

City of San José Federated City Employees' Retirement System

Actuarial Valuation Report as of June 30, 2023

Produced by Cheiron

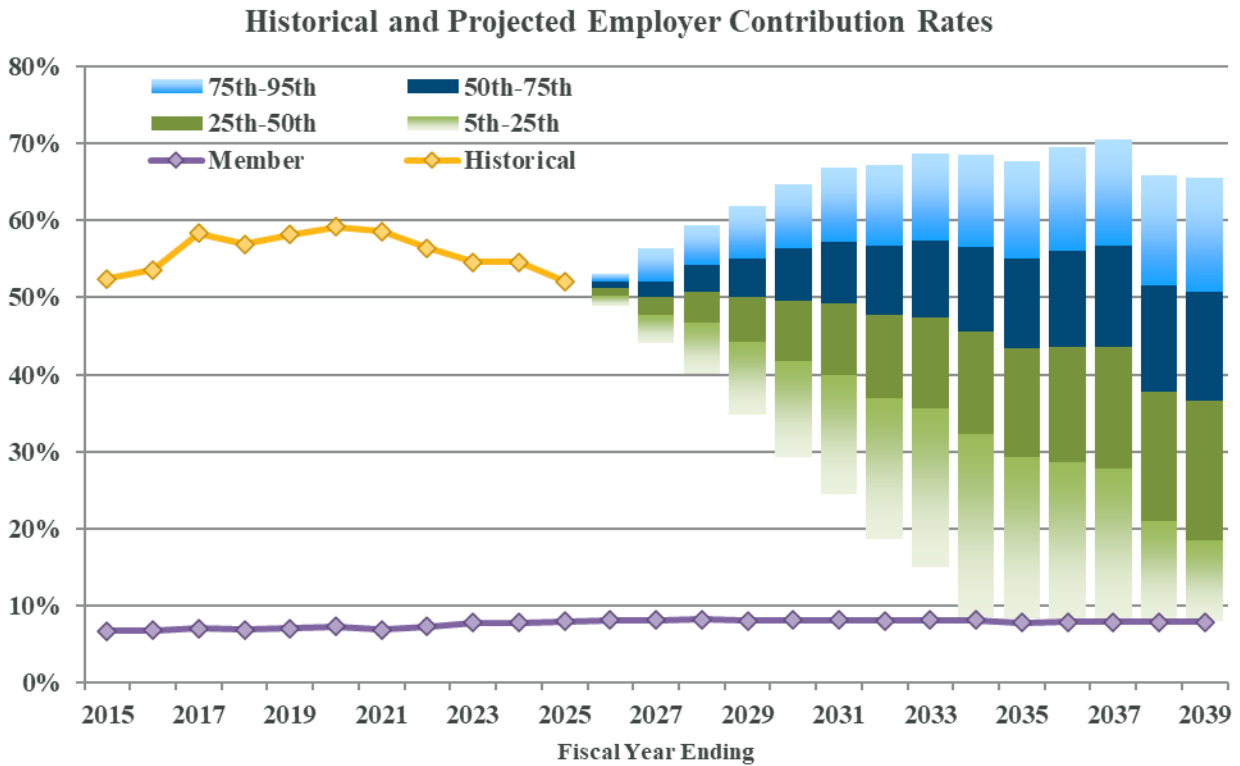
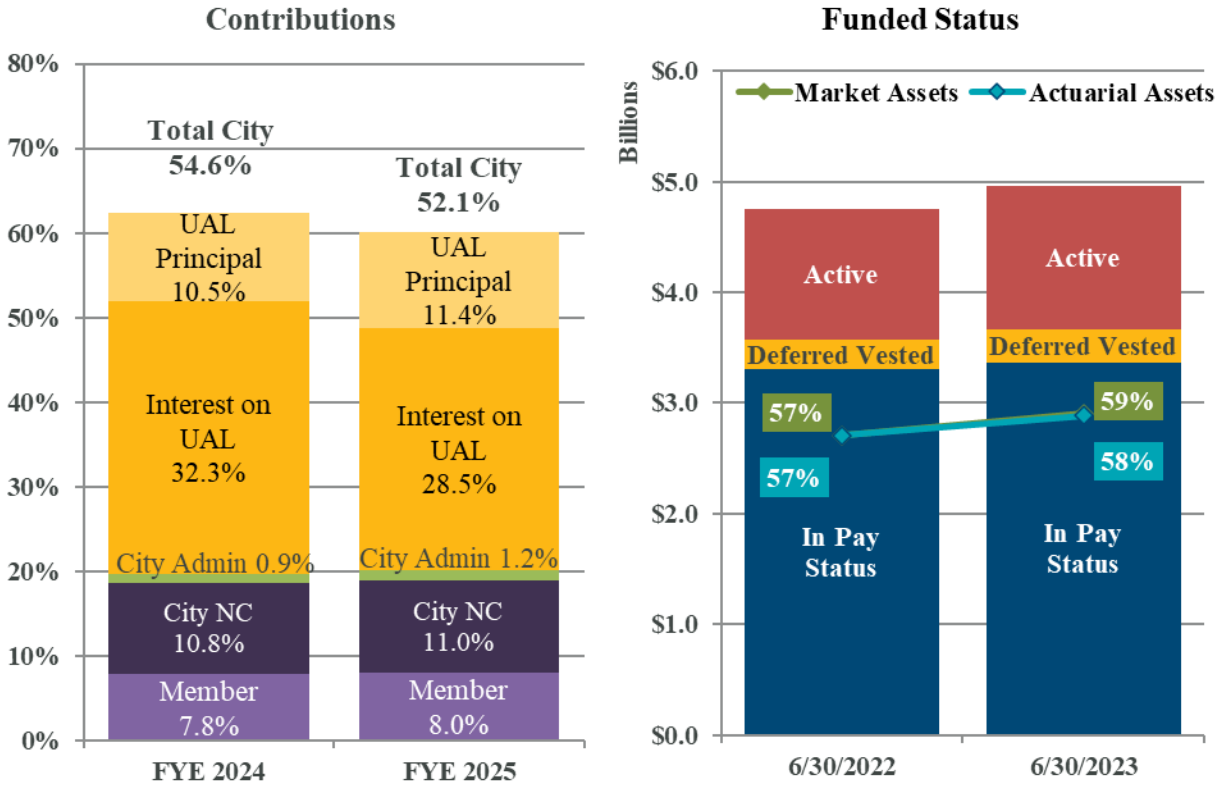
December 2023

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**CITY OF SAN JOSÉ FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
JUNE 30, 2023 ACTUARIAL VALUATION REPORT**

SECTION I – BOARD SUMMARY



**CITY OF SAN JOSÉ FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
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SECTION I – BOARD SUMMARY

Membership

Underlying the changes in the actuarial valuation from one year to the next are changes in the membership of the System. These changes affect the liability of the System as well as contributions to the System. As shown in Table I-1 below, total membership grew 4.4% from 2022 to 2023. Total active membership increased 6.8% with Tier 1 active membership declining by 7.4%, while Tier 2 active membership increased by 14.0%. Total payroll increased by 13.6%, which is significantly greater than the assumed increase rate of 3.00%. Tier 2 now accounts for approximately 70% of active members and 66% of payroll.

Table I-1

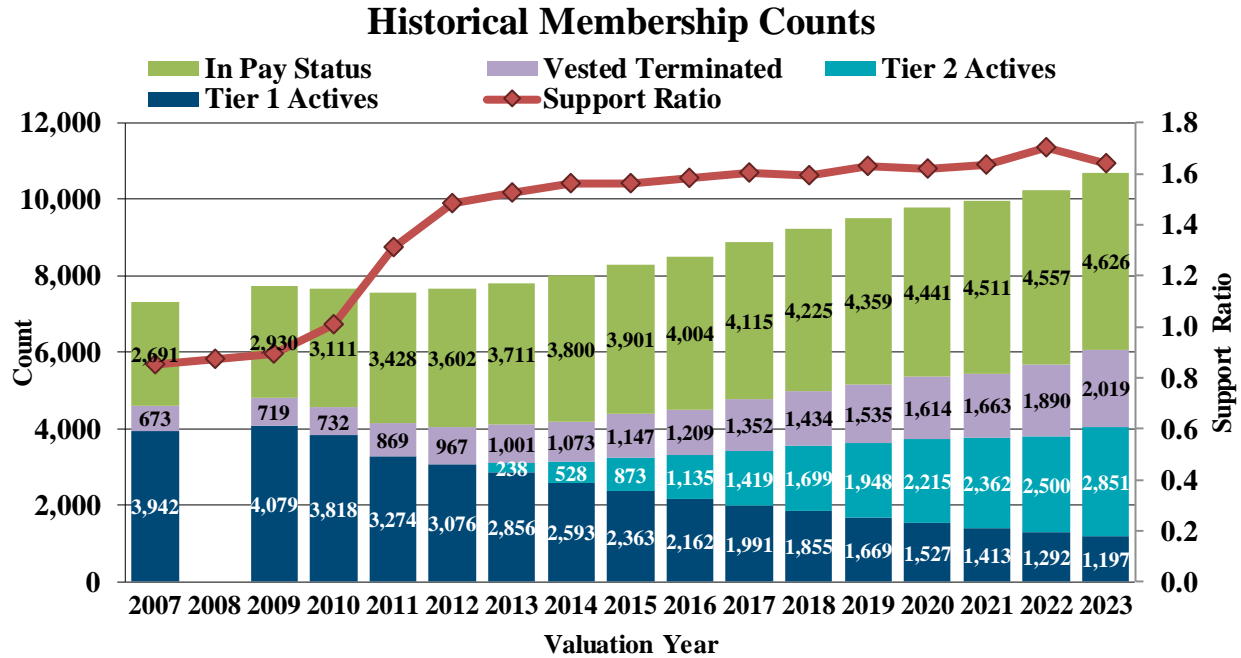
Total Membership			
	June 30, 2022	June 30, 2023	% Change
Active Members			
Tier 1	1,292	1,197	-7.4%
Tier 2	<u>2,500</u>	<u>2,851</u>	<u>14.0%</u>
Total Actives	3,792	4,048	6.8%
Terminated Vested Members	1,890	2,019	6.8%
Members In Pay Status	<u>4,557</u>	<u>4,626</u>	<u>1.5%</u>
Total Membership	10,239	10,693	4.4%
Annual Rate of Pay for Active Members			
Tier 1	\$ 149,445	\$ 148,586	-0.6%
Tier 2	<u>234,752</u>	<u>287,804</u>	<u>22.6%</u>
Total	\$ 384,197	\$ 436,391	13.6%

Dollar amounts in thousands

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As shown in the chart below, the number of active members declined about 25% from 4,079 in 2009 to 3,076 in 2012. Since then, there has been a gradual increase in the number of active members to 4,048 in 2023, nearly reaching the 2009 level. At the same time, the number of members in pay status has increased about 58% from 2,930 in 2009 to 4,626 in 2023. As a result, the support ratio (the ratio of the number of vested terminated and members in pay status to the number of active members) increased from 0.89 in 2009 to 1.49 in 2012 due to the recession and has increased steadily since then to a high of 1.70 in 2022. This year, the support ratio declined for the first time in more than a decade. As there are more retirees for each active member to support, contributions tend to become more volatile and sensitive to gains and losses. This type of progression is to be expected for a maturing plan over a long period of time, but the impact of the Great Recession accelerated the trend significantly from 2009 to 2012. Following the recession, the ratio returned to a pattern of slow growth, but there is no indication of a return to the lower pre-recession ratio.



Assets and Liabilities

This report measures assets and liabilities for funding purposes only. These measures are not appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the System’s benefit obligations, and there is a separate report for financial reporting. Table I-2 on the next page summarizes the Actuarial Liability, assets, and related ratios for the System as of June 30, 2023 compared to June 30, 2022.

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Table I-2

Summary of Funded Status and Related Ratios			
	June 30, 2022	June 30, 2023	% Change
Actuarial Liability			
Actives	\$ 1,174,767	\$ 1,297,138	10.4%
Deferred Vested	273,883	300,106	9.6%
In Pay Status	<u>3,301,996</u>	<u>3,368,424</u>	<u>2.0%</u>
Total	\$ 4,750,646	\$ 4,965,668	4.5%
Market Value of Assets (MVA)	2,708,026	2,907,314	7.4%
Unfunded Actuarial Liability - MVA Basis	\$ 2,042,620	\$ 2,058,354	0.8%
Funding Ratio - MVA Basis	57.0%	58.5%	2.7%
Actuarial Value of Assets (AVA)	2,709,625	2,889,956	6.7%
Unfunded Actuarial Liability - AVA Basis	\$ 2,041,021	\$ 2,075,712	1.7%
Funding Ratio - AVA Basis	57.0%	58.2%	2.0%
FYE 2024 Expected Payroll	\$ 384,197	\$ 436,391	13.6%
Asset Leverage Ratio	7.0	6.7	-5.5%
Actuarial Liability Leverage Ratio	12.4	11.4	-8.0%

Dollar amounts in thousands

The Actuarial Liability represents the target amount of assets the plan should have in the trust as of the valuation date based on the actuarial cost method. The Actuarial Liability grew 4.5%, while the Market Value of Assets (MVA) increased 7.4%. The Unfunded Actuarial Liability (UAL) measured on the MVA increased 0.8% from approximately \$2,043 million to \$2,058 million. The funding ratio on an MVA basis increased from 57.0% to 58.5%.

The asset smoothing method deferred 80% of the investment gain while recognizing 20% of the prior four years' gains and losses, resulting in a 6.7% increase in the Actuarial Value of Assets (AVA). The UAL measured on the AVA increased 1.7% from approximately \$2,041 million to \$2,076 million, and the funding ratio increased from 57.0% to 58.2%. The MVA is slightly more than the actuarial value, so if assumptions are met in the future, we expect a slight decrease in contribution rates as the deferred asset gains are recognized in the AVA.

The asset leverage ratio (MVA divided by payroll) of 6.7 means that if the System experiences a 10% loss on assets compared to the discount rate of 6.625%, the loss would be equivalent to 67% of payroll. Interest payments on such a loss would be approximately 4.4% of payroll. The decrease in the asset leverage ratio is due to the large increase in payroll.

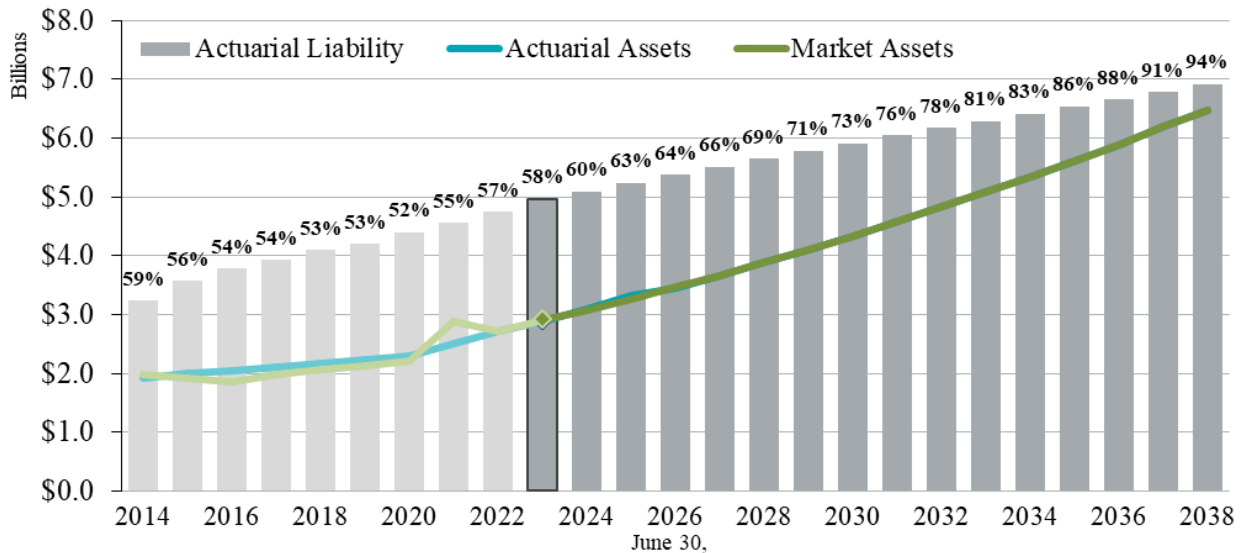
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As the System becomes better funded, the asset leverage ratio will increase, and if it was 100% funded, the leverage ratio would be 11.4 (Actuarial Liability divided by payroll). Higher asset leverage ratios indicate that a system is more sensitive to investment gains and losses. That is, the same level of investment gain or loss will have a greater impact on contribution rates for a system with a higher ratio than for a system with a lower ratio.

The chart below shows the historical and projected trends for assets (both market and smoothed actuarial) versus the Actuarial Liability, and also shows the progress of the funded ratios (based on the AVA) since 2014 and projected through 2038. The historical Actuarial Liability is shown in light gray, while the projected Actuarial Liability is shown in a darker gray. From 2014 to 2020, the funding ratio declined primarily because the System experienced lower than expected investment returns on the AVA and the assumptions used to measure the Actuarial Liability became more conservative, including reducing assumed future investment returns from 7.25% in 2013 to 6.625% in 2020. The funding ratio increased in 2021, 2022, and 2023 due to the exceptional investment returns of fiscal year ending 2021 being recognized in the AVA as well as contributions reaching a level that pays down the UAL. If all assumptions are met in the future including an expected return of 6.625% each year, the funding ratio is expected to reach about 94% by 2038.

Historical and Projected Assets and Actuarial Liability



While the UAL is expected to decline, it is dependent on actual investment returns, changes in assumptions and actuarial gains and losses, so there is potentially a wide range for the projected UAL.

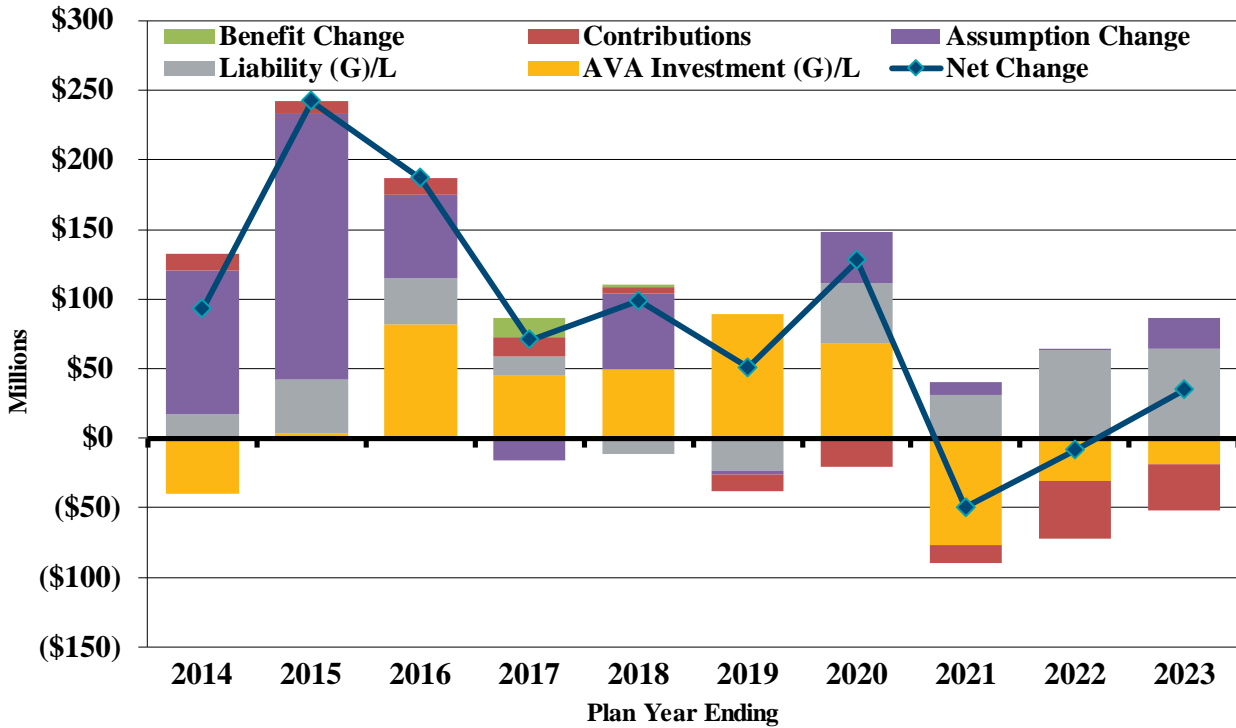
More detail on the assets can be found in section IV of this report, and more detail on the measures of liability can be found in section V of this report.

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Changes in Unfunded Actuarial Liability

Over the last 10 years, the Unfunded Actuarial Liability (UAL) increased approximately \$845.2 million. The chart below and Table I-3 on the following page summarize the sources of these changes in the UAL. Five categories of changes are shown: investment gains or losses on the Actuarial Value of Assets (AVA), liability gains or losses, assumption changes, benefit changes, and contributions.



There have been significant assumption changes as shown by the purple bars in the chart above, including reductions in the discount rate in steps from 7.25% in 2014 to the current rate of 6.625% that have increased the measure of the UAL by a total of \$460.8 million over the last 10 years.

There have been losses on the Actuarial Liability for the last four years and eight of the last 10 years that have added roughly 268.8 million to the UAL. Most of these losses occurred in the last four years and were largely attributable to higher-than-expected salary increases. We expect the assumption changes this year along with some reversion towards prior experience to mitigate these losses in the future

Investment losses have contributed to the growth in the UAL with investment losses on the AVA from 2015 through 2020. This trend reversed with the exceptional investment performance in 2021 producing investment gains for the last three years. In sum, net investment losses over the last ten years have increased the UAL by about \$171.0 million.

