Kern County Employees' Retirement Association

Actuarial Valuation and Review

As of June 30, 2022

Segal

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November 30, 2022

Board of Retirement
Kern County Employees' Retirement Association
11125 River Run Blvd.
Bakersfield, CA 93311

Dear Board Members:

We are pleased to submit this Actuarial Valuation and Review as of June 30, 2022. It summarizes the actuarial data used in the valuation, analyzes the preceding year's experience, and establishes the funding requirements for July 1, 2023 to June 30, 2024.

This report was prepared in accordance with generally accepted actuarial principles and practices at the request of the Board to assist in administering the Retirement Association. The census information and financial information on which our calculations were based was prepared by the staff of the Association. That assistance is gratefully acknowledged.

The actuarial calculations were directed under the supervision of Molly Calcagno, ASA, MAAA and Enrolled Actuary. We are members of the American Academy of Actuaries and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of our knowledge, the information supplied in this actuarial valuation is complete and accurate. Further, in our opinion, the assumptions as approved by the Board are reasonably related to the experience of and the expectations for the Association.

We look forward to reviewing this report at your next meeting and to answering any questions.

Sincerely,

Segal

Paul Angelo, FSA, EA, MAAA, FCA Senior Vice President and Actuary	Molly Calcagno, ASA, MAAA, EA Actuary

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Purpose and Basis

This report was prepared by Segal to present a valuation of the Kern County Employees' Retirement Association ("KCERA" or "the Association") as of June 30, 2022. The valuation was performed to determine whether the assets and contribution rates are sufficient to provide the prescribed benefits. The measurements shown in this actuarial valuation may not be applicable for other purposes. In particular, the measures herein are not necessarily appropriate for assessing the sufficiency of current plan assets to cover the estimated cost of settling the Association's accrued benefit obligations.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements; and changes in plan provisions or applicable law.

The contribution requirements presented in this report are based on:

- The benefit provisions of the Association, as administered by the Board of Retirement;
- The characteristics of covered active members, inactive vested members, and retired members and beneficiaries as of June 30, 2022, provided by KCERA;
- The assets of the Association as of June 30, 2022, provided by KCERA;
- Economic assumptions regarding future salary increases and investment earnings adopted by the Board of Retirement for the June 30, 2022 valuation;
- Other actuarial assumptions regarding employee terminations, retirement, death, etc. adopted by the Board of Retirement for the June 30, 2022 valuation; and
- The funding policy adopted by the Board of Retirement.

One of the general goals of an actuarial valuation is to establish contributions which fully fund the Association's liabilities, and which, as a percentage of payroll, remain as level as possible for each generation of active members. Annual actuarial valuations measure the progress toward this goal, as well as test the adequacy of the contribution rates.

Section 1: Actuarial Valuation Summary

In preparing this valuation, we have employed generally accepted actuarial methods and assumptions to evaluate the Association's liabilities and future contribution requirements. Our calculations are based upon member data and financial information provided to us by the Association's staff. This information has not been audited by us, but it has been reviewed and found to be consistent, both internally and with prior year's information.

The contribution requirements are determined as a percentage of payroll. The Association's employer rates provide for both Normal Cost and a contribution to amortize any unfunded or overfunded actuarial accrued liabilities. In this valuation, we have applied the funding policy last reviewed with the Board of Retirement in 2012. Details of the funding policy are provided in *Section 4, Exhibit 1* on pages 110 and 111.

A schedule of current amortization balances and payments may be found in *Section 3, Exhibit H* starting on page 90. A graphical projection of the Unfunded Actuarial Accrued Liability (UAAL) amortization balances and payments has been included in *Section 3, Exhibit I* starting on page 96.

The rates calculated in this report may be adopted by the Board for the fiscal year that extends from July 1, 2023 through June 30, 2024.

Effect of Gain Sharing Provisions

The 7.25% investment return assumption used in this valuation has been developed without taking into consideration any impact of the 50/50 excess earnings allocation between the retirement and Supplemental Retiree Benefits Reserve (SRBR) asset pools. This is based on our understanding that Article 5.5 of the Statute, which authorizes the allocation of 50% allocation of excess earnings to the SRBR, does not allow for the use of a different investment return for funding than is used for interest crediting. This would appear in effect to preclude the prefunding of the SRBR through the use of an assumption lower than the market earnings assumption of 7.25%.

Actuarial Standard of Practice (ASOP) No. 4 ("Measuring Pension Obligations and Determining Pension Plan Costs or Contributions") states that some plan provisions, including gain sharing provisions, "may create pension obligations that are difficult to appropriately measure using traditional valuation procedures." ASOP No. 4 further states that "for such plan provisions, the actuary should consider using alternative valuation procedures, such as stochastic modeling … to reflect the impact of variations in experience from year to year."

Accordingly, we performed stochastic modeling to estimate the impact of the 50% allocation of future excess earnings to the SRBR. The results of our model indicated that the 50/50 allocation of future excess earnings would have about the same impact as an "outflow" (i.e., assets not available to fund the benefits included in this valuation) that would average approximately 0.3% of assets over time.

For informational purposes only, when we applied the results of our stochastic model to this valuation we have estimated that such an annual outflow would increase the actuarial accrued liability measured in this valuation using a 7.25% investment return assumption from $7.37 billion to $7.64 billion (for a difference of about $268 million) and would increase the employer's contribution rate by about 4.1% of payroll.

Valuation Highlights

1. The Public Employee Pension Reform Act of 2013 (PEPRA) set contribution rates for members hired after January 1, 2013 (PEPRA members) at 50% of normal cost, pending expiration of the existing MOUs. Between January 1, 2013 and the expiration of the then-existing MOUs in or around 2015, PEPRA members were incorrectly charged the 50% of normal cost rate. On April 13, 2022, the Board decided to refund any overcollection of contributions paid in conjunction with PEPRA implementation to affected PEPRA members. The Board also decided to collect any underpayment of contributions by affected PEPRA members from the Plan sponsors.

   On July 30, 2020, the California Supreme Court issued a decision in the Alameda County Deputy Sheriffs' Assn. et al. v. Alameda County Employees' Retirement Assn. litigation that clarified what should be considered compensation earnable for Legacy members and pensionable compensation for PEPRA members. In response, the Board adopted Resolution 2020-1, which detailed the implementation of the Alameda decision including reclassifying certain pay items for inclusion in compensation earnable and pensionable compensation. On April 13, 2022, the Board decided to refund any net overcollection of contributions over the overpayment of benefits paid in conjunction with these pay items to affected members that retired between January 1, 2013 and August 30, 2020. The Board also decided to collect any net overpayment of benefits over the undercollection of contributions to affected members from the Plan sponsors.

   The results in this valuation reflect the recovery or refunds of benefits and/or member contributions previously paid in conjunction with PEPRA implementation and the Alameda decision, which increased the UAAL by $1.2 million and increased the average employer contribution rate by 0.02% of payroll. The increase in the average employer contribution rate is a result of the amortization of the $1.2 million increase in UAAL due to refunding overcollection of contributions.[1]

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2. The Market Value of Assets earned a return of -4.08% for the July 1, 2021 to June 30, 2022 plan year. The Actuarial Value of Assets earned a return of 8.66% for the same period due to the deferral of most of the current year investment losses and the recognition of prior investment gains and losses. While this is greater than the assumed 7.25% assumed in the valuation as of June 30, 2021, the excess return was used to build up the Contingency Reserve from $53.6 million as of June 30, 2021 to $117.5 million as of June 30, 2022, following the Board's Regular Interest and Excess Interest Crediting Policy. As a result, the Valuation Value of Assets earned a return of 7.45% for the same period, which resulted in an actuarial gain when measured against the assumed rate of return of 7.25% for the 2021-2022 plan year. This actuarial investment gain decreased the average employer contribution rate by 0.12% of payroll.

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3. The funded ratio (the ratio of the Valuation Value of Assets to Actuarial Accrued Liability) is 69.2%, compared to the prior year funded ratio of 67.1%. This ratio is one measure of funding status, and its history is a measure of funding progress. The funded ratio measured on a market value basis is 66.2%, compared to 73.1% as of the prior valuation date. These measurements are not necessarily appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the Association's benefit obligation or the need for or the amount of future contributions.

[1] The losses due to underpayment of contributions and overpayment of benefits are exactly offset by the collection of those dollar amounts from the Plan sponsors.

Section 1: Actuarial Valuation Summary

Pg. 32 4. The Association's UAAL (which is based on the Valuation Value of Assets) has decreased from $2.36 billion to $2.27 billion. The decrease in UAAL is primarily due to contributions paying down a portion of the UAAL, gains from retirement experience, investment return (after "smoothing") greater than the 7.25% return assumption, and lower than expected individual salary increases during 2021-2022, offset by contributions less than expected. A complete reconciliation of the Association's UAAL is provided in *Section 2, Subsection E*.

Pg. 26 5. The net actuarial gain from investment and contribution experience is $2.5 million, or 0.03% of Actuarial Accrued Liability. This gain is primarily due to investment return (after "smoothing") greater than the 7.25% return assumption. That gain was offset somewhat by contributions less than expected due to the lower than expected increase in the total payroll used to pay the UAAL contributions for the year and the phase-in of the impact of the new actuarial assumptions on the UAAL contribution rate for the County Safety cost group. The net experience gain from sources other than investment and contribution experience was $30.3 million, or 0.41% of the Actuarial Accrued Liability.

Pg. 34 6. The average recommended employer contribution rate calculated in this valuation decreased from 49.10% of payroll to 48.76% of payroll. This decrease is primarily due to changes in member demographics amongst the tiers, gains from retirement experience, investment return (after "smoothing") greater than the 7.25% return assumption, and lower than expected individual salary increases during 2021-2022, offset by amortizing the prior year's UAAL over a smaller than expected total payroll. A complete reconciliation of the Association's average employer rate is provided in *Section 2, Subsection F*.

Pg. 35 7. The average member rate calculated in this valuation has increased from 6.82% of payroll to 6.96% of payroll. This change is primarily due to changes in member demographics amongst the tiers. A complete reconciliation of the Association's average member rate is provided in *Section 2, Subsection F*.

Pgs. 38-39, 44 8. Consistent with recent years, this valuation reflects that members of the San Joaquin Valley Unified Air Pollution Control District (SJVAPCD) in Tier I and Tier IIA pay 50% of the total Normal Cost rate. There are different District Category III Tier I and Tier IIA employer contribution rates shown in this report for SJVAPCD and also for the Buttonwillow Recreation & Park District. Those employers should not use the combined District Category III employer contribution rate and instead should use their own Tier I and Tier IIA specific employer rates shown in the report along with the Tier IIB employer rate.

Pgs. 45-46 9. Consistent with recent years, this valuation reflects the implementation of the Declining Employer Payroll Policy for Berrenda Mesa Water District and Inyokern Community Services District. Those employers were the only employers in District Category IV. They have been included in a "Declining Employers" category and should contribute based on the dollar contribution amounts (not rates) shown in this report. Unless otherwise noted, all results shown in this report include these declining employers.

Pgs. 23-24 10. The total unrecognized net investment <u>loss</u> as of June 30, 2022 is about $220 million as compared to an unrecognized net investment <u>gain</u> of $429 million in the previous valuation. This deferred investment loss of $220 million will be recognized in the determination of the Actuarial Value of Assets for funding purposes in the next few years as shown in *Section 2, Subsection B.*

The net deferred losses of $220 million represent about 4.3% of the Market Value of Assets. Unless offset by future investment gains or other favorable experience, the recognition of the $220 million market losses is expected to have an impact on the Association's future funded ratio and contribution rate requirements. This potential impact may be illustrated as follows (without taking into consideration any possible impact of the 50/50 excess earnings allocation between the retirement and SRBR asset pools):

a. If the net deferred losses in this year's valuation were recognized immediately and entirely in the Valuation Value of Assets, the funded ratio would decrease from 69.2% to 66.2%.

   For comparison purposes, if all the net deferred gains in the June 30, 2021 valuation had been recognized immediately in the June 30, 2021 valuation, the funded ratio in last year's valuation would have increased from 67.1% to 73.1%.

b. If the net deferred losses in this year's valuation were recognized immediately and entirely in the Valuation Value of Assets, the average employer contribution rate would increase from 48.76% of payroll to 51.68% of payroll.

   For comparison purposes, if all the net deferred gains in the June 30, 2021 valuation had been recognized immediately in the June 30, 2021 valuation, the average employer contribution rate in last year's valuation would have decreased from 49.10% of payroll to 43.31% of payroll.

Pg. 88 11. During 2021-2022 there were no "excess earnings" credited to the valuation reserves or the SRBR, because any excess earnings was used to build up the Contingency Reserve from $53.6 million as of June 30, 2021 to $117.5 million as of June 30, 2022. For the same reason, at June 30, 2022, the COLA Contribution Reserve was zero and therefore not available to offset the 2% COLA contribution rate. Because the Contingency Reserve is positive as of June 30, 2022, it is excluded from the Valuation Value of Assets per the Board's Interest Crediting Policy. A complete presentation of the Association's reserves is in *Section 3, Exhibit F*.

Pg. 60 12. The Actuarial Standard of Practice No. 51 (ASOP 51) requires actuaries to identify and assess risks that "may reasonably be anticipated to significantly affect the plan's future financial condition". Examples of key risks listed that are particularly relevant to KCERA are asset/liability mismatch risk, investment risk, and longevity risk. The standard also requires an actuary to consider if there is any ongoing contribution risk to the plan, however it does not require the actuary to evaluate the particular ability or willingness of contributing entities to make contributions when due, nor does it require the actuary to assess the likelihood or consequences of future changes in applicable law.

The actuary's initial assessment can be strictly a qualitative discussion about potential adverse experience and the possible effect on future results, but it may also include quantitative numerical demonstrations where informative. The actuary is also encouraged to consider a recommendation as to whether a more detailed assessment or risk report would be significantly beneficial for the intended user in order to examine particular financial risks. When making that recommendation, the actuary will take into account such factors as the plan's design, risk profile, maturity, size, funded status, asset allocation, cash flow, possible insolvency and current market conditions.

Because the actuarial valuation results are dependent on a fixed set of assumptions and data as of a specific date, there is risk that emerging results may differ, perhaps significantly, as actual experience is fluid and will not exactly track current assumptions. This potential divergence may have a significant impact on the future financial condition of the Association. We were engaged to perform a detailed analysis of the potential range of the impact of risk relative to the Association's future financial condition based on the June 30, 2018 actuarial valuation. That analysis can be found in our separate risk assessment report dated September 4, 2019.

The risk assessment for the June 30, 2022 actuarial valuation, which includes a discussion of key risks that may affect the Association, can be found in *Section 2, Subsection J*.

13. It is important to note that this actuarial valuation is based on plan assets as of June 30, 2022. The Association's funded status does not reflect short-term fluctuations of the market, but rather is based on the market values on the last day of the plan year. Moreover, this actuarial valuation does not include any possible short-term or long-term impacts on mortality of the covered population that may emerge after June 30, 2022 due to COVID-19. Segal is available to prepare projections of potential outcomes of market conditions and other demographic experience upon request.
14. Segal strongly recommends an actuarial funding policy that targets 100% funding of the Actuarial Accrued Liability. Generally, this implies payments that are ultimately at least enough to cover Normal Cost, interest on the UAAL and the principal balance. The funding policy adopted by the Board meets this standard.
15. This report constitutes an actuarial valuation for the purpose of determining the actuarially determined contribution (ADC) under the Association's funding policy and measuring the progress of that funding policy. The Net Pension Liability (NPL) and Pension Expense under Governmental Accounting Standards Board (GASB) Statements No. 67 and No. 68, for inclusion in the plan and employer's financial statements as of June 30, 2022, will be provided separately. The accounting disclosures will utilize different methodologies from those employed in the funding valuation, as required by GASB. However, the ADC in this valuation is expected to be used as the ADC for GASB financial reporting.

Summary of Key Valuation Results

		June 30, 2022		June 30, 2021	
		Total Rate	Estimated Annual Dollar Amount[1] ($ in '000s)	Total Rate	Estimated Annual Dollar Amount[1] ($ in '000s)
Employer Contribution Rates:[2]	• County General without Courts	39.82%	$166,404	40.24%	$167,048
	• Courts	39.74%	12,967	40.21%	12,672
	• County Safety	76.91%	110,047	77.51%	107,414
	• District Category I	52.69%	3,145	54.13%	3,354
	• District Category II	50.12%	1,220	50.47%	1,233
	• District Category III	46.74%	13,696	47.25%	13,096
	• District Category V	44.74%	638	44.92%	570
	• District Category VI	61.36%	125	61.53%	165
	• Declining Employers[3]	243.78%	451	272.41%	474
	All Categories Combined	**48.76%**	**$308,693**	**49.10%**	**$306,026**

[1] Based on projected annual compensation for each valuation date.

[2] In practice, these blended employer contribution rates for combined Tier I, Tier IIA, Tier IIB and Tier III (as applicable) are used for each category (with the exception of District Category III). See *Section 2, Subsection F* for the employer contribution rates for each tier separately for these categories.

[3] The two employers that were previously in District Category IV are now declining employers. Those employers will contribute based on the dollar contribution amounts shown (not rates).

Summary of Key Valuation Results (continued)

		June 30, 2022		June 30, 2021	
		Total Rate	Estimated Annual Dollar Amount[1] ($ in '000s)	Total Rate	Estimated Annual Dollar Amount[1] ($ in '000s)
Average Member Contribution Rates:	• County General Tier I without Courts	5.44%	$6,763	5.39%	$7,296
	• County General Tier IIA without Courts	6.80%	4,300	6.77%	4,439
	• County General Tier IIB without Courts	6.25%	14,394	6.23%	13,345
	• Courts Tier I	8.17%	995	8.16%	1,064
	• Courts Tier IIA	6.64%	197	6.48%	213
	• Courts Tier IIB	6.25%	1,093	6.23%	946
	• County Safety Tier I	6.98%	6,145	6.87%	6,473
	• County Safety Tier IIA	9.35%	714	9.32%	709
	• County Safety Tier IIB	12.99%	6,158	12.93%	4,751
	• District Category I Tier I	3.28%	120	3.07%	133
	• District Category I Tier IIA	6.13%	49	6.21%	42
	• District Category I Tier IIB	6.25%	95	6.23%	75
	• District Category II Tier I	6.44%	91	6.17%	87
	• District Category II Tier IIB	6.25%	64	6.23%	64
	• District Category II Tier III	7.43%	0	7.41%	0
	• District Category III Tier I (Buttonwillow)	8.52%	3	8.55%	3
	• District Category III Tier I (SJVAPCD)	12.10%	1,922	12.18%	2,093
	• District Category III Tier IIA (Buttonwillow)	6.25%	0	6.23%	0
	• District Category III Tier IIA (SJVAPCD)	6.78%	67	6.73%	64
	• District Category III Tier IIB	6.25%	774	6.23%	594
	• District Category V Tier I	0.00%	0	0.00%	0
	• District Category V Tier IIA	6.23%	26	6.21%	25
	• District Category V Tier IIB	6.25%	58	6.23%	49
	• District Category VI Tier I	0.00%	0	0.00%	0
	• District Category VI Tier IIB	6.25%	0	6.23%	0
	• Declining Employers Tier I	6.06%	11	5.86%	10
	• Declining Employers Tier IIB	6.25%	0	6.23%	0
	All Categories Combined	**6.96%**	**$44,039**	**6.82%**	**$42,475**

[1] Based on projected annual compensation for each valuation date.

Summary of Key Valuation Results (continued)

		June 30, 2022 ($ in '000s)	June 30, 2021 ($ in '000s)
Actuarial Accrued Liability as of June 30:[2]	• Retired members and beneficiaries	$4,985,491	$4,777,275
	• Inactive vested members[1]	272,783	243,481
	• Active members	2,114,379	2,143,469
	• Total Actuarial Accrued Liability	$7,372,653	$7,164,225
	• Normal Cost for plan year beginning June 30	123,617	124,039
Assets as of June 30:	• Market Value of Assets (MVA)[3]	$4,882,350	$5,235,090
	• Valuation Value of Assets (VVA)	5,102,402	4,806,026
Funded status as of June 30:	• Unfunded Actuarial Accrued Liability on Market Value of Assets basis	$2,490,303	$1,929,135
	• Funded percentage on MVA basis	66.22%	73.07%
	• Unfunded Actuarial Accrued Liability on Valuation Value of Assets basis	2,270,251	$2,358,199
	• Funded percentage on VVA basis	69.21%	67.08%
Key assumptions:	• Net investment return	7.25%	7.25%
	• Price inflation	2.75%	2.75%
	• Payroll growth	3.25%	3.25%

[1] Includes inactive members due a refund of member contributions.
[2] Excludes liabilities associated with benefits paid by the Supplemental Retiree Benefits Reserve. These liabilities are included in a separate valuation report.
[3] Excludes non-valuation reserves.

Summary of Key Valuation Results (continued)

		June 30, 2022	June 30, 2021	Change From Prior Year
Demographic data as of June 30:	**Active Members:**			
	• Number of members	9,076	9,072	0.0%
	• Average age	41.9	42.1	-0.2
	• Average service	9.5	9.7	-0.2
	• Total projected compensation	$633,102,218	$623,294,085	1.6%
	• Average projected compensation	$69,756	$68,705	1.5%
	Retired Members and Beneficiaries:			
	• Number of members:			
	– Service retired	6,848	6,699	2.2%
	– Disability retired	845	874	-3.3%
	– Beneficiaries	1,322	1,262	4.8%
	– Total	9,015	8,835	2.0%
	• Average age	69.7	69.6	0.1
	• Average monthly benefit[1]	$3,662	$3,563	2.8%
	Inactive Vested Members:			
	• Number of members[2]	4,015	3,517	14.2%
	• Average age	41.4	42.0	-0.6
	Total Members:	22,106	21,424	3.2%

[1] Excludes monthly benefits paid from the Supplemental Retiree Benefit Reserve.
[2] Includes inactive members due a refund of member contributions.

Important Information about Actuarial Valuations

An actuarial valuation is a budgeting tool with respect to the financing of future projected obligations of a pension plan. It is an estimated forecast – the actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.

In order to prepare a valuation, Segal relies on a number of input items. These include:

Plan of benefits	Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. Even where they appear precise, outside factors may change how they operate. It is important to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan summary included in our report to confirm that Segal has correctly interpreted the plan of benefits.
Participant data	An actuarial valuation for a plan is based on data provided to the actuary by the Association. Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. It is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.
Assets	The valuation is based on the Market Value of Assets as of the valuation date, as provided by the Association. The Association uses a "Valuation Value of Assets" that differs from market value to gradually reflect six-month changes in the Market Value of Assets in determining the contribution requirements.
Actuarial assumptions	In preparing an actuarial valuation, Segal projects the benefits to be paid to existing plan participants for the rest of their lives and the lives of their beneficiaries. This projection requires actuarial assumptions as to the probability of death, disability, withdrawal, and retirement of each participant for each year. In addition, the benefits projected to be paid for each of those events in each future year reflect actuarial assumptions as to salary increases and cost-of-living adjustments. The projected benefits are then discounted to a present value, based on the assumed rate of return that is expected to be achieved on the plan's assets. There is a reasonable range for each assumption used in the projection and the results may vary materially based on which assumptions are selected. It is important for any user of an actuarial valuation to understand this concept. Actuarial assumptions are periodically reviewed to ensure that future valuations reflect emerging plan experience. While future changes in actuarial assumptions may have a significant impact on the reported results that does not mean that the previous assumptions were unreasonable.
Models	Segal valuation results are based on proprietary actuarial modeling software. The actuarial valuation models generate a comprehensive set of liability and cost calculations that are presented to meet regulatory, legislative and client requirements. Our Actuarial Technology and Systems unit, comprised of both actuaries and programmers, is responsible for the initial development and maintenance of these models. The models have a modular structure that allows for a high degree of accuracy, flexibility and user control. The client team programs the assumptions and the plan provisions, validates the models, and reviews test lives and results, under the supervision of the responsible actuary

Section 1: Actuarial Valuation Summary

The user of Segal's actuarial valuation (or other actuarial calculations) should keep the following in mind:

The actuarial valuation is prepared at the request of the Association. Segal is not responsible for the use or misuse of its report, particularly by any other party.

An actuarial valuation is a measurement of the plan's assets and liabilities at a specific date. Accordingly, except where otherwise noted, Segal did not perform an analysis of the potential range of future financial measures. The actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan. Future contribution requirements may differ from those determined in the valuation because of:

- Differences between actual experience and anticipated experience;
- Changes in actuarial assumptions or methods;
- Changes in statutory provisions; and
- Differences between the contribution rates determined by the valuation and those adopted by the Board of Retirement.[1]

Some actuarial results in this report are not rounded, but that does not imply precision.

If the Association is aware of any event or trend that was not considered in this valuation that may materially change the results of the valuation, Segal should be advised, so that we can evaluate it.

Segal does not provide investment, legal, accounting, or tax advice. Segal's valuation is based on our understanding of applicable guidance in these areas and of the plan's provisions, but they may be subject to alternative interpretations. The Association should look to their other advisors for expertise in these areas.

As Segal has no discretionary authority with respect to the management or assets of the plan, it is not a fiduciary in its capacity as actuaries and consultants with respect to the plan.

[1] KCERA has a proven track record of adopting the Actuarial Determined Contributions as determined by the valuation and based on the Board's Actuarial Funding Policy.

Section 2: Actuarial Valuation Results

A. Member Data

The Actuarial Valuation and Review considers the number and demographic characteristics of covered members, including active members, inactive vested members, retired members and beneficiaries.

This section presents a summary of significant statistical data on these member groups.

More detailed information for this valuation year and the preceding valuation can be found in *Section 3, Exhibits A, B,* and *C*.

Member Population: 2013 – 2022

Year Ended June 30	Active Members	Inactive Vested Members[1]	Retired Members and Beneficiaries	Total Non-Actives	Ratio of Non-Actives to Actives	Ratio of Retired Members and Beneficiaries to Actives
2013	8,485	1,855	7,171	9,026	1.06	0.85
2014	8,512	1,949	7,397	9,346	1.10	0.87
2015	8,481	2,053	7,599	9,652	1.14	0.90
2016	8,627	2,218	7,847	10,065	1.17	0.91
2017	8,728	2,363	8,093	10,456	1.20	0.93
2018	8,867	2,604	8,301	10,905	1.23	0.94
2019	9,197	2,877	8,495	11,372	1.24	0.92
2020	9,326	3,143	8,667	11,810	1.27	0.93
2021	9,072	3,517	8,835	12,352	1.36	0.97
2022	9,076	4,015	9,015	13,030	1.44	0.99

[1] Includes inactive members due a refund of member contributions.

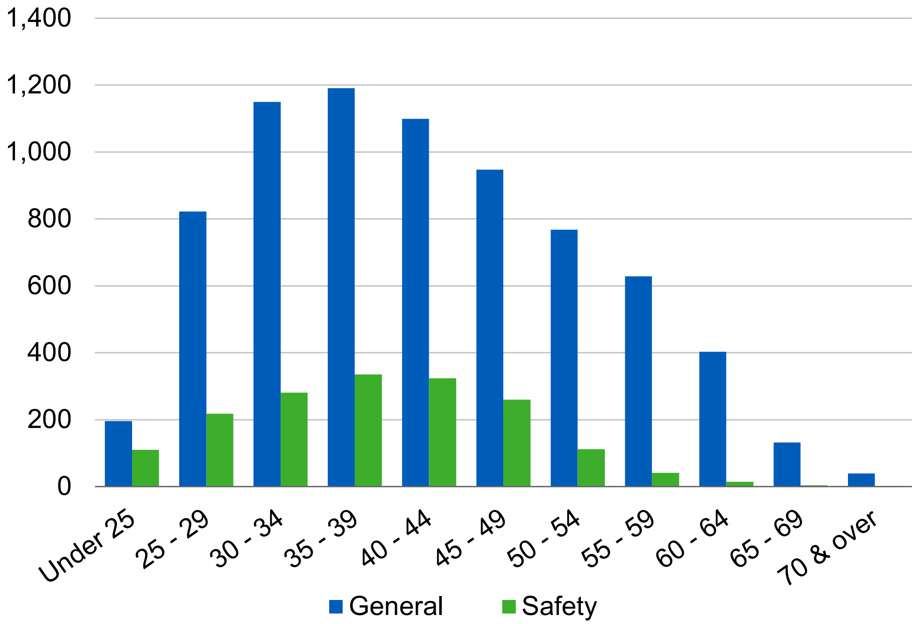
Active Members

Plan costs are affected by the age, years of service and compensation of active members. In this year's valuation, there were 9,076 active members with an average age of 41.9, average years of service of 9.5 years and average compensation of $69,756. The 9,072 active members in the prior valuation had an average age of 42.1, average service of 9.7 years and average compensation of $68,705.

Among the active members, there were none with unknown age information.

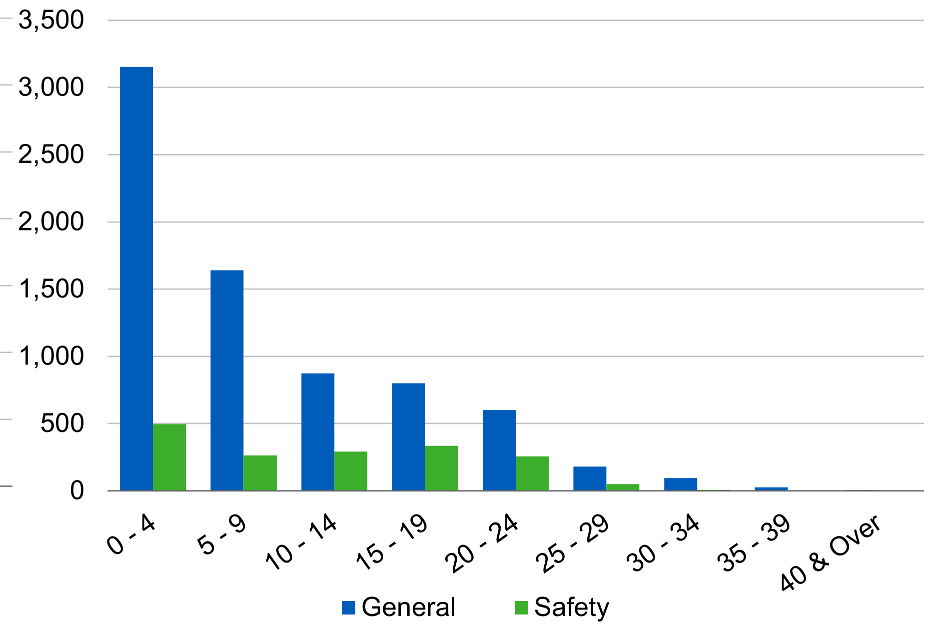
Distribution of Active Members as of June 30, 2022

Actives by Age



Average age	41.9
Prior year average age	42.1
Difference	-0.2

Actives by Years of Service



Average years of service	9.5
Prior year average years of service	9.7
Difference	-0.2

Inactive Members

In this year's valuation, there were 4,015 members with a vested right to a deferred or immediate vested benefit or entitled to a return of their member contributions versus 3,517 in the prior valuation.

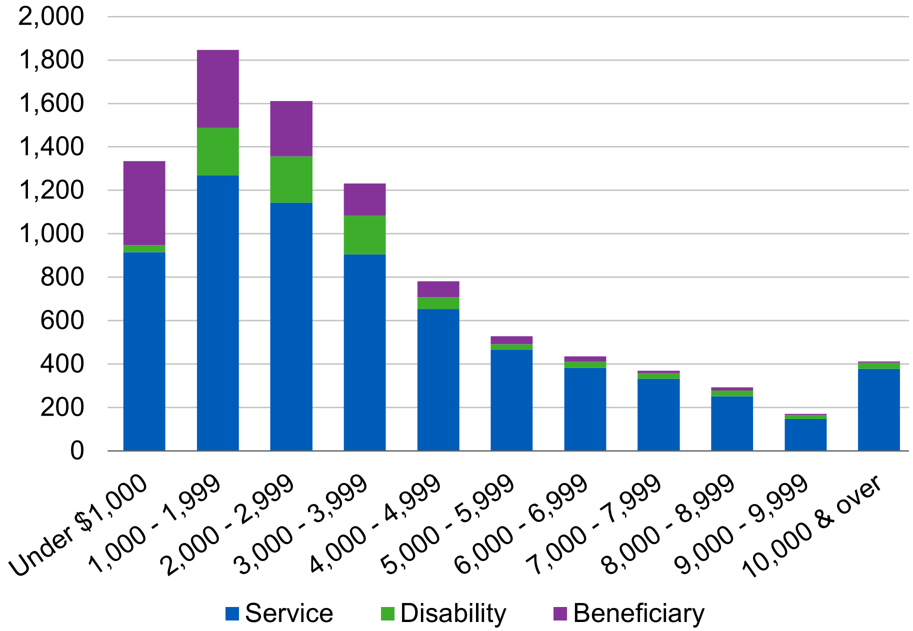
Retired Members and Beneficiaries

As of June 30, 2022, 7,693 retired members and 1,322 beneficiaries were receiving total monthly benefits of $33,011,881. For comparison, in the previous valuation, there were 7,573 retired members and 1,262 beneficiaries receiving monthly benefits of $31,476,031.

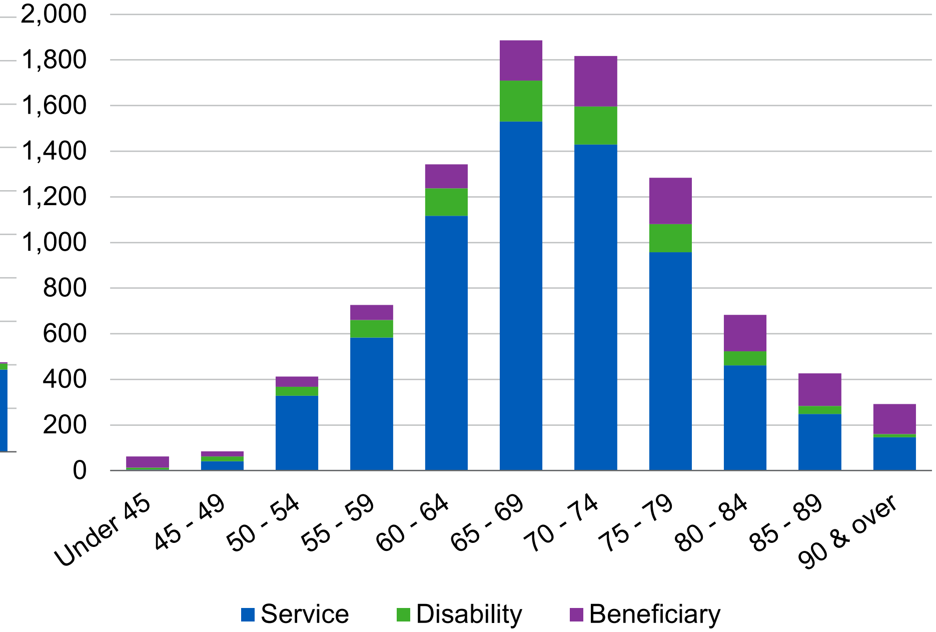
As of June 30, 2022, the average monthly benefit for retired members and beneficiaries is $3,662, compared to $3,563 in the previous valuation. The average age for retired members and beneficiaries is 69.7 in the current valuation, compared with 69.6 in the prior valuation.

Distribution of Retired Members and Beneficiaries as of June 30, 2022

Retired Members and Beneficiaries by Type and Monthly Amount



Retired Members and Beneficiaries by Type and Age



Historical Plan Population

The chart below demonstrates the progression of the active population over the last ten years. The chart also shows the growth among the retired population over the same time period.

Member Data Statistics: 2013 – 2022

	Active Members			Retired Members and Beneficiaries		
Year Ended June 30	**Count**	**Average Age**	**Average Service**	**Count**	**Average Age**	**Average Monthly Amount**
2013	8,485	42.9	10.2	7,171	67.7	$2,827
2014	8,512	42.8	10.3	7,397	68.0	2,914
2015	8,481	42.8	10.4	7,599	68.2	3,000
2016	8,627	42.6	10.2	7,847	68.4	3,065
2017	8,728	42.3	10.0	8,093	68.6	3,157
2018	8,867	42.2	9.9	8,301	68.9	3,246
2019	9,197	41.9	9.5	8,495	69.2	3,363
2020	9,326	41.9	9.5	8,667	69.4	3,465
2021	9,072	42.1	9.7	8,835	69.6	3,563
2022	9,076	41.9	9.5	9,015	69.7	3,662

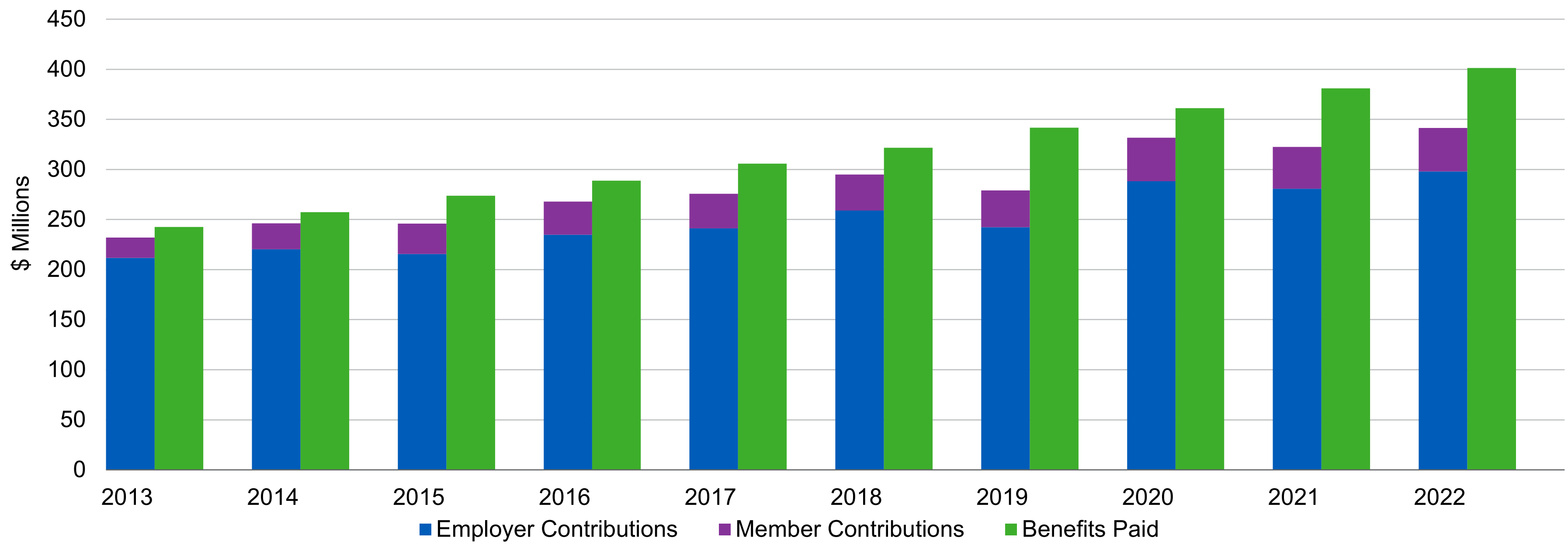
B. Financial Information

Retirement plan funding anticipates that, over the long term, both contributions (less administrative expenses) and investment earnings (less investment fees) will be needed to cover benefit payments. Retirement plan assets change as a result of the net impact of these income and expense components.

Additional financial information, including a summary of transactions for the valuation year, is presented in *Section 3, Exhibits D, E, F* and *G*.

It is desirable to have level and predictable plan costs from one year to the next. For this reason, the Board has approved an asset valuation method that gradually adjusts to market value. Under this valuation method, the full value of market fluctuations is not recognized in a single year and, as a result, the valuation asset value and the plan costs are more stable. The amount of the adjustment to recognize market value is treated as income, which may be positive or negative. Realized and unrealized gains and losses are treated equally and, therefore, the sale of assets has no immediate effect on the actuarial value.

Comparison of Contributions Made with Benefits for Years Ended June 30, 2013 – 2022



Determination of Actuarial Value of Assets for Year Ended June 30, 2022

		Actual Return	Expected Return	Investment Gain / (Loss)	Percent Deferred	Unrecognized Amount
1	**Market Value of Assets**					**$5,131,128,660**
2	Calculation of unrecognized return					
	a. Six-month period ended 6/30/2017	$266,054,594	$141,194,926	$124,859,668	0%	$0
	b. Six-month period ended 12/31/2017	253,352,676	148,484,992	104,867,684	0%	0
	c. Six-month period ended 6/30/2018	14,305,836	152,145,120	(137,839,284)	10%	(13,783,928)
	d. Six-month period ended 12/31/2018	(133,735,888)	151,819,366	(285,555,254)	20%	(57,111,051)
	e. Six-month period ended 6/30/2019	347,954,553	145,751,611	202,202,941	30%	60,660,882
	f. Six-month period ended 12/31/2019	202,028,683	157,497,125	44,531,558	40%	17,812,623
	g. Six-month period ended 6/30/2020	(74,167,569)	164,189,074	(238,356,644)	50%	(119,178,322)
	h. Six-month period ended 12/31/2020	581,412,997	160,447,752	420,965,246	60%	252,579,147
	i. Six-month period ended 6/30/2021	461,947,709	180,352,331	281,595,379	70%	197,116,765
	j. Six-month period ended 12/31/2021	213,987,511	195,823,815	18,163,696	80%	14,530,957
	k. Six-month period ended 6/30/2022	(433,934,557)	202,376,683	(636,311,240)	90%	(572,680,116)
	l. Total unrecognized return[1]					$(220,053,042)
3	**Preliminary Actuarial Value of Assets: 1 – 2l**					**$5,351,181,702**
4	Corridor around Market Value of Assets					
	a. Minimum – 50% of Market Value					$2,565,564,330
	b. Maximum – 150% of Market Value					7,696,692,990
5	**Final Actuarial Value of Assets**					**$5,351,181,702**
6	Actuarial Value of Assets as a percentage of Market Value of Assets: **5 / 1**					104.29%
7	Non-valuation reserves:					
	a. Supplemental Retiree Benefit Reserve (SRBR) Unallocated to 0.5% COLA benefits					$131,235,770
	b. Contingency Reserve					117,543,583
	c. COLA Contribution Reserve					0
	d. Subtotal					$248,779,353
8	**Valuation Value of Assets: 5 – 7d**					**$5,102,402,350**

Note: Results may not add due to rounding.

