SPRINGFIELD FIREFIGHTERS' PENSION FUND

FUNDING ACTUARIAL VALUATION
AS OF MARCH 1, 2025

FOR THE CONTRIBUTION YEAR
MARCH 1, 2025 TO FEBRUARY 28, 2026

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Actuarial Funding Report

Lauterbach & Amen, LLP

CERTIFIED PUBLIC ACCOUNTANTS

SPRINGFIELD FIREFIGHTERS' PENSION FUND

Contribution Year Ending: February 28, 2026
Actuarial Valuation Date: March 1, 2025
Data Date: February 28, 2025

Contact:

Todd A. Schroeder
Partner
April 28, 2025

LAUTERBACH & AMEN, LLP

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ACTUARIAL CERTIFICATION

This report documents the results of the Actuarial Valuation for the Springfield Firefighters' Pension Fund. The information was prepared for use by the Springfield Firefighters' Pension Fund and the City of Springfield, Illinois for determining the Recommended Contribution, under the selected Funding Policy, and the Alternative Contribution for the Contribution Year March 1, 2025 to February 28, 2026. It is not intended or suitable for other purposes. Determinations for purposes other than the Employer's Actuarial Recommended Contribution may be significantly different from the results herein.

The results in this report are based on the demographic data and financial information submitted by the Springfield Firefighters' Pension Fund, and may include results from the prior Actuary. We did not prepare the Actuarial Valuations for the years prior to March 1, 2016. Those valuations were prepared by the prior Actuary whose reports have been furnished to us, and our disclosures are based on those reports. An audit of the prior Actuary's results was not performed, but high-level reviews were completed for general reasonableness, as appropriate, based on the purpose of this valuation. The accuracy of the results is dependent on the precision and completeness of the underlying information.

In addition, the results of the Actuarial Valuation involve certain risks and uncertainty as they are based on future assumptions, market conditions, and events that may never materialize as assumed. For this reason, certain assumptions and future results may be materially different than those presented in this report. See the *Management Summary* section of this report for a more detailed discussion of the Defined Benefit Plan Risks, as well as the limitations of this Actuarial Valuation on assessing those risks. We are not aware of any known events subsequent to the Actuarial Valuation Date, which are not reflected in this report but should be valued, that may materially impact the results.

The valuation results summarized in this report involve actuarial calculations that require assumptions about future events. The Springfield Firefighters' Pension Fund selected certain assumptions, while others were the result of guidance and/or judgment from the Plan's Actuary or Advisors. We believe that the assumptions used in this valuation are reasonable and appropriate for the purposes for which they have been used. The selected assumptions represent our best estimate of the anticipated long-term experience of the Plan, and meet the guidelines set forth in the Actuarial Standards of Practice.

In preparing the results, our Actuaries used commercially available software (ProVal) developed by Winklevoss Technologies, LLC. This software is widely used for the purpose of performing Actuarial Valuations. Our Actuaries coded the plan provisions, assumptions, methods, and demographic data summarized in this report, and reviewed the liability and cost outputs for reasonableness. We are not aware of any material weaknesses or limitations in the software, and have determined it is appropriate for performing this valuation.

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To the best of our knowledge, all calculations are in accordance with the applicable funding requirements, and the procedures followed and presentation of results conform to generally accepted actuarial principles and practices as prescribed by the Actuarial Standards Board. The undersigned consultants of Lauterbach & Amen, LLP, with actuarial credentials, meet the Qualification Standards of the American Academy of Actuaries to render this Actuarial Certification. There is no relationship between the Springfield Firefighters' Pension Fund and Lauterbach & Amen, LLP that impairs our objectivity.

Respectfully Submitted,

LAUTERBACH & AMEN, LLP

Todd A. Schroeder, ASA, FCA, EA, MAAA

David Murciano, ASA, FCA, EA, MAAA

MANAGEMENT SUMMARY

Recommended Contribution
Funded Status
Management Summary – Comments and Analysis
Actuarial Recommended Contribution – Reconciliation

RECOMMENDED CONTRIBUTION

	Prior Valuation	Current Valuation
Recommended Contribution	$18,734,275	$21,172,924
Expected Payroll	$20,528,339	$21,238,188
Recommended Contribution as a Percent of Expected Payroll	91.26%	99.69%

The Recommended Contribution has Increased by $2,438,649 from the Prior Valuation.

FUNDED STATUS

	Prior Valuation	Current Valuation
Normal Cost	$5,004,661	$5,422,665
Fair Value of Assets	$175,602,774	$192,032,076
Actuarial Value of Assets	$178,614,888	$189,357,437
Actuarial Accrued Liability	$357,551,153	$382,639,821
Unfunded Actuarial Accrued Liability/(Surplus)	$178,936,265	$193,282,384
Percent Funded		
Actuarial Value of Assets	49.96%	49.49%
Fair Value of Assets	49.11%	50.19%

The Percent Funded has Decreased by 0.47% on an Actuarial Value of Assets Basis.

MANAGEMENT SUMMARY – COMMENTS AND ANALYSIS

Contribution Results

The Recommended Contribution is based on the selected Funding Policy and methods that are outlined in the *Actuarial Funding Policies* section of this report.

"Contribution Risk" is defined by the Actuarial Standards of Practice as the potential for actual future contributions to deviate from expected future contributions. For example, when actual contributions are not made in accordance to the Plan's Funding Policy, or when future experience deviates materially from assumed. While it is essential for the Actuary and Plan Sponsor to collaborate on implementing a sound and financially feasible Funding Policy, it is important to note that the Actuary is not required, and is not in the position to, evaluate the ability or willingness of the Plan Sponsor to make the Recommended Contribution under the selected Funding Policy.

As a result, while Contribution Risk may be a significant source of risk for the Plan, this Actuarial Valuation makes no attempt to assess the impact of future contributions falling short of those recommended under the selected Funding Policy. Notwithstanding the above, see the *Actuarial Recommended Contribution – Reconciliation* section of this report for the impact on the current Recommended Contribution of any contribution shortfalls or excesses from the prior year.

Defined Benefit Plan Risks

Asset Growth:

Pension funding involves preparing Fund assets to pay for benefits when Members retire. During their working careers, assets grow with contributions and investment earnings; and then, the Pension Fund distributes assets in retirement. Based on the Plan's current mix of Members and Funded Status, the Plan should experience positive asset growth, on average, if the Recommended Contributions are made and expected investment earnings come in. In the current year, the Fund asset growth was positive by approximately $16,429,300.

Asset growth is important in the long-term. Long-term cash flow out of the Pension Fund is primarily benefit payments, and expenses are a smaller portion. The Plan should monitor the impact of expected benefit payments on future asset growth. We assess and project all future benefit payments as part of the determination of liability. The assessment is made on all current Members of the Fund, both active and inactive. For active Members, the assessment includes the probability that Members terminate or retire and begin receiving benefits. In the next 5 years, benefit payments are anticipated to increase 25-30%, or approximately $5,863,300. In the next 10 years, the expected increase in benefit payments is 55-60%, or approximately $11,083,200. The estimated increase in benefit payments is being compared against the benefits paid to inactive Members during the fiscal year, excluding any refunds of Member Contributions.

Furthermore, plans with a large number of inactive Members have an increased "Longevity Risk". Longevity Risk is the possibility that inactive Members may live longer than projected by the Plan's mortality assumption. As shown in the previous paragraph, benefit payments are expected to increase over

the next 5-year and 10-year horizons. The projected increases assume that current inactive Members pass away according to the Plan's mortality assumption. To the extent that current inactive Members live longer than expected, the future 5-year and 10-year benefit projections may be larger than the amounts disclosed in the previous paragraph. Higher levels of benefit payments, payable for a longer period of time, may cause a significant strain on the Plan's cash flow, future Recommended Contributions, and may lead to Plan insolvency.

Unfunded Liability:
Unfunded Liability represents the financial shortfall of the Actuarial Value of Assets compared to the Actuarial Accrued Liability. To the extent that Unfunded Liability exists, the Plan is losing potential investment earnings due to the financial shortfall. Contributions towards Unfunded Liability pay for the lost investment earnings, as well as the outstanding unfunded amount. If payments towards Unfunded Liability are not made, the Unfunded Liability will grow.

In the early 1990s, many Pension Funds in Illinois adopted an increasing payment towards Unfunded Liability due to a change in legislation. The initial payment decreased, and future payments are anticipated to increase annually after that. In many situations, payments early on were less than the interest on Unfunded Liability, which means that Unfunded Liability increased even though contributions were made at the recommended level.

The current Recommended Contribution includes a payment towards Unfunded Liability that is approximately $3,960,400 greater than the interest on Unfunded Liability. All else being equal, and contributions being made, Unfunded Liability is expected to decrease. The Employer and Fund should anticipate improvement in the current Percent Funded in the short-term. The Employer and Fund should understand this impact as we progress forward to manage expectations.

Actuarial Value of Assets:
The Pension Fund smooths investment returns that vary from expectations over a 5-year period. The intention is that investment returns for purposes of recommended funding are a combination of several years. The impact is intended to smooth out the volatility of Recommended Contributions over time, but not necessarily increase or decrease the level of contributions over the long-term.

When investment returns are smoothed, there are always gains or losses on the Fair Value of Assets that are going to be deferred for current funding purposes, and recognized in future years. Currently, the Pension Fund is deferring approximately $2,674,600 in gains on the Fair Value of Assets. These are asset gains that will be recognized in upcoming periods, independent of the future performance of the Fair Value of Assets.