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The only benefit changes in the last 10 years that affected the UAL were changes under Measure F in 2017 and 2018, increasing the UAL by \$15.7 million.

Actual contributions were consistently less than the normal cost plus interest on the UAL until 2019, resulting in an annual increase in the amount of the UAL as shown by the red bars in the chart above. Since then, actual contributions have been more than the normal cost plus interest on the UAL. In sum, contributions have reduced the UAL by \$71.1 million over the last 10 years. Contribution rates in the future are expected to continue to exceed normal cost plus interest on the UAL and gradually pay down the UAL.

In aggregate, the UAL has increased in 8 of the last 10 years for a total increase of approximately \$845.2 million as shown in Table I-3.

Table I-3

Changes in Unfunded Actuarial Liability											
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Total
Discount Rate	7.250%	7.000%	7.000%	6.875%	6.875%	6.750%	6.750%	6.625%	6.625%	6.625%	
Source											
AVA (G)/L	\$ (39.7)	\$ 3.6	\$ 81.5	\$ 44.6	\$ 49.9	\$ 88.8	\$ 68.0	\$ (76.5)	\$ (31.0)	\$ (18.3)	\$ 171.0
Liability (G)/L	16.9	38.2	33.0	13.7	(11.5)	(23.2)	43.6	30.7	63.2	64.3	268.8
Assumptions	103.4	191.5	60.2	(15.6)	54.4	(2.9)	37.0	9.7	0.5	22.6	460.8
Benefit Changes	0.0	0.0	0.0	13.8	1.9	0.0	0.0	0.0	0.0	0.0	15.7
Contributions	<u>12.2</u>	<u>8.8</u>	<u>11.8</u>	<u>14.0</u>	<u>4.0</u>	<u>(12.1)</u>	<u>(20.8)</u>	<u>(13.7)</u>	<u>(41.5)</u>	<u>(33.8)</u>	<u>(71.1)</u>
Total Change	\$ 92.8	\$ 242.1	\$ 186.6	\$ 70.5	\$ 98.8	\$ 50.6	\$ 127.7	\$ (49.7)	\$ (8.9)	\$ 34.7	\$ 845.2

Dollar amounts in millions

Table I-4 on the next page breaks out the sources of the changes in UAL for the fiscal year ending June 30, 2023. The UAL increased approximately \$34.7 million during the year. About \$64.3 million was due to liability losses, including \$50.3 million due to salary increases greater than expected, and assumption changes added \$22.6 million to the UAL. Offsetting these losses, investment gains on the AVA reduced the UAL by about \$18.3 million and contributions greater than normal cost plus interest on the UAL subtracted about \$33.8 million from the UAL.

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Table I-4

Sources of FYE 2023 Change in UAL		
	Amount	% of AL
Unfunded Actuarial Liability, June 30, 2023	\$ 2,075,712	41.8%
Unfunded Actuarial Liability, June 30, 2022	<u>2,041,021</u>	<u>41.1%</u>
Change in Unfunded Actuarial Liability	\$ 34,691	0.7%
<u>Sources of Changes</u>		
Plan Changes	\$ 0	0.0%
Assumption Changes	22,572	0.5%
Normal Cost and Interest on UAL less Contributions	(33,811)	-0.7%
Investment (gain) or loss on Actuarial Value of Assets	(18,329)	-0.4%
Liability (gain) or loss		
Salary experience	\$ 50,316	1.0%
Retirement experience	4,345	0.1%
Termination experience	7,265	0.1%
Other experience	<u>2,333</u>	<u>0.0%</u>
Total Liability (gain) or loss	<u>\$ 64,259</u>	<u>1.3%</u>
Total Changes	\$ 34,691	0.7%

Dollar amounts in thousands

Contribution Amounts and Rates

As shown in the upper left corner of the dashboard (page 1), the total City contribution rate decreased from 54.6% for FYE 2024 to 52.1% for FYE 2025, while the average member contribution increased from 7.8% to 8.0%. The purple bars represent the normal cost, the benefits attributable to the next year of service, with the light purple paid by members¹ and the dark purple paid by the City. The green bars represent the City contributions that pay expected administrative expenses. The light and dark gold bars represent the City contributions that pay for the UAL. The dark gold bars represent the expected interest on the Market Value UAL for the fiscal year, and the light gold bars represent the portion of the payment that is expected to reduce the UAL. The UAL principal payment is expected to increase from 10.5% of pay to 11.5% of pay for FYE 2025.

¹ A small portion of the member contributions also pays a portion of administrative expenses and the UAL.

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Table I-5 and the chart on the following page summarize the member and City contribution rates and amounts for the fiscal years ending in 2024 and 2025. The Tier 1 member contribution rates decreased primarily due to the elimination of the payment for administrative expenses based on an opinion from legal counsel. The City's Tier 1 UAL payment increased \$8.0 million from 2024 to 2025, primarily reflecting the scheduled increase in UAL payments as well as payments for the new actuarial loss and assumption changes. The Tier 1 normal cost rate increased due to assumption changes, and the Tier 1 normal cost dollar amount increased due to the higher-than-expected salary increases offset by the decline in Tier 1 active members. The Tier 2 contribution amount increased due to the growing Tier 2 population combined with the higher-than-expected salary increases and assumption changes. In aggregate, The City's contribution amount increased about \$18.2 million, while its contribution rate decreased 2.48% of payroll.

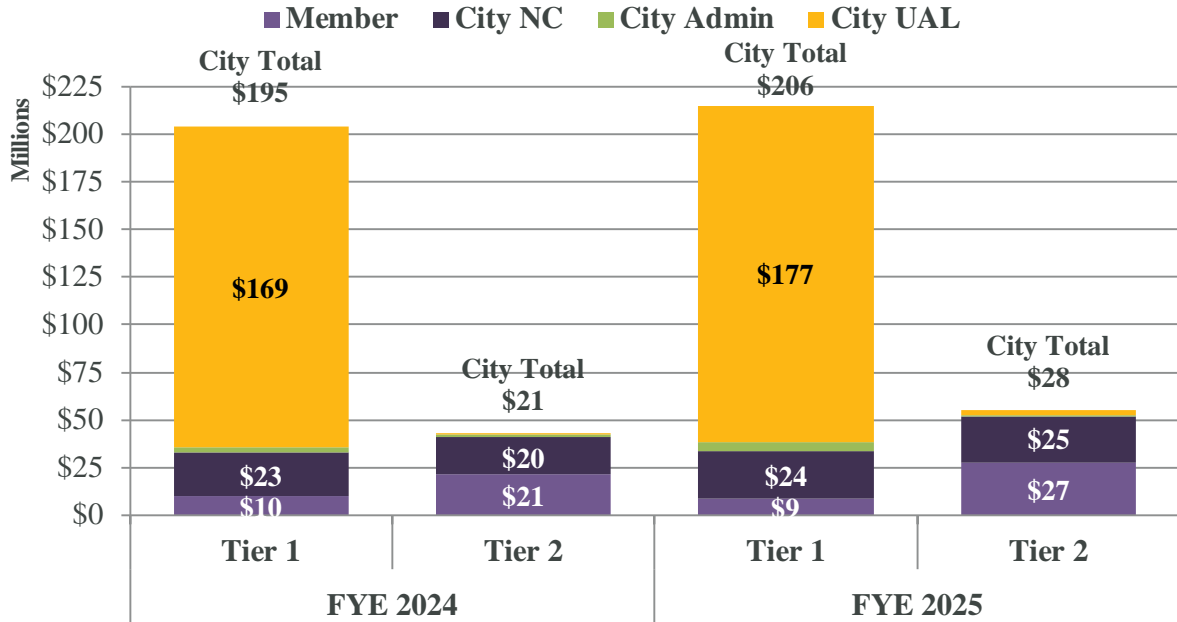
Table I-5

Contribution Rates and Amounts Throughout the Year			
	FYE 2024	FYE 2025	Change
<u>Member Rates (Excluding Reclassification Payments)</u>			
Tier 1	7.34%	6.61%	-0.73%
Tier 2	8.01%	8.49%	0.48%
<u>City Contributions</u>			
Tier 1 UAL Payment	\$ 168,762	\$ 176,758	\$ 7,996
Tier 1 Administrative Expenses	\$ 2,771	\$ 5,314	\$ 2,543
Tier 1 Normal Cost	\$ 23,211 18.01%	\$ 24,377 18.73%	\$ 1,166 0.72%
Tier 2 Contribution	\$ 21,374 8.01%	\$ 27,878 8.73%	\$ 6,504 0.72%
Aggregate Contribution	\$ 216,118 54.61%	\$ 234,326 52.13%	\$ 18,208 -2.48%

Dollar amounts in thousands

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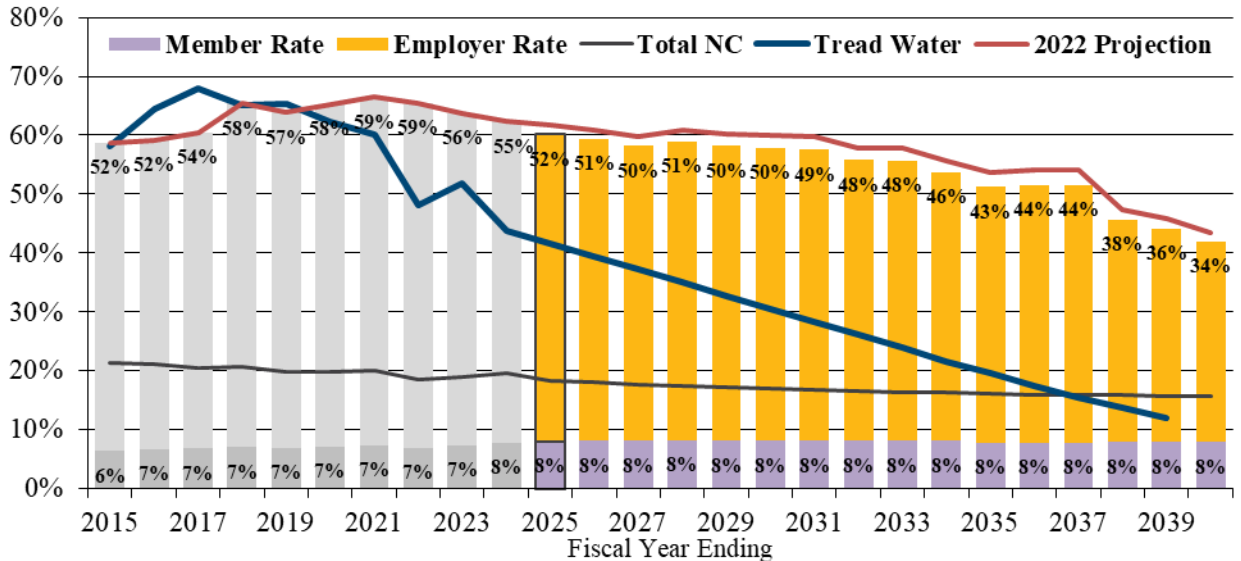
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By far, the most significant portion of the City’s contribution is the Tier 1 UAL payment which is substantially attributable to members who no longer work for the City.

The following chart shows the historical and projected aggregate member contribution rates (purple bars) and City contribution rates (gold bars) compared to the projection from the prior valuation, indicated by the red line. These contribution rates assume that all assumptions are met. The black line shows the historical and projected total normal cost rate. The blue line represents the historical and projected tread water rate. Historical rates are shown in shades of gray.

Historical and Projected Aggregate Contribution Rates



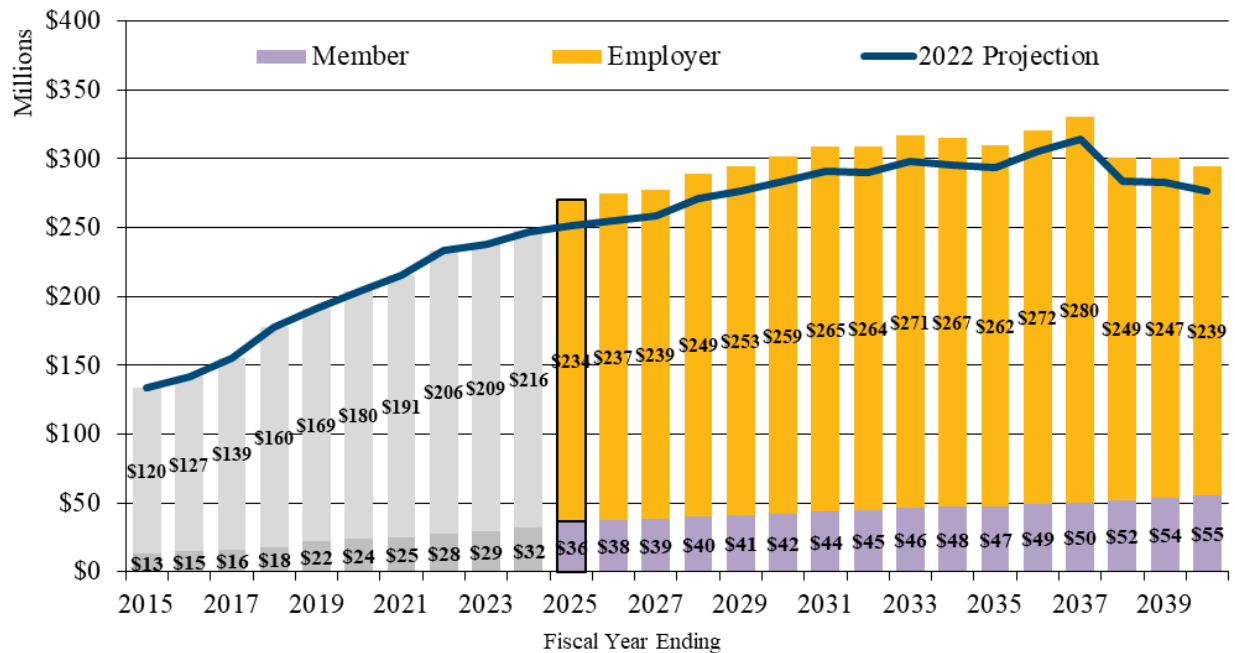
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The aggregate City contribution rate increased from FYE 2015 through FYE 2021 primarily due to investment losses and assumption changes that increased the UAL rate, including reductions in the discount rate over this period from 7.25% to 6.625%. Future aggregate City contribution rates are expected to gradually decrease over time. The gradual decrease in the total rate is driven by the projected gradual decrease in total normal cost rate as Tier 2 becomes a greater proportion of the active membership and the gradual decrease in UAL rate as payroll is expected to grow slightly faster than amortization payments (3.00% vs. 2.75%). After 2037, contribution rates are expected to drop more rapidly as some amortization layers are fully paid off.

The following chart shows historical and projected member (purple bars) and City (gold bars) contribution amounts (assuming contributions throughout the year) compared to the projected amounts shown in the prior valuation. If all actuarial assumptions are exactly met, City contributions are expected to increase from \$234 million in FYE 2025 to approximately \$280 million in FYE 2037, before declining in FYE 2038 and onwards as portions of the UAL are paid off.

Historical and Deterministic Projection of Contribution Amounts



Section VI of this report provides additional detail on the contribution rates and the amortization schedules separately by Tier.

SECTION II – ASSESSMENT AND DISCLOSURE OF RISK

Actuarial valuations are based on a set of assumptions about future economic and demographic experience. These assumptions represent a reasonable estimate of future experience, but actual future experience will undoubtedly be different and may be significantly different. This section of the report is intended to identify the primary risks to the plan, provide some background information about those risks, and provide an assessment of those risks.

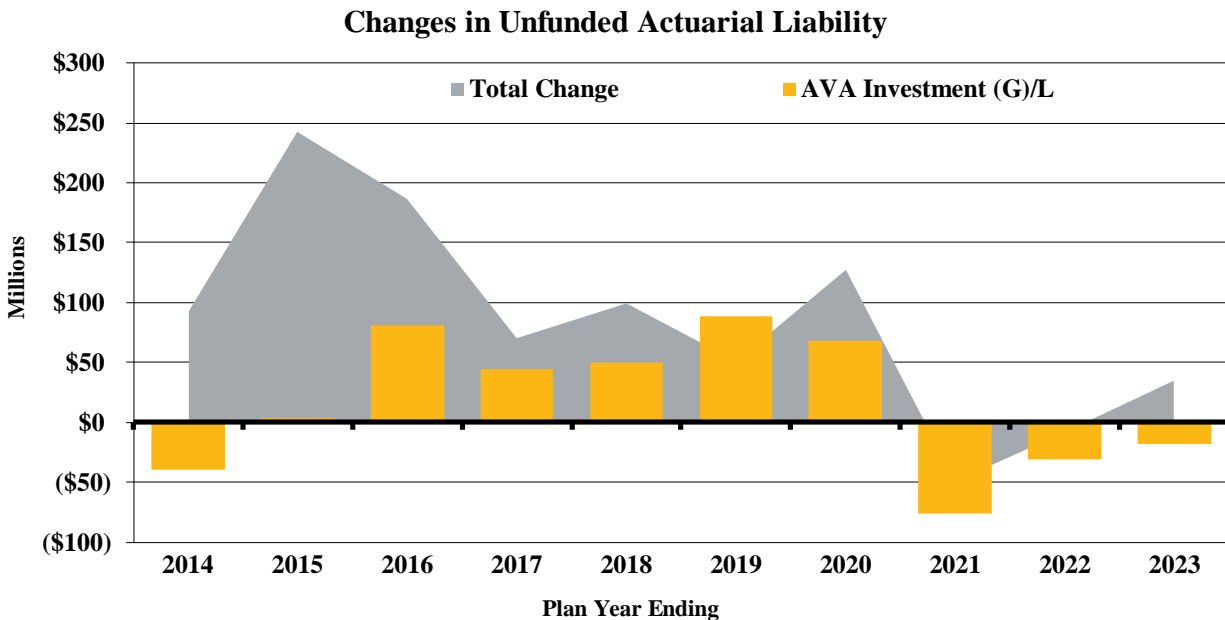
Identification of Risks

As we have discussed with the Board, the fundamental risk to the System is that the contributions needed to pay the benefits become unaffordable. While there are a number of factors that could lead to contribution amounts becoming unaffordable, we believe the primary risks for this System are:

- Investment risk,
- Interest rate risk, and
- Assumption change risk.

Other risks that we have not identified may also turn out to be important.

Investment Risk is the potential for investment returns to be different than expected. Lower investment returns than anticipated will increase the Unfunded Actuarial Liability (UAL), necessitating higher contributions in the future unless there are other gains that offset these investment losses. The potential volatility of future investment returns is determined by the System’s asset allocation and the affordability of the investment risk is determined by the amount of assets invested relative to the size of the City.

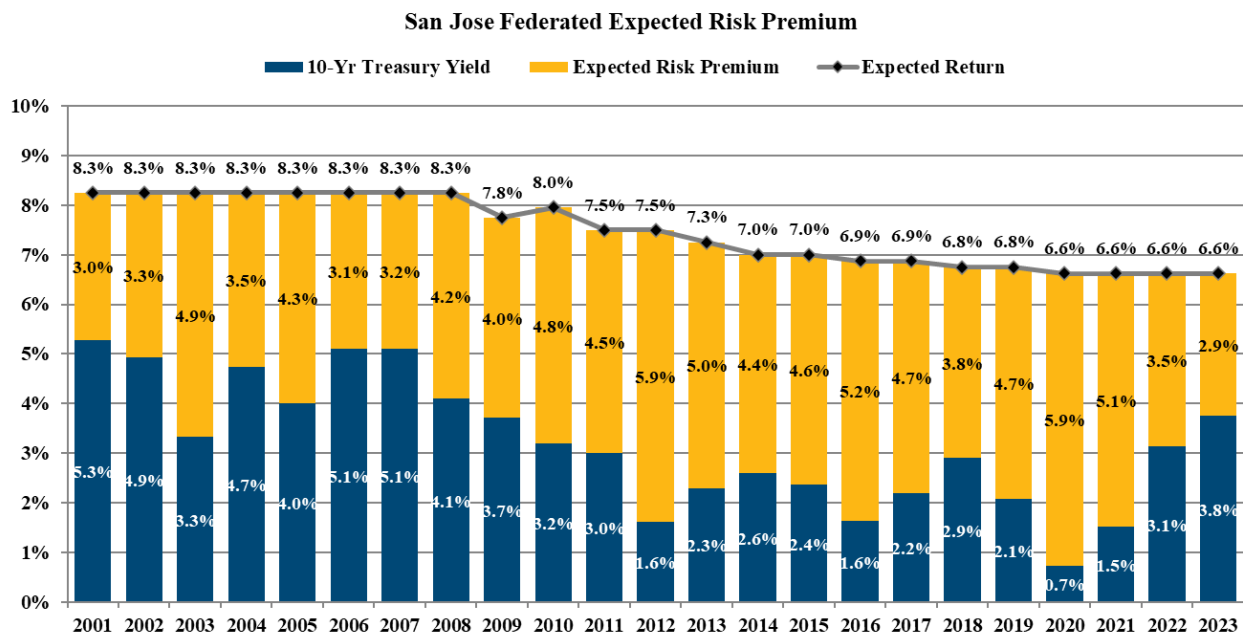


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The chart on the previous page shows the impact of investment gains and losses on the smoothed Actuarial Value of Assets (AVA) over the last 10 years compared to the System’s total change in UAL. Investment losses have been a material contributor to the growth in the UAL.

Interest rate risk is the potential for interest rates to be different than expected. For public plans, short-term fluctuations in interest rates have little or no effect as the plan’s liability is usually measured based on the expected return on assets. Longer-term trends in interest rates, however, can have a powerful effect to the extent they affect future expected investment earnings. The following chart shows the yield on a 10-year Treasury security compared to the System’s assumed rate of return. The difference is a simple measure of the amount of investment risk taken. As interest rates declined, plans faced a choice: maintain the same level of risk and reduce the expected rate of return; maintain the same expected rate of return and take on more investment risk; or some combination of the two strategies. If the recent rise in interest rates persists, it may ease some of the pressure on plans to reduce discount rates and require less risk to achieve expected returns.

