

**Marin County
Employees' Retirement
Association**

**Actuarial Valuation Report
as of June 30, 2020**

Produced by Cheiron

February 2021

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February 4, 2021

Board of Retirement
Marin County Employees' Retirement Association
1 McInnis Parkway, Suite 100
San Rafael, CA 94903-2764

Dear Members of the Board:

At your request, we have conducted an actuarial valuation of the Marin County Employees' Retirement Association (MCERA, the Plan) as of June 30, 2020. The purpose of this report is to present the results of the annual actuarial valuation of MCERA, including information on the Plan's assets and liabilities and the development of employer and employee contribution rates for the fiscal year beginning July 1, 2021.

This report was prepared for MCERA for the purposes described herein and for the use by the plan auditor in completing an audit related to the matters herein. Other users of this report are not intended users as defined in the Actuarial Standards of Practice, and Cheiron assumes no duty or liability to such other users.

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

Future results may differ significantly from the current results presented in this report due to such factors as the following: plan experience differing from that anticipated by the assumptions, changes in assumptions, and changes in plan provisions or applicable law.

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

Sincerely,
Cheiron



Graham A. Schmidt, ASA, EA, FCA, MAAA
Consulting Actuary



William R. Hallmark, ASA, EA, FCA, MAAA
Consulting Actuary

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020**

SECTION I – EXECUTIVE SUMMARY

The primary purpose of the actuarial valuation and this report is to measure, describe, and identify the following as of the valuation date:

- The funded status of the Plan,
- Past and expected trends in the funding progress of the Plan,
- Employer and employee contribution rates for Plan Year 2021-2022, and
- An assessment and disclosure of key risks.

The balance of this Executive Summary presents (A) the basis upon which this year's valuation was completed, (B) the key findings of this valuation including a summary of all key results, (C) an examination of the historical trends, and (D) the projected outlook for the Plan.

A. Valuation Basis

This valuation determines the employer contributions required for the employers' fiscal years beginning July 1, 2021. The employers are divided into three subgroups: the County of Marin and related Special Districts, the Novato Fire Protection District, and the City of San Rafael.

The Plan's funding policy is to collect contributions from the employers and employees equal to the sum of:

- The normal cost under the Entry Age Normal Cost Method,
- An amortization payment on the Unfunded Actuarial Liability (UAL), and
- The Plan's expected administrative expenses.

This valuation was prepared based on the Plan provisions shown in Appendix C. An Experience Study covering the three-year period from July 1, 2017 through June 30, 2020 was conducted, resulting in the modification of a number of assumptions, including the reduction of the discount rate from 7.00% to 6.75%. A summary of the actuarial methods and assumptions used in the current valuation is shown in Appendix B.

This valuation does not include any consideration of external liabilities (or related debt service payments) incurred by the Plan sponsors outside of MCERA, such as those related to pension obligation bonds.

Cheiron utilizes ProVal, an actuarial valuation application leased from Winklevoss Technologies (WinTech), to calculate liabilities and project benefit payments. We have relied on WinTech as the developer of ProVal. We have reviewed ProVal, have a basic understanding of it, and have used it in accordance with its original intended purpose. We have not identified any material inconsistencies in assumptions or output of ProVal that would affect this report. The deterministic and stochastic projections shown in this report were developed using R-scan, our proprietary stochastic projection tool for assessing probabilities of different outcomes. We have relied on Cheiron colleagues who developed the tool, and we have used the tool in accordance with its purpose.

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B. Key Findings of this Valuation

Tables I-1 and I-2 summarize the key results of the valuation with respect to assets and liabilities for the Plan as a whole, contributions by the main valuation subgroups, and overall membership. The tables compare the results for the current plan year to the results for the prior plan year.

Table I-1		
Marin County Employees' Retirement Association		
Summary of Key Valuation Results		
(in millions)		
Valuation Date	June 30, 2019	June 30, 2020
Actuarial Liability	\$ 2,972.7	\$ 3,124.8
Market Value of Valuation Assets	<u>2,573.3</u>	<u>2,625.3</u>
Unfunded Actuarial Liability	\$ 399.4	\$ 499.5
Funded Ratio	86.6%	84.0%
Net Employer Contribution Rate		
County of Marin	24.08%	24.99%
Novato Fire Protection District	46.80%	48.35%
City of San Rafael	60.77%	62.57%
Total MCERA	29.68%	30.53%

Table I-2			
Membership Total			
Item	June 30, 2019	June 30, 2020	% Change
Actives	2,689	2,703	0.5%
Current Inactives	852	944	10.8%
Retired Members	<u>3,394</u>	<u>3,490</u>	<u>2.8%</u>
Total Members	6,935	7,137	2.9%
Ratio of Retired Members to Active Members	126.2%	129.1%	
Active Member Payroll (FYE 2020/2021)	\$ 267,101,968	\$ 277,816,749	4.0%
Average Pay per Active	\$ 99,331	\$ 102,781	3.5%

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The key results of the June 30, 2020 actuarial valuation are as follows:

- The actuarially determined employer contribution rate for the County increased from 24.08% to 24.99% of payroll, Novato from 46.80% to 48.35%, and San Rafael from 60.77% to 62.57%.
- Although the Actuarial Liability increased due to assumption changes from the recent experience study (particularly the reduction in discount rate from 7.00% to 6.75%), the resulting employer contribution increases were partially offset by increases to the employee contribution rates due to the assumption changes, contribution rate decreases from PEPRAs new hires, and the effect of payroll on amortization.
- The Plan's funded ratio, the ratio of assets over Actuarial Liability, decreased from 86.6% last year to 84.0% as of June 30, 2020.
- The Unfunded Actuarial Liability (UAL) is the excess of the Plan's Actuarial Liability over the Market Value of Assets. The UAL increased from \$399.4 to \$499.5 million. This increase in UAL was primarily due to lower than expected investment returns and the assumption changes.
- During the year ending June 30, 2020, the return on Plan assets was 3.48% net of investment expenses, as compared to the prior year's assumption of 7.00%. Our calculation of this rate of return assumes that external cash flows (i.e., benefit payments, contributions, and administrative expenses) all occur on average mid-year. The dollar-weighting using this simplifying assumption may result in a return that is slightly different from that provided by the investment consultant.
- Total Plan membership and the number of active members increased compared to last year. There were 294 new hires, rehires, and incoming transfers during 2019-2020, and 280 retirements, disabilities, deaths, and other terminations during that same period, resulting in a slight increase in the total active population of 14 from 2,689 to 2,703. The number of members in pay status and deferred status increased from 4,246 to 4,434. Total projected payroll increased 4.0% from \$267.1 million to \$277.8 million.

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SECTION I – EXECUTIVE SUMMARY

Assets and Liabilities

Table I-3 below presents the assets, liabilities, Unfunded Actuarial Liability, and funding ratios as of June 30, 2020 for each of the three main subgroups.

Table I-3			
Assets & Liabilities			
(in millions)			
Item	County	Novato	San Rafael
Actuarial Liability			
Actives	\$ 737.6	\$ 68.6	\$ 131.0
Current Inactives	103.4	3.6	28.7
Retired Members	<u>1,443.7</u>	<u>146.6</u>	<u>461.5</u>
Total Actuarial Liability	\$ 2,284.7	\$ 218.9	\$ 621.3
Market Value Assets	\$ 1,968.4	\$ 183.9	\$ 473.1
Unfunded Actuarial Liability	\$ 316.3	\$ 35.0	\$ 148.2
Funded Ratio - Market Value	86.2%	84.0%	76.2%
Inactive-Only Funded Ratio	67.7%	68.6%	78.9%

The Inactive-Only Funded Ratio shown in Table I-3 represents the percentage of the Actuarial Liability attributable to members who are not active employees. A funded ratio of 67.7% or more is required just to fund the liabilities of the inactive County members: those currently retired, disabled, terminated with vested benefits, and their beneficiaries. We note that the funded ratio for San Rafael is slightly below the Inactive-Only Funded Ratio for the current valuation.

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Changes in Employer Contributions

Table I-4 summarizes the impact of actuarial experience and other changes on the employer contribution rate.

Table I-4				
Employer Contribution Reconciliation				
Item	Total	County	Novato	San Rafael
FYE 2021 Net Employer Contribution Rate	29.68%	24.08%	46.80%	60.77%
Expected change in amortization from prior changes	0.04%	(0.01%)	0.72%	0.18%
Change due to asset loss	0.37%	0.28%	1.00%	0.73%
Change due to demographic (gains)/losses	0.06%	0.10%	(0.11%)	(0.05%)
Change due to PEPRAs new hires	(0.19%)	(0.12%)	(0.50%)	(0.47%)
Change due to salaries	0.01%	0.01%	0.16%	(0.08%)
Change due to effect of payroll on amortization	(0.16%)	(0.19%)	(0.38%)	1.43%
Change due to assumption changes	1.30%	1.40%	1.39%	0.72%
Change due to new employee contribution rates	<u>(0.58%)</u>	<u>(0.56%)</u>	<u>(0.73%)</u>	<u>(0.66%)</u>
Total change from current year's changes	0.81%	0.92%	0.83%	1.62%
FYE 2022 Net Employer Contribution Rate	30.53%	24.99%	48.35%	62.57%

Before adjusting for Plan experience during the year, there was an expected change in amortization rates due to the phase-in of payments on prior UAL gains, losses, and assumption changes. This reduced the contribution rates by 0.01% for the County and increased the contribution rates by 0.72% and 0.18% for Novato and San Rafael, respectively.

Plan experience during the year – including demographic and salary changes, as well as asset experience – resulted in a net increase in the overall employer contribution rate of 0.09% of pay (the total of the first five rows in the table above) before changes in assumptions are taken into account:

- Asset experience produced an investment loss.

The 3.48% return, compared to last year's 7.00% assumption, resulted in a loss that increased the contribution rate by 0.37% of pay in the current year. The impact for the County group was slightly cushioned by the drawdown of their remaining contingency reserve (\$19.1 million as of the beginning of the Plan year). The amortization payment for this year's investment losses will be phased-in over five years, resulting in similar increases in the employer contribution rates in each of the next four years.

- Demographic experience was close to expectations for all three groups.

The demographic experience of the Plan – rates of retirement, death, disability, and termination – was close to that predicted by the actuarial assumptions in aggregate. Rates

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increased due to demographic changes for the County and rates decreased for Novato, and San Rafael.

- PEPRA new hires reduced the contribution rates.

PEPRA members make up a growing proportion of the active member population, and they have lower benefits and generally contribute a larger share of their cost. PEPRA new hires decreased the contribution rate by 0.19%. As these changes only affect the normal cost, they are not subject to further phase-in.

- Changes in salaries and total payroll reduced the overall contribution rate.

Liability-weighted salary increases for continuing active members were higher than anticipated for the County and Novato and lower than expected for San Rafael, increasing the contribution rates by 0.01% for the County and 0.16% for Novato and reducing contribution rates by 0.08% for San Rafael. The amortization of these gains and losses will be phased-in over five years, resulting in similar increases in the contribution rate for each of the next four years.

In addition, the higher than expected payroll growth for the County and Novato meant that the UAL is being amortized over a larger than expected payroll base, which decreased the contribution rate by 0.19% for the County and 0.38% for Novato. The lower than anticipated payroll growth for San Rafael meant that its UAL is being amortized over a smaller than expected payroll base, which further increased the contribution rate by 1.43%. The changes in payroll do not affect the dollar amount of the unfunded liability payments, and therefore are not subject to further phase-in.

The net impact of salaries and payroll was a reduction in the current year contribution rate of 0.18% for the County and 0.22% for Novato, and an increase in the current year contribution rate of 1.35% for San Rafael.

- Changes in assumptions increased the contribution rates.

Demographic and economic assumptions changed, including a decrease in the discount rate (to 6.75%). Other changes included changes to the mortality, service retirement, disability, and termination rates. These changes increased the contribution rate by 1.40% of pay for the County, 1.39% for Novato, and 0.72% for San Rafael. These changes also resulted in increased employee contribution rates, by 0.56%, 0.73%, and 0.66% for the County, Novato, and San Rafael, respectively. The net impact on the employer rates was a 0.84%, 0.66%, and 0.06% increase for the County, Novato, and San Rafael, respectively. The impact of the assumption changes on the UAL payments for the employers will continue to be phased-in over the following two years.

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SECTION I – EXECUTIVE SUMMARY

Changes in UAL

The Unfunded Actuarial Liability (UAL) for MCERA increased by \$100.1 million, from \$399.4 million to \$499.5 million. Table I-5 below presents the specific components of the change in the UAL.

Table I-5				
Change in Unfunded Actuarial Liability				
(in millions)				
Experience	Total	County	Novato	San Rafael
1. Unfunded actuarial liability, 6/30/2019	\$ 399.4	\$ 237.5	\$ 24.7	\$ 137.2
2. Expected change in unfunded actuarial liability	(12.2)	(6.9)	(0.4)	(4.9)
3. Change due to unexpected contributions	(5.3)	(5.5)	(0.2)	0.3
4. Change due to investment loss	69.8	46.7	6.7	16.4
5. Change due to demographic (gains) / losses	12.9	9.9	2.0	1.2
6. Change due to salary (gains) / losses	1.2	1.8	1.1	(1.8)
7. Change due to assumption changes	<u>33.7</u>	<u>32.8</u>	<u>1.1</u>	<u>(0.2)</u>
8. Total change in unfunded actuarial liability	\$ 100.1	\$ 78.8	\$ 10.3	\$ 11.0
9. Unfunded actuarial liability, 6/30/2020	\$ 499.5	\$ 316.3	\$ 35.0	\$ 148.2

The dollar amount of contributions was slightly higher than expected due to the higher than expected pensionable payroll, which reduced the UAL by \$5.3 million (row 3).

The return on the assets was 3.48% during the 2019-20 plan year compared to last year's assumed rate of 7.00%, resulting in an increase in the UAL of \$69.8 million (row 4). The loss on assets compared to the assumed return was offset for the County as a result of the drawdown in their remaining Contingency Reserve (\$19.1 million).

Net salary losses in addition to other liability losses (rows 5 and 6 above) – including higher than expected retiree cost of living increases (COLAs) – increased the UAL by \$14.1 million.

The changes in assumptions as a result of an Experience Study increased the overall UAL by \$33.7 million as of the end of the year (row 7). All of the above combined with the expected UAL reduction (\$12.2 million) from contributions produced an overall increase of \$100.1 million in the UAL last year.

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SECTION I – EXECUTIVE SUMMARY

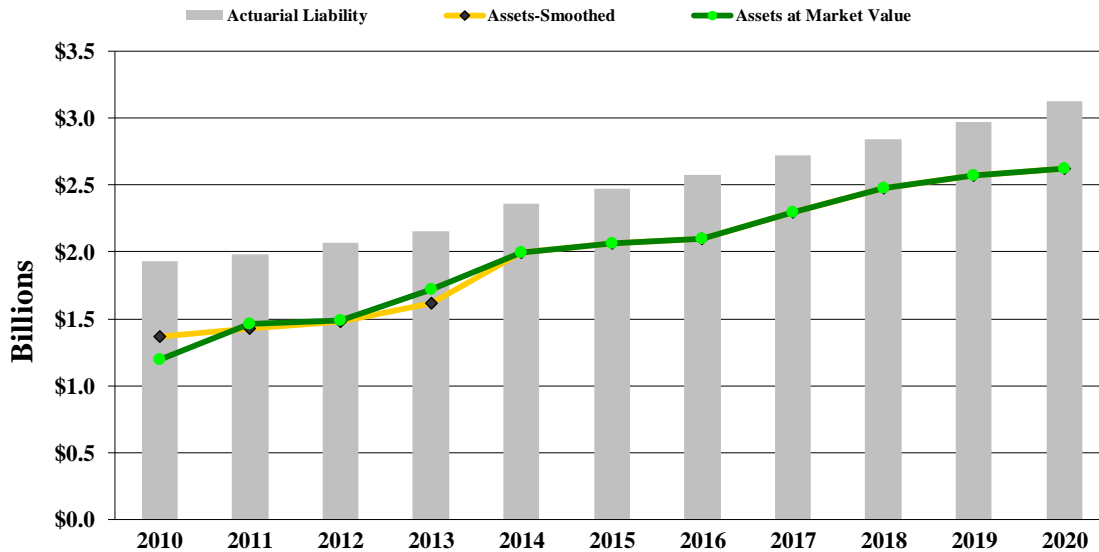
C. Historical Trends

For most retirement plans, the greatest attention is given to the current valuation results, but it is important to remember that each valuation is merely a snapshot in the long-term progress of a pension plan. It is more important to judge a current year's valuation result relative to historical trends, as well as trends expected into the future.

Assets and Liabilities

The chart below compares the Market Value of Assets (MVA) and Actuarial Value of Assets (AVA) to the Actuarial Liability for the overall MCERA Plan. The percentage shown in the table below the graph is the ratio of the Actuarial Value of Assets to the Actuarial Liability (the funded ratio). The funded ratio is 84.0% as of June 30, 2020, more than 13% higher than the 70.9% funded ratio in 2010, and calculated under significantly more conservative assumptions.

Chart I-1: Assets and Actuarial Liabilities



Valuation Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Funded Ratio	70.9%	72.1%	71.3%	75.1%	84.3%	83.7%	81.5%	84.4%	87.1%	86.6%	84.0%
UAL (Billions)	\$ 0.56	\$ 0.55	\$ 0.59	\$ 0.54	\$ 0.37	\$ 0.40	\$ 0.48	\$ 0.42	\$ 0.37	\$ 0.40	\$ 0.50

* Beginning in 2014, there is no smoothing of the asset value, thus AVA = MVA.

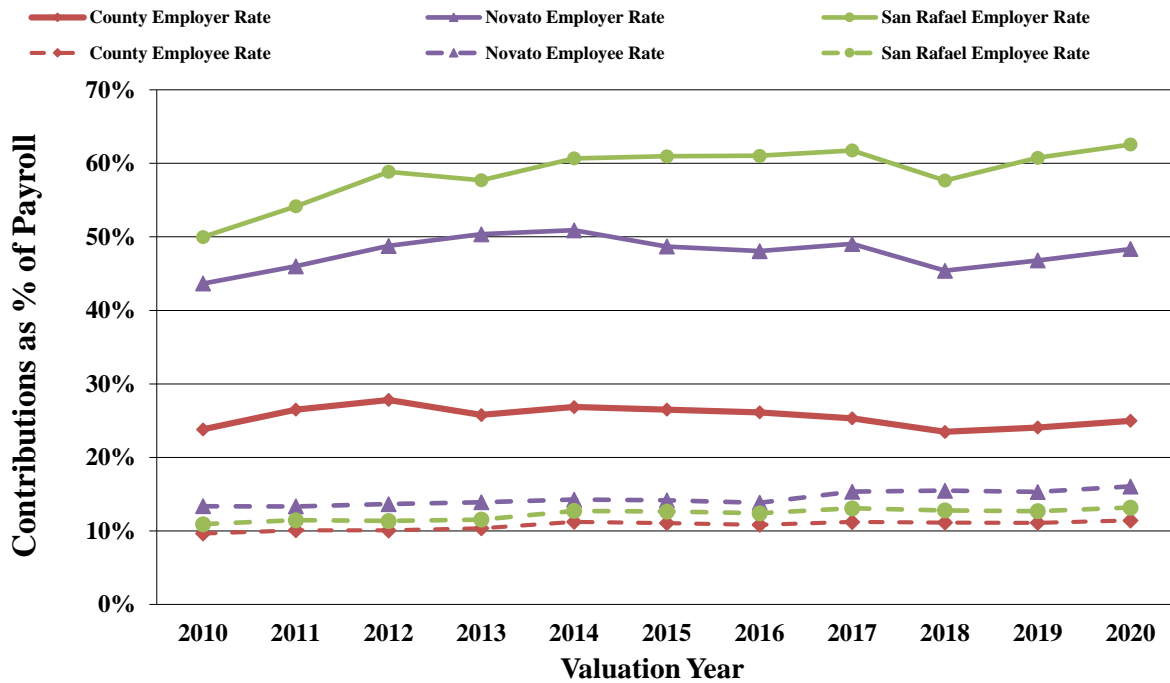
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Contribution Trends

Chart I-2 presents the historical trends for the MCERA contribution rates. The employer contribution rates rose steadily from 2008 through 2012, as the investment losses from 2008-2009 were recognized in the smoothed value of assets. Since then, employer contribution rates have remained relatively stable with overall decreases for the County and Novato and some additional increases for San Rafael, partially because of payroll increasing slower than expected. The average employee contribution rates have stayed relatively stable, increasing slightly as the Plan's economic and mortality assumptions have changed.

Chart I-2: Marin County Employees' Retirement Association



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D. Future Expected Financial Trends

The analysis of projected financial trends is an important component of this valuation. In this section, we present projections based on the June 30, 2020 valuation results of contributions, assets, and liabilities. All the projections in this section are based on the current investment return assumption of 6.75% and future base salary increases of 3.00% per year.

The following graphs show the expected employer contribution rates based on achieving the 6.75% assumption **each year** for the next 20 years. This scenario is highly unlikely: even if the Plan does achieve an **average** return of 6.75% over this time period, the returns in each given year will certainly vary.

The contribution rate graphs which follow – shown separately for the County, Novato, and San Rafael – project that employer contribution rates are expected to remain relatively stable through 2029, as the bulk of the current unfunded liability is amortized over this period as a level percentage of payroll. There is a small short-term increase in rates projected, as the deferred investment losses and recent assumption changes are recognized. There is also a moderate longer-term decline projected in the employer normal cost rates, primarily due to the PEPRAs members becoming a larger proportion of the active member population over time. A significant reduction in contribution rates is projected to occur in 2030, once the bulk of the unfunded liability from the original amortization base established in 2013 has been paid down.