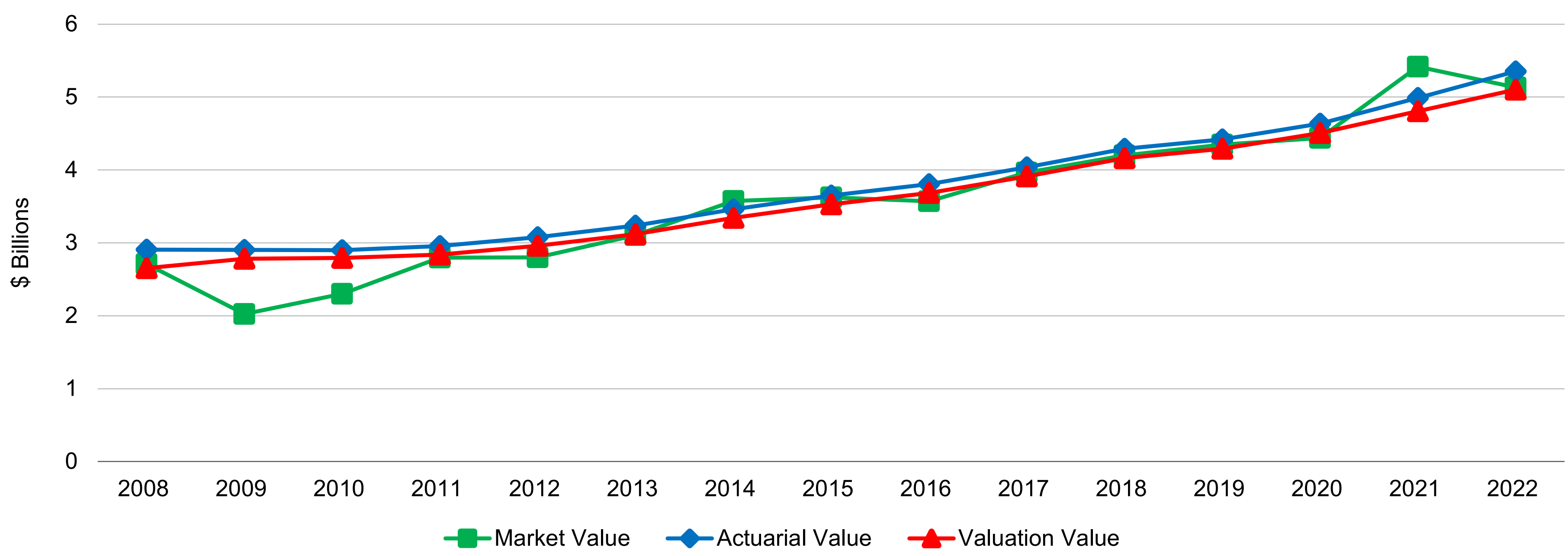
[1] Deferred return as of June 30, 2022 recognized in each of the next five years:

a.	Amount recognized on June 30, 2023	$(52,336,792)
b.	Amount recognized on June 30, 2024	(1,662,107)
c.	Amount recognized on June 30, 2025	(6,953,048)
d.	Amount recognized on June 30, 2026	(95,469,971)
e.	Amount recognized on June 30, 2027	(63,631,124)
f.	Subtotal	$(220,053,042)

Section 2: Actuarial Valuation Results

The Market Value, Actuarial Value and Valuation Value of Assets are representations of the plan's financial status. As investment gains and losses are gradually taken into account, the Actuarial Value of Assets tracks the Market Value of Assets. The Valuation Value of Assets is the Actuarial Value, excluding any non-valuation reserves. The Valuation Value of Assets is significant because the plan's liabilities are compared to these assets to determine what portion, if any, remains unfunded. Amortization of the Unfunded Actuarial Accrued Liability is an important element in determining the contribution requirement.

Market Value, Actuarial Value, and Valuation Value of Assets as of June 30, 2008 – 2022



Allocation of Valuation Value of Assets as of June 30, 2022

	County General	District[1]	County Safety	Total
Member Deposit Reserves	$338,241,350	$37,372,674	$171,943,124	$547,557,148
Employer Advance Reserves	609,174,682	56,699,919	628,132,476	1,294,007,077
Cost-of-Living Reserves – 2%	939,362,805	76,937,478	671,515,446	1,687,815,729
Cost-of-Living Reserves – 0.5%[2]	5,994,232	490,951	4,285,053	10,770,237
Retired Member Reserves	1,070,364,204	90,934,343	400,953,611	1,562,252,159
Valuation Value of Assets[3]	**$2,963,137,274**	**$262,435,366**	**$1,876,829,709**	**$5,102,402,350**

Note: Results may not add due to rounding.

[1] Includes Valuation Value of Assets allocated to the declining employers as follows:

Berrenda Mesa	$5,864,000
Inyokern	$180,000

[2] Allocated in proportion to the Cost-of-Living Reserve – 2%.

[3] Because the Contingency Reserve is positive, it is excluded from the Valuation Value of Assets per the Board's Interest Crediting Policy.

C. Actuarial Experience

To calculate any actuarially determined contribution, assumptions are made about future events that affect the amount and timing of benefits to be paid and assets to be accumulated. Each year actual experience is measured against the assumptions. If overall experience is more favorable than anticipated (an actuarial gain), the actuarially determined contribution will decrease from the previous year. On the other hand, the actuarially determined contribution will increase if overall actuarial experience is less favorable than expected (an actuarial loss).

Taking account of experience gains or losses in one year without making a change in assumptions reflects the belief that the single year's experience was a short-term development and that, over the long term, experience will return to the original assumptions.

If assumptions are changed, the contribution requirement is adjusted to take into account a change in experience anticipated for all future years. There are no changes in actuarial assumptions reflected in this valuation.

The net total gain is $32.8 million, which includes $9.7 million from investment gains, a loss of $7.2 million from contribution experience and $30.3 million in gains from all other sources. The net experience variation from individual sources other than investments and contributions was 0.4% of the Actuarial Accrued Liability. A discussion of the major components of the actuarial experience is on the following pages.

Actuarial Experience for Year Ended June 30, 2022

1	Net gain from investments[1]	$9,678,000
2	Net loss from contribution experience[2]	(7,175,000)
3	Net gain from other experience[3]	30,334,000
4	**Net experience gain: 1 + 2 + 3**	**$32,837,000**

[1] Details on next page.
[2] Due to UAAL contributions paid on lower than expected payroll and the phase-in of the impact of new actuarial assumptions on the UAAL contribution rate for the County Safety cost group.
[3] See *Section 2, Subsection E* for further details. Does not include the effect of plan or assumption changes, if any.

Investment Experience

A major component of projected asset growth is the assumed rate of return. The assumed return should represent the expected long-term rate of return, based on the Association's investment policy. The rate of return on the Market Value of Assets was -4.08% for the year ended June 30, 2022.

For valuation purposes, the assumed rate of return on the Valuation Value of Assets is 7.25%. The actual rate of return on a valuation basis for the 2021-2022 plan year was 7.45%. Because the actual return for the year was greater than the assumed return, the Association experienced an actuarial gain during the year ended June 30, 2022 with regard to its investments.

Investment Experience for Year Ended June 30, 2022

		Market Value	Actuarial Value	Valuation Value
1	Net investment income	$(219,947,047)	$429,170,405	$355,955,626
2	Average value of assets	5,384,294,443	4,955,230,034	4,776,236,416
3	Rate of return: **1 ÷ 2**	(4.08%)	8.66%	7.45%
4	Assumed rate of return	7.25%	7.25%	7.25%
5	Expected investment income: **2 x 4**	$390,361,347	$359,254,177	$346,277,140
6	**Actuarial gain/(loss): 1 - 5**	**$(610,308,394)**	**$69,916,228**	**$9,678,486**

Section 2: Actuarial Valuation Results

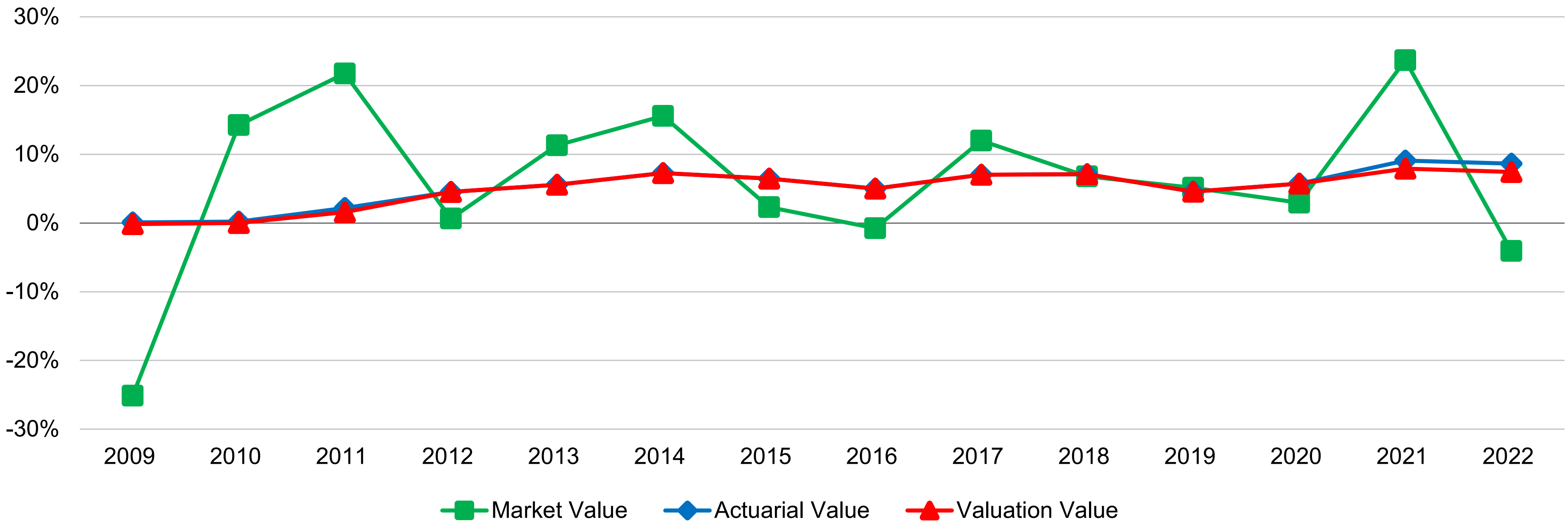
Because actuarial planning is long term, it is useful to see how the assumed investment rate of return has followed actual experience over time. The chart below shows the rate of return on an actuarial and valuation basis compared to the actual market value investment return for the last ten years, including averages over select time periods.

Investment Return – Market Value, Actuarial Value and Valuation Value: 2013 – 2022

	Market Value Investment Return		Actuarial Value Investment Return		Valuation Value Investment Return	
Year Ended June 30	**Amount**	**Percent**	**Amount**	**Percent**	**Amount**	**Percent**
2013	$315,415,541	11.29%	$171,131,798	5.57%	$164,826,838	5.57%
2014	482,632,857	15.57%	235,294,994	7.28%	227,040,629	7.28%
2015	81,931,170	2.30%	222,215,376	6.45%	214,895,554	6.46%
2016	(27,535,157)	(0.76%)	181,835,568	5.00%	176,132,858	5.00%
2017	426,606,857	12.00%	265,683,238	7.01%	257,592,581	7.02%
2018	267,658,596	6.78%	285,584,383	7.10%	277,046,241	7.10%
2019	214,244,104	5.14%	194,249,223	4.56%	188,682,583	4.57%
2020	127,861,225	2.95%	251,758,339	5.72%	245,000,434	5.73%
2021	1,043,360,707	23.68%	418,061,488	9.08%	355,223,792	7.93%
2022	(219,947,047)	(4.08%)	429,170,405	8.66%	355,955,626	7.45%
Most recent five-year geometric average return		**6.52%**		**7.01%**		**6.55%**
Most recent ten-year geometric average return		**7.21%**		**6.63%**		**6.41%**

Section 2, Subsection B described the actuarial asset valuation method that gradually recognizes fluctuations in the market value rate of return. The goal of this is to stabilize the actuarial rate of return and to produce more level pension plan costs.

Market, Actuarial and Valuation Rates of Return for Years Ended June 30, 2009 – 2022



Contributions

Contributions for the year ended June 30, 2022 totaled $341.6 million, compared to the projected amount of $348.5 million. This resulted in a loss of $7.2 million from contribution experience for the year, when adjusted for timing.

Non-Investment Experience

There are other differences between the expected and the actual experience that appear when the new valuation is compared with the projections from the previous valuation. These include:

- the extent of turnover among participants,
- retirement experience (earlier or later than projected),
- mortality (more or fewer deaths than projected),
- the number of disability retirements (more or fewer than projected),
- salary increases (greater or smaller than projected), and
- cost-of-living adjustments (COLAs) higher or lower than anticipated.

The net gain from this other experience for the year ended June 30, 2022 amounted to $30.3 million, which is 0.4% of the Actuarial Accrued Liability. See *Section 2, Subsection E* for a detailed development of the Unfunded Actuarial Accrued Liability.

D. Other Changes in the Actuarial Accrued Liability

The Actuarial Accrued Liability as of June 30, 2022 is $7.4 billion, an increase of $0.2 billion, or 2.9%, from the Actuarial Accrued Liability as of the prior valuation date. The liability is expected to grow each year with Normal Cost and interest, and to decline due to benefit payments made. Additional fluctuations can occur due to actual experience that differs from expected (as discussed in the previous subsection).

Actuarial Assumptions and Methods

There were no changes in plan actuarial assumptions or methods since the prior valuation.

Details on actuarial assumptions and methods are in *Section 4, Exhibit 1*.

Plan Provisions

The Public Employee Pension Reform Act of 2013 (PEPRA) set contribution rates for members hired after January 1, 2013 (PEPRA members) at 50% of normal cost, pending expiration of the existing MOUs. Between January 1, 2013 and the expiration of the then-existing MOUs in or around 2015, PEPRA members were incorrectly charged the 50% of normal cost rate. On July 30, 2020, the California Supreme Court issued a decision in the Alameda County Deputy Sheriff's Assn. et al., v. Alameda County Employees' Retirement Assn. litigation that clarified what should be considered compensation earnable for Legacy members and pensionable compensation for PEPRA members for that system and other similarly situated 1937 Act county employees' retirement systems. See Item (1) on page 8 of this report for a discussion of the action taken by KCERA.

- The change in plan provisions resulted in a net increase of $1.2 million in the Unfunded Actuarial Accrued Liability.

A summary of plan provisions is in *Section 4, Exhibit 2*.

E. Development of Unfunded Actuarial Accrued Liability

Development for Year Ended June 30, 2022 ($ in '000s)

1	**Unfunded Actuarial Accrued Liability at beginning of year**		**$2,358,199**
2	Total Normal Cost at middle of year[1]		122,671
3	Expected administrative expenses		5,607
4	Expected employer and member contributions[2]		(348,501)
5	Interest		163,866
6	Expected Unfunded Actuarial Accrued Liability at end of year		$2,301,842
7	Changes due to:		
	a. Investment return greater than expected (after "smoothing")	$(9,678)	
	b. Actual contributions less than expected in item 4[3]	7,175	
	c. Individual salary increases lower than expected	(6,599)	
	d. Gains from retirement experience	(26,646)	
	e. Other experience loss	2,911	
	f. Alameda decision and PEPRA implementation corrections[4]	1,246	
	Total changes		$(31,591)
8	**Unfunded Actuarial Accrued Liability at end of year**		**$2,270,251**

Note: The sum of items 7c through 7e equals the "Net gain from other experience" shown in *Section 2, Subsection C*.

1 Excludes administrative expense load.
2 Includes contributions towards administration expenses.
3 Due to UAAL contributions paid on lower than expected payroll and the phase-in of the impact of new actuarial assumptions on the UAAL contribution rate for the County Safety cost group.
4 The Public Employee Pension Reform Act of 2013 (PEPRA) set contribution rates for members hired after January 1, 2013 (PEPRA members) at 50% of normal cost, pending expiration of the existing MOUs. Between January 1, 2013 and the expiration of the then-existing MOUs in or around 2015, PEPRA members were incorrectly charged the 50% of normal cost rate. On July 30, 2020, the California Supreme Court issued a decision in the Alameda County Deputy Sheriff's Assn. et al., v. Alameda County Employees' Retirement Assn. litigation that clarified what should be considered compensation earnable for Legacy members and pensionable compensation for PEPRA members for that system and other similarly situated 1937 Act county employees' retirement systems. See Item (1) on page 8 of this report for a discussion of the action taken by KCERA.

F. Recommended Contribution

The recommended contribution is equal to the employer Normal Cost payment and a payment on the Unfunded Actuarial Accrued Liability. As of June 30, 2022, the average recommended employer contribution is 48.76% of compensation.

The Board sets the funding policy used to calculate the recommended contribution based on layered amortization periods. See *Section 4, Exhibit 1* for further details on the funding policy.

The contribution requirement as of June 30, 2022 is based on the data previously described, the actuarial assumptions and plan provisions described in *Section 4*, including all changes affecting future costs adopted at the time of the actuarial valuation, actuarial gains and losses, and changes in the actuarial assumptions.

Average Recommended Employer Contribution for Year Ended June 30

		2022		2021	
		Amount ($ in '000s)	**% of Projected Compensation[1]**	**Amount ($ in '000s)**	**% of Projected Compensation[1]**
1	Total Normal Cost[2]	$123,617	19.53%	$124,039	19.91%
2	Expected member contributions	44,039	6.96%	42,475	6.82%
3	Employer Normal Cost: **1 – 2**	$79,578	12.57%	$81,564	13.09%
4	Actuarial Accrued Liability	$7,372,653		$7,164,225	
5	Valuation Value of Assets	5,102,402		4,806,026	
6	Unfunded Actuarial Accrued Liability: **4 – 5**	$2,270,251		$2,358,199	
7	Payment on Unfunded Actuarial Accrued Liability	229,115	36.19%	224,462	36.01%
8	Total average recommended employer contribution: **3 + 7**	$308,693	48.76%	$306,026	49.10%
9	Projected compensation	**$633,103**		**$623,295**	

[1] Contributions are assumed to be paid at the middle of the year.
[2] Includes administrative expense load.

Reconciliation of Average Recommended Employer Contribution Rate

The chart below details the changes in the average recommended employer contribution rate from the prior valuation to the current year's valuation.

Reconciliation from June 30, 2021 to June 30, 2022

		Contribution Rate	Estimated Annual Dollar Amount[1] ($ in '000s)
1	**Average Recommended Employer Contribution as of June 30, 2021**	**49.10%**	**$306,026**
2	Effect of investment return greater than expected (after "smoothing")	(0.12%)	(760)
3	Effect of actual contributions less than expected	0.09%	570
4	Effect of individual salary increases lower than expected	(0.08%)	(506)
5	Effect of gains on retirement experience	(0.33%)	(2,089)
6	Effect of amortizing prior year's UAAL over a smaller than expected projected total payroll	0.48%	3,039
7	Effect of changes in demographics of members amongst tiers	(0.35%)	(2,216)
8	Effect of other net experience gains[2]	(0.05%)	4,502
9	Effect of Alameda decision and PEPRA implementation corrections [3]	0.02%	127
10	Total change	(0.34%)	$2,667
11	**Average Recommended Employer Contribution as of June 30, 2022**	**48.76%**	**$308,693**

[1] Based on projected compensation for each valuation date shown.

[2] Net of an adjustment to reflect 12-month delay between date of valuation and date of rate implementation for all actuarial experience (-0.01% of payroll). Estimated annual dollar cost also reflects the change in total projected compensation from the prior valuation.

[3] The Public Employee Pension Reform Act of 2013 (PEPRA) set contribution rates for members hired after January 1, 2013 (PEPRA members) at 50% of normal cost, pending expiration of the existing MOUs. Between January 1, 2013 and the expiration of the then-existing MOUs in or around 2015, PEPRA members were incorrectly charged the 50% of normal cost rate. On July 30, 2020, the California Supreme Court issued a decision in the Alameda County Deputy Sheriff's Assn. et al., v. Alameda County Employees' Retirement Assn. litigation that clarified what should be considered compensation earnable for Legacy members and pensionable compensation for PEPRA members for that system and other similarly situated 1937 Act county employees' retirement systems. See Item (1) on page 8 of this report for a discussion of the action taken by KCERA.

Reconciliation of Average Recommended Member Contribution Rate

The chart below details the changes in the average recommended member contribution rate from the prior valuation to the current year's valuation.

Reconciliation from June 30, 2021 to June 30, 2022

		Contribution Rate	Estimated Annual Dollar Amount[1] ($ in '000s)
1	**Average Recommended Member Contribution as of June 30, 2021**	**6.82%**	**$42,475**
2	Effect of changes in member demographics amongst tiers	0.10%	633
3	Effect of net other changes[2]	0.04%	931
4	Effect of Alameda decision and PEPRA implementation corrections[3]	0.00%	0
5	Total change	0.14%	1,564
6	**Average Recommended Member Contribution as of June 30, 2022**	**6.96%**	**$44,039**

[1] Based on projected compensation for each valuation date shown.
[2] Other differences in actual versus expected experience. Estimated annual dollar cost also reflects the change in total projected compensation from the prior valuation.
[3] The Public Employee Pension Reform Act of 2013 (PEPRA) set contribution rates for members hired after January 1, 2013 (PEPRA members) at 50% of normal cost, pending expiration of the existing MOUs. Between January 1, 2013 and the expiration of the then-existing MOUs in or around 2015, PEPRA members were incorrectly charged the 50% of normal cost rate. On July 30, 2020, the California Supreme Court issued a decision in the Alameda County Deputy Sheriff's Assn. et al., v. Alameda County Employees' Retirement Assn. litigation that clarified what should be considered compensation earnable for Legacy members and pensionable compensation for PEPRA members for that system and other similarly situated 1937 Act county employees' retirement systems. See Item (1) on page 8 of this report for a discussion of the action taken by KCERA.

Summary of KCERA Employers, Benefit Formulas and Member Contribution Rates

County and Courts

Plan (Tier I)	Valuation Report Label	Benefit Formula	Member Contribution Code Section	Member Contribution Provides Average Annuity of:	Adopted 1997 MOU	Soc Sec Integration	Pre-Tax	5-yr Contribution Stop
General – County Tier I	County General Tier I	31676.17 (3% @ 60)	31621.8	1/100 of FAS1 at age 55	Yes	Yes	Yes	Varies[1]
General – County – Court Employees Tier I	Courts Tier I	31676.17 (3% @ 60)	31621.8	1/100 of FAS1 at age 55 plus supplemental 8.0%[2]	Yes	Yes	Yes	3/12/2011[3]
Safety – County Tier I	County Safety Tier I	31664.1 (3% @ 50)	31639.25	3/200 of FAS1 at age 50[4]	Yes	Yes	Yes	Varies[1]

Plan (Tier IIA)	Valuation Report Label	Benefit Formula	Member Contribution Code Section	Member Contribution Provides Average Annuity of:	Tier Adoption Date	Soc Sec Integration	Pre-Tax
General – County Tier IIA	County General Tier IIA	31676.01 (1.62% @ 65)	31621	1/120 of FAS1 at age 60	10/27/2007[5]	Yes	Yes
General – County – Court Employees Tier IIA	Courts Tier IIA	31676.01 (1.62% @ 65)	31621	1/120 of FAS1 at age 60	3/12/2011	Yes	Yes
Safety – County Tier IIA	County Safety Tier IIA	31664 (2% @ 50)	31639.25	1/100 of FAS1 at age 50[35]	3/27/2012	Yes	Yes

Plan (Tier IIB)	Valuation Report Label	Benefit Formula	Member Contribution Code Section	Member Contribution	Tier Adoption Date	Soc Sec Integration	Pre-Tax
General – County Tier IIB	County General Tier IIB	31676.01 (1.62% @ 65)	7522.30(a)	50% of Normal Cost rate	1/1/2013	Yes	Yes
General – County – Court Employees Tier IIB	Courts Tier IIB	31676.01 (1.62% @ 65)	7522.30(a)	50% of Normal Cost rate	1/1/2013	Yes	Yes
Safety – County Tier IIB	County Safety Tier IIB	31664 (2% @ 50)	7522.30(a)	50% of Normal Cost rate	1/1/2013	Yes	Yes

FAS1 = 1-Year Final Average Salary

1 See next page for member contribution rates by employee association and bargaining unit.
2 Court employees in Tier I pay an additional 8% of the base salary for their entire career.
3 Court employees in Tier I hired prior to this date pay the full member contribution rates for only the first five years of service as a result of the 2010 Memorandum of Understanding (MOU).
4 Safety Tier I and Safety Tier IIA members stop paying contributions upon attaining 30 years of continuous county service.
5 KCPA (Prosecutors) employee association adopted Tier IIA effective July 5, 2008.

Summary of KCERA Employers, Benefit Formulas and Member Contribution Rates (continued)

Summary of KCERA Member Contribution Rates – County Bargaining Units

Plan	Employee Association	Bargaining Unit	5-yr Contribution Stop[1]	1/6th Rate Start[1]	1/3rd Rate Start[1]	"Safety 3" Effective Date
County General	SEIU	1 – Supervisory, 2 – Professional, 3 – Technical Services, 4 – Clerical, 5 – Administrative, 6 – Trade/Crafts/Labor	8/7/2004	5/4/2013	5/3/2014	N/A
County General		D – Mid-management, M – Management, X – Confidential	9/4/2004[2]	7/13/2013	7/12/2014	N/A
County General	KCPA	P – Prosecutors	2/8/2005	8/10/2013	8/9/2014	N/A
County Safety	KCFFU	F – Firefighters, 7 – Supervisors	3/31/2007[3]	5/4/2013	5/3/2014	3/31/2007[4]
County Safety	KLEA	L – Sheriff Law Enforcement, 8 – Supervisors	11/10/2007	5/4/2013	5/3/2014	N/A
County Safety	KCSCA	N – Sheriff Lieutenants, R – Commanders	3/17/2007	5/4/2013	5/3/2014	N/A
County Safety	SEIU-CJU	J – Criminal Justice, S – Supervisors	12/8/2007	5/4/2013	5/3/2014	N/A
County Safety	KCPMA	O – Probation Management	4/7/2004	5/4/2013	5/3/2014	N/A
County Safety	KCPOA	Q – Probation Officers, Y – Supervisors	9/18/2007	8/10/2013	8/9/2014	9/18/2007[40]
County Safety	KCDOA	T – Detention Officers, V – Supervisors	6/23/2007	5/4/2013	5/3/2014	N/A
County Safety	KCSCA II	W – Detention Officers Lieutenants	9/15/2009	5/4/2013	5/3/2014	12/8/2007 to 9/14/2009[5]

[1] Tier I members hired prior to this date pay the full member contributions for only the first five years of service. These members will start paying one-sixth of their full member contributions on the "1/6th Rate Start" date, and will start paying one-third of their full member contributions on the "1/3rd Rate Start" date.
[2] Elected officials hired prior to this date do not pay member contributions. These members will start paying one-third of their full member contributions on the first day of the first biweekly payroll period in January 2015.
[3] Firefighters hired prior to this date pay 1% of their base salary after the first five years of service. These members will start paying one-sixth of their full member contributions (not to exceed 2% of base salary) on the "1/6th Rate Start" date, and will start paying one-third of their full member contributions (not to exceed 4% of base salary) on the "1/3rd Rate Start" date.
[4] Members hired after this date pay a uniform "Safety 3" rate for all entry ages. The uniform rate continues to be integrated with Social Security.
[5] Effective December 8, 2007 through September 14, 2009, this flat rate applied to KCSCA II employees.

Summary of KCERA Employers, Benefit Formulas and Member Contribution Rates (continued)

Districts

Plan (Tier I)	Valuation Report Label	Benefit Formula	Member Contribution Code Section	Member Contribution Provides Average Annuity of:	Adopted 1997 MOU	Soc Sec Integration	Pre-Tax	5-yr Contribution Stop[1]
District – Berrenda Mesa Water Tier I	Declining Employers Tier I	31676.17 (3% @ 60)[2]	31621.8	1/100 of FAS1 at age 55	Yes	No	Yes	1/1/2004
District – Buttonwillow Recreation & Park Tier I	District Category III Tier I	31676.17 (3% @ 60)	31621.8	1/100 of FAS1 at age 55 (Member pays 50%)[3]	No	No	No	N/A
District – East Kern Cemetery Tier I	District Category II Tier I	31676.17 (3% @ 60)	31621.8	1/100 of FAS1 at age 55	Yes	Yes	Yes	1/1/2004
District – Inyokern Community Services Tier I	Declining Employers Tier I	31676.17 (3% @ 60)[43]	31621.8	1/100 of FAS1 at age 55	Yes	No	No	1/1/2004
District – Kern County Water Agency Tier I	District Category I Tier I	31676.17 (3% @ 60)	31621.8	1/100 of FAS1 at age 55 (100% employer pickup if hired prior to 8/22/2004)[4]	Yes	Yes	Yes	N/A
District – Kern Mosquito & Vector Control Tier I	District Category II Tier I	31676.17 (3% @ 60)	31621.8	1/100 of FAS1 at age 55	Yes	Yes	Yes	1/8/2005
District – North of River Sanitation Tier I	District Category V Tier I	31676.17 (3% @ 60)	31621.8	1/100 of FAS1 at age 55	Yes	Yes	Yes	8/7/2004
District – San Joaquin Valley Unified Air Pollution Control Tier I	District Category III Tier I	31676.17 (3% @ 60)	31621.8	Member pays 50% of Normal Cost rate[5]	No	No	Yes	N/A
District – Shafter Recreation & Park Tier I	District Category II Tier I	31676.17 (3% @ 60)	31621.8	1/100 of FAS1 at age 55	Yes	Yes	Yes	1/1/2004
District – West Side Cemetery Tier I	District Category VI Tier I	31676.17 (3% @ 60)	31621.8	1/100 of FAS1 at age 55	Yes	Yes	No	N/A[6]
District – West Side Mosquito Abatement Tier I	District Category II Tier I	31676.17 (3% @ 60)	31621.8	1/100 of FAS1 at age 55	Yes	Yes	No	1/1/2004
District – West Side Recreation & Park Tier I	District Category II Tier I	31676.17 (3% @ 60)	31621.8	1/100 of FAS1 at age 55	Yes	Yes	No	8/7/2004

FAS1 = 1-Year Final Average Salary

1 Tier I Members hired prior to this date pay the full member contribution rates for only the first five years of service as a result of the 1997 Memorandum of Understanding (MOU).
2 District Category IV adopted the 3% @ 60 Formula on a prospective basis only. Member contribution rates are the same as General Tier I.
3 Buttonwillow District Tier I (District Category III) did not adopt the 1997 MOU. Members in those districts pay 50% of the full rates, regardless of hire date.
4 For Kern County Water Agency (District Category I) employees hired prior to August 22, 2004, the employer picks up 100% of all member contributions.
5 Effective July 11, 2015, San Joaquin Valley Unified Air Pollution Control District Tier I members pay 28% of the total Normal Cost rate. That percent increases to 39% effective 2016-2017 and 50% effective 2017-2018.
6 West Side Cemetery (District Category VI) employees pay the full member contribution rates for only the first five years of service, regardless of hire date.

Summary of KCERA Employers, Benefit Formulas and Member Contribution Rates (continued)

Districts (continued)

Plan (Tier IIA)	Valuation Report Label	Benefit Formula	Member Contribution Code Section	Member Contribution Provides Average Annuity of:	Tier Adoption Date	Soc Sec Integration	Pre-Tax
District – Berrenda Mesa Water Tier IIA[1]	Declining Employers Tier IIA	31676.01 (1.62% @ 65)	31621	1/120 of FAS1 at age 60	1/12/2010	No	Yes
District – Buttonwillow Recreation & Park Tier IIA[1]	District Category III Tier IIA	31676.01 (1.62% @ 65)	31621	1/120 of FAS1 at age 60	12/17/2012	No	No
District – East Kern Cemetery Tier IIA[1]	District Category II Tier IIA	31676.01 (1.62% @ 65)	31621	1/120 of FAS1 at age 60	12/17/2012	Yes	Yes
District – Inyokern Community Services Tier IIA[1]	Declining Employers Tier IIA	31676.01 (1.62% @ 65)	31621	1/120 of FAS1 at age 60	12/13/2012	No	No
District – Kern County Water Agency Tier IIA	District Category I Tier IIA	31676.01 (1.62% @ 65)	31621	1/120 of FAS1 at age 60	1/1/2010	Yes	Yes
District – Kern Mosquito & Vector Control Tier IIA[1]	District Category II Tier IIA	31676.01 (1.62% @ 65)	31621	1/120 of FAS1 at age 60	12/12/2012	Yes	Yes
District – North of River Sanitation Tier IIA	District Category V Tier IIA	31676.01 (1.62% @ 65)	31621	1/120 of FAS1 at age 60	10/29/2007	Yes	Yes
District – San Joaquin Valley Unified Air Pollution Control Tier IIA	District Category III Tier IIA	31676.01 (1.62% @ 65)	31621	Member pays 50% of Normal Cost rate[2]	7/31/2012	No	Yes
District – Shafter Recreation & Park Tier IIA[1]	District Category II Tier IIA	31676.01 (1.62% @ 65)	31621	1/120 of FAS1 at age 60	12/19/2012	Yes	Yes
District – West Side Cemetery Tier IIA[1]	District Category VI Tier IIA	31676.01 (1.62% @ 65)	31621	1/120 of FAS1 at age 60	12/18/2012	Yes	No
District – West Side Mosquito Abatement Tier IIA[1]	District Category II Tier IIA	31676.01 (1.62% @ 65)	31621	1/120 of FAS1 at age 60	11/15/2012	Yes	No

FAS1 = 1-Year Final Average Salary

1 These districts adopted Tier IIA, but had no Tier IIA employees as of the valuation date.
2 Effective July 8, 2017, San Joaquin Valley Unified Air Pollution Control District Tier IIA members pay 50% of the total Normal Cost rate.

Summary of KCERA Employers, Benefit Formulas and Member Contribution Rates (continued)

Districts (continued)

Plan (Tier IIB and Tier III)	Valuation Report Label	Benefit Formula	Member Contribution Code Section	Member Contribution	Tier Adoption Date	Soc Sec Integration	Pre-Tax
District – Berrenda Mesa Water Tier IIB[1]	Declining Employers Tier IIB	31676.01 (1.62% @ 65)	7522.30(a)	50% of Normal Cost rate	1/1/2013	No	Yes
District – Buttonwillow Recreation & Park Tier IIB[1]	District Category III Tier IIB	31676.01 (1.62% @ 65)	7522.30(a)	50% of Normal Cost rate	1/1/2013	No	No
District – East Kern Cemetery Tier IIB	District Category II Tier IIB	31676.01 (1.62% @ 65)	7522.30(a)	50% of Normal Cost rate	1/1/2013	Yes	Yes
District – Inyokern Community Services Tier IIB[1]	Declining Employers Tier IIB	31676.01 (1.62% @ 65)	7522.30(a)	50% of Normal Cost rate	1/1/2013	No	No
District – Kern County Water Agency Tier IIB	District Category I Tier IIB	31676.01 (1.62% @ 65)	7522.30(a)	50% of Normal Cost rate	1/1/2013	Yes	Yes
District – Kern Mosquito & Vector Control Tier IIB	District Category II Tier IIB	31676.01 (1.62% @ 65)	7522.30(a)	50% of Normal Cost rate	1/1/2013	Yes	Yes
District – North of River Sanitation Tier IIB	District Category V Tier IIB	31676.01 (1.62% @ 65)	7522.30(a)	50% of Normal Cost rate	1/1/2013	Yes	Yes
District – San Joaquin Valley Unified Air Pollution Control Tier IIB	District Category III Tier IIB	31676.01 (1.62% @ 65)	7522.30(a)	50% of Normal Cost rate	1/1/2013	No	Yes
District – Shafter Recreation & Park Tier IIB	District Category II Tier IIB	31676.01 (1.62% @ 65)	7522.30(a)	50% of Normal Cost rate	1/1/2013	Yes	Yes
District – West Side Cemetery Tier IIB[1]	District Category VI Tier IIB	31676.01 (1.62% @ 65)	7522.30(a)	50% of Normal Cost rate	1/1/2013	Yes	No
District – West Side Mosquito Abatement Tier IIB	District Category II Tier IIB	31676.01 (1.62% @ 65)	7522.30(a)	50% of Normal Cost rate	1/1/2013	Yes	No
District – West Side Recreation & Park Tier III[1]	District Category II Tier III	7522.20(a) (2.50% @ 67)	7522.30(a)	50% of Normal Cost rate	1/1/2013	No	No

[1] These districts adopted Tier IIB or Tier III, but had no employees in those tiers as of the valuation date.

Recommended Employer Contribution Rates – Current Valuation

	June 30, 2022 Actuarial Valuation							
	Basic		2% COLA		0.5% COLA		Total	
	Rate	Estimated Annual Amount[1] ($ in ‘000s)	Rate	Estimated Annual Amount[1] ($ in ‘000s)	Rate	Estimated Annual Amount[1] ($ in ‘000s)	Rate	Estimated Annual Amount[1] ($ in ‘000s)
County General Tier I without Courts								
Normal Cost	13.18%	$16,384	4.24%	$5,271	1.32%	$1,641	18.74%	$23,296
UAAL	21.16%	26,305	2.55%	3,170	6.07%	7,545	29.78%	37,020
Total Contributions	**34.34%**	**$42,689**	**6.79%**	**$8,441**	**7.39%**	**$9,186**	**48.52%**	**$60,316**
County General Tier IIA without Courts								
Normal Cost	3.92%	$2,479	2.17%	$1,372	0.67%	$424	6.76%	$4,275
UAAL	21.16%	13,382	2.55%	1,613	6.07%	3,838	29.78%	18,833
Total Contributions	**25.08%**	**$15,861**	**4.72%**	**$2,985**	**6.74%**	**$4,262**	**36.54%**	**$23,108**
County General Tier IIB without Courts								
Normal Cost	4.88%	$11,239	1.04%	$2,395	0.33%	$760	6.25%	$14,394
UAAL	21.16%	48,734	2.55%	5,873	6.07%	13,979	29.78%	68,586
Total Contributions	**26.04%**	**$59,973**	**3.59%**	**$8,268**	**6.40%**	**$14,739**	**36.03%**	**$82,980**
County General without Courts – Combined								
Normal Cost	7.20%	$30,102	2.16%	$9,038	0.68%	$2,825	10.04%	$41,965
UAAL	21.16%	88,421	2.55%	10,656	6.07%	25,362	29.78%	124,439
Total Contributions	**28.36%**	**$118,523**	**4.71%**	**$19,694**	**6.75%**	**$28,187**	**39.82%**	**$166,404**
Courts Tier I								
Normal Cost	10.45%	$1,272	4.24%	$516	1.32%	$161	16.01%	$1,949
UAAL	21.16%	2,576	2.55%	310	6.07%	740	29.78%	3,626
Total Contributions	**31.61%**	**$3,848**	**6.79%**	**$826**	**7.39%**	**$901**	**45.79%**	**$5,575**
Courts Tier IIA								
Normal Cost	4.08%	$121	2.17%	$64	0.67%	$21	6.92%	$206
UAAL	21.16%	629	2.55%	76	6.07%	180	29.78%	885
Total Contributions	**25.24%**	**$750**	**4.72%**	**$140**	**6.74%**	**$201**	**36.70%**	**$1,091**
Courts Tier IIB								
Normal Cost	4.88%	$853	1.04%	$182	0.33%	$58	6.25%	$1,093
UAAL	21.16%	3,700	2.55%	446	6.07%	1,062	29.78%	5,208
Total Contributions	**26.04%**	**$4,553**	**3.59%**	**$628**	**6.40%**	**$1,120**	**36.03%**	**$6,301**

[1] Based on June 30, 2022 projected compensation as shown on page 47.

Recommended Employer Contribution Rates – Current Valuation (continued)

	June 30, 2022 Actuarial Valuation							
	Basic		2% COLA		0.5% COLA		Total	
	Rate	Estimated Annual Amount[1] ($ in '000s)	Rate	Estimated Annual Amount[1] ($ in '000s)	Rate	Estimated Annual Amount[1] ($ in '000s)	Rate	Estimated Annual Amount[1] ($ in '000s)
Courts – Combined								
Normal Cost	6.88%	$2,246	2.33%	$762	0.75%	$240	9.96%	$3,248
UAAL	21.16%	6,905	2.55%	832	6.07%	1,982	29.78%	9,719
Total Contributions	**28.04%**	**$9,151**	**4.88%**	**$1,594**	**6.82%**	**$2,222**	**39.74%**	**$12,967**
County Safety Tier I								
Normal Cost	17.24%	$15,179	6.45%	$5,679	2.08%	$1,831	25.77%	$22,689
UAAL	35.71%	31,441	6.06%	5,335	14.05%	12,370	55.82%	49,146
Total Contributions	**52.95%**	**$46,620**	**12.51%**	**$11,014**	**16.13%**	**$14,201**	**81.59%**	**$71,835**
County Safety Tier IIA								
Normal Cost	10.84%	$828	4.98%	$380	1.57%	$121	17.39%	$1,329
UAAL	35.71%	2,728	6.06%	463	14.05%	1,074	55.82%	4,265
Total Contributions	**46.55%**	**$3,556**	**11.04%**	**$843**	**15.62%**	**$1,195**	**73.21%**	**$5,594**
County Safety Tier IIB								
Normal Cost	9.79%	$4,641	2.44%	$1,157	0.76%	$360	12.99%	$6,158
UAAL	35.71%	16,927	6.06%	2,873	14.05%	6,660	55.82%	26,460
Total Contributions	**45.50%**	**$21,568**	**8.50%**	**$4,030**	**14.81%**	**$7,020**	**68.81%**	**$32,618**
County Safety – Combined								
Normal Cost	14.43%	$20,648	5.04%	$7,216	1.62%	$2,312	21.09%	$30,176
UAAL	35.71%	51,096	6.06%	8,671	14.05%	20,104	55.82%	79,871
Total Contributions	**50.14%**	**$71,744**	**11.10%**	**$15,887**	**15.67%**	**$22,416**	**76.91%**	**$110,047**
All County with Courts – Combined								
Normal Cost	8.93%	$52,996	2.87%	$17,016	0.90%	$5,377	12.70%	$75,389
UAAL	24.67%	146,422	3.40%	20,159	7.99%	47,448	36.06%	214,029
Total Contributions	**33.60%**	**$199,418**	**6.27%**	**$37,175**	**8.89%**	**$52,825**	**48.76%**	**$289,418**
District Category I Tier I								
Normal Cost	15.34%	$561	4.24%	$155	1.32%	$49	20.90%	$765
UAAL	26.69%	976	4.31%	158	6.29%	230	37.29%	1,364
Total Contributions	**42.03%**	**$1,537**	**8.55%**	**$313**	**7.61%**	**$279**	**58.19%**	**$2,129**

[1] Based on June 30, 2022 projected compensation as shown on page 47.