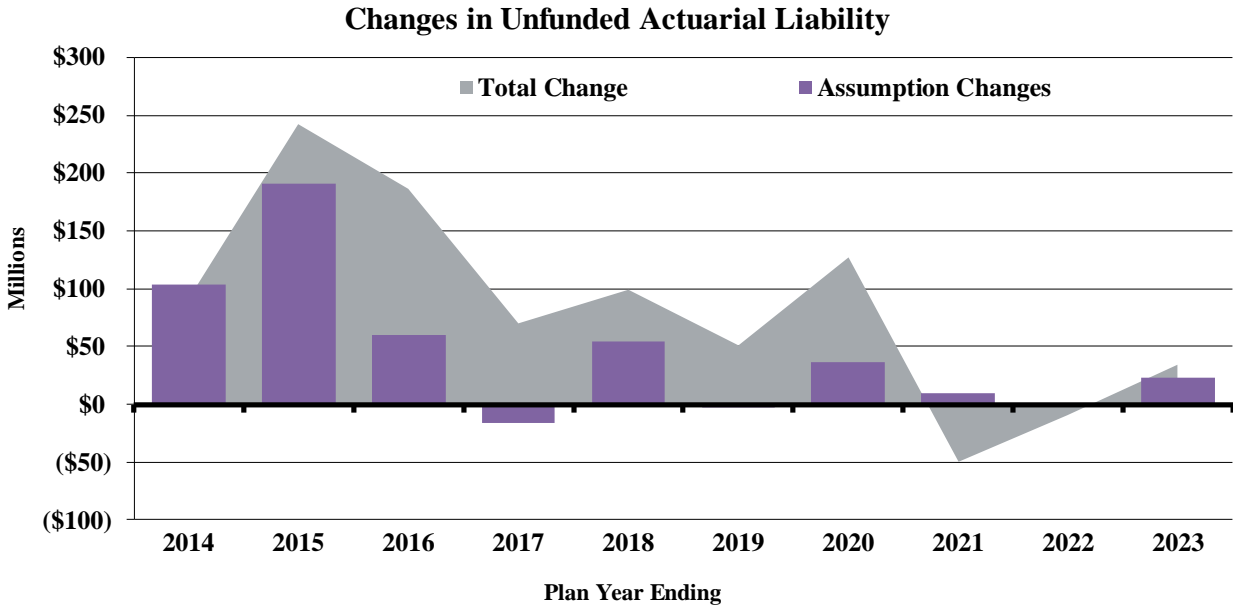


Assumption change risk is the potential for the environment to change such that future valuation assumptions are different than the current assumptions. For example, declines in interest rates over the last three decades resulted in higher investment returns for fixed-income investments, but lower expected future returns necessitating either a change in investment policy, a reduction in discount rate, or some combination of the two. Assumption change risk is an extension of the other risks identified, but rather than capturing the risk as it is experienced, it captures the cost of recognizing a change in environment when the current assumption is no longer reasonable.

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SECTION II – ASSESSMENT AND DISCLOSURE OF RISK

As shown in the chart below, there have been substantial changes in assumptions increasing the UAL. Most of these changes are due to reducing the discount rate from 7.25% to 6.625% over this period, but it also includes changes to demographic assumptions such as mortality and retirement rates. The reductions in the discount rate largely reflected the impact of declining interest rates on future expected investment returns.



Plan Maturity Measures

The future financial condition of a mature pension plan is more sensitive to each of the risks identified above than a less mature plan. Before assessing each of these risks, it is important to understand the maturity of the plan compared to other plans and how the maturity has changed over time.

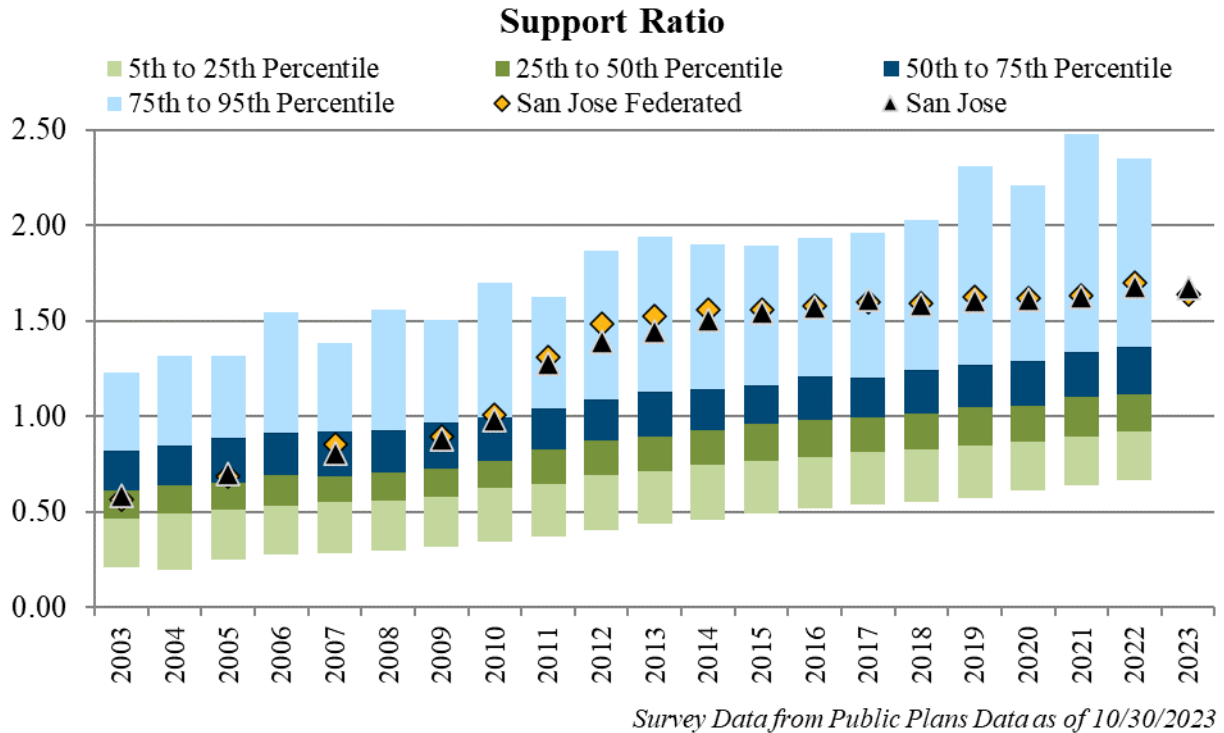
Plan maturity can be measured in a variety of ways, but they all get at one basic dynamic – the larger the plan is compared to the contribution or revenue base that supports it; the more sensitive the plan will be to risk. The following measures have been selected as the most important in understanding the primary risks identified for the plan.

Support Ratio (Inactives per Active)

One simple measure of plan maturity is the ratio of the number of inactive members (those receiving benefits or entitled to a deferred benefit) to the number of active members. The revenue base supporting the plan is usually proportional to the number of active members, so a relatively high number of inactives compared to actives indicates a larger plan relative to its revenue base as well.

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SECTION II – ASSESSMENT AND DISCLOSURE OF RISK



The chart above shows the distribution from the 5th to 95th percentile of support ratios for the plans in the Public Plans Database. The gold diamond shows how San José Federated compares, and the black triangle shows how the combined Federated and Police and Fire plans compare. Through 2009, the System was in the middle of the distribution even as the support ratio increased. However, after the Great Recession, the Plan’s support ratio increased dramatically and is now in the upper quartile of the plans in the database.

Leverage Ratios

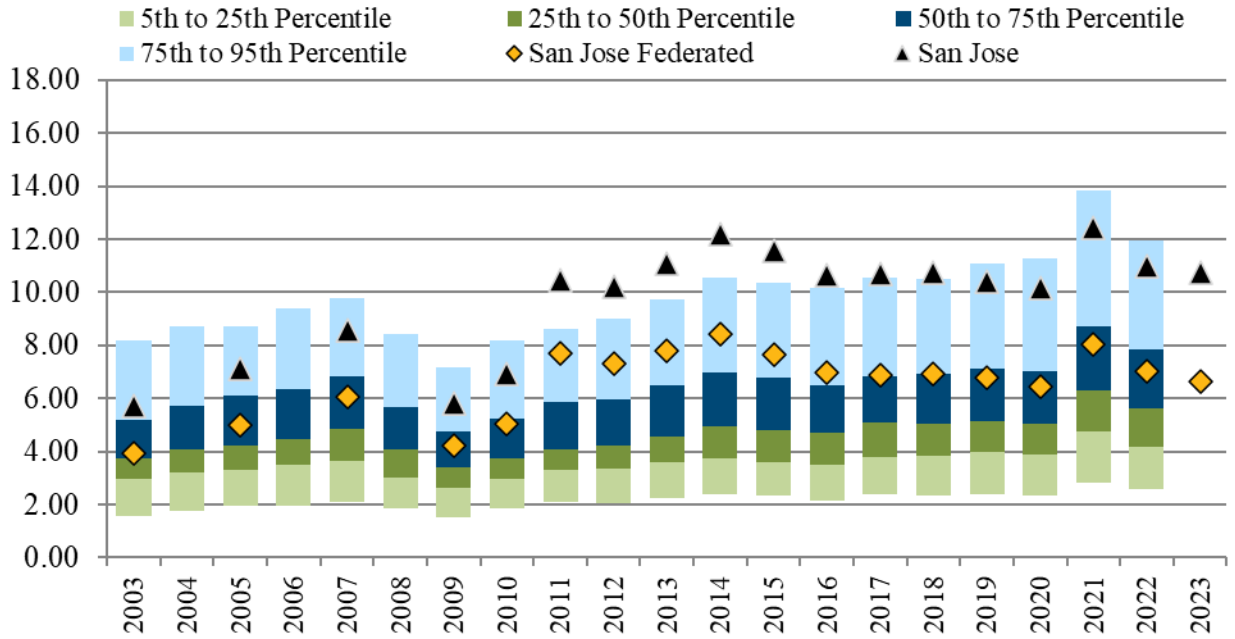
Leverage or volatility ratios measure the size of the plan compared to its revenue base more directly. An asset leverage ratio of 5.0, for example, means that if the System experiences a 10% loss on assets compared to the expected return, the loss would be equivalent to 50% of payroll. The same investment loss for a plan with an asset leverage ratio of 10.0 would be equivalent to 100% of payroll.

As the System becomes better funded, the asset leverage ratio will increase, and if it was 100% funded, the leverage ratio would equal the Actuarial Liability (AL) leverage ratio. The AL leverage ratio also indicates how sensitive the System is to experience gains and losses or assumption changes. For example, an assumption change that increases the AL by 5% would add a liability equivalent to about 50% of payroll if the AL leverage ratio is 10.0.

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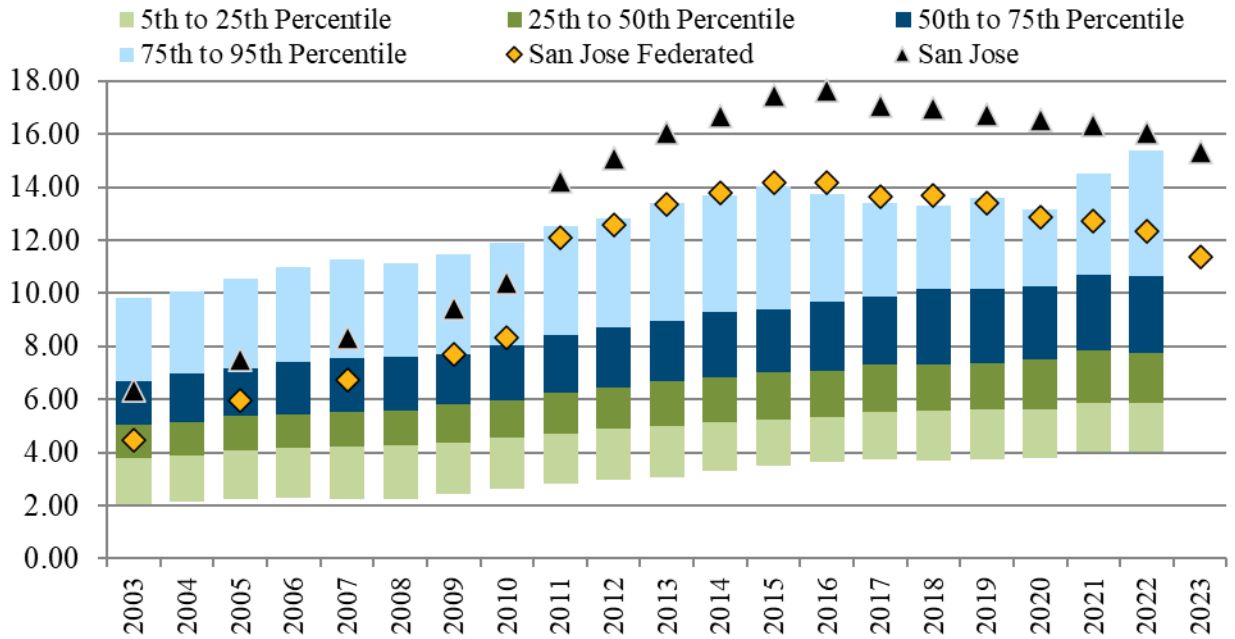
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Asset Leverage Ratio



Survey Data from Public Plans Data as of 10/30/2023

Liability Leverage Ratio



Survey Data from Public Plans Data as of 10/30/2023

The charts above show the distribution from the 5th to 95th percentile of asset and liability leverage ratios for the plans in the Public Plans Database. The gold diamond shows how San José Federated compares, and the black triangle shows how the combined Federated and

SECTION II – ASSESSMENT AND DISCLOSURE OF RISK

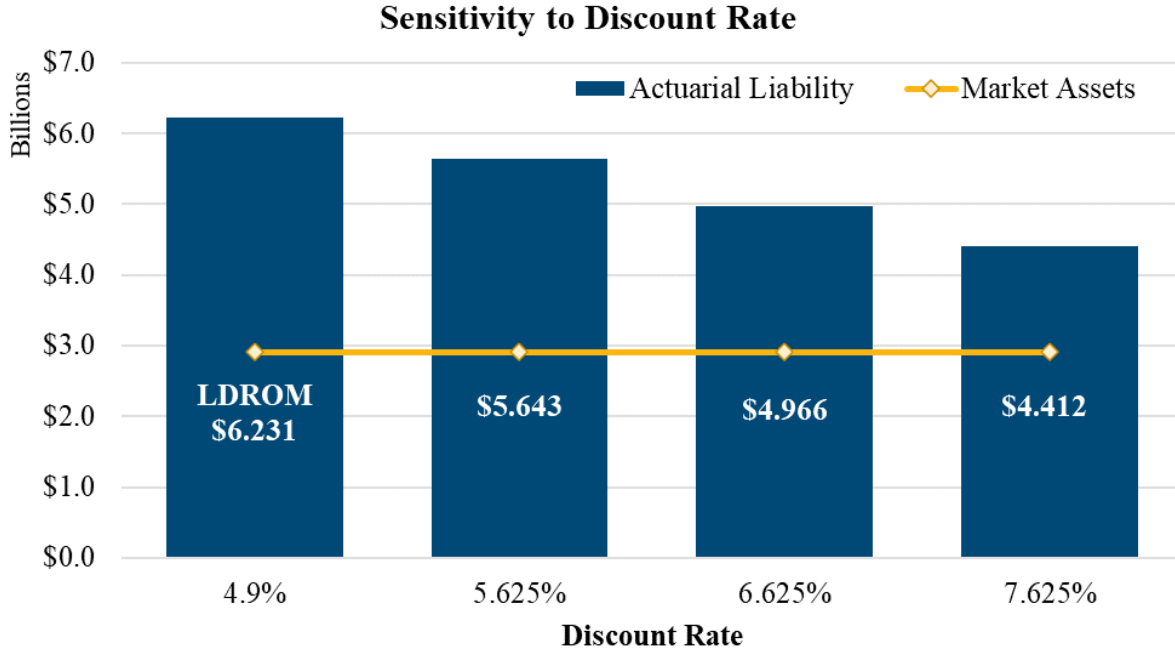
Police and Fire plans compare. As we have discussed with the Board for several years, and as is shown in the charts on the previous page, the leverage ratios for the Federated System are higher than most plans and are significantly higher when combined with Police and Fire, indicating that San José is much more sensitive to risk than most plan sponsors.

Assessing Costs and Risks

The fundamental risk to the System is that the contributions needed to fund the benefits become unaffordable. Assessing this risk, however, is complex because there is no bright line of what is unaffordable and the contribution amounts themselves are affected not just by the experience of the System, but also by the interaction of that experience and decisions by the Board related to assumptions, asset smoothing methods, and amortization periods.

Sensitivity to Discount Rate

The chart below compares the Market Value of Assets (gold line) to the Actuarial Liability (blue bar) using discount rates equal to the current expected rate of return and 100 basis points above and below the expected rate of return. In addition, the chart shows the low-default-risk obligation measure (LDROM), which is the Actuarial Liability using a discount rate derived from low-default-risk fixed income securities that approximately match the benefit payments of the plan.



The System invests in a diversified portfolio with the objective of maximizing investment returns at a reasonable level of risk. If investments return 6.625% annually, the System would need approximately \$4,966 million in assets today to pay all benefits attributable to past service compared to current assets of \$2,907 million. If investment returns are only 5.625%, the System would need approximately \$5,643 million in assets today, and if investment returns are 7.625%,

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SECTION II – ASSESSMENT AND DISCLOSURE OF RISK

the System would only need \$4,412 million in assets. The lowest risk portfolio for a pension plan with fixed cash flows would be composed entirely of low-default-risk fixed income securities whose cash flows match the benefit cash flows of the System. As of June 30, 2023 using the FTSE Pension Liability Index to approximate the low-default-risk matching portfolio, we estimate that such a portfolio would have an expected return of 4.9%, and the System would need \$6,231 million to pay all benefits attributed to past service. This amount is the LDROM. The \$1,265 million difference between the LDROM and the Actuarial Liability at 6.625% represents the expected savings from bearing the risk of investing in the System's diversified portfolio. Alternatively, it also represents the cost of eliminating the investment risk.

Because the System invests in a diversified portfolio and not the LDROM portfolio, the reported funded status is higher, and expected employer contributions are lower. Benefit security for members of the System depends on a combination of the System's assets, the investment returns generated on those assets, and the ability of San José to make any needed future contributions. A LDROM portfolio would generate more predictable but lower expected investment returns, potentially changing the level of reliance on future San José contributions to secure benefits.

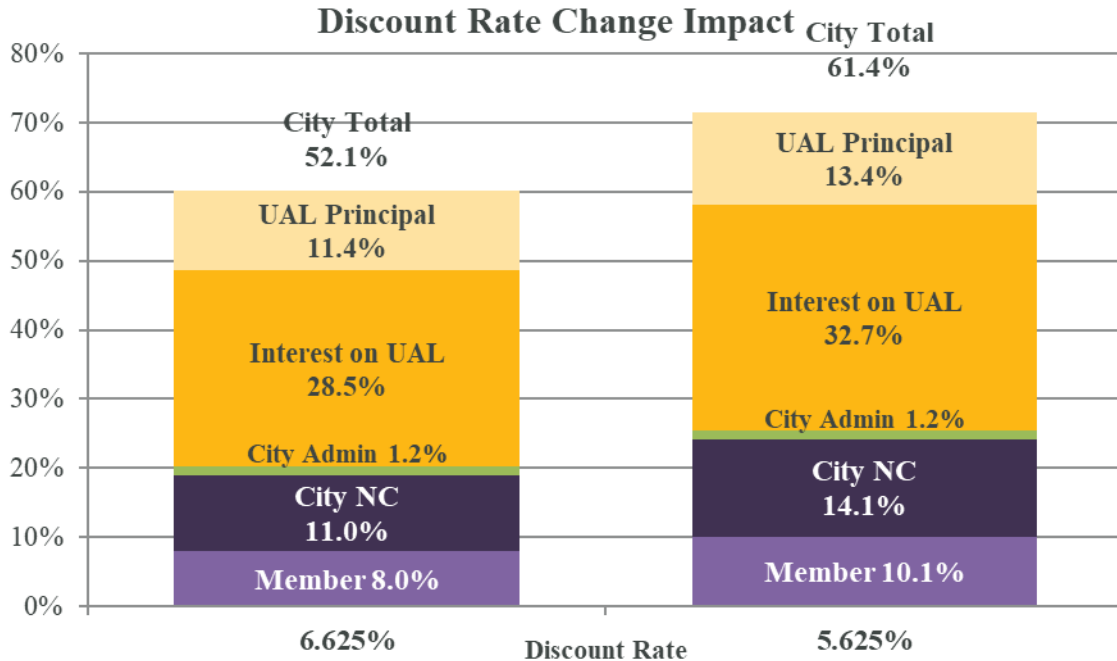
Point in Time Assessments

To assess the risks of the System independent of the contribution strategy, there are two measures on which to focus: normal cost and interest cost. The normal cost represents the expected cost of the benefits attributable to the next year of service. The interest cost represents the interest on the UAL calculated using the discount rate. Combined, the normal cost plus the interest cost are referred to as the Tread Water Cost. If actual contributions are less than the Tread Water Cost, the UAL would be expected to grow; and, if actual contributions are greater than the Tread Water Cost, the UAL would be expected to shrink.

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SECTION II – ASSESSMENT AND DISCLOSURE OF RISK

The stacked bars in the following chart show the Member and City contributions at the current discount rate compared to a discount rate 100 basis points lower.



