

City of El Paso Employees Retirement Trust

ACTUARIAL AUDIT

Performed For:

The City of El Paso

Performed By:



February 27, 2020

Bradley R. Heinrichs, FSA, EA, MAAA
Peter B. McCloud, FSA, EA
Drew D. Ballard, EA, MAAA

13420 Parker Commons Blvd., Suite 104
Fort Myers, FL 33912
239.433.5500

February 27, 2020

VIA EMAIL

Ms. Mary Michel, PHR, SHRM-CP
Human Resources Assistant Director
City of El Paso
300 North Campbell – 1st Floor
El Paso, TX 79901

*Re: City of El Paso Employees Retirement Trust
Actuarial Audit – September 1, 2018 Actuarial Valuation Report*

Dear Ms. Michel:

The following report presents the results of the actuarial audit of the above referenced plan for the valuation with a measurement date of September 1, 2018, as required by the Texas Government Code Section 802.1012.

An overview of our findings and recommendations is included in the Executive Summary section below. The balance of this Report presents details of the audit.

The recommendations provided in this report are intended to identify possible suggestions that might improve understanding of the actuarial services provided. Some comments may be viewed as personal preference; however, the intention was not to impose preferences, but to improve the actuarial functions.

This report has been prepared for use by the City and Board in their oversight role with regard to the Trust. It has been prepared using Foster and Foster, Inc. valuation systems in a manner that would be used by Foster & Foster to prepare a full actuarial valuation of the Trust. We recognize the many complex calculations involved in performing an actuarial valuation. Therefore, small differences between valuation systems can produce noticeable differences in the valuation results between two actuaries.

In preparing this report, we relied without audit on data furnished by the Plan Actuary. This data includes employee data, value of plan assets and other plan financial information. We have reviewed this data for reasonableness and for consistency with additional supplied information. If any of the information summarized in the report is inaccurate or incomplete, the results shown could be materially affected and this report may need to be revised.

The actuarial methods and assumptions, including discount rates, mortality tables and others identified in this report are those used by the Plan Actuary. They are either prescribed by statute or adopted by the Board and approved by the Board. These parties are responsible for selecting the plan's funding policy, actuarial valuation methods, asset valuation methods and assumptions. The complete methods and assumptions are summarized in the actuarial reports furnished by the Plan Actuary. We have included a description of many in the following report.

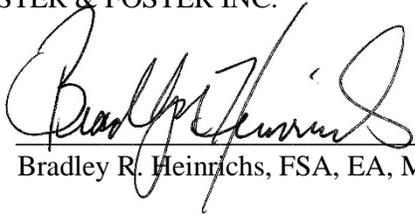
The replicated valuation results are only estimates of the Plans' financial condition as of single dates. The estimates can neither predict the future condition nor guarantee financial soundness. Actuarial valuations do not affect the ultimate costs of System benefits, only the timing of contributions. The valuation is based on one array of reasonable assumptions (individually and in the aggregate). Other assumption sets may also be reasonable, and valuations based on those assumptions would be different and also correct. Determining results using alternative assumptions was not within the scope of the engagement.

Future actuarial measurements may differ significantly from the current measurements due to the following: plan experience that differs from the experience anticipated by the economic and demographic assumptions; changes in assumptions or methods; changes in plan provisions and applicable law. The potential range of future measurements was outside the scope of the assignment.

To the best of our knowledge, this report is complete and accurate and was prepared in accordance with generally accepted actuarial principles as prescribed by the American Academy of Actuaries. The undersigned is a member of the American Academy of Actuaries and meets the Qualification Standards of the American Academy of Actuaries necessary to render the actuarial opinions contained herein.

Respectfully submitted,

FOSTER & FOSTER INC.

By:  _____
Bradley R. Heinrichs, FSA, EA, MAAA

EXECUTIVE SUMMARY

Foster & Foster was retained by the City of El Paso (“City”) to perform a full-scope actuarial audit of the City of El Paso Employees Retirement Trust (“Plan”) to satisfy the audit requirements of the Texas Government Code Section 802.1012.

An actuarial valuation provides a best estimate of the Plan’s liabilities and contribution levels at a particular point in time. This estimate helps ensure that current assets and future contribution requirements will be sufficient to provide benefits promised to members. Future liabilities are determined by applying a set of actuarial assumptions to project the occurrence, amount and timing of benefits that will become payable according to the current plan provisions. The extent to which an actuarial valuation accurately measures a plan’s liabilities and contribution levels depends on how well the actuarial assumptions predict future plan experience.

