CITY OF EL PASO EMPLOYEES RETIREMENT TRUST

ACTUARIAL AUDIT
OF SEPTEMBER 1, 2022 VALUATION

FOSTER & FOSTER
ACTUARIES AND CONSULTANTS

VIA E-MAIL

March 21, 2025

City of El Paso Employees Retirement Trust
El Paso, TX

Re: Actuarial Audit of September 1, 2022 Valuation

To whom it may concern:

We are pleased to present to El Paso (City) this report of the actuarial audit of the City of El Paso Employees Retirement Trust (Fund). Foster & Foster was retained by the City to perform a full-scope (Level 1) actuarial audit of the September 1, 2022 actuarial valuation report produced by Buck Global, LLC (Actuary). Accordingly, we have performed the following tasks:

- A review of the actuarial assumptions and methods used in the Fund's valuation;
- An examination of the current actuary's data collection and calculation processes and its interpretation of plan provisions and benefits;
- Replicate the liabilities and funding requirements;
- An assessment of the results of the Actuary's most recent valuation report and experience study;
- An opinion on the Fund's current actuarial funding policies and practices; and
- Any additional advice, comments, or concerns deemed appropriate.

This report was prepared at the request of the City and is intended for use by the City and those designated or approved by the City. This report may be provided to other parties only in its entirety and only with the permission of the City. Foster & Foster will not accept any liability for any misuse of this report.

In conducting the valuation, we have relied on liability information supplied by the Actuary and various personnel, report and asset information supplied by Fund staff. While we cannot verify the accuracy of all this information, the supplied information was reviewed for consistency and reasonableness. As a result of this review, we have no reason to doubt the substantial accuracy of the information and believe that it has produced appropriate results.

In performing the analysis, we used third-party software to model (calculate) the underlying liabilities and costs. These results are reviewed in the aggregate and for individual sample lives. The output from the software is either used directly or input into internally developed models to generate the costs. All internally developed models are reviewed as part of the process. As a result of this review, we believe that the models have produced reasonable results. We do not believe there are any material inconsistencies among assumptions or unreasonable output produced due to the aggregation of assumptions.

The undersigned are familiar with the immediate and long-term aspects of pension valuations and meet the Qualification Standards of the American Academy of Actuaries necessary to render the actuarial opinions contained herein. All sections of this report are considered an integral part of the actuarial opinions.

To our knowledge, no associate of Foster & Foster, Inc. working on valuations of the program has any direct financial interest or indirect material interest in the City of El Paso Employees Retirement Trust, nor does anyone at Foster & Foster, Inc. act as a member of the Board of Trustees of the Fund. Thus, there is no relationship existing that might affect our capacity to prepare and certify this actuarial report.

If there are any questions, concerns, or comments about any of the items contained in this report, please contact us at 630-320-0200.

Respectfully Submitted,

Foster & Foster, Inc.

By: Jason L. Franken

Jason L. Franken, FSA, EA, MAAA

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EXECUTIVE SUMMARY

An actuarial valuation provides a best estimate of a plan's liabilities, assets, funded status and annual contribution requirements at a particular point in time. This estimate helps ensure that current assets and future contribution requirements will be sufficient to fund the benefits as they are earned by working members and provide benefits promised to members throughout retirement. Future liabilities are determined by projecting future benefit payments for each member based on individual census data, the plan's provisions, and a set of actuarial assumptions regarding future salary increases and future member behavior. The extent to which an actuarial valuation accurately measures a plan's liabilities, funded status and contribution levels depends on a variety of factors including:

- The accuracy and completeness of the underlying census and financial information;
- Accurate incorporation of the plan's provisions into the actuarial model;
- The extent to which actuarial assumptions predict future participant behavior and future economic outcomes; and
- The appropriateness of the actuarial methods being used.