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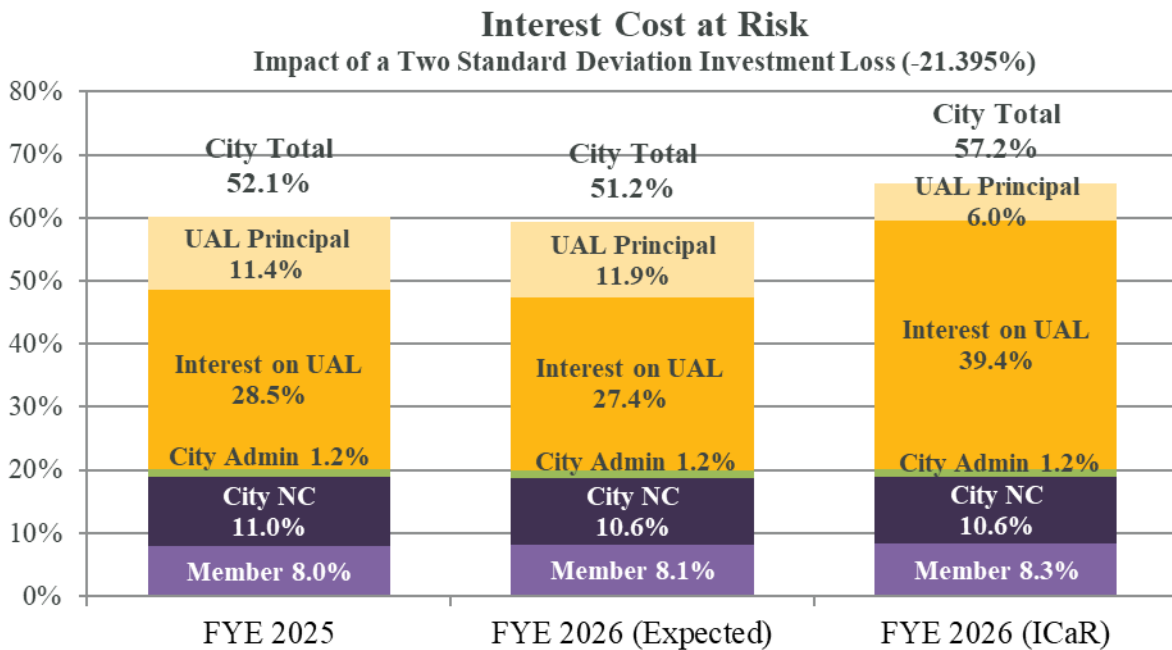
SECTION II – ASSESSMENT AND DISCLOSURE OF RISK

Decreasing the discount rate by 100 basis points would increase the normal cost by over 5% of payroll (3% for the City and 2% for members) and the interest on the UAL by about 4.5% of payroll. Using the current amortization methods, the City contribution rate would increase by 9% of payroll to over 61% of pay.

The declines in discount rates over the last decade or more have been largely driven by declines in interest rates that affect expectations of future investment returns. If the recent increases in interest rates persist, the pressure to continue to reduce the discount rate may ease. But if the increases in interest rates trigger a recession, discount rates may need to be reduced further, and the normal cost and interest cost will increase.

Actual investment returns do not affect the normal cost, but they directly affect the interest cost. One simple measure of the risk inherent in the investment policy is the Interest Cost at Risk (ICaR), which is the amount that the interest cost would increase if the investment returns for one year were two standard deviations below the expected return. Based on the capital market assumptions of Meketa over a 10-year horizon, the standard deviation for the current portfolio is 14.01%, making the investment return used to determine ICaR -21.395% (6.625% – 2 x 14.01%).

The following chart shows the contribution rates for the FYE 2025, determined in this valuation report in the far left bar graph and the expected FYE 2026 contribution rates based on a 6.625% investment rate of return for FYE 2024, in the middle of the chart. The FYE 2026 bar graph on the right shows the impact of a -21.395% return for FYE 2024. The City contribution rate for FYE 2026 in this scenario would be 57.2% of pay and expected to increase in future years as the investment loss is recognized over the 5-year smoothing period.

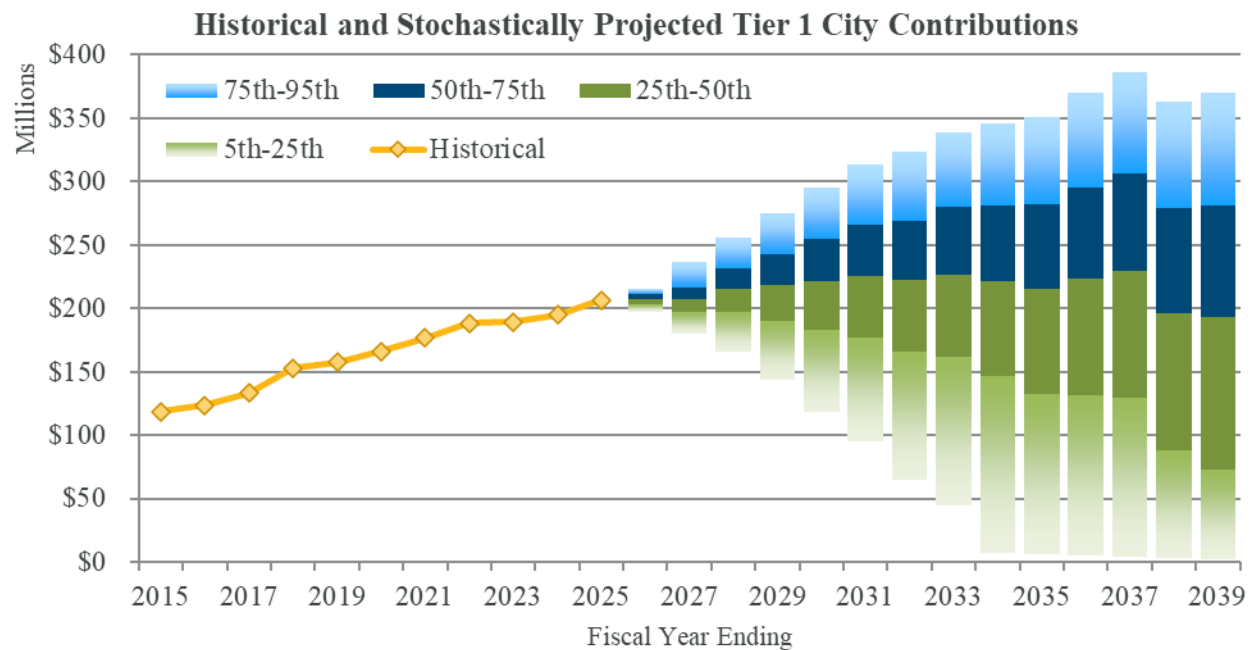


SECTION II – ASSESSMENT AND DISCLOSURE OF RISK

Stochastic Projections

If experience has taught us anything, it is that there is a significant level of uncertainty in projections of the future. The largest source of uncertainty is the projection of investment returns. In order to better understand the potential impact of investment returns on the System, we have included some stochastic projections in the dashboard and in this section of the report. The stochastic projections assume a geometric return of 6.625% and a standard deviation of 14.01% (based on Meketa’s capital market assumptions for the System’s investment portfolio). Each projection contains 10,000 trials that are 15 years in length.

The chart below shows the historical and stochastically projected City contribution amounts for Tier 1. The gold line represents the amounts paid historically or the amounts already determined by an actuarial valuation. The colored ranges represent different percentiles of the 10,000 trials. This range is intended to convey the degree of uncertainty in the projections based on future investment returns.

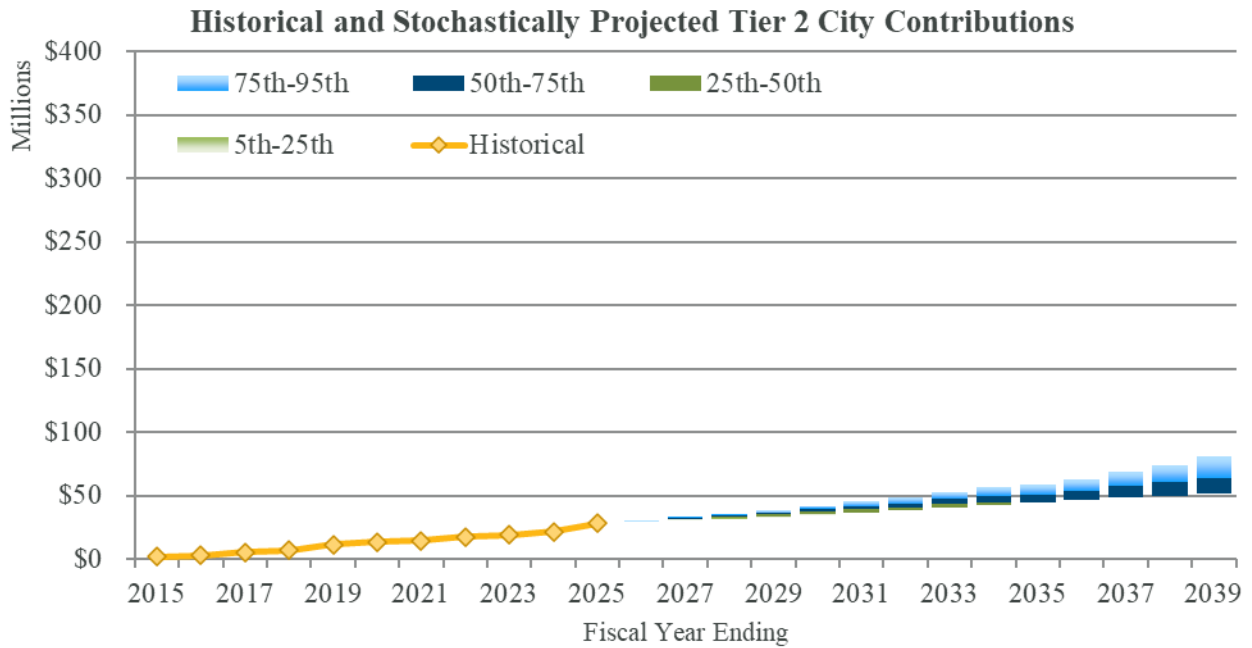


The chart shows a wide range of potential Tier 1 City contribution amounts depending on actual investment returns. For example, the range between the 5th and 95th percentile for FYE 2039 (based on the 2037 actuarial valuation) is from a contribution of \$3 million to a contribution of \$370 million. This range is largely driven by the standard deviation of the investment portfolio.

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SECTION II – ASSESSMENT AND DISCLOSURE OF RISK

The chart below shows the historical and stochastically projected City contribution amounts for Tier 2. The range of contribution amounts is significantly narrower for Tier 2 than Tier 1. Tier 2 is projected to grow quickly, but assets are relatively small right now. As a result, actual investment returns have a limited impact on future contribution amounts while the rate of growth will have a larger impact.



More Detailed Assessment

A more detailed assessment is always valuable to enhance the understanding of the risks identified above. While more detail would provide some additional value, we don't believe it is necessary to perform an in-depth analysis every year. Consequently, we recommend the Board review the less detailed analysis provided above annually and consider a more detailed analysis periodically and when there is a substantial change in the financial position or maturity of the System.

CITY OF SAN JOSÉ FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
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SECTION III – CERTIFICATION

The purpose of this report is to present the June 30, 2023 Actuarial Valuation of the City of San José Federated City Employees' Retirement System (“System”). This report is for the use of the System and the City of San José.

In preparing our report, we relied on information, some oral and some written, supplied by the System. This information includes, but is not limited to, the plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standard of Practice No. 23.

The price inflation, wage inflation, amortization payment growth rate, and discount rate were adopted by the Board of Administration with our input at the October 19, 2023 Board meeting. All other assumptions were adopted at the November 16, 2023 Board meeting based on recommendations from our Experience Study covering plan experience through June 30, 2023. Please refer to the full experience study report for details, including the rationale for each assumption. We believe these assumptions are reasonable for the purpose of the valuation.

The liability measures and funding ratios in this report are for the purpose of establishing contribution rates. These measures are not appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the System’s benefit obligations.

Cheiron utilizes ProVal actuarial valuation software leased from Winklevoss Technologies (WinTech) to calculate liabilities and project benefit payments. We have relied on WinTech as the developer of ProVal. We have a basic understanding of ProVal and have used ProVal in accordance with its original intended purpose. We have not identified any material inconsistencies in assumptions or output of ProVal that would affect this valuation.

Deterministic projections in this valuation report were developed using P-scan, a proprietary tool used to illustrate the impact of changes in assumptions, methods, plan provisions, or actual experience (particularly investment experience) on the future financial status of the System. P-scan uses standard roll-forward techniques that implicitly assume a stable active population. Because P-scan does not automatically capture how changes in one variable affect all other variables, some scenarios may not be consistent.

Stochastic projections in this valuation report were developed using R-scan, our proprietary tool for assessing the probability of different outcomes based on a range of potential investment returns. We relied on Cheiron colleagues for the development of the model. The stochastic projections of investment returns assume that each future year’s investment return is independent from all other years and is identically distributed according to a lognormal distribution. The standard deviation used in the stochastic projection of investment returns was provided by the System’s investment consultant.

Future actuarial measurements may differ significantly from the current measurements 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; and, changes in plan provisions or applicable law.

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SECTION III – CERTIFICATION

This report and its contents have been prepared in accordance with generally recognized and accepted actuarial principles and practices and our understanding of the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board as well as applicable laws and regulations. Furthermore, as credentialed actuaries, we meet the Qualification Standards of the American Academy of Actuaries to render the opinion contained in this report. This report does not address any contractual or legal issues. We are not attorneys, and our firm does not provide any legal services or advice.

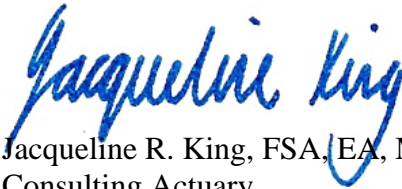
This report was prepared for the City of San José Federated City Employees' Retirement System for the purposes described herein. Other users of this report are not intended users as defined in the Actuarial Standards of Practice, and Cheiron assumes no duty or liability to any other user.



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Consulting Actuary



Steven M. Hastings, FSA, EA, FCA, MAAA
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**CITY OF SAN JOSÉ FEDERATED CITY EMPLOYEES’ RETIREMENT SYSTEM
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SECTION IV – ASSETS

The System uses two different asset measurements: the Market Value and Actuarial Value of Assets. The market value represents the value of the assets if they were liquidated on the valuation date. The actuarial value smooths annual investment returns over five years to reduce the impact of short-term investment volatility on employer contribution rates. The Market Value of Assets is used primarily for reporting and disclosure, and the Actuarial Value of Assets is used primarily to determine contribution rates.

This section shows the changes in the Market Value of Assets and develops the Actuarial Value of Assets.

Statement of Change in Market Value of Assets

Table IV-1 shows the changes in the Market Value of Assets for the current and prior fiscal years for each tier.

Table IV-1

	Change in Market Value of Assets					
	Fiscal Year Ending 2022			Fiscal Year Ending 2023		
	Tier 1	Tier 2	Total	Tier 1	Tier 2	Total
Beginning Market Value	\$ 2,720,512	\$ 163,832	\$ 2,884,344	\$ 2,523,113	\$ 184,913	\$ 2,708,026
Contributions						
Member	10,815	16,648	27,463	10,744	19,817	30,561
City	<u>190,949</u>	<u>16,648</u>	<u>207,597</u>	<u>179,623</u>	<u>19,817</u>	<u>199,440</u>
Total	\$ 201,764	\$ 33,296	\$ 235,060	\$ 190,367	\$ 39,634	\$ 230,001
Net Investment Earnings	(158,582)	(10,546)	(169,128)	205,323	16,778	222,101
Benefit Payments	(235,880)	(1,391)	(237,271)	(245,653)	(1,703)	(247,356)
Administrative Expenses	(4,701)	(278)	(4,979)	(5,100)	(359)	(5,459)
Market Value, End of Year	\$ 2,523,113	\$ 184,913	\$ 2,708,026	\$ 2,668,050	\$ 239,263	\$ 2,907,313
Estimated Rate of Return	-5.7%	-5.9%	-5.7%	7.9%	8.2%	8.0%

Dollar amounts in thousands

The net investment earnings for the year ended June 30, 2023 represent approximately an 8.0% return on the Market Value of Assets compared to an assumed return of 6.625%. This return produced an investment gain of \$37.4 million for the year ending June 30, 2023. For the year ended June 30, 2022, the net investment return was approximately -5.7% (6.625% was assumed), which produced an investment loss of \$366.4 million.

CITY OF SAN JOSÉ FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
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SECTION IV – ASSETS

Actuarial Value of Assets

To determine on-going contributions, most pension systems utilize an Actuarial Value of Assets that smooths year-to-year market value returns to reduce the volatility of contributions.

The Actuarial Value of Assets is calculated by recognizing the deviation of actual investment returns compared to the expected return (6.625% for FYE 2023, FYE 2022, and FYE 2021, and 6.75% for FYE 2020 and FYE 2019) over a five-year period. The dollar amount of the expected return on the Market Value of Assets is determined using actual contributions, benefit payments, and administrative expenses during the year. Any difference between this amount and the actual net investment earnings is considered a gain or loss. Table IV-2 on the following page shows the calculation of the Actuarial Value of Assets separately for Tier 1 and Tier 2. For each of the last four years, it shows the actual earnings, the expected earnings, the gain or loss, and the portion of the gain or loss that is not recognized in the current Actuarial Value of Assets. These deferred amounts will be recognized in future years.

CITY OF SAN JOSÉ FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
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SECTION IV – ASSETS

Table IV-2

	Development of Actuarial Value of Assets					
	Tier 1			Tier 2		
	Basic	COLA	Total	Basic	COLA	Total
Market Value of Assets	\$ 1,604,973	\$ 1,063,077	\$ 2,668,050	\$ 204,435	\$ 34,828	\$ 239,263
<u>FYE 2023</u>						
Actual Earnings	\$ 124,637	\$ 80,687	\$ 205,324	\$ 14,350	\$ 2,427	\$ 16,777
Expected Earnings	103,638	67,595	171,233	11,526	1,949	13,475
Investment Gain/(Loss)	20,999	13,092	34,091	2,824	478	3,302
Deferred (80%)	\$ 16,799	\$ 10,473	\$ 27,272	\$ 2,259	\$ 383	\$ 2,642
<u>FYE 2022</u>						
Actual Earnings	\$ (98,171)	\$ (60,412)	\$ (158,583)	\$ (9,044)	\$ (1,503)	\$ (10,547)
Expected Earnings	114,341	71,054	185,395	10,192	1,693	11,885
Investment Gain/(Loss)	(212,512)	(131,466)	(343,978)	(19,236)	(3,196)	(22,432)
Deferred (60%)	\$ (127,508)	\$ (78,879)	\$ (206,387)	\$ (11,542)	\$ (1,917)	\$ (13,459)
<u>FYE 2021</u>						
Actual Earnings	\$ 417,535	\$ 244,947	\$ 662,482	\$ 31,044	\$ 5,081	\$ 36,125
Expected Earnings	90,200	53,541	143,741	6,455	1,056	7,511
Investment Gain/(Loss)	327,335	191,406	518,741	24,589	4,025	28,614
Deferred (40%)	\$ 130,934	\$ 76,563	\$ 207,497	\$ 9,836	\$ 1,610	\$ 11,446
<u>FYE 2020</u>						
Actual Earnings	\$ 56,333	\$ 31,041	\$ 87,374	\$ 3,047	\$ 488	\$ 3,535
Expected Earnings	92,047	51,558	143,605	4,794	768	5,562
Investment Gain/(Loss)	(35,714)	(20,517)	(56,231)	(1,747)	(280)	(2,027)
Deferred (20%)	\$ (7,142)	\$ (4,105)	\$ (11,247)	\$ (349)	\$ (57)	\$ (406)
Total Deferred Gain/(Loss)	\$ 13,083	\$ 4,052	\$ 17,135	\$ 204	\$ 19	\$ 223
Actuarial Value of Assets	\$ 1,591,890	\$ 1,059,025	\$ 2,650,915	\$ 204,231	\$ 34,809	\$ 239,040
Actuarial to Market Ratio	99.2%	99.6%	99.4%	99.9%	99.9%	99.9%
Estimated Rate of Return	7.4%	7.2%	7.3%	7.1%	7.1%	7.1%

Dollar amounts in thousands

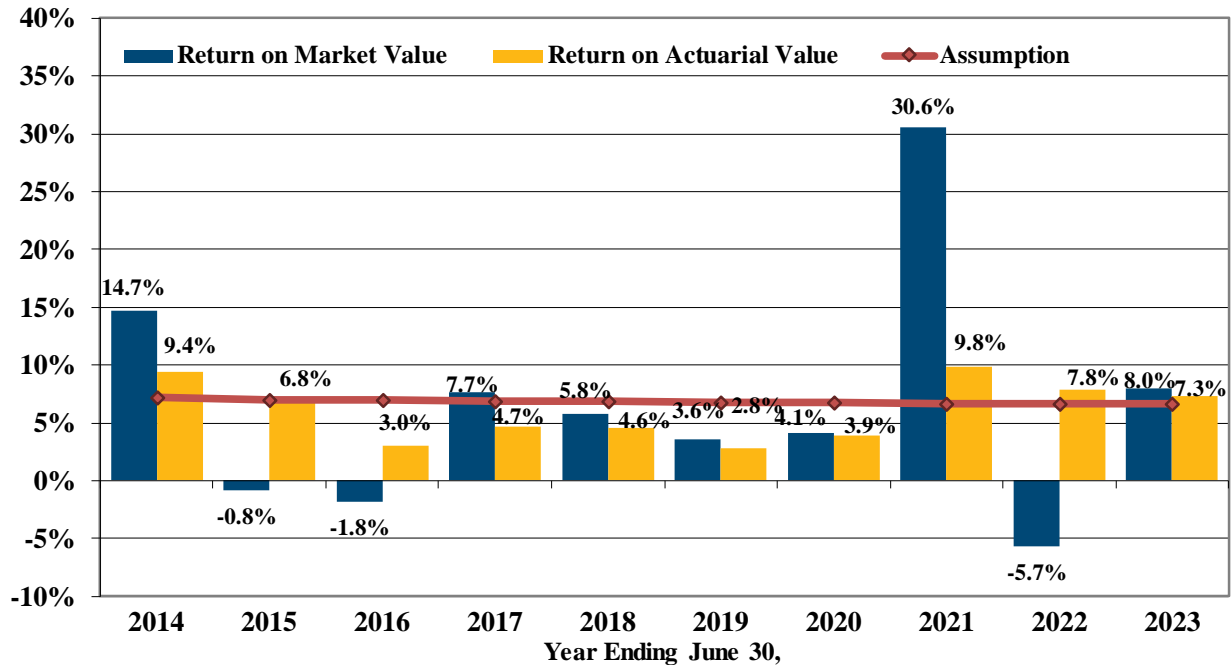
On an Actuarial Value of Assets basis, the aggregate return for the year ending June 30, 2023 was 7.3% for Tier 1 and 7.1% for Tier 2, more than the assumed return of 6.625%. The return for both Tiers was less than the return on the Market Value of Assets. This return on the Actuarial Value of Assets produced an investment gain of \$18.3 million for the year ending June 30, 2023.