Recommended Employer Contribution Rates – Current Valuation (continued)

	June 30, 2022 Actuarial Valuation							
	Basic		2% COLA		0.5% COLA		Total	
	Rate	Estimated Annual Amount[1] ($ in '000s)	Rate	Estimated Annual Amount[1] ($ in '000s)	Rate	Estimated Annual Amount[1] ($ in '000s)	Rate	Estimated Annual Amount[1] ($ in '000s)
District Category I Tier IIA								
Normal Cost	4.59%	$37	2.17%	$17	0.67%	$5	7.43%	$59
UAAL	26.69%	213	4.31%	34	6.29%	50	37.29%	297
Total Contributions	**31.28%**	**$250**	**6.48%**	**$51**	**6.96%**	**$55**	**44.72%**	**$356**
District Category I Tier IIB								
Normal Cost	4.88%	$74	1.04%	$16	0.33%	$5	6.25%	$95
UAAL	26.69%	404	4.31%	65	6.29%	96	37.29%	565
Total Contributions	**31.57%**	**$478**	**5.35%**	**$81**	**6.62%**	**$101**	**43.54%**	**$660**
District Category I – Combined								
Normal Cost	11.26%	$672	3.15%	$188	0.99%	$59	15.40%	$919
UAAL	26.69%	1,593	4.31%	257	6.29%	376	37.29%	2,226
Total Contributions	**37.95%**	**$2,265**	**7.46%**	**$445**	**7.28%**	**$435**	**52.69%**	**$3,145**
District Category II Tier I								
Normal Cost	12.18%	$171	4.24%	$60	1.32%	$18	17.74%	$249
UAAL	26.69%	375	4.31%	61	6.29%	88	37.29%	524
Total Contributions	**38.87%**	**$546**	**8.55%**	**$121**	**7.61%**	**$106**	**55.03%**	**$773**
District Category II Tier IIB								
Normal Cost	4.88%	$50	1.04%	$11	0.33%	$3	6.25%	$64
UAAL	26.69%	274	4.31%	44	6.29%	65	37.29%	383
Total Contributions	**31.57%**	**$324**	**5.35%**	**$55**	**6.62%**	**$68**	**43.54%**	**$447**
District Category II Tier III								
Normal Cost	5.85%	$0	1.21%	$0	0.37%	$0	7.43%	$0
UAAL	26.69%	0	4.31%	0	6.29%	0	37.29%	0
Total Contributions	**32.54%**	**$0**	**5.52%**	**$0**	**6.66%**	**$0**	**44.72%**	**$0**
District Category II – Combined								
Normal Cost	9.05%	$221	2.92%	$71	0.86%	$21	12.83%	$313
UAAL	26.69%	649	4.31%	105	6.29%	153	37.29%	907
Total Contributions	**35.74%**	**$870**	**7.23%**	**$176**	**7.15%**	**$174**	**50.12%**	**$1,220**

[1] Based on June 30, 2022 projected compensation as shown on page 47.

Recommended Employer Contribution Rates – Current Valuation (continued)

	June 30, 2022 Actuarial Valuation							
	Basic		2% COLA		0.5% COLA		Total	
	Rate	Estimated Annual Amount[1] ($ in '000s)	Rate	Estimated Annual Amount[1] ($ in '000s)	Rate	Estimated Annual Amount[1] ($ in '000s)	Rate	Estimated Annual Amount[1] ($ in '000s)
District Category III Tier I (Buttonwillow)								
Normal Cost	10.10%	$4	4.24%	$2	1.32%	$0	15.66%	$6
UAAL	26.69%	11	4.31%	2	6.29%	2	37.29%	15
Total Contributions	**36.79%**	**$15**	**8.55%**	**$4**	**7.61%**	**$2**	**52.95%**	**$21**
District Category III Tier I (SJVAPCD)								
Normal Cost	9.31%	$1,479	2.12%	$337	0.67%	$106	12.10%	$1,922
UAAL	26.69%	4,240	4.31%	685	6.29%	999	37.29%	5,924
Total Contributions	**36.00%**	**$5,719**	**6.43%**	**$1,022**	**6.96%**	**$1,105**	**49.39%**	**$7,846**
District Category III Tier IIA (Buttonwillow)								
Normal Cost	3.93%	$0	2.17%	$0	0.67%	$0	6.77%	$0
UAAL	26.69%	0	4.31%	0	6.29%	0	37.29%	0
Total Contributions	**30.62%**	**$0**	**6.48%**	**$0**	**6.96%**	**$0**	**44.06%**	**$0**
District Category III Tier IIA (SJVAPCD)								
Normal Cost	5.35%	$53	1.09%	$11	0.34%	$3	6.78%	$67
UAAL	26.69%	264	4.31%	43	6.29%	61	37.29%	368
Total Contributions	**32.04%**	**$317**	**5.40%**	**$54**	**6.63%**	**$64**	**44.07%**	**$435**
District Category III Tier IIB								
Normal Cost	4.88%	$605	1.04%	$129	0.33%	$40	6.25%	$774
UAAL	26.69%	3,307	4.31%	534	6.29%	779	37.29%	4,620
Total Contributions	**31.57%**	**$3,912**	**5.35%**	**$663**	**6.62%**	**$819**	**43.54%**	**$5,394**
District Category III – Combined								
Normal Cost	7.31%	$2,141	1.64%	$479	0.50%	$149	9.45%	$2,769
UAAL	26.69%	7,822	4.31%	1,264	6.29%	1,841	37.29%	10,927
Total Contributions	**34.00%**	**$9,963**	**5.95%**	**$1,743**	**6.79%**	**$1,990**	**46.74%**	**$13,696**
District Category V Tier I								
Normal Cost	18.51%	$14	4.24%	$3	1.32%	$1	24.07%	$18
UAAL	26.69%	20	4.31%	3	6.29%	5	37.29%	28
Total Contributions	**45.20%**	**$34**	**8.55%**	**$6**	**7.61%**	**$6**	**61.36%**	**$46**

[1] Based on June 30, 2022 projected compensation as shown on page 47.

Recommended Employer Contribution Rates – Current Valuation (continued)

	June 30, 2022 Actuarial Valuation							
	Basic		2% COLA		0.5% COLA		Total	
	Rate	Estimated Annual Amount[1] ($ in '000s)	Rate	Estimated Annual Amount[1] ($ in '000s)	Rate	Estimated Annual Amount[1] ($ in '000s)	Rate	Estimated Annual Amount[1] ($ in '000s)
District Category V Tier IIA								
Normal Cost	4.49%	$19	2.17%	$9	0.67%	$3	7.33%	$31
UAAL	26.69%	113	4.31%	18	6.29%	27	37.29%	158
Total Contributions	**31.18%**	**$132**	**6.48%**	**$27**	**6.96%**	**$30**	**44.62%**	**$189**
District Category V Tier IIB								
Normal Cost	4.88%	$45	1.04%	$10	0.33%	$3	6.25%	$58
UAAL	26.69%	247	4.31%	40	6.29%	58	37.29%	345
Total Contributions	**31.57%**	**$292**	**5.35%**	**$50**	**6.62%**	**$61**	**43.54%**	**$403**
District Category V – Combined								
Normal Cost	5.43%	$78	1.51%	$22	0.51%	$7	7.45%	$107
UAAL	26.69%	380	4.31%	61	6.29%	90	37.29%	531
Total Contributions	**32.12%**	**$458**	**5.82%**	**$83**	**6.80%**	**$97**	**44.74%**	**$638**
District Category VI Tier I								
Normal Cost	18.51%	$38	4.24%	$9	1.32%	$2	24.07%	$49
UAAL	26.69%	54	4.31%	9	6.29%	13	37.29%	76
Total Contributions	**45.20%**	**$92**	**8.55%**	**$18**	**7.61%**	**$15**	**61.36%**	**$125**
District Category VI Tier IIB								
Normal Cost	4.88%	$0	1.04%	$0	0.33%	$0	6.25%	$0
UAAL	26.69%	0	4.31%	0	6.29%	0	37.29%	0
Total Contributions	**31.57%**	**$0**	**5.35%**	**$0**	**6.62%**	**$0**	**43.54%**	**$0**
District Category VI – Combined								
Normal Cost	18.51%	$38	4.24%	$9	1.32%	$2	24.07%	$49
UAAL	26.69%	54	4.31%	9	6.29%	13	37.29%	76
Total Contributions	**45.20%**	**$92**	**8.55%**	**$18**	**7.61%**	**$15**	**61.36%**	**$125**
Declining Employers Tier I (Berrenda)								
Normal Cost	12.00%	$22	3.78%	$7	1.62%	$3	17.40%	$32
UAAL	135.93%	251	43.33%	80	40.62%	76	219.88%	407
Total Contributions[2]	**147.93%**	**$273**	**47.11%**	**$87**	**42.24%**	**$79**	**237.28%**	**$439**

1 Based on June 30, 2022 projected compensation as shown on page 47.

2 These Districts are declining employers and they should contribute based on dollar contribution amounts shown (not rates).

Recommended Employer Contribution Rates – Current Valuation (continued)

	June 30, 2022 Actuarial Valuation							
	Basic		2% COLA		0.5% COLA		Total	
	Rate	Estimated Annual Amount[1] ($ in '000s)	Rate	Estimated Annual Amount[1] ($ in '000s)	Rate	Estimated Annual Amount[1] ($ in '000s)	Rate	Estimated Annual Amount[1] ($ in '000s)
Declining Employers Tier I (Inyokern)								
Normal Cost	N/A	$0	N/A	$0	N/A	$0	N/A	$0
UAAL	N/A	10	N/A	0	N/A	2	N/A	12
Total Contributions[2]	**N/A**	**$10**	**N/A**	**$0**	**N/A**	**$2**	**N/A**	**$12**
Declining Employers – Combined								
Normal Cost	11.89%	$22	3.79%	$7	1.61%	$3	17.29%	$32
UAAL	141.08%	261	43.24%	80	42.17%	78	226.49%	419
Total Contributions	**152.97%**	**$283**	**47.03%**	**$87**	**43.78%**	**$81**	**243.78%**	**$451**
All Districts – Combined								
Normal Cost	8.03%	$3,172	1.96%	$776	0.61%	$241	10.60%	$4,189
UAAL	27.22%	10,759	4.49%	1,776	6.46%	2,551	38.17%	15,086
Total Contributions	**35.25%**	**$13,931**	**6.45%**	**$2,552**	**7.07%**	**$2,792**	**48.77%**	**$19,275**
All Employers – Combined								
Normal Cost	8.87%	$56,168	2.81%	$17,792	0.89%	$5,618	12.57%	$79,578
UAAL	24.83%	157,181	3.46%	21,935	7.90%	49,999	36.19%	229,115
Total Contributions	**33.70%**	**$213,349**	**6.27%**	**$39,727**	**8.79%**	**$55,617**	**48.76%**	**$308,693**

[1] Based on June 30, 2022 projected compensation as shown on page 47.
[2] These Districts are declining employers and they should contribute based on dollar contribution amounts shown (not rates).

Recommended Employer Contribution Rates – Current Valuation (continued)

	June 30, 2022 Projected Compensation ($ in '000s)		June 30, 2022 Projected Compensation ($ in '000s)
County General Tier I without Courts	$124,313	District Category I Tier I	$3,658
County General Tier IIA without Courts	63,240	District Category I Tier IIA	797
County General Tier IIB without Courts	230,310	District Category I Tier IIB	1,514
Courts Tier I	12,175	District Category II Tier I	1,406
Courts Tier IIA	2,971	District Category II Tier IIB	1,028
Courts Tier IIB	17,487	District Category II Tier III	0
County Safety Tier I	88,044	District Category III Tier I (Buttonwillow)	40
County Safety Tier IIA	7,640	District Category III Tier I (SJVAPCD)	15,885
County Safety Tier IIB	47,402	District Category III Tier IIA (Buttonwillow)	0
		District Category III Tier IIA (SJVAPCD)	988
		District Category III Tier IIB	12,390
		District Category V Tier I	75
		District Category V Tier IIA	425
		District Category V Tier IIB	926
		District Category VI Tier I	204
		District Category VI Tier IIB	0
		Declining Employers Tier I (Berrenda)	185
		Declining Employers Tier I (Inyokern)	0
		All Districts	$39,521
All County with Courts	$593,582	Total	$633,103

Note: As of June 30, 2022, the COLA Contribution Reserve was zero and, therefore, not available to offset the 2% COLA contribution rate.

Recommended Employer Contribution Rates – Prior Valuation

	June 30, 2021 Actuarial Valuation							
	Basic		2% COLA		0.5% COLA		Total	
	Rate	Estimated Annual Amount[1] ($ in '000s)	Rate	Estimated Annual Amount[1] ($ in '000s)	Rate	Estimated Annual Amount[1] ($ in '000s)	Rate	Estimated Annual Amount[1] ($ in '000s)
County General Tier I without Courts								
Normal Cost	13.36%	$18,085	4.26%	$5,767	1.33%	$1,800	18.95%	$25,652
UAAL	21.29%	28,820	2.97%	4,020	5.53%	7,486	29.79%	40,326
Total Contributions	**34.65%**	**$46,905**	**7.23%**	**$9,787**	**6.86%**	**$9,286**	**48.74%**	**$65,978**
County General Tier IIA without Courts								
Normal Cost	3.87%	$2,538	2.15%	$1,410	0.66%	$432	6.68%	$4,380
UAAL	21.29%	13,961	2.97%	1,948	5.53%	3,626	29.79%	19,535
Total Contributions	**25.16%**	**$16,499**	**5.12%**	**$3,358**	**6.19%**	**$4,058**	**36.47%**	**$23,915**
County General Tier IIB without Courts								
Normal Cost	4.88%	$10,453	1.03%	$2,206	0.32%	$686	6.23%	$13,345
UAAL	21.29%	45,603	2.97%	6,362	5.53%	11,845	29.79%	63,810
Total Contributions	**26.17%**	**$56,056**	**4.00%**	**$8,568**	**5.85%**	**$12,531**	**36.02%**	**$77,155**
County General without Courts – Combined								
Normal Cost	7.49%	$31,076	2.26%	$9,383	0.70%	$2,918	10.45%	$43,377
UAAL	21.29%	88,384	2.97%	12,330	5.53%	22,957	29.79%	123,671
Total Contributions	**28.78%**	**$119,460**	**5.23%**	**$21,713**	**6.23%**	**$25,875**	**40.24%**	**$167,048**
Courts Tier I								
Normal Cost	10.59%	$1,381	4.26%	$555	1.33%	$174	16.18%	$2,110
UAAL	21.29%	2,776	2.97%	387	5.53%	721	29.79%	3,884
Total Contributions	**31.88%**	**$4,157**	**7.23%**	**$942**	**6.86%**	**$895**	**45.97%**	**$5,994**
Courts Tier IIA								
Normal Cost	4.16%	$136	2.15%	$71	0.66%	$22	6.97%	$229
UAAL	21.29%	699	2.97%	97	5.53%	181	29.79%	977
Total Contributions	**25.45%**	**$835**	**5.12%**	**$168**	**6.19%**	**$203**	**36.76%**	**$1,206**
Courts Tier IIB								
Normal Cost	4.88%	$741	1.03%	$156	0.32%	$49	6.23%	$946
UAAL	21.29%	3,234	2.97%	451	5.53%	841	29.79%	4,526
Total Contributions	**26.17%**	**$3,975**	**4.00%**	**$607**	**5.85%**	**$890**	**36.02%**	**$5,472**

[1] Based on June 30, 2021 projected compensation as shown on page 54.

Recommended Employer Contribution Rates – Prior Valuation (continued)

	June 30, 2021 Actuarial Valuation							
	Basic		2% COLA		0.5% COLA		Total	
	Rate	Estimated Annual Amount[1] ($ in '000s)	Rate	Estimated Annual Amount[1] ($ in '000s)	Rate	Estimated Annual Amount[1] ($ in '000s)	Rate	Estimated Annual Amount[1] ($ in '000s)
Courts – Combined								
Normal Cost	7.17%	$2,258	2.48%	$782	0.77%	$245	10.42%	$3,285
UAAL	21.29%	6,709	2.97%	935	5.53%	1,743	29.79%	9,387
Total Contributions	**28.46%**	**$8,967**	**5.45%**	**$1,717**	**6.30%**	**$1,988**	**40.21%**	**$12,672**
County Safety Tier I								
Normal Cost	17.47%	$16,460	6.47%	$6,096	2.08%	$1,960	26.02%	$24,516
UAAL	35.52%	33,467	6.91%	6,511	13.01%	12,258	55.44%	52,236
Total Contributions	**52.99%**	**$49,927**	**13.38%**	**$12,607**	**15.09%**	**$14,218**	**81.46%**	**$76,752**
County Safety Tier IIA								
Normal Cost	10.84%	$825	4.97%	$378	1.56%	$119	17.37%	$1,322
UAAL	35.52%	2,702	6.91%	526	13.01%	990	55.44%	4,218
Total Contributions	**46.36%**	**$3,527**	**11.88%**	**$904**	**14.57%**	**$1,109**	**72.81%**	**$5,540**
County Safety Tier IIB								
Normal Cost	9.75%	$3,583	2.41%	$886	0.77%	$282	12.93%	$4,751
UAAL	35.52%	13,051	6.91%	2,539	13.01%	4,781	55.44%	20,371
Total Contributions	**45.27%**	**$16,634**	**9.32%**	**$3,425**	**13.78%**	**$5,063**	**68.37%**	**$25,122**
County Safety – Combined								
Normal Cost	15.06%	$20,868	5.31%	$7,360	1.70%	$2,361	22.07%	$30,589
UAAL	35.52%	49,220	6.91%	9,576	13.01%	18,029	55.44%	76,825
Total Contributions	**50.58%**	**$70,088**	**12.22%**	**$16,936**	**14.71%**	**$20,390**	**77.51%**	**$107,414**
All County with Courts – Combined								
Normal Cost	9.26%	$54,202	2.99%	$17,525	0.95%	$5,524	13.20%	$77,251
UAAL	24.66%	144,313	3.90%	22,841	7.30%	42,729	35.86%	209,883
Total Contributions	**33.92%**	**$198,515**	**6.89%**	**$40,366**	**8.25%**	**$48,253**	**49.06%**	**$287,134**
District Category I Tier I								
Normal Cost	15.68%	$677	4.26%	$184	1.33%	$57	21.27%	$918
UAAL	26.85%	1,159	4.60%	199	5.85%	253	37.30%	1,611
Total Contributions	**42.53%**	**$1,836**	**8.86%**	**$383**	**7.18%**	**$310**	**58.57%**	**$2,529**

[1] Based on June 30, 2021 projected compensation as shown on page 54.

Recommended Employer Contribution Rates – Prior Valuation (continued)

	June 30, 2021 Actuarial Valuation							
	Basic		2% COLA		0.5% COLA		Total	
	Rate	Estimated Annual Amount[1] ($ in '000s)	Rate	Estimated Annual Amount[1] ($ in '000s)	Rate	Estimated Annual Amount[1] ($ in '000s)	Rate	Estimated Annual Amount[1] ($ in '000s)
District Category I Tier IIA								
Normal Cost	4.43%	$30	2.15%	$14	0.66%	$5	7.24%	$49
UAAL	26.85%	180	4.60%	31	5.85%	40	37.30%	251
Total Contributions	**31.28%**	**$210**	**6.75%**	**$45**	**6.51%**	**$45**	**44.54%**	**$300**
District Category I Tier IIB								
Normal Cost	4.88%	$59	1.03%	$12	0.32%	$4	6.23%	$75
UAAL	26.85%	324	4.60%	55	5.85%	71	37.30%	450
Total Contributions	**31.73%**	**$383**	**5.63%**	**$67**	**6.17%**	**$75**	**43.53%**	**$525**
District Category I – Combined								
Normal Cost	12.35%	$766	3.39%	$210	1.09%	$66	16.83%	$1,042
UAAL	26.85%	1,663	4.60%	285	5.85%	364	37.30%	2,312
Total Contributions	**39.20%**	**$2,429**	**7.99%**	**$495**	**6.94%**	**$430**	**54.13%**	**$3,354**
District Category II Tier I								
Normal Cost	12.58%	$178	4.26%	$60	1.33%	$20	18.17%	$258
UAAL	26.85%	381	4.60%	65	5.85%	83	37.30%	529
Total Contributions	**39.43%**	**$559**	**8.86%**	**$125**	**7.18%**	**$103**	**55.47%**	**$787**
District Category II Tier IIB								
Normal Cost	4.88%	$50	1.03%	$11	0.32%	$3	6.23%	$64
UAAL	26.85%	275	4.60%	47	5.85%	60	37.30%	382
Total Contributions	**31.73%**	**$325**	**5.63%**	**$58**	**6.17%**	**$63**	**43.53%**	**$446**
District Category II Tier III								
Normal Cost	5.84%	$0	1.20%	$0	0.37%	$0	7.41%	$0
UAAL	26.85%	0	4.60%	0	5.85%	0	37.30%	0
Total Contributions	**32.69%**	**$0**	**5.80%**	**$0**	**6.22%**	**$0**	**44.71%**	**$0**
District Category II – Combined								
Normal Cost	9.34%	$228	2.89%	$71	0.94%	$23	13.17%	$322
UAAL	26.85%	656	4.60%	112	5.85%	143	37.30%	911
Total Contributions	**36.19%**	**$884**	**7.49%**	**$183**	**6.79%**	**$166**	**50.47%**	**$1,233**

[1] Based on June 30, 2021 projected compensation as shown on page 54.

Recommended Employer Contribution Rates – Prior Valuation (continued)

	June 30, 2021 Actuarial Valuation							
	Basic		2% COLA		0.5% COLA		Total	
	Rate	Estimated Annual Amount[1] ($ in '000s)	Rate	Estimated Annual Amount[1] ($ in '000s)	Rate	Estimated Annual Amount[1] ($ in '000s)	Rate	Estimated Annual Amount[1] ($ in '000s)
District Category III Tier I (Buttonwillow)								
Normal Cost	10.20%	$4	4.26%	$2	1.33%	$0	15.79%	$6
UAAL	26.85%	11	4.60%	2	5.85%	2	37.30%	15
Total Contributions	**37.05%**	**$15**	**8.86%**	**$4**	**7.18%**	**$2**	**53.09%**	**$21**
District Category III Tier I (SJVAPCD)								
Normal Cost	9.38%	$1,612	2.13%	$366	0.67%	$115	12.18%	$2,093
UAAL	26.85%	4,615	4.60%	791	5.85%	1,005	37.30%	6,411
Total Contributions	**36.23%**	**$6,227**	**6.73%**	**$1,157**	**6.52%**	**$1,120**	**49.48%**	**$8,504**
District Category III Tier IIA (Buttonwillow)								
Normal Cost	3.70%	$0	2.15%	$0	0.66%	$0	6.51%	$0
UAAL	26.85%	0	4.60%	0	5.85%	0	37.30%	0
Total Contributions	**30.55%**	**$0**	**6.75%**	**$0**	**6.51%**	**$0**	**43.81%**	**$0**
District Category III Tier IIA (SJVAPCD)								
Normal Cost	5.31%	$50	1.08%	$10	0.34%	$4	6.73%	$64
UAAL	26.85%	255	4.60%	44	5.85%	56	37.30%	355
Total Contributions	**32.16%**	**$305**	**5.68%**	**$54**	**6.19%**	**$60**	**44.03%**	**$419**
District Category III Tier IIB								
Normal Cost	4.88%	$466	1.03%	$98	0.32%	$30	6.23%	$594
UAAL	26.85%	2,561	4.60%	439	5.85%	558	37.30%	3,558
Total Contributions	**31.73%**	**$3,027**	**5.63%**	**$537**	**6.17%**	**$588**	**43.53%**	**$4,152**
District Category III – Combined								
Normal Cost	7.69%	$2,132	1.72%	$476	0.54%	$149	9.95%	$2,757
UAAL	26.85%	7,442	4.60%	1,276	5.85%	1,621	37.30%	10,339
Total Contributions	**34.54%**	**$9,574**	**6.32%**	**$1,752**	**6.39%**	**$1,770**	**47.25%**	**$13,096**
District Category V Tier I								
Normal Cost	18.64%	$14	4.26%	$3	1.33%	$1	24.23%	$18
UAAL	26.85%	20	4.60%	3	5.85%	5	37.30%	28
Total Contributions	**45.49%**	**$34**	**8.86%**	**$6**	**7.18%**	**$6**	**61.53%**	**$46**

[1] Based on June 30, 2021 projected compensation as shown on page 54.

Recommended Employer Contribution Rates – Prior Valuation (continued)

	June 30, 2021 Actuarial Valuation							
	Basic		2% COLA		0.5% COLA		Total	
	Rate	Estimated Annual Amount[1] ($ in '000s)	Rate	Estimated Annual Amount[1] ($ in '000s)	Rate	Estimated Annual Amount[1] ($ in '000s)	Rate	Estimated Annual Amount[1] ($ in '000s)
District Category V Tier IIA								
Normal Cost	4.43%	$18	2.15%	$9	0.66%	$3	7.24%	$30
UAAL	26.85%	110	4.60%	19	5.85%	24	37.30%	153
Total Contributions	**31.28%**	**$128**	**6.75%**	**$28**	**6.51%**	**$27**	**44.54%**	**$183**
District Category V Tier IIB								
Normal Cost	4.88%	$38	1.03%	$8	0.32%	$3	6.23%	$49
UAAL	26.85%	210	4.60%	36	5.85%	46	37.30%	292
Total Contributions	**31.73%**	**$248**	**5.63%**	**$44**	**6.17%**	**$49**	**43.53%**	**$341**
District Category V – Combined								
Normal Cost	5.46%	$70	1.55%	$20	0.61%	$7	7.62%	$97
UAAL	26.85%	340	4.60%	58	5.85%	75	37.30%	473
Total Contributions	**32.31%**	**$410**	**6.15%**	**$78**	**6.46%**	**$82**	**44.92%**	**$570**
District Category VI Tier I								
Normal Cost	18.64%	$50	4.26%	$11	1.33%	$4	24.23%	$65
UAAL	26.85%	72	4.60%	12	5.85%	16	37.30%	100
Total Contributions	**45.49%**	**$122**	**8.86%**	**$23**	**7.18%**	**$20**	**61.53%**	**$165**
District Category VI Tier IIB								
Normal Cost	4.88%	$0	1.03%	$0	0.32%	$0	6.23%	$0
UAAL	26.85%	0	4.60%	0	5.85%	0	37.30%	0
Total Contributions	**31.73%**	**$0**	**5.63%**	**$0**	**6.17%**	**$0**	**43.53%**	**$0**
District Category VI – Combined								
Normal Cost	18.64%	$50	4.26%	$11	1.33%	$4	24.23%	$65
UAAL	26.85%	72	4.60%	12	5.85%	16	37.30%	100
Total Contributions	**45.49%**	**$122**	**8.86%**	**$23**	**7.18%**	**$20**	**61.53%**	**$165**
Declining Employers Tier I (Berrenda)								
Normal Cost	12.18%	$21	4.02%	$7	1.15%	$2	17.35%	$30
UAAL	159.50%	278	48.27%	84	40.12%	69	247.89%	431
Total Contributions[2]	**171.68%**	**$299**	**52.29%**	**$91**	**41.27%**	**$71**	**265.24%**	**$461**

[1] Based on June 30, 2021 projected compensation as shown on page 54.
[2] These Districts are declining employers and they should contribute based on dollar contribution amounts shown (not rates).

Recommended Employer Contribution Rates – Prior Valuation (continued)

	June 30, 2021 Actuarial Valuation							
	Basic		2% COLA		0.5% COLA		Total	
	Rate	Estimated Annual Amount[1] ($ in '000s)	Rate	Estimated Annual Amount[1] ($ in '000s)	Rate	Estimated Annual Amount[1] ($ in '000s)	Rate	Estimated Annual Amount[1] ($ in '000s)
Declining Employers Tier I (Inyokern)								
Normal Cost	N/A	$0	N/A	$0	N/A	$0	N/A	$0
UAAL	N/A	10	N/A	1	N/A	2	N/A	13
Total Contributions[2]	**N/A**	**$10**	**N/A**	**$1**	**N/A**	**$2**	**N/A**	**$13**
Declining Employers – Combined								
Normal Cost	12.07%	$21	4.02%	$7	1.15%	$2	17.24%	$30
UAAL	165.52%	288	48.85%	85	40.80%	71	255.17%	444
Total Contributions	**177.59%**	**$309**	**52.87%**	**$92**	**41.95%**	**$73**	**272.41%**	**$474**
All Districts – Combined								
Normal Cost	8.58%	$3,267	2.09%	$795	0.66%	$251	11.33%	$4,313
UAAL	27.48%	10,461	4.80%	1,828	6.02%	2,290	38.30%	14,579
Total Contributions	**36.06%**	**$13,728**	**6.89%**	**$2,623**	**6.68%**	**$2,541**	**49.63%**	**$18,892**
All Employers – Combined								
Normal Cost	9.22%	$57,469	2.94%	$18,320	0.93%	$5,775	13.09%	$81,564
UAAL	24.83%	154,774	3.96%	24,669	7.22%	45,019	36.01%	224,462
Total Contributions	**34.05%**	**$212,243**	**6.90%**	**$42,989**	**8.15%**	**$50,794**	**49.10%**	**$306,026**

[1] Based on June 30, 2021 projected compensation as shown on page 54.
[2] These Districts are declining employers and they should contribute based on dollar contribution amounts shown (not rates).

Recommended Employer Contribution Rates – Prior Valuation (continued)

	June 30, 2021 Projected Compensation ($ in ‘000s)		June 30, 2021 Projected Compensation ($ in ‘000s)
County General Tier I without Courts	$135,368	District Category I Tier I	$4,318
County General Tier IIA without Courts	65,575	District Category I Tier IIA	672
County General Tier IIB without Courts	214,201	District Category I Tier IIB	1,206
Courts Tier I	13,038	District Category II Tier I	1,418
Courts Tier IIA	3,281	District Category II Tier IIB	1,025
Courts Tier IIB	15,192	District Category II Tier III	0
County Safety Tier I	94,220	District Category III Tier I (Buttonwillow)	40
County Safety Tier IIA	7,608	District Category III Tier I (SJVAPCD)	17,188
County Safety Tier IIB	36,744	District Category III Tier IIA (Buttonwillow)	0
		District Category III Tier IIA (SJVAPCD)	951
		District Category III Tier IIB	9,540
		District Category V Tier I	76
		District Category V Tier IIA	410
		District Category V Tier IIB	783
		District Category VI Tier I	267
		District Category VI Tier IIB	0
		Declining Employers Tier I (Berrenda)	174
		Declining Employers Tier I (Inyokern)	0
		All Districts	$38,068
All County with Courts	$585,227	Total	$623,295

Note: As of June 30, 2021, the COLA Contribution Reserve was zero and, therefore, not available to offset the 2% COLA contribution rate.

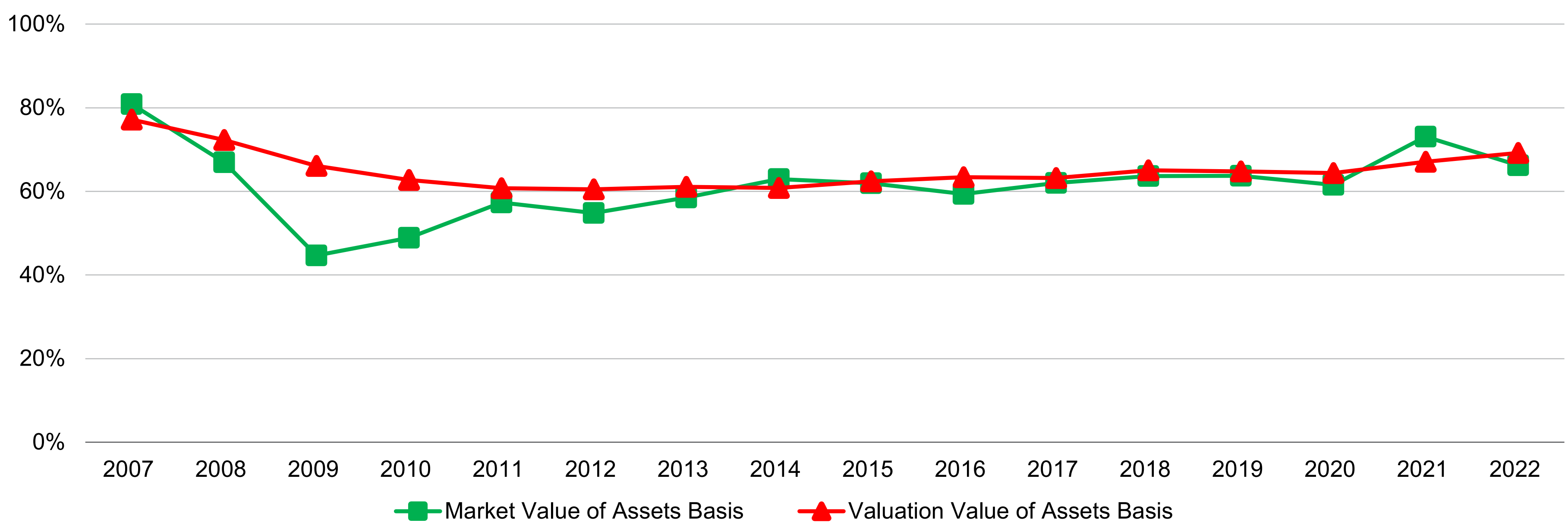
G. Funded Status

A commonly reported piece of information regarding the Association's financial status is the funded ratio. These ratios compare the Market and Valuation Value of Assets to the Actuarial Accrued Liability of the Association. High ratios indicate a well-funded plan while lower ratios may indicate recent changes to actuarial assumptions, funding of the plan below actuarial requirements, poor asset performance, or a variety of other changes.

The chart below depicts a history of the funded ratio for the Association. The chart on the next page shows the Association's schedule of funding progress for the last ten years.

The funded status measures shown in this valuation are appropriate for assessing the need for or amount of future contributions. However, they are not necessarily appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the Association's benefit obligations. As the chart below shows, the measures are different depending on whether the Valuation or Market Value of Assets is used.

Funded Ratio for Years Ended June 30, 2007 – 2022



Section 2: Actuarial Valuation Results

Schedule of Funding Progress for Years Ended June 30, 2013 – 2022

Actuarial Valuation Date as of June 30	Valuation Value of Assets[1] (a)	Actuarial Accrued Liability (AAL)[2] (b)	Unfunded AAL (UAAL) (b) - (a)	Funded Ratio (%) (a) / (b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll (%) [(b) - (a)] / (c)
2013	$3,120,632,000	$5,108,619,000	$1,987,987,000	61.1%	$555,752,000	357.7%
2014	3,342,122,000	5,492,440,000	2,150,318,000	60.8%	555,634,000	387.0%
2015	3,529,786,000	5,657,173,000	2,127,387,000	62.4%	556,824,000	382.1%
2016	3,685,447,000	5,813,092,000	2,127,645,000	63.4%	567,261,000	375.1%
2017	3,913,073,000	6,191,433,000	2,278,360,000	63.2%	572,081,000	398.3%
2018	4,163,476,000	6,398,814,000	2,235,338,000	65.1%	584,180,000	382.6%
2019	4,291,573,000	6,622,495,000	2,330,922,000	64.8%	612,277,000	380.7%
2020	4,508,548,000	7,005,589,000	2,497,041,000	64.4%	634,570,000	393.5%
2021	4,806,026,000	7,164,225,000	2,358,199,000	67.1%	623,295,000	378.3%
2022	5,102,402,000	7,372,653,000	2,270,251,000	69.2%	633,103,000	358.6%

[1] Excludes assets for SRBR Reserves Unallocated to 0.5% COLA benefits and COLA Contribution Reserve. Excludes assets for Contingency Reserve (unless the Contingency Reserve is negative).
[2] Excludes liabilities held for SRBR Reserves Unallocated to 0.5% COLA benefits.

H. Actuarial Balance Sheet

An overview of the Association's funding is given by an Actuarial Balance Sheet. In this approach, first the amount and timing of all future payments that will be made by the Association for current participants is determined. Then these payments are discounted at the valuation interest rate to the date of the valuation, thereby determining the present value, referred to as the Actuarial Present Value of Future Benefits of the Association.

Second, this Actuarial Present Value of Future Benefits is compared to the assets. The "assets" for this purpose include the net amount of assets already accumulated by the Association, the present value of future member contributions, the present value of future employer Normal Cost contributions, and the present value of future employer amortization payments for the Unfunded Actuarial Accrued Liability.

Actuarial Balance Sheet for Year Ended

	June 30, 2022 ($ in '000s)	June 30, 2021 ($ in '000s)
Actuarial Present Value of Future Benefits		
• Present value of benefits for retired members and beneficiaries	$4,985,491	$4,777,275
• Present value of benefits for inactive vested members[1]	272,783	243,481
• Present value of benefits for active members	3,074,921	3,097,679
Total Actuarial Present Value of Future Benefits	**$8,333,195**	**$8,118,435**
Current and future assets		
• Total Valuation Value of Assets	$5,102,402	$4,806,026
• Present value of future contributions by members	389,934	373,180
• Present value of future employer contributions for:		
– Entry age Normal Cost	570,608	581,030
– Unfunded Actuarial Accrued Liability	2,270,251	2,358,199
Total of current and future assets	**$8,333,195**	**$8,118,435**

[1] Includes inactive members due a refund of member contributions.

I. Volatility Ratios

Retirement plans are subject to volatility in the level of required contributions. This volatility tends to increase as retirement plans become more mature.

The Asset Volatility Ratio (AVR), which is equal to the Market Value of Assets divided by total payroll, provides an indication of the potential contribution volatility for any given level of investment volatility. A higher AVR indicates that the plan is subject to a greater level of contribution volatility. This is a current measurement because it is based on the current level of assets.

The current AVR is about 8.1. This means that a 1% asset gain or loss (relative to the assumed investment return) translates to about 8.1% of one year's payroll. Because actuarial gains and losses are amortized over 18 years, there would be a 0.6% of payroll decrease/(increase) in the required contribution for each 1% asset gain/(loss).

The Liability Volatility Ratio (LVR), which is equal to the Actuarial Accrued Liability divided by payroll, provides an indication of the longer-term potential for contribution volatility for any given level of investment volatility. This is because, over an extended period of time, the plan's assets should track the plan's liabilities.

The LVR also indicates how volatile contributions will be in response to changes in the Actuarial Accrued Liability due to actual experience or to changes in actuarial assumptions. The current total plan LVR is about 11.6, but is 9.6 for General compared to 18.6 for Safety. This means, for example, that assumption changes will have a greater impact on employer contribution rates for Safety than for General.

The chart on the next page shows how the asset and liability volatility ratios have varied over time.

Volatility Ratios for Years Ended 2013 – 2022

Year Ended June 30	Asset Volatility Ratio			Liability Volatility Ratio		
	General	Safety	Total	General	Safety	Total
2013	4.7	8.0	5.6	8.0	12.7	9.2
2014	5.5	9.1	6.4	8.5	13.7	9.9
2015	5.6	9.2	6.5	8.8	14.1	10.2
2016	5.4	9.0	6.3	8.8	14.4	10.3
2017	5.8	10.4	6.9	9.2	16.0	10.8
2018	6.0	11.0	7.2	9.2	16.4	11.0
2019	5.8	11.4	7.1	9.0	16.9	10.8
2020	5.7	11.8	7.0	9.1	18.0	11.0
2021	7.1	14.4	8.7	9.5	18.5	11.5
2022	6.6	13.2	8.1	9.6	18.6	11.6

J. Risk Assessment

Because the actuarial valuation results are dependent on a fixed set of assumptions and data as of a specific date, there is risk that emerging results may differ, perhaps significantly, as actual experience is fluid and will not exactly track current assumptions. This potential divergence may have a significant impact on the future financial condition of the plan.

Our separate risk assessment report dated September 4, 2019 based on the June 30, 2018 actuarial valuation contained a detailed analysis of the potential range of future measurements. This section provides descriptions and basic assessments of the primary risks that are likely to have an ongoing influence on the Association's financial condition, as well as a discussion of historical trends and maturity measures.

Risk Assessments

- Asset/Liability Mismatch Risk (the potential that future plan experience does not affect asset and liability values in the same way, causing them to diverge)

  The most significant asset/liability mismatch risk to the Association is investment risk, as discussed below. In fact, investment risk has the potential to impact asset/liability mismatch in two ways. The first mismatch is evident in annual valuations: when asset values deviate from assumptions, they are typically independent from liability changes. The second mismatch can be caused when systemic asset deviations from assumptions may signal the need for an assumption change, which causes liability values and contribution rates to move in the opposite direction from any changes in the expected experience of asset growth rates.

  Asset/liability mismatch can also be caused by demographic assumption risk such as longevity, which affects liabilities but have no impact on asset levels. This risk is also discussed below.

- Investment Risk (the risk that investment returns will be different than expected)

  The investment return assumption is a long-term, static assumption for valuation purposes even though in reality market experience can be quite volatile in any given year. That volatility can cause significant changes in the financial condition of the Association, affecting both funded status and contribution rates. The inherent year-to-year volatility is reduced by smoothing through the Actuarial Value of Assets, however investment experience can still have a sizable impact. As discussed in *Section 2, Subsection I, Volatility Ratios*, on page 58, a 1% asset gain or loss (relative to the assumed investment return) translates to about 8.1% of one-year's payroll. Because actuarial gains and losses are amortized over 18 years, there would be a 0.6% of payroll decrease/(increase) in the required contribution for each 1% asset gain or loss.

  The single year market value rate of return over the last 10 years has ranged from a low of -4.08% to a high of 23.68%.

- Longevity Risk (the risk that mortality experience will be different than expected)

  The actuarial valuation includes current life expectancy assumptions and an expectation of future improvement in life expectancy, which are significant assumptions given the relatively long duration of liabilities for pension plans. Emerging plan experience that does not match these expectations will result in increases or decreases in the actuarially determined contribution over time. This risk can be reduced by using tables appropriate for the Association (public experience tables) that are weighted by benefit levels, and by using generational mortality projections. Effective with the June 30, 2020 valuation, the Board has adopted a benefit-weighted mortality table with the generational projection approach.

- Other Risks

  In addition to longevity, the valuation includes a variety of other assumptions that are unlikely to match future experience exactly. One example is projected salary scales over time. As salary is central to the determination of benefits paid in retirement, deviations from the projected salary scales could have a material impact on the benefits anticipated for each member. Examples of demographic assumptions include retirement, termination and disability assumptions, and these will likely vary in significance for different groups (for example, disability assumptions are typically more significant for safety groups).

Some plans also carry significant contribution risk, defined as the potential for actual future contributions deviating from expected future contributions. However, the employers have a proven track-record of making the Actuarially Determined Contributions based on the Board's Actuarial Funding Policy, so contribution risk is minimal.

Evaluation of Historical Trends

Past experience can help demonstrate the sensitivity of key results to the plan's actual experience. Over the past ten years:

- The funded percentage on the Valuation Value of Assets has increased from 61.1% to 69.2%. For a more detailed history see *Section 2, Subsection G, Funded Status* starting on page 55.
- The geometric average investment return on the Actuarial Value of Assets over the last 10 years was 6.63%. This includes a high of a 9.08% return and a low of 4.56%. The average over the last 5 years was 7.01%. For more details see the Investment Return table in *Section 2, Subsection C* on page 28.
- One of the primary sources of new UAAL was the strengthening of assumptions through multiple assumption changes. For example, the assumption changes in 2014 changed the discount rate from 7.75% to 7.50% and updated mortality tables adding $204 million in unfunded liability. The assumption changes in 2017 changed the discount rate from 7.50% to 7.25% and updated mortality tables adding $213 million in unfunded liability. The assumption changes in 2020 again updated mortality tables adding $147 million in unfunded liability. For more details on the unfunded liability changes see *Section 3, Exhibit H, Table of Amortization Bases* starting on page 90.

- The plan's funding policy effectively deals with these unfunded liabilities over time. This can be seen most clearly in the *Section 3, Exhibit I, Projection of UAAL Balances and Payments* on pages 96 and 97.