A thorough actuarial audit will include review of the above factors to ensure the actuary's valuation provides the best estimates possible. In addition, there are several other items an actuary must take into consideration when performing an actuarial valuation. An actuary must consider the Actuarial Standards of Practice, which provide guidelines in assessing the underlying data, setting appropriate actuarial assumptions/methods, and disclosing results. State and federal laws related to maintaining and funding pension systems is another important consideration. Accordingly, a thorough actuarial audit will include review of these factors in conjunction with the ones mentioned previously.

The remainder of this report focuses on the audit of the September 1, 2022 actuarial valuation report for the City of El Paso Employees Retirement Trust prepared by your Actuary. We have organized this audit report into the following key categories which correspond to the objectives outlined above:

- Member Data Review;
- Asset Data and Asset Method Review;
- Liability Review;
- Funding Calculation and Actuarial Methods Review;
- Assumption Review;
- Plan Provisions Review, and
- Report Review.

For each of the above categories, we have provided details regarding the review we performed along with key observations and recommendations. In general, we believe the valuation results are reasonable and we found no major deficiencies. More specifically, we find that:

- The approach to develop the actuarially determined contribution is sufficient and consistent with the long-term objective of funding the plan over time and paying benefits as they become due;
- Underlying member and asset information used is reasonable, consistent, and free of any material discrepancies;
- Actuarial assumptions and methods are reasonable;
- The valuation report generally complies with the Actuarial Standards of Practice that apply specifically to valuing pensions and is sufficient in communicating actuarial results; and
- The valuation has been completed in accordance with Federal requirements and the guidelines set forth by the Texas Pension Review Board (PRB).

In completing our review, we also made several observations and recommendations for the City's consideration. The most notable of these observations / recommendations are summarized below:

- Assumption Review
  - The payroll growth assumption of 2.50% does not appear to be in line with recent experience. We would recommend that the assumption be reviewed on its own merits and not be set simply based on the inflation assumption.

MEMBER DATA REVIEW

An actuarial valuation determines liabilities based on current and projected benefits to be paid to each member of the plan. As such, one of the key items provided for the actuarial valuation is data on each of the current members. Member data includes the status of the member (active, terminated, disabled, retired, beneficiary), key dates (birth, hire, retirement, termination), gender, pensionable pay, benefit amounts, and forms of payment.

There are typically two levels of data review:

- Review unprocessed data that was provided to the actuary to perform the valuation. The goal here is to determine if the audit would arrive at substantially the same final data as the plan's actuary after processing was complete.
- Review the final data that was provided by the plan's staff against plan provision requirements and the member data summaries provided in the valuation report.

The scope of our audit included both levels of data review. We found the data provided to the Actuary to be very clean and sufficient to measure the benefits provided by the Fund. The Actuary's processed data was consistent with the data provided by the Fund. Further, we found no material differences between the data and report summaries. As such, the actuarial valuation appropriately reflected the member data provided by the Fund.

OBSERVATIONS / RECOMMENDATIONS

- We are not able to closely match the split between vested and non-vested active member counts in the Plan actuary's report based on available information. It may be worthwhile to add a footnote further detailing the criteria for the breakdown.
- The unprocessed data provided to the actuary is as of July 1, but the valuation date is September 1. While this is not unique, it is more common for the census data to be as of the valuation date, especially when valuations are biennial.

ASSET DATA AND ASSET METHOD REVIEW

An actuarial valuation compares the plan's liabilities to the assets to determine the plan's funded status and the resulting need for additional contributions. We confirmed that the valuation used assets consistent with those shown in the August 31, 2022 Annual Financial Report for the Fund.

