# City of Hollywood
# Employees' Retirement Fund

## ACTUARIAL VALUATION REPORT
## AS OF OCTOBER 1, 2021

ANNUAL EMPLOYER CONTRIBUTION FOR THE FISCAL YEAR
ENDING SEPTEMBER 30, 2023

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June 23, 2022

Board of Trustees
City of Hollywood Employees' Retirement Fund
Hollywood, Florida

**Re: City of Hollywood Employees' Retirement Fund**
**Actuarial Valuation as of October 1, 2021**

Dear Members of the Board:

The results of the October 1, 2021 Annual Actuarial Valuation of the City of Hollywood (City) Employees' Retirement Fund (Retirement Fund or Plan) are presented in this report.

This report was prepared at the request of the Board and is intended for use by the Retirement Fund and those designated or approved by the Board. This report may be provided to parties other than the Retirement Fund only in its entirety and only with the permission of the Board. GRS is not responsible for unauthorized use of this report.

The purposes of the valuation are to measure the Retirement Fund's funding progress and to determine the employer contribution rate for the fiscal year ending September 30, 2023. This report should not be relied on for any purpose other than the purposes described herein. Determinations of financial results associated with the benefits described in this report for purposes other than those identified above may be significantly different.

The contribution rate in this report is determined using the actuarial assumptions and methods disclosed in Section B of this report. This report includes risk metrics in Section A but does not include a more robust assessment of the risks of future experience not meeting the actuarial assumptions. Additional assessment of risks was outside the scope of this assignment.

This valuation assumed the continuing ability of the plan sponsor to make the contributions necessary to fund this plan. A determination regarding whether or not the plan sponsor is actually able to do so is outside our scope of expertise and was not performed.

The findings in this report are based on data and other information through October 1, 2021. The valuation was based upon information furnished by the Plan Administrator and the City concerning plan benefits, financial transactions, plan provisions and active members, terminated members, retirees and beneficiaries. We checked for internal and year-to-year consistency, but did not audit the data. We are not responsible for the accuracy or completeness of the information provided by the Plan Administrator and the City.

This report was prepared using certain assumptions approved by the Board as authorized under and prescribed by the Florida Statutes, as described in the section of this report entitled Actuarial Assumptions and Cost Method. The investment return assumption was prescribed by the Board, and the assumed mortality rates detailed in the Actuarial Assumptions and Cost Method section were prescribed by the Florida Statutes in accordance with Chapter 112.63, Florida Statutes. All actuarial assumptions used in this report are reasonable for purposes of this valuation.

This report has been prepared by actuaries who have substantial experience valuing public employee retirement systems. To the best of our knowledge, the information contained in this report is accurate and fairly presents the actuarial position of the Retirement Fund as of the valuation date. All calculations have been made in conformity with generally accepted actuarial principles and practices, with the Actuarial Standards of Practice issued by the Actuarial Standards Board, and with applicable statutes.

This report was prepared using our proprietary valuation model and related software which in our professional judgment has the capability to provide results that are consistent with the purposes of the valuation and has no material limitations or known weaknesses. We performed tests to ensure that the model reasonably represents that which is intended to be modeled.

Jeffrey Amrose and Trisha Amrose are members of the American Academy of Actuaries. These actuaries meet the Academy's Qualification Standards to render the actuarial opinions contained herein.

The signing actuaries are independent of the plan sponsor.

This actuarial valuation and/or cost determination was prepared and completed by us or under our direct supervision, and we acknowledge responsibility for the results. To the best of our knowledge, the results are complete and accurate. In our opinion, the techniques and assumptions used are reasonable, meet the requirements and intent of Part VII, Chapter 112, Florida Statutes, and are based on generally accepted actuarial principles and practices. There is no benefit or expense to be provided by the Plan and/or paid from the Plan's assets for which liabilities or current costs have not been established or otherwise taken into account in the valuation. All known events or trends which may require a material increase in plan costs or required contribution rates have been taken into account in the valuation.

Gabriel, Roeder, Smith & Company (GRS) will be pleased to review this valuation and report with the Board of Trustees and to answer any questions pertaining to the valuation.

Respectfully submitted,

GABRIEL, ROEDER, SMITH & COMPANY

By: Jeff Amrose

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# SECTION A

## DISCUSSION OF VALUATION RESULTS

# DISCUSSION OF VALUATION RESULTS

## Comparison of Required Employer Contributions

The following is a comparison of required contributions developed in this year's and last year's actuarial valuations.

| Required Employer Contribution | For FYE 9/30/2023 Based on 10/1/2021 Valuation | For FYE 9/30/2022 Based on 10/1/2020 Valuation | Increase (Decrease) |
|---|---|---|---|
| If paid in full on October 1 | | | |
| Date of Payment | 10/1/2022 | 10/1/2021 | |
| Actuarially Determined Contribution | | | |
| As a Dollar Amount | $ 25,505,646 | $ 28,082,806 | $ (2,577,160) |
| As % of Covered Payroll | 58.77 % | 66.52 % | (7.75) % |
| Additional Installment Payment Toward Previous Contribution Shortfall | $ 0 * | $ 3,072,428 * | $ (3,072,428) |
| Total Required Contribution | $ 25,505,646 ** | $ 31,155,234 | $ (5,649,588) |

** The installment payment amount shown above for the FYE 9/30/2022 was paid by the City on 10/1/2021. In addition, the remaining balance of the previous contribution shortfall was fully paid off by the City in April 2022, resulting in no further payments due. Please see below for additional details.*
*** This amount does not yet reflect a reduction for the <u>$13,173</u> excess City contribution from April 2022 which can be used as a credit toward the upcoming required contribution payment. Please see below for additional details.*

## Payment of Required Contribution

The required contribution displayed above is the required contribution if the payment is made in full on the first day of the fiscal year. The required contribution if paid biweekly during the fiscal year, adjusted for interest on the basis that payment is made at the end of each pay period, is shown on page 9.

The actual employer contribution for the fiscal year ending September 30, 2021 was $29,944,811 ($29,914,898 from the City plus $29,913 from the County). This satisfied the required amount for the year.

This report reflects a $11,112,130 receivable employer contribution as of September 30, 2021. The $11,112,130 receivable contribution is the remaining City contribution shortfall as of September 30, 2021 due to the City making the required contribution excluding the pre-funding of the Supplemental Pension Distribution for the fiscal years ending September 30, 2015 through September 30, 2020. The State has permitted the City to pay this outstanding amount over a five-year period beginning October 1, 2020. The five years of installment payments were originally determined in our September 18, 2020 letter. The second through the fifth installment payment amounts were subsequently recalculated to reflect the updated 7.3% investment return assumption approved by the Board effective October 1, 2020.

Subsequent to the valuation date, the second installment payment was made on October 1, 2021 and the remaining balance owed was fully paid in April 2022, resulting in no further payments due. Since the investment return assumption was lowered to 7% effective October 1, 2021, the remaining balance owed by the City in April 2022 would have been $13,173 less, resulting in an overpayment by the City of $13,173 which can be used as a credit toward the upcoming required contribution payment.

## Revisions in Benefits

There were no revisions in benefits since the previous valuation.

## Revisions in Actuarial Assumptions or Methods

The investment return assumption was lowered from 7.30% to 7.00%, net of investment expenses, effective October 1, 2021. This assumption change caused the required employer contribution to increase by about $1,200,000, or 2.75% of covered payroll.

## Actuarial Experience

There was a net actuarial gain of $720,822 for the year, which means that actual experience was slightly more favorable than anticipated. The gain is primary due to the recognized investment return exceeding the assumed rate of 7.3%. The recognized investment return was 10.0% based on actuarial value of assets (21.3% based on market value of assets). The investment gain was mostly offset by liability losses primarily due to the payment of a Supplemental Pension Distribution triggered by the investment return for the FYE 2021. The net gain decreased the required employer contribution by 0.10% of covered payroll.

## Supplemental Pension Distribution

Since the investment return for the fiscal year ending September 30, 2021 is above 11.8% (i.e., 4.5% above the 7.3% assumed rate effective for the fiscal year ending September 30, 2021), a Supplemental Pension Distribution is payable for the fiscal year ending September 30, 2021. The Supplemental Pension Distribution is equal to the investment return above 11.8%, but no more than 2%, multiplied by the liability for eligible members. Since the investment return on the market value of assets was 21.3% for the fiscal year ending September 30, 2021, the Supplemental Pension Distribution is calculated as 2% of the liability for eligible members. The Supplemental Pension Distribution amount is $7,578,907 for the fiscal year ending September 30, 2021 payable to 909 eligible pensioners.

## Funded Ratio

The funded ratio this year is 64.1% compared to 63.3% last year. The funded ratio is equal to the actuarial value of assets divided by the actuarial accrued (past service) liability.

## Analysis of Change in Employer Contributions

The components of change in the required employer contribution as a percent of payroll reflecting bi-weekly timing are as follows:

| | | |
|---|---|---|
| Contribution Rate Last Year | 68.96 | % |
| Changes in Benefits | 0.00 | |
| Changes in Actuarial Assumptions | 2.75 | |
| Actuarial Experience | (0.10) | |
| Amortization Payment on UAAL | (10.61) | * |
| Normal Cost Rate | (0.28) | |
| Administrative Expenses | 0.12 | |
| Contribution Rate This Year | 60.84 | |

* Primarily due to an increase in the payroll growth assumption limited to the actual 10-year average payroll growth, which increased from 0.51% last year to 3.47% this year.

## Variability of Future Contribution Rates

The Actuarial Cost Method used to determine the contribution rate is intended to produce contribution rates which are generally level as a percent of payroll. Even so, when experience differs from the assumptions, as it often does, the employer's contribution rate can vary significantly from year-to-year.

Over time, if the year-to-year gains and losses offset each other, the contribution rate would be expected to return to the current level, but this does not always happen.

The Market Value of Assets exceeds the Actuarial Value of Assets by $34,900,322 as of the valuation date (see Section C). This difference will be gradually recognized over the next several years. In turn, the computed employer contribution rate will decrease by approximately 4.7% of covered payroll over the same period in the absence of offsetting losses.

Another potential area of variability has to do with the annual payment on the unfunded accrued liability (UAL). This payment is computed as a level percent of covered payroll under the assumption that covered payroll will rise by 3.5% per year or, if less, the average payroll growth over the most recent ten years. The most recent ten-year average is 3.47% compared to 0.51% last year. If the ten-year average falls below this rate next year, the amortization payments will increase. For example, if the payroll growth assumption was lowered to 0%, the UAL payment would have increased from $20,313,491 to $24,684,781.

## Relationship to Market Value

If market value of assets had been used in the valuation instead of the actuarial value of assets, the City contribution rate on a bi-weekly basis would have been 56.17%, and the funded ratio would have been 69.8%. In the absence of other gains and losses, the City contribution rate should decrease to that level over the next several years.

## Conclusion and Recommendations

It is important to note that plan assets are not sufficient to cover the liabilities for current retirees. As of October 1, 2021, the market value of assets is $428.2 million (including the receivable City contribution), and the liability for current inactive members is $498.0 million.

The funded ratio dropped from 82.5% in 2000 to the current level of 64.1%. Some steps have been taken to improve funding, such as strengthening the actuarial assumptions including lowering the assumed investment return rate and shortening the amortization period. If the maximum amortization period were shortened from 28 years to 25 years in this valuation, the actuarially determined contribution would increase by approximately $210,000. This would result in higher contributions in the short-term for the City but would also have a positive effect on improving the funded ratio of the plan.

The remainder of this report includes detailed actuarial valuation results, financial information, miscellaneous information and statistics, and a summary of plan provisions.

# RISKS ASSOCIATED WITH MEASURING THE ACCRUED LIABILITY AND ACTUARIALLY DETERMINED CONTRIBUTION

The determination of the accrued liability and the actuarially determined contribution requires the use of assumptions regarding future economic and demographic experience. Risk measures, as illustrated in this report, are intended to aid in the understanding of the effects of future experience differing from the assumptions used in the course of the actuarial valuation. Risk measures may also help with illustrating the potential volatility in the accrued liability and the actuarially determined contribution that result from the differences between actual experience and the actuarial assumptions.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions due to changing conditions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period, or additional cost or contribution requirements based on the Plan’s funded status); and changes in plan provisions or applicable law. The scope of an actuarial valuation does not include an analysis of the potential range of such future measurements.

Examples of risk that may reasonably be anticipated to significantly affect the plan’s future financial condition include:

1. Investment risk – actual investment returns may differ from the expected returns;
2. Contribution risk – actual contributions may differ from expected future contributions. For example, actual contributions may not be made in accordance with the plan’s funding policy or material changes may occur in the anticipated number of covered employees, covered payroll, or other relevant contribution base;
3. Salary and Payroll risk – actual salaries and total payroll may differ from expected, resulting in actual future accrued liability and contributions differing from expected;
4. Longevity risk – members may live longer or shorter than expected and receive pensions for a period of time other than assumed;
5. Other demographic risks – members may terminate, retire or become disabled at times or with benefits other than assumed resulting in actual future accrued liability and contributions differing from expected.

The effects of certain trends in experience can generally be anticipated. For example if the investment return since the most recent actuarial valuation is less (or more) than the assumed rate, the cost of the plan can be expected to increase (or decrease). Likewise if longevity is improving (or worsening), increases (or decreases) in cost can be anticipated.

The computed contribution rate shown on page 1 may be considered as a minimum contribution rate that complies with the Board’s funding policy and Florida Statutes. The timely receipt of the actuarially determined contributions is critical to support the financial health of the plan. Users of this report should be aware that contributions made at the actuarially determined rate do not necessarily guarantee benefit security.

## Plan Maturity Measures

Risks facing a pension plan evolve over time. A young plan with virtually no investments and paying few benefits may experience little investment risk. An older plan with a large number of members in pay status and a significant trust may be much more exposed to investment risk. Generally accepted plan maturity measures include the following:

| | 2021 | 2020 |
|---|---|---|
| Ratio of the market value of assets to payroll | 10.21 | 8.92 |
| Ratio of actuarial accrued liability to payroll | 14.64 | 14.30 |
| Ratio of actives to retirees and beneficiaries | 0.5 | 0.5 |
| Ratio of net cash flow to market value of assets | -1.01 % | -0.54 % |

## Ratio of Market Value of Assets to Payroll

The relationship between assets and payroll is a useful indicator of the potential volatility of contributions. For example, if the market value of assets is 2.0 times the payroll, a return on assets 5% different than assumed would equal 10% of payroll. A higher (lower) or increasing (decreasing) level of this maturity measure generally indicates a higher (lower) or increasing (decreasing) volatility in plan sponsor contributions as a percentage of payroll.

## Ratio of Actuarial Accrued Liability to Payroll

The relationship between actuarial accrued liability and payroll is a useful indicator of the potential volatility of contributions for a fully funded plan. A funding policy that targets a funded ratio of 100% is expected to result in the ratio of assets to payroll and the ratio of liability to payroll converging over time.

The ratio of liability to payroll may also be used as a measure of sensitivity of the liability itself. For example, if the actuarial accrued liability is 2.5 times the payroll, a change in liability 2% other than assumed would equal 5% of payroll. A higher (lower) or increasing (decreasing) level of this maturity measure generally indicates a higher (lower) or increasing (decreasing) volatility in liability (and also plan sponsor contributions) as a percentage of payroll.