Maturity Measures

In the last 10 years the ratio of members in pay status to active participants has increased from 0.85 to 0.99. An increased ratio indicates that the plan has grown in maturity over time. This is to be expected, but is also informative to understanding plan sensitivity to particular risks. For more details see *Section 2, Subsection A, Member Data* on page 18.

As pension plans mature, the cash needed to fulfill benefit obligations will increase over time. Therefore, cash flow projections and analysis should be performed to assure that the plan's asset allocation is aligned to meet emerging pension liabilities. Over the past year, benefits paid were $66 million more than contributions received (net of administrative expenses). The $66 million in negative cash flows represented about 1.3% of the market value of assets. Plans with high levels of negative cash flows may have a need for a larger allocation to income generating assets, which can create a drag on investment return. For more details on historical cash flows see the Comparison of Contributions with Benefits in *Section 2, Subsection B, Financial Information* on page 22.

A further discussion of plan maturity measures and how they relate to changes in assets and liabilities is included in *Section 2, Subsection I, Volatility Ratios* on page 58.

Section 3: Supplemental Information

Exhibit A: Table of Plan Coverage

Total Plan

Category	Year Ended June 30: 2022	Year Ended June 30: 2021	Change From Prior Year
Active members in valuation:			
• Number	9,076	9,072	0.0%
• Average age	41.9	42.1	-0.2
• Average years of service	9.5	9.7	-0.2
• Total projected compensation	$633,102,218	$623,294,085	1.6%
• Average projected compensation	$69,756	$68,705	1.5%
• Account balances	$431,176,612	$409,562,974	5.3%
• Total active vested members	5,479	5,574	-1.7%
Inactive vested members:[1]			
• Number	4,015	3,517	14.2%
• Average age	41.4	42.0	-0.6
Retired members:			
• Number in pay status	6,848	6,699	2.2%
• Average age	69.2	69.1	0.1
• Average monthly benefit[2]	$3,960	$3,849	2.9%
Disabled members:			
• Number in pay status	845	874	-3.3%
• Average age	68.7	68.1	0.6
• Average monthly benefit[2]	$3,503	$3,442	1.8%
Beneficiaries:			
• Number in pay status	1,322	1,262	4.8%
• Average age	72.9	73.1	-0.2
• Average monthly benefit[2]	$2,220	$2,128	4.3%

[1] Includes inactive members due a refund of member contributions.
[2] Excludes monthly benefits paid from the Supplemental Retiree Benefit Reserve.

Exhibit A: Table of Plan Coverage (continued)

General Tier I County with Courts

Category	Year Ended June 30 2022	Year Ended June 30 2021	Change From Prior Year
Active members in valuation:			
• Number	1,793	1,994	-10.1%
• Average age	51.8	51.4	0.4
• Average years of service	20.3	19.5	0.8
• Total projected compensation	$136,488,286	$148,405,938	-8.0%
• Average projected compensation	$76,123	$74,426	2.3%
• Account balances	$149,747,319	$148,182,279	1.1%
• Total active vested members	1,791	1,991	-10.0%
Inactive vested members:[1]			
• Number	903	930	-2.9%
• Average age	49.9	49.2	0.7
Retired members:			
• Number in pay status	5,090	5,044	0.9%
• Average age	70.2	69.9	0.3
• Average monthly benefit[2]	$3,405	$3,295	3.3%
Disabled members:			
• Number in pay status	420	438	-4.1%
• Average age	69.9	69.3	0.6
• Average monthly benefit[2]	$2,143	$2,082	2.9%
Beneficiaries:			
• Number in pay status	834	806	3.5%
• Average age	73.9	74.1	-0.2
• Average monthly benefit[2]	$1,819	$1,771	2.7%

[1] Includes inactive members due a refund of member contributions.
[2] Excludes monthly benefits paid from the Supplemental Retiree Benefit Reserve.

Exhibit A: Table of Plan Coverage (continued)

General Tier IIA County with Courts

Category	Year Ended June 30 2022	Year Ended June 30 2021	Change From Prior Year
Active members in valuation:			
• Number	892	952	-6.3%
• Average age	47.3	46.3	1.0
• Average years of service	11.2	10.4	0.8
• Total projected compensation	$66,210,811	$68,855,902	-3.8%
• Average projected compensation	$74,227	$72,328	2.6%
• Account balances	$49,887,241	$46,799,595	6.6%
• Total active vested members	830	888	-6.5%
Inactive vested members:[1]			
• Number	547	539	1.5%
• Average age	44.5	44.0	0.5
Retired members:			
• Number in pay status	104	79	31.6%
• Average age	65.2	65.7	-0.5
• Average monthly benefit[2]	$792	$802	-1.2%
Disabled members:			
• Number in pay status	2	2	0.0%
• Average age	58.6	57.6	1.0
• Average monthly benefit[2]	$1,866	$1,820	2.5%
Beneficiaries:			
• Number in pay status	9	6	50.0%
• Average age	62.4	63.5	-1.1
• Average monthly benefit[2]	$675	$732	-7.8%

[1] Includes inactive members due a refund of member contributions.
[2] Excludes monthly benefits paid from the Supplemental Retiree Benefit Reserve.

Exhibit A: Table of Plan Coverage (continued)

General Tier IIB County with Courts

Category	Year Ended June 30 2022	Year Ended June 30 2021	Change From Prior Year
Active members in valuation:			
• Number	4,266	4,027	5.9%
• Average age	37.9	37.6	0.3
• Average years of service	3.8	3.5	0.3
• Total projected compensation	$247,797,165	$229,392,208	8.0%
• Average projected compensation	$58,087	$56,964	2.0%
• Account balances	$60,254,303	$50,815,026	18.6%
• Total active vested members	1,389	1,114	24.7%
Inactive vested members:[1]			
• Number	1,895	1,451	30.6%
• Average age	36.8	36.9	-0.1
Retired members:			
• Number in pay status	7	6	16.7%
• Average age	68.9	65.4	3.5
• Average monthly benefit[2]	$674	$926	-27.2%
Disabled members:			
• Number in pay status	0	0	N/A
• Average age	N/A	N/A	N/A
• Average monthly benefit[2]	N/A	N/A	N/A
Beneficiaries:			
• Number in pay status	1	1	0.0%
• Average age	61.5	41.5	20.0
• Average monthly benefit[2]	$680	$463	46.9%

[1] Includes inactive members due a refund of member contributions.
[2] Excludes monthly benefits paid from the Supplemental Retiree Benefit Reserve.

Exhibit A: Table of Plan Coverage (continued)

Districts Tier I

Category	Year Ended June 30: 2022	Year Ended June 30: 2021	Change From Prior Year
Active members in valuation:			
• Number	187	212	-11.8%
• Average age	48.1	47.7	0.4
• Average years of service	17.6	17.0	0.6
• Total projected compensation	$21,452,432	$23,481,338	-8.6%
• Average projected compensation	$114,719	$110,761	3.6%
• Account balances	$22,762,756	$22,637,401	0.6%
• Total active vested members	187	212	-11.8%
Inactive vested members:[1]			
• Number	139	142	-2.1%
• Average age	49.7	50.4	-0.7
Retired members:			
• Number in pay status	328	308	6.5%
• Average age	68.2	68.0	0.2
• Average monthly benefit[2]	$4,307	$4,135	4.2%
Disabled members:			
• Number in pay status	13	13	0.0%
• Average age	66.6	65.6	1.0
• Average monthly benefit[2]	$2,540	$2,478	2.5%
Beneficiaries:			
• Number in pay status	43	43	0.0%
• Average age	73.0	73.3	-0.3
• Average monthly benefit[2]	$2,669	$2,614	2.1%

[1] Includes inactive members due a refund of member contributions.
[2] Excludes monthly benefits paid from the Supplemental Retiree Benefit Reserve.

Exhibit A: Table of Plan Coverage (continued)

Districts Tier IIA

Category	Year Ended June 30 2022	 2021	Change From Prior Year
Active members in valuation:			
• Number	20	20	0.0%
• Average age	43.8	42.8	1.0
• Average years of service	10.9	10.5	0.4
• Total projected compensation	$2,209,629	$2,032,991	8.7%
• Average projected compensation	$110,481	$101,650	8.7%
• Account balances	$1,217,941	$1,127,572	8.0%
• Total active vested members	19	20	-5.0%
Inactive vested members:[1]			
• Number	12	10	20.0%
• Average age	40.8	38.5	2.3
Retired members:			
• Number in pay status	0	0	N/A
• Average age	N/A	N/A	N/A
• Average monthly benefit[2]	N/A	N/A	N/A
Disabled members:			
• Number in pay status	0	0	N/A
• Average age	N/A	N/A	N/A
• Average monthly benefit[2]	N/A	N/A	N/A
Beneficiaries:			
• Number in pay status	0	0	N/A
• Average age	N/A	N/A	N/A
• Average monthly benefit[2]	N/A	N/A	N/A

[1] Includes inactive members due a refund of member contributions.
[2] Excludes monthly benefits paid from the Supplemental Retiree Benefit Reserve.

Exhibit A: Table of Plan Coverage (continued)

Districts Tier IIB

Category	Year Ended June 30 2022	Year Ended June 30 2021	Change From Prior Year
Active members in valuation:			
• Number	217	177	22.6%
• Average age	34.8	35.1	-0.3
• Average years of service	3.1	3.1	0.0
• Total projected compensation	$15,858,712	$12,554,054	26.3%
• Average projected compensation	$73,082	$70,927	3.0%
• Account balances	$3,059,842	$2,401,676	27.4%
• Total active vested members	53	45	17.8%
Inactive vested members:[1]			
• Number	54	31	74.2%
• Average age	35.8	34.7	1.1
Retired members:			
• Number in pay status	0	0	N/A
• Average age	N/A	N/A	N/A
• Average monthly benefit[2]	N/A	N/A	N/A
Disabled members:			
• Number in pay status	0	0	N/A
• Average age	N/A	N/A	N/A
• Average monthly benefit[2]	N/A	N/A	N/A
Beneficiaries:			
• Number in pay status	0	0	N/A
• Average age	N/A	N/A	N/A
• Average monthly benefit[2]	N/A	N/A	N/A

[1] Includes inactive members due a refund of member contributions.
[2] Excludes monthly benefits paid from the Supplemental Retiree Benefit Reserve.

Exhibit A: Table of Plan Coverage (continued)

Districts Tier III

Category	Year Ended June 30: 2022	Year Ended June 30: 2021	Change From Prior Year
Active members in valuation:			
• Number	0	0	N/A
• Average age	N/A	N/A	N/A
• Average years of service	N/A	N/A	N/A
• Total projected compensation	N/A	N/A	N/A
• Average projected compensation	N/A	N/A	N/A
• Account balances	N/A	N/A	N/A
• Total active vested members	N/A	N/A	N/A
Inactive vested members:[1]			
• Number	0	0	N/A
• Average age	N/A	N/A	N/A
Retired members:			
• Number in pay status	0	0	N/A
• Average age	N/A	N/A	N/A
• Average monthly benefit[2]	N/A	N/A	N/A
Disabled members:			
• Number in pay status	0	0	N/A
• Average age	N/A	N/A	N/A
• Average monthly benefit[2]	N/A	N/A	N/A
Beneficiaries:			
• Number in pay status	0	0	N/A
• Average age	N/A	N/A	N/A
• Average monthly benefit[2]	N/A	N/A	N/A

[1] Includes inactive members due a refund of member contributions.
[2] Excludes monthly benefits paid from the Supplemental Retiree Benefit Reserve.

Exhibit A: Table of Plan Coverage (continued)

Safety Tier I

Category	Year Ended June 30 2022	Year Ended June 30 2021	Change From Prior Year
Active members in valuation:			
• Number	904	1,015	-10.9%
• Average age	44.4	43.9	0.5
• Average years of service	18.1	17.5	0.6
• Total projected compensation	$88,043,782	$94,219,971	-6.6%
• Average projected compensation	$97,394	$92,828	4.9%
• Account balances	$112,966,532	$111,215,144	1.6%
• Total active vested members	902	1,013	-11.0%
Inactive vested members:[1]			
• Number	261	248	5.2%
• Average age	42.8	42.3	0.5
Retired members:			
• Number in pay status	1,317	1,261	4.4%
• Average age	66.0	66.2	-0.2
• Average monthly benefit[2]	$6,290	$6,199	1.5%
Disabled members:			
• Number in pay status	409	421	-2.9%
• Average age	67.6	67.1	0.5
• Average monthly benefit[2]	$4,935	$4,895	0.8%
Beneficiaries:			
• Number in pay status	434	406	6.9%
• Average age	71.3	71.5	-0.2
• Average monthly benefit[2]	$2,977	$2,809	6.0%

[1] Includes inactive members due a refund of member contributions.
[2] Excludes monthly benefits paid from the Supplemental Retiree Benefit Reserve.

Exhibit A: Table of Plan Coverage (continued)

Safety Tier IIA

Category	Year Ended June 30: 2022	Year Ended June 30: 2021	Change From Prior Year
Active members in valuation:			
• Number	90	94	-4.3%
• Average age	38.4	37.3	1.1
• Average years of service	10.4	9.5	0.9
• Total projected compensation	$7,639,579	$7,607,736	0.4%
• Average projected compensation	$84,884	$80,933	4.9%
• Account balances	$6,761,440	$6,039,571	12.0%
• Total active vested members	88	93	-5.4%
Inactive vested members:[1]			
• Number	29	26	11.5%
• Average age	36.7	37.2	-0.5
Retired members:			
• Number in pay status	2	1	100.0%
• Average age	67.9	66.9	1.0
• Average monthly benefit[2]	$1,124	$1,009	11.4%
Disabled members:			
• Number in pay status	1	0	N/A
• Average age	48.4	N/A	N/A
• Average monthly benefit[2]	$4,993	N/A	N/A
Beneficiaries:			
• Number in pay status	0	0	N/A
• Average age	N/A	N/A	N/A
• Average monthly benefit[2]	N/A	N/A	N/A

[1] Includes inactive members due a refund of member contributions.
[2] Excludes monthly benefits paid from the Supplemental Retiree Benefit Reserve.

Exhibit A: Table of Plan Coverage (continued)

Safety Tier IIB

Category	Year Ended June 30 2022	Year Ended June 30 2021	Change From Prior Year
Active members in valuation:			
• Number	707	581	21.7%
• Average age	31.5	31.6	-0.1
• Average years of service	3.8	3.9	-0.1
• Total projected compensation	$47,401,823	$36,743,947	29.0%
• Average projected compensation	$67,046	$63,243	6.0%
• Account balances	$24,519,238	$20,344,711	20.5%
• Total active vested members	220	198	11.1%
Inactive vested members:[1]			
• Number	175	140	25.0%
• Average age	33.0	32.8	0.2
Retired members:			
• Number in pay status	0	0	N/A
• Average age	N/A	N/A	N/A
• Average monthly benefit[2]	N/A	N/A	N/A
Disabled members:			
• Number in pay status	0	0	N/A
• Average age	N/A	N/A	N/A
• Average monthly benefit[2]	N/A	N/A	N/A
Beneficiaries:			
• Number in pay status	1	0	N/A
• Average age	36.1	N/A	N/A
• Average monthly benefit[2]	$3,931	N/A	N/A

[1] Includes inactive members due a refund of member contributions.
[2] Excludes monthly benefits paid from the Supplemental Retiree Benefit Reserve.

Exhibit B: Members in Active Service as of June 30, 2022 by Age, Years of Service, and Average Projected Compensation

Total Plan

		Years of Service								
Age	**Total**	**0 – 4**	**5 – 9**	**10 – 14**	**15 – 19**	**20 – 24**	**25 – 29**	**30 – 34**	**35 – 39**	**40 & over**
Under 25	306	304	2	—	—	—	—	—	—	—
	$51,126	$51,202	$39,684	—	—	—	—	—	—	—
25 – 29	1,040	957	82	1	—	—	—	—	—	—
	$55,485	$54,861	$62,507	$76,962	—	—	—	—	—	—
30 – 34	1,431	839	510	80	2	—	—	—	—	—
	$62,303	$56,392	$68,534	$83,974	$85,889	—	—	—	—	—
35 – 39	1,526	600	474	313	138	1	—	—	—	—
	$70,076	$59,499	$67,297	$86,040	$88,343	$216,141	—	—	—	—
40 – 44	1,423	352	283	277	383	127	1	—	—	—
	$75,507	$59,941	$67,008	$81,955	$83,850	$97,903	$134,093	—	—	—
45 – 49	1,207	243	203	177	267	272	43	2	—	—
	$78,166	$62,420	$64,558	$83,332	$81,453	$92,721	$96,811	$96,372	—	—
50 – 54	880	149	136	126	142	234	75	17	1	—
	$79,476	$63,786	$68,925	$76,772	$77,940	$93,221	$90,911	$96,489	$47,639	—
55 – 59	669	115	93	93	112	136	61	50	9	—
	$71,683	$59,877	$63,495	$75,549	$70,941	$78,680	$76,386	$81,339	$85,148	—
60 – 64	417	59	82	77	61	60	36	25	13	4
	$74,986	$70,863	$69,343	$72,633	$73,424	$79,347	$79,480	$89,190	$91,846	$71,127
65 – 69	136	21	32	19	22	21	11	6	4	—
	$72,928	$76,928	$56,022	$76,059	$74,225	$80,136	$80,460	$92,926	$76,615	—
70 & over	41	8	7	4	6	6	4	3	2	1
	$67,970	$62,323	$75,887	$67,859	$72,900	$57,659	$61,802	$74,971	$52,090	$125,898
Total	**9,076**	**3,647**	**1,904**	**1,167**	**1,133**	**857**	**231**	**103**	**29**	**5**
	$69,756	**$57,590**	**$66,919**	**$81,564**	**$81,013**	**$90,051**	**$85,578**	**$86,527**	**$83,400**	**$82,081**

Exhibit B: Members in Active Service as of June 30, 2022
by Age, Years of Service, and Average Projected Compensation (continued)

General Tier I County with Courts

		Years of Service								
Age	**Total**	**0 – 4**	**5 – 9**	**10 – 14**	**15 – 19**	**20 – 24**	**25 – 29**	**30 – 34**	**35 – 39**	**40 & over**
Under 25	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
25 – 29	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
30 – 34	3	—	—	2	1	—	—	—	—	—
	$70,529	—	—	$85,355	$40,879	—	—	—	—	—
35 – 39	86	—	—	36	50	—	—	—	—	—
	$72,928	—	—	$74,995	$71,440	—	—	—	—	—
40 – 44	328	1	2	61	214	50	—	—	—	—
	$74,280	$41,917	$121,448	$73,911	$73,644	$76,211	—	—	—	—
45 – 49	372	1	3	37	174	137	18	2	—	—
	$77,229	$114,707	$64,112	$80,195	$74,684	$79,550	$76,036	$96,372	—	—
50 – 54	384	—	3	36	105	171	55	13	1	—
	$80,906	—	$75,443	$76,013	$72,537	$85,015	$86,767	$87,034	$47,639	—
55 – 59	341	—	—	23	93	116	56	45	8	—
	$72,917	—	—	$62,430	$67,503	$76,398	$74,702	$77,164	$79,158	—
60 – 64	197	1	1	16	56	55	29	23	12	4
	$75,586	$63,380	$104,334	$57,302	$73,532	$76,103	$72,054	$88,871	$90,367	$71,127
65 – 69	62	—	—	4	20	19	10	6	3	—
	$77,554	—	—	$52,817	$73,631	$81,174	$79,644	$92,926	$76,046	—
70 & over	20	—	—	1	6	5	3	2	2	1
	$64,022	—	—	$40,800	$72,900	$55,937	$63,158	$51,500	$52,090	$125,898
Total	**1,793**	**3**	**9**	**216**	**719**	**553**	**171**	**91**	**26**	**5**
	$76,123	**$73,334**	**$85,099**	**$72,628**	**$72,726**	**$79,776**	**$78,360**	**$82,430**	**$80,678**	**$82,081**

Exhibit B: Members in Active Service as of June 30, 2022 by Age, Years of Service, and Average Projected Compensation (continued)

General Tier IIA County with Courts

		Years of Service								
Age	**Total**	**0 – 4**	**5 – 9**	**10 – 14**	**15 – 19**	**20 – 24**	**25 – 29**	**30 – 34**	**35 – 39**	**40 & over**
Under 25	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
25 – 29	2	1	1	—	—	—	—	—	—	—
	$40,967	$44,527	$37,406	—	—	—	—	—	—	—
30 – 34	50	1	24	25	—	—	—	—	—	—
	$62,251	$45,067	$59,431	$65,645	—	—	—	—	—	—
35 – 39	188	18	46	122	2	—	—	—	—	—
	$73,572	$62,770	$66,316	$77,960	$69,975	—	—	—	—	—
40 – 44	196	23	42	126	4	1	—	—	—	—
	$76,199	$57,496	$72,786	$80,791	$77,204	$67,182	—	—	—	—
45 – 49	142	16	36	88	2	—	—	—	—	—
	$77,800	$88,172	$68,350	$80,427	$49,333	—	—	—	—	—
50 – 54	114	5	35	72	2	—	—	—	—	—
	$73,677	$67,182	$68,830	$76,085	$88,082	—	—	—	—	—
55 – 59	86	5	18	58	3	2	—	—	—	—
	$72,048	$47,517	$61,320	$78,697	$65,569	$46,817	—	—	—	—
60 – 64	76	7	15	53	1	—	—	—	—	—
	$76,481	$64,151	$82,737	$76,931	$45,053	—	—	—	—	—
65 – 69	28	2	10	14	1	1	—	—	—	—
	$76,137	$156,355	$51,495	$83,815	$52,381	$78,392	—	—	—	—
70 & over	10	4	3	3	—	—	—	—	—	—
	$66,244	$57,881	$66,760	$76,879	—	—	—	—	—	—
Total	**892**	**82**	**230**	**561**	**15**	**4**	**—**	**—**	**—**	**—**
	$74,227	**$67,310**	**$67,396**	**$78,313**	**$67,849**	**$59,802**	**—**	**—**	**—**	**—**

Exhibit B: Members in Active Service as of June 30, 2022
by Age, Years of Service, and Average Projected Compensation (continued)

General Tier IIB County with Courts

		Years of Service								
Age	Total	0 – 4	5 – 9	10 – 14	15 – 19	20 – 24	25 – 29	30 – 34	35 – 39	40 & over
Under 25	186	184	2	—	—	—	—	—	—	—
	$45,123	$45,182	$39,684	—	—	—	—	—	—	—
25 – 29	753	700	53	—	—	—	—	—	—	—
	$51,637	$51,373	$55,118	—	—	—	—	—	—	—
30 – 34	1,035	680	354	1	—	—	—	—	—	—
	$57,940	$54,522	$64,544	$44,062	—	—	—	—	—	—
35 – 39	852	511	335	5	1	—	—	—	—	—
	$60,951	$58,198	$64,786	$88,796	$43,744	—	—	—	—	—
40 – 44	510	302	205	3	—	—	—	—	—	—
	$60,914	$59,518	$63,129	$50,041	—	—	—	—	—	—
45 – 49	366	210	151	4	1	—	—	—	—	—
	$59,972	$58,791	$61,471	$69,762	$42,374	—	—	—	—	—
50 – 54	228	136	90	2	—	—	—	—	—	—
	$63,777	$61,984	$66,599	$58,663	—	—	—	—	—	—
55 – 59	178	103	70	4	1	—	—	—	—	—
	$60,136	$59,578	$61,001	$58,790	$62,477	—	—	—	—	—
60 – 64	110	48	59	3	—	—	—	—	—	—
	$66,345	$73,177	$61,444	$53,408	—	—	—	—	—	—
65 – 69	40	18	21	1	—	—	—	—	—	—
	$61,672	$69,188	$55,288	$60,440	—	—	—	—	—	—
70 & over	8	4	4	—	—	—	—	—	—	—
	$74,748	$66,766	$82,732	—	—	—	—	—	—	—
Total	**4,266**	**2,896**	**1,344**	**23**	**3**	**—**	**—**	**—**	**—**	**—**
	$58,087	**$55,594**	**$63,361**	**$64,798**	**$49,532**	**—**	**—**	**—**	**—**	**—**

Exhibit B: Members in Active Service as of June 30, 2022 by Age, Years of Service, and Average Projected Compensation (continued)

Districts Tier I

		Years of Service								
Age	Total	0 – 4	5 – 9	10 – 14	15 – 19	20 – 24	25 – 29	30 – 34	35 – 39	40 & over
Under 25	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
25 – 29	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
30 – 34	4	—	1	3	—	—	—	—	—	—
	$74,240	—	$112,791	$61,389	—	—	—	—	—	—
35 – 39	27	—	1	21	5	—	—	—	—	—
	$111,738	—	$104,465	$112,867	$108,452	—	—	—	—	—
40 – 44	33	—	—	9	18	6	—	—	—	—
	$121,254	—	—	$107,916	$108,174	$180,503	—	—	—	—
45 – 49	54	—	1	13	20	19	1	—	—	—
	$114,954	—	$184,935	$101,481	$105,820	$131,430	$89,780	—	—	—
50 – 54	33	—	—	6	12	9	4	2	—	—
	$121,467	—	—	$84,888	$105,485	$157,415	$127,400	$153,469	—	—
55 – 59	19	—	—	6	4	6	1	2	—	—
	$110,500	—	—	$106,728	$113,842	$96,875	$135,734	$143,394	—	—
60 – 64	15	—	—	5	2	4	4	—	—	—
	$106,122	—	—	$87,662	$83,142	$121,193	$125,616	—	—	—
65 – 69	1	—	—	—	1	—	—	—	—	—
	$107,954	—	—	—	$107,954	—	—	—	—	—
70 & over	1	—	—	—	—	—	—	1	—	—
	$121,914	—	—	—	—	—	—	$121,914	—	—
Total	**187**	**—**	**3**	**63**	**62**	**44**	**10**	**5**	**—**	**—**
	$114,719	**—**	**$134,064**	**$102,109**	**$106,471**	**$137,794**	**$123,758**	**$143,128**	**—**	**—**

Exhibit B: Members in Active Service as of June 30, 2022 by Age, Years of Service, and Average Projected Compensation (continued)

Districts Tier IIA

		Years of Service								
Age	Total	0 – 4	5 – 9	10 – 14	15 – 19	20 – 24	25 – 29	30 – 34	35 – 39	40 & over
Under 25	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
25 – 29	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
30 – 34	3	—	1	2	—	—	—	—	—	—
	$113,793	—	$135,588	$102,896	—	—	—	—	—	—
35 – 39	4	—	1	3	—	—	—	—	—	—
	$102,689	—	$63,838	$115,640	—	—	—	—	—	—
40 – 44	6	1	1	4	—	—	—	—	—	—
	$96,081	$83,036	$106,644	$96,702	—	—	—	—	—	—
45 – 49	2	—	1	1	—	—	—	—	—	—
	$101,416	—	$142,053	$60,779	—	—	—	—	—	—
50 – 54	3	1	1	1	—	—	—	—	—	—
	$125,568	$202,100	$96,884	$77,720	—	—	—	—	—	—
55 – 59	1	—	1	—	—	—	—	—	—	—
	$183,890	—	$183,890	—	—	—	—	—	—	—
60 – 64	1	—	1	—	—	—	—	—	—	—
	$117,577	—	$117,577	—	—	—	—	—	—	—
65 – 69	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
70 & over	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
Total	**20**	**2**	**7**	**11**	**—**	**—**	**—**	**—**	**—**	**—**
	$110,481	**$142,568**	**$120,925**	**$98,002**	**—**	**—**	**—**	**—**	**—**	**—**

Exhibit B: Members in Active Service as of June 30, 2022 by Age, Years of Service, and Average Projected Compensation (continued)

Districts Tier IIB

		Years of Service								
Age	Total	0 – 4	5 – 9	10 – 14	15 – 19	20 – 24	25 – 29	30 – 34	35 – 39	40 & over
Under 25	10	10	—	—	—	—	—	—	—	—
	$60,971	$60,971	—	—	—	—	—	—	—	—
25 – 29	67	64	3	—	—	—	—	—	—	—
	$70,054	$69,485	$82,198	—	—	—	—	—	—	—
30 – 34	55	37	18	—	—	—	—	—	—	—
	$76,025	$70,291	$87,812	—	—	—	—	—	—	—
35 – 39	34	27	7	—	—	—	—	—	—	—
	$70,570	$70,406	$71,204	—	—	—	—	—	—	—
40 – 44	26	15	11	—	—	—	—	—	—	—
	$76,008	$67,986	$86,947	—	—	—	—	—	—	—
45 – 49	11	8	3	—	—	—	—	—	—	—
	$87,951	$90,474	$81,225	—	—	—	—	—	—	—
50 – 54	6	3	3	—	—	—	—	—	—	—
	$94,118	$56,467	$131,770	—	—	—	—	—	—	—
55 – 59	3	1	2	—	—	—	—	—	—	—
	$58,442	$32,214	$71,556	—	—	—	—	—	—	—
60 – 64	4	3	1	—	—	—	—	—	—	—
	$58,368	$52,003	$77,462	—	—	—	—	—	—	—
65 – 69	1	1	—	—	—	—	—	—	—	—
	$57,393	$57,393	—	—	—	—	—	—	—	—
70 & over	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
Total	**217**	**169**	**48**	—	**—**	**—**	**—**	**—**	**—**	**—**
	$73,082	**$69,332**	**$86,284**	—	**—**	**—**	**—**	**—**	**—**	**—**

Exhibit B: Members in Active Service as of June 30, 2022 by Age, Years of Service, and Average Projected Compensation (continued)

Districts Tier III

		Years of Service								
Age	Total	0 – 4	5 – 9	10 – 14	15 – 19	20 – 24	25 – 29	30 – 34	35 – 39	40 & over
Under 25	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
25 – 29	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
30 – 34	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
35 – 39	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
40 – 44	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
45 – 49	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
50 – 54	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
55 – 59	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
60 – 64	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
65 – 69	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
70 & over	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
Total	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**
	—	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**

Exhibit B: Members in Active Service as of June 30, 2022 by Age, Years of Service, and Average Projected Compensation (continued)

Safety Tier I

		Years of Service								
Age	Total	0 – 4	5 – 9	10 – 14	15 – 19	20 – 24	25 – 29	30 – 34	35 – 39	40 & over
Under 25	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
25 – 29	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
30 – 34	42	—	2	39	1	—	—	—	—	—
	$96,562	—	$83,218	$96,366	$130,898	—	—	—	—	—
35 – 39	187	1	—	106	79	1	—	—	—	—
	$96,969	$65,953	—	$94,715	$98,877	$216,141	—	—	—	—
40 – 44	285	—	—	67	147	70	1	—	—	—
	$97,064	—	—	$88,921	$95,909	$106,756	$134,093	—	—	—
45 – 49	240	1	—	29	70	116	24	—	—	—
	$98,972	$59,253	—	$92,052	$92,793	$101,936	$112,686	—	—	—
50 – 54	104	—	1	8	23	54	16	2	—	—
	$99,078	—	$59,094	$79,736	$87,355	$108,508	$96,035	$100,973	—	—
55 – 59	32	—	—	1	11	12	4	3	1	—
	$93,015	—	—	$78,535	$86,648	$96,952	$85,135	$102,596	$133,073	—
60 – 64	9	—	—	—	2	1	3	2	1	—
	$89,416	—	—	—	$74,885	$90,402	$89,750	$92,860	$109,600	—
65 – 69	3	—	—	—	—	1	1	—	1	—
	$76,366	—	—	—	—	$62,164	$88,613	—	$78,322	—
70 & over	2	—	—	—	—	1	1	—	—	—
	$62,001	—	—	—	—	$66,268	$57,734	—	—	—
Total	**904**	**2**	**3**	**250**	**333**	**256**	**50**	**7**	**3**	**—**
	$97,394	**$62,603**	**$75,176**	**$92,567**	**$95,040**	**$104,513**	**$102,625**	**$99,350**	**$106,998**	**—**

Exhibit B: Members in Active Service as of June 30, 2022 by Age, Years of Service, and Average Projected Compensation (continued)

Safety Tier IIA

		Years of Service								
Age	**Total**	**0 – 4**	**5 – 9**	**10 – 14**	**15 – 19**	**20 – 24**	**25 – 29**	**30 – 34**	**35 – 39**	**40 & over**
Under 25	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
25 – 29	1	—	—	1	—	—	—	—	—	—
	$76,962	—	—	$76,962	—	—	—	—	—	—
30 – 34	22	—	17	5	—	—	—	—	—	—
	$91,197	—	$90,799	$92,549	—	—	—	—	—	—
35 – 39	45	1	30	14	—	—	—	—	—	—
	$83,495	$86,762	$86,239	$77,383	—	—	—	—	—	—
40 – 44	12	—	6	6	—	—	—	—	—	—
	$80,752	—	$81,474	$80,029	—	—	—	—	—	—
45 – 49	5	1	3	1	—	—	—	—	—	—
	$77,876	$93,061	$72,562	$78,634	—	—	—	—	—	—
50 – 54	3	—	2	1	—	—	—	—	—	—
	$84,086	—	$67,888	$116,481	—	—	—	—	—	—
55 – 59	1	—	—	1	—	—	—	—	—	—
	$71,651	—	—	$71,651	—	—	—	—	—	—
60 – 64	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
65 – 69	1	—	1	—	—	—	—	—	—	—
	$116,715	—	$116,715	—	—	—	—	—	—	—
70 & over	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
Total	**90**	**2**	**59**	**29**	**—**	**—**	**—**	**—**	**—**	**—**
	$84,884	**$89,912**	**$86,267**	**$81,724**	**—**	**—**	**—**	**—**	**—**	**—**

Exhibit B: Members in Active Service as of June 30, 2022 by Age, Years of Service, and Average Projected Compensation (continued)

Safety Tier IIB

		Years of Service								
Age	Total	0 – 4	5 – 9	10 – 14	15 – 19	20 – 24	25 – 29	30 – 34	35 – 39	40 & over
Under 25	110	110	—	—	—	—	—	—	—	—
	$60,382	$60,382	—	—	—	—	—	—	—	—
25 – 29	217	192	25	—	—	—	—	—	—	—
	$64,376	$62,757	$76,812	—	—	—	—	—	—	—
30 – 34	217	121	93	3	—	—	—	—	—	—
	$69,040	$62,744	$76,760	$83,680	—	—	—	—	—	—
35 – 39	103	42	54	6	1	—	—	—	—	—
	$69,759	$66,110	$72,058	$72,536	$82,154	—	—	—	—	—
40 – 44	27	10	16	1	—	—	—	—	—	—
	$70,177	$65,757	$73,120	$67,297	—	—	—	—	—	—
45 – 49	15	6	5	4	—	—	—	—	—	—
	$73,329	$70,042	$76,388	$74,435	—	—	—	—	—	—
50 – 54	5	4	1	—	—	—	—	—	—	—
	$84,857	$91,731	$57,360	—	—	—	—	—	—	—
55 – 59	8	6	2	—	—	—	—	—	—	—
	$85,465	$79,923	$102,090	—	—	—	—	—	—	—
60 – 64	5	—	5	—	—	—	—	—	—	—
	$104,102	—	$104,102	—	—	—	—	—	—	—
65 – 69	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
70 & over	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
Total	**707**	**491**	**201**	**14**	**1**	**—**	**—**	**—**	**—**	**—**
	$67,046	**$63,105**	**$76,040**	**$75,092**	**$82,154**	**—**	**—**	**—**	**—**	**—**

Exhibit C: Reconciliation of Member Data

	Active Members	Inactive Vested Members[1]	Retired Members	Disabled Members	Beneficiaries	Total
Number as of June 30, 2021	**9,072**	**3,517**	**6,699**	**874**	**1,262**	**21,424**
• New members	1,192	193	N/A	N/A	134	1,519
• Terminations	(719)	719	N/A	N/A	N/A	0
• Contribution refunds	(242)	(261)	N/A	N/A	N/A	(503)
• Retirements	(269)	(83)	352	N/A	N/A	0
• New disabilities	(8)	0	(4)	12	N/A	0
• Return to work	60	(58)	(2)	0	N/A	0
• Died with or without beneficiary	(9)	(12)	(197)	(41)	(69)	(328)
• Data adjustments	(1)	0	0	0	(5)	(6)
Number as of June 30, 2022	**9,076**	**4,015**	**6,848**	**845**	**1,322**	**22,106**

[1] Includes inactive members due a refund of member contributions.

Exhibit D: Summary Statement of Income and Expenses on a Market Value Basis

	Year Ended June 30, 2022		Year Ended June 30, 2021	
Net assets at market value at the beginning of the year		**$5,417,513,179**		**$4,438,794,794**
Contribution income:				
• Employer contributions	$298,067,679		$280,812,319	
• Employee contributions	43,509,629		41,602,345	
• Less administrative expenses	(6,702,394)		(6,060,675)	
Net contribution income		$334,874,915		$316,353,989
Investment income:				
• Interest, dividends, and other income	$93,474,499		$66,296,030	
• Asset appreciation	(253,607,135)		1,038,614,396	
• Less investment expenses	(59,814,411)		(61,549,719)	
Net investment income		$(219,947,047)		$1,043,360,707
Total income available for benefits		**$114,927,868**		**$1,359,714,696**
Less benefit payments:				
• Retirement and survivor benefits	$(371,350,067)		$(355,196,758)	
• Supplemental retirement benefits	(20,589,526)		(19,286,001)	
• Refunds of member contributions	(9,372,795)		(6,513,551)	
• Miscellaneous expenses	0		0	
Net benefit payments		**$(401,312,388)**		**$(380,996,310)**
Change in net assets at market value		**$(286,384,520)**		**$978,718,386**
Net assets at market value at the end of the year		**$5,131,128,660**		**$5,417,513,179**

Note: Results may not add due to rounding.

Exhibit E: Summary Statement of Plan Assets

	June 30, 2022		June 30, 2021	
Cash equivalents		$405,583,020		$436,432,952
Capital and intangible assets		$1,214,029		$1,857,301
Accounts receivable:				
• Investments sold	$74,962,170		$33,460,069	
• Interest and dividends	8,803,838		7,955,743	
• Contributions and other receivables	15,095,745		15,095,666	
Total accounts receivable		$98,861,753		$56,511,478
Investments:				
• Debt securities and bonds	$1,038,328,285		$1,199,785,267	
• Equities	1,628,137,718		1,891,166,027	
• Real estate investments	462,020,045		390,498,784	
• Alternative investments	1,296,766,280		1,173,685,052	
• Commodities	334,656,267		345,848,156	
• Collateral held for securities lending	153,385,647		181,519,384	
Total investments at market value		$4,913,294,243		$5,182,502,670
Total assets		$5,418,953,044		$5,677,304,401
Accounts payable:				
• Securities purchased	$132,265,296		$(77,247,942)	
• Collateral held for securities lent	153,385,647		(181,519,384)	
• Contributions and other liabilities	2,173,442		(1,023,895)	
Total accounts payable		$(287,824,385)		$(259,791,221)
Net assets at market value		**$5,131,128,660**		**$5,417,513,179**
Net assets at actuarial value		**$5,351,181,702**		**$4,988,448,771**
Net assets at valuation value		**$5,102,402,350**		**$4,806,026,107**

Note: Results may not add due to rounding.

Exhibit F: Summary of Reported Reserve Information

	June 30, 2022	June 30, 2021
Member Deposit Reserve – General & Courts	$338,241,350	$314,166,823
Member Deposit Reserve – Safety	171,943,124	158,711,480
Member Deposit Reserve – Special Districts	37,372,674	33,028,625
Employers Advance Reserve – General & Courts	609,174,682	534,215,289
Employers Advance Reserve – Safety	628,132,476	581,002,708
Employers Advance Reserve – Special Districts	56,699,919	54,311,593
Cost-of-Living Reserve – General & Courts	939,362,805	868,328,628
Cost-of-Living Reserve – Safety	671,515,446	619,640,596
Cost-of-Living Reserve – Special Districts	76,937,478	69,633,732
Retired Members – General, Courts & Special Districts	1,161,298,548	1,150,087,912
Retired Members – Safety	400,953,611	399,844,668
Supplemental Retiree Benefit Reserve (SRBR) – 0.5% COLA	10,770,237	23,054,053
Contingency Reserve	0	0
Valuation Reserves (Valuation Value of Assets)	$5,102,402,350	$4,806,026,107
Supplemental Retiree Benefit Reserve (SRBR)	$131,235,770	$128,798,257
Contingency Reserve[1]	117,543,583	53,624,406
COLA Contribution Reserve	0	0
Total Reserves (Actuarial Value of Assets)	$5,351,181,702	$4,988,448,771
Market Stabilization Reserve	$(220,053,042)	$429,064,409
Net Market Value of Assets	**$5,131,128,660**	**$5,417,513,179**

Note: Results may not add due to rounding.

[1] Because the Contingency Reserve is positive as of June 30, 2021 and June 30, 2022, it is excluded from the June 30, 2021 and June 30, 2022 Valuation Value of Assets, respectively.

Exhibit G: Development of the Fund through June 30, 2022

Year Ended June 30	Employer Contributions	Member Contributions	Administrative and Other Expenses	Net Investment Return[1]	Benefit Payments	Market Value of Assets at Year-End	Valuation Value of Assets at Year-End	Valuation Value as a Percent of Market Value
2013	$211,677,478	$20,282,751	$0	$315,415,541	$242,629,555	$3,104,770,253	$3,120,631,727	100.5%
2014	220,393,167	25,810,310	0	482,632,857	257,495,061	3,576,111,526	3,342,121,678	93.5%
2015	215,476,956	30,324,848	4,886,637	81,931,170	273,864,680	3,625,093,183	3,529,785,691	97.4%
2016	234,713,690	33,278,504	5,224,452	(27,535,157)	288,738,174	3,571,587,594	3,685,447,112	103.2%
2017	241,112,434	34,649,054	5,243,309	426,606,857	305,817,454	3,962,895,176	3,913,072,636	98.7%
2018	258,894,487	36,143,110	5,116,557	267,658,596	321,612,528	4,198,862,285	4,163,475,848	99.2%
2019	242,424,569	36,827,443	4,766,651	214,244,104	341,811,689	4,345,780,060	4,291,572,784	98.8%
2020	288,293,446	43,477,770	5,523,340	127,861,224	361,094,367	4,438,794,794	4,508,548,272	101.6%
2021	280,812,319	41,602,345	6,060,675	1,043,360,707	380,996,310	5,417,513,179	4,806,026,107	88.7%
2022	298,067,679	43,509,629	6,702,394	(219,947,047)	401,312,388	5,131,128,660	5,102,402,350	99.4%

Note: Results may not add due to rounding.

[1] On a market basis, net of investment fees and administrative expenses prior to 2015. Starting in 2015, administrative expenses are included in the previous column.

