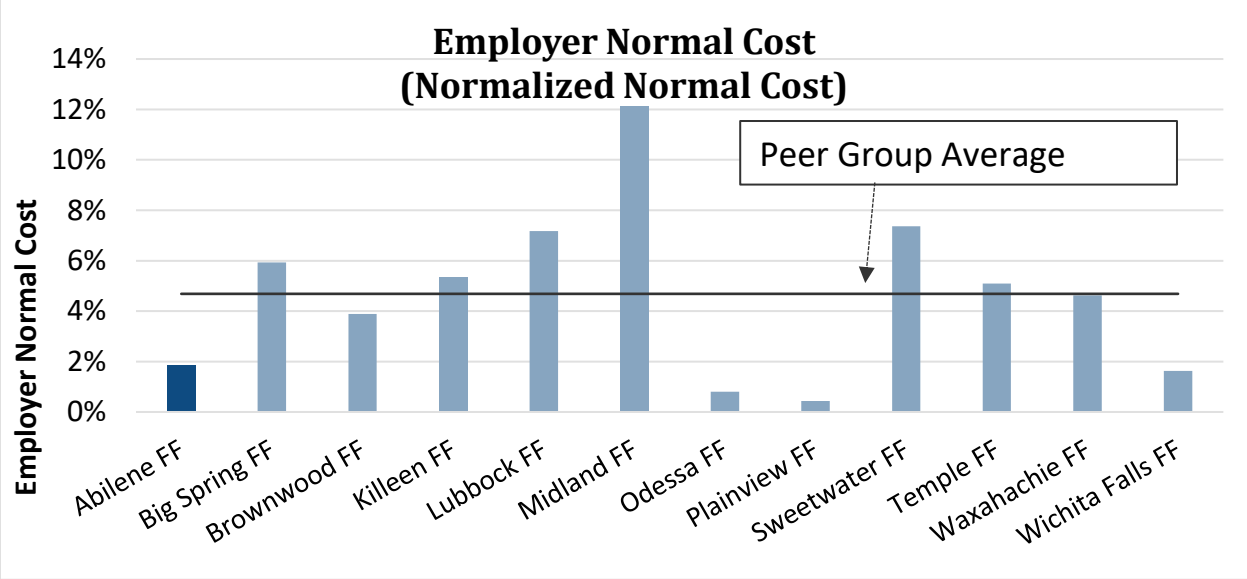
receive a lower salary multiplier at a later retirement age in a less valuable form of payment than their longer-tenured counterparts.[8] The system could have instead changed all benefits earned after February 1, 2019, regardless of date of hire, with benefits for ongoing members unchanged through that date but growing at a slower rate afterward. Changing benefits in this manner would also be a more equitable way to spread the burden among active members.

City and member contributions appear reasonable compared to peer systems yet are not sufficient to overcome past underfunding.

Staff used two measures to gauge the reasonableness of Abilene Fire's contribution levels:

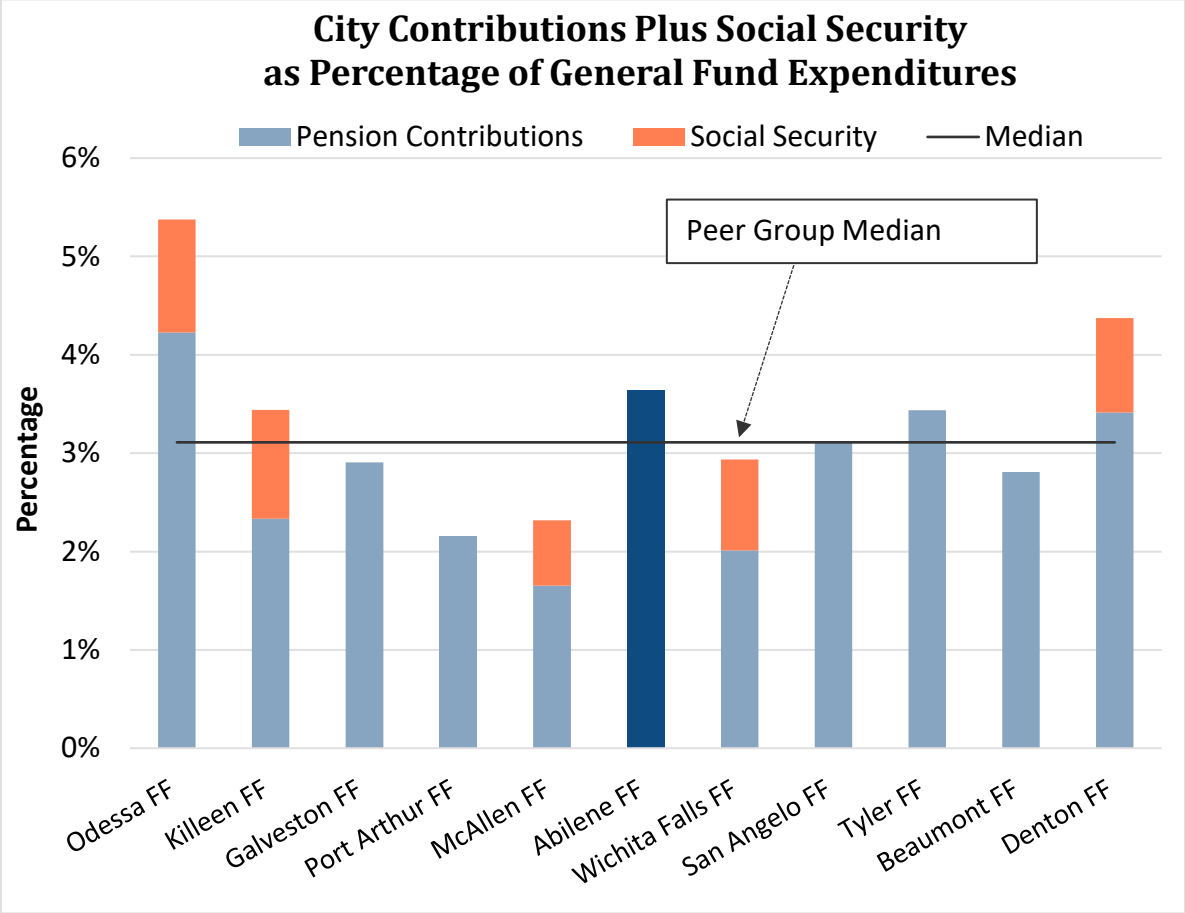
- Abilene Fire's member contributions versus benefit level compared to peer systems within 200 miles of Abilene
- City of Abilene's employer contributions as a percentage of general fund expenditures compared to the pension and Social Security contributions of peer cities of similar size

The employer normal cost, calculated as the total normal cost less member contributions, can be used to evaluate the member contributions as compared to the value of the member benefits. The peer group average was 4 percent, signifying that, based on this metric, the average peer firefighter received a pension worth an additional 4 percent of compensation. The chart, *Employer Normal Cost*, shows that the employer normal cost for Abilene Fire was less than half the peer average. Based on this metric, increased contributions from Abilene Fire members do not appear to be the best method to address the underfunding.



[8] For members hired prior to February 1, 2019, the service multiplier is 3 percent, the retirement age is 50, and the normal form benefit continues with two thirds payable to the surviving spouse after the retiree's death with no cost to the retiree. For members hired on or after February 1, 2019, the service multiplier is 2.75 percent, the retirement age is 53, and the normal form benefit does not continue to the surviving spouse after the retiree's death.

The chart, *City Contributions Plus Social Security as Percentage of General Fund Expenditures*, shows that only Odessa and Denton are currently contributing more than the City of Abilene. It should be noted that many of the peer cities showing lower contributions are subject to an FSRP or are reviewing potential contribution increases, so the peer average may soon shift.



Abilene's firefighters cannot increase their contributions much without resulting in a pension benefit that is more of an employee expense than a piece of their compensation package. With little room for current firefighters to increase member contributions, it may fall on the city to increase employer contributions to a level closer to that of Denton or Odessa.

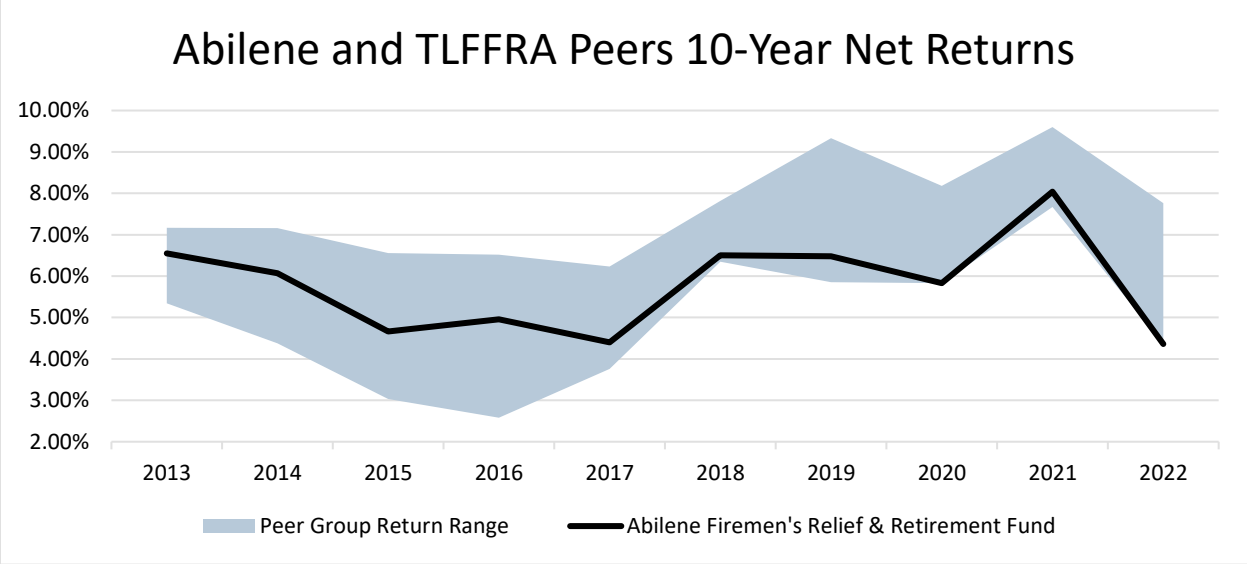
Investment underperformance coupled with Abilene Fire's status as an underfunded mature plan require a more conservative investment approach.

As shown in the following material, Abilene Fire has consistently underperformed its return assumption and is taking on more risk in its portfolio than desirable given its status as a mature, underfunded plan. A more conservative return assumption and allocation would increase the system's ability to reliably meet the assumption while decreasing risk of investment losses. If the system stays heavily allocated to riskier investments and a less optimistic market develops it could require significant intervention and would result in further increases in the UAAL. If Abilene Fire instead adopts a more conservative portfolio and a

return assumption it can regularly meet or exceed, the system could stop the significant growth in the UAAL it has experienced because of investment underperformance. However, this more conservative approach would likely require more contributions to fund the liability because the system could not rely as much on investment income.

Investment performance has consistently fallen short of assumptions, contributing significantly to growth in the system's UAAL and indicating a need to use more conservative assumptions.

Consistent returns with minimal drawdowns are more important in the long run than having a handful of high-return years. Pensions rely on the assumption that investments will, over a market cycle, meet their target return. Any year investments return less than expected requires that the asset gains that were missed be made up in the future. This means the system is missing out on both the expected return for a given year as well as the compounding growth that would have come from that amount of return. Any pension that does not have sufficient assets to fully cover retirees needs to counteract that funding deficit from the missing assets through additional contributions, benefit reductions, or consistently exceeding the return assumption going forward. However, Abilene Fire's investment performance has consistently been below expected returns, contributing to the growth in the UAAL from 2011 – 2022 by roughly $12.2 million, or almost half of the total increase during that time.