Cash Flow Risk:
Assets, liabilities, and Funded Status are good metrics to monitor over time to assess the progress of the Funding Policy. However, these metrics may provide limited forward-looking insights. Specifically, the

maturity of a Pension Fund can pose certain risks that often cannot be assessed with a point-in-time metric such as Percent Funded.

For example, two different Pension Funds could have the same Percent Funded, but have completely different risk profiles. One Fund might mostly cover active Members with little to no Members in pay status, whereas a second Fund might mostly cover inactive Members with a significant level of annual benefit payments. The latter Fund has a greater "Cash Flow Risk", i.e. a more significant chance that negative cash flows could lead to a deteriorating, rather than improving, Percent Funded over time.

It is important to note that, in general, positive net cash flows are good, but also need to be sufficient to cover the growth in the liabilities (i.e. the Normal Cost as well as interest on the Actuarial Accrued Liability). Typically, when cash flows are assumed to be insufficient to cover the growth in liabilities, the Percent Funded will decline, while future Recommended Contributions will increase.

For this Plan, the Fair Value of Assets is less than the Actuarial Accrued Liability for inactive Members. The Fund assets and anticipated investment earnings are not sufficient to cover the benefits payable to the current inactive Members. In addition, there is currently no money set aside for active Member liability. There are two consequences. First, we are limiting the impact of investment earnings on accruing money for the active Members due to utilizing those dollars to pay for the current inactive Members. Second, there is Cash Flow Risk that exists in that a higher portion of the assets is needed to keep up with cash flow out for benefit payments, and a higher relative investment return is required to keep cash flow positive in any given year.

Benefit Payment Risk:
Ideally, plans in a sound financial position will have the ratio of annual benefits payments to the Fair Value of Assets to be less than the Expected Rate of Return on Investments assumption (i.e. 7.00%). Theoretically, in this case it can be considered that investment returns will fully cover the annual benefit payments, and therefore, all Employer and Member Contributions made to the Fund will be used to pay for future benefit accruals and pay down the existing Unfunded Liability. To the extent that the ratio of the annual benefit payments to the Fair Value of Assets increases to above the Expected Rate of Return on Investments assumption, the Plan may experience some additional risks, such as the need to keep assets in more liquid investments, inability to pay down Unfunded Liability, and may lead to Plan insolvency.

As of the Valuation Date, the Springfield Firefighters' Pension Fund has a ratio of benefit payments to the Fair Value of Assets of 10.28%. In this case, a portion of the Employer Contributions are being used to pay the annual benefit payments creating Benefit Payment Risk and Cash Flow Risk. The Percent Funded of the Plan may not grow as quickly as expected under the current Funding Policy, since the amortization payment towards the Unfunded Liability is not being fully realized. As shown in the *Asset Growth* section of this report, the 5-year and 10-year horizons of future benefit payments are expected to increase. The Plan Sponsor should monitor the percentage of annual benefit payments to the Fair Value of Assets and consider changing the Funding Policy if this ratio continues to increase.

Fund Assets

The results in this report are based on the assets held in the Pension Fund. Assets consist of funds held for investment and for benefit payments as of the Actuarial Valuation Date. In addition, assets may be adjusted for other events representing dollars that are reasonably expected to be paid out from the Pension Fund or deposited into the Pension Fund after the Actuarial Valuation Date as well.

The current Fund assets are audited.

The Actuarial Value of Assets under the Funding Policy is equal to the Fair Value of Assets, with unexpected gains and losses smoothed over 5 years. More detail on the Actuarial Value of Assets can be found in the *Actuarial Funding Policies* section of this report.

The Fund Assets Used in this Report are Audited.

Demographic Data

Demographic factors can change from year to year within the Pension Fund. Changes in this category include hiring new Members, Members retiring or becoming disabled, inactive Members passing away, and other changes. Demographic changes can cause an actuarial gain (contribution that is less than expected compared to the prior year) or an actuarial loss (contribution that is greater than expected compared to the prior year).

Demographic gains and losses occur when the assumptions over the one-year period for Member changes do not meet our long-term expectation. For example, if no Members become disabled during the year, we would expect a liability gain. If more Members become disabled than anticipated during the year, we would expect a liability loss. Generally, we expect short-term fluctuations in demographic experience to create gains or losses of 1%-3% of the Actuarial Accrued Liability in any given year, but to balance out in the long-term.

"Demographic Risk" occurs when Plan demographic experience differs significantly from expected. Similar to Longevity Risk discussed previously, additional risk is created when demographic experience differs from the assumed rates of disability, retirement, or termination. Under the chosen assumptions, actuarial gains and/or losses will always occur, as the assumptions will never be exactly realized. However, the magnitude of the gain and/or loss and its influence on the Recommended Contribution largely depends on the size of the Plan.

A key Demographic Risk is mortality improvement differing from expected. While the actuarial assumptions reflect small, continuous improvements in mortality experience and these assumptions are refined upon the completion of each actuarial experience study, the risk arises because there is a possibility of a sudden shift in mortality experience. This report reflects the impact of COVID-19 experience that has been accounted for in the underlying demographic data. This report does not reflect the ongoing impact of COVID-19, which is likely to influence demographic and economic experience, at least in the short-term. We will continue to monitor these developments and their impact on the Plan. Actual future experience will be reflected in each subsequent Actuarial Valuation, as experience emerges.

Based on the number of active Members in the Plan, the Recommended Contribution has a low risk of having a significant increase due to demographic experience. For example, 1 new disabled Member would typically generate a substantial increase to the Actuarial Accrued Liability. However, due to the size of the Plan, there is an appropriate means to absorb demographic losses without causing a significant increase to the Recommended Contribution.

In the current report, the key demographic changes were as follows:

New Hires: There were 15 Members of the Fund who were hired during the year. When a Member is admitted to the Pension Fund, the Employer Contribution will increase to reflect the new Member. The increase in the Recommended Contribution in the current year due to the new Member experience is approximately $98,600.

Retirement: There were 9 Members of the Fund who retired during the year. When a Member retires, the Normal Cost will decrease. Any change in the Actuarial Accrued Liability will be considered when determining the amount to pay towards Unfunded Liability each year. The increase in the Recommended Contribution in the current year due to the retirement experience is approximately $127,700.

Disability: There were 3 Members of the Fund who became disabled during the year. When a Member becomes disabled, the Fund will often experience a decrease in Normal Cost, but an increase in Unfunded Liability. The increase in the Recommended Contribution in the current year due to the disability experience is approximately $145,700.

Termination: There was 1 Member of the Fund who terminated employment during the year. The Fund may be obligated to pay a benefit or a refund of Member Contributions to the Member in the future. The decrease in the Recommended Contribution in the current year due to the termination experience is approximately $9,900.

Mortality: There were 5 retirees who passed away during the year, 4 of whom had an eligible surviving spouse. Also, there was 1 surviving spouse who passed away during the year. When a retiree passes away, the Fund liability will decrease as the Pension Fund will no longer make future payments to the retiree. If there is an eligible surviving spouse, the Fund liability will increase to represent the value of the expected payments that will be made to the spouse. When a surviving spouse passes away, the Fund liability will decrease as the Pension Fund will no longer make future payments to the surviving spouse.

As inactive Members age and continue to collect benefits, the Fund liability will also increase. In the current year, there were 257 inactive Members who maintained their benefit collection status throughout the year. The net increase in the Recommended Contribution in the current year due to the mortality experience is approximately $85,800.

Salary Increases: Salary increases were greater than anticipated in the current year. This caused an increase in the Recommended Contribution in the current year of approximately $112,100.

Assumption Changes

We performed a comprehensive study of Firefighters and Firefighters' Pension Funds in Illinois. We reviewed the results of the study as well as the demographic experience of the Fund. The actuarial assumptions were changed in the current valuation to the rates shown in the *Actuarial Assumptions* section of this report. The assumptions impacted include:

- Inflation Rate (CPI-U)
- Individual Pay Increases
- Retirement Rates
- Termination Rates
- Disability Rates
- Mortality Rates
- Mortality Improvement Rates
- Duty Death Probability

The assumption changes stated above were made to better reflect the future anticipated experience of the Fund. See the *Actuarial Recommended Contribution – Reconciliation* section of this report for the impact of these changes on the current valuation.

Funding Policy Changes

The Funding Policy was changed from the prior valuation. The payments towards Unfunded Liability in the prior valuation were being amortized over a 16-year period as a level percentage of payroll. The current Funding Policy features a layered amortization of changes in the Unfunded Liability. The current Funding Policy represents a better fit for the goals of pension funding for all stakeholders. See the *Recommended Contribution Detail* section of this report for further details. This Funding Policy change had no impact on the current Recommended Contribution.

Output Smoothing

Contributions are determined annually by allocating dollars over a specified period of time. Procedures that are used to allocate contributions over a period of time may include asset smoothing, amortization period, and output smoothing. Each procedure becomes part of the Actuarial Methodology. Output smoothing involves measuring the impact of a specific result on a contribution and recognizing the result. The final contribution should maintain a reasonable relationship to the full Actuarially Determined Contribution.

The current results shown throughout the report reflect the full Actuarially Determined Contribution.

Outside the Cap

Each year, we estimate a dollar amount to be considered for exclusion from the Property Tax Extension Limitation Law (PTELL) as contemplated by 35 ILCS 200/18-185, if applicable. We are not intending to provide any tax advice with respect to the Property Tax Extension Limitation Law. This provision may or not apply to the tax levy for this Pension Fund. Determinations for purposes other than discussed may be significantly different than results herein.