## Ratio of Actives to Retirees and Beneficiaries

A young plan with many active members and few retirees will have a high ratio of active to retirees. A mature open plan may have close to the same number of actives to retirees resulting in a ratio near 1.0. A super-mature or closed plan may have significantly more retirees than actives resulting in a ratio below 1.0.

## Ratio of Net Cash Flow to Market Value of Assets

A positive net cash flow means contributions exceed benefits and expenses. A negative cash flow means existing funds are being used to make payments. A certain amount of negative net cash flow is generally expected to occur when benefits are prefunded through a qualified trust. Large negative net cash flows as a percent of assets may indicate a super-mature plan or a need for additional contributions.

## Additional Risk Assessment

Additional risk assessment is outside the scope of the annual actuarial valuation. Additional assessment may include scenario tests, sensitivity tests, stochastic modeling, stress tests, and a comparison of the present value of accrued benefits at low-risk discount rates with the actuarial accrued liability.

# SECTION B

## VALUATION RESULTS

| PARTICIPANT DATA | | |
|---|---|---|
| | October 1, 2021 | October 1, 2020 |
| **ACTIVE MEMBERS** | | |
| Number | 603 | 599 |
| Covered Annual Payroll | $ 41,931,489 | $ 40,789,456 |
| Average Annual Payroll | $ 69,538 | $ 68,096 |
| Average Age | 47.4 | 47.0 |
| Average Past Service | 8.9 | 9.1 |
| Average Age at Hire | 38.5 | 37.9 |
| **ACTIVE TRANSFERS** | | |
| Number | 9 | 9 |
| Covered Annual Payroll | $ 1,080,077 | $ 1,094,220 |
| Average Annual Payroll | $ 120,009 | $ 121,580 |
| Average Age | 45.9 | 44.9 |
| Average Past Service | 3.0 | 3.0 |
| **RETIREES, BENEFICIARIES & DROP PLAN MEMBERS** | | |
| Number | 1,094 | 1,094 |
| Annual Benefits[1] | $ 35,559,041 | $ 34,265,778 |
| Average Annual Benefit | $ 32,504 | $ 31,322 |
| Average Age | 68.4 | 68.2 |
| **DISABILITY RETIREES** | | |
| Number | 37 | 42 |
| Annual Benefits[1] | $ 1,104,635 | $ 1,203,376 |
| Average Annual Benefit | $ 29,855 | $ 28,652 |
| Average Age | 66.2 | 65.9 |
| **TERMINATED VESTED MEMBERS** | | |
| Number | 54 | 54 |
| Annual Benefits | $ 783,960 | $ 781,355 |
| Average Annual Benefit | $ 14,518 | $ 14,470 |
| Average Age | 49.4 | 48.7 |

[1] *Does not include any Supplemental Pension Distribution.*

| ACTUARIALLY DETERMINED CONTRIBUTION (ADC) | | | |
|---|---|---|---|
| A. Valuation Date | October 1, 2021 *After Assumption Change* | October 1, 2021 *Before Assumption Change* | October 1, 2020 |
| B. ADC to Be Paid During Fiscal Year Ending | 9/30/2023 | 9/30/2023 | 9/30/2022 |
| C. Assumed Date of Employer Contribution | Biweekly | Biweekly | Biweekly |
| D. Annual Payment to Amortize Unfunded Actuarial Accrued Liability | $ 20,313,491 | $ 19,578,193 | $ 23,257,751 |
| E. Employer Normal Cost | 4,329,102 | 3,920,217 | 3,875,138 |
| F. ADC if Paid on the Valuation Date: D + E | 24,642,593 | 23,498,410 | 27,132,889 |
| G. ADC Adjusted for Frequency of Payments | 25,509,100 | 24,358,898 | 28,126,468 |
| H. ADC as % of Covered Payroll | 60.84 % | 58.09 % | 68.96 % |
| I. Assumed Rate of Increase in Covered Payroll to Contribution Year | 3.50 % | 3.50 % | 3.50 % |
| J. Covered Payroll for Contribution Year | 43,399,091 | 43,399,091 | 42,217,087 |
| K. ADC for Contribution Year: H x J | 26,404,007 | 25,210,532 | 29,112,903 |
| L. ADC as % of Covered Payroll in Contribution Year: K ÷ J | 60.84 % | 58.09 % | 68.96 % |
| M. ADC for Contribution Year if Paid in Full on the First Day of the Fiscal Year | 25,505,646 | 24,320,851 | 28,082,806 |
| N. ADC as % of Covered Payroll in Contribution Year: K ÷ J | 58.77 % | 56.04 % | 66.52 % |

*Please see pages 1 and 2 for information regarding the installment payment toward the previous contribution shortfall due from the City in addition to the Actuarially Determined Contribution.*

| ALLOCATION OF REQUIRED EMPLOYER CONTRIBUTION BY EMPLOYEE GROUP | | | | | | |
|---|---|---|---|---|---|---|
| Group | Employer Normal Cost (Before Expenses) | % of Total Employer Normal Cost | Active Actuarial Accrued Liability | % of Active Actuarial Accrued Liability | **Allocated Required Employer Contribution for FYE 9/30/2023*** | |
| | | | | | **Percentage** | **Dollar Amount** |
| Non-General Fund Members | $ 1,037,747 | 29.41% | $ 34,300,221 | 29.62% | 29.58% | $ 7,810,390 |
| Grandfathered Non-General Fund Members | 92,545 | 2.62% | 3,432,157 | 2.96% | 2.90% | 766,677 |
| General Fund Members | 2,367,324 | 67.11% | 77,094,269 | 66.57% | 66.67% | 17,602,782 |
| Grandfathered General Fund Members | 30,493 | 0.86% | 979,451 | 0.85% | 0.85% | 224,158 |
| Total | $ 3,528,109 | 100.00% | $ 115,806,098 | 100.00% | 100.00% | $ 26,404,007 |

* The Employer Normal Cost is allocated based on each group's percentage of the Employer Normal Cost for benefits, and the annual payment to amortize the UAL is allocated based on each group's percentage of the Actuarial Accrued Liability for active members.

## ACTUARIAL VALUE OF BENEFITS AND ASSETS

| | | | |
|---|---|---|---|
| A. Valuation Date | October 1, 2021 *After Assumption Change* | October 1, 2021 *Before Assumption Change* | October 1, 2020 |
| B. Actuarial Present Value of All Projected Benefits for | | | |
| 1. Active Members | | | |
| a. Service Retirement Benefits | $ 141,995,025 | $ 134,500,162 | $ 137,574,654 |
| b. Vesting Benefits | 10,248,113 | 9,643,017 | 9,540,949 |
| c. Disability Benefits | 14,148,831 | 13,547,787 | 13,293,353 |
| d. Preretirement Death Benefits | 3,886,348 | 3,696,315 | 3,725,734 |
| e. Return of Member Contributions | 1,277,638 | 1,271,448 | 1,292,328 |
| f. Total | 171,555,955 | 162,658,729 | 165,427,018 |
| 2. Inactive Members | | | |
| a. Service Retirees & Beneficiaries | 477,302,691 | 463,759,075 | 447,754,013 |
| b. Disability Retirees | 13,412,039 | 13,057,067 | 14,248,663 |
| c. Terminated Vested Members | 7,283,836 | 6,934,616 | 6,861,309 |
| d. Total | 497,998,566 | 483,750,758 | 468,863,985 |
| 3. Total for All Members | 669,554,521 | 646,409,487 | 634,291,003 |
| C. Actuarial Accrued (Past Service) Liability (Entry Age Normal) | 613,804,664 | 594,802,819 | 583,426,971 |
| D. Actuarial Present Value of Accumulated Plan Benefits per FASB Statement No. 35 | 599,454,792 | 585,206,984 | 564,417,201 |
| E. Plan Assets | | | |
| 1. Market Value | 428,178,689 | 428,387,715 | 363,673,004 |
| 2. Actuarial Value | 393,278,367 | 393,487,393 | 369,068,328 |
| F. Unfunded Actuarial Accrued Liability: C - E2 | 220,526,297 | 201,315,426 | 214,358,643 |
| G. Actuarial Present Value of Projected Covered Payroll | 353,234,225 | 347,068,824 | 335,515,413 |
| H. Actuarial Present Value of Projected Member Contributions | 29,228,975 | 28,725,014 | 27,949,553 |
| I. Accumulated Contributions of Active Members | 23,525,448 | 23,525,448 | 23,086,919 |

| CALCULATION OF EMPLOYER NORMAL COST | | | |
|---|---|---|---|
| A. Valuation Date | October 1, 2021 | October 1, 2021 | October 1, 2020 |
| B. Normal Cost for | *After Assumption Change* | *Before Assumption Change* | |
| 1. Service Retirement Benefits | $ 4,742,447 | $ 4,429,641 | $ 4,413,003 |
| 2. Vesting Benefits | 911,456 | 855,496 | 865,959 |
| 3. Disability Benefits | 884,410 | 850,045 | 816,281 |
| 4. Preretirement Death Benefits | 178,366 | 168,863 | 170,205 |
| 5. Return of Member Contributions | 323,559 | 327,308 | 317,658 |
| 6. Total for Future Benefits | 7,040,238 | 6,631,353 | 6,583,106 |
| 7. Assumed Amount for Administrative Expenses | 800,993 | 800,993 | 731,022 |
| 8. Total Normal Cost | 7,841,231 | 7,432,346 | 7,314,128 |
| C. Expected Member Contribution | 3,512,129 | 3,512,129 | 3,438,990 |
| D. Employer Normal Cost: B8-C | 4,329,102 | 3,920,217 | 3,875,138 |
| E. Employer Normal Cost as % of Covered Payroll | 10.32 % | 9.34 % | 9.50 % |

## LIQUIDATION OF THE UNFUNDED ACTUARIAL ACCRUED LIABILITY

| A. UAAL Amortization Period and Payments | | | | | | |
|---|---|---|---|---|---|---|
| Original UAAL | | | Current UAAL | | | |
| | | | | | Payment | |
| Date Established | Source | Amount | Years Remaining | Amount | After Changes | Before Changes |
| 10/1/08 | Combined Base | $ 120,402,171 | 7 | $ 71,161,378 | $ 11,217,013 | $ 11,307,205 |
| 10/1/08 | Assumption Change | 6,133,233 | 17 | 5,888,299 | 446,937 | 455,995 |
| 10/1/09 | Experience Loss | 21,720,025 | 18 | 19,605,848 | 1,426,903 | 1,457,450 |
| 10/1/10 | Experience Loss | 5,090,043 | 19 | 4,564,106 | 319,462 | 326,661 |
| 10/1/10 | Assumption Change | (11,684,981) | 19 | (10,477,615) | (733,375) | (749,901) |
| 10/1/10 | Plan Change | (17,448,058) | 19 | (15,645,216) | (1,095,079) | (1,119,756) |
| 10/1/11 | Experience Loss | 26,493,199 | 20 | 23,881,452 | 1,611,922 | 1,650,038 |
| 10/1/12 | Experience Loss | 16,888,651 | 21 | 15,148,849 | 988,394 | 1,012,850 |
| 10/1/13 | Experience Loss | 934,513 | 22 | 848,251 | 53,615 | 55,000 |
| 10/1/13 | Plan Change | 5,490,249 | 22 | 4,983,458 | 314,988 | 323,123 |
| 10/1/13 | Assumption Change | 23,450,820 | 22 | 21,286,134 | 1,345,427 | 1,380,174 |
| 10/1/14 | Experience Gain | (4,233,453) | 23 | (3,871,250) | (237,512) | (243,900) |
| 10/1/14 | Assumption Change | 5,726,542 | 23 | 5,236,594 | 321,280 | 329,921 |
| 10/1/15 | Experience Gain | (3,077,339) | 24 | (2,868,210) | (171,120) | (175,902) |
| 10/1/15 | Assumption Change | 4,368,350 | 24 | 4,071,487 | 242,908 | 249,697 |
| 10/1/15 | Plan Change | 598,036 | 24 | 557,396 | 33,255 | 34,184 |
| 10/1/16 | Experience Gain | (11,069,062) | 25 | (10,493,354) | (609,779) | (627,454) |
| 10/1/16 | Assumption Change | 23,064,814 | 25 | 21,865,200 | 1,270,608 | 1,307,437 |
| 10/1/17 | Experience Gain | (3,970,427) | 26 | (3,807,695) | (215,847) | (222,324) |
| 10/1/17 | Assumption Change | 5,064,314 | 26 | 4,856,749 | 275,314 | 283,576 |
| 10/1/18 | Experience Gain | (4,790,305) | 27 | (4,657,811) | (257,925) | (265,926) |
| 10/1/18 | Assumption Change | 5,193,624 | 27 | 5,049,974 | 279,641 | 288,316 |
| 10/1/18 | Plan Change | 47,242,260 | 27 | 45,935,593 | 2,543,673 | 2,622,577 |
| 10/1/19 | Experience Gain | (871,242) | 28 | (847,172) | (45,885) | (47,354) |
| 10/1/20 | Experience Gain | (1,751,522) | 28 | (1,722,526) | (93,296) | (96,283) |
| 10/1/20 | Assumption Change | 1,511,349 | 28 | 1,486,329 | 80,503 | 83,080 |
| 10/1/21 | Experience Gain | (720,822) | 28 | (720,822) | (39,041) | (40,291) |
| 10/1/21 | Assumption Change | 19,210,871 | 28 | 19,210,871 | 1,040,507 | N/A |
| | | $ 278,965,853 | | $ 220,526,297 | $ 20,313,491 | $ 19,578,193 |

## B. Amortization Schedule

The UAAL is being liquidated as a level percent of payroll over the number of years remaining in the amortization period. The expected amortization schedule is as follows:

| Amortization Schedule | |
|---|---|
| **Year** | **Expected UAAL** |
| 2021 | $ 220,526,297 |
| 2022 | 214,227,684 |
| 2023 | 206,733,967 |
| 2024 | 197,935,298 |
| 2025 | 187,713,253 |
| 2026 | 175,940,174 |
| 2031 | 139,239,816 |
| 2036 | 111,295,425 |
| 2041 | 62,170,064 |
| 2046 | 18,398,016 |
| 2049 | 0 |

# ACTUARIAL GAINS AND LOSSES

The assumptions used to anticipate mortality, employment turnover, investment income, expenses, salary increases, and other factors have been based on long range trends and expectations. Actual experience can vary from these expectations. The variance is measured by the gain and loss for the period involved. If significant long term experience reveals consistent deviation from what has been expected and that deviation is expected to continue, the assumptions should be modified. The net actuarial gain (loss) for the past year is computed as follows:

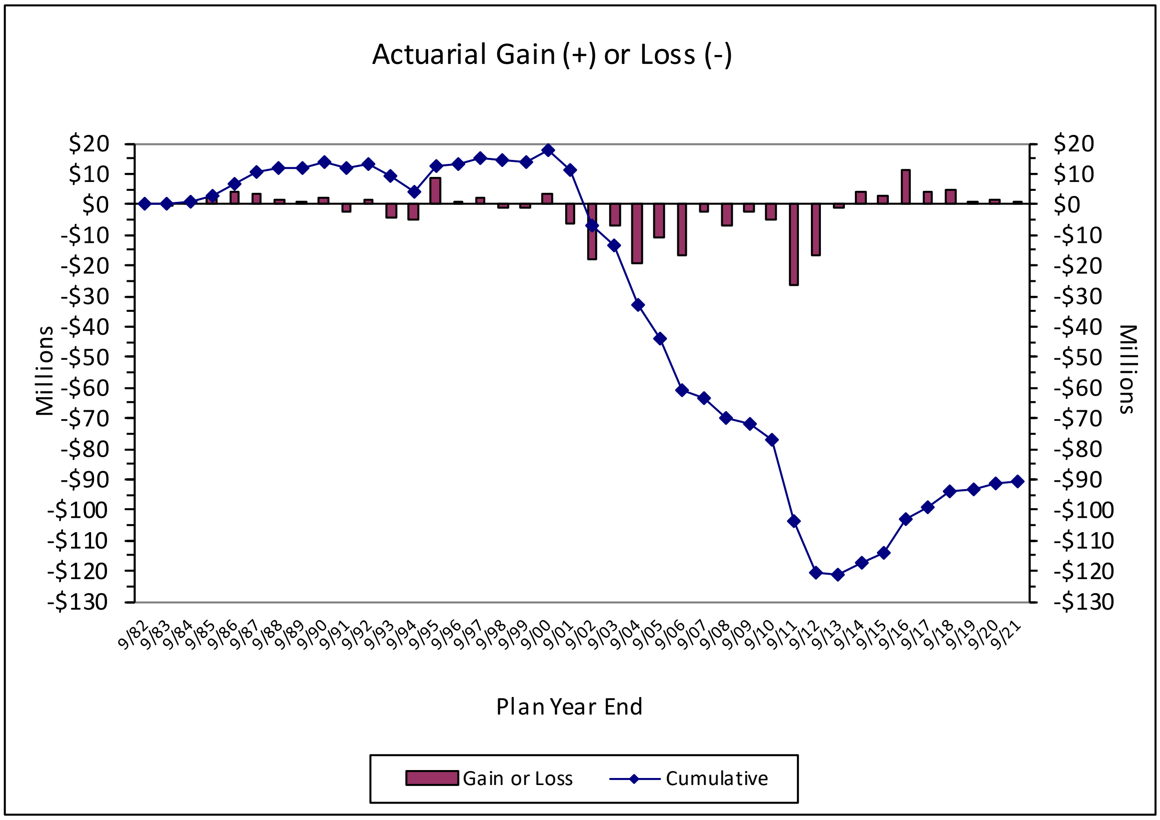
| | |
|---|---|
| 1. Last Year's UAAL (After Changes in Benefits, Assumptions, or Methods) | $ 214,358,643 |
| 2. Last Year's Employer Normal Cost | 3,875,138 |
| 3. Last Year's Employer Contributions (City and County) | 29,944,811 |
| 4. Interest at the Assumed Rate on: | |
| a. 1 and 2 for one year | 15,931,066 |
| b. 3 from dates paid | 2,183,788 |
| c. a - b | 13,747,278 |
| 5. This Year's Expected UAAL (Before any Changes in Assumptions or Benefits): 1 + 2 - 3 + 4c | 202,036,248 |
| 6. Change in UAAL Due to Change in Assumptions/Methods | 19,210,871 |
| 7. Change in UAAL Due to Change in Benefits | 0 |
| 8. This Year's Expected UAAL (After Changes in Assumptions and Benefits): 5 + 6 + 7 | 221,247,119 |
| 9. This Year's Actual UAAL (After Changes in Assumptions and Benefits) | 220,526,297 |
| 10. Net Actuarial Gain (Loss): 8 - 9 | 720,822 |
| 11. Gain (Loss) Due to Investments | 9,581,737 |
| 12. Gain (Loss) From Other Sources* | (8,860,915) |

* Reflects a Supplemental Pension Distribution of $7,578,907 for the FYE 2021.

Net actuarial gains in previous years have been as follows:

| Year Ended | Net Gain (Loss) Prior* | Net Gain (Loss) Supplemental |
|---|---|---|
| 9/30/1982 | $ 357,574 | $ (293,400) |
| 9/30/1983 | (53,055) | (47,952) |
| 9/30/1984 | 655,952 | 13,007 |
| 9/30/1985 | 1,910,328 | 214,974 |
| 9/30/1986 | 3,522,953 | 387,117 |
| 9/30/1987 | 3,085,353 | 541,011 |
| 9/30/1988 | 1,673,391 | (20,803) |
| 9/30/1989 | 631,806 | (395,640) |
| 9/30/1990 | 2,021,350 | (117,331) |
| 9/30/1991 | (2,112,517) | N/A |
| 9/30/1992 | 1,394,549 | N/A |
| 9/30/1993 | (4,345,862) | N/A |
| 9/30/1994 | (4,780,402) | N/A |
| 9/30/1995 | 8,381,537 | N/A |
| 9/30/1996 | 694,600 | N/A |
| 9/30/1997 | 2,097,065 | N/A |
| 9/30/1998 | (859,539) | N/A |
| 9/30/1999 | (828,976) | N/A |
| 9/30/2000 | 3,710,238 | N/A |
| 9/30/2001 | (6,021,041) | N/A |
| 9/30/2002 | (18,219,741) | N/A |
| 9/30/2003 | (6,740,689) | N/A |
| 9/30/2004 | (19,270,365) | N/A |
| 9/30/2005 | (11,135,131) | N/A |
| 9/30/2006 | (16,622,969) | N/A |
| 9/30/2007 | (2,621,034) | N/A |
| 9/30/2008 | (6,640,889) | N/A |
| 9/30/2009 | (2,172,025) | N/A |
| 9/30/2010 | (5,090,043) | N/A |
| 9/30/2011 | (26,493,199) | N/A |
| 9/30/2012 | (16,888,651) | N/A |
| 9/30/2013 | (934,513) | N/A |
| 9/30/2014 | 4,233,453 | N/A |
| 9/30/2015 | 3,077,339 | N/A |
| 9/30/2016 | 11,069,062 | N/A |
| 9/30/2017 | 3,970,427 | N/A |
| 9/30/2018 | 4,790,305 | N/A |
| 9/30/2019 | 871,242 | N/A |
| 9/30/2020 | 1,751,522 | N/A |
| 9/30/2021 | 720,822 | N/A |

* After 1990, these are the figures for the entire Retirement Fund.


Actuarial Gain (+) or Loss (-)
$20
$10
$0
-$10
-$20
-$30
-$40
-$50
-$60
-$70
-$80
-$90
-$100
-$110
-$120
-$130
Millions
9/82 9/83 9/84 9/85 9/86 9/87 9/88 9/89 9/90 9/91 9/92 9/93 9/94 9/95 9/96 9/97 9/98 9/99 9/00 9/01 9/02 9/03 9/04 9/05 9/06 9/07 9/08 9/09 9/10 9/11 9/12 9/13 9/14 9/15 9/16 9/17 9/18 9/19 9/20 9/21
Plan Year End
Gain or Loss
Cumulative

The fund earnings and salary increase assumptions have considerable impact on the cost of the Plan so it is important that they are in line with the actual experience. The following table shows the historical actual fund earnings and salary increase rates compared to the assumed rates:

| | Investment Return | | Salary Increases | | | |
|---|---|---|---|---|---|---|
| | | | Prior Members | | Other Members[1] | |
| Year Ending | Actual | Assumed | Actual | Assumed | Actual | Assumed |
| 9/30/1977 | 8.9 % | 5.0 % | 10.0 % | 3.0 % | N/A % | N/A % |
| 9/30/1978 | 9.5 | 6.5 | 8.3 | 5.0 | 7.1 | 5.0 |
| 9/30/1979 | 8.8 | 6.5 | 8.1 | 5.0 | 14.1 | 5.0 |
| 9/30/1980 | 8.4 | 6.5 | 18.5 | 5.0 | 24.8 | 5.0 |
| 9/30/1981 | 0.4 | 6.5 | 11.0 | 5.0 | 12.1 | 5.0 |
| 9/30/1982 | 9.2 | 8.0 | 4.2 | 8.0 | 7.6 | 8.0 |
| 9/30/1983 | 9.8 | 8.0 | 6.5 | 8.0 | 9.2 | 8.0 |
| 9/30/1984 | 10.3 | 8.0 | 5.1 | 8.0 | 8.4 | 8.0 |
| 9/30/1985 | 13.7 | 8.0 | 5.1 | 8.0 | 7.2 | 8.0 |
| 9/30/1986 | 16.1 | 8.0 | 2.8 | 8.0 | 4.7 | 8.0 |
| 9/30/1987 | 14.4 | 8.0 | 4.6 | 8.0 | 6.0 | 8.0 |
| 9/30/1988 | 11.2 | 7.5 | 8.3 | 7.0 | 10.0 | 8.0 |
| 9/30/1989 | 11.5 | 7.5 | 11.8 | 7.0 | 12.9 | 8.0 |
| 9/30/1990 | 10.6 | 7.5 | 3.5 | 7.0 | 5.8 | 8.0 |
| 9/30/1991 | 7.9 | 8.75 | 2.5 | 7.0 | 5.0 | 8.0 |
| 9/30/1992 | 10.8 | 8.75 | 2.9 | 7.0 | 5.9 | 8.0 |
| 9/30/1993 | 7.1 | 8.75 | 6.4 | 7.0 | 9.9 | 8.0 |
| 9/30/1994 | 0.9 | 8.3 | N/A[2] | 5.7 | N/A[2] | 5.7 |
| 9/30/1995 | 14.6 | 8.3 | N/A | N/A | 6.5 | 5.7 |
| 9/30/1996 | 12.3 | 8.3 | N/A | N/A | 7.3 | 5.7 |
| 9/30/1997 | 11.0 | 8.3 | N/A | N/A | 7.4 | 5.7 |
| 9/30/1998 | 10.2 | 8.3 | N/A | N/A | 5.0 | 5.7 |
| 9/30/1999 | 11.0 | 8.3 | N/A | N/A | 8.4 | 5.7 |
| 9/30/2000 | 12.7 | 8.3 | N/A | N/A | 5.3 | 5.7 |
| 9/30/2001 | 8.1 | 8.3 | N/A | N/A | 7.0 | 5.7 |
| 9/30/2002 | 0.5 | 8.3 | N/A | N/A | 7.9 | 5.7 |
| 9/30/2003 | 5.0 | 8.3 | N/A | N/A | 6.9 | 5.0 |
| 9/30/2004 | 4.4 | 8.3 | N/A | N/A | 8.2 | 6.0 |
| 9/30/2005 | 3.0 | 8.3 | N/A | N/A | 9.3 | 6.1 |
| 9/30/2006 | 6.0 | 8.3 | N/A | N/A | 7.0 | 5.7 |
| 9/30/2007 | 9.6 | 8.3 | N/A | N/A | 7.3 | 5.5 |
| 9/30/2008 | 4.3 | 8.3 | N/A | N/A | 5.8 | 5.7 |
| 9/30/2009 | (1.0) | 8.0 | N/A | N/A | 3.2 | 6.6 |
| 9/30/2010 | 5.4 | 8.0 | N/A | N/A | 1.9 | 6.2 |
| 9/30/2011 | 0.8 | 8.0 | N/A | N/A | (0.6) | (1.5) [#] |
| 9/30/2012 | 1.9 | 8.0 | N/A | N/A | 0.2 | 1.4 [#] |
| 9/30/2013 | 7.2 | 8.0 | N/A | N/A | 1.9 | 5.8 |
| 9/30/2014 | 9.8 | 8.0 | N/A | N/A | 5.8 | 5.8 |
| 9/30/2015 | 8.5 | 7.9 | N/A | N/A | 5.2 | 4.9 |
| 9/30/2016 | 10.3 | 7.8 | N/A | N/A | 7.4 | 5.0 |
| 9/30/2017 | 9.5 | 7.7 | N/A | N/A | 6.2 | 5.1 |
| 9/30/2018 | 8.3 | 7.6 | N/A | N/A | 2.2 | 4.9 |
| 9/30/2019 | 7.0 | 7.5 | N/A | N/A | 3.9 | 4.7 |
| 9/30/2020 | 8.0 | 7.5 | N/A | N/A | 3.1 | 5.4 |
| 9/30/2021 | 10.0 | 7.3 | N/A | N/A | 3.3 | 5.5 |
| Averages | 8.1 % | --- | 7.0 % | --- | 6.8 % | --- |

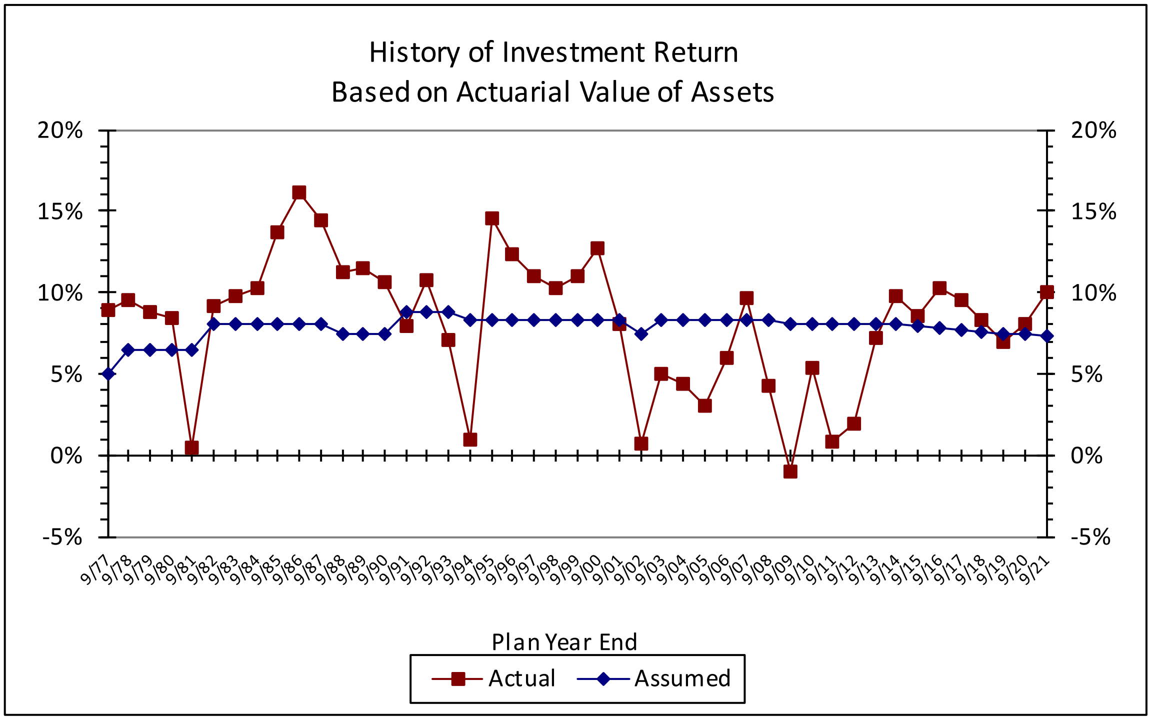
1 All members after 9/30/1994.