While assets are measured on a market-value basis, an actuarial value of assets is used to measure the funded status of the plan and determine contribution requirements. The actuarial value of assets is based on a method that recognizes asset gains and losses over a period of time. This produces an asset value that is less volatile than the market value, resulting in less volatile contribution requirements. An acceptable smoothing method will dampen volatility and will meet the following three requirements:

1. Will not produce an actuarial value of assets that is unreasonably higher or lower than the market value of assets. To achieve this, an appropriate market value corridor is applied to the actuarial value of assets;

2. Will not be biased (systematically higher or lower than the market value); and

3. Will not spread asset gains and losses over an unreasonable length of time.

The Fund's actuarial value of assets is based on a commonly accepted and widely used method that smooths market value gains and losses over a five-year period. Since the method recognizes market value gains and losses over a five-year period, the actuarial value of assets will converge with the market value absent future gains and losses on assets. Therefore, the method is unbiased. We find this portion of the method used to be reasonable and consistent with actuarial standards of practice. Finally, we reviewed the calculation of the actuarial value of assets and determined that the method has been utilized appropriately.

OBSERVATIONS / RECOMMENDATIONS

We noticed that there is an approximately $10 million difference in the market value of assets at end of year 2022 between the September 1, 2022 actuarial report and the City's 2022 Annual Comprehensive Financial Report. The discrepancy will not negatively impact the city required contribution. It may be worthwhile adding a footnote to further document that the assets are preliminary or to use final asset information in the valuation, if available.

LIABILITY REVIEW

In order to confirm the accuracy of the liability calculations provided in the actuarial valuation report, we developed an independent actuarial model. The model used the same plan provisions, member data, actuarial assumptions, and methods that were used by the Actuary to independently verify the liabilities calculated for representative sample members.

The actuarial valuation process, while sophisticated in its calculation methodology, is an estimate of the financial value of benefits payable on contingent events, most of which occur many years into the future. This means that the estimates contain a considerable amount of uncertainty and variability. As actuaries, we recognize that small differences in the results do not change the overall financial results portrayed in the valuation. Furthermore, the actuarial software used by different firms has implicit differences that create variances in valuation numbers. For these reasons, we consider the comparison of key valuation results in terms of both value and percentage differences. As a general rule, results that are within 2% of the plan actuary's calculation of present value of future benefits and within 5% for the plan actuary's calculation of actuarial accrued liability and normal cost are deemed acceptable. Further analysis may be needed to determine if any calculation issues exist when results fall outside those margins.

Below is a summary of the results of the replication process, which shows that the results are within the thresholds outlined above. As a result, it was not necessary to review sample liability calculations. Based on these results, it is our professional assessment that the Fund's actuary has provided a reasonable valuation of the liabilities.

KEY LIABILITY RESULTS

Liability Measure (in millions)	Fund Actuary	Foster & Foster	Value Difference	Percent Difference
Present Value of Future Benefits				
- Actives	557.2	557.2	0.0	0.0%
- Inactives	778.9	782.2	3.3	0.4%
- Total	1,336.1	1,339.4	3.3	0.2%
Actuarial Accrued Liability				
- Actives	392.6	387.7	-4.8	-1.2%
- Inactives	778.9	782.2	3.3	0.4%
- Total	1,171.5	1,169.9	-1.5	-0.1%
Normal Cost (% of payroll)				
- Total	11.88%	11.91%	0.0%	0.3%

OBSERVATIONS / RECOMMENDATIONS

None.

FUNDING CALCULATION AND ACTUARIAL METHODS REVIEW

Review of the calculation of the recommended contributions consists of review of several components as follows:

- Review of the accuracy of the calculations used to determine the contribution requirements.
- Review of the appropriateness of the underlying actuarial funding method used to calculate the normal cost (the annual amount needed to fund the benefits as they are earned by members).
- Review of planned contribution rates.

Below is an analysis of each of these items:

Review of the Accuracy of the Calculations Used

We reviewed the calculation of the required contribution based on the underlying assumptions and methods and found the calculations to be accurate. We were able to match the contribution as a percentage of payroll in each year based on the liability information provided in the report.