If applicable, the dollar amount to consider for exclusion from the Property Tax Extension Limitation Law is $140,333. The figure represents the dollar amount of the increase in the Recommended Contribution due to the provisions of P.A. 93-689 as compared to the contribution determined under the provisions that existed prior to this Public Act.

In order to determine the dollar amount to consider for exclusion from the Property Tax Extension Limitation law, we valued the difference in Recommended Contribution attributable to providing surviving spouses of future Tier I retirees 100% of the benefit payable at time of death compared against 66.67% of the benefit payable at time of death. It is possible that estimates from other entities could determine a different amount that could be higher or lower than the amount calculated by Lauterbach & Amen, LLP. For example, when P.A. 93-689 first went into effect, the Illinois Department of Insurance used an estimate of 5% of the total Statutory Minimum Contribution.

Except as listed above, the data, assumptions, methods, funding policy, and plan provisions used in the determination of the amount to be considered outside the PTELL are the same as those found in the applicable sections of this report.

ACTUARIAL RECOMMENDED CONTRIBUTION – RECONCILIATION

Actuarial Accrued Liability is expected to increase each year for both interest for the year and as active Members earn additional service years towards retirement. Similarly, Actuarial Accrued Liability is expected to decrease when the Fund pays benefits to inactive Members.

Contributions are expected to increase as expected pay increases under the Funding Policy for the Fund.

	Actuarial Liability	Recommended Contribution
Prior Valuation	$ 357,551,153	$ 18,734,275
Expected Changes	10,240,712	501,410
Initial Expected Current Valuation	$ 367,791,865	$ 19,235,685

Other increases or decreases in Actuarial Accrued Liability (key changes noted below) will increase or decrease the amount of Unfunded Liability in the Plan. To the extent that Unfunded Liability increases or decreases unexpectedly, the contribution towards Unfunded Liability will also change unexpectedly.

	Actuarial Liability	Recommended Contribution
Salary Increases Greater than Expected	$ (497,265)	$ 112,100
Actuarial Experience	5,148,819	379,095
Assumption Changes	10,196,402	1,253,833
Investment Return Greater than Expected*	-	(114,263)
Contributions Less than Expected	-	306,474
Total Increase/(Decrease)	$ 14,847,956	$ 1,937,239
Current Valuation	$ 382,639,821	$ 21,172,924

*Impact on the Recommended Contribution due to investment return is on an Actuarial Value of Assets basis.

The Actuarial Experience can be attributable to several factors including, but not limited to, demographic changes and benefit payment experience compared to expectation. Key demographic changes were discussed in the *Demographic Data* section of this report.

VALUATION OF FUND ASSETS

Fair Value of Assets
Fair Value of Assets (Gain)/Loss
Development of the Actuarial Value of Assets
Actuarial Value of Assets (Gain)/Loss
Historical Asset Performance

FAIR VALUE OF ASSETS

Statement of Assets

	Prior Valuation	Current Valuation
Cash and Cash Equivalents	$ 3,715,633	$ 3,526,371
Pooled Investment Accounts	171,874,613	188,501,050
Receivables (Net of Payables)	12,528	4,655
Total Fair Value of Assets	$ 175,602,774	$ 192,032,076

The Total Fair Value of Assets has Increased by Approximately $16,429,300 from the Prior Valuation.

Statement of Changes in Assets

Total Fair Value of Assets - Prior Valuation	$ 175,602,774
Plus - Employer Contributions	15,195,370
Plus - Member Contributions	2,066,718
Plus - Return on Investments	19,079,398
Less - Benefit Payments	(19,738,156)
Less - Other Expenses	(174,028)
Total Fair Value of Assets - Current Valuation	$ 192,032,076

The Rate of Return on Investments on a Fair Value of Assets Basis for the Fund was Approximately 10.84% Net of Administrative Expense.

The Rate of Return on Investments shown above has been determined as a percent of the average of the prior and current Fair Value of Assets on the Statement of Changes in Assets. The Return on Investments is net of Other Expenses, and has been excluded from the Total Fair Value of Assets at the end of the Fiscal Year for this calculation.

FAIR VALUE OF ASSETS (GAIN)/LOSS

Current Year (Gain)/Loss on Fair Value of Assets

Total Fair Value of Assets - Prior Valuation	$	175,602,774
Employer and Member Contributions		17,262,088
Benefit Payments and Refunds		(19,738,156)
Expected Return on Investments		12,205,532
Expected Total Fair Value of Assets - Current Valuation	$	185,332,238
Actual Total Fair Value of Assets - Current Valuation		192,032,076
Current Fair Value of Assets (Gain)/Loss	$	(6,699,838)

The Actual Return on Investments on a Fair Value of Assets Basis was Greater than Expected for the Current Year.

Expected Return on Investments	$	12,205,532
Actual Return on Investments (Net of Expenses)		18,905,370
Current Fair Value of Assets (Gain)/Loss	$	(6,699,838)

The (Gain)/Loss on the current Fair Value of Assets has been determined based on the Expected Rate of Return on Investments as shown in the *Actuarial Assumptions* section of this report.

DEVELOPMENT OF THE ACTUARIAL VALUE OF ASSETS

Total Fair Value of Assets - Current Valuation		$ 192,032,076
Adjustment for Prior (Gains)/Losses		
	Full Amount	Deferral
FYE 2/28/2025	$ (6,699,838)	(5,359,870)
FYE 2/29/2024	(11,523,346)	(6,914,008)
FYE 2/29/2023	23,680,531	8,964,679
FYE 2/29/2022	3,352,429	634,560
Total Deferred (Gain)/Loss		(2,674,639)
Initial Actuarial Value of Assets - Current Valuation		$ 189,357,437
Less Contributions for the Current Year and Interest		-
Adjustment for the Corridor		-
Total Actuarial Value of Assets - Current Valuation		$ 189,357,437

The Actuarial Value of Assets is Equal to the Fair Value of Assets with Unanticipated (Gains)/Losses Recognized Over 5 Years. The Actuarial Value of Assets is 98.61% of the Fair Value of Assets.

ACTUARIAL VALUE OF ASSETS (GAIN)/LOSS

Total Actuarial Value of Assets - Prior Valuation	$ 178,614,888
Plus - Employer Contributions	15,195,370
Plus - Member Contributions	2,066,718
Plus - Return on Investments	13,392,645
Less - Benefit Payments	(19,738,156)
Less - Other Expenses	(174,028)
Total Actuarial Value of Assets - Current Valuation	$ 189,357,437

The Rate of Return on Investments on an Actuarial Value of Assets Basis for the Fund was Approximately 7.45% Net of Administrative Expense.

The Actuarial Value of Assets incorporates portions of gains and losses over multiple years.

HISTORICAL ASSET PERFORMANCE

The chart below shows the historical Rates of Return on Investments for both Fair Value of Assets and Actuarial Value of Assets.

	Fair Value of Assets	Actuarial Value of Assets
FYE 2/28/2025	10.84%	7.45%
FYE 2/29/2024	14.48%	5.79%
FYE 2/28/2023	(7.19%)	3.34%
FYE 2/28/2022	4.89%	7.43%
FYE 2/28/2021	16.02%	8.42%
FYE 2/29/2020	4.48%	4.58%
FYE 2/28/2019	1.61%	5.05%
FYE 2/28/2018	9.23%	6.62%
FYE 2/28/2017	13.30%	5.83%
FYE 2/29/2016	(5.10%)	4.60%
10-Year Arithmetic Average	6.26%	5.91%
10-Year Geometric Average	5.98%	5.90%

The historical Rates of Return on Investments shown above were calculated based on the annual Return on Investments, as a percentage of the average value of the assets for the year. The historical Rates of Return on Investments shown above may not reflect the current investment allocation of the Pension Fund.

For purposes of determining the average value of assets for the year, the ending Fair Value of Assets has been adjusted to net out to the portion related to the Return on Investments themselves. All other cash flows are included.

For purposes of determining the annual Return on Investments we have adjusted the figures shown on the preceding pages. The figures shown on the preceding pages are net of Investment Expenses. We have made an additional adjustment to net out Administrative Expenses. Netting out Administrative Expenses allows us to capture returns for the year that can be used to make benefit payments as part of the ongoing actuarial process.

The adjustments we made are for actuarial reporting purposes only. By netting out Administrative Expenses and capturing Return on Investments that are available to pay benefits, it provides us a comparison to the Expected Rate of Return on Investments, but does not provide a figure that would be consistent with the rates of return that are determined by other parties. Therefore, this calculated Return on Investments should not be used to analyze investment performance of the Fund or the performance of the investment professionals.

Expected Rate of Return on Investments Assumption

The Expected Rate of Return on Investments for this valuation is 7.00%. Lauterbach & Amen, LLP does not provide investment advice. We look at a variety of factors when reviewing the Expected Rate of Return on Investments assumption selected by the client. These factors include: historical Rates of Return on Investments, capital market projections performed by the Consolidated Board's investment advisors, the Consolidated Board's investment policy, capital market forward-looking benchmark expected returns by independent investment companies, rates used by comparable pension systems, and other factors identified in the Actuarial Standards of Practice.

Generally speaking, the ideal assumption for Expected Rate of Return on Investments is one that has a 50% chance of being met over the long-term. Recently, we have observed the following factors that impact Expected Rate of Return on Investments:

- Volatility in the market has been high which drags down long-term geometric returns.

- Similar pension systems are looking to reduce future expectations. We generally see about 95% of similar pension systems using an Expected Rate of Return on Investments that is between 6.25% and 7.50%.