An actuarial audit provides assurance that the actuarial valuation work is being performed accurately and in accordance with generally accepted actuarial principles. In addition, the reviewing actuary can identify areas of improvement that may increase the value and understanding of the actuarial services provided to the retirement system. Based on our review of the Plan and replication of the September 1, 2018 report as performed by the Plan Actuary, below is a brief summary of our findings and recommendations, which will be further discussed throughout the remainder of the report.

- We have relied on census data provided by the Plan Actuary, asset information illustrated in the valuation report, as well as other information available on the City’s or Plan’s websites. While we cannot verify the accuracy of all of this information, the supplied information was reviewed for consistency and reasonableness.
- In general, we believe that the valuation report complies with the Actuarial Standards of Practice (ASOPs) that apply specifically to valuing pensions, as well as the guidelines set forth by the Texas Pension Review Board (PRB).
- Using the census data provided, the plan provisions and actuarial assumptions as stated in the valuation report, we were able to replicate the valuation results within a reasonable level of accuracy.
- In general, the actuarial assumptions used for completion of the valuation report are based on an experience review for the four-year period ending August 31, 2014. We recommend that an updated experience analysis be performed by the Plan Actuary, if not done so already, to certify the reasonableness of the continued use of the actuarial assumptions used in the valuation, individually and in the aggregate.
- We feel that the assumed rate of investment return of 7.50% per year is supported by the target asset allocation of the trust and the expected long-term return by asset class. We recommend the Plan Actuary include sufficient rationale of the investment return assumption in the report.
- We recommend the Plan Actuary consider a reduction in the 3.00% inflation assumption.
- We recommend the Plan Actuary consider a reduction in the 3.00% payroll growth assumption.
- We recommend the Plan Actuary consider adoption of the Pub-2010 Public Retirement Plans Mortality Tables.
- We recommend the Plan Actuary consider adoption of the MP mortality improvement projection scales.
- We recommend the Plan Actuary consider reporting the amortization period based on the Market Value of Assets.

REPLICATION OF SEPTEMBER 1, 2018 ACTUARIAL VALUATION

The following section details the results of the replication of the valuation results for the September 1, 2018 valuation. The replication was completed independently from the work of the Plan Actuary. During the replication process, we contacted the Plan Actuary to clarify methods.

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 the fact and are comfortable 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 have displayed the comparison of key valuation results in terms of both value and percentage differences. In a replication audit, we generally expect to be within 2% for the calculation of present value of future benefits and within 5% for the calculation of actuarial accrued liability and normal cost. The wider band of acceptable differences for accrued liability and normal cost is due to various methods that can be used to allocate the present value of future benefits to past and future years of service.

Using the census data noted above and applying the plan provisions and assumptions and methods summarized in the Plan Actuary's report, we were able to replicate the valuation results to within a reasonable level of accuracy. The key valuation results from our replication and those from the Plan Actuary's report are summarized below. Based on these results, it is our professional assessment that the Plan Actuary has provided a reasonable valuation in regards to the financial position of the City of El Paso Employees Retirement Trust. With that said, however, there are areas in the remainder of this report where we have provided recommendations or other findings that we believe will contribute to enhancing the annual valuation product.

KEY VALUATION RESULTS

	<u>Plan Actuary</u>	<u>Foster & Foster</u>	<u>Value Difference</u>	<u>Percent Difference</u>
Actuarial Value of Assets (AVA)	822,926,030	822,926,030	0	0.0%
Present Value of Future Benefits	1,188,097,918	1,173,783,875	(14,314,043)	-1.2%
Present Value of Future Normal Costs	163,718,751	163,126,376	(592,375)	-0.4%
Actuarial Accrued Liability	1,024,379,167	1,010,151,091	(14,228,076)	-1.4%
Unfunded Actuarial Accrued Liability	201,453,137	187,225,061	(14,228,076)	-7.1%
Covered Annual Payroll	167,225,529	167,225,529	0	0.0%
Normal Cost Rate (Before adj. for OT)	12.42%	12.36%	-0.1%	-0.5%
Normal Cost Rate (After adj. for OT)	11.94%	11.88%	-0.1%	-0.5%
Years to Amortize UAAL	14 Years	13 Years	(1 Year)	-7.1%

REVIEW OF METHODS

Actuarial Cost Method

The actuarial cost method is a budgeting mechanism to pay for a member's benefit over the course of their career. The accrued liability (used to determine the Plan's unfunded liability) and normal cost are determined using the actuarial cost method. The Entry Age Normal ("EAN") cost method was used for the September 1, 2018 valuation prepared by the Plan Actuary.