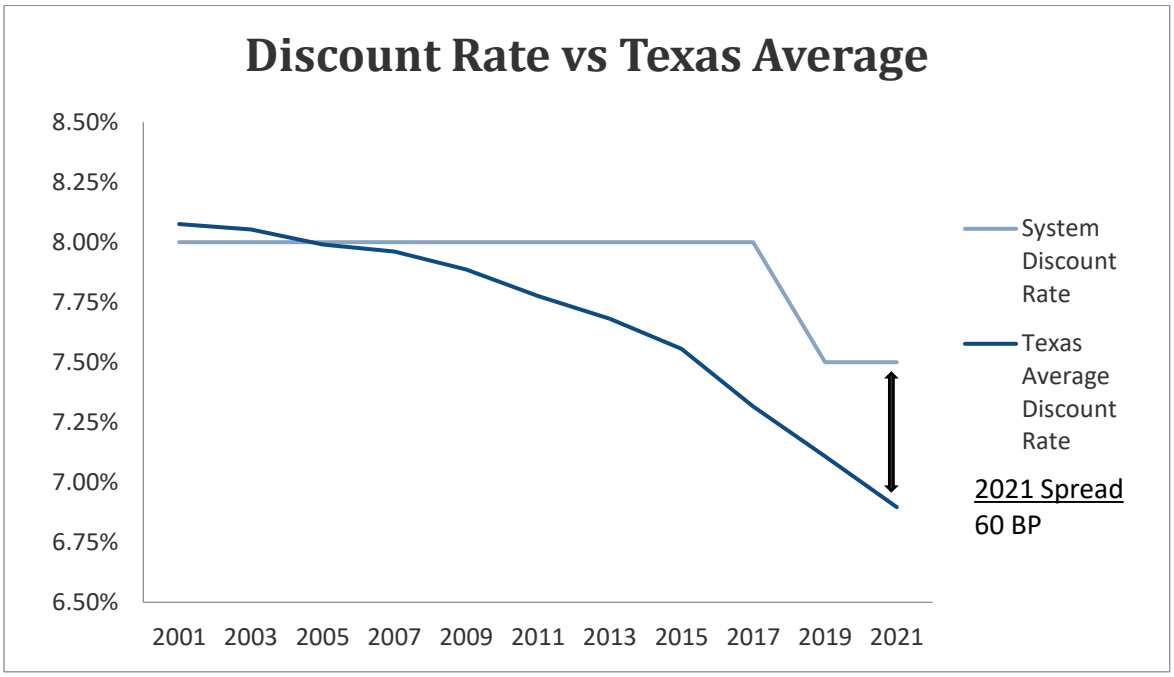


The graph, *Abilene and TLFFRA Peers 10-Year Net Returns*, shows the difficulty for the system and its TLFFRA peers to meet a 10-year net return expectation of more than 7 percent.[9] During the 10-year period, Abilene Fire only met their long-term return assumption in 2021—one of the best performing years in decades and not likely to be repeated often.[10] While the system did reduce their return assumption from 8 to 7.5 percent in 2019, its past 10-year net returns still fell short of 7.5 percent. If Abilene Fire's return assumption remains at 7.5 percent, it is unlikely to consistently exceed that return to make up for past underperformance. Further, if the system continues to assume a 7.5 percent target it

[9] Each data point reflects an average of the last 10 years of returns as opposed to a single year's return.
[10] Peer group listings and data can be found in the appendix.

cannot consistently meet, investment underperformance will continue to drive further future increases in the UAAL.

Nationally, pension systems have been decreasing their return assumptions. According to the National Conference on Public Employee Retirement Systems (NCPERS) 2023 Public Retirement Systems Study, the average pension investment return assumption decreased from 7.07 percent in 2022 to 6.86 percent in 2023.[11]



On average, Texas retirement systems have also decreased their return assumptions over time, though Abilene Fire's has remained higher than the statewide average. The graph, *Discount Rate vs Texas Average*, compares the system's return assumption with the overall Texas pension system average since 2002.

[11] National Conference on Public Employee Retirement Systems (NCPERS), *NCPERS 2023 Public Retirement Systems Study*, accessed July 6, 2023, https://www.ncpers.org/files/surveys/NCPERSPublicRetirementSystemsStudy2023.pdf.

Abilene Fire currently uses JP Morgan's (JPM) capital market assumptions, which are positive on future outcomes to the level that they increased from their 2022 assumptions. The textbox, *Capital Market Expectations (CMEs),* provides a more basic description of CMEs and their general importance to retirement systems. Compared to peers, JP Morgan's assumptions are relatively optimistic. For example, their *2023 Long-Term Capital Market Assumptions* report states, "lower valuations and higher yields mean that asset markets today offer the best long-term returns in more than a decade."[12]

Capital Market Expectations (CMEs)

CMEs are created by investment professionals forecasting likely long-term risk and return parameters for various asset classes.

These assumptions are used in the portfolio creation process when determining the optimal strategic asset allocation to meet a pension's risk-return objectives and benefit distribution needs.

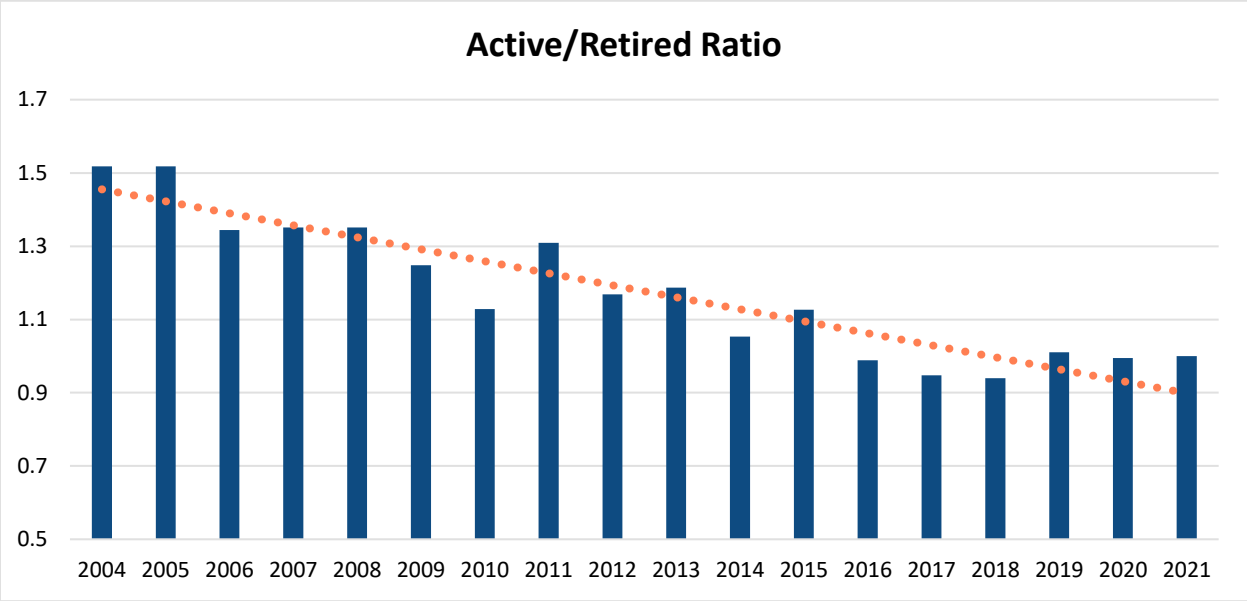
Asset class performance expectations and selected strategic asset allocation details provide actuaries with information on a reasonable discount rate to project liabilities.

With an optimistic outlook, a larger allocation to risk assets could lead to portfolio outperformance. However, the potential for a less favorable outcome should always be considered since other, more conservative CMEs lowered returns in 2023 and estimated a typical 60/40 (equities to fixed income) portfolio would only return 6.4 percent over a 10-year period.[13] By contrast, the JPM expectations project returns of 8 percent. Systems should use the best CMEs available to them but also be generally aware of where the CMEs fall among other industry expectations. A range of capital market expectations is normal. However, relying on more optimistic expectations can reinforce more aggressive risk allocation decisions and justify higher return assumptions. When considering the totality of Abilene Fire's current funding situation as both an underfunded and mature plan, the level of acceptable risk is much lower compared to better funded systems with less mature plan demographics. This increased risk factor most impacts a pension system during market stress when results significantly fall short of expectations, potentially impacting its ability to meet benefit obligations. Therefore, as a best practice scenario simulations and stress tests should be done regularly to fully understand how much risk a portfolio can accept, even when using more conservative CMEs.

[12] JP Morgan Asset Management, *2023 Long-Term Capital Market Assumptions*, accessed July 13, 2023, https://am.jpmorgan.com/us/en/asset-management/institutional/insights/portfolio-insights/ltcma/

[13] Invesco, *2023 Long-Term Capital Market Assumptions,* accessed July 13, 2023, https://www.invesco.com/apac/en/institutional/insights/multi-asset/long-term-capital-market-assumptions.html

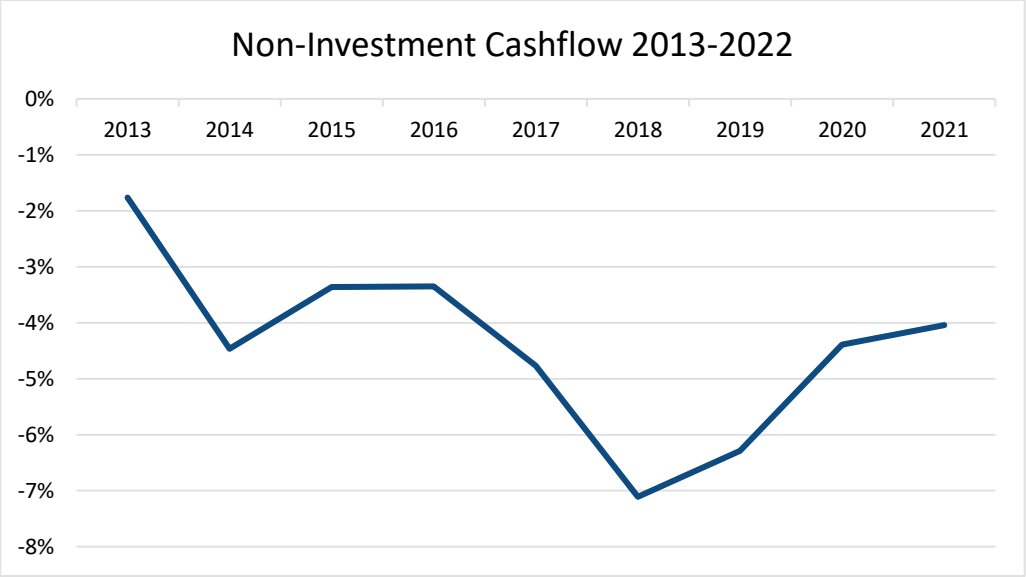
Abilene Fire is a mature retirement plan that has not fully funded its retiree liability, requiring a more conservative asset allocation.



The *Active/Retired Ratio* chart shows that the system's ratio has been trending down shown by the orange dots and for almost a decade has been at a ratio close to one. This means that the total number of members is nearly equally split between active and retired members. However, since the system's funded ratio is so low, fund assets must prioritize the benefits for retirees that are currently in payment. This ratio shows that Abilene is a mature system with a need to more conservatively allocate investments that reliably fund retired members' benefit distributions.

The graph, *Non-Investment Cashflow 2013-2022,* further demonstrates the system is a mature pension fund as the amount of retirees has reached a significant enough level that benefit payments exceed the incoming contributions to the fund. A system with a negative non-investment cashflow will always need to use asset income or sell investments to meet benefit distribution obligations. Negative non-investment cashflow is normal for a mature system but negative cashflows exceeding 5 percent of assets can be a red flag.[14] Large negative cashflows can create a funding risk by stressing assets of underfunded systems, which is the position Abilene Fire faces with only 75 percent of the retiree liability funded.

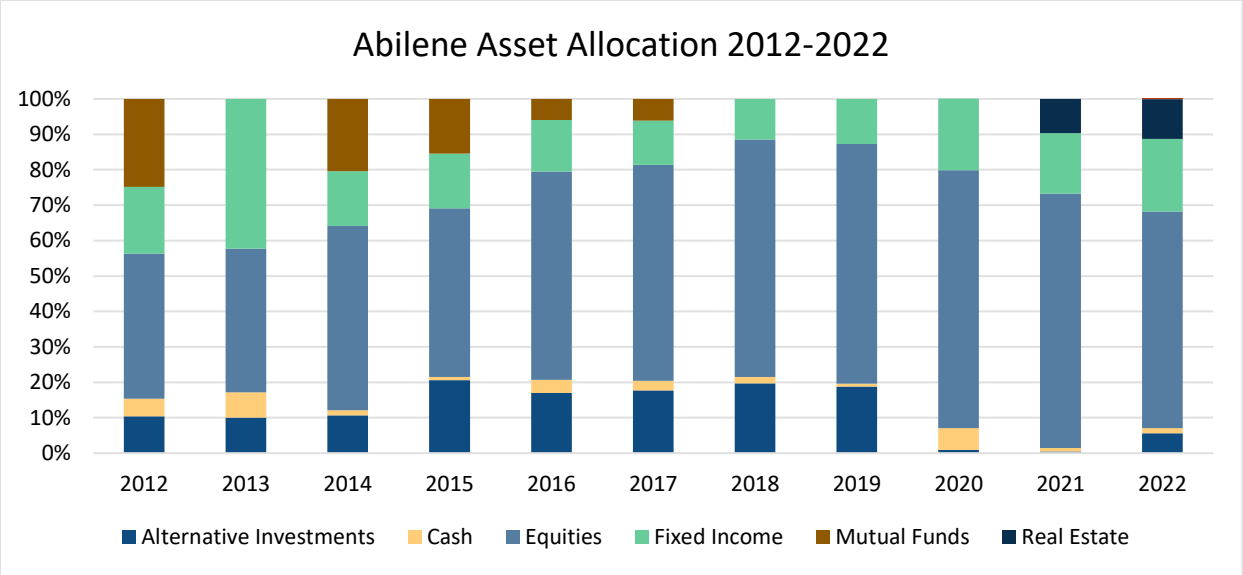
[14] Pew, *State Pension Contributions Hit Important Benchmark,* accessed July 13, 2023, https://www.pewtrusts.org/en/research-and-analysis/issue-briefs/2022/10/state-pension-contributions-hit-important-benchmark



Negative non-investment cashflow adds additional risk to an underfunded pension such as Abilene Fire because investments may need to be sold at less opportune prices if the system does not have sufficient income-producing or low volatility assets to cover its cashflow needs. At best, being forced to sell assets in this way means that the system is not enjoying the full benefits of its investments, and at worst it can turn what might have been a minor loss into a devastating one. This issue can cause a vicious cycle in underfunded pensions with assets being sold to meet cashflow needs which can lower long-term investment performance and further worsen the funded ratio.