Review of the Appropriateness of the Underlying Actuarial Funding Method

The Entry Age Normal funding method is the method used by most public sector funds, including Texas defined benefit systems (as published by PRB in their "Guide to Public Retirement Systems in Texas"). This method spreads costs evenly over the member's career in relation to their annual salary, which is consistent with how many public funds base their contributions. Entry Age Normal is also required for use with Governmental Accounting Standards. The Conference of Consulting Actuaries (CCA) Public Plans Community in their August 2024 white paper entitled "Actuarial Funding Policies and Practices for Public Pension Plans" recommend use of the "Entry Age cost method with level percentage of pay" as a model practice. As such, we find the funding method used to be appropriate.

Review of Planned Contribution Rates

The PRB's Funding Guidelines, effective June 30, 2017, provide that (1) funding of the unfunded actuarial accrued liability should be level or declining as a percentage of payroll over the amortization period and (2) actual contributions made to the plan should be sufficient to cover the normal cost and to amortize the unfunded actuarial accrued liability over as brief a period as possible, but not to exceed 30 years, with 10-25 years being the preferable target.

The 2022 valuation report shows that the Fund has contribution rates that well exceed the rate that would be required to amortize the unfunded liability over 30 years starting in 2022. We were able to replicate the amortization period shown in the report within a reasonable range. Given this, we feel comfortable that the approach used is appropriate and in full compliance with the PRB guidelines.

OBSERVATIONS / RECOMMENDATIONS

None.

ASSUMPTION REVIEW

Actuarial assumptions are used within a valuation to measure the future benefits to be paid from a plan by considering economic and demographic factors that will impact the plan. Economic assumptions include investment rates of return/discount rates, inflation rates, and salary scales. Demographic assumptions include rates for mortality, retirement, termination, and disability.

As part of any audit, assumptions are to be reviewed in terms of their reasonableness and appropriateness as well as their compliance with applicable Actuarial Standards of Practice. Our review has considered all the assumptions, both individually and collectively, and we find them to be reasonable and appropriate. Further, we believe the assumptions and methods are in compliance with Actuarial Standards of Practice, most notably Standards 4, 27, and 35. It should be noted however, that a detailed review of the assumptions based on past and anticipated future experience or prior gains and losses is beyond the scope of this report.

OBSERVATIONS / RECOMMENDATIONS

- The last detailed study of Fund experience was completed in 2023, subsequent to the August 1, 2022 valuation report. Having a regularly scheduled review of experience is a best practice and puts you squarely in compliance with Texas Government Code.

- The mortality assumption is based on the latest tables produced for public sector plans, Pub-2010. The tables used for inactive members are specific for each status group (retiree, survivor, disabled), consistent with the status groups available with the Pub-2010 results. Further, the mortality generational improvement scale of MP-2021 is the latest table available, with scheduled annual updates as future improvement scales become available. This is appropriate and the proper use of the Pub-2010 tables.

- A detailed analysis of the interest rate assumption is beyond the scope of this audit. We were able to consider the 7.25% assumption, though, from two perspectives to give our thoughts on the selected rate. This review, summarized below, finds that the current assumption is reasonable.

    - One approach is to review the model the long-term rate of return using the Horizon Actuarial Services (HAS) survey. Using the 2023 survey results and the asset allocation information included in the experience study report for the Fund, a reasonable range for the long-term rate of return assumption would be 7.02% to 8.28%. The range is based on the 40th and 60th percentile of the 20-year returns using the capital market assumptions of the 24 survey respondents who provided long-term assumptions to the HAS survey. The percentiles generally mean that there would be a 60% probability that the average return over the 20-year period would exceed 7.02% and a 40% probability that the average return over the 20-year period would exceed 8.28%. The 50% probability is 7.65%.
    - A second approach is to consider return assumptions used by other public funds, as found in national assumption surveys. The National Association of State Retirement Administrators (NASRA) released updated information in August 2023 to their ongoing summary of investment return assumptions used by public employers. Figure 1 below, taken from NASRA's website, shows that an assumption of 7.00% is most common among respondents, with the range of 7.00% - 7.50% as the second most common response. Figure 2 shows how discount rates have been trending down over the last 23 years, with a current median of 7.00%.