The overwhelming majority of public pension plans across the country use the EAN method since it produces stable and predictable normal costs, as a percentage of payroll. In addition, the EAN method complies with the PRB's Guidelines for Actuarial Soundness and satisfies Actuarial Standard of Practice ("ASOP") No. 4, *Measuring Pension Obligations and Determining Pension Plan Costs or Contributions*. Below, we have included a summary of the actuarial cost methods utilized across the State of Texas, as published in the PRB's 2019 "Guide to Public Retirement Systems in Texas" (PRB Guide), which focuses on the 99 actuarially-funded defined benefit systems around the state.

Cost Method	Percent of Plans
Entry Age Normal	94%
Ultimate EAN	3%
Traditional Unit Credit	2%
Aggregate	1%
Total	100%

Therefore, we believe the choice of the EAN method is appropriate for the Plan.

Asset Valuation Method

Market values of assets can fluctuate greatly from year to year, which can lead to large changes in annual actuarially determined contributions and the period for amortizing the unfunded actuarial accrued liability. For this reason, many plans use an asset valuation method (or asset smoothing method) that reduces the year-to-year fluctuations and produces more stable results.

The asset valuation method used for the September 1, 2018 actuarial valuation, spreads the annual gain (or loss) on the market value of assets over a five-year period. For this purpose, the gain (or loss) is calculated as the difference between the Plan's actual net investment return and the expected return based on the Plan's investment return assumption. The resulting actuarial value of assets is further constrained to be within an 80% to 120% corridor around the market value of assets.

ASOP No. 44, *Selection and Use of Asset Valuation Methods for Pension Valuations*, provides guidelines for an appropriate asset valuation method. Under these guidelines, an appropriate asset valuation method will produce an actuarial value of assets that (1) bears a reasonable relationship to the corresponding market value of assets; (2) recognizes the difference between market value and actuarial value over a reasonable period of time; and (3) does not result in a significant systemic bias in the actuarial value of assets.

We believe that the current asset valuation method complies with ASOP No. 44 and is a reasonable choice for the Plan. With that said, we recommend that the Plan Actuary disclose what the amortization period would be based on the market value of assets as of the valuation date in conjunction with future actuarial valuation reports, as this is a more accurate depiction of the true amortization period of the Plan as of that date.

Amortization of Unfunded Liability

The PRB's Pension 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 Plan Actuary discloses in the September 1, 2018 actuarial valuation report that the amortization period for the unfunded actuarial accrued liability is 14 years, which satisfies the second PRB guideline noted above. In calculating this period, the Plan Actuary uses a level percentage of projected payroll to amortize the unfunded actuarial accrued liability, which satisfies the first PRB guideline noted above. Therefore, the PRB guidelines with respect to the amortization of the unfunded actuarial accrued liability are satisfied.

REVIEW OF ECONOMIC ASSUMPTIONS

ASOP No. 27, *Selection of Economic Assumptions for Measuring Pension Obligations*, provides guidance to actuaries in selecting (including giving advice on selecting) economic assumptions – primarily investment return, discount rate, and salary scale – for measuring obligations under defined benefit pension plans.

Throughout the remainder of this section, we have used the standards set forth in ASOP No. 27 as a guideline for reviewing the following economic actuarial assumptions:

- Inflation
- Investment Return
- Payroll Growth
- Salary Increases

Please keep in mind that ASOP No. 27 states that “the best an actuary can do is to use professional judgment to estimate possible future economic outcomes based on past experience and future expectations, and to select assumptions based upon that application of professional judgment.”

Inflation

Generally, inflation is the rate at which prices change over the whole of the economy. The inflation assumption is considered to be the cornerstone in the development of most of the economic assumptions used in an actuarial valuation. It is used in the building block approach used to develop the investment return assumption and the salary increase assumption, as well as the payroll growth assumption.