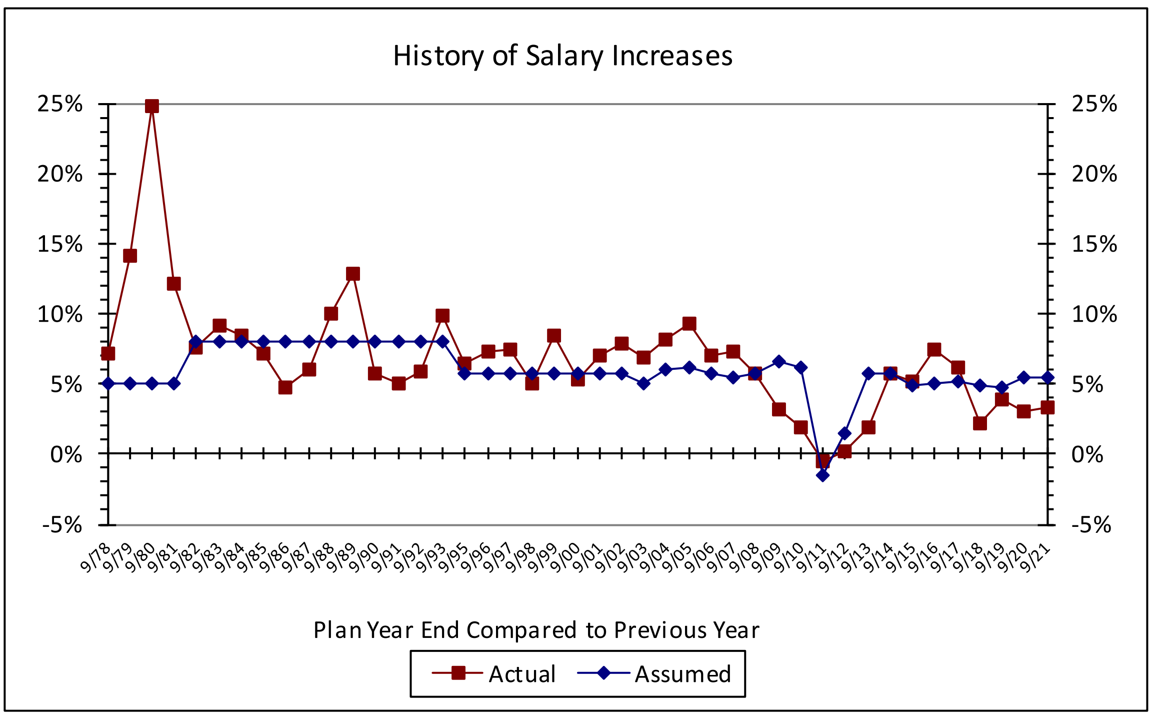
2 Because the salary basis reported to the actuaries changed from 10/1/1993 to 10/1/1994, a meaningful salary increase figure was not computed.

3 Reflects a one-time pay reduction for general fund members and no pay increases for non-general fund members.

4 Reflects no pay increases for general fund members.

The actual investment return rates shown on the previous page are based on the actuarial value of assets. The actual salary increase rates shown on the previous page are the increases received by those active members who were included in the actuarial valuations both at the beginning and the end of each year.



| Actual (A) Compared to Expected (E) Decrements Among Active Employees | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | Number Added During Year | | Service & DROP Retirement | | Disability Retirement | | Death | | Terminations | | | | Active Members End of |
| | | | | | | | | | Vested | Other | Totals | | |
| Ended | A | E | A | E | A | E | A | E | A | A | A | E | Year |
| 9/30/2010 | 7 | 56 | 26 | 14 | 3 | 3 | 1 | 1 | 13 | 13 | 26 | 26 | **668** |
| 9/30/2011 | 12 | 146 | 114 | 16 | 2 | 3 | 1 | 1 | 15 | 14 | 29 | 22 | **534** |
| 9/30/2012 | 35 | 47 | 22 | 8 | 3 | 2 | 0 | 1 | 10 | 12 | 22 | 19 | **522** |
| 9/30/2013 | 41 | 47 | 19 | 7 | 1 | 2 | 0 | 1 | 12 | 15 | 27 | 18 | **516** |
| 9/30/2014 | 78 | 57 | 28 | 50 | 1 | 2 | 1 | 1 | 17 | 10 | 27 | 17 | **537** |
| 9/30/2015 | 86 | 49 | 17 | 9 | 1 | 2 | 0 | 1 | 6 | 25 | 31 | 26 | **574** |
| 9/30/2016 | 72 | 40 | 6 | 9 | 1 | 3 | 1 | 1 | 8 | 24 | 32 | 32 | **606** |
| 9/30/2017 | 64 | 34 | 16 | 11 | 0 | 3 | 1 | 1 | 0 | 17 | 17 | 36 | **636** |
| 9/30/2018 | 57 | 64 | 17 | 12 | 3 | 3 | 0 | 1 | 7 | 37 | 44 | 39 | **629** |
| 9/30/2019 | 69 | 106 | 75 | 74 | 0 | 3 | 1 | 1 | 1 | 29 | 30 | 38 | **592** |
| 9/30/2020 | 71 | 64 | 35 | 11 | 0 | 2 | 0 | 1 | 0 | 29 | 29 | 38 | **599** |
| 9/30/2021 | 73 | 69 | 24 | 12 | 0 | 2 | 1 | 1 | 4 | 40 | 44 | 38 | **603** |
| 9/30/2022 | | | | 10 | | 3 | | 1 | | | | 38 | |
| 12-Yr Totals * | 665 | 779 | 399 | 233 | 15 | 30 | 7 | 12 | 93 | 265 | 358 | 349 | |

** Totals are through current year.*

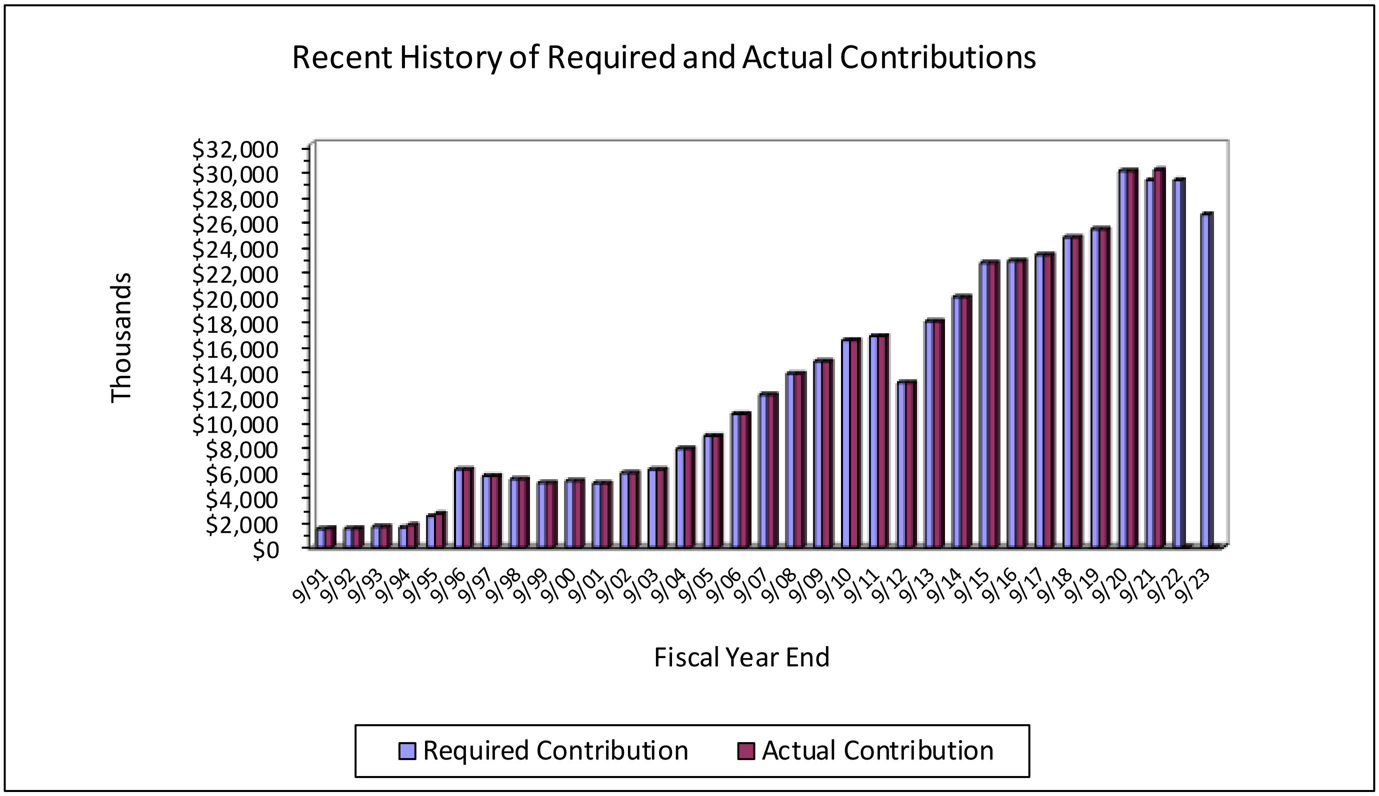
| RECENT HISTORY OF VALUATION RESULTS | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Number of | | | | | | | | |
| Valuation Date | Active Members* | Inactive Members | Covered Annual Payroll | Actuarial Value of Assets | Actuarial Accrued Liability (AAL) - Entry Age | Unfunded AAL (UAAL) | Funded Ratio | Employer Normal Cost (NC) | NC as % of Payroll |
| 10/1/1991 | 755 | 411 | $ 20,630,207 | $ 76,669,632 | $ 79,506,348 | $ 2,836,716 | 96.4 % | $ 1,043,805 | 5.06 % |
| 10/1/1992 | 727 | 439 | 20,191,327 | 83,752,649 | 85,450,424 | 1,697,775 | 98.0 | 860,076 | 4.26 |
| 10/1/1993 | 736 | 469 | 22,147,889 | 88,296,336 | 95,668,897 | 7,372,561 | 92.3 | 1,520,178 | 6.86 |
| 10/1/1994 | 587 | 667 | 18,757,186 | 88,937,435 | 129,179,737 | 40,242,302 | 68.8 | 2,241,185 | 11.95 |
| 10/1/1995 | 659 | 662 | 21,560,893 | 100,881,259 | 135,034,342 | 34,153,083 | 74.7 | 1,507,437 | 6.99 |
| 10/1/1996 | 742 | 656 | 24,532,562 | 112,060,623 | 141,765,578 | 29,704,955 | 79.0 | 1,405,716 | 5.73 |
| 10/1/1997 | 739 | 656 | 25,596,439 | 121,232,151 | 146,459,241 | 25,227,090 | 82.8 | 1,210,712 | 4.73 |
| 10/1/1998 | 773 | 645 | 27,581,966 | 129,407,169 | 154,243,888 | 24,836,719 | 83.9 | 1,412,197 | 5.12 |
| 10/1/1999 | 776 | 648 | 28,950,262 | 141,673,440 | 172,564,633 | 30,891,193 | 82.1 | 1,809,391 | 6.25 |
| 10/1/2000 | 778 | 668 | 30,000,733 | 156,750,497 | 189,916,733 | 33,166,236 | 82.5 | 1,983,048 | 6.61 |
| 10/1/2002 | 878 | 722 | 36,664,439 | 164,597,832 | 213,758,531 | 49,160,699 | 77.0 | 3,810,183 | 10.39 |
| 10/1/2003 | 872 | 745 | 38,497,328 | 175,458,765 | 233,155,961 | 57,697,196 | 75.3 | 4,123,269 | 10.71 |
| 10/1/2004 | 879 | 770 | 40,421,513 | 180,192,031 | 257,632,743 | 77,440,712 | 69.9 | 4,451,446 | 11.01 |
| 10/1/2005 | 840 | 811 | 41,480,512 | 185,301,557 | 275,757,219 | 90,455,662 | 67.2 | 4,704,515 | 11.34 |
| 10/1/2006 | 825 | 851 | 41,755,261 | 195,193,325 | 303,778,626 | 108,585,301 | 64.3 | 4,949,811 | 11.85 |
| 10/1/2007 | 827 | 885 | 45,999,379 | 212,980,592 | 325,892,851 | 112,912,259 | 65.4 | 5,342,240 | 11.61 |
| 10/1/2008 | 792 | 900 | 45,848,717 | 222,098,827 | 348,634,231 | 126,535,404 | 63.7 | 6,445,410 | 14.05 |
| 10/1/2009 | 717 | 927 | 44,084,422 | 220,155,870 | 369,526,337 | 149,370,467 | 59.6 | 5,138,036 | 11.65 |
| 10/1/2010 | 668 | 947 | 38,748,664 | 223,942,457 | 351,118,031 | 127,175,574 | 63.8 | 2,971,772 | 7.67 |
| 10/1/2011 | 534 | 1,053 | 29,823,518 | 224,237,503 | 376,225,569 | 151,988,066 | 59.6 | 2,187,628 | 7.34 |
| 10/1/2012 | 522 | 1074 | 29,111,818 | 217,907,548 | 387,472,215 | 169,564,667 | 56.2 | 2,191,076 | 7.53 |
| 10/1/2013 | 516 | 1,091 | 28,007,058 | 227,700,385 | 424,004,184 | 196,303,799 | 53.7 | 2,324,011 | 8.30 |
| 10/1/2014 | 537 | 1,112 | 31,028,415 | 243,861,301 | 438,745,548 | 194,884,247 | 55.6 | 2,075,371 | 6.69 |
| 10/1/2015 | 574 | 1,119 | 34,141,024 | 262,500,651 | 452,766,023 | 190,265,372 | 58.0 | 2,304,306 | 6.75 |
| 10/1/2016 | 606 | 1,117 | 37,818,489 | 288,322,823 | 483,798,487 | 195,475,664 | 59.6 | 2,704,760 | 7.15 |
| 10/1/2017 | 636 | 1,119 | 41,566,583 | 311,932,945 | 502,163,903 | 190,230,958 | 62.1 | 3,155,193 | 7.59 |
| 10/1/2018** | 570 | 1,182 | 37,870,123 | 334,799,360 | 564,930,767 | 230,131,407 | 59.3 | 3,675,379 | 9.71 |
| 10/1/2019 | 592 | 1,186 | 40,869,983 | 341,286,411 | 565,621,420 | 224,335,009 | 60.3 | 3,868,791 | 9.47 |
| 10/1/2020 | 599 | 1,190 | 40,789,456 | 369,068,328 | 583,426,971 | 214,358,643 | 63.3 | 3,875,138 | 9.50 |
| 10/1/2021 | 603 | 1,185 | 41,931,489 | 393,278,367 | 613,804,664 | 220,526,297 | 64.1 | 4,329,102 | 10.32 |

* Excludes transfers.