Exhibit H: Table of Amortization Bases

General County with Courts

Type	Date Established	Initial Amount ($ in '000s)	Initial Period	Outstanding Balance ($ in '000s)	Years Remaining	Annual Payment[1] ($ in '000s)
Restart Amortization	June 30, 2011	$1,137,894[2]	24.5[2]	$1,109,694	13.5	$107,090
Actuarial Loss	June 30, 2012	36,175	18	27,117	8	4,006
Actuarial Loss	June 30, 2013	13,512	18	10,773	9	1,440
Actuarial Gain	June 30, 2014	(37,659)	18	(31,531)	10	(3,863)
Assumption Change	June 30, 2014	103,045	18	86,283	10	10,570
Actuarial Gain	June 30, 2015	(21,641)	18	(18,882)	11	(2,140)
Actuarial Gain	June 30, 2016	(2,590)	18	(2,333)	12	(247)
Actuarial Gain	June 30, 2017	(40,492)	18	(37,560)	13	(3,731)
Assumption Change	June 30, 2017	120,406	18	111,651	13	11,092
Actuarial Gain	June 30, 2018	(19,589)	18	(18,600)	14	(1,746)
Actuarial Loss	June 30, 2019	70,119	18	67,785	15	6,042
Actuarial Loss	June 30, 2020	24,813	18	24,327	16	2,068
Assumption Change	June 30, 2020	108,013	18	105,884	16	9,001
Actuarial Gain	June 30, 2021	(47,168)	18	(46,776)	17	(3,807)
Implementation of Alameda Decision	June 30, 2021	(17,062)	15	(16,730)	14	(1,570)
Actuarial Gain	June 30, 2022	(39,961)	18	(39,961)	18	(3,124)
Alameda Decision Refunds	June 30, 2022	3	15	3	15	0
Alameda Decision Amounts Due from Members	June 30, 2022	(2,196)	10	(2,196)	10	(269)
Alameda Decision Amounts Not Collected from Members	June 30, 2022	2,196	10	2,196	10	269
PEPRA Implementation Refunds	June 30, 2022	359	15	359	15	32
PEPRA Implementation Amounts Due from Members	June 30, 2022	(295)	10	(295)	10	(36)
PEPRA Implementation Amounts Not Collected from Members	June 30, 2022	295	10	295	10	36
General County with Courts Subtotal				**$1,331,503**		**$131,113**

[1] As of middle of year.

[2] For the June 30, 2011 Restart Amortization, the Initial Amount was the UAAL as of that date and the Initial Period was the remainder of the original 30-year period that commenced December 31, 2005.

Exhibit H: Table of Amortization Bases (continued)

Districts

Type	Date Established	Initial Amount ($ in '000s)	Initial Period	Outstanding Balance ($ in '000s)	Years Remaining	Annual Payment[1] ($ in '000s)
Restart Amortization	June 30, 2011	$86,149[2]	24.5[2]	$84,009	13.5	$8,107
Actuarial Loss	June 30, 2012	4,431	18	3,320	8	490
Actuarial Loss	June 30, 2013	1,620	18	1,282	9	171
Actuarial Loss	June 30, 2014	2,584	18	2,158	10	264
Assumption Change	June 30, 2014	7,390	18	6,187	10	758
Actuarial Gain	June 30, 2015	(31)	18	(18)	11	(2)
Actuarial Loss	June 30, 2016	5,060	18	4,569	12	483
Actuarial Loss	June 30, 2017	5,822	18	5,394	13	536
Assumption Change	June 30, 2017	11,343	18	10,507	13	1,044
Actuarial Loss	June 30, 2018	5,634	18	5,335	14	501
Actuarial Loss	June 30, 2019	14,365	18	13,888	15	1,238
Actuarial Loss	June 30, 2020	3,557	18	3,486	16	296
Assumption Change	June 30, 2020	10,306	18	10,105	16	859
Actuarial Loss	June 30, 2021	3,337	18	3,311	17	269
Implementation of Alameda Decision	June 30, 2021	(7,865)	15	(7,711)	14	(724)
Actuarial Loss	June 30, 2022	1,477	18	1,477	18	115
Alameda Decision Refunds	June 30, 2022	0	15	0	15	0
Alameda Decision Amounts Due from Members	June 30, 2022	(103)	10	(103)	10	(13)
Alameda Decision Amounts Not Collected from Members	June 30, 2022	103	10	103	10	13
PEPRA Implementation Refunds	June 30, 2022	14	15	14	15	1
PEPRA Implementation Amounts Due from Members	June 30, 2022	(8)	10	(8)	10	(1)
PEPRA Implementation Amounts Not Collected from Members	June 30, 2022	8	10	8	10	1
Districts Subtotal (Not Including Declining Employers)				**$147,313**		**$14,406**

[1] As of middle of year.

[2] For the June 30, 2011 Restart Amortization, the Initial Amount was the UAAL as of that date and the Initial Period was the remainder of the original 30-year period that commenced December 31, 2005.

Exhibit H: Table of Amortization Bases (continued)

Districts (continued)

Type	Date Established	Initial Amount ($ in '000s)	Initial Period	Outstanding Balance ($ in '000s)	Years Remaining	Annual Payment[1] ($ in '000s)
Declining Employer Restart Amortization (Berrenda Mesa)	June 30, 2019	$4,147	18	$3,760	15	$406
Actuarial Loss (Berrenda Mesa)	June 30, 2020	556	18	518	16	54
Assumption Change (Berrenda Mesa)	June 30, 2020	267	18	250	16	26
Actuarial Gain (Berrenda Mesa)	June 30, 2021	(495)	18	(486)	17	(49)
Implementation of Alameda Decision (Berrenda Mesa)	June 30, 2021	1	15	0	14	0
Actuarial Gain (Berrenda Mesa)	June 30, 2022	(273)	18	(273)	18	(27)
Declining Employer Restart Amortization (Inyokern)	June 30, 2019	102	18	93	15	10
Actuarial Loss (Inyokern)	June 30, 2020	13	18	10	16	1
Actuarial Loss (Inyokern)	June 30, 2021	18	18	20	17	2
Actuarial Gain (Inyokern)	June 30, 2022	(13)	18	(13)	18	(1)
Declining Employer Subtotal				**$3,879**		**$422**
Districts Subtotal (Including Declining Employers)				**$151,192**		**$14,828**

[1] As of middle of year.

Exhibit H: Table of Amortization Bases (continued)

Safety County

Type	Date Established	Initial Amount ($ in '000s)	Initial Period	Outstanding Balance ($ in '000s)	Years Remaining	Annual Payment[1] ($ in '000s)
Restart Amortization	June 30, 2011	$606,032[2]	24.5[2]	$591,015	13.5	$57,035
Actuarial Loss	June 30, 2012	37,591	18	28,166	8	4,161
Actuarial Loss	June 30, 2013	17,808	18	14,194	9	1,898
Actuarial Gain	June 30, 2014	(23,991)	18	(20,094)	10	(2,462)
Assumption Change	June 30, 2014	93,817	18	78,546	10	9,622
Actuarial Gain	June 30, 2015	(8,513)	18	(7,432)	11	(842)
Actuarial Gain	June 30, 2016	(4,514)	18	(4,081)	12	(432)
Actuarial Gain	June 30, 2017	(24,660)	18	(22,864)	13	(2,271)
Assumption Change	June 30, 2017	81,394	18	75,483	13	7,499
Actuarial Gain	June 30, 2018	(13,175)	18	(12,495)	14	(1,173)
Actuarial Loss	June 30, 2019	34,070	18	32,931	15	2,935
Actuarial Loss	June 30, 2020	23,024	18	22,578	16	1,919
Assumption Change	June 30, 2020	28,027	18	27,473	16	2,336
Actuarial Gain	June 30, 2021	(18,908)	18	(18,751)	17	(1,526)
Implementation of Alameda Decision	June 30, 2021	(3,996)	15	(3,916)	14	(368)
Actuarial Loss	June 30, 2022	5,933	18	5,933	18	464
Alameda Decision Refunds	June 30, 2022	4	15	4	15	0
Alameda Decision Amounts Due from Members	June 30, 2022	(545)	10	(545)	10	(67)
Alameda Decision Amounts Not Collected from Members	June 30, 2022	545	10	545	10	67
PEPRA Implementation Refunds	June 30, 2022	866	15	866	15	77
PEPRA Implementation Amounts Due from Members	June 30, 2022	0	10	0	10	0
PEPRA Implementation Amounts Not Collected from Members	June 30, 2022	0	10	0	10	0
Safety County Subtotal				**$787,556**		**$78,872**

[1] As of middle of year.

[2] For the June 30, 2011 Restart Amortization, the Initial Amount was the UAAL as of that date and the Initial Period was the remainder of the original 30-year period that commenced December 31, 2005.

Exhibit H: Table of Amortization Bases (continued)

Total KCERA

Type	Date Established	Initial Amount ($ in '000s)	Initial Period	Outstanding Balance ($ in '000s)	Years Remaining	Annual Payment[1] ($ in '000s)
Restart Amortization	June 30, 2011	$1,830,075[2]	24.5[2]	$1,784,718	13.5	$172,232
Actuarial Loss	June 30, 2012	78,197	18	58,603	8	8,657
Actuarial Loss	June 30, 2013	32,940	18	26,249	9	3,509
Actuarial Gain	June 30, 2014	(59,066)	18	(49,467)	10	(6,061)
Assumption Change	June 30, 2014	204,252	18	171,016	10	20,950
Actuarial Gain	June 30, 2015	(30,185)	18	(26,332)	11	(2,984)
Actuarial Gain	June 30, 2016	(2,044)	18	(1,845)	12	(196)
Actuarial Gain	June 30, 2017	(59,330)	18	(55,030)	13	(5,466)
Assumption Change	June 30, 2017	213,143	18	197,641	13	19,635
Actuarial Gain	June 30, 2018	(27,130)	18	(25,760)	14	(2,418)
Actuarial Loss	June 30, 2019	118,554	18	114,604	15	10,215
Declining Employer Restart (Berrenda)	June 30, 2019	4,147	18	3,760	15	406
Declining Employer Restart (Inyokern)	June 30, 2019	102	18	93	15	10
Actuarial Loss	June 30, 2020	51,394	18	50,391	16	4,283
Actuarial Loss (Berrenda)	June 30, 2020	556	18	518	16	54
Actuarial Loss (Inyokern)	June 30, 2020	13	18	10	16	1
Assumption Change	June 30, 2020	146,346	18	143,462	16	12,196
Assumption Change (Berrenda)	June 30, 2020	267	18	250	16	26
Actuarial Gain	June 30, 2021	(62,739)	18	(62,216)	17	(5,064)
Actuarial Gain (Berrenda)	June 30, 2021	(495)	18	(486)	17	(49)
Actuarial Loss (Inyokern)	June 30, 2021	18	18	20	17	2
Implementation of Alameda Decision	June 30, 2021	(28,923)	15	(28,357)	14	(2,662)
Implementation of Alameda Decision (Berrenda)	June 30, 2021	1	15	0	14	0
Actuarial Gain	June 30, 2022	(32,551)	18	(32,551)	18	(2,545)
Actuarial Gain (Berrenda)	June 30, 2022	(273)	18	(273)	18	(27)
Actuarial Gain (Inyokern)	June 30, 2022	(13)	18	(13)	18	(1)

1 As of middle of year.
2 For the June 30, 2011 Restart Amortization, the Initial Amount was the UAAL as of that date and the Initial Period was the remainder of the original 30-year period that commenced December 31, 2005.

Exhibit H: Table of Amortization Bases (continued)

Total KCERA (continued)

Type	Date Established	Initial Amount ($ in '000s)	Initial Period	Outstanding Balance ($ in '000s)	Years Remaining	Annual Payment[1] ($ in '000s)
Alameda Decision Refunds	June 30, 2022	$7	15	$7	15	$0
Alameda Decision Amounts Due from Members	June 30, 2022	(2,844)	10	(2,844)	10	(349)
Alameda Decision Amounts Not Collected from Members	June 30, 2022	2,844	10	2,844	10	349
PEPRA Implementation Refunds	June 30, 2022	1,239	15	1,239	15	110
PEPRA Implementation Amounts Due from Members	June 30, 2022	(303)	10	(303)	10	(37)
PEPRA Implementation Amounts Not Collected from Members	June 30, 2022	303	10	303	10	37
KCERA Total				**$2,270,251**		**$224,813**

[1] As of middle of year.

Exhibit I: Projection of UAAL Balances and Payments

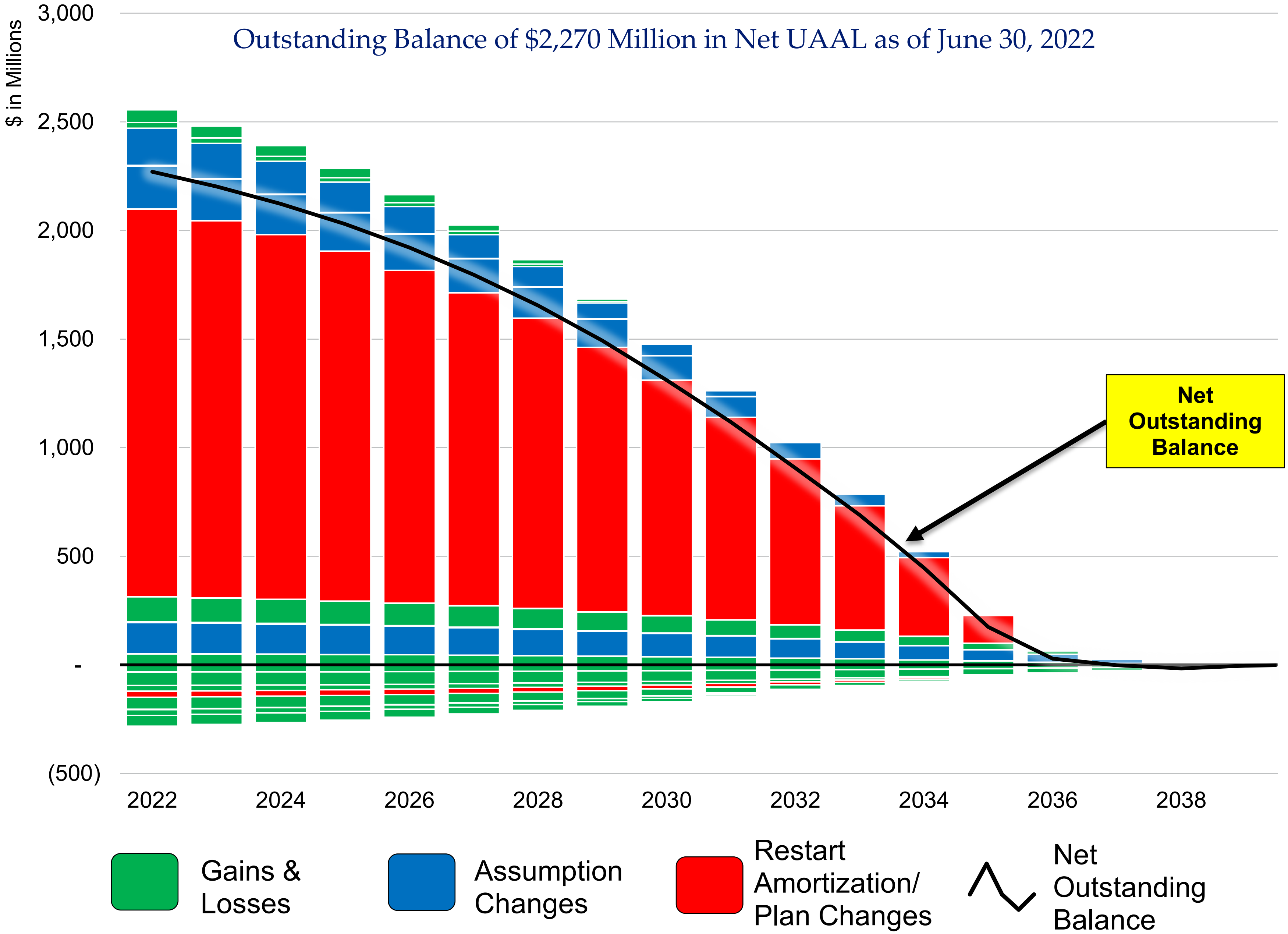


Exhibit I: Projection of UAAL Balances and Payments (continued)

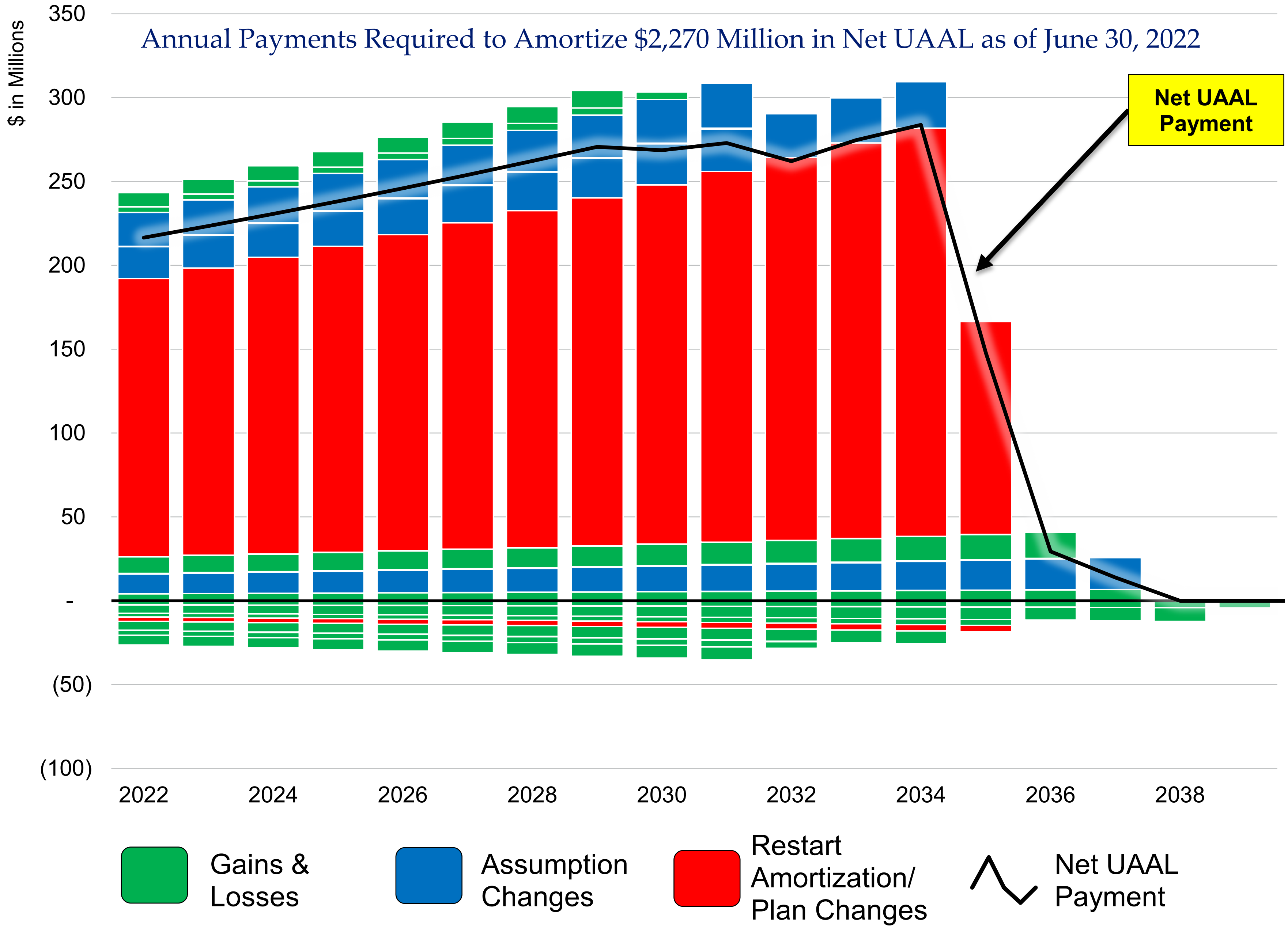


Exhibit J: Definition of Pension Terms

The following list defines certain technical terms for the convenience of the reader:

Actuarial Accrued Liability for Actives:	The equivalent of the accumulated normal costs allocated to the years before the valuation date.
Actuarial Accrued Liability for Pensioners and Beneficiaries:	The single-sum value of lifetime benefits to existing pensioners and beneficiaries. This sum takes account of life expectancies appropriate to the ages of the annuitants and the interest that the sum is expected to earn before it is entirely paid out in benefits.
Actuarial Cost Method:	A procedure allocating the Actuarial Present Value of Future Benefits to various time periods; a method used to determine the Normal Cost and the Actuarial Accrued Liability that are used to determine the actuarially determined contribution.
Actuarial Gain or Loss:	A measure of the difference between actual experience and that expected based upon a set of Actuarial Assumptions, during the period between two Actuarial Valuation dates. To the extent that actual experience differs from that assumed, Actuarial Accrued Liabilities emerge which may be the same as forecasted, or may be larger or smaller than projected. Actuarial gains are due to favorable experience, e.g., assets earn more than projected, salary increases are less than assumed, members retire later than assumed, etc. Favorable experience means actual results produce actuarial liabilities not as large as projected by the actuarial assumptions. On the other hand, actuarial losses are the result of unfavorable experience, i.e., actual results yield in actuarial liabilities that are larger than projected. Actuarial gains will shorten the time required for funding of the actuarial balance sheet deficiency while actuarial losses will lengthen the funding period.
Actuarially Equivalent:	Of equal actuarial present value, determined as of a given date and based on a given set of Actuarial Assumptions.
Actuarial Present Value (APV):	The value of an amount or series of amounts payable or receivable at various times, determined as of a given date by the application of a particular set of Actuarial Assumptions. Each such amount or series of amounts is: Adjusted for the probable financial effect of certain intervening events (such as changes in compensation levels, marital status, etc.) Multiplied by the probability of the occurrence of an event (such as survival, death, disability, withdrawal, etc.) on which the payment is conditioned, and Discounted according to an assumed rate (or rates) of return to reflect the time value of money.

Actuarial Present Value of Future Plan Benefits:	The Actuarial Present Value of benefit amounts expected to be paid at various future times under a particular set of Actuarial Assumptions, taking into account such items as the effect of advancement in age, anticipated future compensation, and future service credits. The Actuarial Present Value of Future Plan Benefits includes the liabilities for active members, retired members, beneficiaries receiving benefits, and inactive members entitled to either a refund or a future retirement benefit. Expressed another way, it is the value that would have to be invested on the valuation date so that the amount invested plus investment earnings would provide sufficient assets to pay all projected benefits when due.
Actuarial Valuation:	The determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets, and related Actuarial Present Values for a plan. An Actuarial Valuation for a governmental retirement system typically also includes calculations of items needed for compliance with GASB, such as the Actuarially Determined Contribution (ADC) and the Net Pension Liability (NPL).
Actuarial Value of Assets (AVA):	The value of the Association's assets as of a given date, used by the actuary for valuation purposes. This may be the market or fair value of plan assets, but commonly plans use a smoothed value in order to reduce the year-to-year volatility of calculated results, such as the funded ratio and the ADC.
Actuarially Determined:	Values that have been determined utilizing the principles of actuarial science. An actuarially determined value is derived by application of the appropriate actuarial assumptions to specified values determined by provisions of the plan.
Actuarially Determined Contribution (ADC):	The employer's periodic required contributions, expressed as a dollar amount or a percentage of covered plan compensation, determined under the Association's funding policy. The ADC consists of the employer Normal Cost and the Amortization Payment.
Amortization Method:	A method for determining the Amortization Payment. The most common methods used are level dollar and level percentage of payroll. Under the Level Dollar method, the Amortization Payment is one of a stream of payments, all equal, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the Amortization Payment is one of a stream of increasing payments, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the stream of payments increases at the assumed rate at which total covered payroll of all active members will increase.
Amortization Payment:	The portion of the pension plan contribution, or ADC, that is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability.

Assumptions or Actuarial Assumptions:	The estimates upon which the cost of the Association is calculated, including: Investment return - the rate of investment yield that the Association will earn over the long-term future; Mortality rates - the death rates of employees and pensioners; life expectancy is based on these rates; Retirement rates - the rate or probability of retirement at a given age or service; Disability rates - the probability of disability retirement at a given age; Withdrawal rates - the rates at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement; Salary increase rates - the rates of salary increase due to inflation and productivity growth.
Closed Amortization Period:	A specific number of years that is counted down by one each year, and therefore declines to zero with the passage of time. For example, if the amortization period is initially set at 30 years, it is 29 years at the end of one year, 28 years at the end of two years, etc. See Open Amortization Period.
Decrements:	Those causes/events due to which a member's status (active-inactive-retiree-beneficiary) changes, that is: death, retirement, disability, or withdrawal.
Defined Benefit Plan:	A retirement plan in which benefits are defined by a formula applied to the member's compensation and/or years of service.
Defined Contribution Plan:	A retirement plan, such as a 401(k) plan, a 403(b) plan, or a 457 plan, in which the contributions to the plan are assigned to an account for each member, the plan's earnings are allocated to each account, and each member's benefits are a direct function of the account balance.
Employer Normal Cost:	The portion of the Normal Cost to be paid by the employer. This is equal to the Normal Cost less expected member contributions.
Experience Study:	A periodic review and analysis of the actual experience of the Association that may lead to a revision of one or more actuarial assumptions. Actual rates of decrement and salary increases are compared to the actuarially assumed values and modified as deemed appropriate by the Actuary.
Funded Ratio:	The ratio of the Valuation Value of Assets (VVA) to the Actuarial Accrued Liability (AAL). Plans sometimes calculate a market funded ratio, using the Market Value of Assets (MVA), rather than the VVA.
Investment Return:	The rate of earnings of the plan from its investments, including interest, dividends and capital gain and loss adjustments, computed as a percentage of the average value of the fund. For actuarial purposes, the investment return often reflects a smoothing of the capital gains and losses to avoid significant swings in the value of assets from one year to the next.

Normal Cost:	That portion of the Actuarial Present Value of pension plan benefits allocated to a valuation year by the Actuarial Cost Method. Any payment in respect of an Unfunded Actuarial Accrued Liability is not part of Normal Cost (see Amortization Payment). For pension plan benefits that are provided in part by employee contributions, Normal Cost refers to the total of employee contributions and employer Normal Cost unless otherwise specifically stated.
Open Amortization Period:	An open amortization period is one which is used to determine the Amortization Payment but which does not change over time. If the initial period is set as 30 years, the same 30-year period is used in determining the Amortization Period each year. In theory, if an Open Amortization Period with level percentage of payroll is used to amortize the Unfunded Actuarial Accrued Liability, the UAAL will never decrease, but will become smaller each year, in relation to covered payroll, if the actuarial assumptions are realized.
Payroll or Compensation:	Compensation Earnable and Pensionable Compensation expected to be paid to active members during the twelve months following the valuation date. Only Compensation Earnable and Pensionable Compensation that would possibly go into the determination of retirement benefits are included.
Unfunded Actuarial Accrued Liability:	The excess of the Actuarial Accrued Liability over the Valuation Value of Assets. This value may be negative, in which case it may be expressed as a negative Unfunded Actuarial Accrued Liability, also called the Funding Surplus or an Overfunded Actuarial Accrued Liability.
Valuation Date or Actuarial Valuation Date:	The date as of which the value of assets is determined and as of which the Actuarial Present Value of Future Plan Benefits is determined. The expected benefits to be paid in the future are discounted to this date.
Valuation Value of Assets:	The Actuarial Value of Assets reduced by the value of non-valuation reserves.

Section 4: Actuarial Valuation Basis

Exhibit 1: Actuarial Assumptions and Methods

Rationale for Assumptions:	The information and analysis used in selecting each assumption that has a significant effect on this actuarial valuation is shown in the July 1, 2016 through June 30, 2019 Actuarial Experience Study dated August 3, 2020. Unless otherwise noted, all actuarial assumptions and methods shown below apply to members for all tiers. These assumptions were adopted by the Board.
Economic Assumptions	
Net Investment Return:	7.25%; net of investment expenses. Based on the Actuarial Experience Study reference above, expected investment expenses represent about 0.40% of the Market Value of Assets.
Administrative Expenses:	0.90% of payroll allocated to both the employer and member based on the components of the total average contribution rate (before expenses) for the employer and member. This results in an administrative expense load as shown below:

	Average Contribution Rate Before Administrative Expense	Weighting	Total Loading
Employer	47.97%	87.50%	0.79%
Member	6.85%	12.50%	0.11%
Total		100.00%	0.90%

Under this approach, the employer Normal Cost rate is then increased by the same percent of payroll as the member rate with the remaining employer loading allocated to the employer UAAL rate. This is done to maintain a 50/50 sharing of Normal Cost for those in PEPRA Tiers. The table below shows this allocation.

Allocation of Administrative Expense Load as a % of Payroll	
Addition to Employer Basic Normal Cost Rate	0.11%
Addition to Employer Basic UAAL Rate	0.68%
Addition to Member Basic Rate	0.11%
Total Addition to Contribution Rates	0.90%

The administrative expense load is added to the Basic rates for employers and members.

Member Contribution Crediting Rate:	7.25%, compounded semi-annually.

Consumer Price Index (CPI) and Cost of Living Adjustments (COLA):	CPI Increase of 2.75% per year. Retiree COLA increases due to CPI are assumed to be 2.50% per year.
Payroll Growth:	Inflation of 2.75% per year plus “across the board” real salary increases of 0.50% per year.
Increase in Internal Revenue Code Section 401(a)(17) Compensation Limit:	Increase of 2.75% per year from the valuation date.
Increase in Section 7522.10 Compensation Limit:	Increase of 2.75% per year from the valuation date.
Salary Increases:	The annual rate of compensation increase includes: inflation at 2.75%, plus “across the board” salary increases of 0.50% per year, plus the following merit and promotion increases:

Merit and Promotion Increases

Years of Service	Rate (%) General	Rate (%) Safety
Less than 1	5.50	8.75
1 – 2	4.50	7.00
2 – 3	4.00	5.50
3 – 4	3.50	5.00
4 – 5	3.00	4.50
5 – 6	2.50	4.00
6 – 7	2.25	3.50
7 – 8	1.75	2.50
8 – 9	1.50	1.50
9 – 10	1.25	1.25
10 – 11	1.15	1.00
11 – 12	1.05	0.80
12 – 13	0.95	0.75
13 – 14	0.85	0.70
14 – 15	0.75	0.65
15 –16	0.75	0.60
16 – 17	0.75	0.55
17 – 18	0.75	0.50
18 – 19	0.75	0.50
19 – 20	0.75	0.50
20 & Over	0.75	0.50

Demographic Assumptions:	
Post-Retirement Mortality Rates:	*Healthy* • **General Members:** Pub-2010 General Healthy Retiree Amount-Weighted Mortality Table (separate tables for males and females) with rates increased by 15% for females, projected generationally with the two-dimensional mortality improvement scale MP-2019. • **Safety Members:** Pub-2010 Safety Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2019. *Disabled* • **General Members:** Pub-2010 Non-Safety Disabled Retiree Amount-Weighted Mortality Table (separate tables for males and females) with rates decreased by 5% for males and females, projected generationally with the two-dimensional mortality improvement scale MP-2019. • **Safety Members:** Pub-2010 Safety Disabled Retiree Amount-Weighted Mortality Table (separate tables for males and females) with rates increased by 5% for males and females, projected generationally with the two-dimensional mortality improvement scale MP-2019. *Beneficiaries* • **General and Safety Members:** Pub-2010 General Contingent Survivor Amount-Weighted Mortality Table (separate tables for males and females) with rates increased by 10% for males and females, projected generationally with the two-dimensional mortality improvement scale MP-2019. The Pub-2010 mortality tables and adjustments as shown above with generational projection to the ages of participants as of the measurement date reasonably reflect the mortality experience as of the measurement date. The generational projection is a provision for future mortality improvement.

Pre-Retirement Mortality Rates:

- **General Members:** Pub-2010 General Employee Amount-Weighted Mortality Table (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2019.
- **Safety Members:** Pub-2010 Safety Employee Amount-Weighted Above-Median Mortality Table (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2019.

	Rate (%)			
	General		Safety	
Age	Male	Female	Male	Female
25	0.03	0.01	0.03	0.02
30	0.04	0.01	0.04	0.02
35	0.05	0.02	0.04	0.03
40	0.07	0.04	0.05	0.04
45	0.10	0.06	0.07	0.06
50	0.15	0.08	0.10	0.08
55	0.22	0.12	0.15	0.11
60	0.32	0.19	0.23	0.14
65	0.47	0.30	0.35	0.20

All pre-retirement deaths are assumed to be non-service connected. Note that generational projections beyond the base year (2010) are not reflected in the above mortality rates.

Mortality Rates for Member Contributions:

- **General Members:** Pub-2010 General Healthy Retiree Amount-Weighted Mortality Table (separate tables for males and females) with rates increased by 15% for females, projected 30 years (from 2010) with the two-dimensional mortality improvement scale MP-2019, weighted 30% male and 70% female.
- **Safety Members:** Pub-2010 Safety Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females), projected 30 years (from 2010) with the two-dimensional mortality improvement scale MP-2019, weighted 80% male and 20% female.

Disability Incidence:

	Rate (%)	
Age	**General**	**Safety**
20	0.02	0.05
25	0.03	0.07
30	0.04	0.10
35	0.07	0.19
40	0.09	0.28
45	0.13	0.39
50	0.18	1.08
55	0.26	2.55
60	0.36	3.70
65	0.40	4.00
70	0.00	0.00

50% of General disabilities are assumed to be service connected (duty) disabilities and the other 50% are assumed to be non-service connected (ordinary) disabilities.

90% of Safety disabilities are assumed to be service connected (duty) disabilities and the other 10% are assumed to be non-service connected (ordinary) disabilities.

Termination:

Years of Service	Rate (%) General	Rate (%) Safety
Less than 1	17.00	9.00
1 – 2	13.00	8.00
2 – 3	10.00	7.00
3 – 4	9.00	6.00
4 – 5	8.50	5.00
5 – 6	8.00	4.00
6 – 7	7.00	3.50
7 – 8	6.00	3.25
8 – 9	5.00	3.00
9 – 10	4.00	2.60
10 – 11	3.75	2.20
11 – 12	3.50	1.80
12 – 13	3.25	1.60
13 – 14	3.00	1.40
14 – 15	2.75	1.20
15 – 16	2.50	1.00
16 – 17	2.30	0.90
17 – 18	2.10	0.75
18 – 19	1.90	0.75
19 – 20	1.70	0.75
20 – 21	1.50	0.00
21 – 22	1.30	0.00
22 – 23	1.10	0.00
23 – 24	1.00	0.00
24 – 25	1.00	0.00
25 – 26	1.00	0.00
26 – 27	1.00	0.00
27 – 28	1.00	0.00
28 – 29	1.00	0.00
29 – 30	1.00	0.00
30 & Over	0.00	0.00

Refer to the next table that contains rates for electing a refund of contributions upon termination. No termination is assumed after a member is first assumed to retire.

Electing a Refund of Contributions upon Termination:

Years of Service	Rate (%) General	Rate (%) Safety
Less than 5	100.00	100.00
5 – 6	36.00	44.00
6 – 7	34.00	40.00
7 – 8	32.00	38.00
8 – 9	30.00	32.00
9 – 10	28.00	30.00
10 – 11	26.00	26.00
11 – 12	25.00	25.00
12 – 13	24.00	21.00
13 – 14	23.00	18.00
14 – 15	22.00	15.00
15 – 16	21.00	12.00
16 – 17	18.00	10.00
17 – 18	16.00	8.00
18 – 19	14.00	6.00
19 – 20	13.00	4.00
20 – 21	12.00	0.00
21 – 22	11.00	0.00
22 – 23	10.00	0.00
23 – 24	8.00	0.00
24 – 25	6.00	0.00
25 – 26	4.00	0.00
26 – 27	2.00	0.00
27 & Over	0.00	0.00

Retirement Rates:

Age	General Tier I <25 Years of Service	General Tier I >25 Years of Service	General Tiers IIA and IIB	General Tier III	Safety Tier I <25 Years of Service	Safety Tier I >25 Years of Service	Safety Tiers IIA and IIB
	Rate (%)						
45	0.00	0.00	0.00	0.00	5.00	5.00	0.00
46	0.00	0.00	0.00	0.00	5.00	5.00	0.00
47	0.00	0.00	0.00	0.00	5.00	5.00	0.00
48	0.00	0.00	0.00	0.00	5.00	5.00	0.00
49	0.00	0.00	0.00	0.00	25.00	25.00	0.00
50	10.00	10.00	5.00	0.00	10.00	30.00	3.00
51	6.00	6.00	3.00	0.00	8.00	24.00	3.00
52	6.00	12.00	3.00	3.00	8.00	24.00	3.00
53	6.00	12.00	3.00	3.00	8.00	24.00	5.00
54	6.00	12.00	3.50	3.50	12.00	24.00	11.00
55	6.00	12.00	4.00	4.00	14.00	28.00	13.00
56	6.00	14.00	4.50	4.50	14.00	28.00	12.00
57	6.00	16.00	5.00	5.00	8.00	28.00	12.00
58	9.00	18.00	6.50	6.50	8.00	28.00	12.00
59	16.00	24.00	11.00	11.00	14.00	28.00	12.00
60	20.00	35.00	12.00	12.00	25.00	28.00	12.00
61	16.00	28.00	13.00	13.00	25.00	50.00	12.00
62	20.00	35.00	20.00	20.00	25.00	50.00	25.00
63	20.00	30.00	20.00	20.00	25.00	50.00	25.00
64	20.00	30.00	20.00	20.00	25.00	50.00	25.00
65	35.00	35.00	35.00	35.00	100.00	100.00	100.00
66	35.00	35.00	35.00	35.00	100.00	100.00	100.00
67	35.00	35.00	35.00	35.00	100.00	100.00	100.00
68	35.00	35.00	35.00	35.00	100.00	100.00	100.00
69	40.00	40.00	40.00	40.00	100.00	100.00	100.00
70	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Retirement Age and Benefit for Deferred Vested Members:

For current and future deferred vested members, retirement age assumptions are as follows:

General Retirement Age: 57

Safety Retirement Age: 53

We assume that 45% of future General and 60% of future Safety deferred vested members will continue to work for a reciprocal employer. For reciprocal members, we assume 4.00% and 3.75% compensation increases per annum for General and Safety members, respectively.

Section 4: Actuarial Valuation Basis

Future Benefit Accruals:	1.0 year of service per year of employment.
Unknown Data for Members:	Same as those exhibited by members with similar known characteristics. If not specified, members are assumed to be male.
Definition of Active Members:	All active members of KCERA as of the valuation date.
Form of Payment:	All active and inactive members are assumed to elect the unmodified option at retirement.
Percent Married:	For all active and inactive members, 70% of male members and 60% of female members are assumed to be married at pre-retirement death or retirement. There is no explicit assumption for children's benefits.
Age and Gender of Spouse:	For all active and inactive members, male members are assumed to have a female spouse who is 3 years younger than the member and female members are assumed to have a male spouse who is 2 years older than the member.
Actuarial Funding Policy	
Actuarial Cost Method:	Entry Age Actuarial Cost Method. Entry Age is the age on the valuation date minus the lesser of years of employment or years of benefit service. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis and are based on costs allocated as a level percentage of compensation, as if the current benefit formula for each individual has always been in effect (i.e., "replacement life within a tier").
Actuarial Value of Assets:	Market Value of Assets (MVA) less unrecognized returns in each of the last nine semi-annual accounting periods. Unrecognized returns are equal to the difference between the actual market return and the expected return on the market value, and are recognized semi-annually over a five-year period. The Actuarial Value of Assets (AVA) is limited by a 50% corridor; the AVA cannot be less than 50% of MVA, nor greater than 150% of MVA.
Valuation Value of Assets:	The Actuarial Value of Assets reduced by the value of the non-valuation reserves (excluding the Contingency Reserve if it is negative).

Amortization Policy:	The UAAL, (i.e., the difference between the Actuarial Accrued Liability and the Valuation Value of Assets), as of June 30, 2011 shall be amortized separately from any future changes in UAAL over a period of 24.5 years from June 30, 2011. Any new UAAL as a result of actuarial gains or losses identified in the annual valuation as of June 30 will be amortized over a period of 18 years. Any new UAAL as a result of change in actuarial assumptions or methods will be amortized over a period of 18 years. Unless an alternative amortization period is recommended by the Actuary and accepted by the Board based on the results of an actuarial analysis: a. With the exception noted in b., below, the change in UAAL as a result of any plan amendments will be amortized over a period of 15 years or less; b. the increase in UAAL resulting from a temporary retirement incentive, including the impact of benefits resulting from additional service permitted in Section 31641.04 of the 1937 CERL (Golden Handshake), will be funded over a period of up to 5 years. For Golden Handshakes, the employer has the choice of two methods: i. Payment in full for the UAAL attributable to the Golden Handshake in the first month of the fiscal year following the fiscal year in which the Golden Handshake was granted. ii. Payment according to a five-year amortization period which will be invoiced (payable in 30 days) to the employer in the first month of the fiscal year following the fiscal year in which the Golden Handshake was granted. The amortization schedule will be based upon the valuation interest rate used in the most recently completed valuation at the time that the amortization schedule is created. The employer may complete payment of the Golden Handshake at any time during the five-year amortization period. If the amortization method is used, then the outstanding balance will generally be recorded as a receivable asset to be included with the Actuarial Value of Assets. All Golden Handshakes provided by an employer during any fiscal year will be bundled together and will be invoiced in one transaction in the first month following the fiscal year in which the Golden Handshakes were granted. UAAL shall be amortized over “closed” amortization periods so that the amortization period for each layer decreases by one year with each actuarial valuation. UAAL shall be amortized as a level percentage of payroll so that the amortization amount in each year during the amortization period shall be expected to be a level percentage of covered payroll, taking into consideration the current assumption for general payroll increase (i.e., wage inflation). If an overfunding or “surplus” exists (i.e., the Valuation Value of Assets exceeds the Actuarial Accrued Liability, so that the total of all UAAL amortization layers becomes negative), such surplus and any subsequent surpluses will be amortized over an “open” amortization period of 30 years. Any prior UAAL amortization layers will be considered fully amortized, and any subsequent UAAL will be amortized over 18 years as the first of a new series of amortization layers. These amortization policy components will apply separately to each of KCERA’s UAAL cost sharing groups.

Other Actuarial Methods	
Employer Contributions:	Employer contributions consist of two components: *Normal Cost* The annual contribution rate that, if paid annually from a member's first year of membership through the year of retirement, would accumulate to the amount necessary to fully fund the member's retirement-related benefits. Accumulation includes annual crediting of interest at the assumed investment earning rate. The contribution rate is determined as a level percentage of the member's compensation. *Contribution to the Unfunded Actuarial Accrued Liability (UAAL)* The annual contribution rate that, if paid annually over the UAAL amortization period, would accumulate to the amount necessary to fully fund the UAAL. Accumulation includes annual crediting of interest at the assumed investment earning rate. The contribution (or rate credit in the case of a negative UAAL) is calculated to remain level as a percentage of future active member payroll (including payroll for new members as they enter the Association) assuming a constant number of active members. In order to remain as a level percentage of payroll, amortization payments (credits) are scheduled to increase along with expected payroll at the combined annual inflation and "across the board" salary increase rate of 3.25%. Effective with the June 30, 2012 valuation, the June 30, 2011 UAAL is being amortized over a 24.5-year declining period (13.5 years as of June 30, 2022). The change in UAAL that arises due to actuarial gains or losses or due to changes in actuarial assumptions or methods at each valuation is amortized over its own declining 18-year period. Any change in UAAL that arises due to plan amendments is amortized over its own declining 15-year period (with the exception of retirement incentives which are amortized over its own declining period of up to 5 years). The amortization policy is described on the previous page. The UAAL contribution rates have been adjusted to account for the one-year delay between the valuation date and the date that the contribution rates become effective. The recommended employer contributions are provided in *Section 2, Subsection F*. The rates are shown for each tier/cost group and are separated into Normal Cost and UAAL components into each of these three benefit categories: • The Basic benefits are the retirement benefits excluding all COLAs. • The COLA benefits adopted prior to Ventura Settlement are referred to as the "2.0% COLA benefits". • The COLA benefits provided under the Ventura settlement are referred to as the "0.5% COLA benefits".