ASOP No. 27 provides that in selecting an inflation assumption, specific data elements that can be used in the selection of the inflation assumption are consumer price indices, the implicit price deflator, forecasts of inflation, yields on government securities of various maturities, and yields on nominal and inflation-indexed debt.

The average increase in the consumer price indices (CPI) over the last 10, 20 and 30 years (as of September 1, 2018) were 1.42%, 2.19% and 2.53%, which are all less than the current 3.00% assumed by the Plan Actuary. However, inflation is a forward-looking assumption, so historical data is not always the best estimate for future expectations.

One source for gaining an insight into forecasts of expected inflation rates is the ‘Survey of Capital Market Assumptions’ produced by Horizon Actuarial Services each year. This report includes the capital market, as well as inflation, assumptions provided by a number of investment consulting firms. In the 2019 edition of the survey, 34 investment advisors responded, of which 16 provided their assumptions based on an horizon of 20 or more years. Based on the information provided, the survey compiles an average expected long-term real rate of return for each asset class, as well as an average inflation assumption.

As illustrated in the survey, the average inflation assumption over a 10-year horizon produced by all 34 respondents was 2.21% per year and the average inflation assumption over a 20-year horizon produced by 16 respondents was 2.29% per year. Based on these results, the current 3.00% assumption is quite a bit higher than the average assumption produced by a subset of investment advisors.

Another source for gaining an insight into future inflation rates is the OASDI Trustees Reports, which predict inflation for low, intermediate and high cost scenarios. The range between the low-cost and high-cost scenarios in the 2019 report was 2.00% to 3.20%. Thus, the current 3.00% assumption was within the range.

Similar to the review of the actuarial cost method section, we have included a summary of the inflation rate assumptions used around the state, as published in the PRB Guide. As you can see, 51% of plans across the state use an inflation assumption that is less than the 3.00% inflation assumption used by the Plan Actuary.

Inflation Assumption	Percent of Plans	Running Total
2.00%	2%	2%
2.25%	2%	4%
2.30%	3%	7%
2.50%	29%	36%
2.75%	15%	51%
3.00%	29%	80%
3.25%	4%	84%
3.40%	1%	85%
3.50%	4%	89%
3.75%	1%	90%
N/A	10%	100%

Based on the above, we believe that the inflation assumption is reasonable, although at the very edge of the reasonable range. We recommend that the Plan Actuary consider a reduction in the 3.00% inflation assumption.

Investment Return

The investment return assumption is critical in the actuarial valuation since it determines the portion of assets that will come from investment income rather than from City and member contributions. The investment return assumption should be determined based on the long-term rate of return (net of fees) the Plan expects to earn over the life of the plan. ASOP No. 27 provides that in developing a reasonable assumption, the actuary may consider a broad range of data and other inputs, including the judgment of the investment professionals. The data to be reviewed includes current yields of fixed income securities; forecasts of inflation, GDP growth and total returns for each asset class; historical and current investment data, including real and nominal returns, inflation and inflation risk, dividend yields, earnings yields and real estate capitalization rates; and historical plan performance.

For this purpose, a building block approach is often used, whereby the actuary determines the weighted average expected real rate of return for the Plan's target investment portfolio and then makes adjustments for inflation and expenses not reflected in the real rates of return.

As previously mentioned, the Horizon 'Survey of Capital Market Assumptions' compiles an average expected long-term real rate of return for each asset class based on a number of respondents across the industry. In order to analyze the reasonableness for continued use of the current 7.50% investment return assumption, we located the current target asset allocation of the Plan and applied the results of the Horizon survey.

The Plan's website includes a copy of the January 2020 investment policy statement, which includes the target allocation by asset class, as follows:

Asset Class	Target
Domestic Equity – Large Cap - Index	9.30%
Domestic Equity – Large Cap - Dynamic	7.75%
Domestic Equity – Small/Mid Cap - Growth	4.65%
Domestic Equity – Small/Mid Cap - Value	4.65%
Domestic Equity – All Cap	4.65%
International Equity – Developed Index	8.40%
International Equity – All Country	4.20%
International Equity – All Country Small Cap	4.20%
International Equity – Emerging Markets	4.20%
Fixed Income – Core Index	6.00%
Fixed Income – Core Plus	12.00%
Fixed Income – Opportunistic	6.00%
Real Estate – Core Private	10.00%
Private Equity	13.00%
Cash	1.00%
Total	100.00%

In order to test the reasonableness of the current 7.50% assumption, we mapped the asset classes in the target asset allocation to those illustrated in the Horizon survey in order to produce a long-term (20+ years) expected return for the entire portfolio. Based on the average expected geometric return and the expected risk produced in the survey by asset class, we determined that the current target asset allocation produces an expected long-term real rate of return of approximately 5.4%. Applying the average inflation assumption reported in the survey of 2.3% would yield an expected long-term return of 7.7%. Using the Plan's currently assumed 3.00% inflation rate, this produces a long-term return of 8.4%.