**Reflects Actuarial Impact Statement dated June 17, 2019.

| RECENT HISTORY OF REQUIRED AND ACTUAL CONTRIBUTIONS | | | | |
|---|---|---|---|---|
| | | Required Employer Contribution | | |
| Valuation Date | For Fiscal Year Ended September 30 | Amount | % of Payroll | Actual Employer Contribution |
| 10/1/89 | 1991 | $ 1,437,693 | 7.43 % | $ 1,484,132 |
| 10/1/90 | 1992 | 1,473,155 | 7.07 | 1,484,743 |
| 10/1/91 | 1993 | 1,617,462 | 7.84 | 1,623,342 |
| 10/1/92 | 1994 | 1,554,337 | 7.70 | 1,758,060 |
| 10/1/93 | 1995 | 2,458,234 | 11.10 | 2,648,667 |
| 10/1/94 | 1996 | 6,169,517 | 32.89 | 6,169,521 |
| 10/1/95 | 1997 | 5,647,078 | 26.19 | 5,647,180 |
| 10/1/96 | 1998 | 5,399,263 | 22.01 | 5,399,263 |
| 10/1/97 | 1999 | 5,101,822 | 19.93 | 5,101,822 |
| 10/1/98 | 2000 | 5,256,720 | 19.06 | 5,256,720 |
| 10/1/99 | 2001 | 5,071,643 | 17.52 | 5,071,643 |
| 10/1/00 | 2002 | 5,878,301 | 18.09 | 5,878,301 |
| 10/1/01 | 2003 | 6,164,953 | 18.09 | 6,164,953 |
| 10/1/02 | 2004 | 7,805,841 | 20.57 | 7,805,841 |
| 10/1/03 | 2005 | 8,817,640 | 22.13 | 8,817,640 |
| 10/1/04 | 2006 | 10,559,474 | 25.24 | 10,559,474 |
| 10/1/05 | 2007 | 12,087,074 | 28.15 | 12,087,074 |
| 10/1/06 | 2008 | 13,761,179 | 31.84 | 13,761,179 |
| 10/1/07 | 2009 | 14,743,450 | 30.97 | 14,743,450 |
| 10/1/08 | 2010 | 16,406,324 | 34.58 | 16,406,324 |
| 10/1/09 | 2011 | 16,734,454 | 36.68 | 16,734,454 |
| 10/1/10 | 2012 | 13,050,878 | 36.14 | 13,050,878 |
| 10/1/11 | 2013 | 17,913,508 | 59.43 | 17,913,508 |
| 10/1/12 | 2014 | 19,834,090 | 67.51 | 19,834,090 |
| 10/1/13 | 2015 | 22,547,585 | 80.30 | 22,547,585 |
| 10/1/14 | 2016 | 22,716,242 | 69.56 | 22,716,242 |
| 10/1/15 | 2017 | 23,189,007 | 66.33 | 23,189,007 |
| 10/1/16 | 2018 | 24,580,287 | 63.11 | 24,580,287 |
| 10/1/17 | 2019 | 25,225,862 | 58.64 | 25,225,862 |
| 10/1/18* | 2020 | 29,845,528 | 69.92 | 29,845,528 |
| 10/1/19 | 2021 | 29,106,927 | 68.81 | 29,944,811 |
| 10/1/20 | 2022 | 29,112,903 | 68.96 | --- |
| 10/1/21 | 2023 | 26,404,007 | 60.84 | --- |

*Reflects Actuarial Impact Statement dated June 17, 2019.


Recent History of Required and Actual Contributions
Thousands
$32,000
$30,000
$28,000
$26,000
$24,000
$22,000
$20,000
$18,000
$16,000
$14,000
$12,000
$10,000
$8,000
$6,000
$4,000
$2,000
$0
9/91 9/92 9/93 9/94 9/95 9/96 9/97 9/98 9/99 9/00 9/01 9/02 9/03 9/04 9/05 9/06 9/07 9/08 9/09 9/10 9/11 9/12 9/13 9/14 9/15 9/16 9/17 9/18 9/19 9/20 9/21 9/22 9/23
Fiscal Year End
Required Contribution
Actual Contribution

# ACTUARIAL ASSUMPTIONS AND COST METHOD

**Valuation Methods**

***Actuarial Cost Method -*** Normal cost and the allocation of benefit values between service rendered before and after the valuation date were determined using an **Individual Entry-Age Actuarial Cost Method** having the following characteristics:

(i) the annual normal cost for each individual active member, payable from the date of employment to the date of retirement, is sufficient to accumulate the value of the member's benefit at the time of retirement;

(ii) each annual normal cost is a constant percentage of the member's year by year projected covered pay.

Actuarial gains/(losses), as they occur, reduce (increase) the Unfunded Actuarial Accrued Liability.

***Financing of Unfunded Actuarial Accrued Liabilities -*** Unfunded Actuarial Accrued Liabilities (full funding credit if assets exceed liabilities) were amortized by level (principal & interest combined) percent-of-payroll contributions over a reasonable period of future years.

***Actuarial Value of Assets -*** The Actuarial Value of Assets phases in the difference between the actual return on market value and the expected return on Actuarial Value of Assets at the rate of 20% per year. The Actuarial Value of Assets will be further adjusted to the extent necessary to fall within the corridor whose lower limit is 80% of the Market Value of plan assets and whose upper limit is 120% of the Market Value of plan assets. During periods when investment performance exceeds the assumed rate, Actuarial Value of Assets will tend to be less than Market Value. During periods when investment performance is less than assumed rate, Actuarial Value of Assets will tend to be greater than Market Value.

**Valuation Assumptions**

***The actuarial assumptions used*** in the valuation are shown in this Section. Both the economic and demographic assumptions were established following the Experience Study Report as of October 1, 2014 covering the five years ending September 30, 2014. The mortality table is based on the assumption used by the Florida Retirement System Pension Plan, as required by Chapter 112.63, Florida Statutes.

**Economic Assumptions**

***The investment return rate*** assumed in the valuation is 7.0% per year, compounded annually (net after investment expenses).

The **Inflation Rate** assumed in this valuation is 2.5% per year. The Inflation Rate is defined to be the expected long-term rate of increases in the prices of goods and services.

The assumed **real rate of return** over inflation is defined to be the portion of total investment return that is more than the assumed inflation rate. Considering other economic assumptions, the 7.0% investment return rate translates to an assumed real rate of return over inflation of 4.5%.

The active member population is assumed to remain constant. For purposes of financing the unfunded liabilities, total payroll is assumed to grow at 3.5% per year, but not greater than the actual ten-year average. The most recent ten-year average is 3.47%.

Total payroll is projected to the contribution year by applying a 3.5% payroll increase assumption.

***Pay increase assumptions*** for individual active members are shown below. Part of the assumption for each age is for merit and/or seniority increase, and the other 2.5% recognizes wage inflation, including price inflation, productivity increases, and other macroeconomic forces.

***The rates of salary increase*** used are in accordance with the following table. This assumption is used to project a member's current salary to the salaries upon which benefits will be based. To allow for the inclusion of the lump sum payment of unused sick and vacation leave in average final compensation, projected benefits for active members hired before July 15, 2009 are increased by the calculated percentage based on each member's accrued unused sick leave hours as of October 1, 2002 and vacation leave hours as of March 2014 divided by 6,240 hours (equal to 2,080 hours for each year in 3-year averaging period.

| | % Increase in Salary | | |
|---|---|---|---|
| Years of Service | Merit and Seniority | Base (Economic) | Total Increase |
| 1 | 5.00 % | 2.50 % | 7.50 |
| 2 | 4.25 | 2.50 | 6.75 |
| 3 | 4.25 | 2.50 | 6.75 |
| 4 | 4.25 | 2.50 | 6.75 |
| 5 | 4.25 | 2.50 | 6.75 |
| 6 | 4.25 | 2.50 | 6.75 |
| 7 | 4.25 | 2.50 | 6.75 |
| 8 | 4.25 | 2.50 | 6.75 |
| 9 | 4.25 | 2.50 | 6.75 |
| 10 | 5.50 | 2.50 | 8.00 |
| 11 | 0.50 | 2.50 | 3.00 |
| 12 | 0.50 | 2.50 | 3.00 |
| 13 | 0.50 | 2.50 | 3.00 |
| 14 | 0.50 | 2.50 | 3.00 |
| 15 | 4.50 | 2.50 | 7.00 |
| 16 | 0.50 | 2.50 | 3.00 |
| 17 | 0.50 | 2.50 | 3.00 |
| 18 | 0.50 | 2.50 | 3.00 |
| 19 | 0.50 | 2.50 | 3.00 |
| 20 | 2.50 | 2.50 | 5.00 |
| 21 or more | 0.50 | 2.50 | 3.00 |

## Demographic Assumptions

***The mortality table*** for healthy lives is the PUB-2010 Headcount Weighted General Below Median Employee Mortality Table (for pre-retirement mortality) and the PUB-2010 Headcount Weighted General Below Median Healthy Retiree Mortality Table (for post-retirement mortality), with separate rates for males and females and ages set back one year for males, with mortality improvements projected to all future years after 2010 using Scale MP-2018. These are the same rates used for (non-Teacher) Regular Class members in the July 1, 2020 actuarial valuation of the Florida Retirement System (FRS) Pension Plan (based on the 2019 FRS experience study report), in accordance with Florida Statutes Chapter 112.63.

**FRS Healthy Post-Retirement Mortality for Regular Class Members**

| Sample Attained Ages (in 2021) | Probability of Dying Next Year | | Future Life Expectancy (years) | |
|---|---|---|---|---|
| | Men | Women | Men | Women |
| 50 | 0.19 | 0.58 | 33.14 | 36.95 |
| 55 | 0.96 | 0.58 | 28.77 | 32.50 |
| 60 | 1.14 | 0.60 | 24.68 | 27.96 |
| 65 | 1.29 | 0.69 | 20.63 | 23.39 |
| 70 | 1.80 | 1.09 | 16.62 | 18.91 |
| 75 | 2.86 | 1.89 | 12.91 | 14.73 |
| 80 | 4.83 | 3.41 | 9.63 | 10.98 |

**FRS Healthy Pre-Retirement Mortality for Regular Class Members**

| Sample Attained Ages (in 2021) | Probability of Dying Next Year | | Future Life Expectancy (years) | |
|---|---|---|---|---|
| | Men | Women | Men | Women |
| 50 | 0.19 | 0.11 | 37.72 | 40.26 |
| 55 | 0.30 | 0.17 | 32.71 | 35.14 |
| 60 | 0.46 | 0.26 | 27.85 | 30.11 |
| 65 | 0.65 | 0.37 | 23.17 | 25.19 |
| 70 | 0.90 | 0.56 | 18.62 | 20.37 |
| 75 | 1.35 | 0.93 | 14.19 | 15.68 |
| 80 | 2.13 | 1.58 | 9.89 | 11.17 |

For active transfers, the mortality table used is the PUB-2010 Headcount Weighted Safety Below Median Employee Mortality Table for males (pre-retirement), the PUB-2010 Headcount Weighted Safety Employee Mortality Table for females (pre-retirement), the PUB-2010 Headcount Weighted Safety Below Median Healthy Retiree Mortality Table for males (post-retirement), and the PUB-2010 Safety Healthy Retiree Mortality Table for females (post-retirement), with ages set forward one year for males and females, and with mortality improvements projected to all future years after 2010 using Scale MP-2018. These are the same rates used for Special Risk Class members in the July 1, 2020 actuarial valuation of the Florida Retirement System (FRS) Pension Plan (based on the 2019 FRS experience study report), in accordance with Florida Statutes Chapter 112.63.

**FRS Healthy Post-Retirement Mortality for Special Risk Class Members**

| Sample Attained Ages (in 2021) | Probability of Dying Next Year | | Future Life Expectancy (years) | |
|---|---|---|---|---|
| | Men | Women | Men | Women |
| 50 | 0.42 | 0.20 | 32.50 | 36.33 |
| 55 | 0.56 | 0.36 | 27.73 | 31.30 |
| 60 | 0.92 | 0.61 | 23.14 | 26.51 |
| 65 | 1.32 | 0.92 | 18.87 | 22.00 |
| 70 | 2.08 | 1.45 | 14.86 | 17.74 |
| 75 | 3.54 | 2.42 | 11.27 | 13.82 |
| 80 | 6.30 | 4.16 | 8.19 | 10.35 |

**FRS Healthy Pre-Retirement Mortality for Special Risk Class Members**

| Sample Attained Ages (in 2021) | Probability of Dying Next Year | | Future Life Expectancy (years) | |
|---|---|---|---|---|
| | Men | Women | Men | Women |
| 50 | 0.16 | 0.11 | 35.66 | 39.58 |
| 55 | 0.26 | 0.16 | 30.58 | 34.44 |
| 60 | 0.43 | 0.22 | 25.63 | 29.37 |
| 65 | 0.69 | 0.30 | 20.86 | 24.35 |
| 70 | 1.18 | 0.55 | 16.34 | 19.45 |
| 75 | 2.08 | 1.07 | 12.10 | 14.75 |
| 80 | 6.30 | 4.16 | 8.19 | 10.35 |

For disabled lives, the mortality table used is the PUB-2010 Headcount Weighted General Disabled Retiree Mortality Table, with separate rates for males and females and ages set forward 3 years for both males and females, with no provision being made for future mortality improvements. These are the same rates used for Regular Class members in the July 1, 2020 actuarial valuation of the FRS Pension Plan (based on the 2019 FRS experience study report), in accordance with Florida Statutes Chapter 112.63.

| Sample Attained Ages | Probability of Dying Next Year | | Future Life Expectancy (years) | |
|---|---|---|---|---|
| | Men | Women | Men | Women |
| 50 | 2.02 % | 1.64 % | 20.99 | 23.92 |
| 55 | 2.53 | 1.91 | 18.18 | 20.88 |
| 60 | 3.08 | 2.27 | 15.50 | 17.88 |
| 65 | 3.93 | 2.83 | 12.94 | 14.91 |
| 70 | 5.08 | 3.79 | 10.53 | 12.07 |
| 75 | 6.98 | 5.46 | 8.29 | 9.45 |
| 80 | 10.12 | 8.31 | 6.33 | 7.19 |

***The rates of retirement*** used to measure the probability of eligible members retiring during the next year were as follows:

**Members Hired Before July 15, 2009**

| Number of Years After First Eligibility for Normal Retirement | Probability of Normal Retirement: For 55 and 5 Retirement | Probability of Normal Retirement: For 25 and Out Retirement |
|---|---|---|
| 0 | 20 % | 30 % |
| 1 | 5 | 20 |
| 2 | 5 | 20 |
| 3 | 5 | 20 |
| 4 | 5 | 20 |
| 5 | 5 | 100 |
| 6 | 5 | 100 |
| 7 | 25 | 100 |
| 8 | 10 | 100 |
| 9 | 10 | 100 |
| 10 | 50 | 100 |
| 11 | 50 | 100 |
| 12 | 50 | 100 |
| 13 | 50 | 100 |
| 14 | 50 | 100 |
| 15 | 100 | 100 |

| Members Hired On or After July 15, 2009 and Before October 1, 2011 for General Fund Members or Before March 5, 2014 for Non-General Fund | |
|---|---|
| **Age** | **Probability of Normal Retirement for 60 and 7 Retirement**** |
| 60 | 50 % |
| 61 | 30 |
| 62 | 30 |
| 63 | 55 |
| 64 | 40 |
| 65 | 40 |
| 66 | 40 |
| 67 | 50 |
| 68 | 10 |
| 69 | 10 |
| 70 | 30 |
| 71+ | 100 |

*** For members hired on or after July 15, 2009 and before October 1, 2011 for general fund members or before March 5, 2014 for non-general fund members, 100% probability of retirement is assumed upon attaining age 57 with 25 years of service or upon attaining 30 years of service regardless of age.*

**General Fund Members Hired After September 30, 2011 and Non-General Fund Members Hired After March 5, 2014**

| | Years of Service | | | | |
|---|---|---|---|---|---|
| **Age** | **7 - 14** | **15 - 19** | **20 - 24** | **25 - 29** | **30+*** |
| 60 | 0.0 % | 0.0 % | 0.0 % | 0.0 % | 30.0 % |
| 61 | 0.0 | 0.0 | 0.0 | 0.0 | 30.0 |
| 62 | 0.0 | 0.0 | 0.0 | 100.0 | 100.0 |
| 63 | 0.0 | 0.0 | 0.0 | 100.0 | 100.0 |
| 64 | 0.0 | 0.0 | 0.0 | 100.0 | 100.0 |
| 65 | 30.0 | 40.0 | 50.0 | 100.0 | 100.0 |
| 66 | 30.0 | 30.0 | 30.0 | 100.0 | 100.0 |
| 67 | 30.0 | 30.0 | 30.0 | 100.0 | 100.0 |
| 68 | 30.0 | 30.0 | 30.0 | 100.0 | 100.0 |
| 69 | 30.0 | 30.0 | 30.0 | 100.0 | 100.0 |
| 70 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

* Upon attaining 30 years of service, the retirement rates for the first and second years of eligibility are 30% and the rate for the third year is 100% (regardless of age).