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SECTION I – EXECUTIVE SUMMARY

Chart I-3: Projection of Contributions, 6.75% Return Each Year – County of Marin

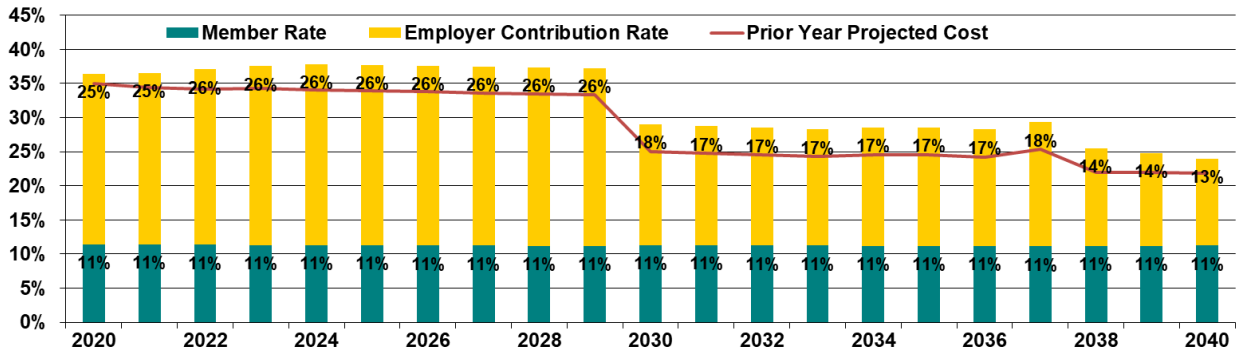


Chart I-4: Projection of Contributions, 6.75% Return Each Year – Novato FPD

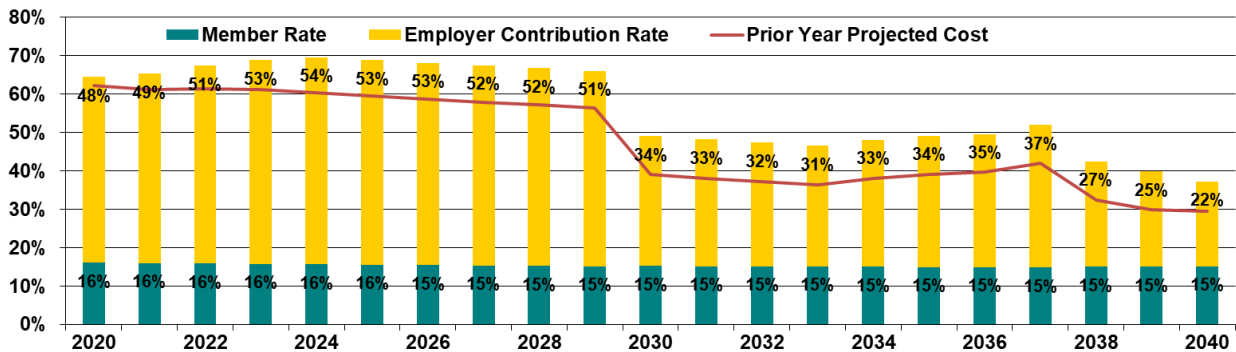
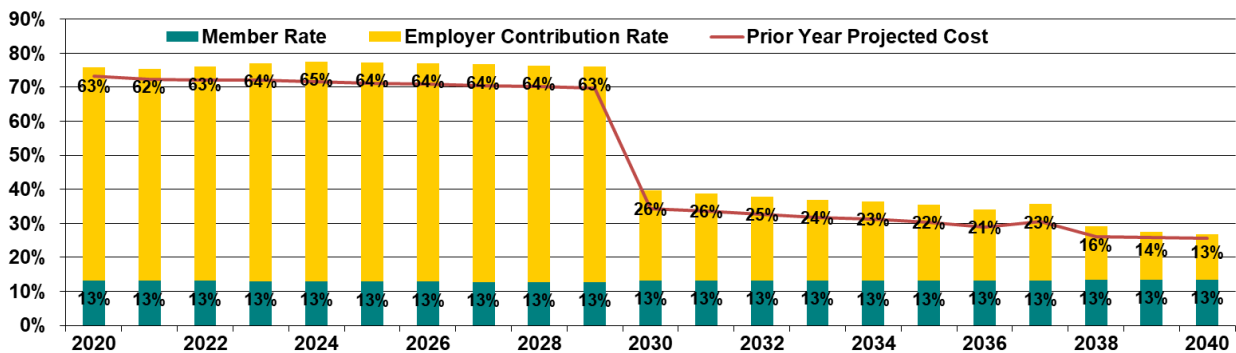


Chart I-5: Projection of Contributions, 6.75% Return Each Year – City of San Rafael



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Asset and Liability Projections

The following charts show the projection of assets and liabilities assuming that assets will earn the 6.75% assumption each year during the projection period, and the actuarially determined contributions shown in the projections above are made. The percentages shown at the top of the charts are the ratios of the Market Value of Assets to the Actuarial Liability (the funded ratios).

The charts on the next page show that the projected funded status increases to 100% over the next 15 to 20 years depending on the employer, assuming the actuarial assumptions are achieved. However, as above, it is the **actual** return on Plan assets that will determine the future funding status and contribution rate to the Plan.

The liabilities have been divided into those associated with the active employees and the inactive members (members in pay status or eligible to receive a deferred benefit). If the Plan's asset level drops below the liabilities for the inactive members, it indicates that no Plan assets have been set aside to fund future benefits for current active participants. The County and Novato currently have asset levels greater than their inactive liabilities. San Rafael's asset level is currently slightly below the level of the inactive liabilities, but is expected to exceed that level next year if all assumptions are met.

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SECTION I – EXECUTIVE SUMMARY

Chart I-6: Projection of Assets and Liabilities, 6.75% Return – County of Marin
 (\$ millions)

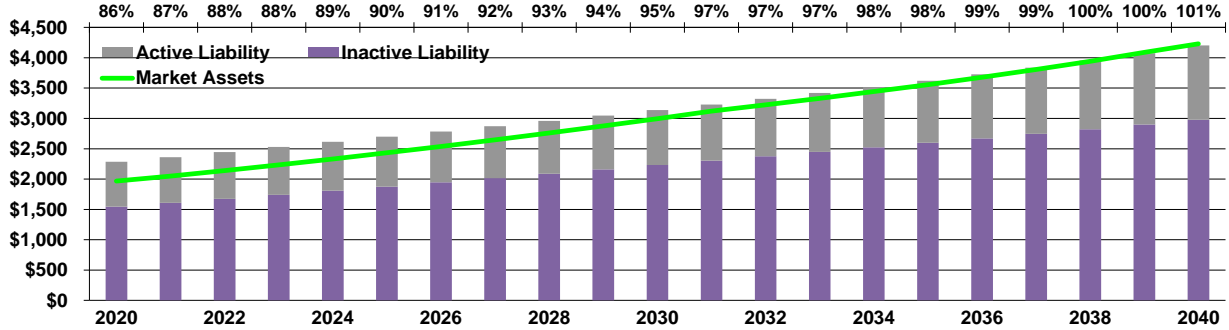


Chart I-7: Projection of Assets and Liabilities, 6.75% Return – Novato FPD
 (\$ millions)

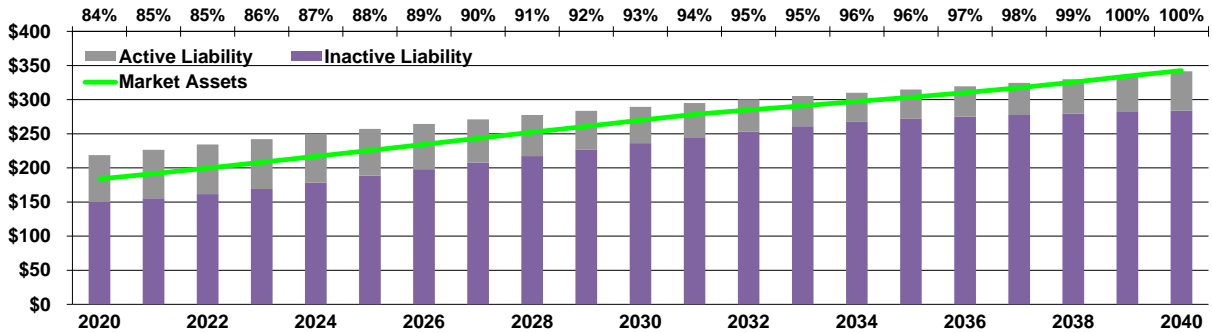
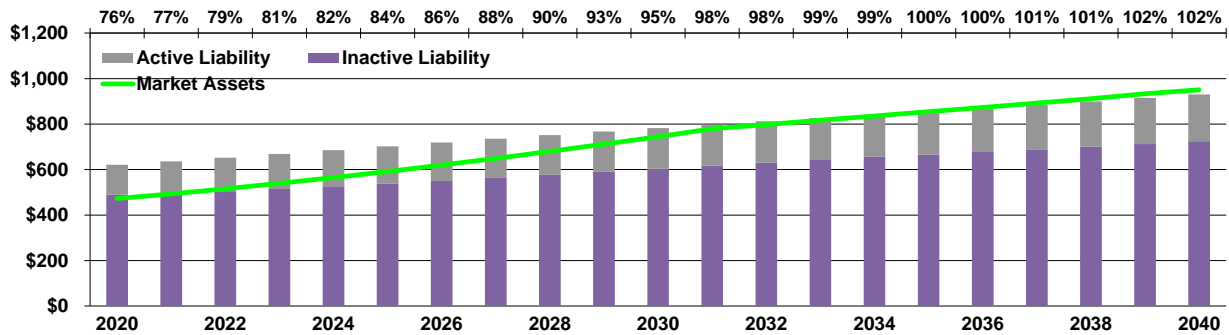


Chart I-8: Projection of Assets and Liabilities, 6.75% Return – City of San Rafael
 (\$ millions)



SECTION II – RISK ANALYSIS

Actuarial valuations are based on a set of assumptions about future economic and demographic experience. These assumptions represent a reasonable estimate of future experience, but actual future experience will undoubtedly be different and may vary significantly.

Actuarial Standard of Practice No. 51 requires actuaries to identify and assess risks that “may reasonably be anticipated to significantly affect the plan’s future financial condition.” This section of the report identifies the primary risks to the Plan, provides some background information about those risks, and assesses those risks.

Identification of Risks

A fundamental risk to a pension plan is that the contributions needed to pay the benefits become unaffordable. While we believe, it is unlikely that the Plan by itself would become unaffordable, the contributions needed to support the Plan may differ significantly from expectations. While there are a number of factors that could lead to contribution amounts deviating from expectations, we believe the primary risks are:

- Investment risk,
- Assumption change risk, and
- Contribution risk.

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

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

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

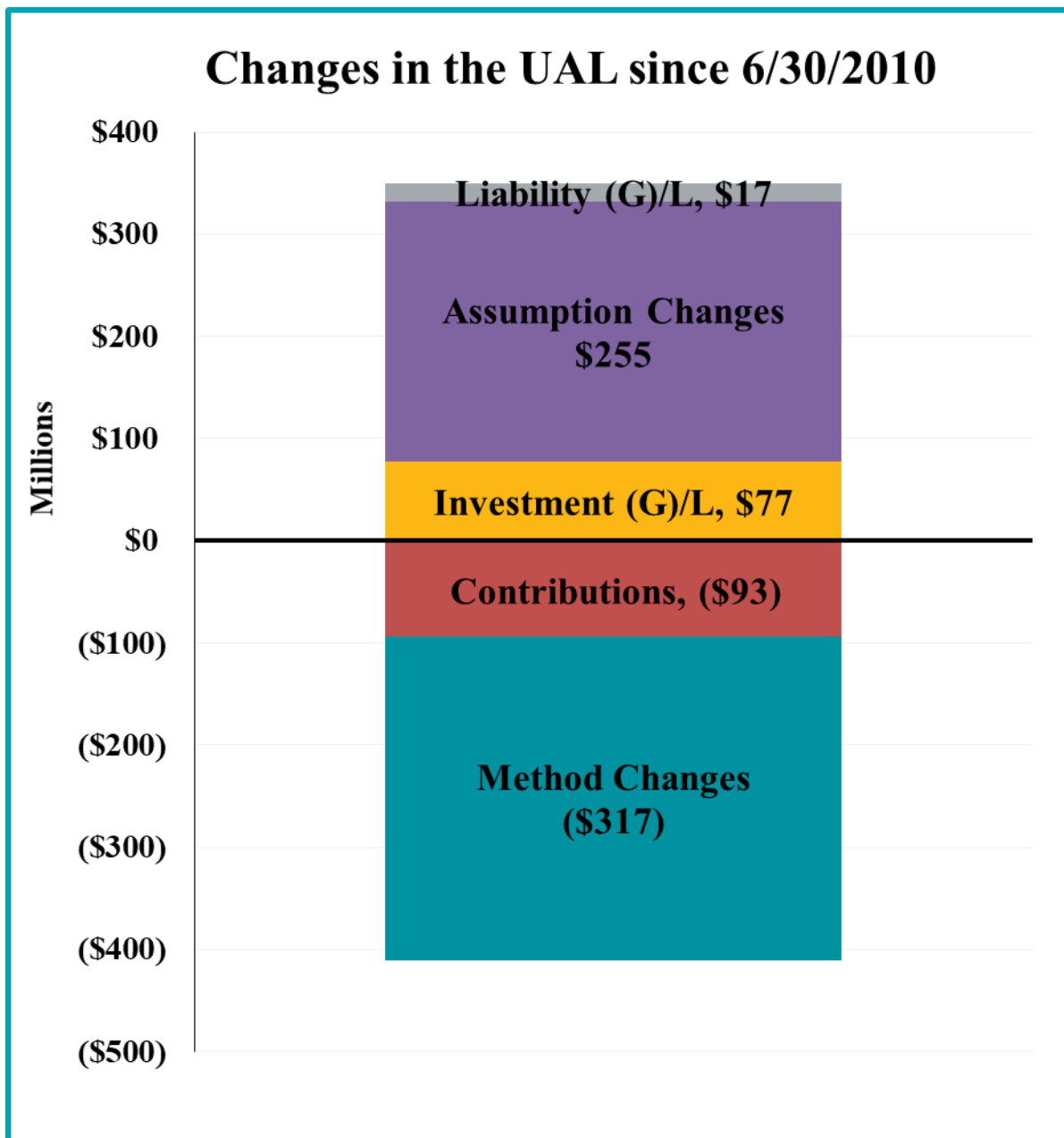
Contribution risk is the potential for actual future contributions to deviate from expected future contributions. There are different sources of contribution risk such as the contribution requirement becoming such a financial strain on the sponsor as a result of material changes in the contribution base (e.g., covered employees, covered payroll) that affect the amount of contributions the Plan can collect.

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SECTION II – RISK ANALYSIS

The chart below shows the components contributing to the Unfunded Actuarial Liability (UAL) from June 30, 2010 through June 30, 2020. Over the last 10 years, the UAL has decreased by approximately \$61 million. The decrease is primarily due to method changes (teal bar) of \$317 million (about \$205 million of which actually represent deferred investment gains from 2009-2014 that were fully recognized in 2014) and contributions in excess of the “tread water” level (red bar) of \$93 million. The assumption changes (purple bar) of \$255 million, other investment losses (gold bar), and net liability losses (gray bar) have increased the UAL since June 30, 2010.

Chart II-1

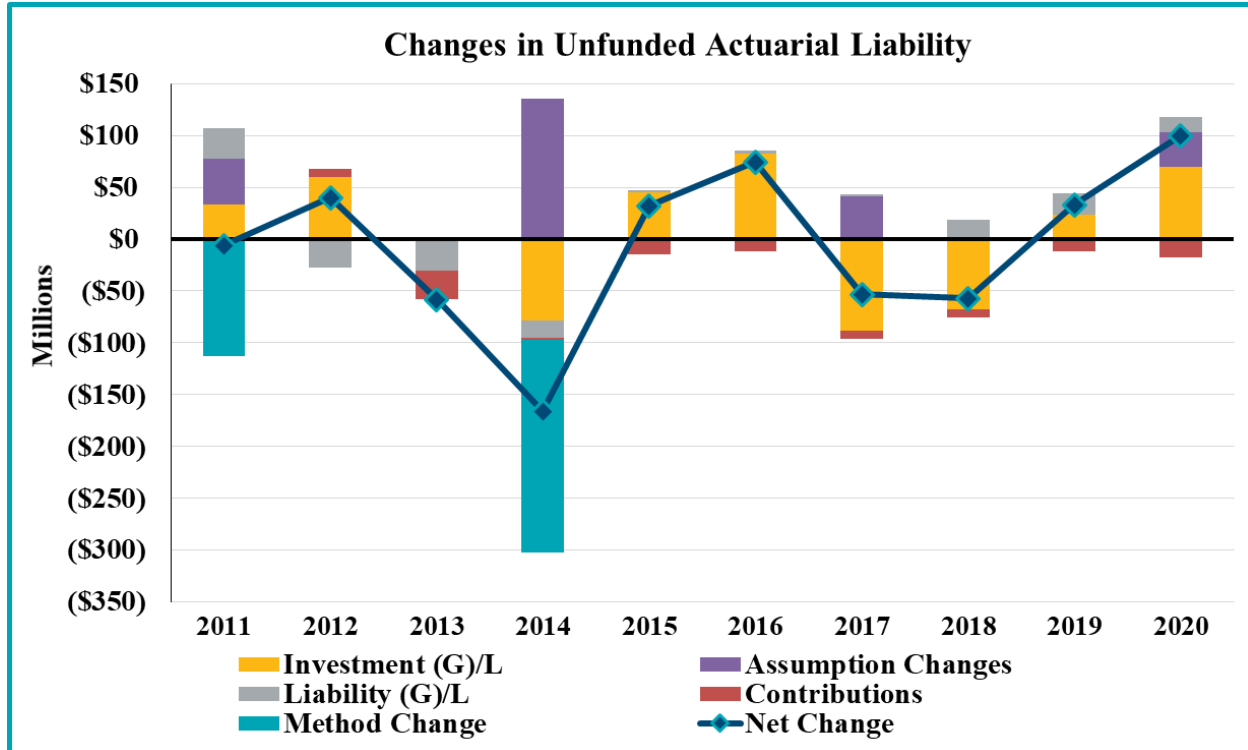


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SECTION II – RISK ANALYSIS

Chart II-2 below details the annual sources of the UAL change (colored bars) for the plan years ending December 31. The net UAL change for each year is represented by the blue diamonds.

Chart II-2



Effective with the June 30, 2011 valuation, the actuarial cost method was modified from the Entry Age Normal-to-Decrement method to the Entry Age Normal-to-Final-Decrement method to comply with the accounting standards issued by the Government Accounting Standards Board. The impact of this was to shift some of the liability from past service to future, thereby decreasing the actuarial accrued liability and increasing the normal cost.

Effective with the June 30, 2014 valuation, the Board adopted a direct rate smoothing policy. As a result, the smoothed Actuarial Value of Assets was replaced with the Market Value of Assets for valuation purposes, and any unexpected change in the UAL is amortized over a closed period with ramp up and ramp down periods. A full description of these methods can be found in Appendix B. This change in funding policy materially reduced the UAL, as at the time there were significant deferred investment gains not yet reflected in the Actuarial Value of Assets. These deferred gains would have been recognized in subsequent years under the prior method.

On a valuation assets basis, there were losses on investments in 2011, 2012, 2015, 2016, 2019, and 2020 offset by gains in 2013, 2014, 2017, and 2018, resulting in overall UAL losses. Prior to 2014, the investment gains and losses were measured on a smoothed basis; since 2014 investment gains and losses have been measured based on the return on the Market Value of Assets. As noted above, the gain from the 2014 method change was a recognition of investment

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SECTION II – RISK ANALYSIS

gains that had been deferred under the asset smoothing method. Adding those investment gains to the total net losses for the last 10 years produces an overall UAL gain due to investment returns.

Over the same time period, the assumed rate of return decreased from 7.75% to 6.75%. It is important to note that these changes simply reflect a downward revision to the estimate of future investment earnings and ultimately costs will be determined by actual investment earnings. Future expectations of investment returns may continue to decline necessitating further reductions in the discount rate.

The impact of all assumption changes is represented by the purple bars and includes decreases in mortality rates projected in the future which had a significant impact on the measurement of the UAL in 2014. Assumptions changed again in 2020 as a result of the recent experience study.

Each year, the UAL is expected to increase for benefits earned in the current year (the normal cost), administrative expenses, and interest on the UAL. This expected increase is referred to as the tread water cost. If contributions are greater than the tread water cost, the UAL is expected to decrease. Conversely, if contributions are less than the tread water cost, the UAL is expected to increase. The amortization policy (as well as the contribution-timing lag) can impact whether or not the contributions exceed the tread water cost. For example, the Board changed the amortization policy in 2009 to amortize 50% of the extraordinary asset loss over a 30-year period and the remaining UAL over a 17-year period. Initially, the relatively long amortization period resulted in contributions being below the tread water cost.

However, the average (or single equivalent) amortization period is now much lower (just over 15 years), and for the last eight years there have been payments made toward principal as well as interest on the current UAL.