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SECTION IV – ASSETS

As shown in the following chart, over the last 10 years the investment return on the Market Value of Assets has varied significantly from a high of 30.6% in 2021 to a low of -5.7% in 2022. The geometric average return was 7.5% and 6.2% over the last 5 and 10 years, respectively. The return on the Actuarial Value of Assets is more stable than on the market value with a geometric average of 6.3% and 6.0% over the last 5 and 10 years, respectively.

Historical Rates of Return



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SECTION V – MEASURES OF LIABILITY

This section presents detailed information on liability measures for the System for funding purposes, including:

- Present value of future benefits,
- Normal cost,
- Actuarial Liability, and
- An analysis of changes in the Unfunded Actuarial Liability during the year.

Present Value of Future Benefits: The present value of future benefits represents the expected amount of money needed today if all assumptions are met to pay for all benefits both earned as of the valuation date and expected to be earned in the future by current plan members under the current plan provisions. Table V-1 below shows the present value of future benefits as of June 30, 2022 and June 30, 2023 separately by Tier.

Table V-1

Present Value of Future Benefits					
	<u>June 30, 2022</u>	<u>June 30, 2023</u>			
	<u>Total</u>	<u>Basic</u>	<u>COLA</u>	<u>Total</u>	<u>% Change</u>
Tier 1					
Actives	\$ 1,201,683	\$ 900,256	\$ 366,592	\$ 1,266,848	5.4%
Deferred Vested In Pay Status	252,942	190,227	80,354	270,581	7.0%
Retirees	\$ 3,009,627	\$ 1,681,059	\$ 1,381,281	\$ 3,062,340	1.8%
Beneficiaries	202,409	99,784	109,962	209,746	3.6%
Disabled	<u>86,244</u>	<u>41,472</u>	<u>47,139</u>	<u>88,611</u>	<u>2.7%</u>
Total In Pay Status	\$ 3,298,280	\$ 1,822,315	\$ 1,538,382	\$ 3,360,697	1.9%
Total Tier 1	\$ 4,752,905	\$ 2,912,798	\$ 1,985,328	\$ 4,898,126	3.1%
Tier 2					
Actives	\$ 476,601	\$ 536,119	\$ 99,978	\$ 636,097	33.5%
Deferred Vested In Pay Status	20,941	26,227	3,299	29,526	41.0%
Retirees	\$ 3,716	\$ 6,619	\$ 1,108	\$ 7,727	107.9%
Disabled	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	
Total In Pay Status	\$ 3,716	\$ 6,619	\$ 1,108	\$ 7,727	107.9%
Total Tier 2	\$ 501,258	\$ 568,965	\$ 104,385	\$ 673,350	34.3%
Total System	\$ 5,254,163	\$ 3,481,763	\$ 2,089,713	\$ 5,571,476	6.0%

Dollar amounts in thousands

**CITY OF SAN JOSÉ FEDERATED CITY EMPLOYEES’ RETIREMENT SYSTEM
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SECTION V – MEASURES OF LIABILITY

Normal Cost

Under the Entry Age (EA) actuarial cost method, the present value of future benefits for each individual is spread over the individual’s expected working career under the System as a level percentage of the individual’s expected pay. The normal cost rate is determined as the value, as of entry age into the System, of each member’s projected future benefits divided by the value, also at entry age, of each member’s expected future salary. The normal cost rate is multiplied by current salary to determine each member’s normal cost. The normal cost of the System is the sum of the normal costs for each individual. The normal cost represents the expected amount of money needed to fund the benefits attributed to the next year of service under the Entry Age actuarial cost method. Table V-2 below shows the Total normal cost rates as of June 30, 2022 and June 30, 2023 separately by Tier. The increase in normal cost rate for each Tier is primarily attributable to the assumption changes for this valuation.

Table V-2

	Normal Cost				
	June 30, 2022	June 30, 2023			% Change
	Total	Basic	COLA	Total	
Tier 1					
Retirement	\$ 22,123	\$ 15,897	\$ 6,530	\$ 22,427	1.4%
Termination	8,368	6,123	2,068	8,191	-2.1%
Death	612	423	177	600	-2.0%
Disability	1,396	911	409	1,320	-5.4%
Reciprocity	718	999	432	1,431	99.3%
Total Tier 1	\$ 33,217	\$ 24,353	\$ 9,616	\$ 33,969	2.3%
Expected Payroll	\$ 135,593	\$ 134,276	\$ 134,276	\$ 134,276	-1.0%
Tier 1 NC Rate	24.50%	18.14%	7.16%	25.30%	3.3%
Tier 2					
Retirement	\$ 21,816	\$ 23,875	\$ 4,397	\$ 28,272	29.6%
Termination	7,727	9,109	1,314	10,423	34.9%
Death	578	548	68	616	6.6%
Disability	1,575	1,616	288	1,904	20.9%
Total Tier 2	\$ 31,696	\$ 35,148	\$ 6,067	\$ 41,215	30.0%
Expected Payroll	\$ 215,268	\$ 263,801	\$ 263,801	\$ 263,801	22.5%
Tier 2 NC Rate	14.72%	13.32%	2.30%	15.62%	6.1%

Dollar amounts in thousands

**CITY OF SAN JOSÉ FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
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SECTION V – MEASURES OF LIABILITY

Actuarial Liability

The Actuarial Liability represents the expected amount of money needed today if all assumptions are met to pay for benefits attributed to service prior to the valuation date under the Entry Age actuarial cost method. As such, it is the amount of assets targeted by the actuarial cost method for the System to hold as of the valuation date. It is not the amount necessary to settle the obligation. Table V-3 below shows the Actuarial Liability as of June 30, 2022 and June 30, 2023 separately by Tier.

Table V-3

Actuarial Liability					
	<u>June 30, 2022</u>	<u>June 30, 2023</u>			<u>% Change</u>
	Total	Basic	COLA	Total	
Tier 1					
Actives					
Retirement	\$ 926,925	\$ 703,674	\$ 283,417	\$ 987,091	6.5%
Termination	54,117	34,873	18,669	53,542	-1.1%
Death	8,979	6,544	2,386	8,930	-0.5%
Disability	<u>13,923</u>	<u>9,726</u>	<u>3,883</u>	<u>13,609</u>	<u>-2.3%</u>
Total Actives	\$ 1,003,944	\$ 754,817	\$ 308,355	\$ 1,063,172	5.9%
Deferred Vested	\$ 252,942	\$ 190,227	\$ 80,354	\$ 270,581	7.0%
In Pay Status	<u>3,298,280</u>	<u>1,822,315</u>	<u>1,538,382</u>	<u>3,360,697</u>	<u>1.9%</u>
Total Tier 1	\$ 4,555,166	\$ 2,767,359	\$ 1,927,091	\$ 4,694,450	3.1%
Tier 2					
Actives					
Retirement	\$ 141,805	\$ 163,846	\$ 30,162	\$ 194,008	36.8%
Termination	20,004	22,439	6,877	29,316	46.6%
Death	3,376	3,196	432	3,628	7.5%
Disability	<u>5,638</u>	<u>5,890</u>	<u>1,123</u>	<u>7,013</u>	<u>24.4%</u>
Total Actives	\$ 170,823	\$ 195,371	\$ 38,594	\$ 233,965	37.0%
Deferred Vested	20,941	26,227	3,299	29,526	41.0%
In Pay Status	<u>3,716</u>	<u>6,619</u>	<u>1,108</u>	<u>7,727</u>	107.9%
Total Tier 2	\$ 195,480	\$ 228,217	\$ 43,001	\$ 271,218	38.7%
Total System	\$ 4,750,646	\$ 2,995,576	\$ 1,970,092	\$ 4,965,668	4.5%

Dollar amounts in thousands

**CITY OF SAN JOSÉ FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
JUNE 30, 2023 ACTUARIAL VALUATION REPORT**

SECTION V – MEASURES OF LIABILITY

Liability (Gains) and Losses

Each year, the Actuarial Liability increases with normal cost and interest and decreases due to benefit payments. In addition, any deviation in experience from the actuarial assumptions creates a gain or loss. Table V-4 below summarizes the sources of liability gains and losses for the last five years. The other category includes gains and losses on administrative expenses as well as minor demographic assumptions and data corrections. The large gain in 2019 due to other sources is largely attributable to a significant one-time data correction.

Table V-4

Historical Sources of Liability (Gain) or Loss						
Source	Year Ending June 30th					Total
	2019	2020	2021	2022	2023	
Salary increases	9,573	25,889	21,085	47,333	50,316	154,196
Retirement	5,626	7,873	3,392	13,217	4,345	34,453
Termination	3,285	7,077	4,986	(1,589)	7,265	21,024
Mortality	2,847	(1,330)	2,613	(4,036)	1,638	1,732
Disability	(945)	49	(946)	(1,032)	(915)	(3,789)
Other	(43,618)	4,129	(393)	9,257	1,610	(29,015)
Total	\$ (23,232)	\$ 43,687	\$ 30,737	\$ 63,150	\$ 64,259	\$ 178,601

Dollar amounts in thousands

**CITY OF SAN JOSÉ FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
JUNE 30, 2023 ACTUARIAL VALUATION REPORT**

SECTION VI – CONTRIBUTIONS

Amortization of the Unfunded Actuarial Liability

Under the contribution allocation procedure employed by the System, there are three components to the contribution: the normal cost, administrative expenses, and an amortization payment on the Unfunded Actuarial Liability (UAL). The normal cost rate was developed in Section V. This section develops the administrative expense and UAL contribution rates.

The difference between the Actuarial Liability and the Actuarial Value of Assets is the Unfunded Actuarial Liability. The UAL is made up of the unamortized UAL as of June 30, 2022 plus the impact of the 2023 experience and assumption changes, and the 2022 UAL payment that is made by the City on July 1, 2023.

For members who were reclassified under Measure F from Tier 2 to Tier 1, a portion of the increase in liability for the reclassification is to be paid by members. Table VI-1 below shows the outstanding amount owed by members and the expected amortization payment amount. Rehires pay a fixed percentage of pay until the amount they owe has been paid. Classic members pay their portion of the UAL over 20 years (15 years remaining).

Table VI-1

Tier 1 Member UAL Amortization			
	Outstanding Balance	Remaining Period	Amortization Payment
Employee Rehire UAL	\$ 498	N/A	\$ 101
Classic Employee UAL	869	15	79
Total Members	\$ 1,367		\$ 180
Basic	795		104
COLA	572		76

Dollar amounts in thousands

Table VI-2 on the following page provides the payment schedule to amortize the Tier 1 UAL. The entire UAL as of June 30, 2009 was amortized over 30 years. Subsequent actuarial gains or (losses) or method changes were amortized over 20 years and assumption changes over 25 years from the valuation in which they are first recognized.

**CITY OF SAN JOSÉ FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
JUNE 30, 2023 ACTUARIAL VALUATION REPORT**

SECTION VI – CONTRIBUTIONS

Table VI-2

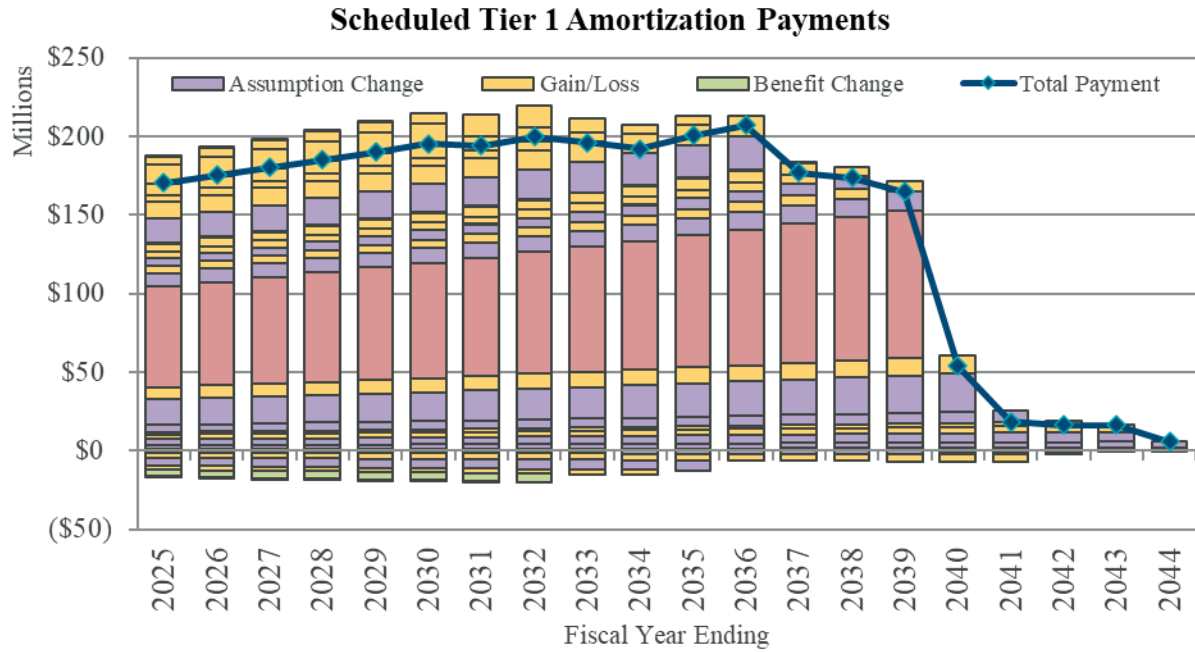
Tier 1 City UAL Amortization			
	Outstanding Balance	Remaining Period	Amortization Payment
Golden Handshake	\$ 20,137	16	\$ 1,746
2009 UAL	722,514	16	62,641
2010 (Gain) or Loss	32,771	7	5,563
2010 Assumption Change	(47,085)	12	(5,087)
2011 (Gain) or Loss	(2,084)	8	(315)
2011 Assumption Changes	155,382	13	15,762
2012 (Gain) or Loss	87,078	9	11,908
SRBR Elimination	(32,000)	9	(4,376)
2013 (Gain) or Loss	57,662	10	7,222
2013 Assumption Changes	56,852	15	5,170
2014 (Gain) or Loss	(20,986)	11	(2,431)
2014 Assumption Changes	95,420	16	8,273
2015 (Gain) or Loss	41,869	12	4,523
2015 Assumption Changes	195,626	17	16,231
2016 (Gain) or Loss	99,617	13	10,105
2016 Assumption Changes	58,013	18	4,622
2017 (Gain) or Loss	54,149	14	5,188
Measure F	6,465	14	619
2017 Assumption Changes	(17,099)	19	(1,312)
2018 (Gain) or Loss	45,364	15	4,126
2018 Assumption Change	52,690	20	3,903
2019 (Gain) or Loss	53,419	16	4,631
2019 Assumption Change	(1,692)	21	(121)
2020 (Gain) or Loss	94,314	17	7,825
2020 Assumption Change	34,504	22	2,400
2021 (Gain) or Loss	(40,279)	18	(3,209)
2021 Assumption Change	9,492	23	642
2022 (Gain) or Loss	21,472	19	1,647
2022 Assumption Change	496	24	33
2023 (Gain) or Loss	38,669	20	2,865
2023 Assumption Change	5,983	25	384
7/1/2023 Payment	163,435		
Total City	\$ 2,042,168		\$ 171,178
Basic	1,174,674		90,650
COLA	867,494		80,528

Dollar amounts in thousands

**CITY OF SAN JOSÉ FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
JUNE 30, 2023 ACTUARIAL VALUATION REPORT**

SECTION VI – CONTRIBUTIONS

The chart below shows the future payment schedule for the Tier 1 amortization bases in Table VI-2. The original 2009 UAL is shown in red, assumption changes are shown in purple; experience gain or loss bases are shown in gold, and benefit changes are shown in green. The blue line shows the net scheduled payment for each year.



**CITY OF SAN JOSÉ FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
JUNE 30, 2023 ACTUARIAL VALUATION REPORT**

SECTION VI – CONTRIBUTIONS

Table VI-3 below provides the payment schedule to amortize the Tier 2 UAL as of June 30, 2023. As of June 30, 2017, all amortization layers were reset to 10 years. Subsequent layers are amortized over 10 years from the valuation in which they are first recognized. The amortization payments increase 2.75% each year while payroll is expected to increase 3.00% each year. As a result, payments are expected to become a slightly smaller percentage of combined Tier 1 and Tier 2 payroll each year.

Table VI-3

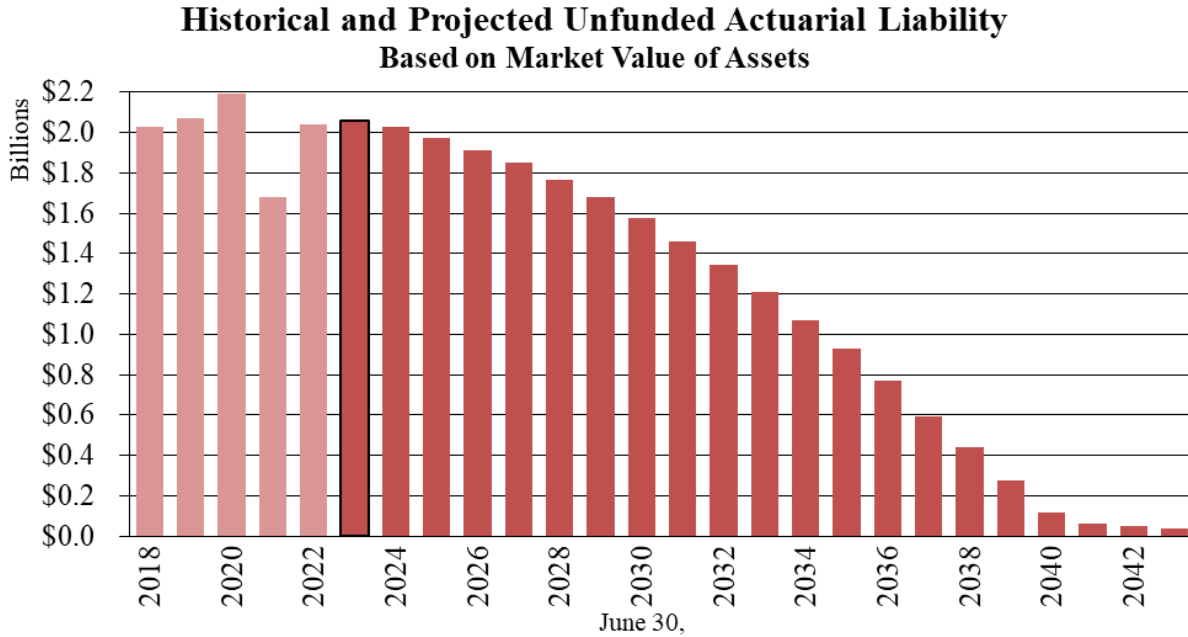
Tier 2 UAL Amortization			
	Outstanding Balance	Remaining Period	Amortization Payment
2013 (Gain) or Loss	\$ 26	4	\$ 7
2013 Assumption Changes	0	4	0
2014 (Gain) or Loss	(322)	4	(91)
2014 Assumption Changes	59	4	17
2015 (Gain) or Loss	464	4	131
2015 Assumption Changes	225	4	63
2016 (Gain) or Loss	(304)	4	(85)
2016 Assumption Changes	247	4	70
2017 (Gain) or Loss	(399)	4	(112)
Measure F	3,039	4	853
2017 Assumption Changes	895	4	252
2018 (Gain) or Loss	(1,464)	5	(336)
2018 Assumption Changes	897	5	206
2019 (Gain) or Loss	697	6	136
2019 Assumption Changes	(890)	6	(173)
2020 (G)/L	2,697	7	458
2020 Assumption Change	2,014	7	342
2021 (G)/L	(2,717)	8	(411)
2021 Assumption Change	191	8	29
2022 (G)/L	1,008	9	138
2022 Assumption Change	22	9	3
2023 (G)/L	7,745	10	970
2023 Assumption Change	16,589	10	2,078
7/1/2022 Payment	1,458		
Total Tier 2	\$ 32,177		\$ 4,545
Basic	23,987		3,332
COLA	8,190		1,213

Dollar amounts in thousands

**CITY OF SAN JOSÉ FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
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SECTION VI – CONTRIBUTIONS

The chart below shows the historical UAL based on the Market Value of Assets and its projected decline over the next 20 years if all assumptions are met and as scheduled amortization payments are made.