Member Contributions:	The member contribution rates for all members are provided in *Section 4, Exhibit 3*. *General Tiers I and IIA and Safety Tiers I and IIA* Articles 6 and 6.8 of the 1937 Act define the methodology to be used in the calculation of member basic contribution rates for General and Safety members, respectively. The basic contribution rate is determined as that percentage of compensation which if paid annually from a member's first year of membership through the prescribed retirement age would accumulate to the amount necessary to fund a prescribed annuity. The prescribed annuity is equal to: • 1/100 of Final Average Salary per year of service at age 55 for General Tier I members • 1/120 of Final Average Salary per year of service at age 60 for General Tier IIA members • 1/100 of Final Average Salary per year of service at age 50 for Safety Tier I and Safety Tier IIA members Safety Tier I members also pay a supplemental contribution rate such that the aggregate amount of the supplemental and basic contribution rates will provide an annuity equal to 3/200 of one year Final Average Salary per year of service at age 50. Members in these non-CalPEPRA tiers do not contribute towards the cost-of-living benefits. Effective July 11, 2015, San Joaquin Valley Unified Air Pollution Control District Tier I members pay 28% of the total Normal Cost rate. That percent increased to 39% effective 2016-2017 and 50% effective 2017-2018. Effective July 8, 2017, San Joaquin Valley Unified Air Pollution Control District Tier IIA members pay 50% of the total Normal Cost rate. *General Tiers IIB and III and Safety Tier IIB* Pursuant to Section 7522.30(a) of the Government Code, General Tier IIB, General Tier III and Safety Tier IIB members are required to contribute at least 50% of the Normal Cost rate. In addition, there are certain additional requirements that would have to be met such as requiring the new employees to pay the contribution rate of "similarly situated employees", if it is greater. (reference: Section 7522.30(c)). We further understand that different rules may have to be applied for collectively bargained employees, non-represented, managerial or other supervisory employees. (reference: Section 7522.30(e)). In preparing the Normal Cost rates in this report, we have assumed that exactly 50% of the Normal Cost would be paid by the new members and we have taken into account in this valuation only the requirements of Section 7522.30(c), but not requirements of Section 7522.30(e). Also of note is that based on our discussions with KCERA, we have used the discretion made available by Section 31620.5(a) of AB 1380 to no longer round the member contribution rates to the nearest quarter of one percent as previously required by CalPEPRA. This is consistent with established practice for the non-CalPEPRA tiers and should allow for exactly one-half of the Normal Cost for the CalPEPRA tiers to be paid by the employees and one-half by the employers. In addition, Section 31620.5(b) of AB 1380 also provides that the "one percent" rule under Section 7022.30(d) does not apply. This section formerly limited the circumstances under which the member rate would change. Member contributions are accumulated at an annual interest rate adopted annually by the Board.

Member Contributions: (continued)	For some employers, benefits are integrated with Social Security. In those cases, non-General Tier III members pay two-thirds of the full rate on the first $350 of pay each month. (The General Tier III formula, as valued, is not integrated with Social Security.) The tables on pages 36 through 40 summarize the specific member contribution rate arrangements for each employer as they have been reflected in this valuation. For valuation purposes, the member contribution levels that are assumed to be in place are those for the fiscal year that begins one year after the valuation date. Any future changes in member contribution rates after that would be reflected in future valuations in determining the allocation of the total costs payable between the employers and the members.
Transfers:	When employees transfer from one participating employer to another KCERA participating employer, recognition needs to be made of the employee's prior service within KCERA on an equitable basis. For each employee that transfers within KCERA the funding for the employee's benefits will be determined as follows: The employee will be reported and funded as a vested terminated employee for the former participating employer with reciprocal benefits the same as any other vested terminated employee who moves to a reciprocal retirement system other than KCERA. • The employee will be reported and funded as an active employee for the new participating employer but with reciprocal service credits for the prior service in KCERA for purposes of benefit eligibility and entry age. Benefit amounts will be funded only for the service provided to the new participating employer. • Upon retirement from KCERA, the employee's total retirement benefit will be determined based on service with each KCERA participating employer and the employee's Final Average Salary. • The entire liability for the retired employee's KCERA benefit payments will be allocated to the latest participating employer's cost group. The employee will be reported as a retired employee for the latest participating employer with the full KCERA retirement benefit amount.

Cost Sharing Adjustments:	KCERA's Normal Cost is determined separately for each group of members that have the same benefit formula (on a prospective basis). The seven Normal Cost cost sharing groups are as follows: • General Tier I • General Tier IIA • General Tier IIB • General Tier III • Safety Tier I • Safety Tier IIA • Safety Tier IIB KCERA's UAAL is determined separately for each cost sharing group depending on the assets for that cost group. The three UAAL cost sharing groups are as follows: • General County and Courts • General Districts • Safety
Internal Revenue Code Section 415:	Section 415 of the Internal Revenue Code (IRC) specifies the maximum benefits that may be paid to an individual from a defined benefit plan and the maximum amounts that may be allocated each year to an individual's account in a defined contribution plan. A qualified pension plan may not pay benefits in excess of the Section 415 limits. The ultimate penalty for non-compliance is disqualification: active participants could be taxed on their vested benefits and the IRS may seek to tax the income earned on the plan's assets. In particular, Section 415(b) of the IRC limits the maximum annual benefit payable at the Normal Retirement Age to a dollar limit of $160,000 indexed for inflation. That limit is $245,000 for 2022. Normal Retirement Age for these purposes is age 62. These are the limits in simplified terms. They must be adjusted based on each participant's circumstances, for such things as age at retirement, form of benefits chosen and after tax contributions. Benefits for members in the legacy tiers in excess of the limits may be paid through a qualified governmental excess plan that meets the requirements of Section 415(m). Legal Counsel's review and interpretation of the law and regulations should be sought on any questions in this regard. Contribution rates determined in this valuation have not been reduced for the Section 415 limitations. Actual limitations will result in gains as they occur.
Changed Actuarial Assumptions and Methods:	There have been no changes in actuarial assumptions or methods since the last valuation.

Exhibit 2: Summary of Plan Provisions

This exhibit summarizes the major provisions of the Association included in the valuation. It is not intended to be, nor should it be interpreted as, a complete statement of all plan provisions.

Plan Year:	July 1 through June 30
Membership Eligibility:	All permanent employees of Kern County or participating Special Districts scheduled to work 50% or more of the required regular standard hours are eligible to become a member of the Retirement Association subject to classification below:
General Tier I	All General members hired by the County prior to October 27, 2007 (prior to July 5, 2008 for Prosecutors), hired by North of the River Sanitation District prior to October 29, 2007, hired by the Kern County Water Agency prior to January 1, 2010, hired by Berrenda Mesa Water District prior to January 12, 2010, hired by San Joaquin Valley Unified Air Pollution Control District prior to July 31, 2012, hired by West Side Mosquito Abatement District prior to November 15, 2012, hired by Kern Mosquito & Vector Control District prior to December 12, 2012, hired by Inyokern Community Services District prior to December 13, 2012, hired by Buttonwillow Recreation & Park District or East Kern Cemetery District prior to December 17, 2012, hired by West Side Cemetery District prior to December 18, 2012, hired by Shafter Recreation & Park District prior to December 19, 2012, or hired by the Courts prior to March 12, 2011.
General Tier IIA	All General members hired by the County on or after October 27, 2007, hired by North of the River Sanitation District on or after October 29, 2007, hired by the Kern County Water Agency on or after January 1, 2010, hired by Berrenda Mesa Water District on or after January 12, 2010, hired by San Joaquin Valley Unified Air Pollution Control District on or after July 31, 2012, hired by West Side Mosquito Abatement District on or after November 15, 2012, hired by Kern Mosquito & Vector Control District on or after December 12, 2012, hired by Inyokern Community Services District on or after December 13, 2012, hired by Buttonwillow Recreation & Park District or East Kern Cemetery District on or after December 17, 2012, hired by West Side Cemetery District on or after December 18, 2012, hired by Shafter Recreation & Park District on or after December 19, 2012, or hired by the Courts on or after March 12, 2011; and hired prior to January 1, 2013.
General Tier IIB	All General members hired by the County or districts (other than West Side Recreation & Park) on or after January 1, 2013.
General Tier III	All General members hired by West Side Recreation & Park on or after January 1, 2013.
Safety Tier I	All members employed in active law enforcement, active fire suppression, probation, detention or criminal investigation hired prior to March 27, 2012.
Safety Tier IIA	All members employed in active law enforcement, active fire suppression, probation, detention or criminal investigation hired on or after March 27, 2012 and prior to January 1, 2013.
Safety Tier IIB	All member employee in active law enforcement, active fire suppression, probation, detention or criminal investigation hired on or after January 1, 2013.

Final Compensation for Benefit Determination:	
General Tiers I and IIA, Safety Tiers I and IIA	Highest consecutive twelve months of compensation earnable (§31462.1) (FAS1).
General Tier IIB, General Tier III and Safety Tier IIB	Highest consecutive thirty-six months of pensionable compensation (§7522.32 and §7522.34) (FAS3).
Compensation Limit:	
Non-General Tier III	For members with membership dates on or after July 1, 1996, Compensation Earnable is limited to Internal Revenue Code Section 401(a)(17). The limit for the plan year beginning July 1, 2022 is $305,000. The limit is indexed for inflation on an annual basis.
General Tier III	Pensionable Compensation is limited to $134,974 for 2022 ($161,969, if not enrolled in Social Security). The limit is indexed for inflation on an annual basis.
Service:	Years of service (Yrs).
Service Retirement Eligibility:	
General Tiers I, IIA and IIB	Age 50 with 10 years of service credit, or age 70 regardless of service credit, or after 30 years of service credit, regardless of age (§31672).
General Tier III	Age 52 with 5 years of service (§7522.20(a)), or age 70 regardless of service credit.
Safety Tiers I, IIA and IIB	Age 50 with 10 years of service credit, or age 70 regardless of service credit, or after 20 years of service credit, regardless of age (§31663.25).

Benefit Formula:

General Tier I (§31676.17)

Retirement Age	Benefit Formula[1]
50	(2.00%xFAS1 – 1/3x2.00%x$350 x 12) x Yrs
55	(2.50%xFAS1 – 1/3x2.50%x$350 x 12) x Yrs
60	(3.00%xFAS1 – 1/3x3.00%x$350 x 12) x Yrs
62 and over	(3.00%xFAS1 – 1/3x3.00%x$350 x 12) x Yrs

General Tier I[2] (§31676.14)

Retirement Age	Benefit Formula
50	1.48% x FAS1 x Yrs
55	1.95% x FAS1 x Yrs
60	2.44% x FAS1 x Yrs
62 and over	2.61% x FAS1 x Yrs

	Retirement Age	Benefit Formula[1]
General Tier IIA (§31676.01)	**Retirement Age**	**Benefit Formula[1]**
	50	(0.79%xFAS1 – 1/3x0.79%x$350 x 12) x Yrs
	55	(0.99%xFAS1 – 1/3x1.00%x$350 x 12) x Yrs
	60	(1.28%xFAS1 – 1/3x1.28%x$350 x 12) x Yrs
	62	(1.39%xFAS1 – 1/3x1.39%x$350 x 12) x Yrs
	65 and over	(1.62%xFAS1 – 1/3x1.62%x$350 x 12) x Yrs
General Tier IIB (§31676.01)	**Retirement Age**	**Benefit Formula[1]**
	50	(0.79%xFAS3 – 1/3x0.79%x$350 x 12) x Yrs
	55	(0.99%xFAS3 – 1/3x1.00%x$350 x 12) x Yrs
	60	(1.28%xFAS3 – 1/3x1.28%x$350 x 12) x Yrs
	62	(1.39%xFAS3 – 1/3x1.39%x$350 x 12) x Yrs
	65 and over	(1.62%xFAS3 – 1/3x1.62%x$350 x 12) x Yrs

(1) Benefits for some District Members are not integrated with Social Security.

(2) Two General Districts, Berrenda Mesa and Inyokern, have adopted Section 31676.17 on a prospective basis only as of January 1, 2005, but have Section 31676.14 for service prior to January 1, 2005.

General Tier III (§7522.20(a))	**Retirement Age**	**Benefit Formula**
	52	1.00% x FAS3 x Yrs
	55	1.30% x FAS3 x Yrs
	60	1.80% x FAS3 x Yrs
	62	2.00% x FAS3 x Yrs
	65	2.30% x FAS3 x Yrs
	67 and over	2.50% x FAS3 x Yrs
Safety Tier I (§31664.1)	**Retirement Age**	**Benefit Formula**
	50	(3.00% x FAS1 - 1/3 x 3.00% x $350 x 12) x Yrs
	55	(3.00% x FAS1 - 1/3 x 3.00% x $350 x 12) x Yrs
	60 and over	(3.00% x FAS1 - 1/3 x 3.00% x $350 x 12) x Yrs

Safety Tier IIA (§31664)	**Retirement Age**	**Benefit Formula**
	50	(2.00% x FAS1 - 1/3 x 2.00% x $350 x 12) x Yrs
	55	(2.62% x FAS1 - 1/3 x 2.62% x $350 x 12) x Yrs
	60 and over	(2.62% x FAS1 - 1/3 x 2.62% x $350 x 12) x Yrs
Safety Tier IIB (§31664)	**Retirement Age**	**Benefit Formula**
	50	(2.00% x FAS3 - 1/3 x 2.00% x $350 x 12) x Yrs
	55	(2.62% x FAS3 - 1/3 x 2.62% x $350 x 12) x Yrs
	57 and over	(2.62% x FAS3 - 1/3 x 2.62% x $350 x 12) x Yrs

Maximum Benefit:	
Non-General Tier III	100% of final compensation (§31676.14, §31676.17, §31676.01, §31664.1, §31664).
General Tier III	There is no final compensation limit on the maximum retirement benefit.
Non-Service Connected Disability:	
Eligibility	Five years of service (§31720).
Benefit	20% of Final Compensation plus 2% of Final Compensation for each full year of service in excess of five years, not to exceed 40% of Final Compensation (§31727.7).
	For all members, 100% of the Service Retirement benefit, if greater.
Service Connected Disability:	
Eligibility	No age or service requirements (§31720).
Benefit	50% of the Final Compensation or 100% of Service Retirement benefit, if greater (§31727.4).

Section 4: Actuarial Valuation Basis

Pre-Retirement Death:	
All Members	
Eligibility	None.
Basic lump sum benefit	Refund of employee contributions with interest plus one month's eligible compensation for each year of service to a maximum of six months' compensation (§31781).
Service Connected Death	50% of Final Compensation or 100% of Service Retirement benefit, if greater, payable to spouse or minor children (§31787). In addition, Safety members are entitled to benefits under Sections 31787.5 and 31787.6.
Vested Members	
Eligibility	Five years of service.
Basic benefit	60% of the greater of Service Retirement or Non-Service Connected Disability Retirement benefit payable to surviving eligible spouse or eligible children (§31765.1, §31781.1), in lieu of above. Additionally, the spouse may choose a combined benefit of: • A lump sum payment of up to six months' compensation (see above), and • A monthly (60%) benefit reduced by actuarial equivalent of the lump sum payment (§31781.3).
Death After Retirement:	
All Members	
Service Retirement or Non-Service Connected Disability Retirement	Unless another option was selected at retirement, 60% of member's unmodified allowance continued to eligible spouse (§31760.1). An eligible spouse is a surviving spouse who was married to the member at least one year prior to the day of retirement (§31760.1), or, at least two years prior to the date of death and has attained age 55 on or prior to the date of death (§31760.2).
Service Connected Disability	Unless another option was selected at retirement, 100% of member's unmodified allowance continued to eligible spouse (§31786).
Withdrawal Benefits:	
Less than Five Years of Service	Refund of accumulated employee contributions with interest (§31628) or entitled to earned benefits commencing any time after eligible to retire (§31629.5) if eligible for benefits at a reciprocal system.
Five or More Years of Service	If contributions left on deposit, a member is entitled to earned benefits commencing at any time after eligible to retire (§31700). Service for eligibility includes service credited as an employee of a reciprocal system.
Post-retirement Cost-of-Living Benefits:	Future changes based on changes to the Consumer Price Index to a maximum of 2.50% per year. (§31870.4)
Supplemental Retiree Benefit Reserve:	The Association provides Supplemental Retiree Benefit Reserve benefits for eligible retirees. These benefits have been excluded from this valuation.

Member Contributions:	Please refer to *Section 4, Exhibit 3* for the specific rates. Members in General Tiers I and IIA (excluding San Joaquin Valley Unified Air Pollution Control District) and Safety Tiers I and IIA do not contribute towards the cost-of-living benefits.
General Tier I (non-SJVAPCD)	
Basic	Entry age based rates that provide for an average annuity at age 55 equal to 1/100 of FAS (§31621.8).
General Tier I (SJVAPCD)	
Basic	Entry age based rates that provide for 50% of total Normal Cost Rate.
General Tier IIA (non-SJVAPCD)	
Basic	Entry age based rates that provide for an average annuity at age 60 equal to 1/120 of FAS (§31621).
General Tier IIA (SJVAPCD)	
Basic	Entry age based rates that provide for 50% of total Normal Cost Rate.
General Tiers IIB and III	Non-entry age based rates that provide for 50% of total Normal Cost Rate.
Safety Tier I	
Basic	Entry age based rates that provide for an average annuity at age 50 equal to 1/100 of FAS (§31639.25).
Supplemental	Entry age based rates that provide for an average annuity at age 50 equal to 1/200 of FAS (Resolution #2004-144).
Safety "3" Tier I	
Basic and Supplemental	At all entry ages, the member contribution rate for the above Safety Tier I members who enter the plan at age 27.
Safety Tier IIA	
Basic	Entry age based rates that provide for an average annuity at age 50 equal to 1/100 of FAS (§31639.25).
Safety "3" Tier IIA	
Basic	At all entry ages, the member contribution rate for the above Safety Tier IIA members who enter the plan at age 27.
Safety Tier IIB	Non-entry age based rates that provide for 50% of total Normal Cost Rate.
Other Information:	Safety Tier I and Tier IIA members with 30 or more years of service are exempt from paying member contributions. Various other exemptions for member contributions are outlined on pages 36 through 40.

Changed Plan Provisions:	The Public Employee Pension Reform Act of 2013 (PEPRA) set contribution rates for members hired after January 1, 2013 (PEPRA members) at 50% of normal cost, pending expiration of the existing MOUs. Between January 1, 2013 and the expiration of the then-existing MOUs in or around 2015, PEPRA members were incorrectly charged the 50% of normal cost rate. On July 30, 2020, the California Supreme Court issued a decision in the Alameda County Deputy Sheriff's Assn. et al., v. Alameda County Employees' Retirement Assn. litigation that clarified what should be considered compensation earnable for Legacy members and pensionable compensation for PEPRA members for that system and other similarly situated 1937 Act county employees' retirement systems. See Item (1) on page 8 of this report for a discussion of the action taken by KCERA.

Note: The summary of major plan provisions is designed to outline principal plan benefits as interpreted for purposes of the actuarial valuation. If the Association should find the plan summary not in accordance with the actual provisions, the Association should alert the actuary so they can both be sure the proper provisions are valued.

Exhibit 3: Member Contribution Rates

General Tier I Members' (non-SJVAPCD) Contribution Rates from the June 30, 2022 Actuarial Valuation (Expressed as a Percentage of Monthly Compensation)

	Integrated		Non-Integrated
Entry Age	First $350 of Monthly Compensation	Over $350 of Monthly Compensation	All Compensation
16	4.35%	6.52%	6.52%
17	4.43%	6.65%	6.65%
18	4.51%	6.77%	6.77%
19	4.60%	6.90%	6.90%
20	4.68%	7.02%	7.02%
21	4.77%	7.15%	7.15%
22	4.86%	7.29%	7.29%
23	4.95%	7.42%	7.42%
24	5.04%	7.56%	7.56%
25	5.13%	7.70%	7.70%
26	5.23%	7.84%	7.84%
27	5.33%	7.99%	7.99%
28	5.42%	8.13%	8.13%
29	5.52%	8.28%	8.28%
30	5.63%	8.44%	8.44%
31	5.73%	8.59%	8.59%
32	5.83%	8.75%	8.75%
33	5.95%	8.92%	8.92%
34	6.05%	9.08%	9.08%
35	6.17%	9.25%	9.25%
36	6.29%	9.43%	9.43%
37	6.41%	9.61%	9.61%
38	6.53%	9.80%	9.80%
39	6.66%	9.99%	9.99%

Exhibit 3: Member Contribution Rates (continued)

General Tier I Members' (non-SJVAPCD) Contribution Rates from the June 30, 2022 Actuarial Valuation (Expressed as a Percentage of Monthly Compensation)

	Integrated		Non-Integrated
Entry Age	First $350 of Monthly Compensation	Over $350 of Monthly Compensation	All Compensation
40	6.79%	10.19%	10.19%
41	6.93%	10.39%	10.39%
42	7.06%	10.59%	10.59%
43	7.19%	10.78%	10.78%
44	7.32%	10.98%	10.98%
45	7.45%	11.18%	11.18%
46	7.58%	11.37%	11.37%
47	7.70%	11.55%	11.55%
48	7.79%	11.69%	11.69%
49	7.88%	11.82%	11.82%
50	7.94%	11.91%	11.91%
51	7.98%	11.97%	11.97%
52	7.99%	11.99%	11.99%
53	7.99%	11.98%	11.98%
54 & Over	7.93%	11.90%	11.90%

Interest: 7.25% per annum
COLA: None
Administrative Expenses: 0.11% of payroll added to Basic rates
Mortality: See *Section 4, Exhibit 1*
Salary Increase: Inflation (2.75%) + Across-the-Board Increase (0.50%) + Merit and Promotion (See *Section 4, Exhibit 1*)
Note: These rates are determined before any pickups by the employer, if any.

Exhibit 3: Member Contribution Rates (continued)

General Tier I Members' (SJVAPCD) Contribution Rates from the June 30, 2022 Actuarial Valuation
(Expressed as a Percentage of Monthly Compensation)

Entry Age	All Compensation
16	9.25%
17	9.43%
18	9.61%
19	9.79%
20	9.96%
21	10.15%
22	10.35%
23	10.53%
24	10.73%
25	10.93%
26	11.13%
27	11.34%
28	11.54%
29	11.76%
30	11.99%
31	12.20%
32	12.43%
33	12.67%
34	12.90%
35	13.14%
36	13.40%
37	13.65%
38	13.92%
39	14.20%

Exhibit 3: Member Contribution Rates (continued)

General Tier I Members' (SJVAPCD) Contribution Rates from the June 30, 2022 Actuarial Valuation (Expressed as a Percentage of Monthly Compensation)

Entry Age	All Compensation
40	14.48%
41	14.77%
42	15.05%
43	15.32%
44	15.61%
45	15.89%
46	16.16%
47	16.42%
48	16.62%
49	16.80%
50	16.93%
51	17.02%
52	17.05%
53	17.03%
54 & Over	16.92%

The General Tier I (SJVAPCD) member contribution rate is 50% of the total Normal Cost rate. The rates shown above also include an administrative expense load of 0.11% of payroll.

Exhibit 3: Member Contribution Rates (continued)

General Tier IIA Members' (non-SJVAPCD) Contribution Rates from the June 30, 2022 Actuarial Valuation
(Expressed as a Percentage of Monthly Compensation)

	Integrated		Non-Integrated
Entry Age	First $350 of Monthly Compensation	Over $350 of Monthly Compensation	All Compensation
16	3.15%	4.72%	4.72%
17	3.21%	4.81%	4.81%
18	3.27%	4.90%	4.90%
19	3.33%	4.99%	4.99%
20	3.39%	5.08%	5.08%
21	3.45%	5.18%	5.18%
22	3.51%	5.27%	5.27%
23	3.58%	5.37%	5.37%
24	3.65%	5.47%	5.47%
25	3.71%	5.57%	5.57%
26	3.78%	5.67%	5.67%
27	3.85%	5.78%	5.78%
28	3.93%	5.89%	5.89%
29	3.99%	5.99%	5.99%
30	4.07%	6.10%	6.10%
31	4.15%	6.22%	6.22%
32	4.22%	6.33%	6.33%
33	4.30%	6.45%	6.45%
34	4.38%	6.57%	6.57%
35	4.46%	6.69%	6.69%
36	4.54%	6.81%	6.81%
37	4.63%	6.94%	6.94%
38	4.71%	7.07%	7.07%
39	4.80%	7.20%	7.20%

Exhibit 3: Member Contribution Rates (continued)

General Tier IIA Members' (non-SJVAPCD) Contribution Rates from the June 30, 2022 Actuarial Valuation (Expressed as a Percentage of Monthly Compensation)

	Integrated		Non-Integrated
Entry Age	First $350 of Monthly Compensation	Over $350 of Monthly Compensation	All Compensation
40	4.89%	7.33%	7.33%
41	4.98%	7.47%	7.47%
42	5.07%	7.61%	7.61%
43	5.17%	7.76%	7.76%
44	5.27%	7.91%	7.91%
45	5.38%	8.07%	8.07%
46	5.49%	8.23%	8.23%
47	5.59%	8.39%	8.39%
48	5.69%	8.54%	8.54%
49	5.80%	8.70%	8.70%
50	5.91%	8.86%	8.86%
51	6.00%	9.00%	9.00%
52	6.09%	9.14%	9.14%
53	6.17%	9.25%	9.25%
54	6.24%	9.36%	9.36%
55	6.29%	9.43%	9.43%
56	6.32%	9.48%	9.48%
57	6.33%	9.49%	9.49%
58	6.33%	9.49%	9.49%
59 & Over	6.28%	9.42%	9.42%

Interest: 7.25% per annum
COLA: None
Administrative Expenses: 0.11% of payroll added to Basic rates
Mortality: See *Section 4, Exhibit 1*
Salary Increase: Inflation (2.75%) + Across-the-Board Increase (0.50%) + Merit and Promotion (See *Section 4, Exhibit 1*)
Note: These rates are determined before any pickups by the employer, if any.

Exhibit 3: Member Contribution Rates (continued)

General Tier IIA Members' (SJVAPCD) Contribution Rates from the June 30, 2022 Actuarial Valuation
(Expressed as a Percentage of Monthly Compensation)

Entry Age	All Compensation
16	4.71%
17	4.80%
18	4.89%
19	4.98%
20	5.07%
21	5.17%
22	5.26%
23	5.36%
24	5.46%
25	5.56%
26	5.66%
27	5.77%
28	5.88%
29	5.98%
30	6.09%
31	6.21%
32	6.32%
33	6.44%
34	6.56%
35	6.68%
36	6.80%
37	6.93%
38	7.06%
39	7.19%

Exhibit 3: Member Contribution Rates (continued)

General Tier IIA Members' (SJVAPCD) Contribution Rates from the June 30, 2022 Actuarial Valuation (Expressed as a Percentage of Monthly Compensation)

Entry Age	All Compensation
40	7.32%
41	7.46%
42	7.60%
43	7.75%
44	7.90%
45	8.06%
46	8.22%
47	8.38%
48	8.53%
49	8.69%
50	8.85%
51	8.99%
52	9.13%
53	9.24%
54	9.35%
55	9.42%
56	9.47%
57	9.48%
58	9.48%
59 & Over	9.41%

The General Tier IIA (SJVAPCD) member contribution rate is 50% of the total Normal Cost rate. The rates shown above also include an administrative expense load of 0.11% of payroll.

Exhibit 3: Member Contribution Rates (continued)

General Tier IIB Members' Contribution Rates from the June 30, 2022 Actuarial Valuation
(Expressed as a Percentage of Monthly Compensation)

	Integrated		Non-Integrated
All Members	First $350 of Monthly Compensation	Over $350 of Monthly Compensation	All Compensation
Basic	3.33%	5.00%	5.00%
2% COLA	0.71%	1.06%	1.06%
0.5% COLA	0.23%	0.34%	0.34%
Total	4.27%	6.40%	6.40%

The General Tier IIB member contribution rate is 50% of the total Normal Cost rate. The rates shown above also include an administrative expense load of 0.11% of payroll.

General Tier III Members' Contribution Rates from the June 30, 2022 Actuarial Valuation
(Expressed as a Percentage of Monthly Compensation)

All Members	All Compensation[1]
Basic	5.85%
2% COLA	1.21%
0.5% COLA	0.37%
Total	7.43%

The General Tier III member contribution rate is 50% of the total Normal Cost rate. The rates shown above also include an administrative expense load of 0.11% of payroll.

[1] It is our understanding that in the determination of pension benefits under the General Tier III formula, the compensation that can be taken into account for 2022 is $134,974 (reference: Section 7522.10). These amounts should be adjusted for changes to the Consumer Price Index for All Urban Consumers after 2022 (reference: Section 7522.10(d)).

Exhibit 3: Member Contribution Rates (continued)

Safety Tier I Members' (Excluding "Safety 3" Members) Contribution Rates from the June 30, 2022 Actuarial Valuation (Expressed as a Percentage of Monthly Compensation)

	Integrated	
Entry Age	First $350 of Monthly Compensation	Over $350 of Monthly Compensation
16	7.31%	10.96%
17	7.46%	11.19%
18	7.61%	11.42%
19	7.77%	11.66%
20	7.93%	11.90%
21	8.10%	12.15%
22	8.27%	12.40%
23	8.44%	12.66%
24	8.61%	12.92%
25	8.79%	13.19%
26	8.98%	13.47%
27	9.17%	13.75%
28	9.37%	14.05%
29	9.57%	14.35%
30	9.77%	14.66%
31	9.99%	14.98%
32	10.21%	15.32%
33	10.44%	15.66%
34	10.67%	16.01%
35	10.91%	16.37%
36	11.16%	16.74%
37	11.42%	17.13%
38	11.69%	17.53%
39	11.96%	17.94%

Exhibit 3: Member Contribution Rates (continued)

Safety Tier I Members' (Excluding "Safety 3" Members) Contribution Rates from the June 30, 2022 Actuarial Valuation (Expressed as a Percentage of Monthly Compensation)

	Integrated	
Entry Age	First $350 of Monthly Compensation	Over $350 of Monthly Compensation
40	12.23%	18.34%
41	12.49%	18.74%
42	12.68%	19.02%
43	12.77%	19.16%
44	12.83%	19.25%
45	12.86%	19.29%
46	12.86%	19.29%
47	12.83%	19.25%
48	12.69%	19.04%
49 & Over	12.42%	18.63%

Interest: 7.25% per annum
COLA: None
Administrative Expenses: 0.11% of payroll added to Basic rates
Mortality: See *Section 4, Exhibit 1*
Salary Increase: Inflation (2.75%) + Across-the-Board Increase (0.50%) + Merit and Promotion (See *Section 4, Exhibit 1*)
Note: These rates are determined before any pickups by the employer, if any.

Exhibit 3: Member Contribution Rates (continued)

Safety 3" Safety Tier I Members' Contribution Rates from the June 30, 2022 Actuarial Valuation (Expressed as a Percentage of Monthly Compensation)

	Integrated	
Entry Age	**First $350 of Monthly Compensation**	**Over $350 of Monthly Compensation**
Every	9.17%	13.75%

Interest:	7.25% per annum
COLA:	None
Administrative Expense:	0.11% of payroll added to Basic rates
Mortality:	See *Section 4, Exhibit 1*
Salary Increase:	Inflation (2.75%) + Across-the-Board Increase (0.50%) + Merit and Promotion (See *Section 4, Exhibit 1*)

Note: Beginning at various dates throughout 2007, certain Safety bargaining units converted to a new schedule of contribution rates, referred to as "Safety 3" contribution rates. For employees falling under this category and hired after the appropriate date (which varies by bargaining unit), the contribution rate will be a flat percentage of pay regardless of entry age. Based on the most recent Actuarial Experience Study, the contribution rates shown above are based on an entry age of 27. This is expected to provide for the same value of contributions that would be made based on the specific entry age based rates shown on the previous two pages. These rates are determined before any pickups by the employer.

Exhibit 3: Member Contribution Rates (continued)

Safety Tier IIA Members' (Excluding "Safety 3" Members) Contribution Rates from the June 30, 2022 Actuarial Valuation (Expressed as a Percentage of Monthly Compensation)

	Integrated	
Entry Age	First $350 of Monthly Compensation	Over $350 of Monthly Compensation
16	4.89%	7.34%
17	5.00%	7.50%
18	5.10%	7.65%
19	5.21%	7.81%
20	5.31%	7.97%
21	5.42%	8.13%
22	5.53%	8.30%
23	5.65%	8.47%
24	5.77%	8.65%
25	5.89%	8.83%
26	6.01%	9.02%
27	6.14%	9.21%
28	6.27%	9.40%
29	6.40%	9.60%
30	6.54%	9.81%
31	6.69%	10.03%
32	6.83%	10.25%
33	6.99%	10.48%
34	7.14%	10.71%
35	7.30%	10.95%
36	7.47%	11.20%
37	7.63%	11.45%
38	7.82%	11.73%
39	8.00%	12.00%

Exhibit 3: Member Contribution Rates (continued)

Safety Tier IIA Members' (Excluding "Safety 3" Members) Contribution Rates from the June 30, 2022 Actuarial Valuation (Expressed as a Percentage of Monthly Compensation)

	Integrated	
Entry Age	First $350 of Monthly Compensation	Over $350 of Monthly Compensation
40	8.17%	12.26%
41	8.35%	12.53%
42	8.48%	12.72%
43	8.54%	12.81%
44	8.58%	12.87%
45	8.60%	12.90%
46	8.59%	12.89%
47	8.58%	12.87%
48	8.49%	12.73%
49 & Over	8.31%	12.46%

Interest: 7.25% per annum
COLA: None
Administrative Expenses: 0.11% of payroll added to Basic rates
Mortality: See *Section 4, Exhibit 1*
Salary Increase: Inflation (2.75%) + Across-the-Board Increase (0.50%) + Merit and Promotion (See *Section 4, Exhibit 1*)
Note: These rates are determined before any pickups by the employer, if any.

Exhibit 3: Member Contribution Rates (continued)

"Safety 3" Safety Tier IIA Members' Contribution Rates from the June 30, 2022 Actuarial Valuation (Expressed as a Percentage of Monthly Compensation)

	Integrated	
Entry Age	First $350 of Monthly Compensation	Over $350 of Monthly Compensation
Every	6.14%	9.21%

Interest:	7.25% per annum
COLA:	None
Administrative Expense:	0.11% of payroll added to Basic rates
Mortality:	See *Section 4, Exhibit 1*
Salary Increase:	Inflation (2.75%) + Across-the-Board Increase (0.50%) + Merit and Promotion (See *Section 4, Exhibit 1*)

Note: Beginning at various dates throughout 2007, certain Safety bargaining units converted to a new schedule of contribution rates, referred to as "Safety 3" contribution rates. For employees falling under this category and hired after the appropriate date (which varies by bargaining unit), the contribution rate will be a flat percentage of pay regardless of entry age. Based on the most recent Actuarial Experience Study, the contribution rates shown above are based on an entry age of 27. This is expected to provide for the same value of contributions that would be made based on the specific entry age based rates shown on the previous two pages. These rates are determined before any pickups by the employer.

Exhibit 3: Member Contribution Rates (continued)

Safety Tier IIB Members' Contribution Rates from the June 30, 2022 Actuarial Valuation (Expressed as a Percentage of Monthly Compensation)

	Integrated	
All Members	First $350 of Monthly Compensation	Over $350 of Monthly Compensation
Basic	6.67%	10.00%
2% COLA	1.66%	2.49%
0.5% COLA	0.52%	0.78%
Total	8.85%	13.27%

The Safety Tier IIB member contribution rate is 50% of the total Normal Cost rate. The rates shown above also include an administrative expense load of 0.11% of payroll.

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Kern County Employees' Retirement Association

Supplemental Retiree Benefit Reserve (SRBR) Actuarial Valuation and Review

As of June 30, 2022

Segal

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November 30, 2022

Board of Retirement
Kern County Employees' Retirement Association
11125 River Run Boulevard
Bakersfield, California 93311

Dear Board Members:

We are pleased to submit this Supplemental Retiree Benefit Reserve (SRBR) Actuarial Valuation and Review as of June 30, 2022. It summarizes the actuarial data used in the SRBR valuation, analyzes the preceding year's experience, and determines the funding status of the SRBR benefits.

This report was prepared in accordance with generally accepted actuarial principles and practices at the request of the Board to assist in administering the Retirement Association. The census information and financial information on which our calculations were based was prepared by the staff of the Association. That assistance is gratefully acknowledged.

The actuarial calculations were directed under the supervision of Molly Calcagno, ASA, MAAA and Enrolled Actuary. We are members of the American Academy of Actuaries and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of our knowledge, the information supplied in this actuarial valuation is complete and accurate. Further, in our opinion, the assumptions as approved by the Board are reasonably related to the experience of and the expectations for the Association.

We look forward to reviewing this report with you and to answering any questions.

Sincerely,

Segal

Paul Angelo, FSA, MAAA, FCA, EA Senior Vice President and Actuary	Molly Calcagno, ASA, MAAA, EA Actuary

ST/jl

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Segal

Section 1: Actuarial Valuation Summary

Purpose and Basis

This report was prepared by Segal to present a valuation of the Kern County Employees' Retirement Association ("KCERA" or "the Association") Supplemental Retiree Benefit Reserve (SRBR) benefits as of June 30, 2022. The valuation was performed to determine the funding status of the SRBR benefits. The measurements shown in this actuarial valuation may not be applicable for other purposes. In particular, the measures herein are not necessarily appropriate for assessing the sufficiency of current plan assets to cover the estimated cost of settling the plan's accrued benefit obligations.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements; and changes in plan provisions or applicable law.

The funded status information presented in this report is based on:

- The benefit provisions of the SRBR, as administered by the Board of Retirement;
- The characteristics of covered active members, inactive vested members, and retired members and beneficiaries as of June 30, 2022, provided by KCERA;
- The SRBR Reserve value as of June 30, 2022, provided by KCERA;
- Economic assumptions regarding future salary increases and investment earnings adopted by the Board of Retirement for the June 30, 2022 valuation;
- Other actuarial assumptions regarding employee terminations, retirement, death, etc. adopted by the Board of Retirement for the June 30, 2022 valuation; and
- The SRBR policy adopted by the Board of Retirement.

Note that the investment return assumption of 7.25% used in this report was determined without taking into consideration any impact of the 50/50 excess earnings allocation between the retirement and SRBR asset pools. More details regarding this can be found in the actuarial valuation for funding purposes.

In preparing this valuation, we have employed generally accepted actuarial methods and assumptions to evaluate the Association's liabilities associated with the SRBR benefits. Our calculations are based upon member data and financial information provided to us by the Association's staff. This information has not been audited by us, but it has been reviewed and found to be consistent, both internally and with prior year's information.

Valuation Highlights

1. On September 14, 2022, the Board adopted a Restructured SRBR benefit effective July 1, 2022 equal to $1.80 per year of service, but no less than the member's current SRBR benefit as of July 1, 2022. The Restructured SRBR benefit also includes a 2.5% COLA on the SRBR benefit, so long as the SRBR remains adequately funded. This plan amendment increased the Present Value of SRBR Benefits (PVB) by $38.6 million. A summary of the benefits provided by the SRBR is displayed in *Section 3, Exhibit 2*.
2. Under the Board's SRBR policy, the SRBR funding status is calculated by comparing the SRBR Reserve excluding the court ordered Allocated SRBR Reserve (i.e., the 0.5% COLA Reserve) to the current actuarial funding target, which is the present value of all projected future SRBR benefit payments for all KCERA's current plan members.
3. Additional or increased SRBR benefits may be adopted if the SRBR funding status is more than 115% funded in the last two consecutive valuations.[1] The 2.5% COLA may be suspended if the SRBR funding status is less than 95% funded in the last two consecutive valuations. In addition, the SRBR policy also describes certain conditions that should be considered prior to adopting additional or increased SRBR benefits, or suspending the 2.5% COLA. These conditions include the potential impact of any deferred investment gains or losses not yet recognized in the asset smoothing method and any recent or potential changes in actuarial assumptions.
4. The funding status of the SRBR benefits decreased from 157.7% as of June 30, 2021 to 110.2% as of June 30, 2022 prior to reflecting any deferred investment gains or losses. The funding status of the SRBR benefits is 105.7% as of June 30, 2022 after reflecting any deferred investment gains or losses as of the same date.
5. The decrease in the funding status for the SRBR benefits was due to the plan amendment implementing the Restructured SRBR benefit and inflation higher than expected, offset somewhat by expected increases in the funding status due to passage of time; an investment gain because the rate of return on the available SRBR (after smoothing) during 2021-2022 was about 7.4%, which is greater than the 7.25% assumption (based on the June 30, 2021 valuation); and other liability gains.
6. In the June 30, 2021 valuation, we assumed that the Consumer Price Index (CPI) would increase by 2.75% from 2020 to 2021, based on our long-term assumption for inflation used in that valuation. The actual increase in the CPI from 2020 to 2021 was 3.8%. Because the CPI increased by more than 2.5% (the maximum COLA possible), COLA bank balances were increased and current SRBR Tier 3 benefits increased for some retirees in order to maintain an 82% purchasing power benefit. In addition, prior to reflecting the Restructured SRBR benefit, future projected increases in SRBR Tier 3 benefits for current retirees were then expected to occur sooner than previously expected as COLA bank balances increased by more than the 0.25% per annum

[1] Prior to the adoption of the Restructured SRBR benefit, this was 120%.

implicit in our inflation assumption. This led to the part of the decrease in the funding ratio that was due to high inflation, as described above.