The graph, *Abilene Asset Allocation 2012-2022*, depicts the system's actual asset allocation over the last decade. Currently the system targets a portfolio that would be 80/20 risk assets (equities, alternatives and real estate) to safer assets such as fixed income. For several years, the system has allocated a significant percentage of its portfolio to riskier asset classes to meet investment return goals. Risk seeking allocations are important for meeting a pension system's objectives, as accepting risk in exchange for higher returns helps lower funding costs. However, minimizing volatility is also a key objective according to the CFA Institute.[15]

[15] Bailey, J & Richards, T (2017). *A Primer For Investment Trustees: Understanding Investment Committee Responsibilities.* "Defined Benefit fund's mission is to ensure benefit security, the committee still faces a conflict between secondary aspects of the fund's mission: *Avoiding volatility in contributions and the funded ratio* versus *keeping the costs of funding benefits low*."



Asset allocation is one of the key drivers of a portfolio's returns, but the accepted risk necessary to produce higher returns may not be appropriate in every situation and must be weighed against a system's tolerance for risk. Given Abilene Fire's funding position, among other factors, vigilant monitoring of risk in its portfolio is warranted. The system's risk asset allocation was as high as 87 percent in 2018 with 67 percent in equities and about 20 percent in alternative investments, according to the system's 2018 audit. While these allocations have decreased since the 2018 peak, they were significantly higher than those of a similarly situated TLFFRA peer system. This peer system that also has a larger non-investment cashflow exceeding negative 7 percent over recent years, made significant plan changes including an overhaul of their investments with the assistance of their investment consultant. This process resulted in lowering the investment return assumption to 7 percent. These changes also reduced fees and overall risks. The peer system's revised allocation is now more conservative, with a fixed income target of 36 percent, 45 percent in equities, 11 percent in real estate and 8 percent in alternatives.

Due to these risk factors, mature plan demographics, and underfunded status, Abilene Fire needs a more conservative portfolio to reduce the risk of disastrous losses leaving the system unable to pay current retirees. However, such a conservative portfolio would have a lower expected return than that of the average system. This also means a larger portion of the liability must be paid through contributions than if the system could invest more aggressively to fund active benefits with many years before the first payment is due. With various system changes possible over the coming years, Abilene Fire should seek the advice of their investment consultant in determining an appropriate allocation after considering all their risk factors and any future changes.

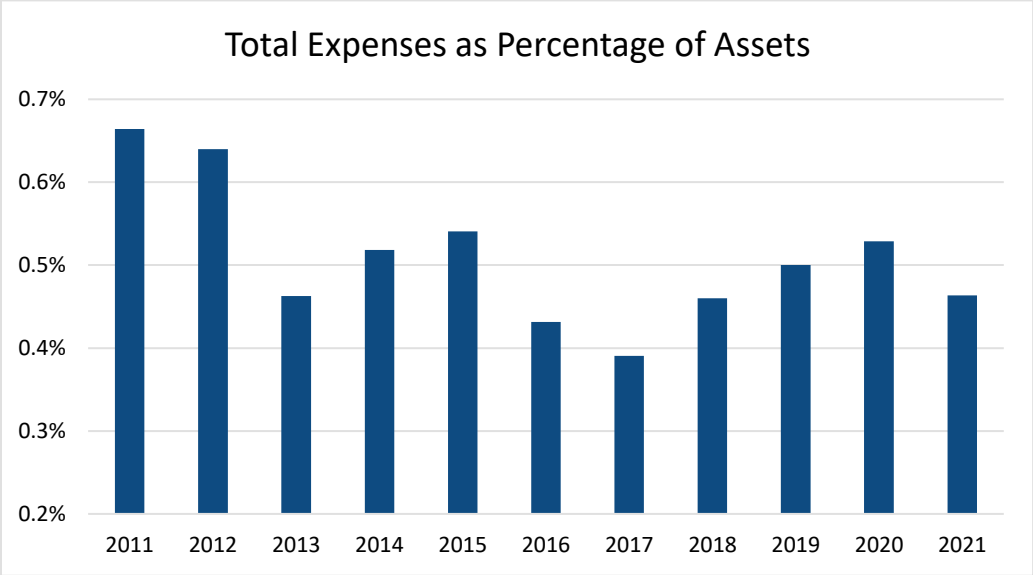
Transparency of Abilene Fire's investment allocation policy compared to actual targets can be improved.

Between November 2019 and April 2022, the system changed its allocation mandate three times. The system reduced the larger fixed income allocation target of 27.5 percent by 5 percent and allocated the

difference to real estate. In 2022, the system adjusted the allocation twice in three months to shift the 5 percent to equities and then back to real estate. These shifts are allowed by the investment policy statement (IPS) because it has a flexible allocation target depending on whether allocations to private equity or private infrastructure are available.

Abilene Fire should improve transparency of the target allocation by documenting these changes in the system's IPS or by making investment reports that show current targets available on their website. The system's current practice is to document the current asset allocation in the quarterly investment reports that members or other stakeholders may not have easy access to. Quarterly investment statements were made available online in the past, but updated reports have not been provided on the system's website since 2019. Periodic review of asset allocations and updates in the IPS is a best practice and improves transparency because investment allocation targets exist to allow a pension to achieve long-term goals. Flexible allocation targets to accommodate implementing policy in an investing world where limitations exist can be a useful tool for systems. However, the system should take adequate steps to ensure that current allocation targets reflecting invested assets are available to all members either in an updated IPS or supplemental documents such as quarterly reports. Adequate documentation and governance procedures are best practice standards that improve transparency and are necessary for auditability and building trust with plan members.[16]

Abilene Fire's investment expenses are reasonable.



The chart, *Total Expenses as Percentage of Assets*, shows the system's total expenses most years is close to or less than 0.5 percent of assets which is in line with the national average of pensions of 0.64 percent according to the NCPERS 2023 Public Retirement Systems Study.[17] Abilene Fire's investment expenses for

[16] Government Finance Officers Association, *Best Practices – Investment Policy*, accessed July 11, 2023, https://www.gfoa.org/materials/investment-policy

[17] NCPERS, *2023 NCPERS Public Retirement Systems Study*, accessed July 6, 2023, https://www.ncpers.org/public-retirement-systems-study

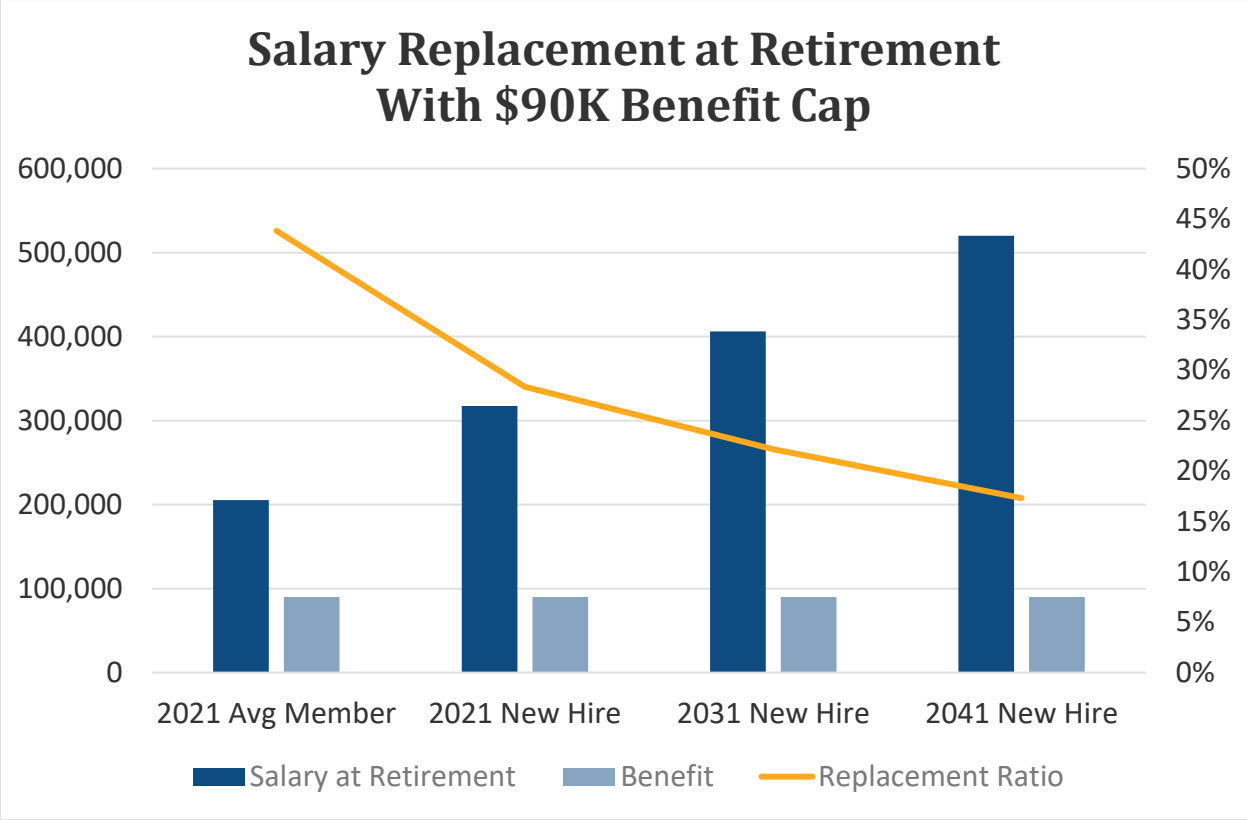
2022 were 0.49 percent of assets. With such consistently low expenses, the system is not suffering from excessive fees that would harm their returns.

Abilene Fire's $90,000 benefit cap does not appear sustainable, creates intergenerational inequity, and is modeled in the actuarial valuation with consistent assumptions in all years despite a decreasing benefit throughout.

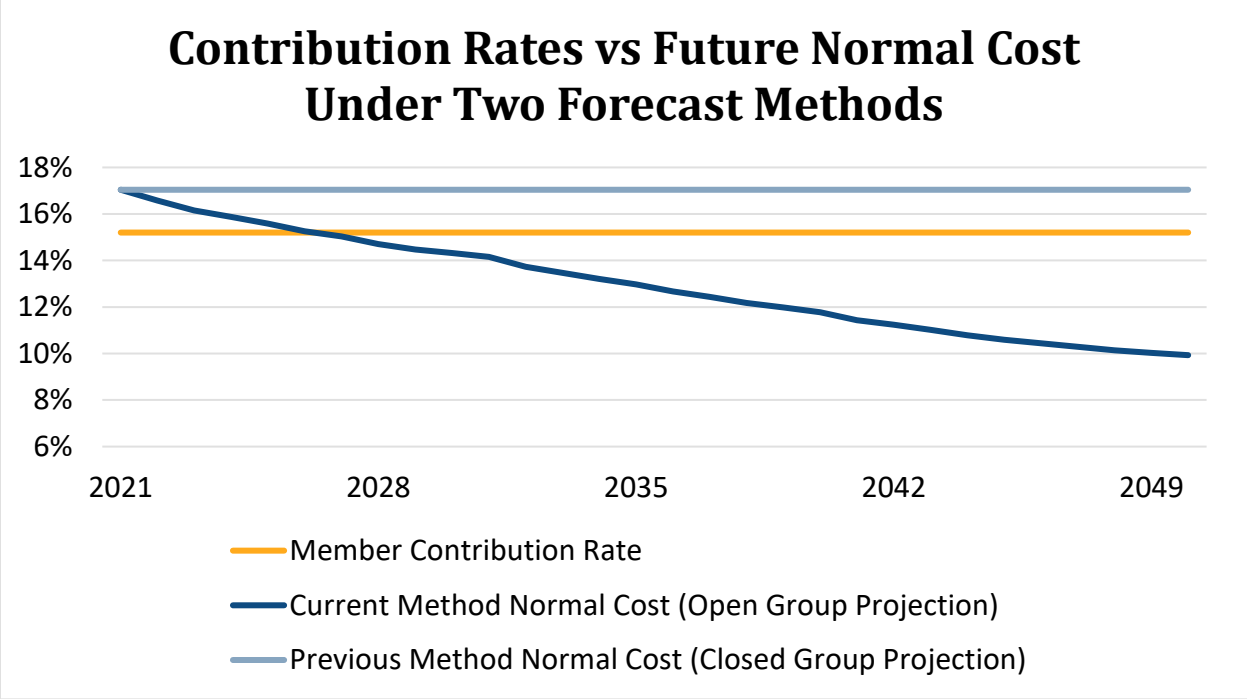
For almost 20 years, the system has applied a maximum accrued benefit cap of $90,000 per year, not indexed to inflation. With the cap in place, future hires are projected to pay 8 percent of salary to fund their own retirement benefits, plus an additional 7 percent toward the system's unfunded liability. This liability for Abilene Fire is generally the cost of benefits for firefighters already retired. The cap is unlikely to be sustainable for two main reasons: first, the benefit for future hires will be worth less than their accumulated member contributions and second, that benefit will no longer replace a substantial percentage of their salaries to support retirement. Accordingly, the system's plan design appears unsustainable. Eventually, the system and city will likely need to modify the system's benefits and financing arrangements to ensure continued recruitment of new firefighters.