Table II-1

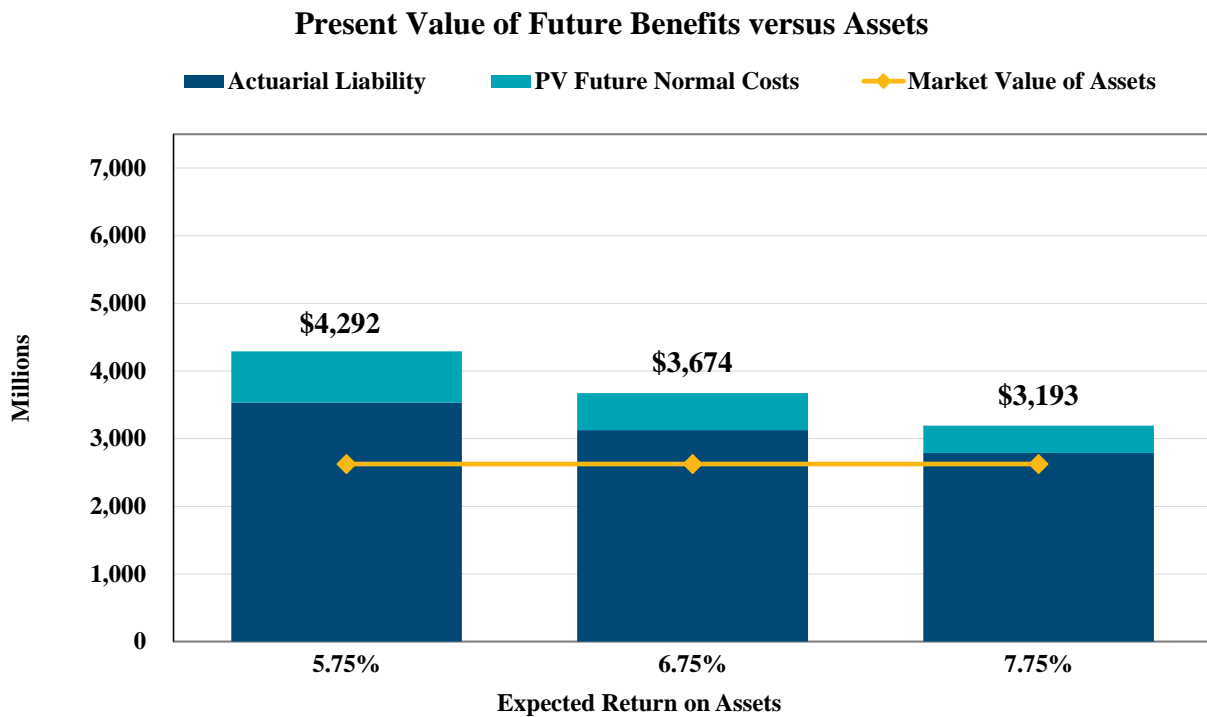
Unfunded Actuarial Liability (UAL) Change by Source						
(in thousands)						
June 30,	Investment Experience	Liability Experience	Assumption Changes	Method Changes	Contributions	Total UAL Change
2011	33,317	28,853	44,785	(112,861)	(236)	(6,142)
2012	60,319	(27,934)	0	0	7,741	40,126
2013	(1,645)	(29,202)	0	0	(27,253)	(58,100)
2014	(78,889)	(16,820)	135,957	(204,619)	(1,830)	(166,201)
2015	44,750	2,581	0	0	(15,152)	32,179
2016	82,195	3,639	0	0	(11,571)	74,263
2017	(88,225)	2,294	40,802	0	(8,217)	(53,346)
2018	(67,931)	18,644	0	0	(8,014)	(57,301)
2019	23,347	20,910	0	0	(11,287)	32,970
2020	69,812	14,150	33,674	0	(17,578)	100,058
Total	\$77,050	\$17,115	\$255,218	(\$317,480)	(\$93,397)	(\$61,494)

SECTION II – RISK ANALYSIS

Assessing Costs and Risks

Sensitivity to Investment Returns

The chart below compares assets to the present value of all projected future benefits discounted at the current expected rate of return and at discount rates 100 basis points above and below the expected rate of return. The present value of future benefits is shown as a bar with the portion attributable to past service in dark blue (Actuarial Liability) and the portion attributable to future service in teal (Present Value of Future Normal Costs). The Market Value of Assets is shown by the gold line.



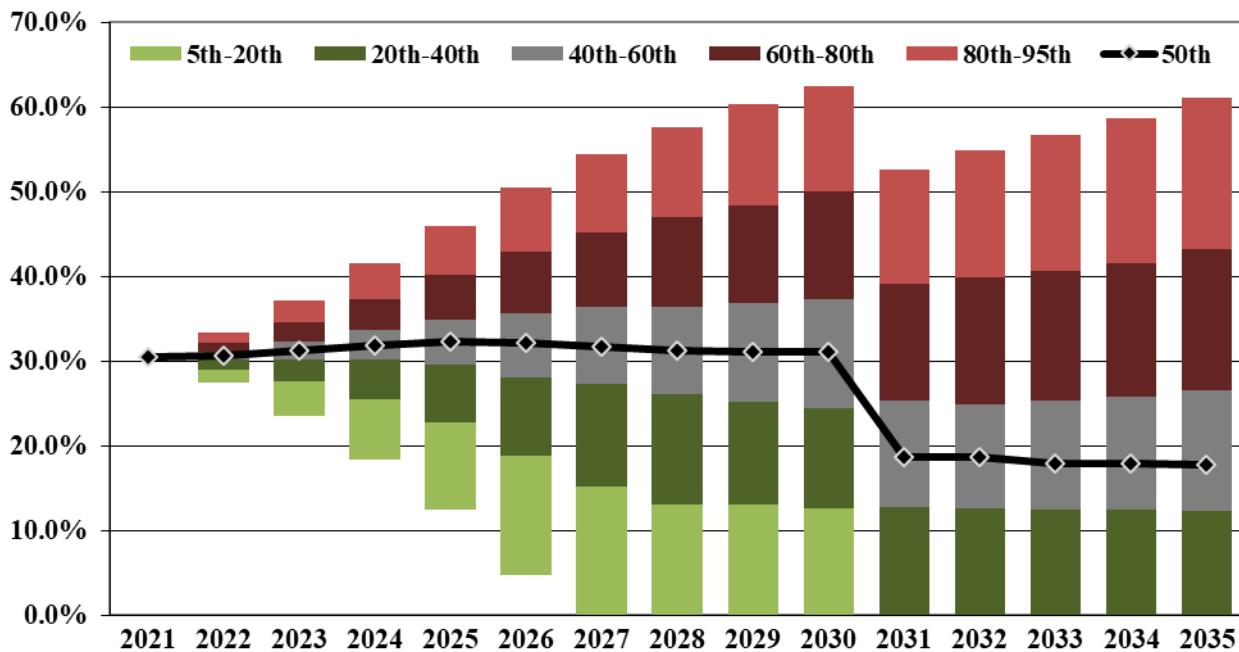
If investments return 6.75% annually, the Plan would need approximately \$3.7 billion in assets today to pay all projected benefits compared to current assets of \$2.6 billion. If investment returns are only 5.75%, the Plan would need approximately \$4.3 billion in assets today, and if investment returns are 7.75%, the Plan would need approximately \$3.2 billion in assets today.

SECTION II – RISK ANALYSIS

Sensitivity to Investment Returns – Stochastic Projections

Stochastic projections show the range of probable outcomes of various measurements. The graphs below and on the following page show the projected range of the employer contribution rate (calculated for MCERA in aggregate) and of the funded ratio. The range in both scenarios is driven by the volatility of investment returns, using a 12.6% assumed standard deviation of annual returns (based on the average from various investment consultants reported in the most recent experience study). The stochastic projections of investment returns are based on an assumption that each future year's investment return is independent from all other years and is identically distributed according to a lognormal distribution. This assumption may result in an unrealistically wide range of compound investment returns over longer periods.

Stochastic Projection of Employer Contributions as a Percent of Pay

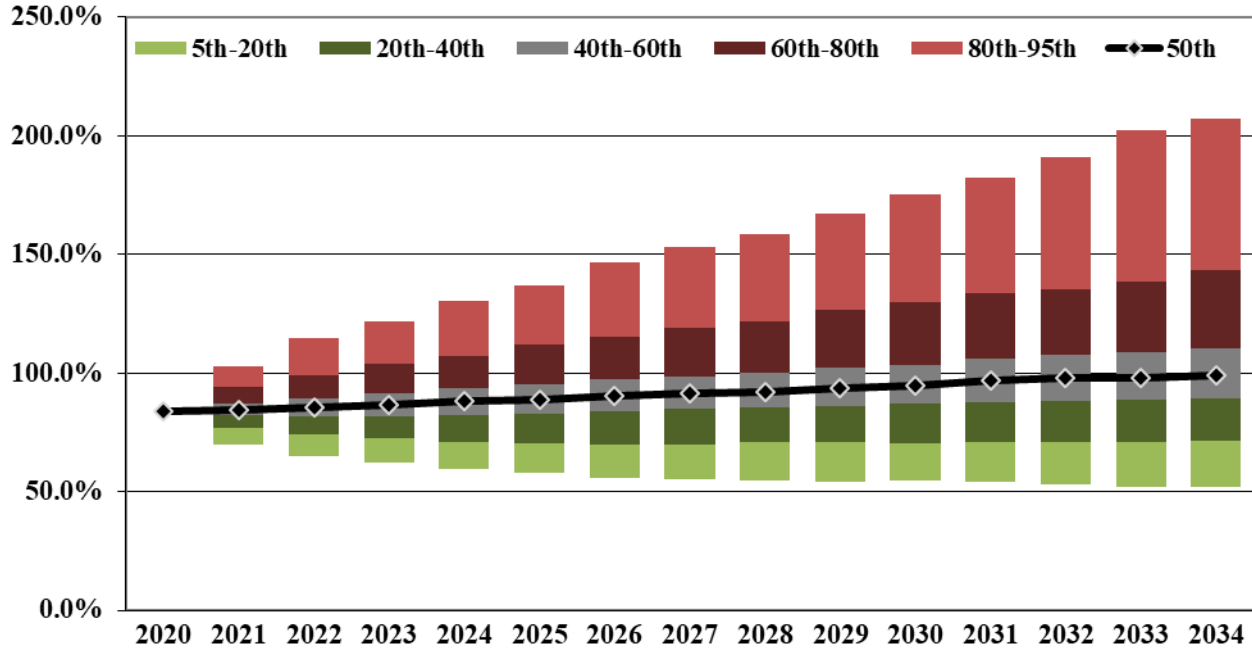


The stochastic projection of employer contributions as a percent of pay shows the probable range of future contribution rates. The baseline contribution rate (black line), which is based on the median of the simulations using an average return of 6.75%, aligns closely with the projections discussed in subsection D. of the Executive Summary of this report. In the most pessimistic scenario shown, the 95th percentile, the projected employer contribution rate exceeds 60% of pay in 2030. Conversely, the most optimistic scenario shown, the 5th percentile, the projected employer contribution rate declines to 0% beginning in 2027. We note that these projections allow the employer contribution to drop below the normal cost only if the Plan becomes extremely over-funded (above 120%), as required under PEPRA.

SECTION II – RISK ANALYSIS

In addition, as noted above, these projected contributions are calculated as the average across all MCERA employers. The projected contribution rates for some of the individual employers – in particular for the City of San Rafael and for the individual Safety districts – will exhibit significantly more rate volatility due to their higher leverage ratios, as discussed later in this section.

Stochastic Projection of Funded Ratio on a Market Value of Assets Basis



The graph above shows the projection of the MCERA funded ratio based on the Market Value of Assets. While the baseline-funded ratio (black line) is projected to be approximately 100% at the end of the 15-year period, there is a wide range of potential outcomes. Good investment returns have the likelihood of bringing the funded ratio well over 100%. Due to the current funding policy of the Plan, even in scenarios with unfavorable investment returns, the Plan is projected to remain over 50% funded, as long as the actuarially determined contributions continue to be made.

Contribution Risk

While investment returns are typically the dominant factor in volatility, contribution rates can also be sensitive to future salary increases and the hiring of new members. When member payroll growth stagnates or even declines, the dollar level of contributions made to the Plan also stagnate or decline since contributions are based on payroll levels, though this will generally be updated with each valuation and only presents a funding issue if there is an extended period of payroll reductions.

SECTION II – RISK ANALYSIS

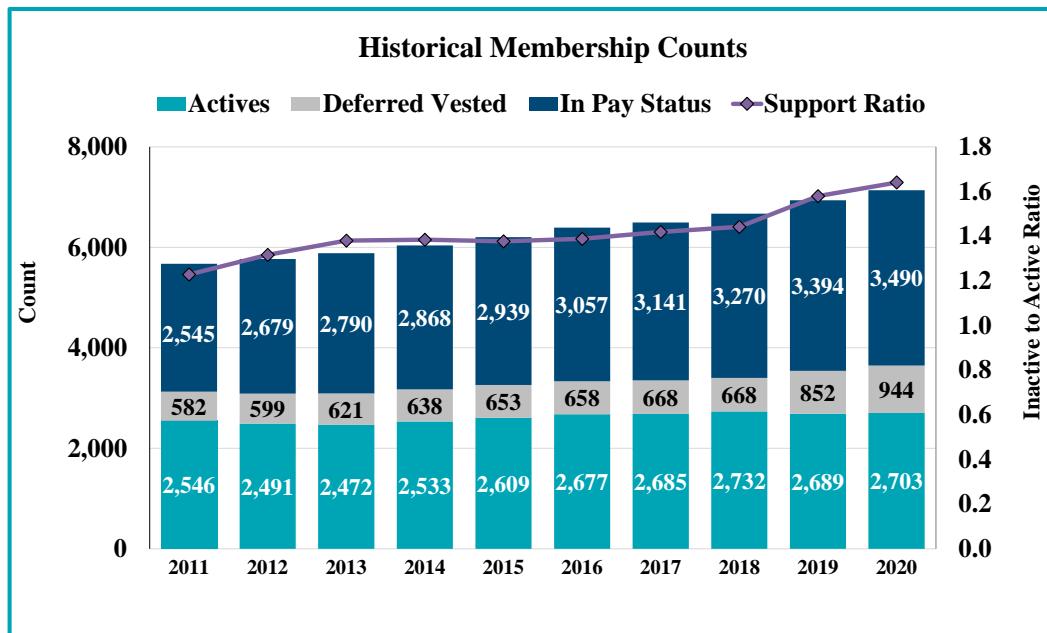
There is also a risk of the contribution rate increasing even higher when payroll decreases since the Plan’s funding policy amortizes the UAL as a level percentage of pay. This means that the UAL payments increase at the assumed payroll growth rate of 2.75%, so that the payment is expected to remain constant as a percentage of payroll. If payroll growth is less than the expected 2.75% or there is a decline in payroll, the UAL payments are spread over a smaller payroll base and the contribution rate as a percentage of pay increases, making the Plan less affordable for those sponsors with declining payroll bases (such as was seen in the current valuation for San Rafael).

Plan Maturity Measures

The future financial condition of a mature pension plan is more sensitive to each of the risks identified above than a less mature plan. As part of assessing each of these risks, it is important to understand the maturity of the Plan and how the maturity has changed over time. Plan maturity can be measured in a variety of ways, but they all get at one basic dynamic – the larger the plan is compared to the contribution or revenue base that supports it, the more sensitive the plan will be to risk. The measures below have been selected as the most important in understanding the primary risks identified for the Plan.

Inactives per Active (Support Ratio)

One simple measure of plan maturity is the ratio of the number of inactive members (those receiving benefits and those entitled to a deferred benefit) to the number of active members. The Support Ratio is expected to increase gradually as a plan matures. The chart below shows the growth in the Support Ratio from 2011 to 2020. The inactive membership level was about 115% of the active membership level in 2011, so the Support Ratio was approximately 1.15. Over the past 10 years, the growth in retired membership has exceeded the growth in active membership, increasing the Support Ratio to approximately 1.6. That means for 2020, there are approximately 1.6 inactive members per active member.

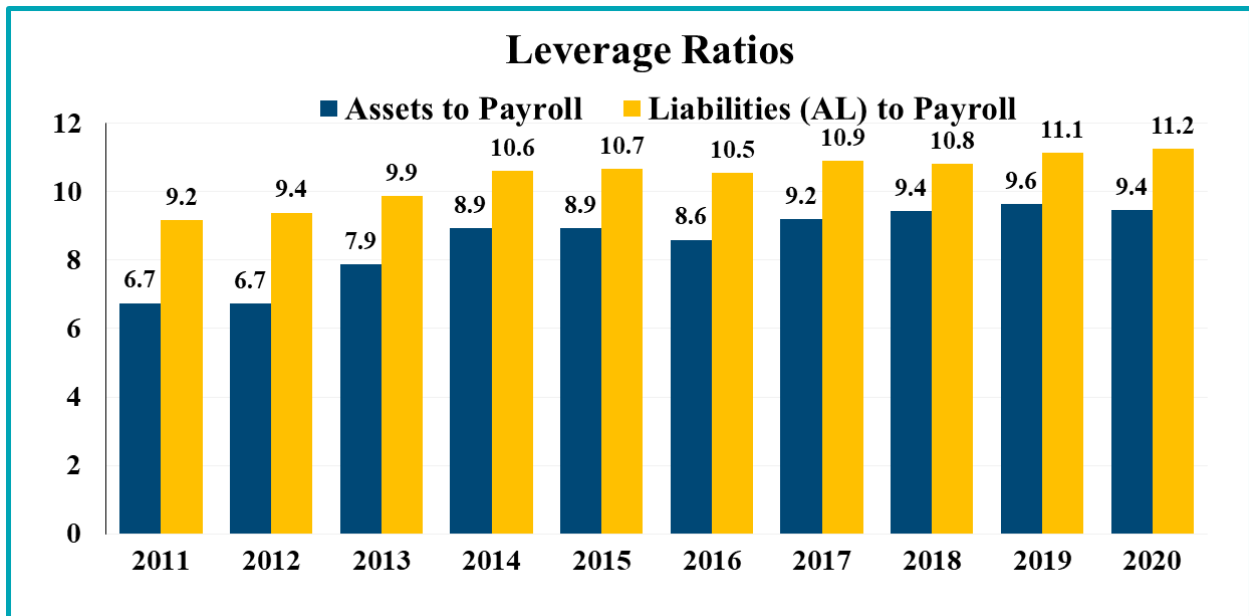


SECTION II – RISK ANALYSIS

Leverage Ratios

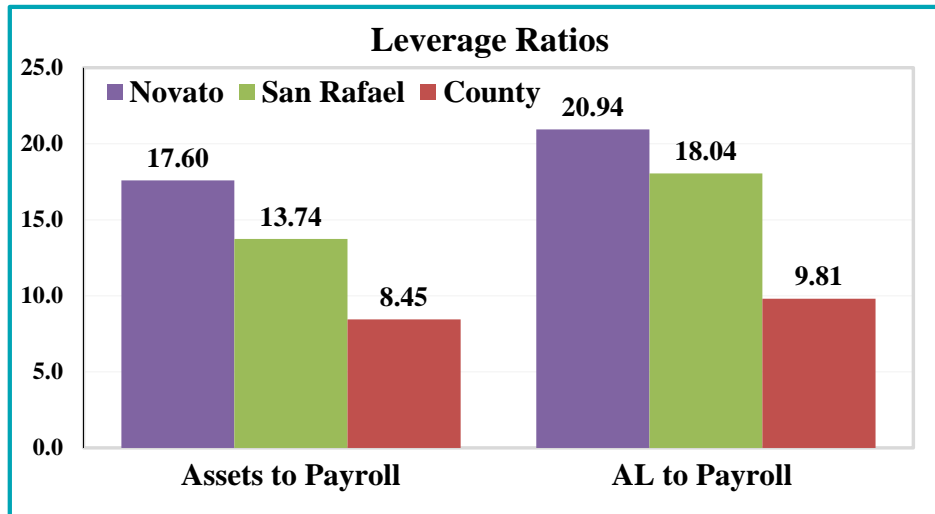
Leverage or volatility ratios measure the size of the plan compared to its revenue base more directly. The asset leverage ratio is simply the Market Value of Assets to active member payroll and indicates the sensitivity of the Plan to investment returns. The liability leverage ratio is the plan's Actuarial Liability to active member payroll and indicates the sensitivity of the Plan to assumption changes or demographic experience.

The chart below shows the historical leverage ratios of the Plan. Both leverage ratios have increased substantially since 2012.



As the Plan becomes better funded, the asset leverage ratio will increase. If it was 100% funded, the asset leverage ratio would be close to 11.2 times payroll, or the Actuarial Liability (AL) leverage ratio.

SECTION II – RISK ANALYSIS



We note in the chart above that assets are currently over eight times covered payroll for the County, the ratio is nearly 14 for San Rafael, and nearly 18 for Novato. As funding improves and the Plan reaches 100% funding, the ratio of assets to payroll will increase: to nearly 10 times payroll for the County, 18 for San Rafael, and nearly 21 for Novato.

To appreciate the impact of the ratio of assets to payroll on the contribution rate, consider the situation for a new plan with almost no assets. Even if the assets suffer a bad year of investment returns, the impact on the plan cost is nil because the assets are so small.

On the other hand, consider the situation for the County. Suppose MCERA's assets lose 10.0% of their value in a year. Since assets were assumed to earn 6.75%, there is an actuarial loss of 16.75% of plan assets. Based on the current ratio of assets to payroll (845%) for the County, that means the loss in assets is about 142% of active County payroll (845% of the 16.75% loss).

There is only one source of funding to make up for this loss: contributions. Consequently, barring future offsetting investment gains, the County and special district employers would have to make up the asset loss in future contributions. In this example of a one-year loss of 10.0%, this shortfall will eventually require an average additional amortization payment of approximately 11.1% of payroll once fully phased-in under the Plan's current amortization policy.

As the plan matures and becomes better funded, the ratio of assets to payroll will increase. When assets are 981% of pay for the County, the 10.0% loss discussed above will translate to a loss of 164% of payroll, which when amortized will increase the employer contribution rate by 12.8% once fully phased-in. Therefore, the plan is likely to become more sensitive to market variation in the future than it is today.