7. The following table compares the reserves and liabilities for the SRBR benefits as of June 30, 2021 and of June 30, 2022:

		June 30, 2022	June 30, 2021
1	Available SRBR Reserves		
	a. Total SRBR	$142,006,000	$151,852,000
	b. 0.5% COLA Account	10,770,000	23,054,000
	c. Available SRBR Reserve **(1a – 1b)**	$131,236,000	$128,798,000
2	Present Value of SRBR Benefits (PVB)		
	a. Approved Benefits	$98,273,000	$80,509,000
	b. Future Benefits	20,788,000	1,146,000
	c. Total **(2a + 2b)**	$119,061,000	$81,655,000
3	PVB minus Reserves **(2c) – (1c)**	-$12,175,000	-$47,143,000
4	Funding Ratio **(1c) ÷ (2c)**	110.2%	157.7%

8. As of the June 30, 2022 valuation, the net deferred investment losses were 4.1% of the market value of assets. The Board's SRBR policy requires that the funding status be more than 115% or less than 95% in two consecutive valuations prior to implementing any benefit increases or COLA suspension, taking into account the current status of deferred investment gains and losses not yet recognized under the asset smoothing method. Consistent with this requirement, we have decreased the available SRBR Reserve by this amount to account for these losses. The results before and after reflecting the deferred investment losses are as follows:

		June 30, 2022 Before Reflecting Deferred Losses	June 30, 2022 After Reflecting Deferred Losses
1	Available SRBR Reserves	$131,236,000	$125,837,000
2	Present Value of SRBR Benefits (PVB)	119,061,000	119,061,000
3	PVB minus Reserves **(2) – (1)**	-$12,175,000	-$6,776,000
4	Funding Ratio **(1) ÷ (2)**	110.2%	105.7%

9. The Actuarial Standard of Practice No. 51 (ASOP 51) requires actuaries to identify and assess risks that "may reasonably be anticipated to significantly affect the plan's future financial condition". Examples of key risks listed that are particularly relevant to KCERA's SRBR are asset/liability mismatch risk, investment risk, and longevity risk.

   The actuary's initial assessment can be strictly a qualitative discussion about potential adverse experience and the possible effect on future results, but it may also include quantitative numerical demonstrations where informative.

   Because the actuarial valuation results are dependent on a fixed set of assumptions and data as of a specific date, there is risk that emerging results may differ, perhaps significantly, as actual experience is fluid and will not exactly track current assumptions. This potential divergence may have a significant impact on the future financial condition of the plan. We were engaged to perform a detailed analysis of the potential range of the impact of risk relative to the SRBR's future financial condition based on the June 30, 2018 actuarial valuation. That analysis can be found in our separate risk assessment report dated September 4, 2019.

   We have also included a discussion of key risks that may affect the Association in *Section 2, Subsection D*.

Summary of SRBR Valuation Results

		Death Benefit	Restructured SRBR	Total
Present Value of SRBR Benefits (PVB):	• Active members	$2,916,000	$32,428,000	$35,344,000
	• Inactive vested members	768,000	4,839,000	5,607,000
	• Retirees and Beneficiaries	13,336,000	64,774,000	78,110,000
	• Total	$17,020,000	$102,041,000	$119,061,000
Available SRBR Reserves:	• Total SRBR			$142,006,000
	• Additional 0.5% COLA Account			10,770,000
	• Available SRBR Before Reflecting Deferred Investment Gains/Losses			$131,236,000
	• Available SRBR After Reflecting Deferred Investment Gains/Losses			125,837,000
Funding Ratio:	• SRBR Benefits Before Reflecting Deferred Investment Gains/Losses			110.2%
	• SRBR Benefits After Reflecting Deferred Investment Gains/Losses			105.7%

Important Information about Actuarial Valuations

An actuarial valuation is a budgeting tool with respect to the financing of future projected obligations of a pension plan. It is an estimated forecast – the actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.

In order to prepare a valuation, Segal relies on a number of input items. These include:

Plan of benefits	Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. Even where they appear precise, outside factors may change how they operate. It is important to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan description in this report (as well as the plan summary included in our funding valuation report) to confirm that Segal has correctly interpreted the plan of benefits.
Participant data	An actuarial valuation for a plan is based on data provided to the actuary by KCERA. Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. It is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.
Assets	The valuation is based on the Market Value of Assets as of the measurement date, as provided by KCERA. The Association uses a “Valuation Value of Assets” that differs from market value to gradually reflect six-month changes in the Market Value of Assets in determining the contribution requirements.
Actuarial assumptions	In preparing an actuarial valuation, Segal projects the benefits to be paid to existing plan participants for the rest of their lives and the lives of their beneficiaries. This projection requires actuarial assumptions as to the probability of death, disability, withdrawal, and retirement of each participant for each year. In addition, the benefits projected to be paid for each of those events in each future year reflect actuarial assumptions as to salary increases and cost-of-living adjustments. The projected benefits are then discounted to a present value, based on the assumed rate of return that is expected to be achieved on the plan’s assets. There is a reasonable range for each assumption used in the projection and the results may vary materially based on which assumptions are selected. It is important for any user of an actuarial valuation to understand this concept. Actuarial assumptions are periodically reviewed to ensure that future valuations reflect emerging plan experience. While future changes in actuarial assumptions may have a significant impact on the reported results, that does not mean that the previous assumptions were unreasonable.
Models	Segal valuation results are based on proprietary actuarial modeling software. The actuarial valuation models generate a comprehensive set of liability and cost calculations that are presented to meet regulatory, legislative and client requirements. Our Actuarial Technology and Systems unit, comprised of both actuaries and programmers, is responsible for the initial development and maintenance of these models. The models have a modular structure that allows for a high degree of accuracy, flexibility and user control. The client team programs the assumptions and the plan provisions, validates the models, and reviews test lives and results, under the supervision of the responsible actuary.

Section 1: Actuarial Valuation Summary

The user of Segal's actuarial valuation (or other actuarial calculations) should keep the following in mind:

The actuarial valuation is prepared at the request of the Association. Segal is not responsible for the use or misuse of its report, particularly by any other party.

An actuarial valuation is a measurement of the plan's assets and liabilities at a specific date. Accordingly, except where otherwise noted, Segal did not perform an analysis of the potential range of future financial measures. The actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan. Future contribution requirements may differ from those determined in the valuation because of:

- Differences between actual experience and anticipated experience;
- Changes in actuarial assumptions or methods; and
- Changes in statutory provisions.

If the Association is aware of any event or trend that was not considered in this valuation that may materially change the results of the valuation, Segal should be advised, so that we can evaluate it.

Segal does not provide investment, legal, accounting, or tax advice. Segal's valuation is based on our understanding of applicable guidance in these areas and of the plan's provisions, but they may be subject to alternative interpretations. The Association should look to their other advisors for expertise in these areas.

As Segal has no discretionary authority with respect to the management or assets of the plan, it is not a fiduciary in its capacity as actuaries and consultants with respect to the plan.

Section 2: Actuarial Valuation Results

A. Introduction

Additional benefits may be provided to KCERA active and retired members under the plan provisions adopted by the County as provided under article 5.5 of the County Employees Retirement Association Law of 1937 (CERL). These are the Supplemental Retiree Benefit Reserve (SRBR) benefits.

Article 5.5 governs the crediting of interest to reserves and the allocation of Undistributed Earnings. Undistributed Earnings are the amounts that remain after earnings have been used to credit interest to the plan's reserves. They are generally thought of as earnings in excess of those assumed to be earned under the actuarial valuation assumptions.

Under the provisions of Article 5.5, and in accordance with the Board's Interest Crediting Policy, if Undistributed Earnings remain, then 50% of those Earnings are allocated to the SRBR and the remaining 50% are allocated as additional interest credits to all other reserve funds excluding the Contingency Reserve and the SRBR.

A summary of the benefits provided by the SRBR is displayed in *Section 3, Exhibit 2*. Note that, in addition to the benefits summarized in *Section 3, Exhibit 2*, the KCERA Board has set aside a portion of the SRBR reserve to help pay for an additional 0.5% COLA adopted under the Ventura Settlement. The assets and liabilities related to this additional 0.5% COLA are included in the regular valuation and are therefore excluded from this SRBR valuation.

B. Demographic Data

The table below provides a summary of the number of members eligible for Approved Benefits as of June 30, 2022. It also contains information on the monthly SRBR benefits in pay status as of June 30, 2022.

Each of the various SRBR benefits and their eligibilities are described in *Section 3, Exhibit 2*.

Table of Coverage

	Members Eligible for Approved Benefits as of June 30, 2022	Death Benefit	Restructured SRBR
1	Active members	9,076	9,076
2	Inactive vested members	4,015	4,015
3	Retirees and Beneficiaries	7,693	9,015
4	Total	20,784	22,106
5	Total monthly benefits in pay status as of June 30, 2022		$505,800
6	Average monthly benefits in pay status as of June 30, 2022		$56

C. Funding Status

Undistributed Earnings are the only source of funding for the SRBR Benefits. By their very nature, Undistributed Earnings are produced on an inconsistent basis and cannot be relied upon on to appear in any single period.

The actuarial assumptions and methods used to determine the Present Value of SRBR Benefits (PVB) are shown in *Section 3, Exhibit 1*. These are the same assumptions and methods used in the regular June 30, 2022 KCERA valuation.

KCERA's funding target for the SRBR is based on the PVB. They include the Restructured SRBR and Death Benefits.

The table below shows the funding status of the SRBR benefits before reflecting deferred investment gains or losses.

Funding Status of SRBR Benefits before Reflecting Deferred Investment Gains or Losses

			June 30, 2022	June 30, 2021
1	Available SRBR Reserves before Reflecting Deferred Investment Gains or Losses			
	a.	Total SRBR	$142,006,000	$151,852,000
	b.	0.5% COLA Account	10,770,000	23,054,000
	c.	Available SRBR Reserve **(1a – 1b)**	$131,236,000	$128,798,000
2	Present Value of SRBR Benefits (PVB)			
	a.	Death Benefits	$17,020,000	$16,771,000
	b.	Restructured SRBR[1]	102,041,000	64,884,000
	c.	Total	$119,061,000	$81,655,000
3	PVB minus Reserves **(2c) – (1c)**		-$12,175,000	-$47,143,000
4	Funding Ratio before Reflecting Deferred Investment Gains or Losses **(1c) ÷ (2c)**		110.2%	157.7%

[1] The June 30, 2021 column shows the sum of the legacy SRBR benefits (Tier 1, Tier 2, Tier 3 and Tier 4).

Section 2: Actuarial Valuation Results

The Board's SRBR policy requires that the funding status be more than 115% or less than 95% in two consecutive valuations, *taking into account the current status of deferred investment gains and losses not yet recognized under the asset smoothing method* and any recent or potential changes in actuarial assumptions, prior to implementing any benefit increases or COLA suspension.

The table below shows the funding status of the SRBR benefits after reflecting deferred investment gains or losses.

Funding Status of SRBR Benefits after Reflecting Deferred Investment Gains or Losses

		June 30, 2022	June 30, 2021
1	Available SRBR Reserves after Reflecting Deferred Investment Gains or Losses	$125,837,000	$139,876,000
2	Present Value of SRBR Benefits (PVB)		
	a. Death Benefits	$17,020,000	$16,771,000
	b. Restructured SRBR[1]	102,041,000	64,884,000
	c. Total	$119,061,000	$81,655,000
3	PVB minus Reserves **(2c) – (1)**	-$6,776,000	-$58,221,000
4	Funding Ratio after Reflecting Deferred Investment Gains or Losses **(1) ÷ (2c)**	105.7%	171.3%

[1] The June 30, 2021 column shows the sum of the legacy SRBR benefits (Tier 1, Tier 2, Tier 3 and Tier 4).

Section 2: Actuarial Valuation Results

The funding status of the SRBR benefits as measured by the funding ratio decreased from 157.7% as of June 30, 2021 to 110.2% as of June 30, 2022 prior to reflecting any deferred investment gains or losses.

The following table details the changes in the funding ratio from the prior year's valuation to the current year's valuation.

The decrease in the funding status for the SRBR benefits was due to the plan amendment implementing the Restructured SRBR benefit and higher inflation as compared to expected, offset somewhat by the passage of time (i.e., expected changes in the funding status); an investment gain because the rate of return on the available SRBR (after smoothing) during 2021-2022 was about 7.4%, which is greater than the 7.25% assumption (based on the June 30, 2021 valuation); and other liability gains.

Reconciliation of Funding Ratio for SRBR Benefits

1	**Funding Ratio as of June 30, 2021**		**157.7%**
2	Changes due to:		
	a.	Passage of Time (Expected Changes)	5.1%
	b.	Investment Gain	0.3%
	c.	Inflation Loss	-0.4%
	d.	Other Liability Gain	0.3%
	e.	Plan Amendment	-52.8%
	f.	Total	-47.5%
3	**Funding Ratio as of June 30, 2022**		**110.2%**

Note: Results are prior to reflecting any deferred investment gains or losses as of each valuation date.

D. Risk Assessment

Because the actuarial valuation results are dependent on a fixed set of assumptions and data as of a specific date, there is risk that emerging results may differ, perhaps significantly, as actual experience is fluid and will not exactly track current assumptions. This potential divergence may have a significant impact on the future financial condition of the plan.

Our separate risk assessment report dated September 4, 2019 contains a detailed analysis of the potential range of future measurements, including measurements specific to the SRBR. This section provides descriptions and basic assessments of the primary risks that are likely to have an ongoing influence on the plan's financial condition, as well as a reference to historical trends and maturity measures.

Risk Assessments

- Asset/Liability Mismatch Risk (the potential that future plan experience does not affect asset and liability values in the same way, causing them to diverge)

  The most significant asset/liability mismatch risk to the plan is investment risk, as discussed below. In fact, investment risk has the potential to impact asset/liability mismatch in two ways. The first mismatch is evident in annual valuations: when asset values deviate from assumptions, they are typically independent from liability changes. The second mismatch can be caused when systemic asset deviations from assumptions may signal the need for an assumption change, which causes liability values and contribution rates to move in the opposite direction from any changes in the expected experience of asset growth rates.

  Asset/liability mismatch can also be caused by demographic assumption risk such as longevity, which affects liabilities but have no impact on asset levels. This risk is also discussed below.

- Investment Risk (the risk that investment returns will be different than expected)

  The investment return assumption is a long-term, static assumption for valuation purposes even though in reality market experience can be quite volatile in any given year. That volatility can cause significant changes in the financial condition of the plan, affecting both funded status and contribution rates. The inherent year-to-year volatility is reduced by smoothing through the Actuarial Value of Assets, however investment experience can still have a sizable impact.

- Longevity Risk (the risk that mortality experience will be different than expected)

  The actuarial valuation includes current life expectancy assumptions and an expectation of future improvement in life expectancy, which are significant assumptions given the relatively long duration of liabilities for pension plans. Emerging plan experience that does not match these expectations will result in increases or decreases in the actuarially determined contribution over time. This risk can be reduced by using tables appropriate for the plan (public experience tables) that are weighted by benefit levels, and by using generational mortality projections.

- Other Risks

  In addition to longevity, the valuation includes a variety of other assumptions that are unlikely to match future experience exactly. One example is projected salary scales over time. As salary is central to the determination of benefits paid in retirement, deviations from the projected salary scales could have a material impact on the benefits anticipated for each member. Examples of demographic assumptions include retirement, termination and disability assumptions, and will likely vary in significance for different groups (for example, disability assumptions are typically more significant for safety groups).

For the evaluation of historical trends and maturity measures, please see *Section 2, Subsection J* of the June 30, 2022 Actuarial Valuation and Review for KCERA.

Section 3: Actuarial Valuation Basis

Exhibit 1: Actuarial Assumptions and Methods

Actuarial Assumptions:	The same actuarial assumptions used in the KCERA June 30, 2022 Actuarial Valuation and Review.
Actuarial Cost Method:	Not applicable, because only the Present Value of SRBR Benefits (PVB) is determined in this report.
Actuarial Value of Assets:	Supplemental Retiree Benefit Reserve value as of valuation date.
Changed Actuarial Assumptions and Methods:	There have been no changes in actuarial assumptions or methods since the last valuation.

Exhibit 2: Summary of Plan Provisions

This exhibit summarizes the major provisions of the plan included in the valuation. It is not intended to be, nor should it be interpreted as, a complete statement of all plan provisions.

Plan Year:	July 1 through June 30
Benefits Provided:	The SRBR currently provides two categories of benefits:
Restructured SRBR	The greater of either the “Floor Benefit” or the “Service SRBR Benefit”, payable monthly to retirees who were hired before July 1, 2022: • The “Floor Benefit” is equal to the total current Legacy SRBR Benefit as of July 1, 2022 or the member’s future retirement date. The Legacy SRBR Benefits (Tier 1, Tier 2, Tier 3 and Tier 4) are shown below. • The “Service SRBR Benefit” is equal to the member’s years of service at retirement multiplied by $1.80 and adjusted by a 2.5% fixed rate COLA effective as of July 1, 2022 (without regard to retirement date) with the first increase applied July 1, 2023. The Restructured SRBR benefit will be adjusted annually to receive a 2.5% fixed rate COLA on July 1 each year, with the first increase applied on the latter of July 1, 2023 or the July 1st immediately following the date of retirement. Upon the death of the retired member, 60% of the Restructured SRBR benefit continues to the retired member’s beneficiary.
Death Benefit	An additional one-time post-retirement death benefit of $5,000 is paid to a retired member’s beneficiary upon the death of the retired member.
Changed Plan Provisions:	On September 14, 2022, the Board adopted a Restructured SRBR benefit effective July 1, 2022 equal to $1.80 per year of service, but no less than the member’s current SRBR benefit as of July 1, 2022. The Restructured SRBR benefit also includes a 2.5% COLA on the SRBR benefit, so long as the SRBR remains adequately funded. The legacy benefits are shown below:
Tier 1	$35.50 per month payable to retirees who were hired on or before July 1, 1994. Upon the death of the retired member, 60% of the Tier 1 SRBR benefit continues to the retired member’s beneficiary.
Tier 2	Three additional monthly stipends payable to retirees: • $1.372 per year of service for members who retired prior to 1985. This was granted July 1, 1994. • $5.470 per year of service for members who retired prior to 1985. This was granted July 1, 1996. • $10.276 per year of service for members who retired prior to 1981. This was granted July 1, 1997. Upon the death of the retired member, 60% of the Tier 2 SRBR benefit continues to the retired member’s beneficiary.

Tier 3	Additional benefits to maintain 82% purchasing power protection. Upon death, this benefit continues to be paid to the retired member's beneficiary based on the applicable continuation percentage under the member's form of payment elected at retirement. Starting July 1, 2018, there is a cap on the maximum annual inflation used in the calculation of the SRBR Tier 3 benefits of 4%.
Tier 4	$21 per month granted starting July 1, 2018, payable to retirees who were hired prior to July 1, 2018. Upon the death of the retired member, 60% of the Tier 4 SRBR benefit continues to the retired member's beneficiary.

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Kern County Employees' Retirement Association

Governmental Accounting Standards Board Statement 67 (GAS 67) Actuarial Valuation

As of June 30, 2022

Segal

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November 30, 2022

Board of Retirement
Kern County Employees' Retirement Association
11125 River Run Blvd.
Bakersfield, CA 93311

Dear Board Members:

We are pleased to submit this Governmental Accounting Standard (GAS) 67 Actuarial Valuation as of June 30, 2022. It contains various information that will need to be disclosed in order to comply with GAS 67.

This report was prepared in accordance with generally accepted actuarial principles and practices at the request of the Board to assist KCERA in preparing items related to the pension plan in their financial report. The census and financial information on which our calculations were based was provided by KCERA. That assistance is gratefully acknowledged.

The measurements shown in this actuarial valuation may not be applicable for other purposes. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements; and changes in plan provisions or applicable law.

The actuarial calculations were completed under the supervision of Molly Calcagno, ASA, MAAA, Enrolled Actuary. We are members of the American Academy of Actuaries and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of our knowledge, the information supplied in the actuarial valuation is complete and accurate. Further, in our opinion, the assumptions as approved by the Board are reasonably related to the experience of and expectations for the Association.

We look forward to reviewing this report with you and to answering any questions.

Sincerely,

Segal

Paul Angelo, FSA, MAAA, FCA, EA
Senior Vice President and Actuary

Molly Calcagno, ASA, MAAA, EA
Actuary

ST/jl

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Section 1: Actuarial Valuation Summary

Purpose and basis

This report has been prepared by Segal to present certain disclosure information required by Governmental Accounting Standards Board Statement 67 (GAS 67) as of June 30, 2022. This valuation is based on:

- The benefit provisions of KCERA, as administered by the Board of Retirement;
- The characteristics of covered active members, inactive vested members, and retired members and beneficiaries as of June 30, 2021, provided by KCERA;
- The assets of the Plan as of June 30, 2022, provided by KCERA;
- Economic assumptions regarding future salary increases and investment earnings adopted by the Board of Retirement for the June 30, 2022 valuation; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, etc. adopted by the Board of Retirement for the June 30, 2022 valuation.

General observations on the GAS 67 actuarial valuation

1. The Governmental Accounting Standards Board (GASB) rules only define pension liability and expense for financial reporting purposes, and do not apply to contribution amounts for actual pension funding purposes. Employers and plans should develop and adopt funding policies under current practices.
2. When measuring pension liability, GASB uses the same actuarial cost method (Entry Age method) and the same type of discount rate (expected return on assets) as KCERA uses for funding. This means that the Total Pension Liability (TPL) measure for financial reporting shown in this report is generally determined on the same basis as KCERA's Actuarial Accrued Liability (AAL) measure for funding. We note that the same is generally true for the Normal Cost component of the annual plan cost for funding and financial reporting.
3. The Plan's Fiduciary Net Position includes assets held for the Supplemental Retiree Benefit Reserve (SRBR). The TPL reflects all future projected benefits expected to be paid from the SRBR for members as of the valuation date.
4. The Net Pension Liability (NPL) is equal to the difference between the TPL and the Plan's Fiduciary Net Position. The Plan's Fiduciary Net Position is equal to the market value of assets and therefore, the NPL measure is very similar to an Unfunded

Actuarial Accrued Liability (UAAL) on a market value basis. The exception is that the NPL is reduced by the excess of the SRBR assets over the TPL associated with the SRBR benefits.

Highlights of the valuation

1. For this report, the reporting dates for the Plan are June 30, 2022 and June 30, 2021. The NPL was measured as of June 30, 2022 and June 30, 2021, respectively, and was determined based upon rolling forward the results from actuarial valuations as of June 30, 2021 and June 30, 2020. In addition, any changes in actuarial assumptions or plan provisions that occurred between the valuation date and the measurement date have been reflected. The Plan's Fiduciary Net Position (plan assets) was valued as of the measurement dates.
2. The NPL increased from $1.89 billion as of June 30, 2021 to $2.38 billion as of June 30, 2022 primarily due to the -4.08% return on the market value of assets during 2021-2022 (that was lower than the assumed return of 7.25%), and changes in plan provisions. Changes in these values during the last two fiscal years ending June 30, 2022 and June 30, 2021 can be found in *Section 2, Schedule of changes in Net Pension Liability* on page 19.
3. All results shown in this report are on a combined basis including both the regular statutory (non-SRBR) benefits and the SRBR benefits. For purposes of illustration, separate values for the TPL, Plan's Fiduciary Net Position and NPL for the regular statutory (non-SRBR) benefits and the SRBR benefits as of June 30, 2022 are shown in the table below:

	Regular Benefits (Non-SRBR)	SRBR Benefits	Total KCERA
Total Pension Liability (TPL)	$7,403,163,840	$107,741,701	$7,510,905,541
Plan's Fiduciary Net Position	4,999,892,890	131,235,770	5,131,128,660
Net Pension Liability (NPL)	2,403,270,950	(23,494,069)	2,379,776,881

4. The discount rate used to determine the TPL and NPL as of June 30, 2022 and June 30, 2021 was 7.25%, following the same assumptions used by the Association in the funding valuations as of the same dates. The detailed derivation of the discount rate of 7.25% used in the calculation of the TPL and NPL as of June 30, 2022 can be found in *Section 3, Appendix A*. The discount rate assumptions have been developed without taking into consideration any impact of the 50/50 allocation of future excess earnings between the retirement and SRBR asset pools. Various other information that is required to be disclosed can be found throughout *Section 2*.
5. As discussed in our letter dated September 11, 2015 regarding the treatment of the SRBR for financial reporting purposes, Actuarial Standard of Practice (ASOP) No. 4 ("Measuring Pension Obligations and Determining Pension Plan Costs or

Contributions") states that some plan provisions, including "gain sharing" provisions, "may create pension obligations that are difficult to appropriately measure using traditional valuation procedures." ASOP No. 4 further states that "for such plan provisions, the actuary should consider using alternative valuation procedures, such as stochastic modeling … to reflect the impact of variations in experience from year to year." The 50% allocation of future excess earnings to the SRBR for KCERA is a clear example of the gain sharing provisions referenced by ASOP No. 4.

After several meetings with KCERA and its auditors, and based on information regarding another SRBR system that included discussions with GASB staff, it was previously determined that future allocations to the SRBR should be treated as an additional "outflow" (i.e., assets not available to fund the benefits included in the determination of the TPL) against the Plan's Fiduciary Net Position in the GASB crossover test[1] (see *Section 3, Appendix A*).

However, as noted earlier in this report, the Plan's Fiduciary Net Position includes assets held for the SRBR, and the TPL includes all projected future benefits expected to be paid from the SRBR for members as of the valuation date. This treatment was also discussed with KCERA and its auditors and determined to be appropriate. Therefore, any outflows due to the 50/50 excess earnings allocation would not affect the outcome of the crossover test since the crossover test is performed based on the combined results of the statutory (non-SRBR) benefits and the SRBR.

6. Based on discussions with KCERA and their auditors, starting with the June 30, 2016 measurement date for the employers, employer paid member contributions are excluded from employer contributions in the determination of the Actuarially Determined Contribution (ADC). The amount of employer paid member contributions was estimated by first determining what the employer contribution rates would have been during the year, excluding any employer paid member contributions. The actual employer contribution rates were then adjusted by the ratio of the employer contribution rates determined above and the employer contribution rates determined in the annual actuarial valuation. The result is the employer contributions excluding any employer paid member contributions. This change has not been applied on a retroactive basis prior to the 2015-2016 fiscal year.
7. On September 14, 2022, the Board adopted a Restructured SRBR benefit effective July 1, 2022 equal to $1.80 per year of service, but no less than the member's current SRBR benefit as of July 1, 2022. The Restructured SRBR benefit also includes a 2.5% COLA on the SRBR benefit, so long as the SRBR remains adequately funded. This plan amendment increased the NPL by $30.4 million.
8. The Public Employee Pension Reform Act of 2013 (PEPRA) set contribution rates for members hired after January 1, 2013 (PEPRA members) at 50% of normal cost, pending expiration of the existing MOUs. Between January 1, 2013 and the expiration of the then-existing MOUs in or around 2015, PEPRA members were incorrectly charged the 50% of normal cost rate. On April

[1] The purpose of the GASB crossover test is to determine if the full expected return (or 7.25% in this case) can be used as the discount rate to determine the TPL and the NPL. That is, if there is no crossover point where the projected benefit payments would exceed the Plan's Fiduciary Net Position, then the full expected return assumption can be used. As detailed later in this report, KCERA does pass the crossover test, which means that the full 7.25% investment rate of return assumption can be used as the discount rate to determine the TPL and the resulting NPL.

13, 2022, the Board decided to refund any overcollection of contributions paid in conjunction with PEPRA implementation to affected PEPRA members. The Board also decided to collect any underpayment of contributions by affected PEPRA members from the Plan sponsors.

On July 30, 2020, the California Supreme Court issued a decision in the Alameda County Deputy Sheriffs' Assn. et al. v. Alameda County Employees' Retirement Assn. litigation that clarified what should be considered compensation earnable for Legacy members and pensionable compensation for PEPRA members. In response, the Board adopted Resolution 2020-1, which detailed the implementation of the Alameda decision including reclassifying certain pay items for inclusion in compensation earnable and pensionable compensation. On April 13, 2022, the Board decided to refund any net overcollection of contributions over the overpayment of benefits paid in conjunction with these pay items to affected members that retired between January 1, 2013 and August 30, 2020. The Board also decided to collect any net overpayment of benefits over the undercollection of contributions to affected members from the Plan sponsors.

The results in this valuation reflect the recovery or refunds of benefits and/or member contributions previously paid in conjunction with PEPRA implementation and the Alameda decision, which increased the NPL by $1.2 million.

9. It is important to note that this actuarial valuation is based on plan assets as of June 30, 2022. The Plan's funded status does not reflect short-term fluctuations of the market, but rather is based on the market values on the last day of the plan year. Moreover, this actuarial valuation is based on Plan data as of June 30, 2021 and it does not include any possible short-term or long-term impacts on mortality of the covered population that may emerge after June 30, 2021 due to COVID-19. Segal is available to prepare projections of potential outcomes of market conditions and other demographic experience upon request.

Summary of key valuation results

Measurement Date		June 30, 2022	June 30, 2021
Disclosure elements for plan year ending June 30:	• Service Cost[1]	$118,979,049	$123,394,292
	• Total Pension Liability	7,510,905,541	7,306,894,934
	• Plan's Fiduciary Net Position	5,131,128,660	5,417,513,179
	• Net Pension Liability	2,379,776,881	1,889,381,755
Schedule of contributions for plan year ending June 30:	• Actuarially determined contributions[2]	$287,063,000	$268,626,000
	• Actual employer contributions[2]	287,063,000	268,626,000
	• Contribution deficiency / (excess)	0	0
Demographic data for plan Year ending June 30:[3]	• Number of retired members and beneficiaries	9,015	8,835
	• Number of inactive vested members[4]	4,015	3,517
	• Number of active members	9,076	9,072
Key assumptions as of June 30:	• Investment rate of return	7.25%	7.25%
	• Inflation rate	2.75%	2.75%
	• Real across-the-board salary increase	0.50%	0.50%
	• Projected salary increases[5]	General: 4.00% to 8.75% and Safety: 3.75% to 12.00%	General: 4.00% to 8.75% and Safety: 3.75% to 12.00%
	• Cost of living adjustments	2.50%	2.50%

1 Excludes administrative expense load. The service cost is based on the previous year's valuation, meaning the June 30, 2022 and June 30, 2021 values are based on the valuations as of June 30, 2021 and June 30, 2020, respectively. Both service costs have been calculated using the assumptions shown in the June 30, 2021 column, as there had been no changes in the actuarial assumptions between the June 30, 2020 and June 30, 2021 valuations.

2 See footnote (1) under *Section 2, Schedule of contributions* on page 20.

3 Data as of June 30, 2021 is used in the measurement of the TPL as of June 30, 2022.

4 Includes terminated members due a refund of member contributions.

5 Includes inflation at 2.75% plus real across-the-board salary increase of 0.50% plus merit and promotional increases that vary by service.

Important information about actuarial valuations

An actuarial valuation is a budgeting tool with respect to the financing of future projected obligations of a pension plan. It is an estimated forecast – the actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.

In order to prepare a valuation, Segal relies on a number of input items. These include:

Plan of benefits	Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. It is important to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan description in this report (as well as the plan summary included in our funding valuation report) to confirm that Segal has correctly interpreted the plan of benefits.
Participant data	An actuarial valuation for a plan is based on data provided to the actuary by KCERA. Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. It is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.
Assets	The valuation is based on the market value of assets as of the measurement date, as provided by KCERA.
Actuarial assumptions	In preparing an actuarial valuation, Segal projects the benefits to be paid to existing plan participants for the rest of their lives and the lives of their beneficiaries. This projection requires actuarial assumptions as to the probability of death, disability, withdrawal, and retirement of each participant for each year. In addition, the benefits projected to be paid for each of those events in each future year reflect actuarial assumptions as to salary increases and cost-of-living adjustments. The projected benefits are then discounted to a present value, based on the assumed rate of return that is expected to be achieved on the plan's assets. There is a reasonable range for each assumption used in the projection and the results may vary materially based on which assumptions are selected. It is important for any user of an actuarial valuation to understand this concept. Actuarial assumptions are periodically reviewed to ensure that future valuations reflect emerging plan experience. While future changes in actuarial assumptions may have a significant impact on the reported results, that does not mean that the previous assumptions were unreasonable.
Models	Segal valuation results are based on proprietary actuarial modeling software. The actuarial valuation models generate a comprehensive set of liability and cost calculations that are presented to meet regulatory, legislative and client requirements. Our Actuarial Technology and Systems unit, comprised of both actuaries and programmers, is responsible for the initial development and maintenance of these models. The models have a modular structure that allows for a high degree of accuracy, flexibility and user control. The client team programs the assumptions and the plan provisions, validates the models, and reviews test lives and results, under the supervision of the responsible actuary.

Section 1: Actuarial Valuation Summary

The user of Segal's actuarial valuation (or other actuarial calculations) should keep the following in mind:

The valuation is prepared at the request of the Board to assist KCERA in preparing items related to the pension plan in their financial reports. Segal is not responsible for the use or misuse of its report, particularly by any other party.
An actuarial valuation is a measurement of the plan's assets and liabilities at a specific date. Accordingly, except where otherwise noted, Segal did not perform an analysis of the potential range of future financial measures. The actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.
If KCERA is aware of any event or trend that was not considered in this valuation that may materially change the results of the valuation, Segal should be advised, so that we can evaluate it.
Segal does not provide investment, legal, accounting, or tax advice. Segal's valuation is based on our understanding of applicable guidance in these areas and of the plan's provisions, but they may be subject to alternative interpretations. The Board should look to their other advisors for expertise in these areas.

As Segal has no discretionary authority with respect to the management or assets of KCERA, it is not a fiduciary in its capacity as actuaries and consultants with respect to KCERA.

Section 2: GAS 67 Information

General information about the pension plan

Plan Description

Plan administration. The Kern County Employees' Retirement Association (KCERA) was established by the County of Kern in 1945. KCERA is administered by the Board of Retirement and governed by the County Employees' Retirement Law of 1937 (California Government Code Section 31450 et. seq.), the California Public Employees' Pension Reform Act (CalPEPRA) and the bylaws, procedures and policies adopted by the KCERA Board. KCERA is a cost-sharing multiple employer defined benefit public employee retirement system whose main function is to provide retirement, disability, death, beneficiary, cost-of-living and supplemental retirement benefits to the General and Safety members employed by the County of Kern. KCERA also provides retirement benefits to the employee members of the Berrenda Mesa Water District, Buttonwillow Recreation and Park District, East Kern Cemetery District, Inyokern Community Services District, Kern County Water Agency, Kern Mosquito and Vector Control District, North of the River Sanitation District, San Joaquin Valley Unified Air Pollution Control District, Shafter Recreation and Park District, West Side Cemetery District, West Side Mosquito and Vector Control District, West Side Recreation and Park District, the Kern County Superior Court, and the Kern County Hospital Authority.

The management of KCERA is vested with the KCERA Board of Retirement. The Board consists of nine members and two alternate members. The County Treasurer is elected by the general public and is a member of the Board of Retirement by law. Four members are appointed by the Board of Supervisors, one of whom may be a County Supervisor; two members are elected by the general membership; one member and one alternate member are elected by the safety membership; and one member and one alternate member are elected by the retired members of the Association. All members of the Board of Retirement serve terms of three years except for the County Treasurer whose term runs concurrent with his term as County Treasurer.

Plan membership. At June 30, 2022, pension plan membership consisted of the following:

Retired members or beneficiaries currently receiving benefits	9,015
Inactive vested members entitled to, but not yet receiving benefits[1]	4,015
Active members	9,076
Total	**22,106**

[1] Includes terminated members due a refund of member contributions.

Note: Data as of June 30, 2022 is not used in the measurement of the TPL as of June 30, 2022.

Section 2: GAS 67 Information

Benefits provided. KCERA provides retirement, disability, beneficiary, cost-of-living and supplemental retirement benefits to eligible employees. All regular full-time employees of the County of Kern or contracting districts who work 50% or more of the regular standard hours required become members of KCERA effective on the first day of the first full biweekly payroll period following the date of employment. There are separate retirement benefits for General and Safety members. Safety membership is extended to those involved in active law enforcement, fire suppression, and certain probation officers.

General members (excluding Tier III) are eligible to retire once they attain the age of 70 regardless of service or at age 50 and have acquired 10 or more years of retirement service credit. A member with 30 years of service is eligible to retire regardless of age. General Tier III members are eligible to retire once they have attained the age of 70 regardless of service or at age 52 and have acquired 5 or more years of retirement service credit.

Safety members are eligible to retire once they attain the age of 70 regardless of service or at age 50 and have acquired 10 or more years of retirement service credit. A member with 20 years of service is eligible to retire regardless of age.

The retirement benefit the member will receive is based upon age at retirement, final average compensation, years of retirement service credit and retirement plan and tier.

General member benefits for Tier I and Tier II are calculated pursuant to the provisions of California Government Code Sections 31676.17 and 31676.01, respectively. The monthly allowance is equal to 1/50th of final average compensation times years of accrued retirement service credit times age factor from Section 31676.17 (Tier I) or 1/90th of final average compensation times years of accrued retirement service credit times age factor from Section 31676.01 (Tier II). General Tier III member benefits are calculated pursuant to the provisions found in California Government Code Section 7522.20(a). The monthly allowance is equal to the final average compensation multiplied by years of accrued retirement credit multiplied by the age factor from Section 7522.20(a).

Safety member benefits for Tier I and Tier II are calculated pursuant to the provisions of California Government Code Sections 31664.1 and 31664, respectively. The monthly allowance is equal to 3% of final average compensation times years of accrued retirement service credit times age factor from 31664.1 (Tier I) or 1/50th (or 2%) of final average compensation times years of accrued retirement service credit times age factor from Section 31664 (Tier II).

For members in Tier I or Tier II, the maximum monthly retirement allowance is 100% of final average compensation. There is no final average compensation limit on the maximum retirement benefit for General Tier III members. However, the maximum amount of compensation earnable that can be taken into account for 2022 for members with membership dates on or after July 1, 1996 but before January 1, 2013 is $305,000. For members with membership dates on or after January 1, 2013 the maximum amount of pensionable compensation that can be taken into account for 2022 is equal to $134,974 for those enrolled in Social Security. These limits are adjusted on an annual basis. Members are exempt from paying member contributions and employers are exempt from paying employer contributions on compensation in excess of the annual cap.

Final average compensation consists of the highest 12 consecutive months of pensionable pay for a General Tier I or Tier IIA member or a Safety Tier I or Tier IIA member and the highest 36 consecutive months of pensionable pay for a General Tier IIB or Tier III member or a Safety Tier IIB member.

The member may elect an unmodified retirement allowance, or choose an optional retirement allowance. The unmodified retirement allowance provides the highest monthly benefit and a 60% continuance to an eligible surviving spouse or domestic partner. An eligible surviving spouse or domestic partner is one married to or registered with the member one year prior to the effective retirement date. Certain surviving spouses or domestic partners may also be eligible if marriage or domestic partnership was at least two years prior to the date of death and the surviving spouse or domestic partner has attained age 55 on or prior to the date of death. There are four optional retirement allowances the member may choose. Each of the optional retirement allowances requires a reduction in the unmodified retirement allowance in order to allow the member the ability to provide certain benefits to a surviving spouse, domestic partner, or named beneficiary having an insurable interest in the life of the member to a surviving spouse, domestic partner, or named beneficiary having an insurable interest in the life of the member.

KCERA provides an annual cost-of-living benefit to all retirees. The cost-of-living adjustment, based upon the Consumer Price Index for the Los Angeles-Long Beach-Anaheim Area, is capped at 2.5%.

The County of Kern and contracting districts contribute to the retirement plan based upon actuarially determined contribution rates adopted by the Board of Retirement. Employer contribution rates are adopted annually based upon recommendations received from KCERA's actuary after the completion of the annual actuarial valuation. The average employer contribution rate as of June 30, 2022 for 2021-2022 (based on the June 30, 2020 valuation and after reflecting the phase-in of the impact of the assumption changes for the County Safety cost group) was 48.78% of compensation.

Members are required to make contributions to KCERA regardless of the retirement plan or tier in which they are included. The average member contribution rate as of June 30, 2022 for 2021-2022 (based on the June 30, 2020 valuation) was 6.74% of compensation.

Net Pension Liability

The components of the Net Pension Liability were as follows:

Measurement Date	June 30, 2022	June 30, 2021
Total Pension Liability	$7,510,905,541	$7,306,894,934
Plan's Fiduciary Net Position	(5,131,128,660)	(5,417,513,179)
Net Pension Liability	**$2,379,776,881**	**$1,889,381,755**
Plan's Fiduciary Net Position as a percentage of the Total Pension Liability	68.32%	74.14%

The Net Pension Liability (NPL) for the plan was measured as of June 30, 2022 and June 30, 2021. The Plan's Fiduciary Net Position (plan assets) was valued as of the measurement dates while the Total Pension Liability (TPL) was determined based upon rolling forward the TPL from actuarial valuations as of June 30, 2021 and June 30, 2020, respectively.

Plan provisions. The plan provisions used in the measurement of the NPL as of June 30, 2022 and June 30, 2021 are the same as those used in the KCERA actuarial valuation as of June 30, 2022 and June 30, 2021, respectively. The TPL and the Plan's Fiduciary Net Position include liabilities and assets held for the Supplemental Retiree Benefit Reserve (SRBR).

Actuarial assumptions. The TPLs as of June 30, 2022 and June 30, 2021 that were measured by actuarial valuations as of June 30, 2021 and June 30, 2020, respectively, used the same actuarial assumptions and actuarial cost method as the June 30, 2022 and June 30, 2021 funding valuations. The actuarial assumptions used in the June 30, 2022 and June 30, 2021 funding valuations were based on the result of an experience study for the period from July 1, 2016 through June 30, 2019. In particular, the following actuarial assumptions were applied to all periods included in the measurement:

Investment rate of return:	7.25%, net of pension plan investment expense, including inflation.
Inflation rate:	2.75%
Administrative expenses:	0.90% of payroll allocated to both the employer and the member based on the components of the total average contribution rate (before expenses) for the employer and the member.
Real across-the-board salary increase:	0.50%
Projected salary increases:	General: 4.00% to 8.75% and Safety: 3.75% to 12.00%, varying by service, including inflation and real across-the-board salary increase
Cost of living adjustments (COLA):	Retiree COLA increases due to CPI are assumed to be 2.50%.
Other assumptions:	Same as those used in the June 30, 2022 funding valuations. These assumptions were developed in the analysis of actuarial experience for the period July 1, 2016 through June 30, 2019.

The Entry Age Actuarial Cost Method used in KCERA's annual actuarial valuation has also been applied in measuring the service cost and TPL with one exception. For purposes of measuring the service cost and TPL, we have reflected the same plan provisions used in determining the member's Actuarial Present Value of Projected Benefits. This is different from the version of this method applied in KCERA's annual funding valuation, where the Normal Cost is determined as if the current benefit accrual rate had always been in effect.

Determination of discount rate and investment rates of return

In the most recent experience study performed in 2020, the long-term expected rate of return on pension plan investments was determined using a building-block method in which expected future real rates of return (expected returns, net of inflation) are developed for each major asset class. These returns are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage, adding expected inflation and subtracting expected investment expenses and a risk margin. The target allocation and projected arithmetic real rates of return for each major asset class, after deducting inflation but before deducting investment expenses are shown in the following table. This information was used in the derivation of the long-term expected investment rate of return assumption for the June 30, 2022 actuarial valuation. This information will be subject to change every three years based on the results of an actuarial experience study.