A defined benefit pension plan with a final average pay formula, such as Abilene Fire, is typically designed to provide a reliable salary replacement in the member's retirement years. Under the Abilene Fire formula with no cap, a member who worked 28 years from age 27 to 55 would receive 59 percent of their final average compensation in each year of retirement. The average current member in the 2021 actuarial valuation was 40 years old with 13 years of service, making $93,000. This average member would be projected to earn $195,000 at age 55 based on the valuation individual pay increase assumption. With the cap, the member would be paid only 46 percent of final average compensation because their benefits cannot exceed $90,000.

A 2021 new hire, on average, earns $52,500 at age 27 and would be projected to earn $317,000 at retirement based on the valuation individual pay increase assumption. For a member working under the new benefit tier, which has lower benefits, calculating without the cap, a member who worked 28 years from age 27 to 55 would receive 56 percent of their final average compensation in each year of retirement. With the cap the member would receive only 28 percent per year at retirement. As shown in the graph, *Salary Replacement at Retirement With $90K Benefit Cap*, the current plan design and assumptions mean the value of a member's benefit will decrease significantly over time. Indeed, the benefit cap degrades the salary replacement level for future members to just over 17 percent for a new hire in 2041. As the salary replacement ratio decreases over time, the city will find it more and more difficult to hire and retain firefighters. Current and prospective firefighters would likely choose to work for nearby fire departments where they could expect better benefits for lower contributions.



Furthermore, the current open group actuarial cost method could be improved to better reflect the $90,000 benefit cap. Using this methodology, the system is assuming that future firefighters will work a long career in Abilene, contributing a level of salary far exceeding the value of the benefits they will receive. The system assumes future hires will come onboard and contribute 15 percent of their pay for a capped benefit worth only 8 percent of pay. Assuming future firefighters will subsidize current firefighters artificially lowers the amortization period. The system previously calculated the amortization period using a closed group actuarial cost method, like other Texas public pension systems with similar formulas. The graph, *Contribution Rates vs Future Normal Cost Under Two Forecast Methods*, shows that these projections reflected benefits that exceeded the member contribution rate, while the current projections reflect member contributions that far exceed the benefits.

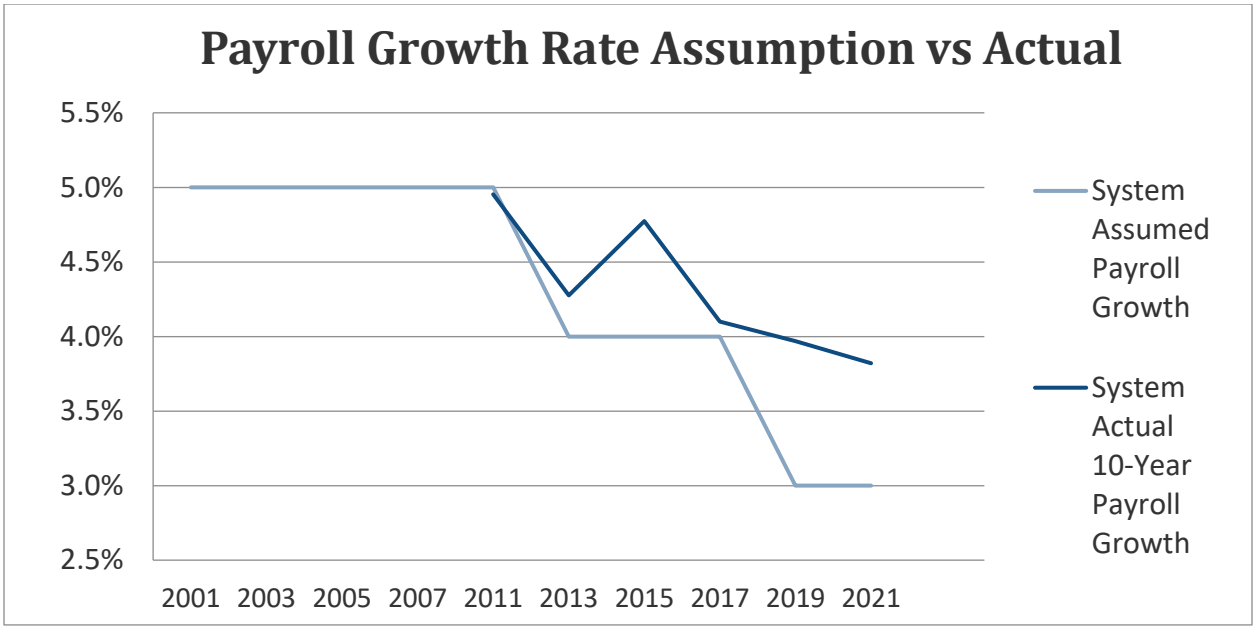


Terminations would likely increase as benefit levels decrease. Within the open group projection it may be helpful to use a "select and ultimate" assumption in which the terminations are expected to remain at the current low rates during the "select" period while benefit levels are projected to be a reasonable salary replacement, then assume terminations at a higher "ultimate" rate once benefit levels go down to unsustainable levels. By projecting the future firefighters to hire and terminate at the same rate as current firefighters in the open group projection, the system has effectively assumed that the level of pension benefits plays no role in the recruitment and retention of firefighters. Nonetheless, these firefighters have other options for employment and can easily choose to either join a fire department in another city with more valuable benefits or accept a position in a different industry in Abilene and the surrounding area. Even if the job required moving to a new location, it is reasonable to assume the Abilene firefighters could be enticed by employment opportunities with a pension benefit worth three to four times the value of what they could expect from Abilene Fire for the same contributions. Furthermore, the 20-year vesting requirement is unlikely to discourage early termination since, by terminating, the firefighters could take a refund of contributions worth more than the benefit they would receive after vesting.

Payroll growth and mortality improvement assumptions need review to ensure they accurately reflect plan experience and allow a realistic assessment of contribution needs.

Payroll growth assumption may be slightly conservative given plan experience and city demographics.

The 2020 U.S. Census estimated that Abilene had a population of 125,182 and had grown 0.7 percent annually in the previous decade.[18] The number of active firefighters in the Abilene Fire Department increased from 167 to 192 from October 2011 to October 2021 for an annual growth rate of 1.4 percent. This data indicates the city and fire department are growing, as further demonstrated by the plans for construction of the newest Fire Station #9 in Abilene.[19] The graph *Payroll Growth Rate Assumption vs Actual* shows how the system's payroll growth experience compares with actual growth over time.



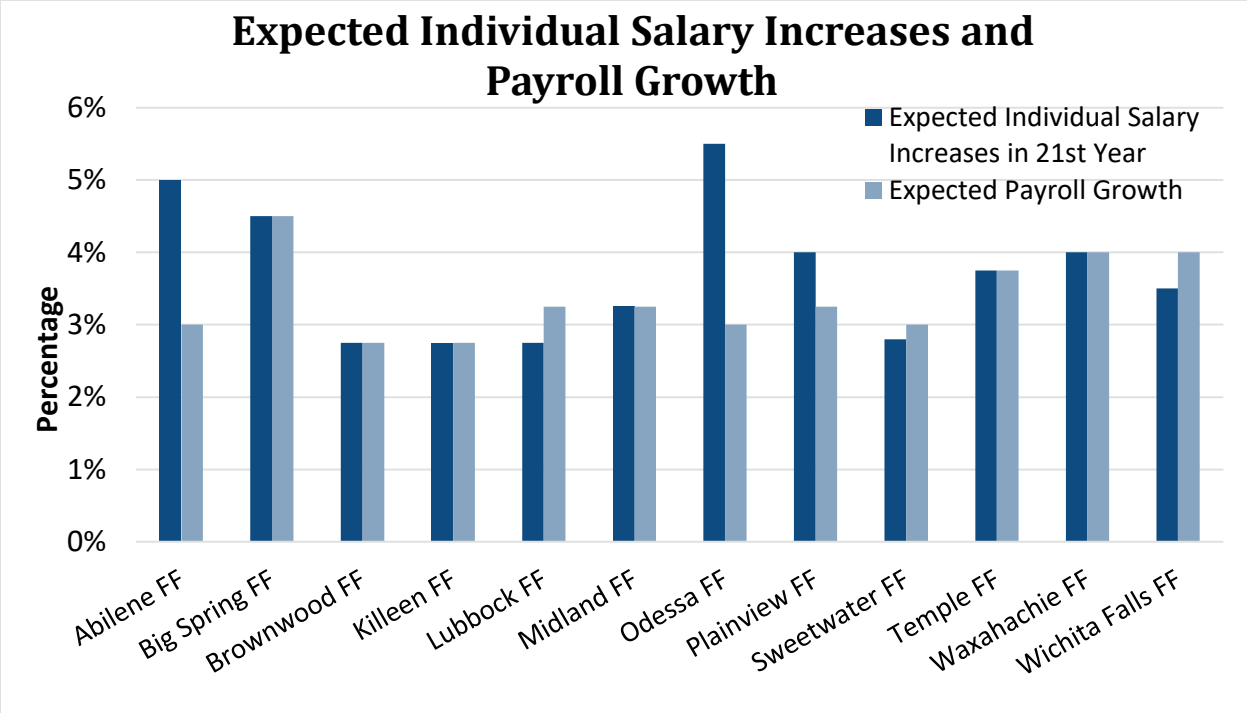
Since the payroll growth assumption combines individual salary increases with future headcount projections, an increasing headcount supports a payroll growth assumption above inflation. Currently the system's payroll growth assumption is 3 percent, while its inflation assumption is 2.5 percent. Given the population trends, it is reasonable to assume Abilene Fire will experience future payroll growth that meets or exceeds its current assumption.

In fact, there may be room to be less conservative when setting either the payroll growth assumption, the individual salary increase assumption, or both. The payroll growth assumption projects how fast the department will grow. The individual salary increase assumption projects how fast each member's salary

[18] "Quick Facts: Abilene city, Texas," United States Census Bureau, accessed June 19, 2023, https://www.census.gov/quickfacts/abilenecitytexas.
[19] "Voters approve $8 mil. Abilene Fire Station No. 9," Big Country Home Page, accessed June 19, 2023, https://www.bigcountryhomepage.com/news/voters-approve-8-mil-abilene-fire-station-no-9/.

will grow throughout their career. A higher individual salary increase assumption results in a higher liability and amortization period. A lower payroll growth assumption results in a higher amortization period. Taken together, a larger spread between the two assumptions results in a higher amortization period.

The chart, *Expected Individual Salary Increases and Payroll Growth*, shows that this spread is much larger for Abilene Fire than most peer systems. For most of these systems, the individual salary increase assumption after 20 years of employment was little more than inflation, while Abilene Fire's assumption was much higher at 5 percent. Abilene Fire's payroll growth assumption of 3 percent is 50 basis points above its inflation assumption of 2.5 percent. The individual salary increase assumption, on the other hand, assumes 5 percent individual salary increases in a firefighter's 21st year of employment, 250 basis points above assumed inflation.



A higher individual salary increase assumption might be considered aggressive while the benefit cap is in place, since the cap keeps the normal cost from increasing with the higher pay, thereby lowering the normal cost as a percentage of the higher pay. On the other hand, a higher individual salary increase assumption makes removing the cap appear more costly than it actually would be, since it increases the projection of uncapped benefit to the retiree.

Toward the beginning of the intensive review process, the Pension Review Board suggested to Abilene Fire that they consider working with their actuary to perform an experience study in part to resolve the disparity between the individual salary increase assumption and the payroll growth assumption.

The resulting experience study was provided to the Pension Review Board after the actuarial analyses and projections in this report were completed. The study showed proposed salary assumptions drastically reduced from the current assumptions. The proposed individual salary increase rates varying by service range from 11.5 percent in the first employment year to 3.5 percent in the 20th employment year, down from 11.9 percent in the first employment year and 5 percent in the 20th employment year. The average firefighter earns $93,000 with 13 years of service. Under the current assumptions, the average firefighter would be projected to earn $186,244 in their 27th year. The projected 27th year earnings under the proposed assumptions are $158,712. If the cap were to be removed as proposed in this report, that 15 percent savings in projected salary would translate to 15 percent savings in the resulting benefit, reducing the necessary contributions.

Mortality improvement assumption underestimates the normal cost.

The system's mortality improvement assumption is one of the most aggressive among Texas public retirement systems. A mortality improvement assumption measures the increased likelihood from one year to the next that a member or retiree at a given age will live another year. The more years of mortality improvements that are built into the valuation, the longer a retiree is expected to continue receiving monthly pension payments from the system.

Life Expectancies for a 65-Year-Old Male Retiree From Select Mortality Tables

Mortality Table[20]	Year	Life Expectancy
UP	1984	15
UP	1994	17
RP	2006	19
PubG	2010	20

As shown in the table, *Life Expectancies for a 65-year-Old Male Retiree*, the expected lifetime of a 65-year-old male retiree has steadily increased since the 1980s, from 15 years in the 1984 table to 20 years in the 2010 table, a 33 percent increase. Actuaries have responded to this trend by updating the base tables and further including a mortality improvement assumption in actuarial valuations.

Life Expectancies for a 25-Year-Old Male Firefighter Projected to Retire at 65

Mortality Table[13]	Improvements	Life Expectancy
PubG2010	None	20
PubG2010	5-Year	21
PubG2010	Generational	24

[20] These are abbreviations for mortality tables commonly used by actuaries in the past.

While most other systems used generational mortality improvements, Abilene Fire uses an improvement over only five years. In the 2010 table shown, a 25-year-old firefighter projected to retire at 65 would be expected to receive benefits for 24 years with generational improvements but only 21 years with the Abilene Fire approach. The expected lifetime would be 20 years with no mortality improvements assumed.