This amortization structure results in a total UAL rate of 39.9% of payroll for FYE 2025, which is more than the amount needed to pay the projected interest on the UAL based on the Market Value of Assets. As a result, the dollar amount of the UAL based on the Market Value of Assets is expected to decrease during FYE 2025.

Contributions for Administrative Expenses

For FYE 2024, contributions for administrative expenses were set equal to \$563 per member. For FYE 2025, the current assumption is \$5,790,747, which is the actual expenses for FYE 2023 increased by 3.0% for two years. Table VI-4 on the next page shows the number of members for each tier, the contributions for administrative expenses by tier, and the administrative expense contribution rates by tier for FYE 2024 and 2025. Prior to FYE 2025, Tier 1 members paid 3/11^{ths} of the administrative expenses. Starting with FYE 2025, Tier 1 members will not share in the cost of administrative expenses. Tier 2 members pay half of the administrative expenses expected for Tier 2.

**CITY OF SAN JOSÉ FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
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SECTION VI – CONTRIBUTIONS

Table VI-4

	Administrative Expense By Group			
	Fiscal Year Ending 2024		Fiscal Year Ending 2025	
	Tier 1	Tier 2	Tier 1	Tier 2
Members/Market Assets	6,750	3,489	\$ 2,668,050	\$ 239,263
Administrative Expense	\$ 3,799	\$ 1,963	\$ 5,314	\$ 477
Member Admin Expense Rate	0.80%	0.37%	0.00%	0.07%
Basic	0.49%	0.32%	0.00%	0.06%
COLA	0.31%	0.05%	0.00%	0.01%
City Admin Expense Rate	2.15%	0.37%	4.08%	0.07%
Basic	1.32%	0.32%	2.46%	0.06%
COLA	0.83%	0.05%	1.62%	0.01%

Dollar amounts in thousands

Contribution Rates and Amounts

Tier 1 members pay 3/11^{ths} of the total normal cost (excluding reciprocity normal cost), while the City pays 8/11^{ths} of the total normal cost (excluding reciprocity normal cost), all of the reciprocity normal cost, all administrative expenses, and 8/11^{ths} of the UAL payments shown above. The total contribution cannot be less than the normal cost.

For Tier 2, members and the City each pay half of the total normal cost, half of administrative expenses, and half of the UAL payments. However, the member's UAL contribution rate cannot increase by more than 0.33% of pay each year. The City contributes any amounts in excess of this cap that would otherwise be contributed by the member. The member and City contribution rates each cannot be less than 50% of the normal cost rate.

Tier 1 members who were rehired into Tier 2 and subsequently reclassified back into Tier 1 under Measure F pay half of the increased cost attributable to their Tier 2 service. The Board set a contribution rate of 3.0 percent of pay that applies to each individual member until they have paid off their individual UAL amount for reclassification. In addition, Tier 2 members who were defined as classic members due to reciprocal service were reclassified as Tier 1 members under Measure F. All classic members pay an additional contribution rate to pay half of the additional liability attributable to reclassifying these members. This contribution rate is recalculated with each valuation. Table VI-5 shows the reclassification contribution rates applicable to classic members for FYE 2024 and 2025.

**CITY OF SAN JOSÉ FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
JUNE 30, 2023 ACTUARIAL VALUATION REPORT**

SECTION VI – CONTRIBUTIONS

Table VI-5

	Classic Member Contribution Rate					
	Fiscal Year Ending 2024			Fiscal Year Ending 2025		
	Basic	COLA	Total	Basic	COLA	Total
Classic UAL Payment	\$ 45	\$ 32	\$ 77	\$ 46	\$ 33	\$ 79
Expected Classic Payroll			\$ 7,557			\$ 7,679
Classic Member Rate	0.60%	0.42%	1.02%	0.60%	0.43%	1.03%

Dollar amounts in thousands

Table VI-6 shows the components of the member contribution rates for FYE 2024 and 2025, including the average of the reclassification rates under Measure F over all Tier 1 payroll.

Table VI-6

	Member Contribution Rates					
	Fiscal Year Ending 2024			Fiscal Year Ending 2025		
	Basic	COLA	Total	Basic	COLA	Total
<u>Tier 1</u>						
Normal Cost Rate	4.68%	1.86%	6.54%	4.75%	1.86%	6.61%
Admin Expense Rate	<u>0.49%</u>	<u>0.31%</u>	<u>0.80%</u>	<u>0.00%</u>	<u>0.00%</u>	<u>0.00%</u>
Regular Member Rate	5.17%	2.17%	7.34%	4.75%	1.86%	6.61%
Average Reclassification Rate	<u>0.08%</u>	<u>0.06%</u>	<u>0.14%</u>	<u>0.08%</u>	<u>0.06%</u>	<u>0.14%</u>
Average Member Rate	5.25%	2.23%	7.48%	4.83%	1.92%	6.75%
<u>Tier 2</u>						
Normal Cost Rate	6.30%	1.06%	7.36%	6.66%	1.15%	7.81%
Admin Expense Rate	0.32%	0.05%	0.37%	0.06%	0.01%	0.07%
UAL Rate	<u>0.16%</u>	<u>0.12%</u>	<u>0.28%</u>	<u>0.54%</u>	<u>0.07%</u>	<u>0.61%</u>
Member Rate	6.78%	1.23%	8.01%	7.26%	1.23%	8.49%

**CITY OF SAN JOSÉ FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
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SECTION VI – CONTRIBUTIONS

Table VI-7 shows the City’s contribution rates and dollar amounts for FYE 2024 and 2025 assuming contributions are made throughout the fiscal year. The UAL rate is calculated as the payment shown in Tables VI-1 and VI-2 increased with one-half year of interest and divided by the projected payroll for the fiscal year. For FYE 2025, the projected payroll is \$130.1 million for Tier 1 and \$319.3 million for Tier 2.

Table VI-7

City Contribution Rates and Amounts Throughout the Year						
	Fiscal Year Ending 2024			Fiscal Year Ending 2025		
	Basic	COLA	Total	Basic	COLA	Total
Tier 1 UAL Payment	\$ 88,586	\$ 80,176	\$ 168,762	\$ 93,604	\$ 83,154	\$ 176,758
Tier 1 Admin Expenses	\$ 1,701	\$ 1,070	\$ 2,771	\$ 3,197	\$ 2,117	\$ 5,314
Tier 1 Normal Cost	\$ 16,613 12.89%	\$ 6,598 5.12%	\$ 23,211 18.01%	\$ 17,466 13.42%	\$ 6,910 5.31%	\$ 24,376 18.73%
Tier 2 Contribution	\$ 18,092 6.78%	\$ 3,282 1.23%	\$ 21,374 8.01%	\$ 23,184 7.26%	\$ 4,694 1.47%	\$ 27,878 8.73%
Aggregate Contribution	\$ 124,992 31.59%	\$ 91,126 23.02%	\$ 216,118 54.61%	\$ 137,451 30.58%	\$ 96,875 21.55%	\$ 234,326 52.13%

Dollar amounts in thousands

The City retains an option to make its Tier 1 contribution as a lump sum at the beginning of the fiscal year. Table VI-8 below shows the City contribution amounts for Tier 1 as of the beginning of the fiscal year assuming the Board elects to discount the amounts for one half year of interest at the valuation discount rate. Any amounts contributed after the beginning of the year should be adjusted for interest at the valuation discount rate.

Table VI-8

Estimated Tier 1 City Contribution Amounts - Beginning of Year						
	Fiscal Year Ending 2024			Fiscal Year Ending 2025		
	Basic	COLA	Total	Basic	COLA	Total
Tier 1						
Normal Cost	\$ 16,088	\$ 6,391	\$ 22,479	\$ 16,914	\$ 6,694	\$ 23,608
Admin Expenses	1,648	\$ 1,035	2,683	3,096	2,050	5,146
UAL	<u>85,790</u>	<u>77,645</u>	<u>163,435</u>	<u>90,650</u>	<u>80,528</u>	<u>171,178</u>
Total	\$ 103,526	\$ 85,071	\$ 188,597	\$ 110,660	\$ 89,272	\$ 199,932

Dollar amounts in thousands

**CITY OF SAN JOSÉ FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
JUNE 30, 2023 ACTUARIAL VALUATION REPORT**

SECTION VI – CONTRIBUTIONS

Table VI-9 reconciles the change in the Tier 1 and Tier 2 member and City contributions from the contribution rates and amounts calculated in the prior valuation. The asset experience shown in the table includes investment returns, contributions, and administrative expense experience. Assumption changes and demographic experience in 2023 increased the contribution rate, offset by investment experience. However, higher-than-expected payroll growth caused a net reduction in the contribution rate because the UAL payment is spread over a larger payroll, but it also caused an increase in the dollar amount of the contribution because the normal cost rate is charged on a larger payroll.

Table VI-9

Reconciliation of Changes in Contribution Rates and Amounts							
	Member Rate		Normal Cost	UAL Rate	City Aggregate		City Amount
	Tier 1	Tier 2			Total Rate	Projected Payroll	
FYE 2024 Contribution	7.48%	8.01%	10.83%	43.78%	54.61%	\$ 395,722	\$ 216,118
Expected FYE 2025	7.52%	7.95%	10.40%	43.48%	53.88%	407,594	219,614
Changes Due to:							
Asset experience	0.00%	-0.09%	0.00%	-0.27%	-0.27%	407,594	(1,101)
Demographic experience	-0.16%	0.25%	-0.10%	1.27%	1.17%	407,594	4,775
Payroll Change	0.00%	-0.04%	-0.08%	-4.02%	-4.10%	448,925	4,238
Assumption Change	<u>-0.61%</u>	<u>0.42%</u>	<u>0.75%</u>	<u>0.70%</u>	<u>1.45%</u>	<u>449,482</u>	<u>6,800</u>
Subtotal	-0.77%	0.54%	0.57%	-2.32%	-1.75%	\$ 449,482	\$ 14,712
FYE 2025 Contribution	6.75%	8.49%	10.97%	41.16%	52.13%	\$ 449,482	\$ 234,326

City administrative expenses are included in the UAL rate.

Dollar amounts in thousands

**CITY OF SAN JOSÉ FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
JUNE 30, 2023 ACTUARIAL VALUATION REPORT**

SECTION VII – ACTUARIAL SECTION OF THE ACFR

The Government Finance Officers Association (GFOA) maintains a checklist of items to be included in the System's Annual Comprehensive Financial Report (ACFR) in order to receive recognition for excellence in financial reporting. The schedules in this section are listed by the GFOA for inclusion in the Actuarial Section of the System's ACFR.

Table VII-1

Schedule of Funding Progress						
Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Liability (AL)	Unfunded AL	Funded Ratio	Covered Payroll	Unfunded AL as a % of Covered Payroll
6/30/2023 ¹⁰	\$ 2,889,956	\$ 4,965,668	\$ 2,075,712	58%	\$ 436,391	476%
6/30/2022 ⁹	2,709,625	4,750,646	2,041,021	57%	384,197	531%
6/30/2021 ⁸	2,513,095	4,562,981	2,049,886	55%	359,061	571%
6/30/2020 ⁷	2,301,469	4,401,083	2,099,614	52%	341,552	615%
6/30/2019 ⁶	2,228,802	4,200,708	1,971,906	53%	313,310	629%
6/30/2018 ⁵	2,179,488	4,100,821	1,921,333	53%	298,985	643%
6/30/2017 ⁴	2,101,435	3,923,966	1,822,531	54%	287,339	634%
6/30/2016 ³	2,034,741	3,786,730	1,751,989	54%	266,823	657%
6/30/2015 ²	2,004,481	3,569,898	1,565,417	56%	251,430	623%
6/30/2014 ¹	1,911,773	3,235,065	1,323,292	59%	234,677	564%

Dollar amounts in thousands

- ¹ Reducing the discount rate to 7.00% and eliminating the temporary 2% wage inflation increased the AL by \$103 million
- ² Demographic assumption changes increased the AL by \$192 million.
- ³ Reducing the discount rate from 7.00% to 6.875% increased the AL by \$60 million.
- ⁴ Measure F implementation increased the AL by \$14 million and assumption changes decreased the AL by \$16 million
- ⁵ Assumption changes, including reducing the discount rate from 6.875% to 6.75%, increased the AL by \$54 million
- ⁶ Assumption changes decreased the AL by \$3 million
- ⁷ Assumption changes, including reducing the discount rate from 6.75% to 6.625%, increased the AL by \$37 million
- ⁸ Assumption changes increased the AL by \$10 million
- ⁹ Assumption changes increased the AL by \$0.5 million
- ¹⁰ Assumption changes increased the AL by \$22.6 million

**CITY OF SAN JOSÉ FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
JUNE 30, 2023 ACTUARIAL VALUATION REPORT**

SECTION VII – ACTUARIAL SECTION OF THE ACFR

Table VII-2

Schedule of Funded Liabilities by Type								
Valuation Date	Actuarial Liability For				Reported Assets*	Portion of Actuarial Liability Covered by Reported Assets		
	(A)	(B)	(C)	(A)		(B)	(C)	
	Active Member Contributions	Retirees, Beneficiaries and Other Inactives	Remaining Active Members' Liabilities					
06/30/2023	\$ 262,269	\$ 3,668,531	\$ 1,034,868	\$ 2,889,956	100%	72%	0%	
06/30/2022	246,803	3,575,879	927,964	2,709,625	100%	69%	0%	
06/30/2021	241,016	3,443,968	877,997	2,513,095	100%	66%	0%	
06/30/2020	234,385	3,308,069	858,629	2,301,469	100%	62%	0%	
06/30/2019	228,905	3,150,673	821,130	2,228,802	100%	63%	0%	
06/30/2018	230,282	3,002,012	868,527	2,179,488	100%	65%	0%	
06/30/2017	236,819	2,830,143	857,004	2,101,435	100%	66%	0%	
06/30/2016	240,872	2,722,224	823,634	2,034,741	100%	66%	0%	
06/30/2015	243,828	2,553,892	772,178	2,004,481	100%	69%	0%	
06/30/2014	233,289	2,331,656	670,120	1,911,773	100%	72%	0%	

* Actuarial Value of Assets

Dollar amounts in thousands

Table VII-3

Analysis of Financial Experience						
Actuarial Valuation Date	Gain or (Loss) for Year Ending on Valuation Date Due To:					
	Investment Income	Combined Liability Experience	Total Financial Experience	Non-Recurring Items	Total Experience	
6/30/2023	\$ 18,329	\$ (64,743)	\$ (46,414)	\$ (22,572)	\$ (68,985)	
6/30/2022	31,034	(53,747)	(22,713)	(518)	(23,231)	
6/30/2021	76,461	(32,329)	44,132	(9,687)	34,446	
6/30/2020	(67,979)	(32,761)	(100,741)	(36,981)	(137,722)	
6/30/2019	(88,845)	(4,283)	(93,129)	39,030	(54,099)	
6/30/2018	(49,921)	4,702	(45,219)	(56,306)	(101,525)	
6/30/2017	(44,650)	(13,819)	(58,468)	1,813	(56,655)	
6/30/2016	(81,539)	(29,989)	(111,528)	(60,233)	(171,761)	
6/30/2015	(3,641)	(45,998)	(49,639)	(191,527)	(241,167)	
6/30/2014	39,675	(13,600)	26,075	(103,404)	(77,329)	

Dollar amounts in thousands

**CITY OF SAN JOSÉ FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
JUNE 30, 2023 ACTUARIAL VALUATION REPORT**

APPENDIX A – MEMBERSHIP INFORMATION

Data Assumptions and Methods

In preparing our data, we relied on information supplied by the San José Department of Retirement Services. This information includes, but is not limited to, plan provisions, employee data, and financial information. Our methodology for obtaining the data used for the valuation is based upon the following assumptions and practices:

- Records on the “Active” data file are considered to be Active if they do not have a reason for termination.
- Records on any of the data files are considered to be Inactive if they have a reason for termination of deferred vested or leave of absence/inactive.
- Records on the “Retiree” and “Beneficiary/QDRO” files are considered in pay status if they do not have a date of death, are not inactive, and have not withdrawn from the plan.
- All active employees are assumed to accrue a full year of service in all future years.
- Service for inactives that have no service amount is calculated to be the time from date of hire to date of termination.
- The expected annual salary for Tier 1 full-time active employees is calculated to be “compensation rate 2 earnable” multiplied by the expected pay periods for the year and increased by any expected pay increases.
- The expected annual salary for Tier 1 part-time active employees and all Tier 2 active employees is calculated to be 80 hours multiplied by their hourly rate of pay in the pay period immediately preceding the valuation date, multiplied by the expected pay periods for the year and increased by any expected pay increase.
- The Tier 1 annual benefit for inactives is set to be the accrued benefit provided. If an accrued benefit is not provided, then the annual benefit is calculated to be 2.5% of final compensation per year of service in Tier 1, up to a maximum of 75% of final compensation. Members who terminated prior to June 30, 2001 have their final compensation adjusted for a three-year average rather than a 12-month average.
- The Tier 2 annual benefit for inactives is set to be the accrued benefit provided. If an accrued benefit is not provided, then the annual benefit is calculated to be 2.0% of final compensation per year of service in Tier 2, up to a maximum of 70% of final compensation. The final compensation is adjusted for a three-year average.
- We assume any member found in last year’s “Retiree” file and not in this year’s file is deceased without a beneficiary and should be removed from the valuation data.
- We assume all deceased members with payments continuing to a beneficiary have already been accounted for in the “Retiree” file.

Changes since Last Valuation

The June 30, 2022 inactive statistics breakdown by status in Table A-5 and Table A-9 differ from the prior valuation due to the assumption change regarding reciprocity for inactive members.

**CITY OF SAN JOSÉ FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
JUNE 30, 2023 ACTUARIAL VALUATION REPORT**

APPENDIX A – MEMBERSHIP INFORMATION

Table A-1

Active Member Data				
	June 30, 2022	June 30, 2023	% Change	
<u>Tier 1</u>				
Count	1,292	1,197	-7.4%	
Average Current Age	51.7	52.2	1.0%	
Average Eligibility Service	18.9	19.7	4.2%	
Average Benefit Service	18.2	19.0	4.4%	
Annual Expected Pensionable Earnings	\$ 149,444,664	\$ 148,586,087	-0.6%	
Average Expected Pensionable Earnings	\$ 115,669	\$ 124,132	7.3%	
<u>Tier 2</u>				
Count	2,500	2,851	14.0%	
Average Current Age	39.2	39.3	0.3%	
Average Eligibility Service	4.0	4.2	5.0%	
Average Benefit Service	3.9	4.0	2.6%	
Average Expected Pensionable Earnings	\$ 93,901	\$ 100,949	7.5%	
<u>Total</u>				
Count	3,792	4,048	6.8%	
Average Current Age	43.4	43.1	-0.7%	
Average Eligibility Service	9.1	8.8	-3.3%	
Average Benefit Service	8.8	8.5	-3.4%	
Average Expected Pensionable Earnings	\$ 101,318	\$ 107,804	6.4%	

Table A-2

Schedule of Active Member Data				
Valuation Date	Active Count	Annual Payroll	Average Annual Pay	Percent Change in Average Pay
2023	4,048	\$ 436,391,000	\$ 107,804	6.4%
2022	3,792	384,197,000	101,318	6.5%
2021	3,775	359,061,000	95,115	4.2%
2020	3,742	341,552,000	91,275	5.4%
2019	3,617	313,310,000	86,622	3.0%
2018	3,554	298,985,000	84,126	-0.2%
2017	3,410	287,339,000	84,264	4.1%
2016	3,297	266,823,000	80,929	4.2%
2015	3,236	251,430,000	77,698	3.3%
2014	3,121	234,677,000	75,193	3.0%

**CITY OF SAN JOSÉ FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
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APPENDIX A – MEMBERSHIP INFORMATION

Table A-3

Payee Member Data			
	June 30, 2022	June 30, 2023	%Change
Retired			
Count	3,829	3,894	1.7%
Average Age	70.4	70.7	0.4%
Average Annual Benefit	\$ 56,826	\$ 58,075	2.2%
Service Disability			
Count	114	113	- 0.9%
Average Age	68.6	69.0	0.6%
Average Annual Benefit	\$ 41,536	\$ 42,568	2.5%
Non-Service Disability			
Count	68	66	- 2.9%
Average Age	68.7	69.3	0.9%
Average Annual Benefit	\$ 36,052	\$ 37,139	3.0%
Beneficiaries & SADROs			
Count	546	553	1.3%
Average Age	75.3	75.7	0.5%
Average Annual Benefit	\$ 32,573	\$ 34,193	5.0%
Total			
Count	4,557	4,626	1.5%
Average Age	70.9	71.2	0.4%
Average Annual Benefit	\$ 53,228	\$ 54,542	2.5%

Table A-4

Schedule Of Retirees And Beneficiaries Added To And Removed From Rolls										
Period	Beginning of Period		Added to Rolls		Removed from Rolls		End of Period		% Increase in Annual Allowances	Average Annual Allowances
	Count	Annual Allowances	Count	Annual Allowances	Count	Annual Allowances	Count	Annual Allowances		
2022-2023	4,557	\$ 241,253	185	\$ 7,810	116	\$ 5,251	4,626	\$ 252,313	4.6%	\$ 55
2021-2022	4,511	232,043	173	8,440	127	5,463	4,557	241,253	4.0%	53
2020-2021	4,441	221,575	188	9,246	118	5,090	4,511	232,043	4.7%	51
2019-2020	4,359	210,350	208	9,499	126	4,596	4,441	221,575	5.3%	50
2018-2019	4,225	198,157	230	10,394	96	3,634	4,359	210,350	6.2%	48
2017-2018	4,115	187,714	223	9,133	113	3,994	4,225	198,157	5.6%	47
2016-2017	4,003	177,751	225	8,843	113	3,894	4,115	187,714	5.6%	46
2015-2016	3,901	168,917	212	7,907	110	3,904	4,003	177,751	5.2%	44
2014-2015	3,800	159,124	200	8,266	99	3,122	3,901	168,917	6.2%	43
2013-2014	3,711	150,934	194	7,274	105	3,405	3,800	159,124	5.4%	42

Dollar amounts in thousands

**CITY OF SAN JOSÉ FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
JUNE 30, 2023 ACTUARIAL VALUATION REPORT**

APPENDIX A – MEMBERSHIP INFORMATION

Table A-5

Inactive Member Data			
	June 30, 2022	June 30, 2023	%Change
Tier 1			
Terminated Vested			
Count	707	677	-4.2%
Average Age	49.3	49.7	0.8%
Average Annual Benefit	\$ 22,919	\$ 23,451	2.3%
Average Contribution Balance with Interest	\$ 84,465	\$ 87,342	3.4%
Non-Vested Terminated			
Count	221	216	-2.3%
Average Age	48.8	49.7	1.8%
Average Annual Benefit	\$ 3,738	\$ 3,750	0.3%
Average Contribution Balance with Interest	\$ 18,672	\$ 19,398	3.9%
Total			
Count	928	893	-3.8%
Average Age	49.2	49.7	1.0%
Average Annual Benefit	\$ 18,351	\$ 18,686	1.8%
Average Contribution Balance with Interest	\$ 68,797	\$ 70,907	3.1%
Tier 2			
Terminated Vested			
Count	153	205	34.0%
Average Age	41.5	41.9	1.0%
Average Annual Benefit	\$ 10,351	\$ 10,573	2.1%
Average Contribution Balance with Interest	\$ 37,934	\$ 39,453	4.0%
Non-Vested Terminated			
Count	809	921	13.8%
Average Age	38.6	38.5	-0.3%
Average Annual Benefit	\$ 2,570	\$ 2,514	-2.2%
Average Contribution Balance with Interest	\$ 10,791	\$ 10,854	0.6%
Total			
Count	962	1,126	17.0%
Average Age	39.0	39.1	0.3%
Average Annual Benefit	\$ 3,807	\$ 3,981	4.6%
Average Contribution Balance with Interest	\$ 15,108	\$ 16,060	6.3%
Total			
Count	1,890	2,019	6.8%
Average Age	44.0	43.8	-0.5%
Average Annual Benefit	\$ 10,948	\$ 10,485	-4.2%
Average Contribution Balance with Interest	\$ 41,469	\$ 40,319	-2.8%

If not provided in the data, benefit is calculated using the data assumptions outlined in Appendix A.