Figure 1

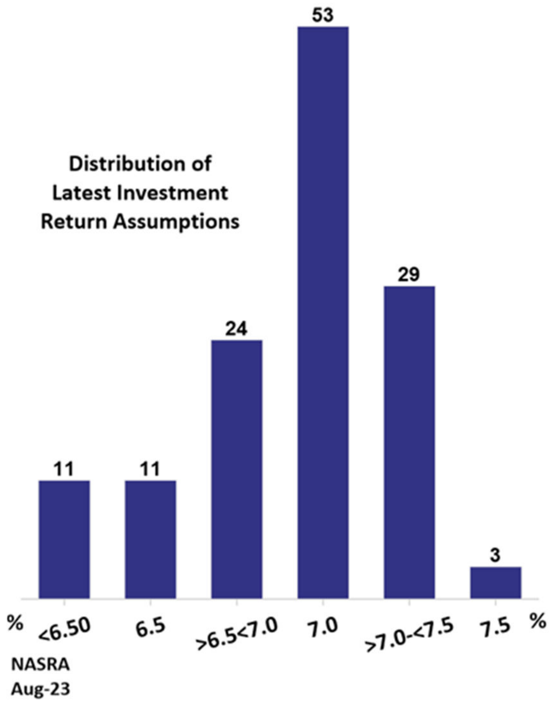
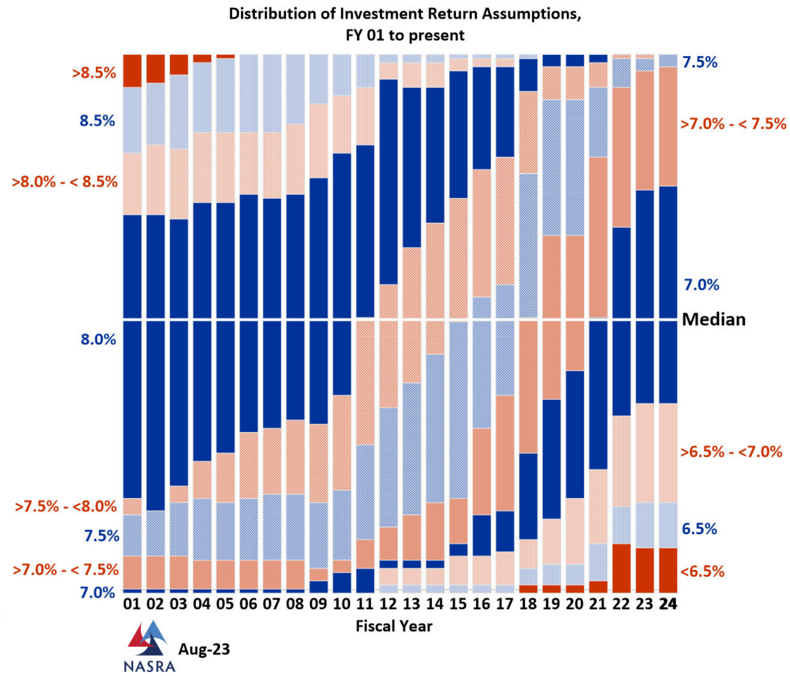


Figure 2



- The inflation assumption of 2.50% is reasonable with that found in the HAS survey published in 2023. Among the 24 investment firms who provided long-term data, this survey shows an average long-term expectation of inflation of 2.46%.

- The payroll growth assumption, which is used to keep amortizations levels as a percentage of payroll, is currently set based on the inflation assumption of 2.50%. The assumption was not considered separately in the 2023 experience study to show trends in actual payroll experience. Looking at the 9-year payroll history in the FYE 2023 ACFR, experience shows an average annual increase in payroll of 1.79% over that time. We would recommend that the payroll growth assumption be revisited with past experience being considered.

PLAN SUMMARY REVIEW

The benefits available to Fund membership are outlined in the plan document. The "Summary of Present Plan" section of the valuation report provides a brief summary of the relevant provisions of the plan document which impact the benefits paid by the Fund. Our audit compared this summary to the plan document, considering both the content as well as the clarity of the provisions shown. We found the summary to be complete and understandable.