This produces a materially lower normal cost than the generational approach. The normal cost is estimated to be 1 percent lower for a 40-year-old active firefighter and 3 percent lower for a 25-year-old due to this approach.

Abilene Fire lacks certain good governance practices to provide transparency and communications to stakeholders and ensure compliance with basic statutory pension education requirements.

Abilene Fire is not effectively using its website to provide necessary information and communications to members and other stakeholders.

Maintaining a publicly accessible website with updated, useful information is one of the best tools available for retirement systems to communicate with its members and other stakeholders, such as city officials and local taxpayers. Systems can use their website to report news and announcements; post board meeting dates, agendas, and minutes; and host the latest reports adopted and published by the board, such as the system's actuarial valuation report. Furthermore, posting the latest reports on a public website is required by state law for Texas retirement systems.[21]

Though Abilene Fire has since made updates and improvements, many components of the system's website were broken when PRB staff viewed the website in June 2023 during the research phase of this intensive review. For example, some reports were entirely unavailable, such as the Minimum Education Training (MET) reports, Forms PRB-150 and PRB-2000. Some reports, such as the actuarial valuation, linked users to an outdated version of the report.[22] Other documents, such as the annual financial report, were not posted at all, and the button to view the report did not work. While the system has since updated their website around late June or early July and has begun posting the latest version of some reports, a procedure is needed to ensure reports are updated on an ongoing basis.

Multiple Abilene Fire trustees are out of compliance with the state's basic Minimum Educational Training (MET) requirements.

Six out of seven Abilene Fire active trustees have reported training to the PRB. Of those six, only three are compliant with MET requirements. The system has not yet submitted a required form to the PRB with information about the seventh trustee, a requirement under PRB administrative rules for the MET program.[23] All three of the noncompliant trustees have finished their core training but are noncompliant

[21] Sec. 802.107(c), Texas Government Code.
[22] "PRB Requirements," Abilene Firemen's Relief & Retirement Fund, accessed June 20, 2023, https://www.abilenefirepension.com/pub_PRBRequirements.aspx#
[23] 40 T.A.C. Section 607.140(b)

with at least one continuing education cycle. The system has informed the PRB that the seventh trustee has been on the board for more than a year which would make them noncompliant with their core training.

MET requirements are intended to ensure trustees and administrators have a foundational level of knowledge about public pensions with core education and keep their knowledge base updated over time with continuing education. In their first year of service, trustees and administrators are required to complete seven hours of training in core pension topics: Ethics, Governance, Benefits Administration, Fiduciary Matters, Risk Management, Investments, and Actuarial Matters.[24] After their first year, trustees must complete four hours of pension-related education every two years. The training is required to ensure that the trustees can best serve their members, and failure to comply with the requirements means trustees may not be equipped to act in the best of interest of members.

[24] For more information on the MET Program: https://www.prb.texas.gov/education-met-program/

Recommendations

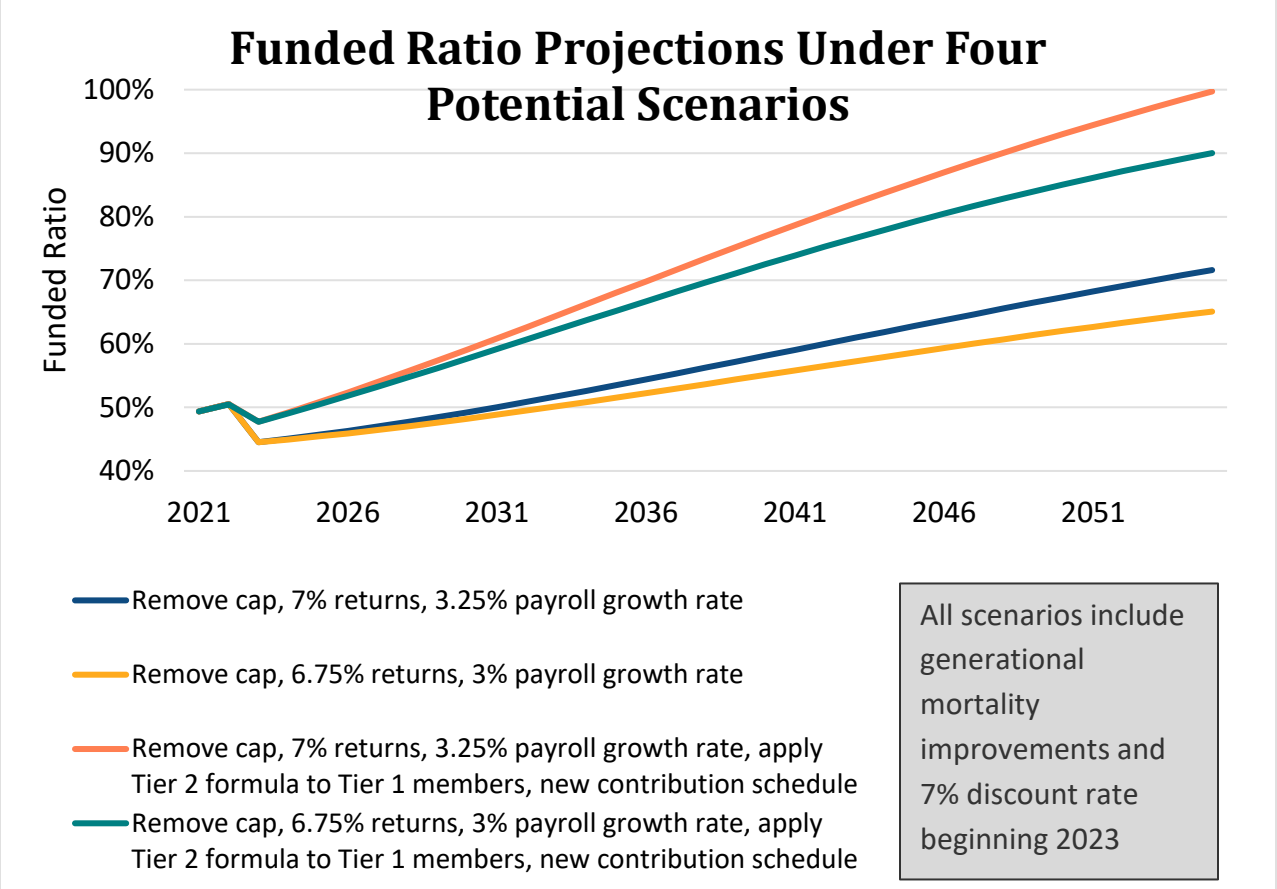
Consider adjusting benefits to an affordable and sustainable level and increasing contributions based on reasonable plan assumptions.

The City of Abilene and Abilene Fire must work together to determine how to address the system's deteriorating funded status. The PRB has developed some scenarios as a resource for the city and the system which incorporate relevant factors, such as removing the benefit cap and modifying various assumptions. The following scenarios are for informational purposes only and are not meant as recommendations for specific contribution levels or assumptions.

Four scenarios illustrate projected changes to assets and liabilities, with the following changes considered in different combinations:

- Removal of the $90,000 cap on benefits.
- Apply the tier 2 benefit formula to all members moving forward.
- Increase city contribution to 24.75 percent.
- Reduce expected return on assets to 7 percent.
- Increase expected payroll growth to 3.25 percent.
- Observation of 6.75 percent actual return on assets.
- Observation of 3 percent actual payroll growth.

Four Potential Funded Status Outcomes Taking Into Account Expected Future Changes								
Scenario	Remove $90,000 Cap	Apply Tier 2 Formula to Tier 1 Members	24.75% City Contributions	7.00% Returns	6.75% Returns	Generational Mortality	3.25% Payroll Growth	3.00% Payroll Growth
Blue	✓			✓		✓	✓	
Yellow	✓				✓	✓		✓
Orange	✓	✓	✓	✓		✓	✓	
Teal	✓	✓	✓		✓	✓		✓



The two scenarios with additional contributions, orange, and teal, reach funding levels between 90 percent and 100 percent by 2055, even with the $90,000 cap removed. The two scenarios represented by the yellow and blue lines reflect current contribution levels and reach funding levels between 65 percent and 72 percent.

The adequacy of potential contribution rates must be tested with funded status projections based on reasonable future expectations. While two of the above scenarios reflect minor stresses to the system, it is recommended that the system perform regular stress testing reflecting multiple potential iterations of economic, demographic and contribution conditions. Stress testing should be a regular part of reviewing portfolio performance and should be used as a gauge to help assess and manage the level of risk. The Society of Actuaries' Blue Ribbon Panel on Public Pension Plan Funding recommends the use of stress testing to measure investment and contribution risks over a 30-year period.[25]

[25] Society of Actuaries' Blue Ribbon Panel, *Report of the Blue Ribbon Panel on Public Pension Plan Funding, February 2014.* https://www.soa.org/globalassets/assets/Files/Newsroom/brp-report.pdf

The funded ratio projections are based on the current individual salary increase assumptions varying by year of service, and do not account for the changes proposed in the system's recently completed experience study.

If Abilene Fire adopts the proposal in the recently completed experience study to reduce the individual salary increase assumptions, the necessary contributions to fund the proposed benefits would be substantially less. However, the proposed benefits would also likely be too small relative to the employee contribution rate. The Pension Review Board suggests Abilene Fire and the City work with the actuary to come up with a proposed benefit and contribution level that works for all parties and would be projected to be fully funded by 2055.

Conduct regular asset-liability studies to match assumptions and investment strategy to funding needs.

As previously described in this report, Abilene Fire's current investment return assumption is likely too aggressive based on historic performance and future capital market expectations. The system will need to consider a lower return assumption, perhaps 7 percent or 7.25 percent. Abilene Fire should also consider a more conservative asset allocation that would lower their risk exposure while still meeting the needs of the system.

To determine the appropriate changes, the system should work with their advisors to conduct asset-liability studies, which model future asset and liability cash flows under various scenarios to determine if the asset allocation is sufficient to support the future benefit payment stream. These studies should be completed periodically to help the system evaluate its asset allocation and investment risks, which will help the system evaluate and determine the appropriate investment return assumption. Specifically, the system is encouraged to perform a study focused on the demographic challenges the system is facing, which may include more conservative actuarial assumptions, lower capital market expectations, and an examination of the effects growing retiree liabilities will have on investment return assumptions and allocation.

Improve transparency by updating the investment policy to reflect actual asset allocation or making quarterly reports available on the system website.

As a best practice the general investment policy statement (IPS) should be reviewed annually which can include the strategic asset allocation.[26] Slight portfolio allocation deviations should be allowed within predefined ranges but monitored against the strategic asset allocation. With a flexible asset allocation policy, if quarterly investments reports are not made available online the IPS allocation targets should be

[26] Government Finance Officers Association, *Investment Policies for Defined Benefit Plans,* accessed July 19, 2023 https://www.gfoa.org/materials/investment-policies-for-defined-benefit-plans

updated more frequently to better reflect actual allocation targets for improved transparency. Any updated IPS should be forwarded to the PRB once approved by the system's board.[27]

This IPS provides a foundational document from which the board both governs and monitors the performance of the fund assets in meeting their objectives. Keeping this document updated increases transparency to members and aids any future new trustee by having a document that should be easily understood and followed and have appropriate benchmarks.

Adjust or remove the $90,000 benefit cap as part of determining the necessary long-term contribution level.

The benefit cap as currently valued makes the system appear to be better funded than it is, which is especially troubling given a funded ratio of less than 50 percent. By reflecting the current plan provisions with no future increases to the cap and no changes to the demographic assumptions, the funding period does not adequately represent the system's funding needs. Abilene Fire has notified the PRB of their intent to increase the cap as needed if doing so would not increase the funding period beyond 30 years, but this scenario is not reflected in the plan document and is not currently being valued in the actuarial valuation. Once more members start earning a benefit that is of greater value than the cap, they lose incentive to remain with the fire department, especially if a refund of their contributions has a comparable or greater value than their pension benefit.

To address these concerns, the system should consider implementing one of three options:

1. Remove the cap entirely from the plan provisions.
2. Amend the plan provisions to index the cap to increase with inflation.
3. Amend the cap to be a level percentage of compensation rather than a flat dollar amount.

If the $90,000 benefit cap continues to be modeled in the valuation, a closed group projection should be used to determine the amortization period. Under a closed group projection, the normal cost is assumed to remain level in all years. This method would ensure the current normal cost continues to be valued in the future rather than an ultimate rate. This is the amortization method previously used by the system and other Texas public pension systems with similar flat dollar caps in place.

Using an open group projection creates a need to model changing behaviors as the normal cost decreases in the future. Future demographic assumptions should reflect likely member behavior as the cap decreases in value each year. Two potential changes can serve as a starting point to resolve this issue:

- Assume more pre-retirement terminations at each age, as some members may request a refund of contributions as they realize the accumulated contributions are worth more than the retirement benefit.
- Decrease the payroll growth assumption, as it is unlikely the city will be able to maintain the current firefighter headcount with current provisions. The city could find it difficult to hire new firefighters, and even more difficult to retain the ones they do manage to hire.

[27] Sec. 802.202(d), Texas Government Code.

Use periodic experience studies to adjust assumptions, estimate future changes, and determine necessary long-term contribution level.