The expected contribution volatility is higher for San Rafael and Novato due to their higher relative number of Safety members who receive higher benefits relative to their payroll, and more mature populations. A 10.0% loss for San Rafael would currently translate to a loss of 230% of pay, which would require an eventual 18.0% of pay amortization payment. The same loss for Novato would translate to a loss of 295% of pay, requiring a 23.0% of pay payment once phased-in.

SECTION II – RISK ANALYSIS

More Detailed Assessment

While a more detailed assessment is always valuable to enhance the understanding of the risks identified above, we believe the scenarios illustrated cover the primary risks facing the Plan at this time. We would be happy to provide the Board with a more in-depth analysis at their request.

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SECTION III – ASSETS

Pension Plan assets play a key role in the financial operation of the Plan and in the decisions the Board may make with respect to future deployment of those assets. The level of assets, the allocation of assets among asset classes, and the methodology used to measure assets will likely impact employer contributions and the ultimate security of participants' benefits.

In this section, we present detailed information on Plan assets including:

- **Disclosure** of Plan assets as of June 30, 2019 and June 30, 2020,
- Statement of the **changes** in market values during the year,
- An assessment of historical **investment performance versus inflation**, and
- An allocation of the assets between the **employers and their valuation subgroups**.

Disclosure

The Actuarial Value of Assets is equal to the Market Value of Assets. The market value represents “snap-shot” or “cash-out” values that provide the principal basis for measuring financial performance from one year to the next. Market values, however, can fluctuate widely with corresponding swings in the marketplace.

The valuation assets are equal to the market/actuarial value, minus any non-valuation reserves that are to be excluded from the calculation of the Unfunded Actuarial Liability. For MCERA, the only such non-valuation reserves are the Statutory Contingency Reserves, which are established and maintained in accordance with Government Code section 31592.2 and the Plan's Interest Crediting Policy.

Table III-1 on the next page discloses asset value as of June 30, 2019 and June 30, 2020.

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
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SECTION III – ASSETS

Table III-1 Statement of Assets at Market Value		
Assets:	June 30, 2019	June 30, 2020
Cash and Cash Equivalents	\$ 37,208,516	\$ 81,155,193
Collateral held for Securities Loaned	50,460,741	38,566,008
Total Cash and Short Term Investments	<u>87,669,257</u>	<u>119,721,201</u>
Receivables:		
Contributions	5,407,235	4,286,708
Interest and Dividends	3,238,825	2,996,029
Due from Brokers for Securities Sold	7,708,555	5,925,680
Other Receivables	970,825	1,151,365
Total Receivables	<u>17,325,440</u>	<u>14,359,782</u>
Investments, at Fair Value:		
Domestic Fixed Income	416,276,932	494,927,212
International Fixed Income	70,117,793	59,844,678
Domestic Equities	808,156,989	729,940,946
International Equities	579,503,649	558,370,697
Private Equity	269,766,773	301,423,512
Real Estate	283,865,908	271,490,961
Real Assets	126,982,871	122,868,800
Total Investments	<u>2,554,670,915</u>	<u>2,538,866,806</u>
Other Assets:		
Capital Assets	5,117,829	6,117,956
Prepaid Insurance	74,234	80,466
Total Assets	<u>2,664,857,676</u>	<u>2,679,146,211</u>
Liabilities:		
Accounts Payable and Accrued Expenses	1,695,561	1,438,717
Due to Brokers for Securities Purchased	20,304,782	13,814,596
Retiree Payroll Payable	11,008	12,025
Obligations Under Securities Lending Program	50,460,741	38,566,008
Total Liabilities	<u>72,472,092</u>	<u>53,831,346</u>
Net Assets Held in Trust for Pension Benefits	\$ 2,592,385,584	\$ 2,625,314,865
Statutory Contingency Reserve (County)	19,105,640	0
Statutory Contingency Reserve (Novato)	0	0
Statutory Contingency Reserve (San Rafael)	0	0
Total Non-Valuation Reserves	<u>19,105,640</u>	<u>-</u>
Market Value of Valuation Assets	\$ 2,573,279,944	\$ 2,625,314,865

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
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SECTION III – ASSETS

Changes in Market Value

The components of asset change are:

- Contributions (employer and employee)
- Benefit payments
- Expenses (investment and administrative)
- Investment income (realized and unrealized)

Table III-2 below shows the components of changes in the Market Value of Assets during the fiscal years ending June 30, 2019 and June 30, 2020.

Table III-2 Changes in Market Values		
<u>Additions</u>	Fiscal Year ending <u>June 30, 2019</u>	Fiscal Year ending <u>June 30, 2020</u>
Contributions		
Employers' Contributions	\$ 78,738,814	\$ 75,643,075
Members' Contributions	<u>30,010,459</u>	<u>30,913,997</u>
Total Contributions	108,749,273	106,557,072
Investment Income		
Net Appreciation/(Depreciation) in Fair Value of Investments	110,011,373	56,097,629
Interest and Dividends	23,907,650	30,734,770
Real Estate Operating Income, net	13,706,707	13,773,602
Other Investment Income	<u>1,196,750</u>	<u>797,259</u>
Total Investment Income/(Loss)	148,822,480	101,403,260
Investment Expenses	<u>(12,500,905)</u>	<u>(12,341,144)</u>
Net Investment Income/(Loss)	136,321,575	89,062,116
Securities Lending Activities		
Net Securities Lending Income/(Loss)	161,938	211,380
Total Investment Income/(Loss)	136,483,513	89,273,496
Total Additions/(Declines)	<u>\$ 245,232,786</u>	<u>\$ 195,830,568</u>

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
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SECTION III – ASSETS

**Table III-2
Changes in Market Values (Continued)**

<u>Deductions</u>	<u>Fiscal Year ending June 30, 2019</u>	<u>Fiscal Year ending June 30, 2020</u>
Benefit payments	147,990,796	157,185,816
Refunds of Members' Contributions	1,222,187	1,107,711
Administrative Costs	4,109,428	3,731,976
Legal Costs & Litigation Settlement	467,249	384,080
Computer Expenses	223,065	339,025
Actuarial Expenses	256,608	152,679
Total Deductions	154,269,334	162,901,287
 Net increase (Decrease)	 90,963,452	 32,929,281
 Net Assets Held in Trust for Pension Benefits		
Beginning of Year	2,501,422,132	2,592,385,584
End of Year	2,592,385,584	2,625,314,865
 Approximate Return (Net of Investment Expenses)*	 5.5%	 3.5%

**The approximate return is computed using an assumption that cash flows occur mid-year, on average. This calculation will not necessarily match the actual time- or money-weighted returns of the Plan.*

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
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SECTION III – ASSETS

Historical Investment Performance

Table III-3 shows the historical annual asset returns on a market value basis, as well as the increase in the Consumer Price Index (CPI) since 2007.

Table III-3 Net Return on Assets vs. Increase in Consumer Price Index		
Year Ended June 30	Net Return at Market Value	Increase in Consumer Price Index*
2007	18.1%	3.4%
2008	-6.7%	4.2%
2009	-19.8%	0.2%
2010	8.2%	1.1%
2011	23.4%	2.4%
2012	1.6%	2.6%
2013	13.9%	2.6%
2014	18.1%	3.0%
2015	5.0%	2.3%
2016	2.1%	2.7%
2017	11.9%	3.5%
2018	9.7%	3.9%
2019	5.5%	3.2%
2020	3.5%	1.6%
10-Year Compound Average	9.2%	2.8%
5-Year Compound Average	6.5%	3.0%

*Based on Consumer Price Index for San Francisco-Oakland-Hayward Area (1982-1984 base period).

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
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SECTION III – ASSETS

Asset Allocation by Valuation Subgroup

Table III-4 below shows the allocation of the valuation assets between the employers and their valuation subgroups (Miscellaneous vs. Safety). These allocations are based on a roll-forward of the asset balances from the prior year, adjusted for employee and employer contributions, and are used to calculate the UAL amortizations for each employer and subgroup. Assets are first allocated to cover the liabilities for inactive members (members in pay status or eligible to receive a deferred benefit), and any remaining assets are allocated to each group's active members based on the employer's share of the rolled-forward balances.

The top portion of the table shows the allocations for the active members of each employer. A negative balance indicates that the allocated assets are not sufficient to cover a group's inactive liabilities. The bottom portion of the table shows the total asset allocation (active and inactive) for each of the three main subgroups.

The column on the right shows the funded ratios. For the top portion of the table, the funded ratio is the percentage of the active liabilities covered by the valuation assets. For the bottom portion, the funded ratio represents the total funded ratio for each group.

Table III-4 Market Assets and Funding Ratios - Active Members Only					
Plan	Group	Assets 2019	Ratios 2019	Assets 2020	Ratios 2020
County	County Misc	\$ 285,294,364	66.8%	\$ 262,024,959	58.8%
	County Safety	127,389,742	64.7%	117,622,212	55.1%
	Courts	17,886,315	68.1%	16,083,546	58.2%
	South Marin Fire Misc	282,902	84.2%	306,124	61.2%
	South Marin Fire Safety	16,033,172	58.1%	15,441,445	47.0%
	Mosquito District	8,059,467	56.5%	7,455,969	49.3%
	LAFCO	157,002	84.9%	42,720	100.0%
	Tamalpais CSD	2,355,455	89.8%	2,268,561	84.8%
	Marin City CSD	232,525	100.0%	49,357	100.0%
	Novato	Novato Misc	2,367,265	75.1%	2,486,224
Novato Safety		39,285,697	62.2%	31,167,749	47.9%
San Rafael	San Rafael Misc	(2,893,222)	(5.1%)	(9,349,241)	(17.3%)
	San Rafael Safety	(2,721,713)	(3.7%)	(7,835,174)	(10.2%)

Market Assets and Funding Ratios - Total					
County		\$ 1,923,991,252	89.0%	\$ 1,968,350,491	86.2%
Novato		181,901,455	88.0%	183,868,859	84.0%
San Rafael		467,387,237	77.3%	473,095,513	76.2%

SECTION IV – LIABILITIES

In this section, we present detailed information on Plan liabilities.

Disclosure

Several measures of liabilities are calculated and presented in this report. Note that these measures of liabilities are not applicable for settlement purposes, including the purchase of annuities and the payment of lump sums.

- **Present Value of Future Benefits:** Used for measuring all future Plan obligations, represents the expected amount of money needed today to fully fund all benefits of the Plan both earned as of the valuation date and those to be earned in the future by current plan participants under the current Plan provisions if all assumptions are met.
- **Actuarial Liability:** Used for funding calculations, this liability is calculated taking the present value of future benefits and subtracting the present value of future member contributions and future employer normal costs under an acceptable actuarial cost method. The method used for this Plan is called the **Entry Age Normal** (EAN) Cost Method. The Actuarial Liability represents the expected amount of money needed today to pay for benefits attributed to service prior to the valuation date. As such, it is the amount of assets targeted by the actuarial cost method for the Plan to hold as of the valuation date.

Table IV-1 on the next page shows the present value of future benefits and Table IV-2 shows the Actuarial Liability for each valuation subgroup for the current and prior valuations. The top portion of each table shows the liabilities for the active members for each employer. The bottom portion of the table shows the total liability (active and inactive) for each of the three main subgroups.

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SECTION IV – LIABILITIES

Table IV-1				
Present Value of Benefits - Active Members Only				
Plan	Group	2019	2020	
County	County Misc Tier 1	\$ 4,877,186	\$ 1,826,827	
	County Misc Tier 2	17,927,709	15,733,317	
	County Misc Tier 3	420,274,928	419,537,524	
	County Misc Tier 3A	35,783,118	35,067,260	
	County Misc Tier 4	42,475,930	44,353,314	
	County Misc Tier 5 (PEPRA)	144,813,281	184,348,983	
	County Safety Tier 1A	3,025,360	3,021,508	
	County Safety Tier 2A	38,707,481	41,808,357	
	County Safety Tier 2B	222,454,944	233,531,027	
	County Safety Tier 3 (PEPRA)	52,273,768	68,159,813	
	Courts Tier 1	1,385,102	1,384,976	
	Courts Tier 2	326,984	360,258	
	Courts Tier 3	28,678,492	30,228,572	
	Courts Tier 4	1,750,828	1,009,883	
	Courts Tier 5 (PEPRA)	4,703,763	5,777,640	
	South Marin Fire Misc Tier 1	0	0	
	South Marin Fire Misc Tier 2 (PEPRA)	1,087,286	1,448,702	
	South Marin Fire Safety Tier 1	19,701,094	21,740,352	
	South Marin Fire Safety Tier 2	19,693,024	22,786,087	
	South Marin Fire Safety Tier 2A	2,050,342	4,654,691	
	South Marin Fire Safety Tier 3A (PEPRA)	6,555,709	6,381,157	
	Mosquito District Tier 1	18,950,216	19,485,154	
	Mosquito District Tier 2 (PEPRA)	1,334,580	1,456,697	
	LAFCO Tier 3	333,253	0	
	LAFCO Tier 4 (PEPRA)	375,440	422,279	
	Tamalpais CSD Tier 1	3,579,497	3,532,986	
	Tamalpais CSD Tier 2 (PEPRA)	1,314,548	1,500,632	
	Marin City CSD Tier 1	696,140	183,525	
	Marin City CSD Tier 2 (PEPRA)	116,736	591,948	
	Novato	Novato Misc Tier 1	4,133,481	4,493,462
		Novato Misc Tier 2A (PEPRA)	723,706	1,027,599
		Novato Safety Tier 1	73,961,745	73,805,816
		Novato Safety Tier 2	6,829,755	8,625,107
Novato Safety Tier 3 (PEPRA)		3,634,063	4,083,629	
Novato Safety Tier 3A (PEPRA)		3,090,569	5,283,361	
San Rafael	San Rafael Misc Tier 1	68,301,686	60,852,345	
	San Rafael Misc Tier 2	5,594,325	5,625,362	
	San Rafael Misc Tier 3 (PEPRA)	14,077,456	17,917,414	
	San Rafael Fire Tier 1	44,905,842	48,755,304	
	San Rafael Police Tier 1	46,579,103	44,910,073	
	San Rafael Fire Tier 2	11,736,607	11,597,043	
	San Rafael Police Tier 2	3,081,662	4,329,850	
	San Rafael Safety Tier 3 (PEPRA)	21,034,069	25,279,874	

Total Present Value of Benefits - Active and Inactive Members		
County	\$ 2,561,547,047	\$ 2,717,389,068
Novato	232,621,811	247,533,860
San Rafael	688,312,921	709,547,193

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020**

SECTION IV – LIABILITIES

Table IV-2				
Actuarial Liabilities - Active Members Only				
Plan	Group	2019	2020	
County	County Misc Tier 1	\$ 4,613,599	\$ 1,712,610	
	County Misc Tier 2	15,878,405	14,133,565	
	County Misc Tier 3	334,998,722	338,573,061	
	County Misc Tier 3A	19,752,743	20,919,856	
	County Misc Tier 4	15,214,264	18,789,861	
	County Misc Tier 5 (PEPRA)	36,323,307	51,237,485	
	County Safety Tier 1A	3,025,360	3,021,508	
	County Safety Tier 2A	27,052,289	28,653,077	
	County Safety Tier 2B	156,584,784	167,115,371	
	County Safety Tier 3 (PEPRA)	10,219,516	14,573,338	
	Courts Tier 1	1,338,841	1,333,204	
	Courts Tier 2	256,873	291,326	
	Courts Tier 3	22,675,179	24,316,354	
	Courts Tier 4	1,087,830	364,236	
	Courts Tier 5 (PEPRA)	924,250	1,348,725	
	South Marin Fire Misc Tier 1	0	0	
	South Marin Fire Misc Tier 2 (PEPRA)	335,901	499,931	
	South Marin Fire Safety Tier 1	16,019,558	18,205,540	
	South Marin Fire Safety Tier 2	9,955,923	12,071,908	
	South Marin Fire Safety Tier 2A	308,203	944,011	
	South Marin Fire Safety Tier 3A (PEPRA)	1,297,963	1,604,542	
	Mosquito District Tier 1	14,090,415	14,823,077	
	Mosquito District Tier 2 (PEPRA)	177,294	308,051	
	LAFCO Tier 3	184,851	0	
	LAFCO Tier 4 (PEPRA)	0	42,720	
	Tamalpais CSD Tier 1	2,430,885	2,338,945	
	Tamalpais CSD Tier 2 (PEPRA)	191,997	337,085	
	Marin City CSD Tier 1	218,338	0	
	Marin City CSD Tier 2 (PEPRA)	14,187	49,357	
	Novato	Novato Misc Tier 1	3,018,277	3,387,168
		Novato Misc Tier 2A (PEPRA)	133,164	225,905
		Novato Safety Tier 1	59,006,843	59,553,462
		Novato Safety Tier 2	2,900,780	3,630,292
Novato Safety Tier 3 (PEPRA)		1,078,841	1,338,151	
Novato Safety Tier 3A (PEPRA)	217,055	512,744		
San Rafael	San Rafael Misc Tier 1	52,612,013	47,743,033	
	San Rafael Misc Tier 2	1,763,554	2,097,429	
	San Rafael Misc Tier 3 (PEPRA)	2,691,015	4,150,901	
	San Rafael Fire Tier 1	31,111,770	33,093,868	
	San Rafael Police Tier 1	35,008,824	33,538,067	
	San Rafael Fire Tier 2	3,676,008	4,176,376	
	San Rafael Police Tier 2	1,179,061	1,524,364	
	San Rafael Safety Tier 3 (PEPRA)	3,569,567	4,661,907	

Total Actuarial Liabilities - Active and Inactive Members		
County	\$ 2,161,471,785	\$ 2,284,664,343
Novato	206,603,452	218,862,608
San Rafael	604,613,983	621,265,873

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
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SECTION V – CONTRIBUTIONS

For this Plan, there are three components to the total contribution: the **normal cost rate** (employee and employer), the **Unfunded Actuarial Liability rate** (UAL rate), and the **administrative expense** contribution.

The normal cost rate is determined in the following steps. First, an individual normal cost rate is determined by taking the value, as of entry age into the Plan, of each member's projected future benefits. This value is then divided by the value, also at entry age, of the member's expected future salary producing a normal cost rate that is expected to remain constant over a member's career.

The total normal cost is computed by adding up the expected dollar amount of each active member's normal cost for the current year. The total normal cost is adjusted with interest to the middle of the year, to reflect the fact that the normal cost contributions are paid throughout the year as member payroll payments are made. Finally, the total normal cost is reduced by the expected contributions for each member and divided by the projected pay for each subgroup.

The Unfunded Actuarial Liability (UAL) is the difference between the EAN Actuarial Liability and the Market Value of Assets. The UAL payment is determined using the following pieces, and then divided by the projected payroll for each employer to calculate a UAL rate for each group:

- The amount needed to fund the extraordinary UAL resulting from the 2008-2009 investment losses as a level percent of member payroll over a fixed period (18 years remaining as of the current valuation, reduced from 19 years in the prior valuation),
- The remaining UAL as of June 30, 2013 over a period of 17 years as a level percentage of member payroll (10 years as of June 30, 2020), and
- Any subsequent unexpected change in the Unfunded Actuarial Liability after June 30, 2013 is amortized over 24 years (22 years for assumption changes) that includes a five-year phase-in and four year phase-out (three/two years for assumption changes) of the payments/credits for each annual layer.

Administrative expenses are assumed to be \$5.0 million per year as of June 30, 2020, increasing at 2.75% per annum. The administrative expenses are split between employees and employers based on their share of the overall contributions.

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
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SECTION V – CONTRIBUTIONS

Table V-1 below presents the calculation of employer contribution rates for each of the three main Plan groups, as well as a comparison to the prior year rates.

Table V-1 Development of the Net Employer Contribution Rates as of June 30, 2020 for FYE 2022						
	June 30, 2019			June 30, 2020		
	County	Novato	San Rafael	County	Novato	San Rafael
1. Total Normal Cost Rate	22.58%	37.54%	28.41%	23.40%	37.98%	28.66%
2. Member Contribution Rate	<u>10.59%</u>	<u>14.59%</u>	<u>12.10%</u>	<u>10.95%</u>	<u>15.38%</u>	<u>12.62%</u>
3. Employer Normal Cost Rate (1-2)	11.99%	22.95%	16.31%	12.45%	22.60%	16.04%
4. UAL Amortization	10.95%	21.63%	41.57%	11.48%	23.69%	43.86%
5. Administrative Expense Rate	<u>1.14%</u>	<u>2.22%</u>	<u>2.89%</u>	<u>1.06%</u>	<u>2.06%</u>	<u>2.67%</u>
6. Final Employer Contribution Rate (3+4+5)	24.08%	46.80%	60.77%	24.99%	48.35%	62.57%

Tables V-2 through V-4 on the following pages present the calculations of the UAL payments for this valuation for the main Plan groups.