- We have reviewed studies conducted by Firms who gather information from multiple investment advisors who provide models and opinions on capital market returns. Those studies help guide us to see if the assumption is expected to have a 50% chance of being met over the long-term. Plans are generally aiming towards 40th to 60th percentile returns, which can help define a range of reasonableness.

- We have reviewed an index of high-quality fixed income rates that takes into consideration the pattern of your benefit payments. The purpose of the review is to provide additional disclosure in Funding Actuarial Valuations for the Low-Default-Risk Obligation Measure. The rates in this measure are low-risk and are being used as an approximate for risk-free rates. Investment funds that incorporate diversified investments which build in more risk would be expected to earn a positive risk premium, over and above the risk-free rates.

If actual returns going forward come in less than expected, the pension system risks deferring contributions to the future that should be made today and creating additional contribution volatility. Below is a chart detailing the impact on the Recommended Contribution by decreasing or increasing the Expected Rate of Return on Investments by 25 basis points:

	0.25% Decrease (6.75%)	Current Expected Rate of Return on Investments (7.00%)	0.25% Increase (7.25%)
Recommended Contribution	$22,260,766	$21,172,924	$20,125,853

Currently, the client has selected an Expected Rate of Return assumption that falls within a reasonable range. We recommend the client review the Expected Rate of Return on Investments annually to ensure the selected rate remains within a reasonable range as market conditions change year-to-year.

"Investment Risk" is the potential that the actual Return on Investments will be different from what is expected. The selected Expected Rate of Return on Investments assumption is chosen to be a long-term assumption, producing a return that, on average, would produce a stable rate of return over a long-term horizon. Actual investment returns in the short-term may deviate from this long-term assumption due to current market conditions. Furthermore, establishing the Expected Rate of Return on Investments assumption may be dependent on the Illinois State Statutes pertaining to the limitations on types of investments Plan Sponsors may use. If the actual annual rates of return are less than the Expected Rate of Return on Investments, actuarial losses will be produced, thus increasing the Plan's Unfunded Liability and, subsequently, future Recommended Contributions.

"Asset/Liability Mismatch" risk is a similar concept as Investment Risk, as it relates to setting the Expected Rate of Return on Investments assumption compared to the actual Return on Investments achieved. The Interest Rate used to discount future Plan liabilities is set equal to the Expected Rate of Return on Investments. It is expected that the selected Interest Rate be a rate that is reasonably expected to be achieved over the long-term. To the extent that the selected Interest Rate to value Plan liabilities is unreasonable, or significantly different than the actual Return on Investments earned over an extended period of time, additional Interest Rate risk is created. For example, determining Plan liabilities at an Interest Rate higher than what is expected to be achieved through investment returns results in Unfunded Liability that is not a true representation of the Plan's condition and Percent Funded. As a result, the Actuarial Accrued Liability determined is an amount smaller than the liability that would be produced with an Interest Rate more indicative of future Expected Rate of Return on Investments. Therefore, the Recommended Contributions under the established Funding Policy may not be sufficient to appropriately meet the true pension obligations.

RECOMMENDED CONTRIBUTION DETAIL

Actuarial Accrued Liability
Funded Status
Development of the Employer Normal Cost
Normal Cost as a Percentage of Expected Payroll
Recommended Contribution Breakdown
Schedule of Amortization – New Unfunded Actuarial Accrued Liability
Schedule of Amortization – Total Unfunded Actuarial Accrued Liability
Actuarial Methods – Recommended Contribution

ACTUARIAL ACCRUED LIABILITY

	Prior Valuation	Current Valuation
Active Members	$ 85,780,864	$ 95,205,929
Inactive Members		
Terminated Members	1,937,999	2,094,757
Retired Members	232,513,332	243,649,792
Disabled Members	19,778,767	21,972,660
Other Beneficiaries	17,540,191	19,716,683
Total Inactive Members	271,770,289	287,433,892
Total Actuarial Accrued Liability	$ 357,551,153	$ 382,639,821

The Total Actuarial Accrued Liability has Increased by Approximately $25,088,700 from the Prior Valuation.

FUNDED STATUS

	Prior Valuation	Current Valuation
Total Actuarial Accrued Liability	$ 357,551,153	$ 382,639,821
Total Actuarial Value of Assets	178,614,888	189,357,437
Unfunded Actuarial Accrued Liability	$ 178,936,265	$ 193,282,384
Total Fair Value of Assets	$ 175,602,774	$ 192,032,076
Percent Funded		
Actuarial Value of Assets	49.96%	49.49%
Fair Value of Assets	49.11%	50.19%

The Percent Funded as of the Actuarial Valuation Date is Subject to Volatility on Assets and Liability in the Short-Term.

DEVELOPMENT OF THE EMPLOYER NORMAL COST

	Prior Valuation	Current Valuation
Total Normal Cost	$ 5,004,661	$ 5,422,665
Estimated Member Contributions	(1,914,630)	(1,980,844)
Employer Normal Cost	$ 3,090,031	$ 3,441,821

At a 100% Funding Level, the Normal Cost Contribution is Still Required.

NORMAL COST AS A PERCENTAGE OF EXPECTED PAYROLL

	Prior Valuation	Current Valuation
Expected Payroll	$ 20,528,339	$ 21,238,188
Member Normal Cost Rate	9.455%	9.455%
Employer Normal Cost Rate	14.92%	16.08%
Total Normal Cost Rate	24.38%	25.53%

Ideally, the Employer Normal Cost Rate will Remain Stable.

RECOMMENDED CONTRIBUTION BREAKDOWN

	Prior Valuation	Current Valuation
Employer Normal Cost*	$ 3,306,333	$ 3,682,748
Amortization of Unfunded Accrued Liability/(Surplus)	15,427,942	17,490,176
Recommended Contribution	$ 18,734,275	$ 21,172,924

The Recommended Contribution has Increased by 13.02% from the Prior Valuation.

*Employer Normal Cost Contribution includes interest through the end of the Fiscal Year.

SCHEDULE OF AMORTIZATION – CURRENT YEAR UNFUNDED ACTUARIAL ACCRUED LIABILITY

Below is the schedule of remaining amortization balances for the new Unfunded Liability incurred in the current year.

Unfunded Liability Base	Initial Balance	Date Established	Current Balance	Years Remaining	Payment
Investment (Gain)/Loss	$ (1,262,710)	2/28/2025	$ (1,262,710)	15	$ (114,263)
Actuarial (Gain)/Loss	6,034,568	2/28/2025	6,034,568	15	546,070
Contribution Experience	2,280,262	2/28/2025	2,280,262	15	206,342
Assumption Changes	$ 10,196,402	2/28/2025	$ 10,196,402	15	$ 922,675
Total	**$ 17,248,522**		**$ 17,248,522**		**$ 1,560,824**

The Actuarial (Gain)/Loss can be attributable to several factors including, but not limited to, demographic changes, Employer Contribution timing, Member Contribution experience, benefit payment experience, and salary increase experience compared to expectation.

SCHEDULE OF AMORTIZATION – TOTAL UNFUNDED ACTUARIAL ACCRUED LIABILITY

Below is the schedule of remaining amortization balances for the Unfunded Liability incurred in the current and prior years.

Unfunded Liability Base	Initial Balance	Date Established	Current Balance	Years Remaining	Payment
FYE 2/28/2025	$ 17,248,522	2/28/2025	$ 17,248,522	15	$ 1,560,824
FYE 2/29/2024	9,212,359	2/29/2024	9,062,932	15	820,107
FYE 2/28/2023	7,566,149	2/28/2023	7,350,638	15	665,161
FYE 2/28/2022	(12,232,566)	2/28/2022	(11,775,522)	15	(1,065,569)
FYE 2/28/2021	(2,244,845)	2/28/2021	(2,147,626)	15	(194,339)
FYE 2/29/2020	4,927,419	2/29/2020	4,697,440	15	425,072
FYE 2/28/2019	7,337,396	2/28/2019	6,987,076	15	632,263
FYE 2/28/2018	$ 169,797,170	2/28/2018	$ 161,858,924	15	$ 14,646,657
Total	**$ 201,611,604**		**$ 193,282,384**		**$ 17,490,176**

For additional details regarding the Unfunded Liability Base established each year, please refer to the Actuarial Funding Report for the corresponding year.

ACTUARIAL METHODS – RECOMMENDED CONTRIBUTION

Actuarial Valuation Date	March 1, 2025
Data Collection Date	February 28, 2025
Actuarial Cost Method	Entry Age Normal (Level % Pay)
Amortization Method	Level % Pay (Closed)
Amortization Target	Layered Targeting 100% Funded - See Previous Page
Asset Valuation Method	5-Year Smoothed Fair Value

The above methods constitute a sound Actuarially Determined Contribution under the parameters of Actuarial Standards of Practice.

The contributions and benefit values of the Pension Fund are calculated by applying actuarial assumptions to the benefit provisions and demographic data furnished, using the Actuarial Cost Method described. The Actuarial Cost and Amortization Methods allocate the projected obligations of the Plan over the working lifetimes of the Plan Members.

The Recommended Contribution amount shown in this report is based on the methods summarized above. The *Actuarial Funding Policies* section of this report includes a more detailed description of the Actuarial Funding Methods being used.

The Actuarial Funding Methods are meant to provide a systematic process for determining contributions on an annual basis. The methods do not impact the expectation of future benefit payments. The methods only impact the way contributions are made towards future benefit payments.