The table on the following page summarizes the investment return assumptions used around the state, as disclosed in the PRB guide. Based on this information, 45% of plans across the state use an investment return assumption that is below the 7.50% assumption used by your Plan Actuary, and 20% use a 7.50% investment return assumption. Therefore, the 7.50% assumption is in line with the average assumption used by other plans across the state.

Investment Return Assumption	Percent of Plans	Running Total
5.00%	1%	1%
6.17%	1%	2%
6.25%	1%	3%
6.50%	1%	4%
6.75%	8%	12%
7.00%	14%	26%
7.25%	18%	44%
7.40%	1%	45%
7.50%	20%	65%
7.70%	2%	67%
7.75%	22%	89%
7.90%	2%	91%
8.00%	9%	100%

Based on the above, we believe that the investment return assumption is reasonable and complies with ASOP No. 27. With that said, the valuation report does not provide any rationale to justify the use of the 7.50% assumption. We recommend that the Plan Actuary include sufficient support of the investment return assumption in future reports.

Salary Increase Assumption

The salary increase assumption determines the rate at which the salary of a member increases while he is actively employed. This allows the actuary to estimate the pension benefit the member will be entitled to at retirement. This assumption should be set based upon the experience and expectation of the Plan over a member's career and can vary dramatically from one Plan to the next. It should incorporate inflation adjustments, longevity increases and step increases due to promotions.

The current assumption is a service-based table (shown below) decreasing from 4.50% per year at the beginning of a member's career to 3.00% per year upon completion of 12 or more years of service.

Salary Scale	
Service	Rate
0-2	4.50%
3-6	4.00%
7-11	3.50%
12+	3.00%

The current assumption is based on the actuarial experience study performed for the four-year period ending August 31, 2014. Based on the information presented in that study, it appears that the salary increase experience was consistent with the assumptions developed.

It is important to point out that reflecting the Plan Actuary's inflation assumption of 3.00% per year, the portion of the salary increase assumption related to merit increases (longevity and promotion) ranges from 0.0 to 1.5%. We believe this rate would be considered a little low, but when combined with the higher inflation assumption produces an overall rate that seems reasonable.

We recommend that an updated experience analysis be performed by the Plan Actuary, if not done so already, to certify the reasonableness of the continued use of the individual salary increases.

Payroll Growth Assumption

While the salary increase assumption determines the rate at which the salary of an individual member grows, the payroll growth assumption is used to determine the rate at which the payroll for the entire department/membership grows. This assumption is important in determining the amortization period of the unfunded liability. Typically, the payroll growth assumption is less than the salary increase assumption since many of the higher paid members retire each year and are replaced with new, lower paid members.

The Plan Actuary's current assumption for future payroll growth is 3.00% per year, which is equal to the inflation rate. Based on our review of the most recent experience analysis, it appears a review of the payroll growth assumption was not included as part of that study. We recommend that the Plan Actuary include the payroll growth assumption in future experience studies in order to provide support/rationale for use of the assumed rate in the actuarial valuations.

Below we have summarized the payroll growth assumptions used across the state, as published by the PRB guide. As you can see, the 3.00% payroll growth assumption is the most commonly used assumption across the state.

Payroll Growth Assumption	Percent of Plans	Running Total
2.00%	1%	1%
2.75%	9%	10%
2.80%	1%	11%
3.00%	29%	40%
3.25%	11%	51%
3.40%	1%	52%
3.50%	21%	73%
3.75%	3%	76%
4.00%	20%	96%
4.50%	3%	99%
5.00%	1%	100%

In order to test the reasonableness of the current 3.00% payroll growth assumption, we gathered historical information as disclosed in the September 1, 2018 valuation report.