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020**

SECTION V – CONTRIBUTIONS

**Table V-2
Development of Amortization Payment - County
For the June 30, 2020 Actuarial Valuation**

Type of Base	Date Established	Initial Amount	Initial Amortization Years	June 30, 2020 Outstanding Balance	Remaining Amortization Years	Length of Phase In/Out	Current Phase In/Out Percentage	Amortization Amount
Charges / (Credits)								
1. 2009 Extraordinary Loss	6/30/2009	\$ 146,241,604	30	\$ 154,488,596	18	N/A	100%	\$ 12,030,891
2. Initial UAL	6/30/2013	188,358,828	17	154,895,729	10	N/A	100%	18,890,824
3. (Gain)/Loss Base	6/30/2014	(223,502,748)	24	(246,965,103)	18	5	100%	(20,947,806)
4. Assumption Changes	6/30/2014	99,117,401	22	100,657,800	16	3	100%	8,941,693
5. (Gain)/Loss Base	6/30/2015	36,267,023	24	40,587,588	19	5	100%	3,295,611
6. (Gain)/Loss Base	6/30/2016	62,321,452	24	70,383,838	20	5	100%	5,489,285
7. (Gain)/Loss Base	6/30/2017	(56,402,352)	24	(63,139,526)	21	5	80%	(3,851,179)
8. Assumption Changes	6/30/2017	27,391,858	22	28,911,209	19	3	100%	2,252,585
9. (Gain)/Loss Base	6/30/2018	(45,161,446)	24	(49,420,158)	22	5	60%	(2,245,496)
10. Audit Changes	6/30/2018	1,870,282	24	2,046,649	22	5	60%	92,993
11. (Gain)/Loss Base	6/30/2019	34,582,319	24	36,444,016	23	5	40%	1,113,008
12. (Gain)/Loss Base	6/30/2020	54,612,033	24	54,612,033	24	5	20%	853,294
13. Assumption Changes	6/30/2020	32,811,182	22	32,811,182	22	3	33%	823,222
Total (County)				\$ 316,313,852				\$ 26,738,925

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020**

SECTION V – CONTRIBUTIONS

**Table V-3
Development of Amortization Payment - Novato
For the June 30, 2020 Actuarial Valuation**

Type of Base	Date Established	Initial Amount	Initial Amortization Years	June 30, 2020 Outstanding Balance	Remaining Amortization Years	Length of Phase In/Out	Current Phase In/Out Percentage	Amortization Amount
Charges / (Credits)								
1. 2009 Extraordinary Loss	6/30/2009	14,765,994	30	15,598,691	18	N/A	100%	1,214,758
2. Initial UAL	6/30/2013	17,008,202	17	13,986,590	10	N/A	100%	1,705,781
3. (Gain)/Loss Base	6/30/2014	(22,114,107)	24	(24,435,550)	18	5	100%	(2,072,646)
4. Assumption Changes	6/30/2014	6,230,650	22	6,327,481	16	3	100%	562,087
5. (Gain)/Loss Base	6/30/2015	2,876,813	24	3,219,534	19	5	100%	261,418
6. (Gain)/Loss Base	6/30/2016	6,441,310	24	7,274,608	20	5	100%	567,352
7. (Gain)/Loss Base	6/30/2017	(7,837,057)	24	(8,773,181)	21	5	80%	(535,118)
8. Assumption Changes	6/30/2017	4,583,960	22	4,838,220	19	3	100%	376,965
9. (Gain)/Loss Base	6/30/2018	1,668,937	24	1,826,317	22	5	60%	82,982
10. Audit Changes	6/30/2018	14,052	24	15,377	22	5	60%	699
11. (Gain)/Loss Base	6/30/2019	4,098,708	24	4,319,357	23	5	40%	131,914
12. (Gain)/Loss Base	6/30/2020	9,698,977	24	9,698,977	24	5	20%	151,543
13. Assumption Changes	6/30/2020	1,097,329	22	1,097,329	22	3	33%	27,532
Total (Novato)				\$ 34,993,749				\$ 2,475,266

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
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SECTION V – CONTRIBUTIONS

Table V-4 Development of Amortization Payment - San Rafael For the June 30, 2020 Actuarial Valuation								
Type of Base	Date Established	Initial Amount	Initial Amortization Years	June 30, 2020 Outstanding Balance	Remaining Amortization Years	Length of Phase In/Out	Current Phase In/Out Percentage	Amortization Amount
Charges / (Credits)								
1. 2009 Extraordinary Loss	6/30/2009	34,997,031	30	36,970,615	18	N/A	100%	2,879,108
2. Initial UAL	6/30/2013	124,305,953	17	102,222,243	10	N/A	100%	12,466,854
3. (Gain)/Loss Base	6/30/2014	(54,710,285)	24	(60,453,534)	18	5	100%	(5,127,724)
4. Assumption Changes	6/30/2014	30,608,707	22	31,084,402	16	3	100%	2,761,308
5. (Gain)/Loss Base	6/30/2015	8,187,631	24	9,163,040	19	5	100%	744,016
6. (Gain)/Loss Base	6/30/2016	18,955,168	24	21,407,356	20	5	100%	1,669,575
7. (Gain)/Loss Base	6/30/2017	(19,744,705)	24	(22,103,179)	21	5	80%	(1,348,178)
8. Assumption Changes	6/30/2017	8,825,862	22	9,315,408	19	3	100%	725,800
9. (Gain)/Loss Base	6/30/2018	(3,777,871)	24	(4,134,123)	22	5	60%	(187,841)
10. Audit Changes	6/30/2018	380,007	24	415,842	22	5	60%	18,895
11. (Gain)/Loss Base	6/30/2019	7,672,490	24	8,085,529	23	5	40%	246,934
12. (Gain)/Loss Base	6/30/2020	16,430,775	24	16,430,775	24	5	20%	256,725
13. Assumption Changes	6/30/2020	(234,014)	22	(234,014)	22	3	33%	(5,871)
Total (San Rafael)				\$ 148,170,360				\$ 15,099,599

The single equivalent amortization period for MCERA – i.e., the length of time required to amortize the overall UAL as a level percentage of payroll based on the total current amortization payment – is approximately 15 years.

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020**

SECTION V – CONTRIBUTIONS

Tables V-5 through V-8 present the calculation of employer contribution rates for each employer and Tier.

**Table V-5
Development of the County Misc/Safety Contribution Rates as of June 30, 2020 for FYE 2022**

	County Misc Tier 1	County Misc Tier 2	County Misc Tier 3	County Misc Tier 3A	County Misc Tier 4	County Misc Tier 5	County Misc
A. Total Normal Cost Rate	24.49%	21.02%	20.35%	22.14%	21.55%	18.66%	19.77%
B. Member Contribution Rate (Excluding Admin Expense Load)	<u>0.00%</u>	<u>8.93%</u>	<u>9.07%</u>	<u>10.19%</u>	<u>9.09%</u>	<u>9.30%</u>	9.22%
C. Employer Normal Cost Rate (A-B)	24.49%	12.09%	11.28%	11.95%	12.46%	9.36%	10.55%
D. UAL Amortization Rate	9.70%	9.70%	9.70%	9.70%	9.70%	9.70%	9.70%
E. Administrative Expense Rate	<u>1.52%</u>	<u>0.97%</u>	<u>0.93%</u>	<u>0.96%</u>	<u>0.99%</u>	<u>0.85%</u>	0.90%
F. Net June 30, 2020 Contribution Rate (C+D+E)	35.71%	22.76%	21.91%	22.61%	23.15%	19.91%	21.15%

	County Safety Tier 2A	County Safety Tier 2B	County Safety Tier 3	County Safety	County Misc / Safety
A. Total Normal Cost Rate	37.64%	37.96%	29.01%	34.98%	22.95%
B. Member Contribution Rate (Excluding Admin Expense Load)	<u>15.54%</u>	<u>19.20%</u>	<u>14.36%</u>	<u>17.20%</u>	10.66%
C. Employer Normal Cost Rate (A-B)	22.10%	18.76%	14.65%	17.78%	12.29%
D. UAL Amortization Rate	17.27%	17.27%	17.27%	17.27%	11.28%
E. Administrative Expense Rate	<u>1.75%</u>	<u>1.60%</u>	<u>1.42%</u>	<u>1.56%</u>	1.05%
F. Net June 30, 2020 Contribution Rate (C+D+E)	41.12%	37.63%	33.34%	36.61%	24.62%

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SECTION V – CONTRIBUTIONS

Table V-6 Development of the County Special Districts Contribution Rates as of June 30, 2020 for FYE 2022								
	South Marin Fire Misc Tier 1*	South Marin Fire Misc Tier 2	Tamalpais CSD Tier 1	Tamalpais CSD Tier 2	Marin City CSD Tier 1	Marin City CSD Tier 2	Mosquito District Tier 1	Mosquito District Tier 2
A. Total Normal Cost Rate		19.54%	26.91%	21.62%	25.75%	24.28%	25.20%	18.77%
B. Member Contribution Rate (Excluding Admin Expense Load)		<u>10.30%</u>	<u>12.41%</u>	<u>10.30%</u>	<u>11.73%</u>	<u>10.30%</u>	<u>10.44%</u>	<u>10.30%</u>
C. Employer Normal Cost Rate (A-B)		9.24%	14.50%	11.32%	14.02%	13.98%	14.76%	8.47%
D. UAL Amortization Rate		3.27%	12.11%	12.11%	1.83%	1.83%	18.13%	18.13%
E. Administrative Expense Rate		<u>0.56%</u>	<u>1.18%</u>	<u>1.04%</u>	<u>0.71%</u>	<u>0.70%</u>	<u>1.46%</u>	<u>1.18%</u>
F. Net June 30, 2020 Contribution Rate (C+D+E)		13.07%	27.79%	24.47%	16.56%	16.51%	34.35%	27.78%

	LAFCO Tier 3*	LAFCO Tier 4	South Marin Fire Safety Tier 1	South Marin Fire Safety Tier 2	South Marin Fire Safety Tier 2A	South Marin Fire Safety Tier 3A	Special Districts	Total County
A. Total Normal Cost Rate		19.05%	42.11%	44.40%	40.85%	31.44%	32.87%	23.40%
B. Member Contribution Rate (Excluding Admin Expense Load)		<u>9.30%</u>	<u>14.29%</u>	<u>15.73%</u>	<u>14.19%</u>	<u>15.72%</u>	12.99%	10.95%
C. Employer Normal Cost Rate (A-B)		9.75%	27.82%	28.67%	26.66%	15.72%	19.88%	12.45%
D. UAL Amortization Rate		3.67%	14.18%	14.18%	14.18%	14.18%	14.03%	11.48%
E. Administrative Expense Rate		<u>0.60%</u>	<u>1.87%</u>	<u>1.91%</u>	<u>1.82%</u>	<u>1.33%</u>	1.51%	1.06%
F. Net June 30, 2020 Contribution Rate (C+D+E)		14.02%	43.87%	44.76%	42.66%	31.23%	35.42%	24.99%

* Rates for this group have been removed, as there are no longer any active members.

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SECTION V – CONTRIBUTIONS

**Table V-7
Development of the Courts and Novato Contribution Rates as of June 30, 2020 for FYE 2022**

	Courts Tier 1	Courts Tier 2	Courts Tier 3	Courts Tier 4	Courts Tier 5	Courts Total				
A. Total Normal Cost Rate	19.20%	17.28%	20.52%	26.22%	18.64%	20.11%				
B. Member Contribution Rate (Excluding Admin Expense Load)	<u>0.00%</u>	<u>8.41%</u>	<u>9.05%</u>	<u>10.81%</u>	<u>9.30%</u>	9.10%				
C. Employer Normal Cost Rate (A-B)	19.20%	8.87%	11.47%	15.41%	9.34%	11.01%				
D. UAL Amortization Rate	12.79%	12.79%	12.79%	12.79%	12.79%	12.79%				
E. Administrative Expense Rate	<u>1.42%</u>	<u>0.96%</u>	<u>1.08%</u>	<u>1.25%</u>	<u>0.98%</u>	1.06%				
F. Net June 30, 2020 Contribution Rate (C+D+E)	33.41%	22.62%	25.34%	29.45%	23.11%	24.86%				
	Novato Misc Tier 1	Novato Misc Tier 2A	Novato Misc	Novato Safety Tier 1	Novato Safety Tier 2	Novato Safety Tier 3	Novato Safety Tier 3A	Novato Safety	Novato Total	
A. Total Normal Cost Rate	22.49%	19.42%	21.24%	42.15%	45.06%	34.05%	28.61%	39.93%	37.98%	
B. Member Contribution Rate (Excluding Admin Expense Load)	<u>9.88%</u>	<u>9.30%</u>	<u>9.65%</u>	<u>16.24%</u>	<u>16.29%</u>	<u>17.03%</u>	<u>14.36%</u>	<u>16.04%</u>	15.38%	
C. Employer Normal Cost Rate (A-B)	12.61%	10.12%	11.59%	25.91%	28.77%	17.02%	14.25%	23.89%	22.60%	
D. UAL Amortization Rate	7.23%	7.23%	7.23%	25.61%	25.61%	25.61%	25.61%	25.61%	23.69%	
E. Administrative Expense Rate	<u>0.88%</u>	<u>0.77%</u>	<u>0.84%</u>	<u>2.29%</u>	<u>2.42%</u>	<u>1.90%</u>	<u>1.77%</u>	<u>2.20%</u>	2.06%	
F. Net June 30, 2020 Contribution Rate (C+D+E)	20.72%	18.12%	19.66%	53.81%	56.80%	44.53%	41.63%	51.70%	48.35%	

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SECTION V – CONTRIBUTIONS

**Table V-8
Development of the San Rafael Contribution Rates as of June 30, 2020 for FYE 2022**

	San Rafael Misc Tier 1	San Rafael Misc Tier 2	San Rafael Misc Tier 3	San Rafael Misc
A. Total Normal Cost Rate	27.00%	23.40%	18.05%	22.45%
B. Member Contribution Rate (Excluding Admin Expense Load)	<u>12.04%</u>	<u>9.02%</u>	<u>9.30%</u>	<u>10.45%</u>
C. Employer Normal Cost Rate (A-B)	14.96%	14.38%	8.75%	12.00%
D. UAL Amortization Rate	36.95%	36.95%	36.95%	36.95%
E. Administrative Expense Rate	<u>2.31%</u>	<u>2.28%</u>	<u>2.03%</u>	<u>2.18%</u>
F. Net June 30, 2020 Contribution Rate (C+D+E)	54.22%	53.61%	47.73%	51.13%

	San Rafael Fire Tier 1	San Rafael Police Tier 1	San Rafael Fire Tier 2	San Rafael Police Tier 2	San Rafael Safety Tier 3	San Rafael Safety	San Rafael Total
A. Total Normal Cost Rate	38.79%	38.31%	36.15%	40.12%	27.97%	34.90%	28.66%
B. Member Contribution Rate (Excluding Admin Expense)	<u>15.64%</u>	<u>14.98%</u>	<u>13.54%</u>	<u>14.78%</u>	<u>14.36%</u>	<u>14.81%</u>	<u>12.62%</u>
C. Employer Normal Cost Rate (A-B)	23.15%	23.33%	22.61%	25.34%	13.61%	20.09%	16.04%
D. UAL Amortization Rate	50.93%	50.93%	50.93%	50.93%	50.93%	50.93%	43.86%
E. Administrative Expense Rate	<u>3.30%</u>	<u>3.30%</u>	<u>3.27%</u>	<u>3.39%</u>	<u>2.87%</u>	<u>3.16%</u>	<u>2.67%</u>
F. Net June 30, 2020 Contribution Rate (C+D+E)	77.38%	77.56%	76.81%	79.66%	67.41%	74.18%	62.57%

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020**

SECTION V – CONTRIBUTIONS

The following table shows the contribution rates for the new benefit Tiers for those employers that did not have any active members in those Tiers as of June 30, 2020. The normal cost rates for these Tiers are based on the pooled demographic profiles of the employers with current active PEPRA members.

Table V-9 Development of Contribution Rates for New Tiers with No Active Members as of June 30, 2020 for FYE 2022		
	South Marin Fire Safety Tier 3	Novato Misc Tier 2
A. Total Normal Cost Rate	34.05%	20.61%
B. Member Contribution Rate (Excluding Admin Expense Load)	<u>17.03%</u>	<u>10.30%</u>
C. Employer Normal Cost Rate (A-B)	17.02%	10.31%
D. UAL Amortization Rate	14.18%	7.23%
E. Administrative Expense Rate	<u>1.39%</u>	<u>0.78%</u>
F. Net June 30, 2020 Contribution Rate (C+D+E)	32.59%	18.32%

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020**

SECTION V – CONTRIBUTIONS

Table V-10 contains a comparison of the employer contribution rates for each employer and Tier to the prior year rates, as well as the number of active members in each Tier as of June 30, 2020.

Table V-10				
Plan	Group	# of Active Members	2019	2020
County	County Misc Tier 1	2	30.26%	35.71%
	County Misc Tier 2	28	22.35%	22.76%
	County Misc Tier 3	606	21.28%	21.91%
	County Misc Tier 3A	73	22.44%	22.61%
	County Misc Tier 4	139	22.70%	23.15%
	County Misc Tier 5 (PEPRA)	879	19.15%	19.91%
	County Misc	1,727	20.63%	21.15%
	County Safety Tier 1A	1	16.80%	18.04%
	County Safety Tier 2A	43	37.97%	41.12%
	County Safety Tier 2B	178	35.00%	37.63%
	County Safety Tier 3 (PEPRA)	139	31.65%	33.34%
	County Safety	361	34.39%	36.61%
	County Misc/Safety	2,088	23.53%	24.62%
	Courts Tier 1	1	31.60%	33.41%
	Courts Tier 2	1	22.44%	22.62%
	Courts Tier 3	57	24.45%	25.34%
	Courts Tier 4	4	26.94%	29.45%
	Courts Tier 5 (PEPRA)	35	22.21%	23.11%
	Courts	98	23.96%	24.86%
	South Marin Fire Misc Tier 1	0	N/A	N/A
	South Marin Fire Misc Tier 2 (PEPRA)	5	13.94%	13.07%
	South Marin Fire Safety Tier 1	12	40.45%	43.87%
	South Marin Fire Safety Tier 2	22	42.07%	44.76%
	South Marin Fire Safety Tier 2A	6	41.53%	42.66%
	South Marin Fire Safety Tier 3A (PEPRA)	11	29.37%	31.23%
	Mosquito District Tier 1	26	32.96%	34.35%
	Mosquito District Tier 2 (PEPRA)	6	26.26%	27.78%
	LAFCO Tier 3	0	N/A	N/A
	LAFCO Tier 4 (PEPRA)	2	12.75%	14.02%
	Tamalpais CSD Tier 1	6	30.51%	27.79%
	Tamalpais CSD Tier 2 (PEPRA)	7	26.12%	24.47%
	Marin City CSD Tier 1	1	17.56%	16.56%
	Marin City CSD Tier 2 (PEPRA)	4	22.44%	16.51%
Special Districts	108	33.64%	35.42%	
Total County	2,294	24.08%	24.99%	
Novato	Novato Misc Tier 1	5	19.90%	20.72%
	Novato Misc Tier 2A (PEPRA)	5	16.33%	18.12%
	Novato Safety Tier 1	41	51.59%	53.81%
	Novato Safety Tier 2	9	55.38%	56.80%
	Novato Safety Tier 3 (PEPRA)	6	41.82%	44.53%
	Novato Safety Tier 3A (PEPRA)	11	38.60%	41.63%
	Total Novato	77	46.80%	48.35%
San Rafael	San Rafael Misc Tier 1	83	54.12%	54.22%
	San Rafael Misc Tier 2	16	52.17%	53.61%
	San Rafael Misc Tier 3 (PEPRA)	106	46.24%	47.73%
	San Rafael Misc	205	50.82%	51.13%
	San Rafael Fire Tier 1	31	74.24%	77.38%
	San Rafael Police Tier 1	29	73.88%	77.56%
	San Rafael Fire Tier 2	12	72.96%	76.81%
	San Rafael Police Tier 2	5	74.95%	79.66%
	San Rafael Safety Tier 3 (PEPRA)	50	63.28%	67.41%
	San Rafael Safety	127	70.84%	74.18%
	Total San Rafael	332	60.77%	62.57%

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020**

APPENDIX A – MEMBERSHIP INFORMATION

The data for this valuation was provided by MCERA as of June 30, 2020. Cheiron did not audit any of the data; however, it was reviewed to ensure that it complies with generally accepted actuarial standards.

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020**

APPENDIX A – MEMBERSHIP INFORMATION

Participant Data as of June 30, 2020: County of Marin														
	Miscellaneous		Marin County Safety		Total		Miscellaneous		Marin Special Districts Safety		Total		Total County and Special Districts	
	6/30/2019	6/30/2020	6/30/2019	6/30/2020	6/30/2019	6/30/2020	6/30/2019	6/30/2020	6/30/2019	6/30/2020	6/30/2019	6/30/2020	6/30/2019	6/30/2020
Active Participants														
Number	1,705	1,727	364	361	2,069	2,088	156	155	51	51	207	206	2,276	2,294
Average Age	47.92	47.49	40.56	40.47	46.63	46.27	48.82	49.05	41.71	42.71	47.07	47.48	46.67	46.38
Average Service	9.75	9.50	10.99	11.06	9.96	9.77	11.47	11.51	9.24	10.20	10.92	11.18	10.05	9.89
Average Pay*	\$91,924	\$95,252	\$114,289	\$119,454	\$95,859	\$99,437	\$82,755	\$86,957	\$121,553	\$130,847	\$92,314	\$97,823	\$95,536	\$99,292
Service Retired														
Number	1,606	1,664	259	269	1,865	1,933	134	135	31	30	165	165	2,030	2,098
Average Age	72.47	72.63	64.83	64.77	71.41	71.54	68.89	69.58	62.60	63.92	67.71	68.55	71.11	71.30
Average Total Benefit*	\$38,660	\$39,463	\$69,086	\$71,999	\$42,886	\$43,990	\$39,010	\$38,855	\$70,634	\$73,208	\$44,951	\$45,101	\$43,053	\$44,078
Beneficiaries														
Number	275	278	73	77	348	355	14	17	10	10	24	27	372	382
Average Age	74.37	74.71	69.23	70.13	73.29	73.72	66.76	67.36	67.59	68.59	67.11	67.81	72.89	73.30
Average Total Benefit*	\$25,736	\$27,293	\$42,685	\$42,501	\$29,291	\$30,591	\$21,886	\$26,460	\$44,969	\$46,563	\$31,504	\$33,906	\$29,434	\$30,826
Duty Disabled														
Number	84	84	125	126	209	210	6	6	18	18	24	24	233	234
Average Age	68.22	68.97	62.93	63.72	65.06	65.82	64.88	65.88	66.89	66.71	66.39	66.50	65.19	65.89
Average Total Benefit*	\$38,902	\$40,107	\$60,943	\$62,730	\$52,084	\$53,681	\$33,315	\$34,404	\$58,971	\$62,464	\$52,557	\$55,449	\$52,133	\$53,862
Ordinary Disabled														
Number	29	28	7	8	36	36	2	2	0	0	2	2	38	38
Average Age	69.86	71.37	58.11	56.14	67.57	67.98	64.85	65.85	0.00	0.00	64.85	65.85	67.43	67.87
Average Total Benefit*	\$21,858	\$22,307	\$49,083	\$44,162	\$27,152	\$27,164	\$25,871	\$26,389	\$0	\$0	\$25,871	\$26,389	\$27,084	\$27,123
Total In Pay														
Number	1,994	2,054	464	480	2,458	2,534	156	160	59	58	215	218	2,673	2,752
Average Age	72.52	72.75	64.91	65.21	71.08	71.32	68.49	69.16	64.76	65.59	67.47	68.21	70.79	71.07
Average Total Benefit*	\$36,644	\$37,608	\$62,437	\$64,370	\$41,513	\$42,677	\$37,086	\$37,215	\$62,726	\$65,280	\$44,122	\$44,682	\$41,722	\$42,836
Terminated Vested														
Number	234	241	22	26	256	267	18	19	2	2	20	21	276	288
Average Age	48.12	48.34	45.52	45.09	47.90	48.02	45.73	46.69	52.70	53.70	46.43	47.36	47.79	47.97
Average Service	8.25	8.28	7.73	7.65	8.20	8.22	8.89	9.32	3.50	3.50	8.35	8.76	8.21	8.26
Transfers														
Number	179	176	53	55	232	231	27	30	11	11	38	41	270	272
Average Age	50.04	50.20	45.73	45.28	49.05	49.03	50.95	50.22	46.25	47.25	49.59	49.43	49.13	49.09
Average Service	4.96	4.91	4.51	4.00	4.86	4.70	5.15	5.40	5.18	5.18	5.16	5.34	4.90	4.79
Total Inactive														
Number	413	417	75	81	488	498	45	49	13	13	58	62	546	560
Average Age	48.95	49.12	45.67	45.22	48.45	48.49	48.87	48.85	47.24	48.25	48.50	48.73	48.45	48.52
Average Service	6.82	6.86	5.45	5.17	6.61	6.59	6.64	6.92	4.92	4.92	6.26	6.50	6.58	6.58

*All payroll and benefit figures shown are annual.