***Rates of separation from active membership*** were as shown below (rates do not apply to members eligible to retire and do not include separation on account of death or disability). This assumption measures the probabilities of members remaining in employment.

| Sample Ages | Years of Service | % of Active Members Separating Within Next Year |
|---|---|---|
| ALL | 0 | 13.0 % |
| | 1 | 12.0 |
| | 2 | 12.0 |
| | 3 | 11.0 |
| | 4 | 10.0 |
| 20 | 5 & Over | 12.0 |
| 25 | | 12.0 |
| 30 | | 12.0 |
| 35 | | 8.0 |
| 40 | | 3.8 |
| 45 | | 2.0 |
| 50 | | 2.0 |
| 55 | | 2.0 |
| 60 | | 2.0 |

***Rates of disability*** among active members (25% of disabilities are assumed to be service-connected).

| Sample Ages | % Becoming Disabled Within Next Year |
|---|---|
| 20 | 0.06 % |
| 25 | 0.08 |
| 30 | 0.10 |
| 35 | 0.13 |
| 40 | 0.17 |
| 45 | 0.27 |
| 50 | 0.46 |
| 55 | 0.86 |
| 60 | 1.49 |

***Changes Since Previous Valuation***

The investment return assumption was lowered from 7.3% to 7.0%. In addition, the amortization period for new Unfunded Actuarial Accrued Liability (UAAL) bases was lowered from 29 years to 28 years, and will continue to be lowered by one year for each year until reaching 25 years.

# Miscellaneous and Technical Assumptions

| | |
|---|---|
| ***Administrative & Investment Expenses*** | The investment return assumption is intended to be the return net of investment expenses. Annual administrative expenses are assumed to be equal to the prior year's expenses. Assumed administrative expenses are added to the Normal Cost. |
| ***Benefit Service*** | Exact fractional service is used to determine the amount of benefit payable. |
| ***COLA*** | The COLA delay is 3 years for projected benefits of active members who are not eligible to enter the DROP. The COLA delay is assumed to be 6 years for current DROP members who entered the DROP after August 17, 2009. |
| ***Data Assumptions/ Adjustments*** | Where complete participant data was not available, we have used data assumptions which we believe are reasonable and internally consistent. |
| ***Decrement Operation*** | Disability and mortality decrements operate during retirement eligibility. |
| ***Decrement Timing*** | Decrements of all types are assumed to occur at the beginning of the year. |
| ***Eligibility Testing*** | Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur. |
| ***Forfeitures*** | For vested separations from service, it is assumed that 0% of members separating will withdraw their contributions and forfeit an employer financed benefit. It was further assumed that the liability at termination is the greater of the vested deferred benefit (if any) or the member's accumulated contributions. |
| ***Incidence of Contributions*** | Employer contributions are assumed to be made in equal installments biweekly throughout the year. Member contributions are assumed to be received continuously throughout the year based upon the computed percent of payroll shown in this report, and the actual payroll payable at the time contributions are made. |
| ***Marriage Assumption*** | 100% of males and 100% of females are assumed to be married for purposes of death-in-service benefits. Male spouses are assumed to be three years older than female spouses for active member valuation purposes. |

| | |
|---|---|
| ***Maximum Benefit*** | The maximum accrued benefit payable as a life annuity reflects the 415(b) limit ($230,000 for 2021 for ages 62 through 65). The limitation is projected to increase by 4.0% per year and is adjusted for other commencement ages based on IRS regulations. |
| ***Normal Form of Benefit*** | A life annuity is the normal form of benefit. |
| ***Pay Increase Timing*** | Beginning of fiscal year. This is equivalent to assuming that reported pays represent amounts paid to members during the year ended on the valuation date. |
| ***Planned Retirement Program*** | Eligible members are assumed to first elect the Planned Retirement Program once they are five years past their earliest normal retirement date.<br><br>Employees who enter the Planned Retirement Program are assumed to elect the following benefit with the greatest value:<br>▪ Value of the normal retirement benefit<br>▪ Value of the one to five year Planned Retirement Program benefit. For example, a five year Planned Retirement Program present value is calculated as the accumulated value of the accrued benefit from five years ago plus the present value of this reduced benefit.<br><br>The deposits to the Planned Retirement Program accounts are credited with an assumed interest rate of 5.6% per year. |
| ***Pre-Funding of Supplemental Pension Distribution*** | Projected benefits for members eligible for the Supplemental Pension Distribution currently and in the future are loaded by 5.7% to recognize the effect of the Supplemental Pension Distribution in years when the investment return is above 12.0% (i.e., 4.7% above the assumed rate). |
| ***Service Credit Accruals*** | It is assumed that members accrue one year of service credit per year. |
| ***Sick and Vacation Leave*** | To allow for the inclusion of the lump sum payment of unused sick and vacation leave in average final compensation, projected benefits for active members hired before July 15, 2009 are increased by the calculated percentage based on each member's accrued unused sick leave hours as of October 1, 2002 and vacation leave hours as of March 2014 divided by 6,240 hours (equal to 2,080 hours for each year in 3-year averaging period). |

# GLOSSARY

| | |
|---|---|
| ***Actuarial Accrued Liability (AAL)*** | The difference between the Actuarial Present Value of Future Benefits, and the Actuarial Present Value of Future Normal Costs. |
| ***Actuarial Assumptions*** | Assumptions about future plan experience that affect costs or liabilities, such as: mortality, withdrawal, disablement, and retirement; future increases in salary; future rates of investment earnings; future investment and administrative expenses; characteristics of members not specified in the data, such as marital status; characteristics of future members; future elections made by members; and other items. |
| ***Actuarial Cost Method*** | A procedure for allocating the Actuarial Present Value of Future Benefits between the Actuarial Present Value of Future Normal Costs and the Actuarial Accrued Liability. |
| ***Actuarial Equivalent*** | Of equal Actuarial Present Value, determined as of a given date and based on a given set of Actuarial Assumptions. |
| ***Actuarial Present Value (APV)*** | The amount of funds required to provide a payment or series of payments in the future. It is determined by discounting the future payments with an assumed interest rate and with the assumed probability each payment will be made. |
| ***Actuarial Present Value of Future Benefits (APVFB)*** | The Actuarial Present Value of amounts which are expected to be paid at various future times to active members, retired members, beneficiaries receiving benefits, and inactive, nonretired members entitled to either a refund or a future retirement benefit. Expressed another way, it is the value that would have to be invested on the valuation date so that the amount invested plus investment earnings would provide sufficient assets to pay all projected benefits and expenses when due. |
| ***Actuarial Valuation*** | The determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets, and related Actuarial Present Values for a plan. An Actuarial Valuation for a governmental Retirement Fund typically also includes calculations of items needed for compliance with GASB Statement No. 67. |
| ***Actuarial Value of Assets*** | The value of the assets as of a given date, used by the actuary for valuation purposes. This may be the market or fair value of plan assets or a smoothed value in order to reduce the year-to-year volatility of calculated results, such as the funded ratio and the actuarially determined contribution (ADC). |

***Amortization Method*** A method for determining the Amortization Payment. The most common methods used are level dollar and level percentage of payroll. Under the Level Dollar method, the Amortization Payment is one of a stream of payments, all equal, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the Amortization Payment is one of a stream of increasing payments, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the stream of payments increases at the rate at which total covered payroll of all active members is assumed to increase.

***Amortization Payment*** That portion of the plan contribution or ADC which is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability.

***Amortization Period*** The period used in calculating the Amortization Payment.

***Actuarially Determined Contribution (ADC)*** The employer's periodic required contributions, expressed as a dollar amount or a percentage of covered plan compensation. The ADC consists of the Employer Normal Cost and Amortization Payment.

***Closed Amortization Period*** A specific number of years that is reduced by one each year, and declines to zero with the passage of time. For example if the amortization period is initially set at 30 years, it is 29 years at the end of one year, 28 years at the end of two years, etc.

***Employer Normal Cost*** The portion of the Normal Cost to be paid by the employer. This is equal to the Normal Cost less expected member contributions.

***Equivalent Single Amortization Period*** For plans that do not establish separate amortization bases (separate components of the UAAL), this is the same as the Amortization Period. For plans that do establish separate amortization bases, this is the period over which the UAAL would be amortized if all amortization bases were combined upon the current UAAL payment.

***Experience Gain/Loss*** A measure of the difference between actual experience and that expected based upon a set of Actuarial Assumptions, during the period between two actuarial valuations. To the extent that actual experience differs from that assumed, Unfunded Actuarial Accrued Liabilities emerge which may be larger or smaller than projected. Gains are due to favorable experience, e.g., the assets earn more than projected, salaries do not increase as fast as assumed, members retire later than assumed, etc. Favorable experience means actual results produce actuarial liabilities not as large as projected by the actuarial assumptions. On the other hand, losses are the result of unfavorable experience, i.e., actual results that produce Unfunded Actuarial Accrued Liabilities which are larger than projected.

| | |
|---|---|
| ***Funded Ratio*** | The ratio of the Actuarial Value of Assets to the Actuarial Accrued Liability. |
| ***GASB*** | Governmental Accounting Standards Board. |
| ***GASB Statement No. 67 and GASB Statement No. 68*** | These are the governmental accounting standards that set the accounting rules for public Retirement Funds and the employers that sponsor or contribute to them. Statement No. 68 sets the accounting rules for the employers that sponsor or contribute to public Retirement Funds, while Statement No. 67 sets the rules for the systems themselves. |
| ***Normal Cost*** | The annual cost assigned, under the Actuarial Cost Method, to the current plan year. |
| ***Open Amortization Period*** | An open amortization period is one which is used to determine the Amortization Payment but which does not change over time. In other words, if the initial period is set as 30 years, the same 30-year period is used in determining the Amortization Period each year. In theory, if an Open Amortization Period is used to amortize the Unfunded Actuarial Accrued Liability, the UAAL will never completely disappear, but will become smaller each year, either as a dollar amount or in relation to covered payroll. |
| ***Unfunded Actuarial Accrued Liability*** | The difference between the Actuarial Accrued Liability and Actuarial Value of Assets. |
| ***Valuation Date*** | The date as of which the Actuarial Present Value of Future Benefits are determined. The benefits expected to be paid in the future are discounted to this date. |

# SECTION C

## PENSION FUND INFORMATION

## Statement of Plan Assets at Market Value

| Item | | September 30 2021 | | | September 30 2020 |
|---|---|---|---|---|---|
| A. Cash and Cash Equivalents (Operating Cash) | $ | - | | $ | - |
| B. Receivables | | | | | |
| 1. Member Contributions | $ | - | | $ | - |
| 2. Employer Contributions | | 11,112,130 | * | | 18,085,970 |
| 3. Investment Income and Other Receivables | | 734,034 | | | 334,584 |
| 4. Total Receivables | $ | 11,846,164 | | $ | 18,420,554 |
| C. Investments | | | | | |
| 1. Money Market Shares | $ | 6,237,302 | | $ | 9,040,245 |
| 2. Corporate Equities | | 15,681,939 | | | 11,921,866 |
| 3. Corporate Bonds | | - | | | - |
| 4. U.S. Government Securities | | - | | | - |
| 5. Mutual Funds | | 285,999,924 | | | 221,399,064 |
| 6. Pooled Investment Funds | | 124,015,119 | | | 112,510,754 |
| 7. Total Investments | $ | 431,934,284 | | $ | 354,871,929 |
| D. Liabilities | | | | | |
| 1. Benefits Payable | $ | (455,505) | | $ | (446,842) |
| 2. Prepaid City Contributions | | - | | | (2,495,119) |
| 3. Accrued Expenses and Other Payables | | (638,441) | | | (664,677) |
| 4. Total Liabilities | $ | (1,093,946) | | $ | (3,606,638) |
| E. Total Market Value of Assets Available for Benefits | $ | 442,686,502 | | $ | 369,685,845 |
| F. DROP Accounts | $ | (6,928,906) | | $ | (6,012,841) |
| G. Supplemental Pension Distribution | $ | (7,578,907) | | $ | - |
| H. Market Value Net of Reserves | $ | 428,178,689 | | $ | 363,673,004 |
| I. Allocation of Investments | | | | | |
| 1. Money Market Shares | | 1.4% | | | 2.5% |
| 2. Corporate Equities | | 3.6% | | | 3.4% |
| 3. Corporate Bonds | | 0.0% | | | 0.0% |
| 4. U.S. Government Securities | | 0.0% | | | 0.0% |
| 5. Mutual Funds | | 66.3% | | | 62.4% |
| 6. Pooled Investment Funds | | 28.7% | | | 31.7% |
| 7. Total Investments | | 100.0% | | | 100.0% |

* Includes the remaining City contribution receivable due to the previous City contribution shortfall, as detailed in Section A. The shortfall is being paid off over five years starting October 1, 2020.

## Reconciliation of Plan Assets

| Item | | September 30 | | |
|---|---|---|---|---|
| | | 2021 | | 2020 |
| A. Market Value of Assets at Beginning of Year | $ | 369,685,845 | $ | 345,873,170 |
| B. Adjustment to Match Prior Year's Financial Statements | $ | (18,358) | $ | - |
| C. Revenues and Expenditures | | | | |
| 1. Contributions | | | | |
| a. Employee Contributions | $ | 3,455,693 | $ | 3,635,402 |
| b. City Contributions | | 29,914,898 | | 29,815,790 |
| c. County Contributions | | 29,913 | | 29,738 |
| d. Total | $ | 33,400,504 | $ | 33,480,930 |
| 2. Investment Income | | | | |
| a. Interest, Dividends, and Other Income | $ | 4,706,833 | $ | 4,964,406 |
| b. Net Realized/Unrealized Gains/(Losses)* | | 73,078,949 | | 21,551,652 |
| c. Investment Expenses | | (677,405) | | (785,676) |
| d. Net Investment Income | $ | 77,108,377 | $ | 25,730,382 |
| 3. Benefits and Refunds | | | | |
| a. Regular Monthly Benefits | $ | (33,058,248) | $ | (29,051,230) |
| b. Refunds | | (480,993) | | (425,409) |
| c. DROP Distributions | | (3,149,632) | | (5,190,976) |
| d. Total | $ | (36,688,873) | $ | (34,667,615) |
| 4. Administrative and Miscellaneous Expenses | $ | (800,993) | $ | (731,022) |
| 5. Transfers | $ | - | $ | - |
| D. Market Value of Assets at End of Year | $ | 442,686,502 | $ | 369,685,845 |
| E. DROP Accounts | $ | (6,928,906) | $ | (6,012,841) |
| F. Supplemental Pension Distribution | $ | (7,578,907) | $ | - |
| G. Market Value Net of Reserves | $ | 428,178,689 | $ | 363,673,004 |

* The breakdown between realized and unrealized gains/(losses) was not provided.