Different Actuarial Funding Methods may achieve funding goals with differing levels of success. Certain methods are more efficient and more stable on an annual basis.

In the current valuation, the Plan Sponsor has elected to use a 10% corridor in the determination of the Actuarial Value of Assets for both the Recommended and Alternative Contributions. In the event that the Actuarial Value of Assets exceeds 110% of the Fair Value of Assets or falls below 90% of the Fair Value of Assets, the excess gains or losses will be recognized immediately.

ALTERNATIVE CONTRIBUTION

Alternative Contribution
Funded Status – Alternative Contribution
Actuarial Methods – Alternative Contribution

ALTERNATIVE CONTRIBUTION

	Prior Valuation	Current Valuation
Alternative Contribution	$15,617,293	$17,664,078
Expected Payroll	$20,528,339	$21,238,188
Alternative Contribution as a Percent of Expected Payroll	76.08%	83.17%

FUNDED STATUS – ALTERNATIVE CONTRIBUTION

	Prior Valuation	Current Valuation
Normal Cost	$4,341,064	$4,901,044
Fair Value of Assets	$175,602,774	$192,032,076
Actuarial Value of Assets	$178,614,888	$189,357,437
Actuarial Accrued Liability	$366,260,763	$388,923,768
Unfunded Actuarial Accrued Liability/(Surplus)	$187,645,875	$199,566,331
Percent Funded		
Actuarial Value of Assets	48.77%	48.69%
Fair Value of Assets	47.94%	49.38%

ALTERNATIVE CONTRIBUTION

The Alternative Contribution is based on Actuarial Funding Methods and funding parameters outlined in the Illinois State Statutes for pension funding. The resulting contribution is lower than the Recommended Contribution for the current year. The Alternative Contribution amount is not recommended because it represents only a deferral of contributions when compared to the Recommended Contribution method.

Actuarial Funding Methods for pensions are best applied to provide a balance between the long-term goals of a variety of stakeholders:

1. Members – the Members are interested in benefit security and having the funds available to pay benefits when retired

2. Employers – cost control and cost stability over the long-term

3. Taxpayers – paying for the services they are receiving from active Members

The Alternative Contribution methods are not intended to provide a better system in any of the above categories long-term. The parameters are not recommended for a long-term funding strategy.

The funding methods and parameters put into place in the Illinois State Statutes in 2011 were intended to provide short-term budget relief for Employer Contributions. An Employer using the parameters outlined in the Illinois State Statutes for current funding should view the contributions as short-term relief. Our recommendation in this situation is for a Pension Fund and an Employer to work towards a long-term funding strategy that better achieves the long-term funding goals, over a period that does not exceed 3-5 years.

The Securities and Exchange Commission in 2013 used the phrase “Statutory Underfunding” to describe situations where contributions appear to be more manageable in the short-term, but set up future Recommended Contributions that are less likely to be manageable.

ACTUARIAL METHODS – ALTERNATIVE CONTRIBUTION

Actuarial Valuation Date	March 1, 2025
Data Collection Date	February 28, 2025
Actuarial Cost Method	Projected Unit Credit
Amortization Method	Level % Pay (Closed)
Amortization Target	90% Funded Over 15 Years
Asset Valuation Method	5-Year Smoothed Fair Value

The contribution and benefit values of the Pension Fund are calculated by applying actuarial assumptions to the benefit provisions and demographic data furnished, using the Actuarial Cost Method described. The Actuarial Cost and Amortization methods allocate the projected obligations of the Plan over the working lifetimes of the Plan Members.

The Actuarial Funding Methods are meant to provide a systematic process for determining contributions on an annual basis. The methods do not impact the expectation of future benefit payments. The methods only impact the way contributions are made towards future benefit payments.

Different Actuarial Funding Methods may achieve funding goals with differing levels of success. Certain methods are more efficient and more stable on an annual basis.

The guidelines in the Illinois State Statutes for pension funding are silent on the use of a corridor on the Fair Value of Assets in determination of the Actuarial Value of Assets. In the current valuation, the Plan Sponsor has elected to use a 10% corridor in the determination of the Actuarial Value of Assets for both the Recommended and Alternative Contributions. In the event that the Actuarial Value of Assets exceeds 110% of the Fair Value of Assets or falls below 90% of the Fair Value of Assets, the excess gains or losses will be recognized immediately.

ACTUARIAL VALUATION DATA

Active Members
Inactive Members
Summary of Monthly Benefit Payments
Age and Service Distribution

ACTIVE MEMBERS

	Prior Valuation	Current Valuation
Tier I	100	91
Tier II	124	136
Total Active Members	224	227
Total Payroll	$ 20,200,088	$ 20,898,586

INACTIVE MEMBERS

	Prior Valuation	Current Valuation
Terminated Members	8	12
Retired Members	190	194
Disabled Members	25	27
Other Beneficiaries	51	57
Total Inactive Members	274	290

SUMMARY OF MONTHLY BENEFIT PAYMENTS

	Prior Valuation	Current Valuation
Retired Members	$ 1,324,020	$ 1,380,233
Disabled Members	111,076	124,239
Other Beneficiaries	172,768	200,580
Total Inactive Members	$ 1,607,864	$ 1,705,052

AGE AND SERVICE DISTRIBUTION

3/1/2025 Age and Service Distribution - Tier 1|Tier 2 Active Members												
	Service	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up	Total
Age												
Under 25		0|6	0|2									0|8
25 to 29		0|6	0|17	0|2								0|25
30 to 34		0|2	0|16	0|10								0|28
35 to 39		0|1	0|10	0|18	0|21	1|0						1|50
40 to 44				0|8	7|12	13|0						20|20
45 to 49					2|5	18|0	11|0	7|0				38|5
50 to 54						6|0	8|0	12|0				26|0
55 to 59							4|0	2|0				6|0
60 to 64												
65 to 69												
70 & up												
Total		0|15	0|45	0|38	9|38	38|0	23|0	21|0				91|136

ACTUARIAL FUNDING POLICIES

Actuarial Cost Method
Financing Unfunded Actuarial Accrued Liability
Actuarial Value of Assets

ACTUARIAL COST METHOD

The Actuarial Cost Method allocates the projected obligations of the Plan over the working lifetimes of the Plan Members.

In accordance with the Pension Fund's Funding Policy, the Actuarial Cost Method for the Recommended Contribution basis is Entry Age Normal (Level Percent of Pay). The Entry Age Normal Cost Method is a method under which the Actuarial Present Value of the projected benefits of each individual included in an Actuarial Valuation is allocated on a level basis over the earnings or service of the individual between entry age and assumed exit age. The portion of this Actuarial Present Value allocated to a valuation year is called Normal Cost. The portion of the Actuarial Present Value not provided at an Actuarial Valuation Date by the Actuarial Present Value of future Normal Costs is called the Actuarial Accrued Liability.

The Entry Age Normal method attempts to create a level cost pattern. In contrast to other Actuarial Cost Methods which inherently lead to uneven or less predictable cost patterns, the Entry Age Normal method is generally understood to be less risky in terms of contribution stability from year to year.

The Conference of Consulting Actuaries Public Plans Community produced a "white paper" detailing Funding Policy model practices for public sector pension plans. Under the Level Cost Actuarial Methodology ("LCAM"), one of the principal elements to a Funding Policy is the Actuarial Cost Method. When deciding which Actuarial Cost Method to use, several objectives may be considered, such as the following:

- Each Member's benefit should be funded under a reasonable allocation method by the expected retirement date
- Pay-related benefit costs should reflect anticipated pay at retirement
- The expected cost of each year of service (i.e. Normal Cost) for each active Member should be reasonably related to the expected cost of that Member's benefit
- The Member's Normal Cost should emerge as a level percent of Member compensation
- No gains or losses should occur if all assumptions are met.

Following these criteria, the use of the Entry Age Normal Cost Method (Level Percent of Pay) is a model practice.

FINANCING UNFUNDED ACTUARIAL ACCRUED LIABILITY

The Unfunded Actuarial Accrued Liability may be amortized over a period either in level dollar amounts or as a level percentage of projected payroll.

When amortizing the Unfunded Actuarial Accrued Liability as a level percentage of payroll, additional risk is incurred since the amortization payments in the early years of the payment period may not be large enough to cover the interest accrued on the existing Unfunded Liability. As a result, the Unfunded Liability

may increase initially, before the amortization payments grow large enough to cover all interest accruals. Generally speaking, the Plan Sponsor will be required to contribute a larger total contribution amount over the course of the funding period under a level percentage of payroll basis as compared to a level dollar payroll schedule.

The Government Finance Officers Association notes that best practices in public pension finance include utilizing amortization periods that do not exceed 20 years. Longer amortization periods elevate the risk of failing to reduce any Unfunded Liability. For example, when the amortization payment in full only covers interest on the Unfunded Liability, but does not reduce the existing Unfunded Liability, the required contribution will increase in future years.

A second principal element under the Level Cost Actuarial Methodology described above is to establish an Amortization Policy that determines the length of time and the structure of the increase or decrease in contributions required to systematically fund the Unfunded Actuarial Accrued Liability. When deciding on the Amortization Policy, several objectives may be considered, such as the following:

- Variations in the source of liability changes (i.e. gains or losses, Plan changes, assumption changes) should be funded over periods consistent with an appropriate balance between the policy objectives of demographic matching and volatility management
- The cost changes in Unfunded Actuarial Accrued Liability should emerge as a level percentage of Member compensation

The LCAM model practices for the Amortization Policy include the following:

- Layered fixed period amortization by source
- Level percent of pay amortization
- An amortization period ranging from 15-20 years for experience gains or losses
- An amortization period of 15-25 years for assumption changes

In accordance with the Pension Fund's Funding Policy for the Recommended Contribution, the Unfunded Actuarial Accrued Liability is amortized by level percent of payroll contributions to a 100% funding target over a layered amortization period of 15 years. See the *Actuarial Methods – Recommended Contribution* section of this report for more detail.