**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
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Participant Data as of June 30, 2020: County of Marin												
	Tier 1		Tier 2		Tier 3		Tier 3A		Tier 4		Tier 5	
	Miscellaneous	Miscellaneous	Miscellaneous	Miscellaneous	Miscellaneous	Miscellaneous	Miscellaneous	Miscellaneous	Miscellaneous	Miscellaneous	Miscellaneous	Miscellaneous
	6/30/2019	6/30/2020	6/30/2019	6/30/2020	6/30/2019	6/30/2020	6/30/2019	6/30/2020	6/30/2019	6/30/2020	6/30/2019	6/30/2020
Active Participants												
Number	4	2	35	28	668	606	82	73	136	139	780	879
Average Age	67.76	73.44	65.02	65.99	54.53	54.67	50.06	49.64	47.33	48.45	41.27	41.56
Average Service	35.25	36.50	21.34	22.54	17.91	18.58	9.41	10.26	5.26	5.85	2.92	3.27
Average Pay*	\$115,442	\$99,564	\$83,512	\$86,910	\$100,659	\$105,021	\$103,093	\$108,006	\$98,466	\$102,572	\$82,385	\$86,557
Service Retired												
Number	492	465	238	236	851	922	12	21	3	3	10	17
Average Age	78.64	79.13	78.53	79.01	67.41	68.00	65.36	65.96	67.19	68.19	65.76	66.60
Average Total Benefit*	\$54,761	\$57,437	\$23,758	\$24,613	\$34,234	\$35,251	\$16,496	\$19,182	\$12,588	\$12,840	\$12,296	\$12,106
Beneficiaries												
Number	154	152	50	51	70	74	1	1	0	0	0	0
Average Age	80.10	80.44	73.57	73.58	62.56	63.92	59.07	60.08	0.00	0.00	0.00	0.00
Average Total Benefit*	\$30,802	\$33,526	\$15,662	\$16,386	\$22,015	\$22,240	\$9,762	\$9,958	\$0	\$0	\$0	\$0
Duty Disabled												
Number	18	18	28	26	38	40	0	0	0	0	0	0
Average Age	75.20	76.20	68.86	69.71	64.44	65.24	0.00	0.00	0.00	0.00	0.00	0.00
Average Total Benefit*	\$47,736	\$49,416	\$30,051	\$30,738	\$41,239	\$42,008	\$0	\$0	\$0	\$0	\$0	\$0
Ordinary Disabled												
Number	8	8	11	11	8	7	2	2	0	0	0	0
Average Age	75.29	76.29	73.68	74.68	63.79	65.96	51.38	52.39	0.00	0.00	0.00	0.00
Average Total Benefit*	\$27,927	\$28,904	\$18,763	\$19,138	\$19,831	\$19,503	\$22,715	\$23,169	\$0	\$0	\$0	\$0
Total In Pay												
Number	672	643	327	324	967	1,043	15	24	3	3	10	17
Average Age	78.84	79.32	76.78	77.26	66.91	67.59	63.07	64.59	67.19	68.19	65.76	66.60
Average Total Benefit*	\$48,763	\$51,205	\$22,891	\$23,624	\$33,506	\$34,481	\$16,877	\$19,130	\$12,588	\$12,840	\$12,296	\$12,106
Terminated Vested												
Number	2	1	1	0	166	160	31	32	27	33	7	15
Average Age	77.35	80.34	52.74	0.00	49.96	50.52	42.06	43.11	44.49	45.25	36.43	40.85
Average Service	6.00	5.00	0.00	0.00	9.37	9.72	7.06	7.13	3.96	4.15	5.14	4.73
Transfers												
Number	0	0	4	5	141	132	13	13	5	7	16	19
Average Age	0.00	0.00	58.45	56.86	51.31	51.86	46.90	46.72	42.96	43.90	41.50	41.64
Average Service	0.00	0.00	3.50	3.00	5.55	5.66	3.92	3.69	1.40	1.86	2.06	2.21
Total Inactive												
Number	2	1	5	5	307	292	44	45	32	40	23	34
Average Age	77.35	80.34	57.31	56.86	50.58	51.13	43.49	44.15	44.25	45.02	39.96	41.29
Average Service	6.00	5.00	2.80	3.00	7.62	7.88	6.14	6.13	3.56	3.75	3.00	3.32



**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
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Participant Data as of June 30, 2020: County of Marin										
	Tier 1A Safety		Tier 2A Safety		Tier 1B Safety		Tier 2B Safety		Tier 3 Safety	
	6/30/2019	6/30/2020	6/30/2019	6/30/2020	6/30/2019	6/30/2020	6/30/2019	6/30/2020	6/30/2019	6/30/2020
Active Participants										
Number	1	1	46	43	0	0	193	178	124	139
Average Age	71.91	72.91	47.28	47.74	0.00	0.00	44.53	44.84	31.64	32.40
Average Service	34.00	35.00	13.93	14.77	0.00	0.00	15.14	15.75	3.25	3.72
Average Pay*	\$244,937	\$255,819	\$111,533	\$115,473	\$0	\$0	\$128,438	\$135,402	\$92,235	\$99,282
Service Retired										
Number	62	57	38	40	27	27	132	145	0	0
Average Age	75.37	75.80	65.16	64.88	65.90	66.90	59.57	60.01	0.00	0.00
Average Total Benefit*	\$84,150	\$89,381	\$49,659	\$52,565	\$106,530	\$110,259	\$59,943	\$63,404	\$0	\$0
Beneficiaries										
Number	46	48	6	7	4	4	17	18	0	0
Average Age	75.68	76.52	62.48	65.06	56.78	57.78	57.07	57.81	0.00	0.00
Average Total Benefit*	\$45,155	\$45,712	\$34,775	\$32,315	\$27,930	\$28,907	\$42,262	\$40,922	\$0	\$0
Duty Disabled										
Number	37	36	26	26	8	8	53	55	1	1
Average Age	75.16	75.86	59.91	60.91	64.08	65.08	56.17	57.34	38.57	39.57
Average Total Benefit*	\$56,771	\$58,860	\$40,066	\$40,867	\$125,877	\$130,283	\$64,569	\$66,052	\$46,426	\$47,355
Ordinary Disabled										
Number	1	1	2	2	0	0	4	5	0	0
Average Age	72.72	73.72	57.37	58.37	0.00	0.00	54.83	51.73	0.00	0.00
Average Total Benefit*	\$26,995	\$27,940	\$31,933	\$32,571	\$0	\$0	\$63,181	\$52,042	\$0	\$0
Total In Pay										
Number	146	142	72	75	39	39	206	223	1	1
Average Age	75.40	76.04	62.83	63.35	64.59	65.59	58.39	58.99	38.57	39.57
Average Total Benefit*	\$64,534	\$66,449	\$44,462	\$46,086	\$102,437	\$106,023	\$59,737	\$61,988	\$46,426	\$47,355
Terminated Vested										
Number	0	0	10	10	0	0	12	14	0	2
Average Age	0.00	0.00	46.31	47.31	0.00	0.00	44.86	45.76	0.00	29.35
Average Service	0.00	0.00	10.40	10.30	0.00	0.00	5.50	6.14	0.00	5.00
Transfers										
Number	0	0	7	6	0	0	43	44	3	5
Average Age	0.00	0.00	43.45	43.47	0.00	0.00	46.81	47.31	35.45	29.58
Average Service	0.00	0.00	4.29	4.50	0.00	0.00	4.77	4.23	1.33	1.40
Total Inactive										
Number	0	0	17	16	0	0	55	58	3	7
Average Age	0.00	0.00	45.13	45.87	0.00	0.00	46.39	46.94	35.45	29.52
Average Service	0.00	0.00	7.88	8.13	0.00	0.00	4.93	4.69	1.33	2.43



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Participant Data as of June 30, 2020: Marin Special Districts												
	Court Tier 1 Miscellaneous		Court Tier 2 Miscellaneous		Court Tier 3 Miscellaneous		Court Tier 4 Miscellaneous		Court Tier 5 Miscellaneous		Total	
	6/30/2019	6/30/2020	6/30/2019	6/30/2020	6/30/2019	6/30/2020	6/30/2019	6/30/2020	6/30/2019	6/30/2020	6/30/2019	6/30/2020
Active Participants												
Number	1	1	1	1	59	57	4	4	33	35	98	98
Average Age	62.00	63.00	51.60	52.60	53.10	54.01	54.79	55.92	39.83	40.18	48.77	49.23
Average Service	37.00	37.00	18.00	19.00	18.10	18.81	10.25	4.25	2.15	2.66	12.60	12.63
Average Pay*	\$102,317	\$104,364	\$58,520	\$59,690	\$77,748	\$80,462	\$94,114	\$89,449	\$68,864	\$73,927	\$75,479	\$78,527
Service Retired												
Number	17	16	11	11	73	74	0	1	0	0	101	102
Average Age	71.96	73.13	80.05	78.30	66.99	67.87	0.00	64.83	0.00	0.00	69.25	69.79
Average Total Benefit*	\$72,889	\$73,406	\$37,774	\$37,253	\$28,651	\$29,836	\$0	\$59,530	\$0	\$0	\$37,091	\$37,762
Beneficiaries												
Number	0	1	0	0	6	6	0	0	0	0	6	7
Average Age	0.00	75.11	0.00	0.00	71.04	72.04	0.00	0.00	0.00	0.00	71.04	72.48
Average Total Benefit*	\$0	\$64,783	\$0	\$0	\$21,048	\$21,469	\$0	\$0	\$0	\$0	\$21,048	\$27,656
Duty Disabled												
Number	0	0	0	0	1	1	0	0	0	0	1	1
Average Age	0.00	0.00	0.00	0.00	74.93	75.93	0.00	0.00	0.00	0.00	74.93	75.93
Average Total Benefit*	\$0	\$0	\$0	\$0	\$30,858	\$31,475	\$0	\$0	\$0	\$0	\$30,858	\$31,475
Ordinary Disabled												
Number	0	0	1	1	1	1	0	0	0	0	2	2
Average Age	0.00	0.00	72.71	73.71	56.98	57.98	0.00	0.00	0.00	0.00	64.85	65.85
Average Total Benefit*	\$0	\$0	\$14,403	\$14,691	\$37,340	\$38,087	\$0	\$0	\$0	\$0	\$25,871	\$26,389
Total In Pay												
Number	17	17	12	12	81	82	0	1	0	0	110	112
Average Age	71.96	73.25	79.43	77.92	67.27	68.15	0.00	64.83	0.00	0.00	69.32	69.94
Average Total Benefit*	\$72,889	\$72,899	\$35,826	\$35,373	\$28,223	\$29,345	\$0	\$59,530	\$0	\$0	\$35,955	\$36,871
Terminated Vested												
Number	0	0	0	0	13	13	0	0	0	0	13	13
Average Age	0.00	0.00	0.00	0.00	44.84	45.84	0.00	0.00	0.00	0.00	44.84	45.84
Average Service	0.00	0.00	0.00	0.00	9.46	9.46	0.00	0.00	0.00	0.00	9.46	9.46
Transfers												
Number	0	0	2	1	18	19	2	2	4	5	26	27
Average Age	0.00	0.00	62.43	62.04	52.04	53.12	37.66	38.66	46.46	43.29	50.88	50.56
Average Service	0.00	0.00	4.00	5.00	5.89	6.84	2.50	2.50	2.25	2.00	4.92	5.56
Total Inactive												
Number	0	0	2	1	31	32	2	2	4	5	39	40
Average Age	0.00	0.00	62.43	62.04	49.02	50.16	37.66	38.66	46.46	43.29	48.86	49.03
Average Service	0.00	0.00	4.00	5.00	7.39	7.91	2.50	2.50	2.25	2.00	6.44	6.83

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
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Participant Data as of June 30,2020: Marin Special Districts																
	Southern Marin Fire Tier 1 Miscellaneous		Southern Marin Fire Tier 2 Miscellaneous		Total		Southern Marin Fire Tier 1 Safety		Southern Marin Fire Tier 2 Safety		Southern Marin Fire Tier 2A Safety		Southern Marin Fire Tier 3A Safety		Total	
	6/30/2019	6/30/2020	6/30/2019	6/30/2020	6/30/2019	6/30/2020	6/30/2019	6/30/2020	6/30/2019	6/30/2020	6/30/2019	6/30/2020	6/30/2019	6/30/2020	6/30/2019	6/30/2020
Active Participants																
Number	0	0	4	5	4	5	12	12	23	22	3	6	13	11	51	51
Average Age	0.00	0.00	40.53	40.06	40.53	40.06	49.04	50.04	43.46	44.61	35.19	37.05	33.35	33.99	41.71	42.71
Average Service	0.00	0.00	2.75	3.40	2.75	3.40	19.00	20.00	8.52	9.68	2.67	3.67	3.00	4.09	9.24	10.20
Average Pay*	\$0	\$0	\$105,768	\$105,830	\$105,768	\$105,830	\$143,695	\$151,840	\$120,347	\$129,847	\$105,826	\$112,783	\$106,877	\$119,800	\$121,553	\$130,847
Service Retired																
Number	4	4	0	0	4	4	28	27	3	3	0	0	0	0	31	30
Average Age	69.23	70.23	0.00	0.00	69.23	70.23	63.16	64.56	57.42	58.09	0.00	0.00	0.00	0.00	62.60	63.92
Average Total Benefit*	\$28,415	\$29,410	\$0	\$0	\$28,415	\$29,410	\$76,630	\$79,655	\$14,672	\$15,186	\$0	\$0	\$0	\$0	\$70,634	\$73,208
Beneficiaries																
Number	0	0	0	0	0	0	10	10	0	0	0	0	0	0	10	10
Average Age	0.00	0.00	0.00	0.00	0.00	0.00	67.59	68.59	0.00	0.00	0.00	0.00	0.00	0.00	67.59	68.59
Average Total Benefit*	\$0	\$0	\$0	\$0	\$0	\$0	\$44,969	\$46,563	\$0	\$0	\$0	\$0	\$0	\$0	\$44,969	\$46,563
Duty Disabled																
Number	1	1	0	0	1	1	17	17	1	1	0	0	0	0	18	18
Average Age	75.27	76.28	0.00	0.00	75.27	76.28	67.92	67.67	49.51	50.51	0.00	0.00	0.00	0.00	66.89	66.71
Average Total Benefit*	\$4,547	\$4,706	\$0	\$0	\$4,547	\$4,706	\$59,605	\$63,205	\$48,188	\$49,874	\$0	\$0	\$0	\$0	\$58,971	\$62,464
Ordinary Disabled																
Number	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Average Age	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Total Benefit*	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total In Pay																
Number	5	5	0	0	5	5	55	54	4	4	0	0	0	0	59	58
Average Age	70.44	71.44	0.00	0.00	70.44	71.44	65.43	66.29	55.44	56.19	0.00	0.00	0.00	0.00	64.76	65.59
Average Total Benefit*	\$23,641	\$24,469	\$0	\$0	\$23,641	\$24,469	\$65,611	\$68,348	\$23,051	\$23,858	\$0	\$0	\$0	\$0	\$62,726	\$65,280
Terminated Vested																
Number	1	1	1	0	2	1	0	0	2	2	0	0	0	0	2	2
Average Age	75.85	76.85	44.95	0.00	60.40	76.85	0.00	0.00	52.70	53.70	0.00	0.00	0.00	0.00	52.70	53.70
Average Service	9.00	9.00	1.00	0.00	5.00	9.00	0.00	0.00	3.50	3.50	0.00	0.00	0.00	0.00	3.50	3.50
Transfers																
Number	0	0	0	1	0	1	6	6	5	5	0	0	0	0	11	11
Average Age	0.00	0.00	0.00	45.95	0.00	45.95	51.78	52.78	39.62	40.62	0.00	0.00	0.00	0.00	46.25	47.25
Average Service	0.00	0.00	0.00	1.00	0.00	1.00	6.33	6.33	3.80	3.80	0.00	0.00	0.00	0.00	5.18	5.18
Total Inactive																
Number	1	1	1	1	2	2	6	6	7	7	0	0	0	0	13	13
Average Age	75.85	76.85	44.95	45.95	60.40	61.40	51.78	52.78	43.36	44.36	0.00	0.00	0.00	0.00	47.24	48.25
Average Service	9.00	9.00	1.00	1.00	5.00	5.00	6.33	6.33	3.71	3.71	0.00	0.00	0.00	0.00	4.92	4.92



**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020**

APPENDIX A – MEMBERSHIP INFORMATION

Participant Data as of June 30,2020: Marin Special Districts														
	Southern Marin Fire		Marin City CSD		Marin City CSD		Total	Total	Mosquito District		Mosquito District		Total	
	Total		Tier 1 Miscellaneous		Tier 2 Miscellaneous				Tier 1 Miscellaneous		Tier 2 Miscellaneous			
	6/30/2019	6/30/2020	6/30/2019	6/30/2020	6/30/2019	6/30/2020	6/30/2019	6/30/2020	6/30/2019	6/30/2020	6/30/2019	6/30/2020	6/30/2019	6/30/2020
Active Participants														
Number	55	56	4	1	1	4	5	5	27	26	6	6	33	32
Average Age	41.62	42.47	48.65	40.20	57.51	48.54	50.42	46.87	52.95	53.62	37.21	38.21	50.09	50.73
Average Service	8.76	9.59	3.75	0.00	1.00	1.00	3.20	0.80	15.33	15.96	1.67	2.67	12.85	13.47
Average Pay*	\$120,405	\$128,614	\$53,659	\$71,802	\$52,000	\$69,714	\$53,327	\$70,132	\$103,537	\$108,581	\$89,805	\$96,765	\$101,040	\$106,366
Service Retired														
Number	35	34	1	1	0	0	1	1	14	13	0	0	14	13
Average Age	63.36	64.66	70.52	71.52	0.00	0.00	70.52	71.52	66.05	66.92	0.00	0.00	66.05	66.92
Average Total Benefit*	\$65,809	\$68,055	\$34,034	\$35,225	\$0	\$0	\$34,034	\$35,225	\$66,783	\$60,756	\$0	\$0	\$66,783	\$60,756
Beneficiaries														
Number	10	10	0	1	0	0	0	1	4	5	0	0	4	5
Average Age	67.59	68.59	0.00	59.74	0.00	0.00	0.00	59.74	74.44	72.66	0.00	0.00	74.44	72.66
Average Total Benefit*	\$44,969	\$46,563	\$0	\$3,866	\$0	\$0	\$0	\$3,866	\$17,346	\$25,681	\$0	\$0	\$17,346	\$25,681
Duty Disabled														
Number	19	19	0	0	0	0	0	0	3	3	0	0	3	3
Average Age	67.34	67.22	0.00	0.00	0.00	0.00	0.00	0.00	63.92	64.92	0.00	0.00	63.92	64.92
Average Total Benefit*	\$56,106	\$59,424	\$0	\$0	\$0	\$0	\$0	\$0	\$49,690	\$51,429	\$0	\$0	\$49,690	\$51,429
Ordinary Disabled														
Number	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Average Age	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Total Benefit*	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total In Pay														
Number	64	63	1	2	0	0	1	2	21	21	0	0	21	21
Average Age	65.20	66.05	70.52	65.63	0.00	0.00	70.52	65.63	67.35	68.00	0.00	0.00	67.35	68.00
Average Total Benefit*	\$59,672	\$62,041	\$34,034	\$19,546	\$0	\$0	\$34,034	\$19,546	\$54,924	\$51,073	\$0	\$0	\$54,924	\$51,073
Terminated Vested														
Number	4	3	2	3	0	0	2	3	1	1	0	0	1	1
Average Age	56.55	61.41	41.27	42.11	0.00	0.00	41.27	42.11	36.97	37.97	0.00	0.00	36.97	37.97
Average Service	4.25	5.33	8.50	8.00	0.00	0.00	8.50	8.00	10.00	10.00	0.00	0.00	10.00	10.00
Transfers														
Number	11	12	0	0	0	0	0	0	1	1	0	0	1	1
Average Age	46.25	47.15	0.00	0.00	0.00	0.00	0.00	0.00	53.02	54.03	0.00	0.00	53.02	54.03
Average Service	5.18	4.83	0.00	0.00	0.00	0.00	0.00	0.00	11.00	11.00	0.00	0.00	11.00	11.00
Total Inactive														
Number	15	15	2	3	0	0	2	3	2	2	0	0	2	2
Average Age	49.00	50.00	41.27	42.11	0.00	0.00	41.27	42.11	45.00	46.00	0.00	0.00	45.00	46.00
Average Service	4.93	4.93	8.50	8.00	0.00	0.00	8.50	8.00	10.50	10.50	0.00	0.00	10.50	10.50