**CITY OF SAN JOSÉ FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
JUNE 30, 2023 ACTUARIAL VALUATION REPORT**

APPENDIX A – MEMBERSHIP INFORMATION

Table A-6

Distribution of Active Member Counts as of June 30, 2023

Age	Years of Benefit Service										Total	
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 and up		
Under 25	67	28	0	0	0	0	0	0	0	0	0	95
25 to 29	175	261	29	0	0	0	0	0	0	0	0	465
30 to 34	125	297	204	5	0	0	0	0	0	0	0	631
35 to 39	65	180	232	37	12	0	0	0	0	0	0	526
40 to 44	55	125	187	77	58	27	0	0	0	0	0	529
45 to 49	42	95	132	40	93	108	11	0	0	0	0	521
50 to 54	35	70	86	35	76	141	51	4	0	0	0	498
55 to 59	22	73	88	28	49	77	39	7	0	0	0	383
60 to 64	17	48	53	26	36	40	15	4	0	0	0	239
65 to 69	5	15	35	11	22	25	7	4	0	1	1	125
70 and up	3	1	4	4	8	6	5	2	2	2	1	36
Total Count	611	1,193	1,050	263	354	424	128	21	2	2		4,048

Distribution of Average Expected Salaries as of June 30, 2023

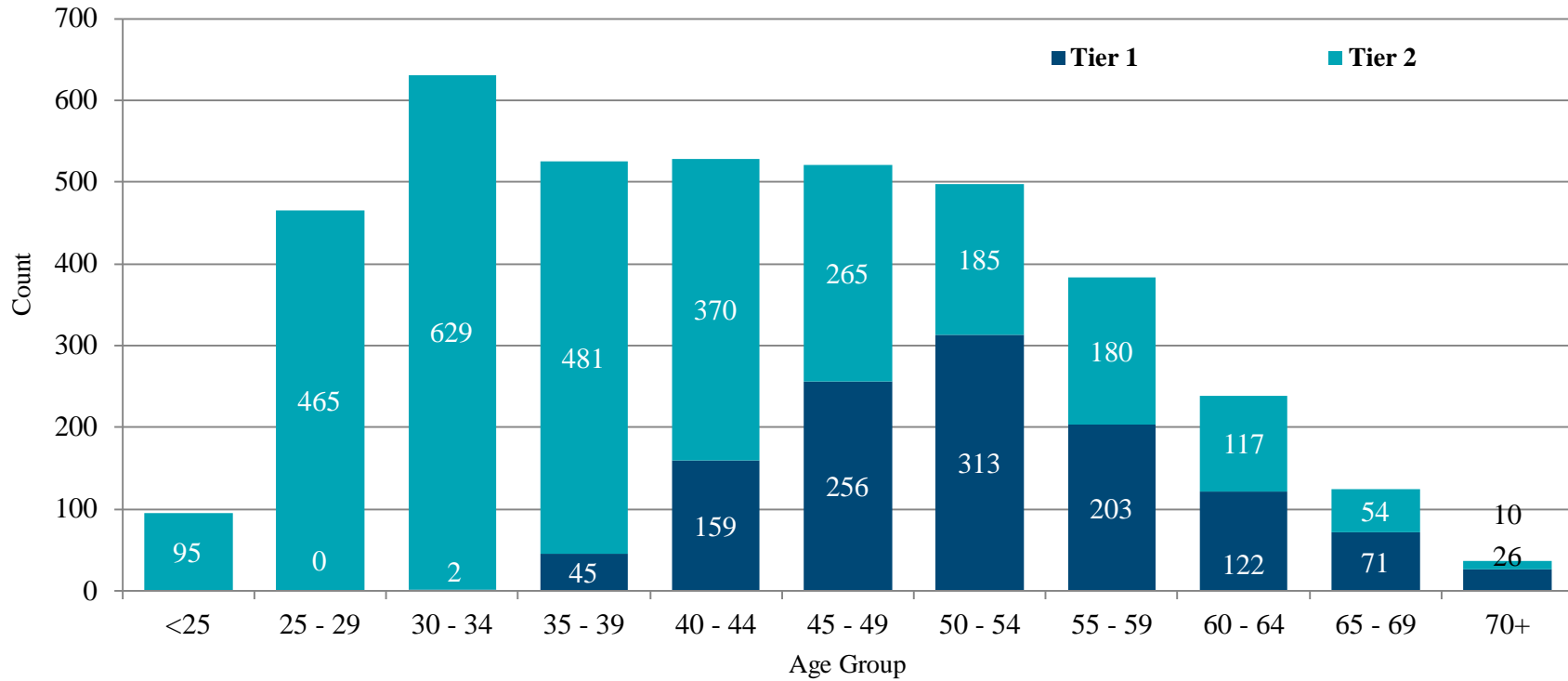
Age	Years of Benefit Service										Total	
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 and up		
Under 25	\$ 72,715	\$ 75,124	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 73,425
25 to 29	78,301	88,920	90,809	0	0	0	0	0	0	0	0	85,042
30 to 34	89,771	94,097	102,809	126,861	0	0	0	0	0	0	0	96,316
35 to 39	87,962	93,811	109,929	119,097	127,180	0	0	0	0	0	0	102,737
40 to 44	113,874	103,542	108,213	127,313	127,291	117,994	0	0	0	0	0	113,069
45 to 49	110,300	109,025	120,918	130,455	119,963	120,138	123,004	0	0	0	0	118,337
50 to 54	101,204	105,199	119,282	132,149	122,428	127,835	128,930	122,192	0	0	0	120,849
55 to 59	109,282	121,383	116,681	120,391	132,201	121,013	120,021	184,515	0	0	0	121,860
60 to 64	98,738	109,460	116,685	117,493	125,637	114,828	138,784	93,747	0	0	0	116,086
65 to 69	96,968	121,144	118,241	135,347	119,140	123,982	96,861	124,146	0	87,609	0	119,297
70 and up	90,643	245,649	94,995	156,934	88,906	110,390	97,683	115,130	196,455	65,906	0	113,233
Avg. Salary	\$ 89,674	\$ 98,061	\$ 110,986	\$ 126,349	\$ 123,456	\$ 122,308	\$ 123,887	\$ 137,248	\$ 196,455	\$ 76,757	\$ 0	\$ 107,804

**CITY OF SAN JOSÉ FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
JUNE 30, 2023 ACTUARIAL VALUATION REPORT**

APPENDIX A – MEMBERSHIP INFORMATION

Chart A-1

Active Count Distribution



**CITY OF SAN JOSÉ FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
JUNE 30, 2023 ACTUARIAL VALUATION REPORT**

APPENDIX A – MEMBERSHIP INFORMATION

Table A-7

Retirees and Disabled by Attained Age and Benefit Effective Date as of June 30, 2023

Benefit Effective Fiscal Year End	Age										Total
	Under 50	50 to 54	55 to 59	60 to 64	65 to 69	70 to 74	75 to 79	80 to 84	85 to 89	90 and up	
Prior to 1995	0	0	1	2	4	7	8	58	91	93	264
1996	0	0	2	0	1	1	0	14	3	4	25
1997	0	0	0	1	0	1	2	28	7	3	42
1998	0	0	0	1	1	1	2	22	8	5	40
1999	0	0	0	0	1	5	12	35	2	6	61
2000	0	0	0	0	0	3	34	20	7	1	65
2001	0	0	0	1	0	4	33	18	9	2	67
2002	0	0	0	1	1	6	69	22	12	1	112
2003	0	0	1	0	2	12	59	21	4	1	100
2004	1	0	1	3	3	29	61	13	6	0	117
2005	0	0	0	1	4	54	49	27	8	3	146
2006	0	2	1	4	11	60	37	21	2	0	138
2007	0	0	1	0	13	67	35	13	2	3	134
2008	0	0	1	2	13	77	35	14	3	0	145
2009	0	0	3	3	33	61	28	6	0	0	134
2010	0	0	0	8	78	59	41	8	2	1	197
2011	0	1	1	15	117	113	57	15	3	1	323
2012	0	0	0	14	96	52	32	10	1	0	205
2013	0	1	0	8	90	23	14	0	1	0	137
2014	1	1	3	38	68	21	10	2	0	0	144
2015	0	0	7	85	31	26	9	1	1	0	160
2016	0	0	10	93	21	33	8	0	0	1	166
2017	0	0	13	97	40	23	6	1	0	0	180
2018	0	1	5	105	35	20	10	3	1	0	180
2019	0	4	45	90	27	25	2	1	0	0	194
2020	0	5	76	45	23	9	1	1	0	0	160
2021	0	4	81	34	20	12	3	0	0	0	154
2022	0	6	67	28	26	10	0	1	0	0	138
2023	0	4	81	26	25	8	1	0	0	0	145
Total	2	29	400	705	784	822	658	375	173	125	4,073

Average Age at Retirement/Disability 57.6
Average Current Age 70.6
Average Annual Pension \$ 57,305



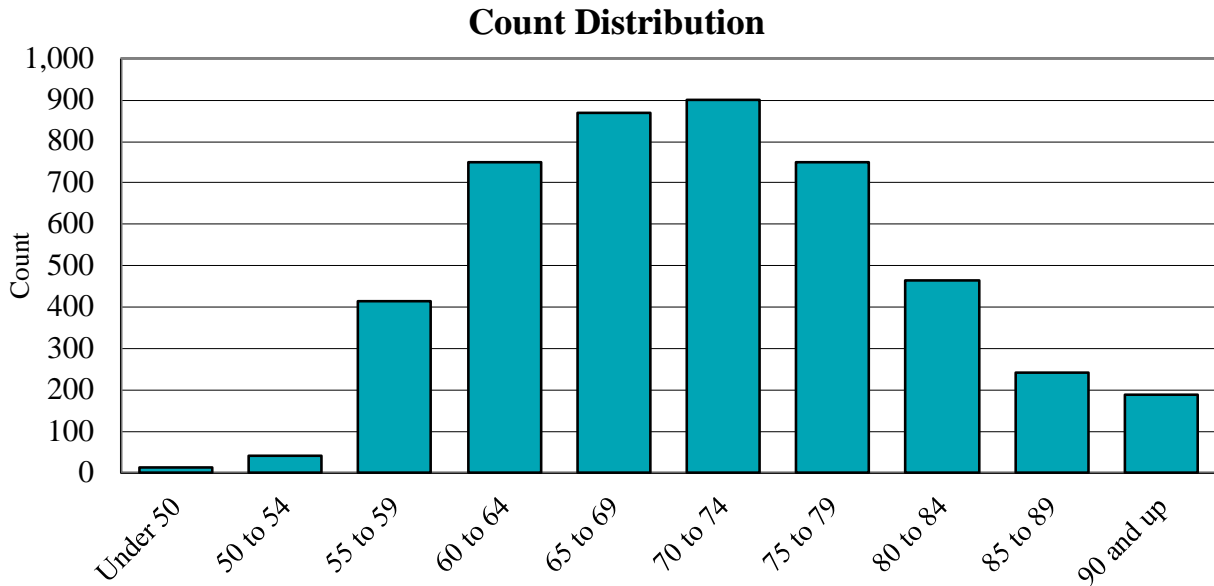
**CITY OF SAN JOSÉ FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
JUNE 30, 2023 ACTUARIAL VALUATION REPORT**

APPENDIX A – MEMBERSHIP INFORMATION

Table A-8

Distribution of Retirees, Disabled Members, and Beneficiaries as of June 30, 2023		
Age	Count	Annual Benefit
Under 50	12	\$ 338,271
50 to 54	40	2,566,531
55 to 59	415	21,934,377
60 to 64	749	42,292,786
65 to 69	868	48,674,739
70 to 74	902	52,254,908
75 to 79	749	42,197,399
80 to 84	463	24,001,309
85 to 89	241	10,940,087
90 and up	<u>187</u>	<u>7,112,321</u>
Total	4,626	\$ 252,312,729

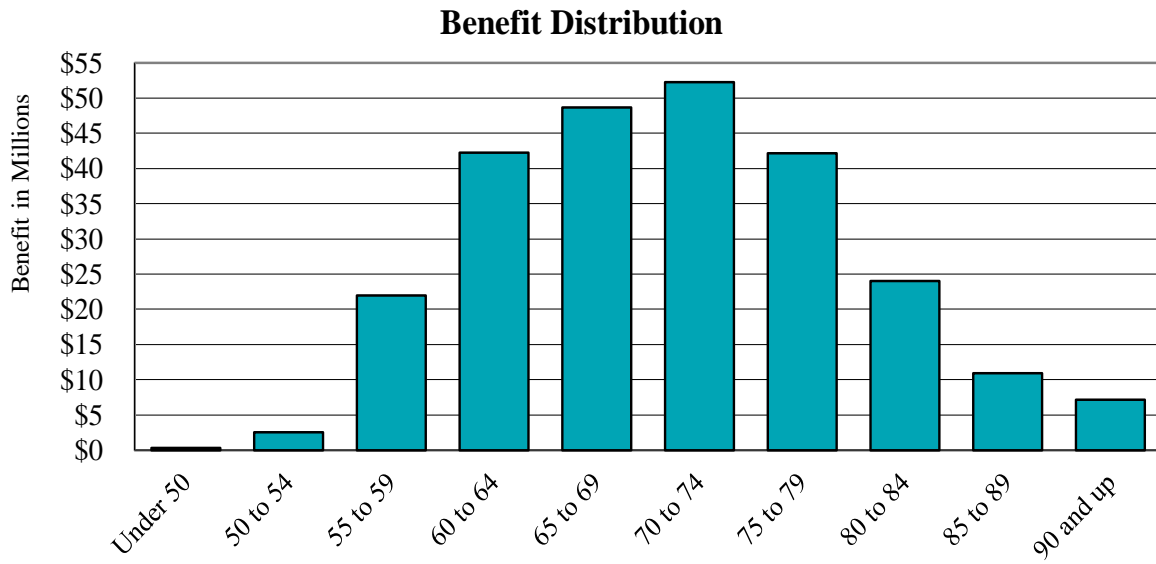
Chart A-2



CITY OF SAN JOSÉ FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
JUNE 30, 2023 ACTUARIAL VALUATION REPORT

APPENDIX A – MEMBERSHIP INFORMATION

Chart A-3



**CITY OF SAN JOSÉ FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
JUNE 30, 2023 ACTUARIAL VALUATION REPORT**

APPENDIX A – MEMBERSHIP INFORMATION

Table A-9

Change in Plan Membership							
TIER 1							
	Actives	Terminated Vested	Non-Vested Terminated	Retirees	Disabilities	Beneficiary/SADRO	Total
June 30, 2022	1,292	707	221	3,802	182	546	6,750
New Entrants	0	0	0	0	0	0	0
Rehires	6	(6)	0	0	0	0	0
Non-Vested Terminated	(1)	0	1	0	0	0	0
Terminated Vested	(26)	26	0	0	0	0	0
Return of Contributions	0	(4)	0	0	0	0	(4)
Disabilities	0	(1)	0	(1)	2	0	0
Retirements	(77)	(46)	0	123	0	0	0
Deaths	(3)	(3)	0	(82)	(5)	36	(57)
Beneficiary Deaths	0	0	0	0	0	(27)	(27)
Benefit Ceased	0	0	0	0	0	(2)	(2)
Tier Adjustment	0	0	0	0	0	0	0
Miscellaneous Adjustments	6	4	(6)	3	0	0	7
June 30, 2023	1,197	677	216	3,845	179	553	6,667
TIER 2							
June 30, 2022	2,500	153	809	27	0	0	3,489
New Entrants	564	0	42	0	0	0	606
Rehires	18	(4)	(14)	0	0	0	0
Non-Vested Terminated	(116)	0	116	0	0	0	0
Terminated Vested	(60)	60	0	0	0	0	0
Return of Contributions	(34)	(5)	(32)	0	0	0	(71)
Disabilities	0	0	0	0	0	0	0
Retirements	(20)	0	0	20	0	0	0
Deaths	0	0	(1)	0	0	0	(1)
Beneficiary Deaths	0	0	0	0	0	0	0
Tier Adjustment	0	0	0	0	0	0	0
Miscellaneous Adjustments	(1)	1	1	2	0	0	3
June 30, 2023	2,851	205	921	49	0	0	4,026
TOTAL							
June 30, 2022	3,792	860	1,030	3,829	182	546	10,239
New Entrants	564	0	42	0	0	0	606
Rehires	24	(10)	(14)	0	0	0	0
Non-Vested Terminated	(117)	0	117	0	0	0	0
Terminated Vested	(86)	86	0	0	0	0	0
Return of Contributions	(34)	(9)	(32)	0	0	0	(75)
Disabilities	0	(1)	0	(1)	2	0	0
Retirements	(97)	(46)	0	143	0	0	0
Deaths	(3)	(3)	(1)	(82)	(5)	36	(58)
Beneficiary Deaths	0	0	0	0	0	(27)	(27)
Benefit Ceased	0	0	0	0	0	(2)	(2)
Miscellaneous Adjustments	5	5	(5)	5	0	0	10
June 30, 2023	4,048	882	1,137	3,894	179	553	10,693

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

Actuarial Assumptions

The price inflation, wage inflation, amortization payment growth, and discount rates were adopted by the Board of Administration with our input at the October 19, 2023 Board meeting. All other assumptions were adopted at the November 16, 2023 Board meeting based on recommendations from our experience study covering plan experience through June 30, 2023. Please refer to the full experience study report and the November 16, 2023 Board presentation for details, including the rationale for each assumption.

1. Discount Rate

6.625%. The Board expects a long-term rate of return of 8.8% based on Meketa's 2023 20-year capital market assumptions and the System's current investment policy. A margin for adverse deviation was used to improve the probability of achieving the discount rate.

2. Wage Inflation and Payroll Growth

Reflect currently bargained increases for FYE 2024, 4.5% effective July 1, 2024, 3.5% effective July 1, 2025, and 3.00% thereafter. These increases approximate the bargained increases for the largest bargaining groups.

3. Amortization Payment Growth

2.75%, compounded annually.

4. Price Inflation

2.50%, compounded annually.

5. Administrative Expenses

Administrative expenses are assumed to equal the prior year's actual administrative expenses increased by the ultimate wage inflation assumption to the year of the contribution. Administrative expenses are allocated to each tier in proportion to each tier's market value of assets.

**CITY OF SAN JOSÉ FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
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APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

6. Salary Increase Rate

In addition to the wage inflation component shown above, the following merit component is added based on an individual member's years of service:

Table B-1 Salary Merit Increases			
Years of Service	Merit/ Longevity	Years of Service	Merit/ Longevity
0	3.25%	10	1.00
1	3.25	11	0.85
2	3.05	12	0.70
3	2.75	13	0.55
4	2.40	14	0.45
5	2.10	15	0.40
6	1.85	16	0.35
7	1.60	17	0.30
8	1.35	18+	0.25
9	1.20		

7. Rates of Termination

Rates of termination are shown in the following Table B-2.

Table B-2 Rates of Termination			
Years of Service	Termination Rate	Years of Service	Termination Rate
0	15.00%	8	5.50
1	12.75	9	4.75
2	11.75	10	4.25
3	10.75	11	4.00
4	9.75	12	3.75
5	8.75	13	3.50
6	7.75	14	3.25
7	6.50	15+	3.25

Termination rates do not apply once a member is eligible for retirement.