The equivalent single amortization period based on the layered amortization of Unfunded Liability is 15 years for the current valuation.

We believe that the amortization period is appropriate for the purpose of this valuation.

ACTUARIAL VALUE OF ASSETS

The Pension Fund is an ongoing plan. The Employer wishes to smooth the effect of volatility in the Fair Value of Assets on the annual contribution. Therefore, the Actuarial Value of Assets is equal to the Fair Value of Assets with unanticipated gains/losses recognized over a five-year period.

The Asset Valuation Method is intended to create an Actuarial Value of Assets that remains reasonable in relation to the Fair Value of Assets over time. The method produces results that can fall either above or below the Fair Value of Assets. The period of recognition is short.

It is intended that the period of recognition is short enough to keep the Actuarial Value of Assets within a decent range of the Fair Value of Assets. In the event that the Actuarial Value of Assets exceeds or falls below a 10% corridor of the Fair Value of Assets, the additional gain or loss will be recognized immediately.

ACTUARIAL ASSUMPTIONS

Nature of Actuarial Calculations
Selection of Actuarial Assumptions
Actuarial Assumptions in the Valuation Process
Assessment of Risk Exposures
Limitations of Risk Analysis
Assessment and Use of Actuarial Models
Actuarial Assumptions Utilized

NATURE OF ACTUARIAL CALCULATIONS

The results documented in this report are estimates based on data that may be imperfect and on assumptions about future events. Certain Plan Provisions may be approximated or deemed immaterial, and, therefore, are not valued. Assumptions may be made about demographic data or other factors. Reasonable efforts were made in this valuation to ensure that significant items in the context of the Actuarial Accrued Liability or costs are treated appropriately, and not excluded or included inappropriately.

Actual future experience will differ from the assumptions used in the calculations. As these differences arise, the expense for accounting purposes will be adjusted in future valuations to reflect such actual experience.

A range of results different from those presented in this report could be considered reasonable. The numbers are not rounded, but this is for convenience only and should not imply precision which is not inherent in actuarial calculations.

SELECTION OF ACTUARIAL ASSUMPTIONS

Actuaries and other service providers provide guidance to their clients in the selection of assumptions used in the Actuarial Valuation based on their industry-specific training and experience. The Actuaries' expertise is used in the determination of demographic assumptions as it relates to future expectations of Plan demographic activity, such as mortality, termination, and retirement rates. The selection of economic assumptions, such as Expected Rate of Return on Investments or the assumed inflation rate, is more subjective. Investment advisors and other services providers utilize their expertise and knowledge of capital markets to model future expectations. Some assumptions may have an influence on other assumptions. The role of the Actuary in the selection of the economic assumptions is to review available market information including historical economic information and forward-looking capital market projections from investment professionals and to assess whether or not sufficient backup exists to deem the assumption reasonable. The selection of economic assumptions is the responsibility of the client. For example, the inflation rate (an economic assumption) may directly correlate to the active member salary increase assumption (a demographic assumption). Once all demographic and economic assumptions have been determined, the Actuary will create various sets of assumptions which take into account the proposed assumptions individually and in the aggregate. The client will then make the final decision of which assumption set to use.

ACTUARIAL ASSUMPTIONS IN THE VALUATION PROCESS

The contributions and benefit values of the Pension Fund are calculated by applying actuarial assumptions to the benefit provisions and demographic data furnished, using the Actuarial Cost Method described in the *Actuarial Funding Policies* section of this report.

The principal areas of financial risk which require assumptions about future experience are:

- Expected Rate of Return on Investments
- Patterns of Pay Increases for Members
- Rates of Mortality Among Active and Inactive Members
- Rates of Termination Among Active Members
- Rates of Disability Among Active Members
- Age Patterns of Actual Retirements

Actual experience of the Pension Fund will not coincide exactly with assumed experience. Each valuation provides a complete recalculation of assumed future experience and takes into account all past differences between assumed and actual experience. The result is a continual series of adjustments to the computed Recommended Contribution.

Details behind the selection of the actuarial assumptions can be found in the Actuarial Assumption Summary document provided to the client upon request. The client has reviewed and approved the assumptions as a reasonable expectation of the future anticipated experience under the Plan.

ASSESSMENT OF RISK EXPOSURES

From time to time it becomes appropriate to modify one or more of the assumptions, to reflect experience trends (but not random year-to-year fluctuations). In addition, Actuarial Standards of Practice require that the Actuary minimally perform a qualitative assessment of key financial and demographic risks as part of the risk assessment process with each annual Actuarial Valuation. The risk assessments we perform include, but are not limited to, the following:

- Periodic demographic experience studies every 3 to 5 years to confirm the ongoing appropriateness of actuarial assumptions
- Highlight the impact of demographic experience over the past year, as well as other sources of change and volatility in the *Actuarial Recommended Contribution – Reconciliation* section of this report
- Detail year-over-year changes in contribution levels, assets, liabilities, and Funded Status in the *Recommended Contribution* and *Funded Status* sections in the *Management Summary* section of this report
- Review any material changes in the demographic data as summarized in the *Actuarial Valuation Data* section of this report
- Provide and discuss the Actuarial Assumption Summary document highlighting the rationale for each key assumption chosen by the client
- Identify potential Cash Flow Risk by highlighting expected benefit payments over the next 5-year and 10-year periods in the *Asset Growth* section in the *Management Summary* section of this report
- Describe the impact of any assumption, method, or policy change in the *Management Summary* section of this report
- Utilize supplemental information, such as the GASB Discount Rate sensitivity disclosures to understand, for example, what impact an alternative Expected Rate of Return on Investments assumption might have on the estimation of Actuarial Accrued Liability and Funded Status
- Utilize supplemental information, such as the GASB solvency test, to better understand the Cash Flow Risk and long-term sustainability of the Plan

LIMITATIONS OF RISK ANALYSIS

Since future experience may never be precisely as assumed, the process of selecting funding methods and actuarial assumptions may inherently create risk and volatility of results. A more detailed evaluation of the above risk exposures is beyond the scope and nature of the annual Actuarial Valuation process. For example, scenario tests, sensitivity tests, stress tests, and/or stochastic modeling for multi-year projections to assess the impact of alternative assumptions and methods, or modeling future experience different from the assumptions in these results, are not included in this Actuarial Valuation.

The Springfield Firefighters' Pension Fund and/or the City of Springfield, Illinois should contact the Actuary if they desire a more detailed assessment of any of these forward-looking risk exposures.

ASSESSMENT AND USE OF ACTUARIAL MODELS

Actuarial Valuations rely upon the use of actuarial modeling software to predict the occurrence of future events, which include specific demographic and financial potential outcomes. Actuarial assumptions are established to provide a guideline to use for such modeling.

- The model used in this Actuarial Valuation is intended to determine the Recommended Contribution, under the selected Funding Policy. The actuarial assumptions used were developed with this goal in mind.
- There are no known material limitations or inconsistencies among the actuarial assumptions or methods.
- The output from the model is reasonable based on the individual actuarial assumptions and based on the actuarial assumptions in the aggregate.
- The actuarial software used to calculate plan liabilities has been purchased from an outside vendor. We have performed thorough testing of the software, including review of sample participants, to ensure the intended purpose of the model, the operation of the model, sensitivities and dependencies, and strengths and limitations of the model are sufficient for this purpose.
- Demographic data and financial information have been provided by client professionals, financial advisors, and/or auditors, who are known to be experts in their respective fields. We rely on the fact that the information provided by these experts has been given for the intended purpose of this Actuarial Valuation.
- Where applicable, certain actuarial assumptions and Funding Policy may be required as prescribed by law. In such instances, we have followed legal guidance to ensure conformity.
- The Expected Rate of Return on Investments assumption has been chosen using input from several sources; including, but not limited to: client professionals, financial advisors, auditors, and other capital market outlooks. We have relied on the information provided, in the aggregate, to settle on the selected Expected Rate of Return on Investments assumption.

As stated in the *Limitations of Risk Analysis* section, future experience may never be precisely as assumed. As a result, the funding methods and actuarial assumptions used in the model may create volatility in the results when compared year after year. A more detailed evaluation of this volatility is beyond the scope and nature of the annual Actuarial Valuation process. In such cases, additional scenario tests, sensitivity tests, stress tests, and/or stochastic modeling for multi-year projections to assess the impact of alternative assumptions and methods, or modeling future experience different from the assumptions in these results, may be performed to determine a range of reasonable results.

ACTUARIAL ASSUMPTIONS UTILIZED

Expected Rate of Return on Investments	7.00% Net of Administrative Expense
CPI-U	2.50%
Total Payroll Increases	3.25%
Individual Pay Increases*	4.00% - 16.79%

Individual pay increases include a long-term average increase for inflation, average annual increases for promotions, and any additional increases for a step program. Sample rates are as follows:

Service	Rate	Service	Rate
0	16.79%	8	4.00%
1	15.00%	9	5.95%
2	13.61%	10	4.00%
3	4.00%	15	4.00%
4	6.75%	20	4.00%
5	4.00%	25	4.00%
6	4.00%	30	4.00%
7	4.00%	35	4.00%

*Individual pay increases for active Members hired at age 40 or older are assumed annual increases at the ultimate rate reduced by 50 basis points, without adjustments in early service years.