**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020**

APPENDIX A – MEMBERSHIP INFORMATION

Participant Data as of June 30,2020: Marin Special Districts														
	LAFCO Tier 2 Miscellaneous		LAFCO Tier 3 Miscellaneous		LAFCO Tier 4 Miscellaneous		Total		Tamalpais CSD Tier 1 Miscellaneous		Tamalpais CSD Tier 2 Miscellaneous		Total	
	6/30/2019	6/30/2020	6/30/2019	6/30/2020	6/30/2019	6/30/2020	6/30/2019	6/30/2020	6/30/2019	6/30/2020	6/30/2019	6/30/2020	6/30/2019	6/30/2020
Active Participants														
Number	0	0	1	0	2	2	3	2	6	6	7	7	13	13
Average Age	0.00	0.00	49.04	0.00	40.04	41.04	43.04	41.04	59.31	55.05	40.61	43.90	49.24	49.05
Average Service	0.00	0.00	10.00	0.00	0.00	1.00	3.33	1.00	13.17	11.83	2.00	3.00	7.15	7.08
Average Pay*	\$0	\$0	\$71,670	\$0	\$114,876	\$114,785	\$100,474	\$114,785	\$109,993	\$111,947	\$75,336	\$85,424	\$91,332	\$97,666
Service Retired														
Number	2	2	2	2	0	0	4	4	10	11	0	0	10	11
Average Age	71.38	72.38	60.76	61.76	0.00	0.00	66.07	67.07	70.07	71.26	0.00	0.00	70.07	71.26
Average Total Benefit*	\$28,949	\$29,962	\$6,067	\$6,189	\$0	\$0	\$17,508	\$18,075	\$32,847	\$34,425	\$0	\$0	\$32,847	\$34,425
Beneficiaries														
Number	0	0	0	0	0	0	0	0	4	4	0	0	4	4
Average Age	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	52.68	53.68	0.00	0.00	52.68	53.68
Average Total Benefit*	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$27,683	\$30,988	\$0	\$0	\$27,683	\$30,988
Duty Disabled														
Number	0	0	0	0	0	0	0	0	1	1	0	0	1	1
Average Age	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	47.31	48.31	0.00	0.00	47.31	48.31
Average Total Benefit*	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$15,417	\$15,957	\$0	\$0	\$15,417	\$15,957
Ordinary Disabled														
Number	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Average Age	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Total Benefit*	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total In Pay														
Number	2	2	2	2	0	0	4	4	15	16	0	0	15	16
Average Age	71.38	72.38	60.76	61.76	0.00	0.00	66.07	67.07	63.92	65.43	0.00	0.00	63.92	65.43
Average Total Benefit*	\$28,949	\$29,962	\$6,067	\$6,189	\$0	\$0	\$17,508	\$18,075	\$30,308	\$32,412	\$0	\$0	\$30,308	\$32,412
Terminated Vested														
Number	0	0	0	1	0	0	0	1	0	0	0	0	0	0
Average Age	0.00	0.00	0.00	50.05	0.00	0.00	0.00	50.05	0.00	0.00	0.00	0.00	0.00	0.00
Average Service	0.00	0.00	0.00	11.00	0.00	0.00	0.00	11.00	0.00	0.00	0.00	0.00	0.00	0.00
Transfers														
Number	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Average Age	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	41.59	0.00	41.59
Average Service	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Total Inactive														
Number	0	0	0	1	0	0	0	1	0	0	0	1	0	1
Average Age	0.00	0.00	0.00	50.05	0.00	0.00	0.00	50.05	0.00	0.00	0.00	41.59	0.00	41.59
Average Service	0.00	0.00	0.00	11.00	0.00	0.00	0.00	11.00	0.00	0.00	0.00	1.00	0.00	1.00

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020**

APPENDIX A – MEMBERSHIP INFORMATION

Participant Data as of June 30, 2020: Novato Fire Protection District												
	Tier 1 Miscellaneous		Tier 2A Miscellaneous		Tier 1 Safety		Tier 2 Safety		Tier 3 Safety		Tier 3A Safety	
	6/30/2019	6/30/2020	6/30/2019	6/30/2020	6/30/2019	6/30/2020	6/30/2019	6/30/2020	6/30/2019	6/30/2020	6/30/2019	6/30/2020
Active Participants												
Number	5	5	4	5	45	41	8	9	6	6	7	11
Average Age	49.39	50.39	41.45	43.15	47.30	47.59	42.56	43.24	37.92	38.92	31.54	33.04
Average Service	15.80	16.80	2.25	2.60	18.71	19.20	7.00	7.22	5.17	6.17	1.14	1.55
Average Pay*	\$123,440	\$126,150	\$95,814	\$89,213	\$139,852	\$146,359	\$120,306	\$123,419	\$121,293	\$123,630	\$110,362	\$115,753
Service Retired												
Number	6	6	0	0	57	58	0	0	0	0	0	0
Average Age	63.67	64.67	0.00	0.00	68.11	68.41	0.00	0.00	0.00	0.00	0.00	0.00
Average Total Benefit*	\$38,935	\$40,297	\$0	\$0	\$107,490	\$112,801	\$0	\$0	\$0	\$0	\$0	\$0
Beneficiaries												
Number	1	1	0	0	15	19	0	0	0	0	0	0
Average Age	56.67	57.67	0.00	0.00	65.41	66.77	0.00	0.00	0.00	0.00	0.00	0.00
Average Total Benefit*	\$12,366	\$12,798	\$0	\$0	\$46,045	\$43,558	\$0	\$0	\$0	\$0	\$0	\$0
Duty Disabled												
Number	0	0	0	0	32	32	1	1	0	0	0	0
Average Age	0.00	0.00	0.00	0.00	69.46	69.65	40.95	41.95	0.00	0.00	0.00	0.00
Average Total Benefit*	\$0	\$0	\$0	\$0	\$77,638	\$85,794	\$61,283	\$63,428	\$0	\$0	\$0	\$0
Ordinary Disabled												
Number	0	0	0	0	0	0	0	0	0	0	0	0
Average Age	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Total Benefit*	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total In Pay												
Number	7	7	0	0	104	109	1	1	0	0	0	0
Average Age	62.67	63.67	0.00	0.00	68.13	68.48	40.95	41.95	0.00	0.00	0.00	0.00
Average Total Benefit*	\$35,139	\$36,369	\$0	\$0	\$89,442	\$92,802	\$61,283	\$63,428	\$0	\$0	\$0	\$0
Terminated Vested												
Number	1	1	0	0	2	1	0	0	0	0	0	0
Average Age	44.12	45.12	0.00	0.00	51.20	48.64	0.00	0.00	0.00	0.00	0.00	0.00
Average Service	12.00	12.00	0.00	0.00	5.00	9.00	0.00	0.00	0.00	0.00	0.00	0.00
Transfers												
Number	0	0	0	0	10	10	0	0	1	1	0	0
Average Age	0.00	0.00	0.00	0.00	45.71	46.71	0.00	0.00	27.64	28.65	0.00	0.00
Average Service	0.00	0.00	0.00	0.00	4.00	4.00	0.00	0.00	3.00	3.00	0.00	0.00
Total Inactive												
Number	1	1	0	0	12	11	0	0	1	1	0	0
Average Age	44.12	45.12	0.00	0.00	46.62	46.89	0.00	0.00	27.64	28.65	0.00	0.00
Average Service	12.00	12.00	0.00	0.00	4.17	4.45	0.00	0.00	3.00	3.00	0.00	0.00

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020**

APPENDIX A – MEMBERSHIP INFORMATION

Participant Data as of June 30, 2020: Novato Fire Protection District						
	Miscellaneous		Safety		Total	
	6/30/2019	6/30/2020	6/30/2019	6/30/2020	6/30/2019	6/30/2020
Active Participants						
Number	9	10	66	67	75	77
Average Age	45.86	46.77	44.20	43.84	44.40	44.22
Average Service	9.78	9.70	14.20	13.52	13.67	13.03
Average Pay*	\$111,162	\$107,682	\$132,668	\$136,217	\$130,087	\$132,511
Service Retired						
Number	6	6	57	58	63	64
Average Age	63.67	64.67	68.11	68.41	67.69	68.06
Average Total Benefit*	\$38,935	\$40,297	\$107,490	\$112,801	\$100,961	\$106,004
Beneficiaries						
Number	1	1	15	19	16	20
Average Age	56.67	57.67	65.41	66.77	64.86	66.31
Average Total Benefit*	\$12,366	\$12,798	\$46,045	\$43,558	\$43,940	\$42,020
Duty Disabled						
Number	0	0	33	33	33	33
Average Age	0.00	0.00	68.59	68.81	68.59	68.81
Average Total Benefit*	\$0	\$0	\$77,142	\$85,116	\$77,142	\$85,116
Ordinary Disabled						
Number	0	0	0	0	0	0
Average Age	0.00	0.00	0.00	0.00	0.00	0.00
Average Total Benefit*	\$0	\$0	\$0	\$0	\$0	\$0
Total In Pay						
Number	7	7	105	110	112	117
Average Age	62.67	63.67	67.88	68.24	67.55	67.97
Average Total Benefit*	\$35,139	\$36,369	\$89,174	\$92,535	\$85,797	\$89,175
Terminated Vested						
Number	1	1	2	1	3	2
Average Age	44.12	45.12	51.20	48.64	48.84	46.88
Average Service	12.00	12.00	5.00	9.00	7.33	10.50
Transfers						
Number	0	0	11	11	11	11
Average Age	0.00	0.00	44.07	45.07	44.07	45.07
Average Service	0.00	0.00	3.91	3.91	3.91	3.91
Total Inactive						
Number	1	1	13	12	14	13
Average Age	44.12	45.12	45.16	45.37	45.09	45.35
Average Service	12.00	12.00	4.08	4.33	4.64	4.92



**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020**

APPENDIX A – MEMBERSHIP INFORMATION

Participant Data as of June 30, 2020: City of San Rafael										
	Miscellaneous		Police		Fire		Total Safety		Total	
	6/30/2019	6/30/2020	6/30/2019	6/30/2020	6/30/2019	6/30/2020	6/30/2019	6/30/2020	6/30/2019	6/30/2020
Active Participants										
Number	207	205	64	60	67	67	131	127	338	332
Average Age	45.90	45.01	39.08	39.69	39.04	39.38	39.06	39.53	43.25	42.91
Average Service	9.49	9.07	10.36	10.35	9.63	10.06	9.98	10.20	9.68	9.50
Average Pay*	\$82,386	\$83,143	\$121,082	\$126,558	\$132,974	\$134,591	\$127,165	\$130,796	\$99,741	\$101,372
Service Retired										
Number	274	278	79	80	87	86	166	166	440	444
Average Age	69.58	69.96	66.27	66.91	67.88	68.73	67.11	67.86	68.65	69.18
Average Total Benefit*	\$38,401	\$39,832	\$71,207	\$73,645	\$94,357	\$97,541	\$83,340	\$86,025	\$55,355	\$57,103
Beneficiaries										
Number	39	43	23	24	21	22	44	46	83	89
Average Age	75.90	75.39	69.45	69.04	72.78	74.18	71.04	71.50	73.32	73.38
Average Total Benefit*	\$20,051	\$22,467	\$37,040	\$35,984	\$40,621	\$41,596	\$38,749	\$38,668	\$29,963	\$30,841
Duty Disabled										
Number	18	18	41	43	24	24	65	67	83	85
Average Age	66.93	67.93	62.03	62.16	68.97	68.81	64.59	64.54	65.10	65.26
Average Total Benefit*	\$29,526	\$30,412	\$62,066	\$63,027	\$92,113	\$97,086	\$73,160	\$75,227	\$63,698	\$65,737
Ordinary Disabled										
Number	3	3	0	0	0	0	0	0	3	3
Average Age	72.53	73.53	0.00	0.00	0.00	0.00	0.00	0.00	72.53	73.53
Average Total Benefit*	\$17,986	\$18,526	\$0	\$0	\$0	\$0	\$0	\$0	\$17,986	\$18,526
Total In Pay										
Number	334	342	143	147	132	132	275	279	609	621
Average Age	70.20	70.57	65.57	65.87	68.86	69.65	67.15	67.66	68.82	69.26
Average Total Benefit*	\$35,596	\$36,966	\$63,091	\$64,390	\$85,400	\$88,134	\$73,799	\$75,624	\$52,847	\$54,334
Terminated Vested										
Number	43	46	13	20	1	5	14	25	57	71
Average Age	48.28	48.19	43.12	43.37	40.11	37.29	42.91	42.15	46.96	46.06
Average Service	6.09	6.00	11.08	10.45	9.00	5.60	10.93	9.48	7.28	7.23
Transfers										
Number	67	64	15	14	5	5	20	19	87	83
Average Age	42.76	44.80	46.78	47.11	41.95	42.95	45.57	46.02	43.41	45.08
Average Service	3.18	3.20	4.93	3.64	3.60	3.60	4.60	3.63	3.51	3.30
Total Inactive										
Number	110	110	28	34	6	10	34	44	144	154
Average Age	44.92	46.22	45.08	44.91	41.64	40.12	44.47	43.82	44.81	45.53
Average Service	4.32	4.37	7.79	7.65	4.50	4.60	7.21	6.95	5.00	5.11



**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020**

APPENDIX A – MEMBERSHIP INFORMATION

Participant Data as of June 30, 2020: City of San Rafael																		
	Tier 1 Miscellaneous		Tier 2 Miscellaneous		Tier 3 Miscellaneous		Tier 1 Police		Tier 2 Police		Tier 3 Safety		Tier 1 Fire		Tier 2 Fire		Tier 3 Fire	
	6/30/2019	6/30/2020	6/30/2019	6/30/2020	6/30/2019	6/30/2020	6/30/2019	6/30/2020	6/30/2019	6/30/2020	6/30/2019	6/30/2020	6/30/2019	6/30/2020	6/30/2019	6/30/2020	6/30/2019	6/30/2020
Active Participants																		
Number	98	83	16	16	93	106	34	29	4	5	26	26	32	31	15	12	20	24
Average Age	53.06	52.78	46.13	46.75	38.31	38.67	46.31	47.39	41.23	41.30	29.29	30.80	45.04	45.49	35.84	37.59	31.85	32.40
Average Service	17.14	18.04	4.81	5.13	2.23	2.64	17.00	17.97	6.00	5.80	2.35	2.73	15.16	16.00	5.93	7.50	3.55	3.67
Average Pay*	\$87,829	\$88,063	\$106,877	\$109,789	\$72,438	\$75,269	\$137,815	\$142,233	\$135,569	\$138,265	\$96,972	\$106,824	\$149,948	\$152,939	\$125,611	\$132,696	\$111,339	\$111,839
Service Retired																		
Number	272	276	1	1	1	1	79	80	0	0	0	0	87	86	0	0	0	0
Average Age	69.56	69.95	75.55	76.55	67.10	68.11	66.27	66.91	0.00	0.00	0.00	0.00	67.88	68.73	0.00	0.00	0.00	0.00
Average Total Benefit*	\$38,656	\$40,094	\$3,806	\$3,882	\$3,562	\$3,669	\$71,207	\$73,645	\$0	\$0	\$0	\$0	\$94,357	\$97,541	\$0	\$0	\$0	\$0
Beneficiaries																		
Number	39	43	0	0	0	0	23	24	0	0	0	0	21	22	0	0	0	0
Average Age	75.90	75.39	0.00	0.00	0.00	0.00	69.45	69.04	0.00	0.00	0.00	0.00	72.78	74.18	0.00	0.00	0.00	0.00
Average Total Benefit*	\$20,051	\$22,467	\$0	\$0	\$0	\$0	\$37,040	\$35,984	\$0	\$0	\$0	\$0	\$40,621	\$41,596	\$0	\$0	\$0	\$0
Duty Disabled																		
Number	18	18	0	0	0	0	41	43	0	0	0	0	24	24	0	0	0	0
Average Age	66.93	67.93	0.00	0.00	0.00	0.00	62.03	62.16	0.00	0.00	0.00	0.00	68.97	68.81	0.00	0.00	0.00	0.00
Average Total Benefit*	\$29,526	\$30,412	\$0	\$0	\$0	\$0	\$62,066	\$63,027	\$0	\$0	\$0	\$0	\$92,113	\$97,086	\$0	\$0	\$0	\$0
Ordinary Disabled																		
Number	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Average Age	72.53	73.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Total Benefit*	\$17,986	\$18,526	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total In Pay																		
Number	332	340	1	1	1	1	143	147	0	0	0	0	132	132	0	0	0	0
Average Age	70.19	70.56	75.55	76.55	67.10	68.11	65.57	65.87	0.00	0.00	0.00	0.00	68.86	69.65	0.00	0.00	0.00	0.00
Average Total Benefit*	\$35,789	\$37,162	\$3,806	\$3,882	\$3,562	\$3,669	\$63,091	\$64,390	\$0	\$0	\$0	\$0	\$85,400	\$88,134	\$0	\$0	\$0	\$0
Terminated Vested																		
Number	32	34	6	7	5	5	10	16	2	2	1	2	1	2	0	3	0	0
Average Age	50.24	49.68	45.38	46.96	39.22	39.76	46.29	45.70	32.45	33.45	32.81	34.61	40.11	42.47	0.00	33.83	0.00	0.00
Average Service	7.13	6.68	2.00	3.29	4.40	5.20	13.00	11.75	4.50	4.50	5.00	6.00	9.00	8.50	0.00	3.67	0.00	0.00
Transfers																		
Number	45	44	6	6	16	14	15	13	0	0	0	1	4	4	0	0	1	1
Average Age	47.97	49.21	41.93	42.93	28.42	31.75	46.78	47.84	0.00	0.00	0.00	37.57	44.44	45.44	0.00	0.00	31.98	32.98
Average Service	4.27	4.11	2.50	2.50	0.38	0.64	4.93	3.85	0.00	0.00	0.00	1.00	4.00	4.00	0.00	0.00	2.00	2.00
Total Inactive																		
Number	77	78	12	13	21	19	25	29	2	2	1	3	5	6	0	3	1	1
Average Age	48.91	49.42	43.65	45.10	30.99	33.86	46.58	46.66	32.45	33.45	32.81	35.60	43.57	44.45	0.00	33.83	31.98	32.98
Average Service	5.45	5.23	2.25	2.92	1.33	1.84	8.16	8.21	4.50	4.50	5.00	4.33	5.00	5.50	0.00	3.67	2.00	2.00



**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020**

APPENDIX A – MEMBERSHIP INFORMATION

**MARIN COUNTY
DISTRIBUTION OF MISCELLANEOUS ACTIVE MEMBERS
BY AGE AND SERVICE AS OF JULY 1, 2020**

COUNTS BY AGE/SERVICE

Age	Service												Total
	0	1	2	3	4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & up	
0 to 19	0	0	0	0	0	0	0	0	0	0	0	0	0
20 to 24	12	3	4	2	0	0	0	0	0	0	0	0	0
25 to 29	29	38	13	11	7	6	0	0	0	0	0	0	0
30 to 34	37	46	24	27	32	42	2	1	0	0	0	0	0
35 to 39	30	21	19	20	20	64	30	5	0	0	0	0	0
40 to 44	23	15	17	12	16	53	39	24	2	0	0	0	0
45 to 49	18	13	18	6	14	39	46	37	21	2	0	0	0
50 to 54	17	18	7	14	12	40	43	35	28	14	3	0	0
55 to 59	12	9	14	12	12	45	31	50	32	21	9	4	0
60 to 64	6	5	9	2	8	26	23	34	27	11	7	4	0
65 to 69	2	2	2	3	3	16	22	18	8	7	5	0	0
70 & up	0	2	0	0	0	1	6	10	9	2	4	1	0
Total	186	172	127	109	124	332	242	214	127	57	28	9	1,727