**CITY OF SAN JOSÉ FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
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APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

8. Rates of Refund for Current Active Members

Applied before Rates of Reciprocity assumption

Tier 1:

Rates of vested terminated electing a refund of contributions are shown in the following Table B-3.

Table B-3 Rates of Refund		
Years of Service	Younger than Age 45	Ages 45 and Older
0-4	100.0%	100.0%
5	20.0	15.0
6	18.0	12.5
7	16.5	10.0
8	15.0	8.0
9	13.5	6.0
10	12.0	5.0
11	10.0	5.0
12	8.0	5.0
13	6.0	5.0
14	3.0	2.5
15+	0.0	0.0

Refund rates do not apply once a member is eligible for retirement.

Tier 2:

Future vested terminated employees are assumed to take a refund if it exceeds the actuarial present value of their deferred benefit payment.

100% of future non-vested terminated employees are assumed to receive a refund of contributions.

9. Rate of Reciprocity for Current Active Members

Applied after Rates of Refund assumption

40% of future terminating employees who do not take a refund are assumed to subsequently work for a reciprocal employer and receive annual pay increases equal to the ultimate wage inflation assumption (3.00%) plus 1.00%.

**CITY OF SAN JOSÉ FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
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APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

10. Refund and Reciprocity for Current Terminated Members

40% of current terminated employees who have not taken a refund are assumed to subsequently work for a reciprocal employer and receive annual pay increases equal to the ultimate wage inflation assumption (3.00%) plus 1.00%.

60% of non-vested terminated members are expected to take a refund, and 60% of vested terminated members are expected to take a deferred benefit payment.

11. Deferred Vested Member Retirement Age

Tier 1 terminated vested members are assumed to retire from age 57 and Tier 2 terminated vested members are assumed to retire at age 62.

**CITY OF SAN JOSÉ FEDERATED CITY EMPLOYEES' RETIREMENT SYSTEM
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APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

12. Rates of Retirement for Tier 1 Members

Rates of retirement for Tier 1 members are based on age and service as shown in the following Table B-4 – Tier 1.

Table B-4 – Tier 1 Rates of Retirement by Age and Service				
Age	Years of Service			
	Less than 15	15 to 24	25 to 29	30 or more
50	0.0%	0.0%	0.0%	75.0%
51	0.0	0.0	0.0	60.0
52	0.0	0.0	0.0	55.0
53	0.0	0.0	0.0	55.0
54	0.0	0.0	0.0	55.0
55	7.0	25.0	55.0	55.0
56	7.0	14.0	25.0	55.0
57	7.0	14.0	25.0	40.0
58	7.0	14.0	25.0	30.0
59	7.0	14.0	25.0	30.0
60	7.0	14.0	25.0	30.0
61	10.0	14.0	25.0	20.0
62	15.0	14.0	25.0	20.0
63	15.0	14.0	20.0	20.0
64	15.0	14.0	20.0	20.0
65	20.0	18.0	30.0	20.0
66	20.0	18.0	40.0	20.0
67	20.0	25.0	50.0	20.0
68	25.0	25.0	50.0	20.0
69	25.0	25.0	50.0	20.0
70+	100.0	100.0	100.0	100.0

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APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

13. Rates of Retirement for Tier 2 Members

Rates of retirement for Tier 2 members are based on age and service as shown in the following Table B-4 – Tier 2.

Table B-4 – Tier 2 Tier 2 Rates of Retirement by Age and Service				
Age	Years of Service			
	Less than 15	15 to 24	25 to 34	35 or more
55	5.0%	5.0%	7.5%	100%
56	5.0	5.0	7.5	100
57	5.0	5.0	7.5	100
58	5.0	5.0	7.5	100
59	5.0	7.5	10.0	100
60	5.0	10.0	15.0	100
61	5.0	10.0	15.0	100
62	15.0	25.0	50.0	100
63	7.5	15.0	25.0	100
64	12.5	15.0	25.0	100
65	17.5	30.0	50.0	100
66	17.5	30.0	50.0	100
67	17.5	30.0	50.0	100
68	17.5	30.0	50.0	100
69	17.5	30.0	50.0	100
70+	100.0	100.0	100.0	100

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14. Rates of Disability

Disability rates are equal to the 0.956 times the CalPERS 2021 non-industrial disability incidence rates for miscellaneous public agencies, blended 55% male and 45% female. Sample disability rates of active members are provided in Table B-5.

Table B-5 Rates of Disability at Selected Ages	
Age	Disability
25	0.0233%
30	0.0289
35	0.0529
40	0.1187
45	0.2325
50	0.3174
55	0.2508
60	0.2075
65+	0.2394

50% of disabilities are assumed to be duty related, and 50% are assumed to be non-duty related.

15. Base Rates of Mortality

Base mortality rates are based on the sex-distinct employee and retiree mortality tables shown below.

Table B-6 Base Mortality Tables		
Category	Male	Female
Healthy Retirees and Beneficiaries	0.995 times the 2010 Public General Mortality Table (PubG-2010) for Healthy Retirees	1.020 times the 2010 Public General Mortality Table (PubG-2010) for Healthy Retirees
Healthy Non-Annuitant	0.992 times the 2010 Public General Mortality Table (PubG-2010) for Healthy Employees	1.084 times the 2010 Public General Mortality Table (PubG-2010) for Healthy Employees
Disabled Retirees	0.990 times the 2010 Public General Mortality Table (PubG-2010) for Disabled Retirees	0.920 times the 2010 Public General Mortality Table (PubG-2010) for Disabled Retirees

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

16. Rates of Mortality Improvement

Future mortality improvements are reflected by applying the MP-2021 projection scale issued by the Society of Actuaries on a generational basis from the base year of 2010.

17. Family Composition

Percentage married is shown in the following Table B-7. Male retirees are assumed to be two years older than their partner, and female retirees are assumed to be two years younger than their partner.

Table B-7 Percentage Married	
Gender	Percentage
Males	80%
Females	60%

18. Changes Since the Last Valuation

The wage inflation assumption was updated to reflect currently bargained agreements for FYE 2024 through FYE 2026.

Demographic assumptions were updated based on the most recent experience study covering the period through June 30, 2023. Please refer to our demographic experience study report for more detail and an explanation of the rationale for these changes.

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

Contribution Allocation Procedure

The contribution allocation procedure primarily consists of an actuarial cost method, an asset smoothing method, and an amortization method as described below. This contribution allocation procedure, combined with reasonable assumptions, produces a Reasonable Actuarially Determined Contribution as defined in Actuarial Standard of Practice No. 4. The contribution allocation procedure was selected to balance benefit security, intergenerational equity, and the stability of actuarially determined contributions. The selection also considered the demographics of plan members, the funding goals and objectives of the Board, and the need to accumulate assets to make benefit payments when due.

1. Actuarial Cost Method

The Entry Age actuarial cost method was used for active employees, whereby the normal cost is computed as the level annual percentage of pay required to fund all benefits between each member's date of hire and last assumed date of employment. The Actuarial Liability is the difference between the present value of future benefits and the present value of future normal costs. Or, equivalently, it is the accumulation of normal costs for all periods prior to the valuation date. The normal cost and Actuarial Liability are calculated on an individual basis. The sum of the individual amounts is the normal cost and Actuarial Liability for the System. The Actuarial Liability for the System represents the target amount of assets the System should have as of the valuation date according to the actuarial cost method.

2. Asset Valuation Method

For the purpose of determining contribution rates and amounts, an Actuarial Value of Assets is used that dampens the effects of volatility in the market value of assets on the pattern of contributions..

The Actuarial Value of Assets is calculated by recognizing 20% of the difference in each of the prior four years of actual investment returns compared to the expected return on the Market Value of Assets.

3. Amortization Method

The Unfunded Actuarial Liability is the difference between the Actuarial Liability and the Actuarial Value of Assets.

The Tier 1 Unfunded Actuarial Liability as of June 30, 2009 is amortized over a closed 30-year period commencing June 30, 2009. Tier 1 actuarial gains and losses and plan changes are amortized over 20-year periods and Tier 1 assumption changes are amortized over 25-year periods beginning with the valuation date in which they first arise. Effective June 30, 2017, all prior assumption amortization base periods were increased by 5 years so they have the same remaining period as if they had originally been amortized over 25 years. Amortization payments are scheduled to increase 2.75% each year.

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APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

The Tier 2 Unfunded Actuarial Liability as of June 30, 2017 is amortized over a closed 10-year period. Future Tier 2 actuarial gains and losses, assumption changes, and plan changes will be amortized over 10-year periods beginning with the valuation date in which they first arise. Amortization payments are scheduled to increase 2.75% each year.

4. Contributions

The Board adopted a policy in 2010 and modified it in 2015 setting the City's contribution to be the UAL contribution amount reported in the actuarial valuation plus the greater of the normal cost dollar amount reported in the actuarial valuation (adjusted for interest based on the time of the contribution) and the dollar amount determined by applying the normal cost as a percent of payroll reported in the actuarial valuation to the actual payroll for the fiscal year. The City and Member contributions determined by a valuation become effective for the fiscal year commencing one year after the valuation date. Contributions are generally made on a payroll-by-payroll basis although the City retains an option to make its contribution as of the beginning of the year.

The total contribution rate is the sum of the normal cost rate, assumed administrative expenses, and the UAL rate. Under Measure F, the total contribution rate cannot be less than the normal cost rate. The normal cost rate is determined by dividing the total normal cost determined under the actuarial cost method by the payroll expected for members active on the valuation date. The UAL payments are adjusted for interest from the valuation date to the date of expected payment in the following fiscal year. The UAL rate is determined by dividing the UAL payments by the total expected payroll for the year (including members active on the valuation date and new entrants expected to replace active members who are expected to leave employment).

For Tier 1, members contribute 3/11ths of the normal cost rate (excluding reciprocity), and the City pays the remainder of the total contribution rate. Tier 1 members who were rehired into Tier 2 and then returned to Tier 1 under Measure F also pay half of the increased cost attributable to their Tier 2 service.

For Tier 2, the members and the City each pay half of the total contribution rate. However, the member's UAL contribution rate cannot increase by more than 0.33% of pay each year. The City contributes any amounts in excess of this cap that would otherwise be contributed by the member.

5. Changes Since the Last Valuation

Tier 1 member contributions were updated to exclude any share in the cost of administrative expenses.

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**APPENDIX C – SUMMARY OF PLAN PROVISIONS
TIER 1**

1. Membership Requirement

Participation in the Plan is immediate upon the first day of full-time employment for members hired before September 30, 2012, including members that are rehired after September 30, 2012 and had prior service under Tier 1 and did not take a return of contributions. In addition, any person accepting employment on or after September 30, 2012 who is otherwise eligible for this plan and who was a “classic” member in another California public retirement system with which this plan has reciprocity, and who has a break in service of less than six months from that covered employment and employment with the City, shall be a Tier 1 member of this plan.

2. Final Compensation

Members who separated from city service prior to June 30, 2001

The highest average annual compensation earnable during any period of three consecutive years.

Members who separated from city service on or after June 30, 2001

The highest average annual compensation earnable during any period of twelve consecutive months.

3. Credited Service

One year of service credit is given for 1,739 or more hours of Federated city service rendered in any calendar year. A partial year (fraction with the numerator equal to the hours worked, and the denominator equal to 1,739) is given for each calendar year with less than 1,739 hours worked.

4. Member Contributions

Member

The amount needed to fund 3/11ths of benefits accruing for the current year. These contributions are credited with interest at 3.0% per year, compounded annually.

For bargaining units that have agreed to the provision, member contributions cease once a member has 30 years of City service (excluding reciprocal service).

Employer

The Employer contributes the remaining amounts necessary to maintain the soundness of the Retirement System.

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**APPENDIX C – SUMMARY OF PLAN PROVISIONS
TIER 1**

5. Service Retirement

Eligibility

Age 55 with five years of service, or any age with 30 years of service.

Benefit – Member

2.5% of Final Compensation for each year of credited service, subject to a maximum of 75% of Final Compensation.

Benefit – Survivor

50% of the service retirement benefit paid to a qualified survivor.

6. Service-Connected Disability Retirement

Eligibility

No age or service requirement.

Benefit – Member

2.5% of Final Compensation for each year of credited service, subject to a minimum of 40% and a maximum of 75% of Final Compensation. Workers' Compensation benefits are generally offset from the service-connected benefits under this system.

Benefit – Survivor

50% of the disability retirement benefit paid to a qualified survivor.

7. Non-Service Connected Disability Retirement

Eligibility

Five years of service.

Benefit – Member

Members who were hired prior to September 1, 1998:

The amount of the service-connected benefit reduced by 0.5% for each year that the disability age preceded 55.

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**APPENDIX C – SUMMARY OF PLAN PROVISIONS
TIER 1**

Members who were hired on or after September 1, 1998:

20% of Final Compensation, plus 2% of Final Compensation for each year of credited service between six and 16 years, plus 2.5% of Final Compensation for each year of credited service in excess of 16 years, subject to a maximum of 75% of Final Compensation.

Benefit – Survivor

50% of the disability retirement benefit paid to a qualified survivor.

8. Death Before Retirement

Less than five Years of Service, or No Qualified Survivor

Lump sum benefit equal to the accumulated refund of all employee contributions with interest, plus one month of salary for each year of service, up to a maximum of six years.

Five or more Years of Service

2.5% of Final Compensation for each year of credited service, subject to a maximum of 75% of Final Compensation. Benefit is subject to a minimum of 40% of Final Compensation if member dies while an active employee. The benefit is payable until the spouse or registered domestic partner marries or establishes a domestic partnership. If the member was age 55 with 20 years of service at death, the benefit is payable for the lifetime of the member's spouse or registered domestic partner.

9. Withdrawal Benefits

Less than five Years of Service

Lump sum benefit equal to the accumulated employee contributions with interest.

Five or more years of credited service

The amount of the service retirement benefit, payable at age 55.

10. Additional Post-retirement Death Benefit

A death benefit payable as a lump sum equal to \$500 will be paid to a qualified survivor upon the member's death.

11. Post-retirement Cost-of-Living Benefit

Benefits are increased every April 1 by 3.0%, regardless of actual inflation.

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**APPENDIX C – SUMMARY OF PLAN PROVISIONS
TIER 1**

12. Changes Since the Last Valuation

None.

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**APPENDIX C – SUMMARY OF PLAN PROVISIONS
TIER 2**

1. Membership Requirement

Any person who is hired, rehired or reinstated by the City on or after September 30, 2012 except those who elect to participate in a defined contribution plan, had prior service under Tier 1 and did not take a return of contributions, or had prior service as a “classic” member in a reciprocal system with less than a six month break in service.

2. Final Compensation

The average annual compensation earnable during the highest three consecutive years of service. Final compensation only includes base pay, excluding premium pay and any other additional compensation.

3. Credited Service

One year of service credit is given for 2,080 or more hours of Federated city service rendered in any calendar year. A partial year (fraction with the numerator equal to the hours worked, and the denominator equal to 2,080) is given for each calendar year with less than 2,080 hours worked.

4. Member Contributions

50% of total Tier 2 contributions to the pension plan, including, but not limited to administrative expenses, normal cost, and Unfunded Actuarial Liability. However, the member’s UAL contribution rate cannot increase by more than 0.33% of pay each year. The City contributes any amounts in excess of this cap that would otherwise be contributed by the member.

The member contribution rate cannot be less than 50% of the normal cost rate.

5. City Contributions

50% of total Tier 2 contributions to the pension plan, including, but not limited to administrative expenses, normal cost, and Unfunded Actuarial Liability. In addition, the City contributes any UAL amounts in excess of the member UAL cap until the member rate covers 50% of the UAL rate.

The City contribution rate cannot be less than 50% of the normal cost rate.

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**APPENDIX C – SUMMARY OF PLAN PROVISIONS
TIER 2**

6. Unreduced Service Retirement

Eligibility

Age 62 with five years of service.

Benefit – Member

2.0% of Final Compensation for each year of credited service attributable to Tier 2, subject to a maximum of 70% of Final Compensation.

Benefit – Survivor

50% of the service retirement benefit paid to a qualified survivor.

7. Early Service Retirement

Eligibility

Age 55 with five years of service.

Benefit – Member

Benefit reduced by a factor of 5% for each year the member retires before age 62.

The early retirement reduction is applied to the benefit after the application of the maximum of 70% of final compensation.

8. Service-Connected Disability Retirement

Eligibility

No age or service requirement.

Benefit – Member

2.0% of Final Compensation for each year of credited service, subject to a minimum of 40% of Final Compensation and a maximum of 70% of Final compensation, less the amounts specified in Section 3.28.1330 and Section 3.28.1340.

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APPENDIX C – SUMMARY OF PLAN PROVISIONS
TIER 2

9. Non-Service Connected Disability Retirement

Eligibility

Five years of service.

Benefit – Member

2.0% of Final Compensation for each year of credited service attributable to Tier 2, subject to a minimum of 20% of Final Compensation and a maximum of 70% of Final Compensation less the amounts specified in Section 3.28.1330 and Section 3.28.1340.

10. Death Before Retirement

Not yet eligible for Retirement, or No Qualified Survivor

Lump sum benefit equal to the accumulated refund of all employee contributions with interest.

Eligible for Retirement

2.0% of Final Compensation for each year of credited service, subject to a maximum of 70% of Final Compensation. Benefit is subject to a minimum of 40% of Final Compensation if member dies while an active employee. The benefit is payable until the spouse or registered domestic partner marries or establishes a domestic partnership. If the member was age 55 with 20 years of service at death, the benefit is payable for the lifetime of the member's spouse or registered domestic partner.

11. Withdrawal Benefits

Less than five years of credited service

Lump sum benefit equal to the accumulated employee contributions with interest.

Five or more years of credited service

The amount of the service retirement benefit reduced for early retirement, and payable when retirement eligibility is reached.

12. Benefit Forms

Annuity benefits are paid in the form of a 50% joint and survivor annuity or an actuarially equivalent annuity with 75% or 100% continuance to a survivor.

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**APPENDIX C – SUMMARY OF PLAN PROVISIONS
TIER 2**

13. Post-retirement Cost-of-Living Benefit

Benefits are increased every April 1 by the change in the December CPI-U for San José-San Francisco-Oakland, subject to a cap based on years of service as shown in the table below.

Years of Service	Maximum COLA
At least 1, but less than 11	1.25%*
At least 11, but less than 21	1.50%
At least 21, but less than 26	1.75%
At least 26	2.00%

*1.5% for members hired before Measure F effective date

The first COLA after retirement shall be prorated based on the number of months retired.

14. Changes Since the Last Valuation

The pre-retirement death benefit, if eligible for retirement, was updated from 2.5% to 2.0% of final compensation for each year of service, before minimum and maximum restrictions.

Note: The summary of major plan provisions is designed to outline principal plan benefits. If the Department of Retirement Services should find the plan summary not in accordance with the actual provisions, the actuary should immediately be alerted so the proper provisions are valued.

APPENDIX D – GLOSSARY OF TERMS

1. Actuarial Liability

The Actuarial Liability is the difference between the present value of future benefits and the present value of total future normal costs. This is also referred to as the “accrued liability” or “actuarial accrued liability.” The Actuarial Liability represents the targeted amount of assets a plan should have as of a valuation date according to the actuarial cost method.

2. Actuarial Assumptions

Estimates of future experience with respect to rates of mortality, disability, turnover, retirement rate or rates of investment income, and salary increases. Demographic actuarial assumptions (rates of mortality, disability, turnover, and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (price inflation, wage inflation, and investment income) are generally based on expectations for the future that may differ from the Plan’s past experience.

3. Actuarial Cost Method

A mathematical budgeting procedure for allocating the dollar amount of the present value of future benefits between future normal cost and Actuarial Liability.

4. Actuarial Gain (Loss)

The difference between actual experience and the anticipated experience based on the actuarial assumptions during the period between two actuarial valuation dates.

5. Actuarial Present Value

The amount of funds currently required to provide a payment or series of payments in the future. It is determined by discounting future payments at the discount rate and by probabilities of payment.

6. Actuarially Determined Contribution

The payment to the System as determined by the actuary using a contribution allocation procedure. It may or may not be the actual amount contributed to the System.

7. Amortization Method

A method for determining the amount, timing, and pattern of payments of the Unfunded Actuarial Liability.

APPENDIX D – GLOSSARY OF TERMS

8. Asset Valuation Method

The method used to develop the Actuarial Value of Assets from the Market Value of Assets typically by smoothing investment returns above or below the assumed rate of return over a period of time.

9. Contribution Allocation Procedure

A procedure typically using an actuarial cost method, an asset valuation method, and an amortization method to develop the actuarially determined contribution.

10. Discount Rate

The rate of interest used to discount future benefit payments to determine the actuarial present value. For purposes of determining an actuarially determined contribution, the discount rate is typically based on the long-term expected return on assets.

11. Funded Status or Funding Ratio

The Market or Actuarial Value of assets divided by the Actuarial Liability. For purposes of this report, the funded status represents the proportion of the actual assets compared to the target established by the actuarial cost method as of the valuation date. These measures are for contribution budgeting purposes and are not appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligations.

12. Normal Cost

The portion of the present value of future benefits allocated to the current year by the actuarial cost method.

13. Present Value of Future Benefits

The actuarial present value of all benefits both earned as of the valuation date and expected to be earned in the future by current plan members based on current plan provisions and actuarial assumptions.

14. Unfunded Actuarial Liability (UAL)

The Unfunded Actuarial Liability is the difference between Actuarial Liability and either the Market or the Actuarial Value of Assets. This value is sometimes referred to as "unfunded actuarial accrued liability." It represents the difference between the actual assets and the amount of assets expected by the actuarial cost method as of the valuation date.



Classic Values, Innovative Advice