Year	Covered Payroll
2008	\$ 136.5 million
2010	\$ 143.1 million
2012	\$ 147.7 million
2014	\$ 153.6 million
2016	\$ 156.3 million
2018	\$ 167.2 million

Based on this information, the actual average payroll growth of the Plan has been just over 2.0% per year for the last ten (10) years, which is lower than the current 3.00% assumption. We recommend the Plan Actuary consider a reduction in the payroll growth assumption to better align with actual plan experience.

Please note that maintaining a reasonable payroll growth assumption plays an important role in determining the financial status of the plan at the time of each actuarial valuation, as its main purpose is to calculate the amortization period as well as the recommended contribution rate needed for the system to achieve and maintain an amortization period that does not exceed 30 years, as required per Section 802.101(a) of the Texas Government Code.

REVIEW OF DEMOGRAPHIC ASSUMPTIONS

ASOP No. 35, *Selection of Demographic and Other Noneconomic Assumptions for Measuring Pension Obligations*, provides guidance to actuaries in selecting (including giving advice on selecting) demographic and other noneconomic assumptions for measuring obligations under defined benefit pension plans.

Generally, demographic assumptions are based on actual plan experience with additional considerations for current trends. ASOP No. 35 states “the actuary should use professional judgment to estimate possible future outcomes based on past experience and future expectations, and select assumptions based upon application of that professional judgment.” ASOP No. 35 also states that “a reasonable assumption is one that is expected to approximately model the contingency being measured and is not anticipated to produce significant cumulative actuarial gains or losses...the actuary should not give undue weight to past experience when selecting demographic assumptions.

As previously noted, the demographic assumptions were generally reviewed in conjunction with the actuarial experience analysis for the four-year period ending August 31, 2014. Based on the information included in that report, it appears the current assumptions generally reflect actual plan experience and are reasonable assumptions that comply with ASOP No. 35. We would suggest that the Plan Actuary perform an updated experience analysis, if not done so already, to certify the actuarial assumptions being used in the valuation report. Based on recent publication, we feel commentary on the current mortality assumption is warranted.

Mortality Assumption

The rate of mortality is the probability of death at a given age. As mortality rates have continued to decline over time, concern has increased about the impact of potential future mortality improvements on the magnitude of pension obligations. ASOP No. 35 discusses the importance of actuaries considering mortality improvements when measuring pension obligations. Specifically, an actuary should adjust mortality rates to reflect mortality improvement prior to the measurement date and include an assumption regarding the expected mortality improvement after the measurement date, if reasonable.

The Plan Actuary currently lists the mortality assumption as “Mortality rates for non-disabled participants are based on the RP-2014 employee tables with Blue Collar adjustment projected to 2030 using Scale BB. Mortality rates for disabled participants are based on the RP-2014 Tables for Disabled Lives.” At the time of the valuation, this table represented the most current life expectancy data. At this point, we think the current tables satisfy the ASOPs.

It is important to point out, however, that The Society of Actuaries underwent a comprehensive study with the primary objective to develop mortality tables comprised solely of public-sector lives. Additionally, contributors to the study were asked to identify plan members as teachers, public safety personnel, or general employees. This helped provide new insights into the composition of gender-specific pension mortality by factors such as job category, specifically in the public sector.

As an actuary, we feel it is prudent to adopt the most recent mortality tables applicable to public sector plans. We recommend that the Plan Actuary consider adoption of the Pub-2010 Public Retirement Plans Mortality Tables, along with the most recently published MP mortality improvement scale.

SUMMARY

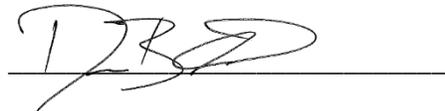
Based on our review, the September 1, 2018 actuarial valuation prepared by the Plan Actuary is based on reasonable actuarial assumptions and methods, complies with Actuarial Standards of Practice and is in compliance with the guidelines set forth by the Texas Pension Review Board. In addition, the valuation appeared to be accurate and was based on accurate census data.

While the actuarial assumptions were reasonable as of September 1, 2018, the Board should continue to monitor the continued reasonableness of the assumptions. We believe the Board should consider having an updated experience study performed to assist in this effort. In particular, the Board may want to monitor the following assumptions:

- Inflation – since inflation rates have generally decreased in recent years;
- Payroll Growth – since actual Plan experience has been lower than the current assumption in recent years;
- Mortality – since recently published tables may be a better reflection of mortality for the population covered by the Plan

Respectfully submitted,

Foster & Foster, Inc.