## Development of Actuarial Value of Assets

| | Fiscal Year Ending September 30 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 |
|---|---|---|---|---|---|---|---|
| A. | Actuarial Value of Assets Beginning of Year | $ 349,701,391 | $ 375,081,169 | | | | |
| B. | Market Value End of Year | 369,685,845 | 442,686,502 | | | | |
| C. | Market Value Beginning of Year | 345,873,170 | 369,685,845 | | | | |
| D. | Non-Investment/Administrative Net Cash Flow | (1,917,707) | (4,107,720) | | | | |
| E. | Investment Income | | | | | | |
| | E1. Actual Market Total: B-C-D | 25,730,382 | 77,108,377 | | | | |
| | E2. Assumed Rate of Return | 7.50% | 7.30% | 7.00% | 7.00% | 7.00% | 7.00% |
| | E3. Assumed Amount of Return | 26,155,690 | 27,230,994 | | | | |
| | E4. Amount Subject to Phase-In: E1–E3 | (425,308) | 49,877,383 | | | | |
| F. | Phased-In Recognition of Investment Income | | | | | | |
| | F1. Current Year: 0.2 x E4 | (85,062) | 9,975,477 | | | | |
| | F2. First Prior Year | (2,197,620) | (85,062) | 9,975,477 | | | |
| | F3. Second Prior Year | (351,162) | (2,197,620) | (85,062) | 9,975,477 | | |
| | F4. Third Prior Year | 2,240,102 | (351,162) | (2,197,620) | (85,062) | 9,975,477 | |
| | F5. Fourth Prior Year | 1,535,537 | 2,240,104 | (351,162) | (2,197,618) | (85,060) | 9,975,475 |
| | F6. Total Phase-Ins | 1,141,795 | 9,581,737 | 7,341,633 | 7,692,797 | 9,890,417 | 9,975,475 |
| **G.** | **Actuarial Value of Assets End of Year** | | | | | | |
| | G1. Preliminary Actuarial Value of Assets End of Year: | | | | | | |
| | A+D+E3+F6 | $ 375,081,169 | $ 407,786,180 | | | | |
| | G2. Upper Corridor Limit: 120% x B | 443,623,014 | 531,223,802 | | | | |
| | G3. Lower Corridor Limit: 80% x B | 295,748,676 | 354,149,202 | | | | |
| | G4. Actuarial Value of Assets End of Year | 375,081,169 | 407,786,180 | | | | |
| | G5. DROP Accounts | (6,012,841) | (6,928,906) | | | | |
| | G6. Supplemental Pension Distribution | - | (7,578,907) | | | | |
| | G7. Final Actuarial Value of Assets End of Year | 369,068,328 | 393,278,367 | | | | |
| H. | Difference between Market & Actuarial Value of Assets | (5,395,324) | 34,900,322 | | | | |
| **I.** | **Actuarial Rate of Return** | 8.04% | 10.02% | | | | |
| **J.** | **Market Value Rate of Return** | 7.66% | 21.30% | | | | |
| **K.** | **Ratio of Actuarial Value of Assets to Market Value** | 101.46% | 92.12% | | | | |

## Reconciliation of DROP Accounts

| Year Ended 9/30 | Balance at Beginning of Year | Adjustment | Credits | Interest | Distributions | Balance at End of Year |
|---|---|---|---|---|---|---|
| 2009 | $6,528,104 | $ - | $ 2,274,151 | $ 419,340 | $ (1,708,212) | $7,513,383 |
| 2010 | 7,513,383 | - | 2,973,674 | 585,319 | (1,099,439) | 9,972,937 |
| 2011 | 9,972,937 | 4,989 | 3,882,345 | 266,041 | (2,612,900) | 11,513,412 |
| 2012 | 11,513,412 | - | 5,203,864 | 1,494,309 | (4,659,576) | 13,552,009 |
| 2013 | 13,552,009 | - | 4,668,559 | 1,628,934 | (4,190,755) | 15,658,747 |
| 2014 | 15,658,747 | - | 3,937,061 | 1,510,901 | (5,811,164) | 15,295,545 |
| 2015 | 15,295,545 | 6,075 | 3,135,456 | 385,571 | (5,183,264) | 13,639,383 |
| 2016 | 13,639,383 | - | 1,621,561 | 626,094 | (12,503,182) | 3,383,856 |
| 2017 | 3,383,856 | - | 352,814 | 152,609 | (1,100,372) | 2,788,907 |
| 2018 | 2,788,907 | - | 208,776 | 48,155 | (1,709,139) | 1,336,699 |
| 2019 | 1,336,699 | 1,969 | 8,016,654 | 881,041 | (1,821,383) | 8,414,980 |
| 2020 | 8,414,980 | (88,679) | 2,409,734 | 467,782 | (5,190,976) | 6,012,841 |
| 2021 | 6,012,841 | - | 2,794,545 | 1,271,152 | (3,149,632) | 6,928,906 |

| Year Ended | Investment Rate of Return: Market Value Basis | Investment Rate of Return: Actuarial Value Basis |
|---|---|---|
| 9/30/1977 | 8.5 % | 8.9 % |
| 9/30/1978 | 4.2 | 9.5 |
| 9/30/1979 | 1.3 | 8.8 |
| 9/30/1980 | 0.7 | 8.4 |
| 9/30/1981 | (2.4) | 0.4 |
| 9/30/1982 | 34.9 | 9.2 |
| 9/30/1983 | 16.5 | 9.8 |
| 9/30/1984 | 8.2 | 10.3 |
| 9/30/1985 | 22.5 | 13.7 |
| 9/30/1986 | 16.5 | 16.1 |
| 9/30/1987 | 3.0 | 14.4 |
| 9/30/1988 | 11.9 | 11.2 |
| 9/30/1989 | 11.0 | 11.5 |
| 9/30/1990 | 6.0 | 10.6 |
| 9/30/1991 | 16.2 | 7.9 |
| 9/30/1992 | 12.2 | 10.8 |
| 9/30/1993 | 7.5 | 7.1 |
| 9/30/1994 | (0.3) | 0.9 |
| 9/30/1995 | 21.3 | 14.6 |
| 9/30/1996 | 13.4 | 12.3 |
| 9/30/1997 | 17.8 | 11.0 |
| 9/30/1998 | 5.4 | 10.2 |
| 9/30/1999 | 12.8 | 11.0 |
| 9/30/2000 | 17.9 | 12.7 |
| 9/30/2001 | (8.5) | 8.1 |
| 9/30/2002 | (8.6) | 0.5 |
| 9/30/2003 | 17.4 | 5.0 |
| 9/30/2004 | 8.7 | 4.4 |
| 9/30/2005 | 9.2 | 3.0 |
| 9/30/2006 | 7.1 | 6.0 |
| 9/30/2007 | 11.9 | 9.6 |
| 9/30/2008 | (13.6) | 4.3 |
| 9/30/2009 | (2.4) | (1.0) |
| 9/30/2010 | 8.5 | 5.4 |
| 9/30/2011 | 0.0 | 0.8 |
| 9/30/2012 | 19.8 | 1.9 |
| 9/30/2013 | 14.0 | 7.2 |
| 9/30/2014 | 11.0 | 9.8 |
| 9/30/2015 | 1.8 | 8.5 |
| 9/30/2016 | 10.5 | 10.3 |
| 9/30/2017 | 11.5 | 9.5 |
| 9/30/2018 | 6.8 | 8.3 |
| 9/30/2019 | 4.2 | 7.0 |
| 9/30/2020 | 7.7 | 8.0 |
| 9/30/2021 | 21.3 | 10.0 |
| **Average Returns:** | | |
| Last 5 Years | 10.1 % | 8.6 % |
| Last 10 Years | 10.7 % | 8.0 % |
| All Years Shown | 8.6 % | 8.1 % |

The above rates are based on the Retirement Fund's financial information reported to the actuary. They may differ from figures that the investment consultant reports, in part because of differences in the handling of administrative and investment expenses, and in part because of differences in the handling of cash flows.

# SECTION D

## FINANCIAL ACCOUNTING INFORMATION

## FASB STATEMENT NO. 35 INFORMATION

| | | |
|---|---|---|
| A. Valuation Date | October 1, 2021 | October 1, 2020 |
| B. Actuarial Present Value of Accumulated Plan Benefits | | |
| 1. Vested Benefits | | |
| a. Members Currently Receiving Payments | $ 490,714,730 | $ 462,002,676 |
| b. Terminated Vested Members | 7,283,836 | 6,861,309 |
| c. Other Members | 86,792,392 | 87,297,208 |
| d. Total | 584,790,958 | 556,161,193 |
| 2. Non-Vested Benefits | 14,663,834 | 8,256,008 |
| 3. Total Actuarial Present Value of Accumulated Plan Benefits: 1d + 2 | 599,454,792 | 564,417,201 |
| 4. Accumulated Contributions of Active Members | 23,525,448 | 23,086,919 |
| C. Changes in the Actuarial Present Value of Accumulated Plan Benefits | | |
| 1. Total Value at Beginning of Year | 564,417,201 | 538,570,828 |
| 2. Increase (Decrease) During the Period Attributable to: | | |
| a. Plan Amendment | 0 | 0 |
| b. Change in Actuarial Assumptions | 14,247,808 | 1,830,958 |
| c. Latest Member Data, Benefits Accumulated and Decrease in the Discount Period | 57,123,569 | 55,901,788 |
| d. Benefits Paid (Net Basis) | (36,333,786) | (31,886,373) |
| e. Net Increase | 35,037,591 | 25,846,373 |
| 3. Total Value at End of Period | 599,454,792 | 564,417,201 |
| D. Market Value of Assets | 428,178,689 | 363,673,004 |
| E. Actuarial Assumptions - See page entitled Actuarial Assumptions and Cost Method | | |

# SECTION E

## MISCELLANEOUS INFORMATION

| RECONCILIATION OF MEMBERSHIP DATA | | |
|---|---|---|
| | From 10/1/20 To 10/1/21 | From 10/1/19 To 10/1/20 |
| **A. Active Members** | | |
| 1. Number Included in Last Valuation | 599 | 592 |
| 2. New Members Included in Current Valuation | 71 | 71 |
| 3. Non-Vested Employment Terminations | (40) | (29) |
| 4. Vested Employment Terminations | (4) | 0 |
| 5. Service Retirements | (9) | (12) |
| 6. DROP Retirements | (15) | (23) |
| 7. Disability Retirements | 0 | 0 |
| 8. Deaths | (1) | 0 |
| 9. Other - Rehires/Data Corrections | 2 | 0 |
| 10. Number Included in This Valuation | 603 | 599 |
| **B. Active Transfers** | | |
| 1. Number Included in Last Valuation | 9 | 11 |
| 2. Additions | 0 | 0 |
| 3. Non-Vested Employment Terminations | 0 | 0 |
| 4. Vested Employment Terminations | 0 | 0 |
| 5. Service Retirements | 0 | 0 |
| 6. DROP Retirements | 0 | (2) |
| 7. Deaths | 0 | 0 |
| 8. Number Included in This Valuation | 9 | 9 |
| **C. Terminated Vested Members and Deferred Beneficiaries** | | |
| 1. Number Included in Last Valuation | 54 | 69 |
| 2. Additions from Active Members | 4 | 0 |
| 3. Additions from Service Retirees (Deferred Beneficiary) | 2 | 0 |
| 4. Lump Sum Payments/Refund of Contributions | (1) | (1) |
| 5. Payments Commenced | (4) | (13) |
| 6. Deaths | 0 | 0 |
| 7. Other - Rehires/Data Corrections | (1) | (1) |
| 8. Number Included in This Valuation | 54 | 54 |
| **D. DROP Plan Members** | | |
| 1. Number Included in Last Valuation | 61 | 52 |
| 2. Additions from Active Members and Transfers | 15 | 25 |
| 3. Retirements | (16) | (16) |
| 4. Deaths Resulting in No Further Payments | 0 | 0 |
| 5. Other - Data Corrections | 1 | 0 |
| 6. Number Included in This Valuation | 61 | 61 |
| **E. Service Retirees, Disability Retirees and Beneficiaries** | | |
| 1. Number Included in Last Valuation | 1,075 | 1,065 |
| 2. Additions from Active Members and Transfers | 9 | 12 |
| 3. Additions from Terminated Vested Members | 4 | 13 |
| 4. Additions from DROP Plan Members | 16 | 16 |
| 5. Deaths Resulting in No Further Payments | (32) | (31) |
| 6. Deaths Resulting in New Survivor Benefits | 1 | 1 |
| 7. End of Certain Period - No Further Payments | (2) | 0 |
| 8. Other - Data Corrections | (1) | (1) |
| 9. Number Included in This Valuation | 1,070 | 1,075 |

## ACTIVE PARTICIPANT SCATTER

| | Years of Service to Valuation Date | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Age Group** | 0-1 | 1-2 | 2-3 | 3-4 | 4-5 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35 & Up | **Totals** |
| 15-19 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 20-24 | 4 | 3 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 |
| 25-29 | 9 | 7 | 5 | 4 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 27 |
| 30-34 | 15 | 7 | 3 | 7 | 9 | 18 | 1 | 0 | 0 | 0 | 0 | 0 | 60 |
| 35-39 | 5 | 9 | 9 | 6 | 8 | 25 | 1 | 3 | 0 | 0 | 0 | 0 | 66 |
| 40-44 | 11 | 5 | 6 | 2 | 4 | 22 | 4 | 15 | 4 | 0 | 0 | 0 | 73 |
| 45-49 | 11 | 6 | 6 | 2 | 2 | 22 | 3 | 12 | 13 | 1 | 0 | 0 | 78 |
| 50-54 | 6 | 5 | 4 | 6 | 4 | 25 | 8 | 14 | 25 | 3 | 0 | 0 | 100 |
| 55-59 | 2 | 8 | 7 | 6 | 5 | 35 | 8 | 7 | 20 | 12 | 0 | 0 | 110 |
| 60-64 | 6 | 3 | 3 | 0 | 1 | 17 | 6 | 10 | 7 | 2 | 2 | 0 | 57 |
| 65 & Up | 2 | 2 | 1 | 1 | 3 | 9 | 1 | 4 | 0 | 0 | 0 | 0 | 23 |
| **Totals** | 71 | 55 | 45 | 34 | 39 | 173 | 32 | 65 | 69 | 18 | 2 | 0 | 603 |

# INACTIVE PARTICIPANT SCATTER

| Age Group | Terminated Vested / Deferred Beneficiaries | | Disabled | | Retired | | Deceased with Beneficiary | |
|---|---|---|---|---|---|---|---|---|
| | Number | Total Benefits | Number | Total Benefits | Number | Total Benefits | Number | Total Benefits |
| Under 20 | - | - | - | - | - | - | - | - |
| 20-24 | - | - | - | - | - | - | 1 | 17,070 |
| 25-29 | - | - | - | - | - | - | 2 | 8,628 |
| 30-34 | 2 | 14,786 | - | - | - | - | 3 | 29,962 |
| 35-39 | 2 | 23,250 | - | - | - | - | 6 | 68,342 |
| 40-44 | 11 | 120,240 | 1 | 11,547 | 1 | 88,646 | 4 | 50,640 |
| 45-49 | 11 | 245,668 | 2 | 61,471 | 8 | 252,829 | 10 | 69,180 |
| 50-54 | 22 | 330,947 | 1 | 39,683 | 33 | 1,468,424 | 4 | 106,118 |
| 55-59 | 2 | 20,173 | 4 | 120,509 | 137 | 5,650,208 | 12 | 195,253 |
| 60-64 | 2 | 11,652 | 9 | 290,436 | 186 | 7,267,377 | 15 | 192,545 |
| 65-69 | 1 | 8,622 | 9 | 269,384 | 188 | 6,965,248 | 18 | 398,908 |
| 70-74 | 1 | 8,622 | 6 | 232,431 | 167 | 5,244,654 | 28 | 687,193 |
| 75-79 | - | - | 3 | 45,814 | 109 | 3,021,629 | 19 | 423,843 |
| 80-84 | - | - | - | - | 52 | 1,363,065 | 18 | 318,951 |
| 85-89 | - | - | 1 | 22,794 | 33 | 933,220 | 12 | 217,764 |
| 90-94 | - | - | 1 | 10,566 | 11 | 254,271 | 9 | 163,752 |
| 95-99 | - | - | - | - | 6 | 89,798 | 2 | 11,523 |
| 100 & Over | - | - | - | - | - | - | - | - |
| **Total** | 54 | 783,960 | 37 | 1,104,635 | 931 | 32,599,369 | 163 | 2,959,672 |
| **Average Age** | | 49 | | 66 | | 68 | | 68 |

# SECTION F

## SUMMARY OF PLAN PROVISIONS

# SUMMARY OF PLAN PROVISIONS

**A. Ordinances**

The Plan was established under the Code of Ordinances for the City of Hollywood, Florida, and was most recently restated under Ordinance No. O-2003-07, passed and adopted on June 4, 2003. The Plan was most recently amended under Ordinance No. O-2019-14, adopted on June 19, 2019. The Plan is also governed by certain provisions of Part VII, Chapter 112, Florida Statutes (F.S.) and the Internal Revenue Code.