Retirement Rates – Tier I

125% of the L&A Assumption Study for Tier I Firefighters 2024 Cap Age 65. Sample rates are as follows:

Age	Rate	Age	Rate
50	15.00%	58	25.00%
51	12.50%	59	31.25%
52	12.50%	60	31.25%
53	12.50%	61	31.25%
54	18.75%	62	31.25%
55	25.00%	63	31.25%
56	25.00%	64	31.25%
57	25.00%	65	100.00%

Retirement Rates – Tier II

125% of the L&A Assumption Study for Tier II Firefighters 2024 Cap Age 65. Sample rates are as follows:

Age	Rate	Age	Rate
50	3.75%	58	25.00%
51	3.13%	59	31.25%
52	3.13%	60	31.25%
53	3.13%	61	31.25%
54	4.69%	62	31.25%
55	43.75%	63	31.25%
56	43.75%	64	31.25%
57	25.00%	65	100.00%

Termination Rates

100% of the L&A Assumption Study for Firefighters 2024. Sample rates are as follows:

Age/ Service	0	1	2	3	4	5+
25	12.00%	10.00%	5.00%	3.00%	4.00%	4.00%
30	11.20%	8.00%	4.20%	2.80%	3.60%	3.20%
35	10.20%	5.50%	3.20%	2.55%	3.10%	2.20%
40	4.57%	2.43%	1.57%	1.36%	1.57%	1.43%
45	0.50%	4.00%	5.00%	4.00%	2.00%	1.00%
50	0.50%	4.00%	5.00%	4.00%	2.00%	1.00%

Disability Rates

100% of the L&A Assumption Study for Firefighters 2024. Sample rates are as follows:

Age	Rate	Age	Rate
25	0.00%	40	0.65%
30	0.06%	45	0.65%
35	0.12%	50	0.65%

75% of active Members who become disabled are assumed to be in the Line of Duty.

Mortality Rates

Active Mortality follows the Sex Distinct Raw Rates as developed in the PubS-2010(A) Study improved to 2021 using MP-2021 Improvement Rates. These rates are then improved generationally using MP-2021 Improvement Rates.

25% of active Member deaths are assumed to be in the Line of Duty.

Retiree Mortality follows the L&A Assumption Study for Firefighters 2024. These rates are experience weighted with the Sex Distinct Raw Rates as developed in the PubS-2010(A) Study improved to 2021 using MP-2021 Improvement Rates. These rates are then improved generationally using MP-2021 Improvement Rates.

Disabled Mortality follows the Sex Distinct Raw Rates as developed in the PubS-2010 Study for disabled participants improved to 2021 using MP-2021 Improvement Rates. These rates are then improved generationally using MP-2021 Improvement Rates.

Spouse Mortality follows the L&A Assumption Study for Firefighters 2024. These rates are experience weighted with the Sex Distinct Raw Rates as developed in the PubS-2010(A) Study for contingent survivors improved to 2021 using MP-2021 Improvement Rates. For all rates not provided there (ages 45 and younger) the PubG-2010 Study for general employees was used. These rates are then improved generationally using MP-2021 Improvement Rates.

Marital Assumptions

Active Members: 80% of active Members are assumed to be married. Female spouses are assumed to be 3 years younger than male spouses.

Retiree and Disabled Members: Actual spousal data was utilized for retiree and disabled Members.

LOW-DEFAULT-RISK OBLIGATION MEASURE

Low-Default-Risk Obligation Measure – Purpose
Low-Default-Risk Obligation Measure
Low-Default-Risk Obligation Measure vs Actuarial Liability

LOW-DEFAULT-RISK OBLIGATION MEASURE - PURPOSE

The Pension Committee of the Actuarial Standards Board adopted changes to Actuarial Standards of Practice No. 4 ("ASOP 4"). ASOP 4 is titled "Measuring Pension Obligations and Determining Pension Plan Costs or Contributions". The changes were adopted by the Actuarial Standards Board in December 2021 and are effective for reporting and Measurement Dates on or after February 15, 2023.

One change is the requirement for all Funding Actuarial Valuations to include a Low-Default-Risk Obligation Measure ("LDROM"). In its simplest form, the LDROM is a measure of Actuarial Liability determined using a low-risk Expected Rate of Return on Investments. The LDROM is not intended to replace the Actuarial Liability used to determine the Recommended Contribution amount calculated in this report. The intention is to provide additional information on the Funded Status of the Plan and benefit security.

The Low-Default-Risk Obligation Measure is shown below as of the Measurement Date. The discussion that follows provides more information on the assumptions and methods used to determine the LDROM and some interpretation of the results.

LOW-DEFAULT-RISK OBLIGATION MEASURE

	Current Valuation
Low-Default-Risk Obligation Measure	$ 470,733,654
Fair Value of Assets	192,032,076
Obligation not Covered by Current Assets	$ 278,701,578

The Low-Default-Risk Obligation Measure is Not Intended to Replace the Actuarial Liability Used to Determine the Recommended Contribution.

The Obligation not Covered by Current Assets shown above is for illustration of the Low-Default-Risk Obligation Measure only and is not intended for any other purposes. The amount of Obligation not Covered by Current Assets should not be used for pension funding or financial statement reporting purposes. In addition, the Obligation not Covered by Current Assets amount should not be used for any other assessments related to pension funding, such as assessing Unfunded Liability for the purpose of issuing Pension Obligation Bonds. Discussion of any of these items should be handled separately.

Selection of the Discount Rate

Under Actuarial Standards, a Discount Rate should be selected from a source that develops the rate using low-default-risk fixed income securities. In addition, the fixed income securities should be reasonably consistent with the pattern of expected benefit payments from the Fund.

The Low-Default-Risk Obligation Measure has been valued using the FTSE Pension Discount Curve. The FTSE Pension Discount Curve is determined using rates from corporate bonds that are rated AA (from the FTSE U.S. Broad Investment Grade Bond Index) and yields from the FTSE Russell's Treasury model curve. The result is a set of investment grade zero coupon bond rates with maturities from 6 months to 30 years.

The equivalent single discount rate that would produce the same liability as the FTSE Pension Discount Curve is 5.35%.

There are other indices constructed that are appropriate for this disclosure as well. They could produce Discount Rates that are higher or lower than the LDROM shown here. An increase/decrease in the discount rate of 50 basis points (0.50%) would decrease/increase the LDROM by (6.34%)/7.05%, respectively. In our opinion, the FTSE Pension Discount Curve meets the requirements of the disclosure of the LDROM. The curve is constructed using investment grade corporate bonds. In addition, the rates are updated monthly and the current rates used (as of the Measurement Date of this report) are reflective of current market conditions. Finally, the use of a yield curve as opposed to a single rate allows the flexibility for the LDROM to be determined in a manner consistent with the pattern of expected benefit payments.

The Discount Rate is intended for the current Measurement Date only. In order to stay consistent with the prevailing market conditions, the Discount Rate will be assessed and updated each year at each new Measurement Date.

Selection of the Actuarial Cost Method

The Standard requires the use of an immediate-gain Actuarial Cost Method. We have elected to use the Entry Age Normal cost method for measurement of the LDROM. Entry Age Normal is being applied on a percent of pay basis. The Cost Method is the same method used for the determination of the Recommended Contribution in this report.

Other immediate-gain Actuarial Cost Methods are available and acceptable for use in the determination of the LDROM. Other acceptable methods include benefits-based methods and accrued benefit methods. We selected the Entry Age Normal method due to the fact that benefit liability in this Fund is not typically settled with one-time payments. For example, the Plan does not pay lump sums (except refunds of Member Contributions) and is not anticipated to settle liability through the purchase of annuity contracts. Therefore, the usefulness of a benefits-based method is much more limited in interpretation of this measure as it relates to benefit security.

Interpretation of the LDROM

The Low-Default-Risk Obligation Measure is higher than the liability used for the Recommended Contribution determination by $88,093,833.

Actuarial Liability is determined in different ways based on the purpose of the measurement. The Actuarial Liability for the Recommended Contribution purposes is used to develop a contribution amount that, when combined with other sources of funding (including Member Contributions and expected investment returns), would pay all future expected benefits. The expected investment returns under this scenario are based on the current asset allocation and capital market expectations of the Fund. Assets are invested in a way that involves risk. Actual returns can vary significantly year-to-year above and below expectations. The trade-off is a risk-premium over the long-term and above low-risk market rates.

The LDROM, by contrast, is developed using low-risk returns available in the market. These returns could be obtained theoretically with low-risk of deviation from expectation, and lower expectation (i.e. there is no risk-premium). The LDROM, then, can be thought of as the amount of money that should be set aside today to appropriately fund and prepare for all future benefit payments, if the assets were invested in relatively low volatility assets available in the market today.

The expected decrease in the liability for funding purposes as compared to the LDROM can be thought of as cost savings from investing in riskier assets, with higher long-term return expectations. At the same time, this difference also represents a risk factor for the Pension Fund as the Fund is reliant on receiving the expected return on investments, including a risk premium. Contributions, combined with these investment returns, are required in order to fund future benefit payments.

LOW-DEFAULT-RISK OBLIGATION MEASURE VS ACTUARIAL LIABILITY

	Current Valuation
Low-Default-Risk Obligation Measure	$ 470,733,654
Actuarial Accrued Liability (Entry Age Normal)	382,639,821
Difference	$ 88,093,833

The Low-Default-Risk Obligation Measure is Not Intended to Replace the Actuarial Liability Used to Determine the Recommended Contribution.