Asset Class	Target Allocation	Long-Term Expected Arithmetic Real Rate of Return
Global Equity	37%	6.51%
Core Fixed Income	14%	1.09%
High Yield Corporate Credit	6%	3.38%
Emerging Market Debt Blend	4%	3.41%
Commodities	4%	3.08%
Core Real Estate	5%	4.59%
Private Real Estate	5%	9.50%
Midstream	5%	8.20%
Capital Efficiency Alpha Pool	5%	2.40%
Hedge Fund	10%	2.40%
Private Equity	5%	9.40%
Private Credit	5%	5.60%
Cash	-5%	0.00%
Total	**100%**	**5.25%**

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Discount rate. The discount rate used to measure the TPL was 7.25% as of June 30, 2022 and June 30, 2021. The projection of cash flows used to determine the discount rates assumed plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the actuarially determined contribution rates. For this purpose, only employee and employer contributions that are intended to fund benefits for current plan members and their beneficiaries are included. Projected employer contributions that are intended to fund the service costs for future plan members and their beneficiaries, as well as projected contributions from future plan members, are not included. Based on those assumptions, the Plan's Fiduciary Net Position was projected to be available to make all projected future benefit payments for current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the TPL as of both June 30, 2022 and June 30, 2021.

The discount rate assumptions have been developed without taking into consideration any impact of the 50/50 allocation of future excess earnings between the retirement and Supplement Retirement Benefit Reserve (SRBR) asset pools.

Discount rate sensitivity

Sensitivity of the Net Pension Liability to changes in the discount rate. The following presents the NPL of the KCERA as of June 30, 2022, calculated using the discount rate of 7.25%, as well as what the KCERA's NPL would be if it were calculated using a discount rate that is 1-percentage-point lower (6.25%) or 1-percentage-point higher (8.25%) than the current rate:

	1% Decrease (6.25%)	Current Discount Rate (7.25%)	1% Increase (8.25%)
Net Pension Liability as of June 30, 2022	$3,356,289,212	$2,379,776,881	$1,576,389,656

Schedule of changes in Net Pension Liability – Last two fiscal years

Measurement Date	June 30, 2022	June 30, 2021
Total Pension Liability		
• Service cost	$118,979,049	$123,394,292
• Interest	523,871,953	510,015,072
• Change of benefit terms	30,437,639	(32,128,915)
• Differences between expected and actual experience	(69,170,152)	(16,282,256)
• Changes of assumptions	0	0
• Benefit payments, including refunds of member contributions	(400,107,882)	(378,799,223)
Net change in Total Pension Liability	**$204,010,607**	**$206,198,970**
Total Pension Liability – beginning	**7,306,894,934**	**7,100,695,964**
Total Pension Liability – ending	**$7,510,905,541**	**$7,306,894,934**
Plan's Fiduciary Net Position		
• Contributions – employer[1]	$287,063,044	$268,625,636
• Contributions – employee[1]	54,514,264	53,789,028
• Net investment income	(219,947,045)	1,043,360,706
• Benefit payments, including refunds of member contributions	(400,107,882)	(378,799,223)
• Administrative expense	(6,702,394)	(6,060,675)
• Other	(1,204,506)[2]	(2,197,087)
Net change in Plan's Fiduciary Net Position	**$(286,384,519)**	**$978,718,385**
Plan's Fiduciary Net Position – beginning	**5,417,513,179**	**4,438,794,794**
Plan's Fiduciary Net Position – ending	**$5,131,128,660**	**$5,417,513,179**
Net Pension Liability – ending	**$2,379,776,881**	**$1,889,381,755**
Plan's Fiduciary Net Position as a percentage of the Total Pension Liability	68.32%	74.14%
Covered payroll[3]	$612,609,249	$604,320,398
Net Pension Liability as percentage of covered payroll	388.47%	312.65%

1 See footnote (1) under *Section 2, Schedule of contributions* on page 20.

2 This represents the amount of recovery or refunds of benefits and/or member contributions previously paid in conjunction with PEPRA implementation and pay items impacted by the implementation of the Alameda decision.

3 Covered payroll represents payroll on which contributions to the pension plan are based.

Notes to Schedule: Benefit changes: Restructured SRBR benefit based on years of service and including a 2.5% COLA.

Schedule of contributions – Last ten fiscal years

Year Ended June 30	Actuarially Determined Contributions[1]	Contributions in Relation to the Actuarially Determined Contributions	Contribution Deficiency / (Excess)	Covered Payroll[2]	Contributions as a Percentage of Covered Payroll
2013	$211,677,000	$211,677,000	$0	$516,465,189	40.99%
2014	220,393,000	220,393,000	0	533,850,811	41.28%
2015	215,477,000	215,477,000	0	531,598,183	40.53%
2016	216,229,000	216,229,000	0	537,539,991	40.23%
2017	224,351,000	224,351,000	0	546,671,003	41.04%
2018	242,534,000	242,534,000	0	576,728,789	42.05%
2019	229,120,000	229,120,000	0	579,071,865	39.57%
2020	273,909,000	273,909,000	0	607,695,110	45.07%
2021	268,626,000	268,626,000	0	604,320,398	44.45%
2022	287,063,000	287,063,000	0	612,609,249	46.86%

1 All “Actuarially Determined Contributions” through June 30, 2014 were determined as the “Annual Required Contribution” under GAS 25 and 27. Starting from 2016, actuarially determined contributions exclude employer paid member contributions.

2 Covered payroll represents payroll on which contributions to the pension plan are based.

See accompanying notes to this schedule on next page.

Section 2: GAS 67 Information

Notes to Schedule:

Methods and assumptions used to establish "actuarially determined contribution" rates:

Valuation date:	Actuarially determined contribution rates are calculated as of June 30, two years prior to the end of the fiscal year in which contributions are reported
Actuarial cost method:	Entry Age Actuarial Cost Method
Amortization method:	Level percent of payroll for total unfunded liability
Remaining amortization period:	13.5 years as of June 30, 2022 for all UAAL as of June 30, 2011. Effective June 30, 2012, any changes in UAAL due to actuarial gains or losses or due to changes in actuarial assumptions or methods will be amortized over a 18-year closed period effective with each valuation. Any change in unfunded actuarial accrued liability that arises due to plan amendments is amortized over its own declining 15-year period (with exception of a change due to retirement incentives, which is amortized over a declining period of up to 5 years).
Asset valuation method:	Market value of assets (MVA) less unrecognized returns in each of the last five years. Unrecognized returns are equal to the difference between the actual market return and the expected return on a market value basis and are recognized semi-annually over a five-year period. The AVA cannot be less than 50% of MVA, nor greater than 150% of MVA. The Actuarial Value of Assets (AVA) is reduced by the value of the non-valuation reserves.

Actuarial assumptions:

Valuation Date:	**June 30, 2020 Valuation Date (used for the year ended June 30, 2022 ADC)**
Investment rate of return:	7.25%, net of pension plan investment expenses, including inflation
Inflation rate:	2.75%
Administrative expense:	0.90% of payroll allocated to both the employer and member based on the components of the total contribution rate (before expenses) for the employer and member
Real across-the-board salary increase:	0.50%
Projected salary increases:[1]	General: 4.00% to 8.75% and Safety: 3.75% to 12.00%
Cost of living adjustments:	2.50% (actual increases contingent upon CPI increases with a 2.50% maximum)
Other assumptions:	Same as those used in the June 30, 2020 funding actuarial valuation

1 Includes inflation at 2.75% plus real across-the-board salary increase of 0.50% plus merit and promotional increases.

Appendix A: Projection of Plan's Fiduciary Net Position for use in the Calculation of Discount Rate as of June 30, 2022 ($ in millions)

Year Beginning July 1,	Projected Beginning Plan's Fiduciary Net Position (a)	Projected Total Contributions (b)	Projected Benefit Payments (c)	Projected Administrative Expenses (d)	Projected Investment Earnings (e)	Projected Ending Plan's Fiduciary Net Position (f) = (a) + (b) - (c) - (d) + (e)
2021	$5,418	$342	$401	$7	-$220	$5,131
2022	5,131	338	440	5	368	5,392
2023	5,392	344	439	5	387	5,679
2024	5,679	347	456	5	408	5,973
2025	5,973	353	474	5	428	6,276
2026	6,276	367	492	4	450	6,597
2027	6,597	372	510	4	473	6,928
2028	6,928	377	529	4	497	7,269
2029	7,269	382	549	4	521	7,619
2030	7,619	376	569	4	545	7,968
2061	8,090	1	721	0 *	560	7,930
2062	7,930	1	709	0 *	549	7,771
2063	7,771	0 *	695	0 *	538	7,614
2064	7,614	0 *	680	0 *	527	7,461
2065	7,461	0 *	665	0 *	517	7,314
2096	14,875	0	38	0	1,077	15,914
2097	15,914	0	30	0	1,153	17,036
2098	17,036	0	24	0	1,234	18,247
2099	18,247	0	18	0	1,322	19,551
2100	19,551	0	14	0	1,417	20,954
2127	129,113	0	0 *	0	9,361	138,474
2128	138,474					
2128	Discounted Value: 83 **					

* Less than $1 million, when rounded.

** $138,474 million when discounted with interest at the rate of 7.25% per annum has a value of $83 million (or 1.62% of the Plan's Fiduciary Net Position) as of the June 30, 2022 measurement date.

Notes:

1. Amounts may not total exactly due to rounding.
2. Amounts shown in the year beginning July 1, 2021 row are actual amounts, based on the financial statements provided by KCERA.
3. Certain years have been omitted from the table.
4. Column (a): Except for the "discounted value" shown for 2128, none of the projected beginning Plan's Fiduciary Net Position amounts shown have been adjusted for the time value of money.
5. Column (b): Projected total contributions include employee and employer normal cost contributions based on closed group projections (based on covered active members as of June 30, 2021); plus employer contributions to the unfunded actuarial accrued liability; plus employer and employee contributions to fund each year's annual administrative expenses, based on the Plan's funding policy. Contributions are assumed to occur halfway through the year, on average.
6. Column (c): Projected benefit payments have been determined in accordance with paragraph 39 of GASB Statement No. 67, and are based on the closed group of active, inactive vested, retired members, and beneficiaries as of June 30, 2021. The projected benefit payments reflect the cost of living increase assumption of 2.50% per annum and include projected benefits associated with the Supplemental Retiree Benefit Reserve, including applicable cost of living increases on those benefits. Benefit payments are assumed to occur halfway through the year, on average.
7. Column (d): Projected administrative expenses are calculated as approximately 0.90% of the closed group payroll. Administrative expenses are assumed to occur halfway through the year, on average.
8. Column (e): Projected investment earnings are based on the assumed investment rate of return of 7.25% per annum.
9. As illustrated in this Exhibit, the Plan's Fiduciary Net Position was projected to be available to make all projected future benefit payments for current Plan members. In other words, there is no projected "cross-over date" when projected benefits are not covered by projected assets. Therefore, the long-term expected rate of return on Plan investments of 7.25% per annum was applied to all periods of projected benefit payments to determine the Total Pension Liability as of June 30, 2022 shown earlier in this report, pursuant to Paragraph 44 of GASB Statement No. 67.
10. This projection is based on a model developed by our Actuarial Technology and Systems unit, comprised of both actuaries and programmers. The model allows the client team, under the supervision of the responsible actuary, control over the entry of future expected contribution income, benefit payments and administrative expenses. The projection of fiduciary net position and the discounting of benefits is part of the model.

Appendix B: Definition of Terms

Definitions of certain terms as they are used in Statement 67. The terms may have different meanings in other contexts.

Actuarial Present Value of Projected Benefit Payments:	Projected benefit payments discounted to reflect the expected effects of the time value (present value) of money and the probabilities of payment.
Actuarial Valuation:	The determination, as of a point in time (the actuarial valuation date), of the service cost, Total Pension Liability, and related actuarial present value of projected benefit payments for pensions performed in conformity with Actuarial Standards of Practice unless otherwise specified by the GASB.
Actuarial Valuation Date:	The date as of which an actuarial valuation is performed.
Actuarially Determined Contribution:	A target or recommended contribution to a defined benefit pension plan for the reporting period, determined in conformity with Actuarial Standards of Practice based on the most recent measurement available when the contribution for the reporting period was adopted.
Ad Hoc Cost-of-Living Adjustments (Ad Hoc COLAs):	Cost-of-living adjustments that require a decision to grant by the authority responsible for making such decisions.
Ad Hoc Postemployment Benefit Changes:	Postemployment benefit changes that require a decision to grant by the authority responsible for making such decisions.
Automatic Cost-of-Living Adjustments (Automatic COLAs):	Cost-of-living adjustments that occur without a requirement for a decision to grant by a responsible authority, including those for which the amounts are determined by reference to a specified experience factor (such as the earnings experience of the pension plan) or to another variable (such as an increase in the consumer price index).
Automatic Postemployment Benefit Changes:	Postemployment benefit changes that occur without a requirement for a decision to grant by a responsible authority, including those for which the amounts are determined by reference to a specified experience factor (such as the earnings experience of the pension plan) or to another variable (such as an increase in the consumer price index).
Cost-of-Living Adjustments:	Postemployment benefit changes intended to adjust benefit payments for the effects of inflation.
Cost-Sharing Multiple-Employer Defined Benefit Pension Plan (Cost-Sharing Pension Plan):	A multiple-employer defined benefit pension plan in which the pension obligations to the employees of more than one employer are pooled and pension plan assets can be used to pay the benefits of the employees of any employer that provides pensions through the pension plan.
Covered Payroll:	Payroll on which contributions to the pension plan are based.
Defined Benefit Pension Plans:	Pension plans that are used to provide defined benefit pensions.

Defined Benefit Pensions:	Pensions for which the income or other benefits that the employee will receive at or after separation from employment are defined by the benefit terms. The pensions may be stated as a specified dollar amount or as an amount that is calculated based on one or more factors such as age, years of service, and compensation. (A pension that does not meet the criteria of a defined contribution pension is classified as a defined benefit pension for purposes of Statement 67.)
Defined Contribution Pension Plans:	Pension plans that are used to provide defined contribution pensions.
Defined Contribution Pensions:	Pensions having terms that (1) provide an individual account for each employee; (2) define the contributions that an employer is required to make (or the credits that it is required to provide) to an active employee's account for periods in which that employee renders service; and (3) provide that the pensions an employee will receive will depend only on the contributions (or credits) to the employee's account, actual earnings on investments of those contributions (or credits), and the effects of forfeitures of contributions (or credits) made for other employees, as well as pension plan administrative costs, that are allocated to the employee's account.
Discount Rate:	The single rate of return that, when applied to all projected benefit payments, results in an actuarial present value of projected benefit payments equal to the total of the following: 1. The actuarial present value of benefit payments projected to be made in future periods in which (a) the amount of the pension Plan's Fiduciary Net Position is projected (under the requirements of Statement 67) to be greater than the benefit payments that are projected to be made in that period and (b) pension plan assets up to that point are expected to be invested using a strategy to achieve the long-term expected rate of return, calculated using the long-term expected rate of return on pension plan investments. 2. The actuarial present value of projected benefit payments not included in (1), calculated using the municipal bond rate.
Entry Age Actuarial Cost Method:	A method under which the actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis over the earnings or service of the individual between entry age and assumed exit age(s). The portion of this actuarial present value allocated to a valuation year is called the normal cost. The portion of this actuarial present value not provided for at a valuation date by the actuarial present value of future normal costs is called the actuarial accrued liability.
Inactive Employees:	Terminated individuals that have accumulated benefits but are not yet receiving them, and retirees or their beneficiaries currently receiving benefits.
Multiple-Employer Defined Benefit Pension Plan:	A defined benefit pension plan that is used to provide pensions to the employees of more than one employer.
Net Pension Liability (NPL):	The liability of employers and non-employer contributing entities to employees for benefits provided through a defined benefit pension plan.

Other Postemployment Benefits:	All postemployment benefits other than retirement income (such as death benefits, life insurance, disability, and long-term care) that are provided separately from a pension plan, as well as postemployment healthcare benefits, regardless of the manner in which they are provided. Other postemployment benefits do not include termination benefits.
Pension Plans:	Arrangements through which pensions are determined, assets dedicated for pensions are accumulated and managed and benefits are paid as they come due.
Pensions:	Retirement income and, if provided through a pension plan, postemployment benefits other than retirement income (such as death benefits, life insurance, and disability benefits). Pensions do not include postemployment healthcare benefits and termination benefits.
Plan Members:	Individuals that are covered under the terms of a pension plan. Plan members generally include (1) employees in active service (active plan members) and (2) terminated employees who have accumulated benefits but are not yet receiving them and retirees or their beneficiaries currently receiving benefits (inactive plan members).
Postemployment:	The period after employment.
Postemployment Benefit Changes:	Adjustments to the pension of an inactive employee.
Postemployment Healthcare Benefits:	Medical, dental, vision, and other health-related benefits paid subsequent to the termination of employment.
Projected Benefit Payments:	All benefits estimated to be payable through the pension plan to current active and inactive employees as a result of their past service and their expected future service.
Public Employee Retirement System:	A special-purpose government that administers one or more pension plans; also may administer other types of employee benefit plans, including postemployment healthcare plans and deferred compensation plans.
Real Rate of Return:	The rate of return on an investment after adjustment to eliminate inflation.
Service Costs:	The portions of the actuarial present value of projected benefit payments that are attributed to valuation years.
Single-Employer Defined Benefit Pension Plan (Single-Employer Pension Plan):	A defined benefit pension plan that is used to provide pensions to employees of only one employer.
Termination Benefits:	Inducements offered by employers to active employees to hasten the termination of services, or payments made in consequence of the early termination of services. Termination benefits include early-retirement incentives, severance benefits, and other termination-related benefits.
Total Pension Liability (TPL):	The portion of the actuarial present value of projected benefit payments that is attributed to past periods of employee service in conformity with the requirements of Statement 67.

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November 30, 2022

Mr. Dominic Brown
Chief Executive Officer
Kern County Employees' Retirement Association
11125 River Run Boulevard
Bakersfield, CA 93311

Re: Kern County Employees' Retirement Association (KCERA)
Allocation of June 30, 2022 Liabilities and Assets by District

Dear Dominic:

As requested, the following provides an allocation of the Actuarial Accrued Liability (AAL), the Valuation Value of Assets (VVA) and the Unfunded Actuarial Accrued Liability (UAAL) as of June 30, 2022 for each District. This information (and a few other results) is included on the enclosed Exhibit.

The AAL for each District is based on the results of the June 30, 2022 actuarial valuation including the actuarial assumptions and demographic data used in that valuation. However, since the Association is a cost-sharing multiple employer plan, assets and UAAL are generally not maintained on an employer-by-employer basis in our actuarial valuation. Assets are maintained for each of three UAAL cost groups in the valuation. Those cost groups are County General with Courts, Districts and Safety.

In order to allocate the assets maintained for all Districts to each District, we have pro-rated the assets based on the AAL for each District.[1] This results in the same funded ratio for each of the Districts. Based on this methodology, we have prepared the attached Exhibit that contains a breakdown of various June 30, 2022 valuation results by each District.

Note that the UAAL we calculate for each District is not equal to the unfunded liability that would be allocated to that District in the event of a plan termination by that District. This is because the methodology used in this letter is not the same as the methodology adopted by the Retirement Board for determining unfunded liabilities for terminating employers. It is also not equal to the Net Pension Liability (NPL) allocated to each employer for financial reporting purposes as shown in the Governmental Accounting Standards (GAS) No. 68 report.[2]

[1] The assets for Berrenda Mesa Water and Inyokern Community Services have been allocated based on the Association's Declining Employer Payroll Policy. The remaining assets are pro-rated based on the AAL for the other Districts.

[2] The methodologies used for allocating unfunded liabilities to terminating employers and NPL to active employers for financial reporting purposes are generally based on allocating by payroll. Note that the methodology used in the actuarial valuation to allocate active employer UAAL contributions is also based on payroll.

As noted above, all of the above calculations are based on the June 30, 2022 actuarial valuation results including the participant data and actuarial assumptions on which that valuation was based. That valuation and these calculations were completed under the supervision of Molly Calcagno, ASA, MAAA, Enrolled Actuary.

The undersigned are Members of the American Academy of Actuaries and meet the qualification requirements to render the actuarial opinion contained herein.

Sincerely,

Paul Angelo, FSA, MAAA, FCA, EA
Senior Vice President & Actuary

Molly Calcagno, ASA, MAAA, EA
Actuary

ST/jl
Enclosure

Kern County Employees' Retirement Association
Allocation as of June 30, 2022

			A	B	C	D	E
Category	**District Name**	**Member Count***	**Present Value of Projected Benefits**	**Present Value of Future Normal Costs****	**Actuarial Accrued Liability (AAL) (A - B)**	**Valuation Assets (Prorated by AAL)*****	**Unfunded Actuarial Accrued Liability (UAAL) (C - D)**
IV	Berrenda Mesa Water	16	$9,895,876	$263,124	$9,632,752	$5,864,048	$3,768,704
III	Buttonwillow Recreation & Park	4	964,702	95,606	869,096	551,965	317,131
II	East Kern Cemetery	3	1,216,843	135,058	1,081,785	687,045	394,740
IV	Inyokern Community Services	2	290,668	0	290,668	179,679	110,989
I	Kern County Water Agency	142	111,980,734	7,812,975	104,167,759	66,157,235	38,010,524
II	Kern Mosquito & Vector Control	46	20,359,313	1,903,067	18,456,246	11,721,613	6,734,633
V	North of the River Sanitation	34	12,144,424	1,727,794	10,416,630	6,615,631	3,800,999
III	San Joaquin Valley Unified Air Pollution Control	700	289,343,540	42,771,966	246,571,574	156,598,294	89,973,280
II	Shafter Recreation & Park	10	751,493	187,303	564,190	358,319	205,871
VI	West Side Cemetery	14	6,314,030	219,113	6,094,917	3,870,899	2,224,018
II	West Side Mosquito Abatement	16	9,248,103	774,798	8,473,305	5,381,420	3,091,885
II	West Side Recreation & Park	26	7,685,092	679,584	7,005,508	4,449,218	2,556,290
	Total Districts	1,013	$470,194,818	$56,570,388	$413,624,430	$262,435,366	$151,189,064

* Includes both active and inactive members

** Includes both employer and employee contributions

*** The assets for Berrenda Mesa Water and Inyokern Community Services have been allocated based on the Association's Declining Employer Payroll Policy. The remaining assets are pro-rated based on the AAL for the other Districts.

Note: Results may not match those shown in the Actuarial Valuation and Review as of June 30, 2022 due to rounding.

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November 30, 2022

Mr. Dominic Brown
Chief Executive Officer
Kern County Employees' Retirement Association
11125 River Run Boulevard
Bakersfield, CA 93311

**Re: Kern County Employees' Retirement Association (KCERA)
Berrenda Mesa Water District – Impact of Declining Employer Payroll Policy based on June 30, 2022 Actuarial Valuation**

Dear Dominic:

As requested, we have prepared information regarding the impact of the Declining Employer Payroll Policy (Policy) on the Berrenda Mesa Water District (Berrenda Mesa). In August 2019, the Retirement Board determined that a triggering event occurred during the 2019-20 fiscal year, resulting from this employer ceasing to enroll new hires and/or a material and expected long-lasting reduction in KCERA covered payroll.

We have determined the Valuation Value of Assets (VVA), Actuarial Accrued Liability (AAL) and resulting Unfunded Actuarial Accrued Liability (UAAL) that have been allocated to Berrenda Mesa as of June 30, 2022 based on the Policy. We have also included the employer contribution amounts for Berrenda Mesa that result from application of the Policy. These contribution amounts are also shown in the Actuarial Valuation and Review as of June 30, 2022.

Summary of Results

After applying the Policy, we have determined Berrenda Mesa's UAAL to be as follows as of June 30, 2022:

Berrenda Mesa	
Unfunded Actuarial Accrued Liability as of June 30, 2022	$3,769,000

The Policy requires that the employer contribution to pay off the initial UAAL be made in level dollar amounts over a period not to exceed eighteen years. Section 6 F of the Policy further states:

> Annually, after the determination of the covered employer's initial funding obligation, as part of the regular annual actuarial valuation of the plan, KCERA's actuary will measure any change in the UAAL of the participating employer due to actuarial experience or changes in actuarial assumptions. In addition to the amortized payments for the covered employer's initial UAAL funding obligation determined as of the initial valuation, the employer will be liable for, and must contribute to KCERA, any such new UAAL determined as of subsequent valuations, based upon an amortization schedule recommended by the actuary and adopted by the Board of Retirement.

As shown in Exhibit C, this valuation reflects changes in UAAL due to actuarial experience. We have amortized the changes in Berrenda Mesa's UAAL due to actuarial experience as a separate 18-year level dollar amortization layer using the current 7.25% discount rate. The use of 18 years as the amortization periods for this change in UAAL is consistent with both the Declining Employer Payroll Policy and KCERA's regular Actuarial Funding Policy, and is recommended by Segal.

We have also calculated the employer Normal Cost rate and average member contribution rate for Berrenda Mesa based only on the demographics of Berrenda Mesa's current active members. A comparison of the demographics of Berrenda Mesa as of June 30, 2022 and June 30, 2021 is provided in Exhibit A.

The following table is a summary comparison of the average contribution rates for both employers and members after application of the Policy as of June 30, 2022 and June 30, 2021.

Berrenda Mesa

	June 30, 2022		June 30, 2021	
	Rate	Estimated Annual Amount[1] ($ in '000s)	Rate	Estimated Annual Amount[2] ($ in '000s)
Average Employer Rate				
Normal Cost	17.40%	$32	17.35%	$30
UAAL	219.88%	407[3]	247.89%	431[4]
Total Contributions	237.28%	$439[5]	265.24%	$461[6]
Average Member Rate	6.06%	$11	5.86%	$10

1 Based on June 30, 2022 projected compensation of $185,000.

2 Based on June 30, 2021 projected compensation of $174,000.

3 This annual UAAL contribution in dollars of $407,000 for Berrenda Mesa is equal to the level dollar layered amortization of the $3,769,000 in UAAL of $410,000 plus $1,000 in administrative expenses minus a $4,000 adjustment due to the 12-month delay between the valuation date and the plan year beginning July 1, 2023.

4 This annual UAAL contribution in dollars of $431,000 for Berrenda Mesa is equal to the level dollar layered amortization of the $4,195,000 in UAAL of $437,000 plus $1,000 in administrative expenses minus a $7,000 adjustment due to the 12-month delay between the valuation date and the plan year beginning July 1, 2022.

5 Berrenda Mesa should contribute based on the dollar amounts shown (not the rates). These contribution amounts assume payment throughout the 2023-24 plan year.

6 Berrenda Mesa should contribute based on the dollar amounts shown (not the rates). These contribution amounts assume payment throughout the 2022-23 plan year.

The UAAL and employer contribution amounts for this employer are lower than that shown in our previous letter dated December 2, 2021 that included the impact of the Policy based on the previous actuarial valuation. This decrease is due to actuarial experience (primarily payee mortality experience in 2021-2022).

Declining Payroll Methodology

Based on the methodology described in the Policy, a participating employer that has a triggering event, such as ceasing to enroll new hires or a material and expected long-lasting reduction in KCERA covered payroll, would be allocated a pro-rata share of the total UAAL for their cost group. That pro-rata share would be allocated based on the employer's AAL including inactive and deferred members as compared to the AAL for all the employers within the same cost group. Note that this means that the initial UAAL payments for the employer would no longer be allocated in proportion to its covered payroll (which is expected to decline), but rather in proportion to its AAL.

The initial VVA is determined by a pro-rata allocation based on the employer's initial AAL to the AAL for all the employers within that cost group. The initial UAAL is the initial AAL minus the initial VVA. This amount is rolled forward each year using the actual contributions and benefit payments for Berrenda Mesa, and the actual (smoothed) return for all KCERA assets. The detailed calculations of the UAAL for Berrenda Mesa based on applying the Policy are shown in Exhibit B.

Assumptions used in Calculations

Unless otherwise noted, all of the above calculations are based on the June 30, 2022 actuarial valuation results including the participant data and actuarial assumptions on which that valuation was based. That valuation and these calculations were completed under the supervision of Molly Calcagno, ASA, MAAA, Enrolled Actuary.

The undersigned are Members of the American Academy of Actuaries and meet the qualification requirements to render the actuarial opinion contained herein.

Please let us know if you have any questions.

Sincerely,

Paul Angelo, FSA, MAAA, FCA, EA
Senior Vice President & Actuary

Molly Calcagno, ASA, MAAA, EA
Actuary

ST/jl

Table of Plan Coverage for Berrenda Mesa Water District

Category	Year Ended June 30: 2022	Year Ended June 30: 2021	Change From Prior Year
Active members in valuation:			
• Number	3	3	0.0%
• Average age	50.0	49.0	1.0
• Average years of service	21.3	20.3	1.0
• Total projected compensation	$185,013	$174,275	6.2%
• Average projected compensation	$61,671	$58,092	6.2%
• Account balances	$269,481	$241,676	11.5%
• Total active vested members	3	3	0.0%
Inactive vested members:[1]			
• Number	0	0	N/A
• Average age	N/A	N/A	N/A
Retired members:			
• Number in pay status	10	11	-9.1%
• Average age	68.4	68.0	0.4
• Average monthly benefit[2]	$4,180	$4,109	1.7%
Disabled members:			
• Number in pay status	0	0	N/A
• Average age	N/A	N/A	N/A
• Average monthly benefit[2]	N/A	N/A	N/A
Beneficiaries:			
• Number in pay status	3	2	50.0%
• Average age	76.0	78.2	-2.2
• Average monthly benefit[2]	$4,495	$5,253	-14.4%

[1] Includes inactive members due a refund of contributions.

[2] Excludes monthly benefit paid from the Supplemental Retiree Benefit Reserve.

Allocated UAAL for Berrenda Mesa Water District

Here are the specific steps involved in the determination of the UAAL for Berrenda Mesa as of June 30, 2022:

Step 1: Determine the AAL for Berrenda Mesa as of June 30, 2022

The June 30, 2022 AAL of Berrenda Mesa was calculated using the membership data for Berrenda Mesa as of the same date. Berrenda Mesa's AAL as of June 30, 2022 was $9,633,000.[1]

Step 2: Determine the VVA for Berrenda Mesa as of June 30, 2022

In our previous letter dated December 2, 2021, Berrenda Mesa's portion of the VVA as of June 30, 2021 was $5,577,000.

To determine the VVA for Berrenda Mesa as of June 30, 2022, the June 30, 2021 amount is rolled forward using the actual contributions and benefit payments for Berrenda Mesa, and the actual (smoothed) return for all KCERA assets. The VVA as of June 30, 2022 is calculated in the following table:

		Year Ended June 30, 2022
1	Rate of Return[2]	7.45%
2	VVA as of June 30, 2021	$5,577,000
3	Employer Contributions	519,000
4	Member Contributions	10,417
5	Benefit Payments	653,243
6	Interest Crediting[3]	410,874
7	VVA as of June 30, 2022	$5,864,000[4,5]

The VVA for Berrenda Mesa as of June 30, 2022 is $5,864,000.[4]

[1] This amount has been reduced by $4,000 in transfer liability from Berrenda Mesa to the County and assumes none of the transfer liability from the County will be allocated to Berrenda Mesa.

[2] Based on VVA rate of return for all KCERA assets.

[3] Equals [(2) x (1)] plus [(3) + (4) – (5)] x [(1) / 2].

[4] This has been rounded to the nearest $1,000.

[5] The gain from investments is $11,000.

Step 3: Determine the UAAL for Berrenda Mesa as of June 30, 2022

Berrenda Mesa's UAAL as of June 30, 2022 is equal to:

- The AAL for Berrenda Mesa's actives, deferred vested, retirees and beneficiaries as of June 30, 2022

MINUS

- The VVA allocated to Berrenda Mesa as of the same date

The UAAL for Berrenda Mesa as determined under the Declining Employer Payroll Policy as of June 30, 2022 is Berrenda Mesa's AAL minus their VVA, i.e., $9,633,000 - $5,864,000, or $3,769,000.

The VVA will be subtracted from the AAL as of each future valuation date to determine the updated total Berrenda Mesa UAAL. A new UAAL layer due to actuarial experience will then be calculated as the difference between that updated total UAAL amount (prior to any assumption or plan changes) and the outstanding balance of the current UAAL layer(s). A new UAAL layer due to assumption or plan changes, if any, will be calculated as the difference between the AAL for Berrenda Mesa's actives, deferred vested, retirees and beneficiaries under the new and old assumptions or plan provisions.

Each new UAAL layer will be amortized as a level dollar amount over a separate 18-year period (15-year period for plan changes).

Exhibit C

Table of Amortization Bases for Berrenda Mesa Water District

Type	Date Established	Initial Amount ($ in '000s)	Initial Period	Outstanding Balance ($ in '000s)	Years Remaining	Annual Payment[1] ($ in '000s)
Restart Amortization	June 30, 2019	$4,147	18	$3,760	15	$406
Actuarial Loss	June 30, 2020	556	18	518	16	54
Assumption Change	June 30, 2020	267	18	250	16	26
Actuarial Gain	June 30, 2021	(495)	18	(486)	17	(49)
Implementation of Alameda Decision	June 30, 2021	1	15	0	14	0
Actuarial Gain	June 30, 2022	(273)	18	(273)	18	(27)
Total				**$3,769**		**$410**

[1] Assumes payments throughout the year, calculated as a level dollar amount.

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November 30, 2022

Mr. Dominic Brown
Chief Executive Officer
Kern County Employees' Retirement Association
11125 River Run Boulevard
Bakersfield, CA 93311

Re: Kern County Employees' Retirement Association (KCERA)
Inyokern Community Services District – Impact of Declining Employer Payroll Policy based on June 30, 2022 Actuarial Valuation

Dear Dominic:

As requested, we have prepared information regarding the impact of the Declining Employer Payroll Policy (Policy) on the Inyokern Community Services District (Inyokern). In August 2019, the Retirement Board determined that a triggering event occurred during the 2019-20 fiscal year, resulting from this employer ceasing to enroll new hires and/or a material and expected long-lasting reduction in KCERA covered payroll.

We have determined the Valuation Value of Assets (VVA), Actuarial Accrued Liability (AAL) and resulting Unfunded Actuarial Accrued Liability (UAAL) that have been allocated to Inyokern as of June 30, 2022 based on the Policy. We have also included the employer contribution amounts for Inyokern that result from application of the Policy. These contribution amounts are also shown in the Actuarial Valuation and Review as of June 30, 2022.

Summary of Results

After applying the Policy, we have determined Inyokern's UAAL to be as follows as of June 30, 2022:

	Inyokern
Unfunded Actuarial Accrued Liability as of June 30, 2022	$110,000

The Policy requires that the employer contribution to pay off the initial UAAL be made in level dollar amounts over a period not to exceed eighteen years. Section 6 F of the Policy further states:

> Annually, after the determination of the covered employer's initial funding obligation, as part of the regular annual actuarial valuation of the plan, KCERA's actuary will measure any change in the UAAL of the participating employer due to actuarial experience or changes in actuarial assumptions. In addition to the amortized payments for the covered employer's initial UAAL funding obligation determined as of the initial valuation, the employer will be liable for, and must contribute to KCERA, any such new UAAL determined as of subsequent valuations, based upon an amortization schedule recommended by the actuary and adopted by the Board of Retirement.

As shown in Exhibit C, this valuation reflects changes in UAAL due to actuarial experience. We have amortized the changes in Inyokern's UAAL due to actuarial experience as a separate 18-year level dollar amortization layer using the current 7.25% discount rate. The use of 18 years as the amortization period for this change in UAAL is consistent with both the Declining Employer Payroll Policy and KCERA's regular Actuarial Funding Policy, and is recommended by Segal.

A comparison of the demographics of Inyokern as of June 30, 2022 and June 30, 2021 is provided in Exhibit A.

The following table is a summary comparison of the average contribution rates for both employers and members after application of the Policy as of June 30, 2022 and June 30, 2021.

Inyokern[1]

	June 30, 2022		June 30, 2021	
	Rate	Estimated Annual Amount[2] ($ in '000s)	Rate	Estimated Annual Amount[3] ($ in '000s)
Average Employer Rate				
Normal Cost	N/A	$0	N/A	$0
UAAL	N/A	12[4]	N/A	13[5]
Total Contributions	N/A	$12[6]	N/A	$13[7]
Average Member Rate	N/A	$0	N/A	$0

1 There are no active members at Inyokern. Therefore, there is no Normal Cost rate and no average member rate after application of the Policy.

2 Based on June 30, 2022 projected compensation of $0.

3 Based on June 30, 2021 projected compensation of $0.

4 This annual UAAL contribution in dollars of $12,000 for Inyokern is equal to the level dollar layered amortization of the $110,000 in UAAL of $12,000 plus $0 in administrative expenses plus a $0 adjustment due to the 12-month delay between the valuation date and the plan year beginning July 1, 2023.

5 This annual UAAL contribution in dollars of $13,000 for Inyokern is equal to the level dollar layered amortization of the $124,000 in UAAL of $13,000 plus $0 in administrative expenses plus a $0 adjustment due to the 12-month delay between the valuation date and the plan year beginning July 1, 2022.

6 Inyokern should contribute based on the dollar amounts shown. These contribution amounts assume payment throughout the 2023-24 plan year.

7 Inyokern should contribute based on the dollar amounts shown. These contribution amounts assume payment throughout the 2022-23 plan year.

The UAAL and employer contribution amounts for this employer are lower than that shown in our previous letter dated December 2, 2021 that included the impact of the Policy based on the previous actuarial valuation. This decrease is due to actuarial experience (primarily contributions greater than expected in 2021-2022).

Declining Payroll Methodology

Based on the methodology described in the Policy, a participating employer that has a triggering event, such as ceasing to enroll new hires or a material and expected long-lasting reduction in KCERA covered payroll, would be allocated a pro-rata share of the total UAAL for their cost group. That pro-rata share would be allocated based on the employer's AAL including inactive and deferred members as compared to the AAL for all the employers within the same cost group. Note that this means that the initial UAAL payments for the employer would no longer be allocated in proportion to its covered payroll (which is expected to decline), but rather in proportion to its AAL.

The initial VVA is determined by a pro-rata allocation based on the employer's initial AAL to the AAL for all the employers within that cost group. The initial UAAL is the initial AAL minus the initial VVA. This amount is rolled forward each year using the actual contributions and benefit payments for Inyokern, and the actual (smoothed) return for all KCERA assets. The detailed calculations of the UAAL for Inyokern based on applying the Policy are shown in Exhibit B.

Assumptions used in Calculations

Unless otherwise noted, all of the above calculations are based on the June 30, 2022 actuarial valuation results including the participant data and actuarial assumptions on which that valuation was based. That valuation and these calculations were completed under the supervision of Molly Calcagno, ASA, MAAA, Enrolled Actuary.

The undersigned are Members of the American Academy of Actuaries and meet the qualification requirements to render the actuarial opinion contained herein.

Please let us know if you have any questions.

Sincerely,

Paul Angelo, FSA, MAAA, FCA, EA
Senior Vice President & Actuary

Molly Calcagno, ASA, MAAA, EA
Actuary

ST/jl

Segal

Table of Plan Coverage for Inyokern Community Services District

Category	Year Ended June 30: 2022	Year Ended June 30: 2021	Change From Prior Year
Active members in valuation:			
• Number	0	0	N/A
• Average age	N/A	N/A	N/A
• Average years of service	N/A	N/A	N/A
• Total projected compensation	N/A	N/A	N/A
• Average projected compensation	N/A	N/A	N/A
• Account balances	N/A	N/A	N/A
• Total active vested members	N/A	N/A	N/A
Inactive vested members:[1]			
• Number	1	1	0.0%
• Average age	48.8	47.8	1.0
Retired members:			
• Number in pay status	1	1	0.0%
• Average age	54.4	53.4	1.0
• Average monthly benefit[2]	$353	$345	2.3%
Disabled members:			
• Number in pay status	0	0	N/A
• Average age	N/A	N/A	N/A
• Average monthly benefit[2]	N/A	N/A	N/A
Beneficiaries:			
• Number in pay status	0	0	N/A
• Average age	N/A	N/A	N/A
• Average monthly benefit[2]	N/A	N/A	N/A

[1] Includes inactive members due a refund of contributions.
[2] Excludes monthly benefit paid from the Supplemental Retiree Benefit Reserve.

Allocated UAAL for Inyokern Community Services District

Here are the specific steps involved in the determination of the UAAL for Inyokern as of June 30, 2022:

Step 1: Determine the AAL for Inyokern as of June 30, 2022

The June 30, 2022 AAL of Inyokern was calculated using the membership data for Inyokern as of the same date. Inyokern's AAL as of June 30, 2022 was $290,000.[1]

Step 2: Determine the VVA for Inyokern as of June 30, 2022

In our previous letter dated December 2, 2021, Inyokern's portion of the VVA as of June 30, 2021 was $150,000.

To determine the VVA for Inyokern as of June 30, 2022, the June 30, 2021 amount is rolled forward using the actual contributions and benefit payments for Inyokern, and the actual (smoothed) return for all KCERA assets. The VVA as of June 30, 2022 is calculated in the following table:

		Year Ended June 30, 2022
1	Rate of Return[2]	7.45%
2	VVA as of June 30, 2021	$150,000
3	Employer Contributions	22,000
4	Member Contributions	0
5	Benefit Payments	4,160
6	Interest Crediting[3]	11,840
7	VVA as of June 30, 2022	$180,000[4,5]

The VVA for Inyokern as of June 30, 2022 is $180,000.[4]

1 Assumes none of the transfer liability from the County will be allocated to Inyokern.
2 Based on VVA rate of return for all KCERA assets.
3 Equals [(2) x (1)] plus [(3) + (4) – (5)] x [(1) / 2].
4 This has been rounded to the nearest $1,000.
5 The gain from investments is $1,000.

Step 3: Determine the UAAL for Inyokern as of June 30, 2022

Inyokern’s UAAL as of June 30, 2022 is equal to:

- The AAL for Inyokern’s actives, deferred vested, retirees and beneficiaries as of June 30, 2022

MINUS

- The VVA allocated to Inyokern as of the same date

The UAAL for Inyokern as determined under the Declining Employer Payroll Policy as of June 30, 2022 is Inyokern’s AAL minus their VVA, i.e., $290,000 - $180,000, or $110,000.

The VVA will be subtracted from the AAL as of each future valuation date to determine the updated total Inyokern UAAL. A new UAAL layer due to actuarial experience will then be calculated as the difference between that updated total UAAL amount (prior to any assumption or plan changes) and the outstanding balance of the current UAAL layer(s). A new UAAL layer due to assumption or plan changes, if any, will be calculated as the difference between the AAL for Inyokern’s actives, deferred vested, retirees and beneficiaries under the new and old assumptions or plan provisions.

Each new UAAL layer will be amortized as a level dollar amount over a separate 18-year period (15-year period for plan changes).

Table of Amortization Bases for Inyokern Community Services District

Type	Date Established	Initial Amount ($ in '000s)	Initial Period	Outstanding Balance ($ in '000s)	Years Remaining	Annual Payment[1] ($ in '000s)
Restart Amortization	June 30, 2019	$102	18	$93	15	$10
Actuarial Loss	June 30, 2020	13	18	10	16	1
Actuarial Loss	June 30, 2021	18	18	20	17	2
Actuarial Gain	June 30, 2022	(13)	18	(13)	18	(1)
Total				**$110**		**$12**

[1] Assumes payments throughout the year, calculated as a level dollar amount.