As suggested by the Pension Review Board during the intensive review process, the system performed an experience study in 2023. The system should now use that study to inform changes to their assumptions. An experience study is a valuable step since the results of this study can provide a starting point to reevaluate the actuarial assumptions and determine what adjustments are necessary. Determining the most reasonable actuarial assumptions is vital for establishing the contribution levels needed to improve funding. The system should also perform experience studies periodically to evaluate the need for changes to assumptions over time.

As previously described in this report, the investment return assumption should be reduced given past performance and capital market expectations. In addition, the PRB encourages the system to specifically consider adjustments to certain assumptions as part of this process, as follows.

Refine the individual salary increase and payroll growth assumptions.

Based on the current assumptions, it appears that the city would need to increase contributions to 24.75 percent of payroll to avoid triggering an FSRP after removing the benefit cap. However, if the system adopts any combination of a lower individual salary increase assumption or higher payroll growth assumption, the city may not need to increase contributions quite as substantially to achieve the same goals. Given the substantially different recommended assumptions as a result of the experience study, the system might consider performing such studies periodically every three to five years.

Consider using a generational mortality improvement assumption.

The system is underestimating the normal cost compared to most other Texas systems using generational mortality improvements by assuming only five years of mortality improvements even for a 25-year-old new hire, who will likely live for 60 or more years. The system should consider moving to a generational mortality improvement assumption to ensure it more accurately reflects normal cost and contribution needs.

Conduct a voluntary funding soundness restoration plan (V-FSRP) and update current funding policy.

So far, Abilene Fire's relatively low funding period has prevented it from triggering an FSRP. This means that the system has not yet been subject to the existing statutory provision to help improve its low funded ratio. The statutory changes passed by the Legislature in 2021 lowered the funding period threshold to 30 years rather than the previous 40 years and added a funded ratio of less than 65 percent as one of the factors to trigger an FSRP.[28]

However, the system's funding period has been vacillating around the 30-year threshold and the immediate triggers that include the funded ratio will not take effect until September 1, 2025. This could delay or prevent Abilene Fire from triggering the requirement. The nature of pension funding means that

[28] For more information on FSRP requirements: https://www.prb.texas.gov/actuarial/funding-soundness-restoration-plan-fsrp/

low funding compounds over time, making the unfunded liability grow more quickly. Since Abilene Fire's funded ratio is already below the 65 percent threshold, the system would trigger the requirement with its first actuarial valuation with a funding period above 30 years once the immediate triggers take effect in 2025. Since Abilene Fire is likely to trigger the requirement eventually, waiting to begin work provides no benefit and allows time for the problem to grow.

The PRB's administrative rules allow a retirement system and its sponsor to prepare a voluntary FSRP without first becoming subject to the FSRP requirement.[29] A V-FSRP must follow most of the submission requirements outlined in statute and rules to be accepted, but progress updates are not required. If the V-FSRP is submitted on or before September 1, 2025, the system could be eligible for the revised FSRP exemption.[30]

Additionally, following the recommendations included in this report would likely lead to the types of plan changes that Abilene Fire would need to include in an FSRP anyway. Submitting documentation of these actions as an FSRP would require little to no additional costs and ensure the system takes action sooner rather than later, when its funded status may further deteriorate and therefore become more daunting and expensive to fix. If the system and city opt to submit a V-FSRP, they would also be required to jointly develop and adopt an updated funding policy that targets full funding.[31] The system's current funding policy is summarized in the appendix of this report.

Improve use of the system website to increase transparency and facilitate stakeholder engagement and communication with plan members, City of Abilene officials, and taxpayers.

Statute requires the system to post a copy of their most recent reports submitted to the PRB on a publicly available internet website. Since the retirement system already has a website, at a minimum it should develop a process to ensure all reports are available and links are up to date and working correctly on an ongoing basis. As previously discussed, the system should also consider resuming the past practice of providing quarterly investment reports through the website as it improves transparency and allows other stakeholders to monitor the health of the fund and understand how the system's assets are invested.

Even beyond making regular reports available, a website is a useful tool for getting information to members quickly and reliably. Informing members of upcoming elections, board meeting dates, annual reports, and general updates about the health of their retirement system can go a long way toward promoting active membership participation. The changes necessary to improve the condition of Abilene Fire's fund will require participation and buy-in from members. Ensuring members are engaged and well-informed about the challenges facing the system and its sponsor is a vital first step toward progress. A consistent and reliable web presence is certainly not the only thing needed to appropriately engage members, but it is a concrete starting point.

[29] 40 T.A.C. Section 610.32(d)
[30] To qualify for the exemption, a system must have a funding period between 30 and 40 years and must be either adhering to an FSRP formulated on or before 9/1/2025, or using an ADC contribution structure.
[31] Sec 802.2011(b), Texas Government Code.

Become compliant with Minimum Educational Training requirements as soon as possible.

The trustees and system administrator of Abilene Fire should prioritize ensuring they all become and remain compliant with the requirements of the MET program. They may use several available resources to meet these requirements. For example, the PRB offers free online training with options for both core and continuing education courses.[32] Training is also available from third party sponsors like the Texas Association of Public Employee Retirement Systems, the TLFFRA Education Foundation, and others.[33]

The system's administrator should keep detailed records of when each trustee needs to complete training and keep them apprised of their status. After training has been completed, records of the training should be given to the system administrator who then reports that training to the PRB through the Minimum Educational Training Program Form (PRB-2000). Currently, systems are only required to report training once annually, on September 1. However, training may be reported at any time and may be reported as often as desired. Reporting training more frequently can help ensure PRB's compliance records are as up-to-date and accurate as possible.

In addition to the PRB-2000 form, the Minimum Educational Training Registration Form (PRB-150) is required to be submitted to the PRB whenever there is a trustee or administrator change. A PRB-150 should be sent whenever a trustee joins or leaves the board, even if a replacement has not been assigned.

Having a solid foundation in public pensions and staying up to date with these concepts and topics will help the system's board most effectively carry out their duties and solidify trust with members and taxpayers that the pension fund is being managed prudently.

[32] PRB sponsored training can be accessed here: https://education.prb.texas.gov/

[33] A full list of accredited sponsors can be found here: https://www.prb.texas.gov/education-met-program/accredited-sponsors-and-courses/

Appendix

Key Metrics Used to Select Abilene Fire

Metric	Amortization period (29.4 years in 2021)
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 system's current assumptions, an amortization period above 20 years indicates the contributions to the system 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. For a plan that contributes on a fixed-rate basis, the higher the amortization period, the more sensitive it is to small changes in the UAAL
Peer comparison	Abilene Fire currently ranks sixth highest amongst its peer TLFFRA plans.

Metric	Funded ratio (49.38 percent in 2021)
What it measures	The percent of a system's actuarially accrued liabilities covered by its actuarial value of assets.
Why it is important	The lower the funded ratio, the fewer assets a system has to pay its current and future benefit payments.
Peer comparison	Abilene Fire's Funded Ratio is the second lowest in its peer group.

Metric	UAAL as a percent of payroll (377.55 percent)
What it measures	The size of a system's unfunded liability compared to the annual payroll of its active members.
Why it is important	Provides a way to compare systems of various sizes and expresses the outstanding "pension debt" relative to current personnel costs.
Peer comparison	The system's UAAL as a percent of payroll is the third highest in its peer group.

Metric	Assumed rate of return (7.5 percent)
What it measures	The estimated annual rate of return on the system'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. Abilene Fire's assumed rate of return is 7.5 percent.
Peer comparison	Abilene Fire's assumed rate of return is in the top quartile in the state.

Metric	Payroll growth rate (3 percent)
What it measures	The estimated annual growth in the total payroll of active members contributing into the system.
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 system's actuarial valuations.
Peer comparison	Abilene Fire's payroll growth rate is in the top quartile in the state.

Metric	Actual contributions as a percent of actuarially determined contributions (97.34 percent)
What it measures	Whether the current employer contributions have met a theoretical minimum threshold.
Why it is important	The employer's portion of the contribution is more than 79 percent of the amount needed to fund the system 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 the sixth largest shortfall percentage in its peer group.

Metric	Non-investment cash flow as a percent of fiduciary net position (-4.04 percent)
What it measures	Non-investment cash flow shows how much the system 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 system's funding arrangement.
Peer comparison	Abilene Fire's non-investment cash flow as a percent of FNP is the fourth lowest in its peer group. The system has shown regular improvements in non-investment cash flow since 2018; however, if this trend worsens, the system could face the potential risk of needing to prematurely liquidate a portion of existing assets to pay current benefits or expenses.

Plan Summary

The Abilene Firemen's Relief and Retirement Fund (Abilene Fire) is established in 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. Abilene Fire, as with all TLFFRA systems, is entirely locally funded.

Benefits

Retirement Eligibility	Tier 1: Age 50 with 20 YCS Tier 2: Age 53 with 20 YCS
Vesting	20 years
Benefit Multiplier	Tier 1: 3% Tier 2: 2.75%
Average Salary	Tier 1: Highest 36 months Tier 2: Highest 60 months
Benefit Formula	Tier 1: (YCS x 3% x Final Avg Salary) + (YCS x 3% of Final Average Salary for YCS between 20 and 21.5 years) + $80 per month for YCS > 21.5 *(Max of $7,500)* Tier 2: (YCS x 2.75% x Final Avg Salary) + $80 per month for YCS > 20
Retroactive DROP Eligibility	Tier 1: Age 53 with 23 YCS Tier 2: Age 56 with 23 YCS
Form of Payment	Tier 1: Annuity continues at 67% to surviving spouse after member's death Tier 2: Annuity does not continue to surviving spouse after member's death
Retroactive DROP Period	3-year max. Employee contributions credited, no interest or COLA.
Social Security	No

TLFFRA Board Structure

TLFFRA statute, Vernon's Texas Civil Statutes article 6243e, requires all TLFFRA board consist of seven members consisting of active plan members, representatives of the plan sponsor, and non-affiliated taxpayers.

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 percent,

whichever is smaller. TLFFRA also allows a city to contribute at a higher rate than employees do through a change in city ordinance.

TLFFRA allows the board of trustees 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.

Funding Policy

The system uses a benchmark actuarially determined contribution based on:

- a 30-year rolling amortization period and
- a payroll growth assumption based on the lesser of 3 percent and the actual payroll growth rate over the last ten years

Should the fixed contributions deviate from the benchmark by more than 2 percent of payroll for two consecutive valuations, the system's board will recommend the city and system develop a 20-year plan for the fixed contributions to reach a 30-year closed amortization period.

Contributions

As of the 10/1/2021 actuarial valuation, active members of Abilene Fire contribute 15.2 percent of pay while the City of Abilene contributes 21.25 percent of pay.

Membership

Total Active Members	Members/Beneficiaries in Pay	Terminated	Total Members	Active-to-Annuitant Ratio
192	192	6	390	1.00

Asset Allocation

Asset Allocation (as of 9/30/2022 Financial Statements)					
Asset Class	**Equities**	**Fixed Income**	**Alternatives**	**Real Assets**	**Cash**
Current Allocation	71.78%	17.06%	0.44%	9.68%	1.05%
Target Allocation	55.00%	20.00%	10.00%	15.00%	0.00%

Investment Returns

Rates of Return (as of 9/30/2022)				
Time Period	**1-year**	**3-year**	**10-year**	**Since 10/1/1994**
Gross Return	-16.60%	1.93%	4.76%	6.17%
Net Return	-16.93%	1.57%	4.36%	5.75%

Payroll

Payroll By Year ($Millions)											
Year	2001	2003	2005	2007	2009	2011	2013	2015	2017	2019	2021
Payroll	$7.1	$8.3	$8.6	$9.3	$10.4	$11.5	$12.6	$13.7	$13.8	$15.3	$16.7

Historical Trends

It is important to analyze trends across several metrics to conduct an intensive review of risks associated with the long-term funding of a public retirement system. A system with an asset level lower than its accrued liability has insufficient funds to cover benefits. A system 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 system'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 Abilene Fire.

Abilene Fire's funded status has been steadily declining since 2001. Inadequate investment strategies and asset allocations, as well as insufficient actuarial assumptions have been the main cause of the decline.