Drew D. Ballard, EA, MAAA



Bradley R. Heinrichs, FSA, EA, MAAA



Peter B. McCloud, FSA, EA

APPENDIX – PLAN ACTUARY RESPONSE

From: Kershner, David (Buck) <David.Kershner@buck.com>
Sent: Saturday, May 30, 2020 7:29 AM
To: Ash, Robert <AshRX@elpasotexas.gov>
Cc: njc1260@gmail.com; Studer, Robert <studer@crrma.org>; Ford, Ric (Buck) <Ric.Ford@buck.com>; Driscoll, David (Buck) <David.Driscoll@buck.com>
Subject: FW: Actuarial Audit

Hi Robert,

For convenience, I have copied below the “summary of findings and recommendations” from the Executive Summary of Foster & Foster’s actuarial audit report, along with our **responses**.

1. We have relied on census data provided by the Plan Actuary, asset information illustrated in the valuation report, as well as other information available on the City’s or Plan’s websites. While we cannot verify the accuracy of all of this information, the supplied information was reviewed for consistency and reasonableness.
2. In general, we believe that the valuation report complies with the Actuarial Standards of Practice (ASOPs) that apply specifically to valuing pensions, as well as the guidelines set forth by the Texas Pension Review Board (PRB).
3. Using the census data provided, the plan provisions and actuarial assumptions as stated in the valuation report, we were able to replicate the valuation results within a reasonable level of accuracy.
4. In general, the actuarial assumptions used for completion of the valuation report are based on an experience review for the four-year period ending August 31, 2014. We recommend that an updated experience analysis be performed by the Plan Actuary, if not done so already, to certify the reasonableness of the continued use of the actuarial assumptions used in the valuation, individually and in the aggregate. **We recently completed an experience study for the 4-year period ending August 31, 2018. The proposed assumption changes were discussed with the Actuary Committee and Board in April and May, and the Board adopted the proposed assumption changes effective for the next valuation (September 1, 2020). The changes in assumptions are discussed further below.**
5. We feel that the assumed rate of investment return of 7.50% per year is supported by the target asset allocation of the trust and the expected long-term return by asset class. We recommend the Plan Actuary include sufficient rationale of the investment return assumption in the report. **This assumption was discussed as part of the recently-completed experience study, and the Board elected to lower the investment return assumption to 7.25%. Since this assumption is typically reviewed as part of the experience study, and not the annual valuation, we do not believe it is necessary to include the rationale for the assumption in the valuation report (other than indicating the Board adopted the assumption based on the last experience study).**

6. We recommend the Plan Actuary consider a reduction in the 3.00% inflation assumption. This was discussed during the recently-completed experience study, and the Board elected to lower the inflation assumption to 2.5%.
7. We recommend the Plan Actuary consider a reduction in the 3.00% payroll growth assumption. This was discussed during the recently-completed experience study, and the Board elected to lower the payroll growth assumption to 2.5%.
8. We recommend the Plan Actuary consider adoption of the Pub-2010 Public Retirement Plans Mortality Tables. As we discussed during the recently-completed experience study, we considered Pub-2010 mortality tables along with the current mortality assumption that is based on RP-2014 tables. Plan experience was a better “fit” when compared to RP-2014 (reflecting the plan’s partially credible mortality experience).
9. We recommend the Plan Actuary consider adoption of the MP mortality improvement projection scales. This was discussed during the recently-completed experience study, and the Board elected to adopt the MP-2019 generational improvement scale.
10. We recommend the Plan Actuary consider reporting the amortization period based on the Market Value of Assets. The amortization of the Unfunded Actuarial Accrued Liability (UAAL) is an element of the funding policy that has been adopted by the Board, and the “years to fund the UAAL” is disclosed in our valuation reports. The UAAL is based on the Actuarial Value of Assets, not the Market Value of Assets. Therefore, we believe it could be potentially misleading to users of the valuation reports to include the period to fund an unfunded liability that is based on Market Value of Assets.

Let me know if you have any questions or if you would like to discuss this further.

Thanks,
David

David J. Kershner, FSA, EA, MAAA, FCA
Principal, Consulting Actuary
Buck

M: 602-803-6174

E: david.kershner@buck.com

www.buck.com