OBSERVATIONS / RECOMMENDATIONS

None.

REPORT REVIEW

VALUATION REPORT

The valuation report summarizes the work completed as part of the valuation process. In doing so, the report should meet certain requirements and objectives. Below is a summary of the key requirements and objectives:

- The report should clearly and concisely relay the results of the valuation;
- The report should include a summary of the data, assumptions, methods and plan provisions used to develop the results;
- The report should provide discussion of the key risks that should be considered by the reader in reviewing the results and a discussion of the impact on plan maturity (including measures of maturity where appropriate) when reviewing these risks;
- The report should provide certain disclosures that clarify and supplement the results as required by the Actuarial Standards of Practice (ASOP); and
- The report should provide information sufficient to allow another actuary to reasonably verify the results.

OBSERVATIONS / RECOMMENDATIONS

None.

RESPONSE FROM FUND ACTUARY

The following comments were provided by the Actuary in response to our draft report. Since the comments were provided via email, we have taken that email and pasted here, word for word, for documentation to complete our report.

Hi Robert,

Foster & Foster's audit report dated 2/27/25 did not identify any major issues related to their audit of the 9/1/22 actuarial valuation.

The identified a few minor items. Their findings and our responses are provided below:

- Payroll growth rate assumption
    - F&F finding: The payroll growth assumption of 2.50% does not appear to be in line with recent experience. We would recommend that the assumption be reviewed on its own merits and not be set simply based on the inflation assumption.
    - Gallagher response: We will evaluate the payroll growth rate assumption as part of the next experience study (which is scheduled to be completed in FY27 based on plan experience for the 4-year period 9/1/22 to 8/31/26).
- Split between vested and non-vested actives
    - F&F finding: We are not able to closely match the split between vested and non-vested active member counts in the Plan actuary's report based on available information. It may be worthwhile to add a footnote further detailing the criteria for the breakdown.
    - Gallagher response: After publishing the 2022 valuation report, we noted that our 9/1/22 data summary in Schedule A had listed the incorrect split between vested and non-vested active members. We corrected the 9/1/22 figures in our final 2024 valuation report. While the summary in the 2022 valuation report had shown the split of vested/non-vested members incorrectly, all members were valued appropriately and consistently with the plan provisions and assumptions described in the report.

- Census data collected as of July 1 for September 1 valuations

    - F&F finding: The unprocessed data provided to the actuary is as of July 1, but the valuation date is September 1. While this is not unique, it is more common for the census data to be as of the valuation date, especially when valuations are biennial.

    - Gallagher response: The 2-month early collection of census data is intended to allow the valuations to be completed to meet the City's timing needs. We believe this approach is acceptable and would not materially impact the valuation results. We appropriately disclose in the report the July 1 date of the census data and note that we assume this is the same as of September 1.

- $10M difference between 8/31/22 market value of assets and the corresponding asset value shown in the City's ACFR

    - F&F finding: We noticed that there is an approximately $10 million difference in the market value of assets at end of year 2022 between the September 1, 2022 actuarial report and the City's 2022 Annual Comprehensive Financial Report. The discrepancy will not negatively impact the city required contribution. It may be worthwhile adding a footnote to further document that the assets are preliminary or to use final asset information in the valuation, if available.

    - Gallagher response: The valuations are based on unaudited assets because audited assets are not available by the time valuation results are needed by the City. A statement to this effect was not included in the 2022 valuation report. However, beginning with the 2023 interim valuation, we specify in the cover letter of the valuation report that the valuation is based on unaudited assets. We believe the continued use of unaudited assets will not materially impact the valuation results.

Let us know if there are any questions.

Thanks,
David

David J. Kershner FSA, EA, MAAA, FCA
Principal, Consulting Actuary
Benefits & HR Consulting

Gallagher

Insurance | Risk Management | Consulting