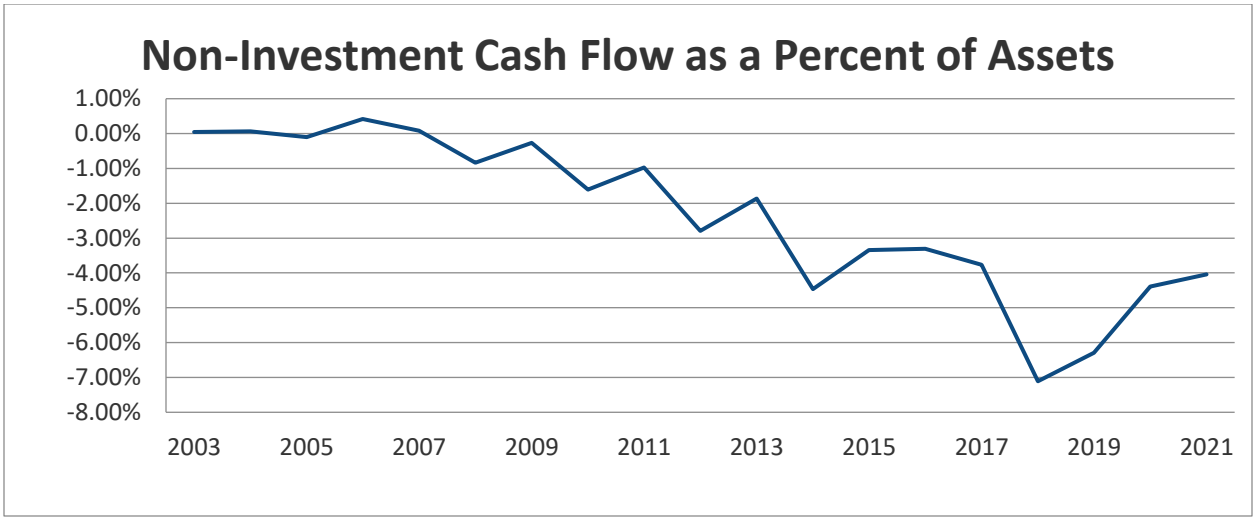
Assets and Liabilities

Funding Trends Funded Ratio, Amortization Period and Unfunded Liability as Percent of Payroll									
Valuation Year	2005	2007	2009	2011	2013	2015	2017	2019	2021
Funded Ratio	63.45%	64.14%	61.92%	55.90%	57.49%	56.60%	55.69%	49.07%	49.38%
Am Period (years)	26.9	24.3	29	32.9	33.5	31.5	31.9	31.4	29.4
UAAL (% of payroll)	236.12%	261.25%	290.21%	339.78%	310.01%	316.19%	341.79%	393.82%	377.55%

Cash Flow

Abilene Fire had the fourth lowest non-investment cash flow in its peer group. It has significantly decreased since 2003 but has seen consistent improvement since 2018. Benefit payments have been significantly higher than contributions since 2018.

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 or expenses. Moreover, a cash flow percentage this low also increases the likelihood of the system being required to prematurely liquidate its assets.


Non-Investment Cash Flow as a Percent of Assets
1.00%
0.00%
-1.00%
-2.00%
-3.00%
-4.00%
-5.00%
-6.00%
-7.00%
-8.00%
2003
2005
2007
2009
2011
2013
2015
2017
2019
2021

Peer Group Tables

Key Metrics 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**	**Fund Exhaustion Date**
Abilene Firemen's Relief & Retirement Fund	**$64,944,840**	**10/1/2021**	**29.4**	**49.38%**	**377.55%**	**7.50%**	**3.00%**	**9/30/2021**	**97.34%**	**0.00%**	**-4.04%**	**N/A**
Beaumont Firemen's Relief & Retirement Fund	$132,500,871	12/31/2020	Infinite	55.44%	448.65%	7.50%	3.00%	12/31/2021	55.47%	20.12%	-17.65%	N/A
Denton Firemen's Relief & Retirement Fund	$140,537,577	12/31/2021	9.1	88.80%	67.52%	6.75%	3.00%	12/31/2021	107.37%	N/A	1.33%	N/A
Galveston Firefighter's Relief & Retirement Fund	$59,034,607	12/31/2021	51.6	68.29%	269.26%	7.50%	2.75%	12/31/2021	80.19%	N/A	-1.94%	N/A
Killeen Firemen's Relief & Retirement Fund	$50,912,599	9/30/2020	28.4	70.32%	138.63%	7.25%	2.75%	9/30/2021	100.06%	N/A	1.13%	N/A
McAllen Firemen's Relief & Retirement Fund	$57,956,229	9/30/2020	27.7	69.50%	192.05%	7.50%	3.00%	9/30/2021	103.23%	N/A	-2.05%	N/A
Odessa Firemen's Relief & Retirement Fund	$52,810,233	1/1/2022	34.3	36.48%	487.08%	7.00%	3.00%	12/31/2021	104.75%	0.67%	-4.27%	N/A
Port Arthur Firemen's Relief & Retirement Fund	$59,837,587	12/31/2021	19.7	77.80%	157.39%	7.25%	2.75%	12/31/2021	111.83%	N/A	-3.34%	N/A
San Angelo Firemen's Relief & Retirement Fund	$83,445,130	12/31/2021	29.7	64.98%	301.55%	7.80%	3.50%	12/31/2021	90.18%	0.00%	-2.55%	N/A
Tyler Firefighters' Relief & Retirement Fund	$89,297,890	12/31/2021	26.8	72.95%	227.63%	7.00%	2.75%	12/31/2021	95.44%	N/A	-2.91%	N/A
Wichita Falls Firemen's Relief & Retirement Fund	$62,360,750	1/1/2022	32.1	65.01%	267.68%	7.75%	4.00%	12/31/2021	80.27%	N/A	-6.55%	2058

Sponsor Funding Comparison

Peer Group Plans	General Fund Expenditures (GFE)	Expected Employer Contributions	Payroll ($Millions)	Contributions/ GFE	Payroll/ GFE
Abilene Firemen's Relief & Retirement Fund	**$103,273,000.00**	**$3,758,848.00**	**$15.3**	**3.64%**	**14.82%**
Beaumont Firemen's Relief & Retirement Fund	$134,783,690.00	$3,783,277.00	$21.5	2.81%	15.95%
Denton Firemen's Relief & Retirement Fund	$130,050,663.00	$4,440,025.00	$20.2	3.41%	15.53%
Galveston Firefighter's Relief & Retirement Fund	$56,948,734.00	$1,654,668.00	$8.8	2.91%	15.45%
Killeen Firemen's Relief & Retirement Fund	$86,307,308.00	$2,013,825.00	$15.4	2.33%	17.84%
McAllen Firemen's Relief & Retirement Fund	$122,553,387.00	$2,028,406.00	$13.1	1.66%	10.69%
Odessa Firemen's Relief & Retirement Fund	$91,236,578.00	$3,855,448.00	$16.9	4.23%	18.52%
Port Arthur Firemen's Relief & Retirement Fund	$62,108,297.00	$1,337,739.00	$9.3	2.15%	14.97%
San Angelo Firemen's Relief & Retirement Fund	$85,855,533.00	$2,670,050.00	$12.6	3.11%	14.68%
Tyler Firefighters' Relief & Retirement Fund	$79,740,463.00	$2,739,984.00	$12.3	3.44%	15.43%
Wichita Falls Firemen's Relief & Retirement Fund	$84,223,883.00	$1,694,549.00	$12.5	2.01%	14.84%

Expense Comparison

Peer Group Plans	10 yr. return (Net)	Active/ Annuitants	Average Benefit	NPL	Admin Expenses	Admin Exp as % of Assets	Investment Expenses	Inv Exp as % of Assets	Other Expenses	Total Expenses	Exp as % of Assets
Abilene Firemen's Relief & Retirement Fund	**8.04%**	**1.00**	**$42,619**	**$59,528,369**	**$90,196**	**0.14%**	**$210,873**	**0.32%**	**0**	**$301,069**	**0.46%**
Beaumont Firemen's Relief & Retirement Fund	9.60%	1.05	$127,666	$80,407,189	$345,427	0.26%	$780,426	0.59%	0	$1,125,853	0.85%
Denton Firemen's Relief & Retirement Fund	9.01%	2.29	$53,513	$1,902,069	$87,866	0.06%	$257,411	0.18%	0	$345,277	0.25%
Galveston Firefighter's Relief & Retirement Fund	8.05%	1.23	$40,262	$21,768,513	$148,065	0.25%	$288,442	0.49%	0	$436,507	0.74%
Killeen Firemen's Relief & Retirement Fund	7.67%	2.97	$41,193	$14,858,180	$114,381	0.22%	$163,647	0.32%	0	$278,028	0.55%
McAllen Firemen's Relief & Retirement Fund	8.71%	1.59	$41,421	$19,718,033	$28,852	0.05%	$370,444	0.64%	0	$399,296	0.69%
Odessa Firemen's Relief & Retirement Fund	9.16%	1.12	$42,513	$75,810,487	$267,461	0.51%	$168,518	0.32%	0	$435,979	0.83%
Port Arthur Firemen's Relief & Retirement Fund	8.92%	1.20	$52,208	$9,899,931	$103,775	0.17%	$82,575	0.14%	0	$186,350	0.31%
San Angelo Firemen's Relief & Retirement Fund	8.61%	1.22	$45,042	$39,269,956	$71,630	0.09%	$275,118	0.33%	0	$346,748	0.42%
Tyler Firefighters' Relief & Retirement Fund	9.03%	1.32	$46,301	$18,609,311	$48,171	0.05%	$748,188	0.84%	0	$796,359	0.89%
Wichita Falls Firemen's Relief & Retirement Fund	9.17%	1.09	$38,075	$55,119,682	$120,636	0.19%	$626,646	1.00%	0	$747,282	1.20%

Value of Benefits Comparison

Peer Group Plans	Retirement Age	YCS	Multiplier as % of FAS	Normal Form of Payment	COLA	Social Security?	Normal Cost at Plan Discount Rate	Normalized Normal Cost at 7.50%
Abilene Firemen's Relief & Retirement Fund	**53**	**20**	**0.55**	**Life Annuity**	**None**	**No**	**17.04%**	**17.04%**
Big Spring Firemen's Relief & Retirement Fund	50	20	0.51	Life Annuity with J/S 66%	None	No	17.74%	18.93%
Brownwood Firemen's Relief & Retirement Fund	50	20	0.5	Life Annuity with J/S 66%	None	Yes	15.81%	13.88%
Killeen Firemen's Relief & Retirement Fund	50	25	0.7	Life Annuity with J/S 66%	None	Yes	17.43%	16.33%
Lubbock Fire Pension Fund	50	20	0.689	Life Annuity with J/S 66%	None	No	22.15%	22.15%
Midland Firemen's Relief & Retirement Fund	50	20	0.75	Life Annuity with J/S 75%	None	No	26.30%	26.30%
Odessa Firemen's Relief & Retirement Fund	55	25	0.72	Life Annuity	None	Yes	16.81%	16.81%
Plainview Firemen's Relief & Retirement Fund	50	20	0.638	Life Annuity with J/S 66%	None	No	15.44%	15.44%
Sweetwater Firemen's Relief & Retirement Fund	50	20	0.7	Life Annuity with J/S 66%	None	No	21.40%	24.37%
Temple Firemen's Relief & Retirement Fund	50	20	0.658	Life Annuity with J/S 66%	None	No	19.77%	21.10%
Waxahachie Firemen's Relief & Retirement Fund	55	20	0.52	Life Annuity with J/S 66%	None	Yes	18.93%	16.62%

ABILENE FIREMEN'S RELIEF & RETIREMENT FUND

August 31, 2023

State Pension Review Board of Texas
P.O. Box 13498
Austin, TX 78711-3498

Attn: Amy Cardona, Executive Director
Bryan Burnham, TLFFRA Specialist

The Board of Trustees of the Abilene Firemen's Relief and Retirement Fund and the City of Abilene would like to thank the Texas Pension Review Board (PRB) and its staff for their efforts in drafting the intensive review for the upcoming meeting. In general, we felt the report was well done and provides a constructive and educational review of our fund that can be used as a resource for our Trustees and the plan sponsor, the City of Abilene. As a result of our review, we provide the following comments for the PRB to consider in advance of the September meeting.

The PRB has made a series of recommendations for changes to the Abilene Firemen's Relief and Retirement Fund (see page 25 of the draft Intensive Review). The Abilene Firemen's Relief and Retirement Fund currently satisfies the PRB Pension Funding Guidelines. However, we believe implementing some of the recommendations in the draft Intensive Review may adversely affect the fund and result in the fund no longer meeting PRB Guidelines.

The fund has recently taken steps to help improve sustainability, such as increasing the total contribution rate by 4% of payroll (2% from members and 2% from the City) in 2019 and developing a second tier for members hired on or after February 1, 2019. Both of these changes were reflected in the October 1, 2019 valuation. The plan also added restrictions on overtime and deployment pay to prevent pension spiking. Also, in conjunction with the October 1, 2019 valuation, the Board approved multiple assumption changes, most notably the reduction in the investment return assumption (from 8% to 7.5%) and the payroll growth assumption. Although these assumption changes ultimately increased the costs associated with the valuation, it provided a more realistic assessment of the fund's financial condition.

102 Cedar Street | Suite 100 | Abilene, TX 79601
www.abilenefirepension.com

email: rodney.goodman@abilenefirepension.com
phone: 325-665-8447

The report comments at length about the $90,000 benefit cap and discusses the impact on the replacement ratio decades into the future. We feel it is important that the PRB understand that when the benefit cap was originally implemented, the idea was to periodically increase the cap. However, the fund was never in a position where an increase in the benefit cap was appropriate due to the ongoing decrease of the funded ratio. The goal is to not have a $90,000 cap for a firefighter hired in 2041, so we do not feel examining the replacement ratio for a 2041 new hire need be included in the intensive review. Additionally, to reduce the impact of the benefit cap, the valuation utilizes the assumption that future new hires beginning of year salary would only increase by 1.0% per year rather than using the 2.50% inflation assumption.

The review also states, "a member who worked 28 years from age 27 to 55 would receive 84 percent of their final average compensation in each year of retirement." This is not accurate. For a Tier 1 member, the 3% benefit multiplier no longer applies once the member attains over 21.5 years of service (i.e., when a member has accrued a benefit of 64.5% of final average compensation). After 21.5 years of service, the $80 per month longevity benefit applies, as noted in the Appendix under the Benefits section of the Plan Summary. A similar distinction should be made regarding the statement that a new hire working 28 years would receive 77 percent of their final average compensation (for Tier 2 members, the 2.75% benefit multiplier is only applied for the first 20 years of service, or 55% of final average compensation).