SUMMARY OF PRINCIPAL PLAN PROVISIONS

Establishment of the Fund
Administration
Member Contributions
Regular Retirement Pension Benefit
Early Retirement Pension Benefit
Surviving Spouse Benefit
Termination Benefit – Vested
Disability Benefit

ESTABLISHMENT OF THE FUND

The Firefighters' Pension Fund is established and administered as prescribed by "Article 4 – Firefighters' Pension Fund – Municipalities 500,000 and Under" of the Illinois Pension Code.

ADMINISTRATION

The Firefighters' Pension Fund is administered by a Board of Trustees whose duties are to manage the Pension Fund, determine applications for pensions, authorize payment of pensions, establish rules, pay expenses, and keep records.

MEMBER CONTRIBUTIONS

Members contribute 9.455% of their pensionable salary.

REGULAR RETIREMENT PENSION BENEFIT

Tier I

Eligibility: Age 50 with at least 20 years of creditable service.

Benefit: 50% of final salary for the first 20 years of service, plus an additional 2.5% of final salary for each year of service beyond 20 years of service, pro-rated monthly, and not to exceed 75% of final salary. "Final salary" is based on the firefighter's pensionable salary attached to rank held on the last day of service.

Annual Increase in Benefit: A firefighter is entitled to receive an initial increase equal to 1/12 of 3% of the original monthly benefit for each full month that has passed since the pension began. The initial increase date will be the later of the first day of the month after the pensioner turns age 55 or the first day of the month after the benefit date anniversary. Subsequent increases of 3% of the current monthly benefit will be granted every January 1st thereafter.

REGULAR RETIREMENT PENSION BENEFIT - CONTINUED

Tier II

Eligibility: Age 55 with at least 10 years of creditable service.

Benefit: 2.5% of final average salary for each year of service, and not to exceed 75% of final average salary. "Final average salary" is determined by dividing the total pensionable salary during 48 consecutive months of service within the last 60 months of service in which total pensionable salary was the highest, by the number of months of service in that period (or by dividing the total pensionable salary during 96 consecutive months of service within the last 120 months of service in which total pensionable salary was the highest, by the number of months of service in that period, if greater). Annual salary for this purpose will not exceed the salary cap, indexed by the lesser of 3% or the CPI-U for the 12 months ending with the September preceding each November 1st. The salary cap will not decrease.

Annual Increase in Benefit: The initial increase date will be the later of the January 1st after the pensioner turns age 60 or the January 1st after the benefit date anniversary. Subsequent increases will be granted every January 1st thereafter. The initial increase and subsequent increases will be the lesser of 3% of the original benefit or ½ of the CPI-U for the 12 months ending with the September preceding each November 1st.

EARLY RETIREMENT PENSION BENEFIT

Tier I

None.

Tier II

Eligibility: Age 50 with at least 10 years of creditable service.

Benefit: The regular retirement pension benefit reduced by ½ of 1% for each month that the firefighters' age is between 50 and 55.

Annual Increase in Benefit: The initial increase date will be the later of the January 1st after the pensioner turns age 60 or the January 1st after the benefit date anniversary. Subsequent increases will be granted every January 1st thereafter. The initial increase and subsequent increases will be the lesser of 3% of the original benefit or ½ of the CPI-U for the 12 months ending with the September preceding each November 1st.

SURVIVING SPOUSE BENEFIT

Tier I

Eligibility: Married to an active firefighter, a disabled pensioner at the time of death, or a retired pensioner (at least 12 months prior to the time of death if married post-retirement).

Active Line of Duty Death Benefit: An eligible surviving spouse is entitled to receive 100% of the firefighter's final pensionable salary attached to rank held on the last day of service.

Non-Duty Death Benefit:

Disabled or Retired Pensioner: An eligible surviving spouse is entitled to receive the greater of the pensioner's benefit at the time of death or 54% of the pensioner's final pensionable salary attached to rank held on the last day of service.

Active Member: An eligible surviving spouse is entitled to receive the greater of the firefighter's eligible benefit at the time of death or 54% of the firefighter's final pensionable salary attached to rank held on the last day of service.

Annual Increase in Benefit: None.

Tier II

Eligibility: Married to an active firefighter, a disabled pensioner at the time of death, or a retired pensioner (at least 12 months prior to the time of death if married post-retirement).

Active Line of Duty Death Benefit: An eligible surviving spouse is entitled to receive 100% of the firefighter's final pensionable salary attached to rank held on the last day of service.

Non-Duty Death Benefit:

Disabled or Retired Pensioner and Active Member: An eligible surviving spouse is entitled to receive the greater of 66⅔% of the firefighter's earned pension benefit at the time of death or 54% of the firefighter's monthly salary at the time of death.

Annual Increase in Benefit: The initial increase date will be the January 1st after the surviving spouse turns age 60. Subsequent increases will be granted every January 1st thereafter. The initial increase and subsequent increases will be the lesser of 3% of the original benefit or ½ of the CPI-U for the 12 months ending with the September preceding each November 1st.

TERMINATION BENEFIT – VESTED

Tier I

Eligibility: Age 60 with at least 10 but less than 20 years of creditable service.

Benefit: An accrual factor times final salary for each year of service. "Accrual factor" is a factor of 1.5% at 10 years of service, increasing ratably up to 2.4% at 19 years of service. "Final salary" is based on the firefighter's pensionable salary attached to rank held on the last day of service.

Annual Increase in Benefit: A firefighter is entitled to receive an initial increase equal to 1/12 of 3% of the original monthly benefit for each full month that has passed since the pension began. The initial increase date will be the first day of the month after the benefit date anniversary. Subsequent increases of 3% of the current monthly benefit will be granted every January 1st thereafter.

Tier II

None.

DISABILITY BENEFIT

Tier I

Eligibility: Duty Disability, Non-Duty Disability with at least 7 years of creditable service, or Occupational Disease Disability with at least 5 years of creditable service.

Benefit: For a duty disability or an occupational disease disability with at least 5 years of creditable service, a firefighter is entitled to receive the greater of 65% of final salary or the regular retirement pension benefit at the time of disability. For a non-duty disability with at least 7 years of creditable service, a firefighter is entitled to receive 50% of their final salary. "Final salary" is based on the firefighter's pensionable salary attached to rank held on the last day of service.

Annual Increase in Benefit: A firefighter is entitled to receive an initial increase equal to 3% of the original monthly benefit for each full year that has passed since the pension began. The initial increase date will be the later of the January 1st after following pensioner turns age 60 or the January 1st after the benefit date anniversary. Subsequent increases of 3% of the original monthly benefit will be granted every January 1st thereafter.

Tier II

Eligibility: Duty Disability, Non-Duty Disability with at least 7 years of creditable service, or Occupational Disease Disability with at least 5 years of creditable service.

Benefit: For a duty disability or an occupational disease disability with at least 5 years of creditable service, a firefighter is entitled to receive the greater of 65% of final salary or the regular retirement pension benefit at the time of disability. For a non-duty disability, a firefighter is entitled to receive 50% of their final salary. "Final salary" is based on the firefighter's pensionable salary attached to rank held on the last day of service.

Annual Increase in Benefit:
The initial increase date will be the later of the January 1st after the pensioner turns age 60 or the January 1st after the benefit date anniversary. Subsequent increases will be granted every January 1st thereafter. The initial increase and subsequent increases will be the lesser of 3% of the original benefit or ½ of the CPI-U for the 12 months ending with the September preceding each November 1st.

GLOSSARY OF TERMS

Glossary of Terms

GLOSSARY OF TERMS

Actuarial Accrued Liability – The Actuarial Present Value of future benefits based on Members' service rendered to the Measurement Date using the selected Actuarial Cost Method. It is that portion of the Actuarial Present Value of Plan benefits and expenses allocated to prior years of employment. It is not provided for by future Normal Costs.

Actuarial Cost Method – The method used to allocate the projected obligations of the Plan over the working lifetimes of the Plan Members.

Actuarial Value of Assets – The value of the assets used in the determination of the Unfunded Actuarial Accrued Liability. The Actuarial Value of Assets is related to the Fair Value of Assets, with adjustments made to spread unanticipated gains and losses for a given year over a period of several years. Actuarial Value of Assets is generally equally likely to fall above or below the Fair Value of Assets, and generally does not experience as much volatility over time as the Fair Value of Assets.

Asset Valuation Method – A valuation method designed to smooth random fluctuations in asset values. The objective underlying the use of an Asset Valuation Method is to provide for the long-term stability of Employer Contributions.

Funding Policy – A set of procedures for a Pension Fund that outlines the "best practices" for funding the pension benefits based on the goals of the Plan Sponsor. A Funding Policy discusses items such as assumptions, Actuarial Cost Method, assets, and other parameters that will best help the Plan Sponsor meet their goal of working in the best interest of the Plan Members.

Fair Value of Assets – The value of the cash, bonds, securities, and other assets held in the pension trust as of the Measurement Date.

Normal Cost – The present value of future benefits earned by Members during the current Fiscal Year. It is that portion of the Actuarial Present Value of benefits and expenses which is allocated to a valuation year by the Actuarial Cost Method.

Unfunded Actuarial Accrued Liability – The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. The Unfunded Actuarial Accrued Liability is amortized over a period either in level dollar amounts or as a level percentage of projected payroll.