**B. Effective Date**

October 1, 1958

**C. Plan Year**

October 1 through September 30

**D. Type of Plan**

Qualified, governmental defined benefit retirement plan; for GASB purposes it is a single employer plan.

**E. Eligibility Requirements**

All regular full-time employees who are contributing to the pension plan.

**F. General Fund Member**

Any member paid out of the City's general fund and/or other City funds, with the exception of the water and sewer utility, storm water utility, parking and sanitation funds.

**G. Credited Service**

Service rendered to the City for which the member has received Compensation and has made contributions to the fund. No service is credited for any periods of employment for which the member received a refund of employee contributions.

**H. Compensation**

Members Hired Prior to July 15, 2009

Gross wages received from the City, including overtime and excluding payouts for blood time and compensatory time. Compensation includes payments for accumulated sick leave not to exceed the amount accumulated as of October 1, 2002. Compensation includes payments for accumulated annual leave not to exceed the amount accumulated as of March 2014 and limited to 125 hours for employees covered by a bargaining unit and are limited to 60 hours for employees not covered by a bargaining unit.

Members Hired on or After July 15, 2009

Compensation includes only base pay and longevity pay.

**I. Average Final Compensation (AFC)**

Members Hired Prior to July 15, 2009

The average of Compensation over the highest 78 consecutive biweekly pay periods of Credited Service prior to termination or retirement.

Members Hired on or After July 15, 2009 but Before October 1, 2011 for General Fund Members or Before March 5, 2014 for Non-General Fund Members

The average of Compensation over the highest 104 consecutive biweekly pay periods of Credited Service prior to termination or retirement.

Members Hired on or After October 1, 2011 for General Fund Members or March 5, 2014 for Non-General Fund

The average of Compensation over the highest 130 consecutive biweekly pay periods or the last 260 biweekly pay periods of Credited Service prior to termination or retirement.

**J. Normal Retirement**

Members Hired Prior to July 15, 2009

Eligibility: A member may retire upon attaining age 55 with 5 years of Credited Service or upon attaining 25 years of Credited Service regardless of age.

Benefit: 3.0% of AFC multiplied by years of Credited Service, up to 81% of AFC.

Normal Form of Benefit: Single Life Annuity; other options are also available.

COLA: 2.0% per year commencing 3 years after retirement benefits begin.

Members Hired on or After July 15, 2009 but Before October 1, 2011 for General Fund Members or Before March 5, 2014 for Non-General Fund Members

Eligibility: A member may retire upon attaining age 60 with 7 years of Credited Service, upon attaining age 57 with 25 years of Credited Service, or upon attaining 30 years of Credited Service regardless of age.

Benefit: 2.5% of AFC multiplied by years of Credited Service, up to 81% of AFC.

Normal Form of Benefit: Single Life Annuity; other options are also available.

COLA: None.

Members Hired on or After October 1, 2011 for General Fund Members or March 5, 2014 for Non-General Fund

Eligibility: A member may retire upon attaining age 65 with 7 years of Credited Service, age 62 with 25 years of Credited Service, or 30 years of Credited Service regardless of age.

Benefit: 2.5% of AFC multiplied by years of Credited Service, up to 81% of AFC.

Normal Form of Benefit: Single Life Annuity; other options are also available.

COLA: None.

**K. Early Retirement**

None.

**L. Delayed Retirement**

Same as Normal Retirement taking into account Compensation earned and service credited until the date of actual retirement.

**M. Service Connected Disability**

Members Hired Prior to July 15, 2009

Eligibility: Any member who becomes totally and permanently disabled and unable to perform the specific duties of the member's position as a result of an act occurring in the performance of service for the City is immediately eligible for a disability benefit.

Benefit: 75% of salary.

Normal Form of Benefit: Single Life Annuity; or until recovery from disability.

COLA: 2.0% per year commencing 3 years after retirement benefits begin. Members hired on or after July 15, 2009 are not eligible for the COLA.

Members Hired on or After July 15, 2009

Eligibility: Any member who becomes totally and permanently disabled and unable to perform the specific duties of the member's position as a result of an act occurring in the performance of service for the City is immediately eligible for a disability benefit.

Benefit: 75% of salary.

Normal Form of Benefit: Single Life Annuity; or until recovery from disability.

COLA: None.

**N. Non-Service Connected Disability**

Members Hired Prior to July 15, 2009

Eligibility: Any member with 5 years of Credited Service who becomes totally and permanently disabled and unable to perform the specific duties of the member's position is immediately eligible for a disability benefit.

Benefit: The greater of:
(1) Accrued Normal Retirement Benefit taking into account Compensation earned and service credited until the date of disability, or
(2) 20% of AFC.

Normal Form of Benefit: Single Life Annuity; or until recovery from disability.

COLA: 2.0% per year commencing 3 years after retirement benefits begin. Members hired on or after July 15, 2009 are not eligible for the COLA.

Members Hired on or After July 15, 2009

Eligibility: Any member with 7 years of Credited Service who becomes totally and permanently disabled and unable to perform the specific duties of the member's position is immediately eligible for a disability benefit.

Benefit: The greater of:
(1) Accrued Normal Retirement Benefit taking into account Compensation earned and service credited until the date of disability, or
(2) 20% of AFC.

Normal Form of Benefit: Single Life Annuity; or until recovery from disability.

COLA: None.

## O. Death in the Line of Duty

Members Hired Prior to July 15, 2009

Eligibility: Members are eligible for survivor benefits after the completion of 5 years of Credited Service.

Benefit: The benefit payable to the spouse determined as though the deceased member had retired on the date of death and had chosen a 100% joint and survivor annuity.

Normal Form of Benefit: Single Life Annuity.

COLA: 2.0% per year commencing 3 years after retirement benefits begin. Members hired on or after July 15, 2009 are not eligible for the COLA.

The designated beneficiary of a plan member with less than 5 years of Credited Service will receive a refund of the member's accumulated contributions.

Members Hired on or After July 15, 2009

Eligibility: Members are eligible for survivor benefits after the completion of 7 years of Credited Service.

Benefit: The benefit payable to the spouse determined as though the deceased member had retired on the date of death and had chosen a 100% joint and survivor annuity.

Normal Form of Benefit: Single Life Annuity.

COLA: None.

The designated beneficiary of a plan member with less than 7 years of Credited Service will receive a refund of the member's accumulated contributions.

## P. Other Pre-Retirement Death

Members Hired Prior to July 15, 2009

Eligibility: Members are eligible for survivor benefits after the completion of 5 years of Credited Service.

Benefit: The benefit payable to the spouse determined as though the deceased member had retired on the date of death and had chosen a 100% joint and survivor annuity.

Normal Form
of Benefit: Single Life Annuity.

COLA: 2.0% per year commencing 3 years after retirement benefits begin. Members hired on or after July 15, 2009 are not eligible for the COLA.

The designated beneficiary of a plan member with less than 5 years of Credited Service will receive a refund of the member's accumulated contributions.

Members Hired on or After July 15, 2009

Eligibility: Members are eligible for survivor benefits after the completion of 7 years of Credited Service.

Benefit: The benefit payable to the spouse determined as though the deceased member had retired on the date of death and had chosen a 100% joint and survivor annuity.

Normal Form
of Benefit: Single Life Annuity.

COLA: None.

The designated beneficiary of a plan member with less than 7 years of Credited Service will receive a refund of the member's accumulated contributions.

**Q. Post Retirement Death**

Benefit determined by the form of benefit elected upon retirement.

**R. Optional Forms**

In lieu of electing the Normal Form of benefit, the optional forms of benefits available to all retirees are the 5, 10 and 20 Year Certain and Life Annuity options and the 50% and 100% Joint and Survivor options. Members who are eligible for normal retirement may elect to receive a Partial Lump Sum of up to 25% of the present value of the benefit with the remainder as a monthly benefit. The lump sum amount is calculated using the Plan's definition of actuarial equivalence.

**S. Vested Termination**

Members Hired Prior to July 15, 2009

Eligibility: A member has earned a non-forfeitable right to Plan benefits after the completion of 5 years of Credited Service.

Benefit: The benefit is the member's accrued Normal Retirement Benefit as of the date of termination. Benefit begins at age 55 (age 60 for members hired on or after July 15, 2009).

Normal Form
of Benefit: Single Life Annuity; other options are also available.

COLA: 2.0% per year commencing 3 years after retirement benefits begin. Members hired on or after July 15, 2009 are not eligible for the COLA.

Members terminating employment with less than 5 years of Credited Service will receive a refund of their own accumulated contributions.

<u>Members Hired on or After July 15, 2009 but Before October 1, 2011 for General Fund Members or Before March 5, 2014 for Non-General Fund Members</u>

Eligibility: A member has earned a non-forfeitable right to Plan benefits after the completion of 7 years of Credited Service.

Benefit: The benefit is the member's accrued Normal Retirement Benefit as of the date of termination. Benefit begins at 60.

Normal Form
of Benefit: Single Life Annuity; other options are also available.

COLA: None.

Members terminating employment with less than 7 years of Credited Service will receive a refund of their own accumulated contributions.

<u>Members Hired on or After October 1, 2011 for General Fund Members or March 5, 2014 for Non-General Fund</u>

Eligibility: A member has earned a non-forfeitable right to Plan benefits after the completion of 7 years of Credited Service.

Benefit: The benefit is the member's accrued Normal Retirement Benefit as of the date of termination. Benefit begins at 65.

Normal Form
of Benefit: Single Life Annuity; other options are also available.

COLA: None.

Members terminating employment with less than 7 years of Credited Service will receive a refund of their own accumulated contributions.

**T. Refunds**

Eligibility: All members terminating non-vested are eligible. Optionally, vested members may elect a refund in lieu of the vested benefits otherwise due.

Benefit: A refund of the member's contributions with simple interest at 4% per year through date of separation.

**U. Member Contributions**

Members Hired Prior to July 15, 2009

9.0% of Compensation.

Members Hired on or After July 15, 2009 but Before October 1, 2011 for General Fund Members or Before March 5, 2014 for Non-General Fund Members

9.0% of Compensation.

Members Hired on or After October 1, 2011 for General Fund Members or March 5, 2014 for Non-General Fund

8.0% of Compensation.

**V. Employer Contributions**

The amount determined by the actuary needed to fund the Plan properly according to State laws.

**W. Cost of Living Increases**

Members Hired Prior to July 15, 2009

2.0% per year commencing 3 years after retirement benefits begin. For Members who enter the DROP, the COLA begins 1 year after separation of employment, if later.

Members Hired on or After July 15, 2009

Members hired on or after July 15, 2009 are not eligible for the COLA.

**X. Deferred Retirement Option Plan (DROP)**

Members Hired Prior to July 15, 2009

Eligibility: A member may enter the DROP upon attaining age 55 with 10 years of Credited Service or upon attaining 25 years of Credited Service regardless of age, but before completing 30 years of Credited Service.

| | |
|---|---|
| Benefit: | The member's Credited Service and AFC are frozen upon entry into the DROP. The monthly retirement benefit as described under Normal Retirement is calculated based upon the frozen Credited Service and AFC. |
| Maximum DROP Period: | 5 years but no later than completion of 32 years of Credited Service. |
| Interest Credited: | The member's DROP account is credited with interest at the same rate as the net rate of investment return on plan assets. |
| Normal Form of Benefit: | Lump Sum or Direct Rollover. |
| COLA: | 2.0% per year commencing 3 years after DROP payments begin or 1 year after separation of employment, if later. |

Members Hired on or After July 15, 2009

Members hired on or after July 15, 2009 are not eligible to enter the DROP.

**Y. Planned Retirement Program**

The Planned Retirement Program is available for members who were hired before July 15, 2009 and offers the following features:

- A member may backdrop for up to five years but not prior to the date when normal retirement eligibility was attained
- The retirement benefit is calculated based on service and average final compensation at the retroactive Planned Retirement Program date
- The Planned Retirement Program deposits are credited with interest according to the following schedule:
    - If the Plan's return is negative, the member shares in the losses
    - If the Plan's funded ratio is below 80%, the member receives the first 4%, the Plan receives the next 2%, and the member receives any additional earnings above 6%
    - If the Plan's funded ratio is between 80% and 90%, the member receives the first 4%, the Plan receives the next 1%, and the member receives any additional earnings above 5%
    - If the Plan's funded ratio is above 90%, the member receives the full Plan return

**Z. Supplemental Pension Distribution**

The Plan provides that a supplemental pension distribution may be paid to eligible benefit recipients if the market value rate of return exceeds the assumed rate of return plus 4.5% (effective as of October 1, 2007). An eligible recipient is any member employed by the City on October 1, 2002, any member receiving benefits on that date, and any spouse of deceased members receiving benefits on that date. The Supplemental Pension Distribution is not payable while an eligible recipient participates in the DROP. The total Supplemental Pension Distribution is equal to the actuarial present value of future retirement benefits with respect to eligible recipients multiplied by the excess (not to exceed 2%) of the net market rate of return over the assumed rate of return plus 4.5%. The amount allocated to each eligible recipient is determined by multiplying the total Supplemental Pension Distribution by each individual member's years of Credited Service divided by total years of Credited Service for all recipients. Credit Service is limited to 25 years.

**AA. Transfers**

Members who transfer to another City plan are eligible to receive benefits from this Plan. The employee contributions for transferred members remain in the fund. The benefit is based on the Credited Service accrued under this Plan, the multiplier in effect at the date of transfer, and the Compensation earned through date of termination or DROP participation. Eligibility for benefits is based on all service. Death and disability benefits are not payable from this Plan after the date of transfer. Members hired on or after July 15, 2009 who transfer to another City plan are treated as terminated employees.

**AB. Other Ancillary Benefits**

There are no ancillary retirement type benefits not required by statutes but which might be deemed a City of Hollywood Employees' Retirement Fund liability if continued beyond the availability of funding by the current funding source.

**AC. Changes from Previous Valuation**

None.