Furthermore, as previously stated, we believe some of the PRB Recommendations on page 25 of the draft may result in the fund to no longer satisfy PRB Guidelines. Guideline Four states: "Benefit increases should not be adopted if all plan changes being considered cause a material increase in the amortization period and the resulting amortization period exceeds 25 years." The fund's actuary estimates that solely removing the benefit cap would increase the amortization period by over 50 years, and the total contribution rate would need to increase by more than 7% of payroll to attain a 30-year amortization period as of October 1, 2021. Although the recommendations include other changes, such as a 3.5% increase in the contribution rate and applying the Tier 2 benefit formula to all members moving forward, it's difficult for us to agree that these two changes would fully offset the increase in costs due to the removal of the benefit cap. Additionally, lowering the investment return assumption from 7.50% to 7.00% for the October 1, 2023 valuation would also present a challenge in sustaining an amortization period below 30 years if the other recommendations were made.

The Pension Review Board should consider the fact that the Abilene fund is governed by the Texas Local Fire Fighters' Retirement Act (TLFFRA) which has strong protections of accrued benefits. In addition, Abilene did not opt out of the Constitutional Amendment protecting accrued benefits under Article XVI, Section 66 of the Texas Constitution. Thus, it would not be possible to reverse the effects of eliminating the $90,000 cap if the plan turned out to be unsound after implementation of the PRB's recommended changes.

The fund is also putting steps in place to ensure all trustees remain current with the continuing education requirements. Future training will be reported to the PRB as it is completed, as

suggested in the draft report. The fund uses its website for voting on any plan changes and annual elections of fire trustees. The website is also used when members want to calculate their benefits. Communication with members takes place through emails, in person and by phone. The fire trustees regularly discuss pension issues with the members at the stations. In the past, actuarial studies have been presented to all the members at 'in person' meetings with the actuary. Due to Covid 19 restrictions, the 2021 study was not presented in person. However, the fund plans to continue to have the actuary present future studies to members in person.

The fund changed its investment advisor 4 years ago. One of the new investment advisor's first suggestions was to have the fund divest of some past investments that were higher risk/higher cost and did not perform as intended. Page 41 of the draft Intensive Review shows that the fund has achieved an average rate of return of 8.04%. This rate is in between the rates of return of the Killeen and the McAllen fire fighters' plans. The 8.04% rate of return is more than one-half of a percent above the rate of return currently assumed for the actuarial valuation of the fund. The new investment advisor has made changes to the Investment Policy Statement (IPS) and with that, changes in the fund's asset allocation over the past several years. The policy is reviewed annually and updated as needed. The fund has followed the IPS and remained in compliance with asset allocation target ranges. The trustees are supportive of the investment advisor and believe they are moving the fund in a direction that will reduce our risk and as well as meet our 7.5% investment return assumption over the long-term. The trustees believe a more conservative asset allocation is not needed and the risk exposure is appropriate. Recent additional allocations have been added that have diversified the fund and lowered the risk exposure. The fund's investment advisor uses similar allocations with six other TLFFRA funds as well as many other public pension funds with similar return targets and risk tolerances. The fund will also have the investment advisor perform an asset/liability study to be completed in the next several months. As part of the study, additional consideration will be given to the current 7.5% investment return assumption.

Finally, the Fund had an actuarial experience study performed in August and has recently sent the report to the PRB. The trustees have already had discussions surrounding the assumptions with the actuary, and we plan to reduce the investment return assumption 25 basis points for the upcoming October 1, 2023 valuation, and another 25 basis points for the next valuation as of October 1, 2025. That will bring our return assumption down to 7% in the next 4 years. Additionally, the proposed salary increase rates from the study reduce the expected individual salary increase for a member with 20 or more years of service to 3.5% per year. This results in a much smaller spread between this assumption and the payroll growth assumption, which addresses one of the concerns mentioned in the intensive review. The trustees have also had discussions with the City about increasing contribution rates. The current plan is to have the members and City each increase their contributions by .875% each year for the next two years. This would be a 3.5% increase in the total contribution rate, as recommended in the draft report, and should further strengthen the financial health of the plan.

Once again, we appreciate the time and effort the PRB and its staff put into completion of the intensive review. The long-term sustainability of the Fund is of the utmost importance to the

Fund's Board of Trustees and the City of Abilene which we feel has been demonstrated by the changes made to the Fund in the last few years, along with the anticipated changes to be made in conjunction with the next two actuarial valuations.

Respectfully,

Baker Bryant
Chairman of the Board
Abilene Firemen's Relief & Retirement Fund

Robert Hanna
City Manager
City of Abilene

August 31, 2023

Texas Pension Review Board
c/o Mr. David Fee, Senior Actuary
P.O. Box 13498
Austin, TX 78711

Re: Intensive Review – Abilene Firemen's Relief and Retirement Fund

Dear Board:

Foster & Foster has reviewed the draft Intensive Review of the Abilene Firemen's Relief and Retirement Fund (Fund). This letter will serve as a brief response to the PRB's Review, with additional remarks to be made at the upcoming PRB meeting. In summary, we believe that it is fair for the PRB to perform a review of this Fund, as the actuarial metrics used to indicate "financial health" of a pension plan have been deteriorating over time. Unfortunately, however, we believe that some of the PRB's comments are misguided and lack a full understanding of the history of this plan. This letter will hopefully provide insight and proper perspective regarding the PRB's analysis.

Many of the PRB's actuarial concerns surround the use of "aggressive actuarial assumptions." We have two general comments regarding their assertion, and we will address several of these assumptions specifically. First, since we have become the actuary and first performed a valuation as of October 1, 2017, we have made the assumptions far more conservative than they were in the past. The table below shows an abbreviated list of the actuarial assumptions as of 10/1/2011, the same date that is referenced in the PRB's table on page 7. Clearly, many of the assumptions mentioned as being "aggressive" are far more conservative now than in 2011. It is very difficult to lower an Unfunded Liability over a 10-year period when you are adjusting assumptions to become more conservative over that same timeframe. These assumption changes have far more to do with the deterioration of the funded ratio over the last 10 years than the adverse actuarial experience over this time.

Actuarial Assumption	October 1, 2011 Valuation	October 1, 2021 Valuation
Investment Rate of Return	8.00%	7.50%
Payroll Growth	5.00%	3.00%
Salary Scale	5.00%	11.3% to 4.5%, graded
Mortality Table/Improvement	RP-2000, projected 2 years	PubS-2010, projected 5 years

Secondly, not only has the Abilene Firemen's Relief and Retirement Fund Board historically changed assumptions to become more conservative over the last 10 years, we recently performed and presented the Board with an Experience Study to further review the current actuarial assumptions and methods. As a result of this review, we anticipate that the Board will make our proposed changes, including lowering the assumed rate of return to 7.25% or 7.00%. We believe that upon changing those assumptions, the assumptions will be a fair representation and estimate of future experience. In the subsequent paragraphs, we will address some of these assumptions, methods, and even provisions specifically, as they were highlighted in the PRB's Review.

One of the concerns mentioned in the Intensive Review was the mortality improvement assumption. The current mortality assumption projects mortality improvement 5 years beyond the valuation date. The Intensive Review highlighted that this mortality improvement assumption was one of the "most aggressive" among Texas public retirement systems. It was suggested that the Fund consider changing the assumption to project mortality improvements generationally.

As the Fund's actuary, we feel the current mortality improvement assumption is a reasonable and acceptable assumption. Like any assumption, it is important that Experience Studies are performed every 3-5 years to test the performance of the assumption relative to the plan's experience. In this case, like most other public plans across the country, mortality gains were exhibited during this timeframe. Those gains would have been larger if we had projected generational improvements. With all of that said, the impact of adjusting this assumption for generational improvements would have a very minor impact on plan liabilities. Furthermore, as shown in the table on the previous page, our current assumption is more conservative than what we inherited in 2018.

Another observation mentioned in the Intensive Review was that the payroll growth assumption may be slightly conservative. One of the PRB's recommendations was to increase the payroll growth assumption from 3.00% to 3.25%. It's important to note that in conjunction with the October 1, 2019 valuation, this assumption was lowered from 4.00% to 3.00%.

Our Experience Study shows that the average increase in payroll per year over the past 6 years, 10 years, and 12 years is 3.5%, 3.9%, and 4.1%, respectively. While we would agree that overall payroll growth has been higher than the current 3.00% assumption, it appears there is a trend that the 10-year average payroll growth has been declining since 2015, as shown in the graph included in the Intensive Review. Although the department will add another fire station in the near future, and increasing the payroll growth assumption is supported by experience, this does not necessarily mean that a higher payroll growth is sustainable over time, nor does it mean that it would be appropriate to increase the current assumption. Increasing the payroll growth assumption only creates additional negative amortization and intergenerational inequities, the very same things that were mentioned to be a problem in the PRB's Intensive Review. Regardless, we plan to have additional discussions with the Board regarding this assumption prior to finalizing the October 1, 2023 valuation.

Next, the PRB's Intensive Review states that the "90,000 benefit cap does not appear sustainable, creates intergenerational inequity, and is not modeled appropriately in the actuarial valuation." The PRB recommends adjusting or removing the accrued benefit cap entirely. While we are certain that the firefighters would welcome a full removal of the benefit cap, and we agree that the benefit cap will become more and more meaningful as time goes on, increasing intergenerational inequities, the annual cost associated with removing the cap would be exorbitant.

All of the suggestions to address the concerns regarding the benefit cap would be considered benefit enhancements. While we would love nothing more than to endorse providing the Fund's firefighters with larger benefits in retirement, when considered in concert with the Board's decision to lower the assumed rate of return, it would be detrimental to the Fund and do not believe it would be appropriate as the Fund's actuary to agree to revise or remove this provision at this time.

Furthermore, it is recommended in the Intensive Review to increase the contribution rate by 3.5% of payroll to offset the cost of removing the cap. Although the current plan is for the City and membership to split the 3.5% increase in the contribution rate over the next couple of years, an increase in the member contribution rate would still need to be voted on and approved by the majority of the membership. It is likely that the current membership would not vote in favor of an increase to contribution rates to subsidize removal of the cap because many firefighters will not be immediately subjected to the cap. At that point, the City would need to agree to take on the entire 3.5% increase. It is our opinion that an increase in City contribution rates would be beneficial to pay for the current structure of benefits, and any removal or adjustment to the cap should be paid for with additional contributions on top of the above referenced 3.5%.

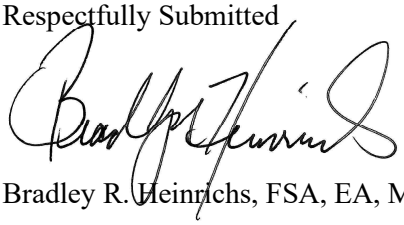
Regardless, we disagree that a 3.5% increase in the contribution rate would be sufficient to remove the benefit cap even if all members began accruing benefits at the Tier 2 level. Additionally, the Board has specified they are not interested in moving all members under the Tier 2 benefit structure and, similar to contribution rate increases, this change would need to be voted on and approved by the majority of the membership. Why would the membership agree to the removal of the benefit cap (which does not impact everybody) in exchange for movement to a lower benefit structure with a higher contribution rate? The answer is they would not.

Finally, we would like to address the PRB's assertion that the "$90,000 benefit cap is not modeled appropriately in the actuarial valuation." Professional disagreements by actuaries over assumptions is commonplace, but if an actuary is going to publish a document stating that another actuary did something inappropriately in an actuarial valuation, he had better be sure of this. The PRB's actuary appears to be confident in this claim, and even shows a graph on page 20 illustrating how the previous actuary performed the amortization calculation under a closed group projection and asserts that this model is how this calculation should be done. The PRB further states that "the current actuary has effectively assumed that the level of pension benefits plays no role in the recruitment or retention of firefighters."

We vehemently object to the PRB actuary's claim on two levels. First, the Review suggests that the level normal cost as a percentage of payroll approach should be used throughout the entire projection period (like the previous actuary did) to determine the amortization period. This is simply not reasonable because the benefit cap will produce smaller normal cost rates in the future. Whether the PRB likes the benefit cap or not, it is a part of the plan, and we are to value the liabilities and calculate the amortization period assuming no change to future provisions. Secondly, the PRB's actuary either forgot or was not aware that a separate Tier 2 benefit structure was implemented in 2019. All new hires after February 1, 2019 will have a smaller Normal Cost than those hired before February 1, 2019. Failure to incorporate this plan change into the calculation of the amortization period would be inappropriate and incorrect. Under the PRB actuary's approach, changing benefits for future hires would not change the amortization period. Therefore, we believe it is appropriate and accurate to value the benefits as written in the plan document, and an open group projection reflecting the decrease in the Normal Cost rate over time should be reflected in the calculation of the amortization period. Finally, we would appreciate it if, in the future, the PRB wants to assert that our calculations are incorrect or inappropriate, that they provide us with a courtesy phone call to make sure they understand the entirety of the situation before unnecessarily and incorrectly slandering our work product as stated in a manner that we believe violates Precept 10 of the Code of Professional Conduct.

If there are any questions, concerns, or comments regarding the above, please let us know.

Respectfully Submitted



Bradley R. Heinrichs, FSA, EA, MAAA

Lindsey E. Redman, ASA, EA, MAAA