**MARIN COUNTY
DISTRIBUTION OF MISCELLANEOUS ACTIVE MEMBERS
PAYROLL BY AGE AND SERVICE AS OF JULY 1, 2020**

AVERAGE PAY BY AGE/SERVICE

Age	Service												Total
	0	1	2	3	4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & up	
0 to 19	0	0	0	0	0	0	0	0	0	0	0	0	0
20 to 24	60,543	67,402	61,406	67,460	0	0	0	0	0	0	0	0	0
25 to 29	70,124	68,807	82,238	89,629	79,016	83,831	0	0	0	0	0	0	0
30 to 34	79,821	81,470	88,022	81,091	82,976	90,758	92,873	93,330	0	0	0	0	0
35 to 39	79,830	84,378	89,877	94,734	96,912	97,347	98,406	89,727	0	0	0	0	0
40 to 44	88,583	110,098	93,822	100,317	89,994	93,264	109,205	109,408	110,988	0	0	0	0
45 to 49	80,599	80,337	91,388	105,210	113,077	88,798	108,494	107,483	103,028	107,511	0	0	0
50 to 54	92,361	83,984	105,069	84,149	87,847	103,102	103,199	124,865	107,500	117,940	86,630	0	0
55 to 59	111,593	87,567	97,235	104,793	98,199	100,261	87,943	95,475	100,510	109,549	114,768	130,422	0
60 to 64	70,019	78,778	98,630	79,628	87,652	109,347	110,668	101,363	101,062	108,431	136,338	108,121	0
65 to 69	99,097	73,273	122,096	105,401	96,490	88,754	93,470	100,480	89,425	114,439	97,934	0	0
70 & up	0	104,204	0	0	0	77,854	91,192	79,961	92,723	80,114	96,826	87,497	0
Total	81,313	81,866	91,366	91,295	91,877	96,168	102,067	104,408	101,500	110,891	111,576	115,741	95,252

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020**

APPENDIX A – MEMBERSHIP INFORMATION

**MARIN COUNTY
DISTRIBUTION OF SAFETY ACTIVE MEMBERS
BY AGE AND SERVICE AS OF JULY 1, 2020**

COUNTS BY AGE/SERVICE

Age	Service												Total	
	0	1	2	3	4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & up		
0 to 19	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 to 24	3	3	1	2	0	0	0	0	0	0	0	0	0	9
25 to 29	13	12	6	9	3	14	0	0	0	0	0	0	0	57
30 to 34	4	1	3	7	7	20	7	0	0	0	0	0	0	49
35 to 39	1	4	4	3	4	25	18	5	0	0	0	0	0	64
40 to 44	0	3	0	1	2	7	15	29	4	0	0	0	0	61
45 to 49	1	2	2	0	0	3	12	19	12	5	0	0	0	56
50 to 54	0	1	1	1	0	1	6	7	14	12	1	0	0	44
55 to 59	0	0	0	0	0	2	2	5	3	1	0	0	0	13
60 to 64	0	0	0	0	0	1	1	1	0	0	0	0	0	3
65 to 69	0	0	1	0	0	0	1	2	0	0	0	0	0	4
70 & up	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Total	22	26	18	23	16	73	62	68	33	18	1	1	361	

**MARIN COUNTY
DISTRIBUTION OF SAFETY ACTIVE MEMBERS
PAYROLL BY AGE AND SERVICE AS OF JULY 1, 2020**

AVERAGE PAY BY AGE/SERVICE

Age	Service												Total	
	0	1	2	3	4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & up		
0 to 19	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 to 24	87,953	93,614	109,579	104,302	0	0	0	0	0	0	0	0	0	95,876
25 to 29	88,103	89,995	97,567	99,657	101,636	106,860	0	0	0	0	0	0	0	96,641
30 to 34	105,486	92,414	89,620	96,189	104,956	114,340	127,030	0	0	0	0	0	0	109,535
35 to 39	87,859	91,798	91,956	121,640	97,022	110,344	125,092	117,451	0	0	0	0	0	112,084
40 to 44	0	80,676	0	101,816	100,056	108,395	131,188	130,044	166,938	0	0	0	0	126,386
45 to 49	70,803	166,535	157,238	0	0	116,900	131,237	127,425	143,980	147,695	0	0	0	134,486
50 to 54	0	70,803	129,771	120,789	0	191,901	129,511	130,875	133,446	151,792	170,425	0	0	137,878
55 to 59	0	0	0	0	0	103,480	173,666	136,946	137,897	125,058	0	0	0	136,752
60 to 64	0	0	0	0	0	123,306	158,213	115,404	0	0	0	0	0	132,308
65 to 69	0	0	131,820	0	0	0	139,589	100,766	0	0	0	0	0	118,235
70 & up	0	0	0	0	0	0	0	0	0	0	0	0	255,819	255,819
Total	90,445	94,857	105,985	102,885	101,737	111,960	130,738	127,903	141,741	149,169	170,425	255,819	119,454	

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020**

APPENDIX A – MEMBERSHIP INFORMATION

**MARIN SPECIAL DISTRICTS
DISTRIBUTION OF MISCELLANEOUS ACTIVE MEMBERS
BY AGE AND SERVICE AS OF JULY 1, 2020**

COUNTS BY AGE/SERVICE

Age	Service												Total	
	0	1	2	3	4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & up		
0 to 19	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 to 24	1	0	0	0	0	0	0	0	0	0	0	0	0	1
25 to 29	2	4	0	2	2	0	0	0	0	0	0	0	0	10
30 to 34	2	7	1	1	0	2	0	0	0	0	0	0	0	13
35 to 39	1	2	2	1	1	1	1	1	0	0	0	0	0	10
40 to 44	2	3	1	2	1	0	6	6	2	0	0	0	0	23
45 to 49	1	3	2	3	1	1	3	7	5	0	0	0	0	26
50 to 54	2	0	1	0	0	0	3	5	1	2	0	0	0	14
55 to 59	3	1	0	0	1	5	2	10	2	3	0	1	1	28
60 to 64	0	1	0	1	0	2	3	11	0	1	1	2	2	22
65 to 69	0	0	0	0	0	0	1	1	3	0	0	0	0	5
70 & up	0	0	0	0	0	1	0	0	1	1	0	0	0	3
Total	14	21	7	10	6	12	19	41	14	7	1	3	155	

**MARIN SPECIAL DISTRICTS
DISTRIBUTION OF MISCELLANEOUS ACTIVE MEMBERS
PAYROLL BY AGE AND SERVICE AS OF JULY 1, 2020**

AVERAGE PAY BY AGE/SERVICE

Age	Service												Total	
	0	1	2	3	4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & up		
0 to 19	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 to 24	39,312	0	0	0	0	0	0	0	0	0	0	0	0	39,312
25 to 29	47,414	65,220	0	76,584	56,843	0	0	0	0	0	0	0	0	62,256
30 to 34	60,798	70,867	51,617	58,754	0	63,209	0	0	0	0	0	0	0	65,727
35 to 39	81,973	93,348	107,259	55,926	87,214	74,464	67,061	59,495	0	0	0	0	0	82,735
40 to 44	78,541	85,434	81,827	88,138	208,728	0	76,245	103,922	87,385	0	0	0	0	92,869
45 to 49	115,378	104,525	115,409	128,267	99,137	157,747	75,879	76,301	87,897	0	0	0	0	96,257
50 to 54	106,948	0	64,350	0	0	0	95,942	90,006	59,690	85,712	0	0	0	89,087
55 to 59	96,318	52,000	0	0	104,364	86,713	85,879	94,111	89,018	109,576	0	67,061	0	91,628
60 to 64	0	76,669	0	75,130	0	135,823	72,795	83,122	0	104,364	59,690	85,712	0	95,984
65 to 69	0	0	0	0	0	0	104,364	143,728	107,548	0	0	0	0	114,147
70 & up	0	0	0	0	0	57,545	0	0	83,595	79,706	0	0	0	73,615
Total	79,501	78,200	91,876	90,405	102,188	93,449	80,763	89,423	89,873	97,746	59,690	79,495	86,957	

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020**

APPENDIX A – MEMBERSHIP INFORMATION

**MARIN SPECIAL DISTRICTS
DISTRIBUTION OF SAFETY ACTIVE MEMBERS
BY AGE AND SERVICE AS OF JULY 1, 2020**

COUNTS BY AGE/SERVICE

Age	Service												Total	
	0	1	2	3	4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & up		
0 to 19	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 to 24	0	1	0	0	0	0	0	0	0	0	0	0	0	1
25 to 29	0	2	0	0	0	0	0	0	0	0	0	0	0	2
30 to 34	0	1	0	0	3	3	0	0	0	0	0	0	0	7
35 to 39	0	1	0	0	1	6	4	0	0	0	0	0	0	12
40 to 44	0	0	0	0	1	3	1	1	0	0	0	0	0	6
45 to 49	0	0	0	0	0	4	1	4	1	0	0	0	0	10
50 to 54	0	0	0	0	0	4	2	3	0	1	0	0	0	10
55 to 59	0	0	0	0	0	1	0	0	1	1	0	0	0	3
60 to 64	0	0	0	0	0	0	0	0	0	0	0	0	0	0
65 to 69	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70 & up	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	5	0	0	5	21	8	8	2	2	0	0	0	51

**MARIN SPECIAL DISTRICTS
DISTRIBUTION OF SAFETY ACTIVE MEMBERS
PAYROLL BY AGE AND SERVICE AS OF JULY 1, 2020**

AVERAGE PAY BY AGE/SERVICE

Age	Service												Total	
	0	1	2	3	4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & up		
0 to 19	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 to 24	0	93,854	0	0	0	0	0	0	0	0	0	0	0	93,854
25 to 29	0	103,842	0	0	0	0	0	0	0	0	0	0	0	103,842
30 to 34	0	115,059	0	0	112,270	119,839	0	0	0	0	0	0	0	115,912
35 to 39	0	103,492	0	0	108,647	120,334	124,689	0	0	0	0	0	0	119,408
40 to 44	0	0	0	0	108,647	127,857	116,944	135,256	0	0	0	0	0	124,070
45 to 49	0	0	0	0	0	134,304	119,649	163,856	124,772	0	0	0	0	143,706
50 to 54	0	0	0	0	0	132,027	149,445	155,917	0	143,577	0	0	0	143,833
55 to 59	0	0	0	0	0	212,285	0	0	148,232	147,072	0	0	0	169,196
60 to 64	0	0	0	0	0	0	0	0	0	0	0	0	0	0
65 to 69	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70 & up	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	104,018	0	0	110,821	130,605	129,280	157,304	136,502	145,324	0	0	0	130,847

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020**

APPENDIX A – MEMBERSHIP INFORMATION

**NOVATO FIRE PROTECTION DISTRICT
DISTRIBUTION OF MISCELLANEOUS ACTIVE MEMBERS
BY AGE AND SERVICE AS OF JULY 1, 2020**

COUNTS BY AGE/SERVICE

Age	Service												Total	
	0	1	2	3	4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & up		
0 to 19	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 to 24	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 to 29	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30 to 34	0	1	0	0	0	1	0	0	0	0	0	0	0	2
35 to 39	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40 to 44	0	0	0	0	0	0	0	1	0	0	0	0	0	1
45 to 49	1	1	0	0	0	0	1	0	0	0	0	0	0	3
50 to 54	0	0	0	0	0	0	0	2	0	0	0	0	0	2
55 to 59	0	0	0	0	1	0	0	0	1	0	0	0	0	2
60 to 64	0	0	0	0	0	0	0	0	0	0	0	0	0	0
65 to 69	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70 & up	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	2	0	0	1	1	1	3	1	0	0	0	0	10

**NOVATO FIRE PROTECTION DISTRICT
DISTRIBUTION OF MISCELLANEOUS ACTIVE MEMBERS
PAYROLL BY AGE AND SERVICE AS OF JULY 1, 2020**

AVERAGE PAY BY AGE/SERVICE

Age	Service												Total	
	0	1	2	3	4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & up		
0 to 19	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 to 24	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 to 29	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30 to 34	0	98,721	0	0	0	58,658	0	0	0	0	0	0	0	78,689
35 to 39	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40 to 44	0	0	0	0	0	0	0	90,691	0	0	0	0	0	90,691
45 to 49	52,474	159,001	0	0	0	0	162,745	0	0	0	0	0	0	124,740
50 to 54	0	0	0	0	0	0	0	110,720	0	0	0	0	0	110,720
55 to 59	0	0	0	0	77,213	0	0	0	155,872	0	0	0	0	116,543
60 to 64	0	0	0	0	0	0	0	0	0	0	0	0	0	0
65 to 69	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70 & up	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	52,474	128,861	0	0	77,213	58,658	162,745	104,044	155,872	0	0	0	0	107,682

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020**

APPENDIX A – MEMBERSHIP INFORMATION

**NOVATO FIRE PROTECTION DISTRICT
DISTRIBUTION OF SAFETY ACTIVE MEMBERS
BY AGE AND SERVICE AS OF JULY 1, 2020**

COUNTS BY AGE/SERVICE

Age	Service												Total	
	0	1	2	3	4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & up		
0 to 19	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 to 24	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 to 29	2	0	0	0	0	2	0	0	0	0	0	0	0	4
30 to 34	2	3	2	0	0	1	0	0	0	0	0	0	0	8
35 to 39	0	2	1	0	0	0	1	0	0	0	0	0	0	4
40 to 44	1	0	0	0	0	2	1	8	1	0	0	0	0	13
45 to 49	1	0	0	0	0	0	3	16	6	0	0	0	0	26
50 to 54	0	0	0	0	2	0	0	2	6	1	0	0	0	11
55 to 59	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60 to 64	0	0	0	0	0	0	0	0	1	0	0	0	0	1
65 to 69	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70 & up	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	6	5	3	0	2	5	5	26	14	1	0	0	0	67

**NOVATO FIRE PROTECTION DISTRICT
DISTRIBUTION OF SAFETY ACTIVE MEMBERS
PAYROLL BY AGE AND SERVICE AS OF JULY 1, 2020**

AVERAGE PAY BY AGE/SERVICE

Age	Service												Total	
	0	1	2	3	4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & up		
0 to 19	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 to 24	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 to 29	107,144	0	0	0	0	122,868	0	0	0	0	0	0	0	115,006
30 to 34	109,670	118,311	122,868	0	0	123,757	0	0	0	0	0	0	0	117,971
35 to 39	0	119,578	122,563	0	0	0	128,930	0	0	0	0	0	0	122,662
40 to 44	109,961	0	0	0	0	122,970	124,368	145,322	139,634	0	0	0	0	137,114
45 to 49	116,193	0	0	0	0	0	123,718	134,144	148,110	0	0	0	0	135,473
50 to 54	0	0	0	0	131,889	0	0	122,383	186,407	177,782	0	0	0	164,070
55 to 59	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60 to 64	0	0	0	0	0	0	0	0	122,567	0	0	0	0	122,567
65 to 69	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70 & up	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	109,964	118,818	122,767	0	131,889	123,087	124,890	136,679	162,093	177,782	0	0	0	136,217

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020**

APPENDIX A – MEMBERSHIP INFORMATION

**CITY OF SAN RAFAEL
DISTRIBUTION OF MISCELLANEOUS ACTIVE MEMBERS
BY AGE AND SERVICE AS OF JULY 1, 2020**

COUNTS BY AGE/SERVICE

Age	Service												Total	
	0	1	2	3	4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & up		
0 to 19	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 to 24	6	3	0	0	1	0	0	0	0	0	0	0	0	10
25 to 29	5	4	5	4	0	1	0	0	0	0	0	0	0	19
30 to 34	3	2	5	1	6	4	0	0	0	0	0	0	0	21
35 to 39	2	5	3	3	0	7	1	2	0	0	0	0	0	23
40 to 44	3	4	2	3	2	5	5	2	0	0	0	0	0	26
45 to 49	2	4	0	2	1	2	8	6	3	0	0	0	0	28
50 to 54	2	1	2	0	0	2	6	6	7	4	0	0	0	30
55 to 59	0	2	3	2	1	5	1	3	6	0	2	0	0	25
60 to 64	1	1	0	0	2	0	4	3	4	0	2	0	0	17
65 to 69	0	0	0	0	0	2	3	1	0	0	0	0	0	6
70 & up	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	24	26	20	15	13	28	28	23	20	4	4	0	0	205

**CITY OF SAN RAFAEL
DISTRIBUTION OF MISCELLANEOUS ACTIVE MEMBERS
PAYROLL BY AGE AND SERVICE AS OF JULY 1, 2020**

AVERAGE PAY BY AGE/SERVICE

Age	Service												Total	
	0	1	2	3	4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & up		
0 to 19	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 to 24	60,000	61,432	0	0	41,832	0	0	0	0	0	0	0	0	58,613
25 to 29	68,685	51,584	71,236	73,914	0	77,162	0	0	0	0	0	0	0	67,303
30 to 34	68,892	95,121	70,777	84,104	68,928	80,187	0	0	0	0	0	0	0	74,725
35 to 39	126,021	76,602	101,332	72,001	0	101,969	76,889	70,934	0	0	0	0	0	90,765
40 to 44	53,048	84,031	69,254	109,980	72,755	68,632	92,128	53,766	0	0	0	0	0	77,714
45 to 49	58,476	69,709	0	66,494	195,826	70,259	80,628	81,839	77,107	0	0	0	0	79,732
50 to 54	59,952	67,997	136,295	0	0	93,712	109,758	89,886	84,051	88,009	0	0	0	92,872
55 to 59	0	112,408	119,035	62,975	145,041	90,800	131,688	98,844	90,043	0	103,059	0	0	99,260
60 to 64	64,111	32,409	0	0	138,860	0	88,937	123,277	82,334	0	58,109	0	0	90,904
65 to 69	0	0	0	0	0	84,913	73,445	66,378	0	0	0	0	0	76,090
70 & up	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	67,594	73,233	89,113	78,976	93,807	85,951	91,031	87,499	84,463	88,009	80,584	0	0	83,143

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020**

APPENDIX A – MEMBERSHIP INFORMATION

**CITY OF SAN RAFAEL
DISTRIBUTION OF POLICE ACTIVE MEMBERS
BY AGE AND SERVICE AS OF JULY 1, 2020**

COUNTS BY AGE/SERVICE

Age	Service												Total	
	0	1	2	3	4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & up		
0 to 19	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 to 24	1	1	1	0	0	0	0	0	0	0	0	0	0	3
25 to 29	2	2	2	2	1	1	0	0	0	0	0	0	0	10
30 to 34	2	1	2	0	0	4	0	0	0	0	0	0	0	9
35 to 39	2	1	1	2	0	0	3	0	0	0	0	0	0	9
40 to 44	0	0	0	0	0	1	2	4	0	0	0	0	0	7
45 to 49	0	0	0	0	0	0	3	5	3	0	0	0	0	11
50 to 54	1	0	0	0	0	0	3	1	1	2	0	0	0	8
55 to 59	0	0	0	0	0	1	0	0	1	0	0	0	0	2
60 to 64	0	0	0	0	0	0	0	0	0	0	0	0	0	0
65 to 69	0	0	0	0	0	0	1	0	0	0	0	0	0	1
70 & up	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	8	5	6	4	1	7	12	10	5	2	0	0	0	60

**CITY OF SAN RAFAEL
DISTRIBUTION OF POLICE ACTIVE MEMBERS
BY AGE AND SERVICE AS OF JULY 1, 2020**

AVERAGE PAY BY AGE/SERVICE

Age	Service												Total	
	0	1	2	3	4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & up		
0 to 19	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 to 24	90,151	88,237	90,359	0	0	0	0	0	0	0	0	0	0	89,582
25 to 29	90,681	94,685	103,016	109,048	114,009	120,312	0	0	0	0	0	0	0	102,918
30 to 34	92,128	86,074	124,930	0	0	120,740	0	0	0	0	0	0	0	111,461
35 to 39	112,830	109,121	91,274	114,092	0	0	130,816	0	0	0	0	0	0	116,299
40 to 44	0	0	0	0	0	125,762	143,560	164,069	0	0	0	0	0	152,737
45 to 49	0	0	0	0	0	0	131,244	131,688	146,247	0	0	0	0	135,538
50 to 54	193,830	0	0	0	0	0	133,788	130,401	117,079	167,619	0	0	0	147,239
55 to 59	0	0	0	0	0	193,830	0	0	189,661	0	0	0	0	191,746
60 to 64	0	0	0	0	0	0	0	0	0	0	0	0	0	0
65 to 69	0	0	0	0	0	0	124,254	0	0	0	0	0	0	124,254
70 & up	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	109,408	94,560	106,254	111,570	114,009	131,838	133,244	144,512	149,096	167,619	0	0	0	126,558

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020**

APPENDIX A – MEMBERSHIP INFORMATION

**CITY OF SAN RAFAEL
DISTRIBUTION OF FIRE ACTIVE MEMBERS
BY AGE AND SERVICE AS OF JULY 1, 2020**

COUNTS BY AGE/SERVICE

Age	Service												Total	
	0	1	2	3	4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & up		
0 to 19	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 to 24	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 to 29	3	0	2	1	3	0	0	0	0	0	0	0	0	9
30 to 34	1	0	2	1	1	7	1	0	0	0	0	0	0	13
35 to 39	1	0	0	0	2	10	6	0	0	0	0	0	0	19
40 to 44	0	0	1	0	0	4	3	2	0	0	0	0	0	10
45 to 49	0	0	0	0	0	1	0	2	3	0	0	0	0	6
50 to 54	0	0	0	0	0	0	1	5	2	1	0	0	0	9
55 to 59	0	0	0	0	0	0	0	1	0	0	0	0	0	1
60 to 64	0	0	0	0	0	0	0	0	0	0	0	0	0	0
65 to 69	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70 & up	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	5	0	5	2	6	22	11	10	5	1	0	0	0	67

**CITY OF SAN RAFAEL
DISTRIBUTION OF FIRE ACTIVE MEMBERS
PAYROLL BY AGE AND SERVICE AS OF JULY 1, 2020**

AVERAGE PAY BY AGE/SERVICE

Age	Service												Total	
	0	1	2	3	4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & up		
0 to 19	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 to 24	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25 to 29	90,206	0	109,969	108,673	115,351	0	0	0	0	0	0	0	0	105,031
30 to 34	81,062	0	109,969	121,078	118,690	127,537	152,491	0	0	0	0	0	0	122,002
35 to 39	80,994	0	0	0	125,373	134,679	145,066	0	0	0	0	0	0	134,154
40 to 44	0	0	107,275	0	0	134,192	160,690	234,875	0	0	0	0	0	159,586
45 to 49	0	0	0	0	0	153,551	0	151,552	142,625	0	0	0	0	147,422
50 to 54	0	0	0	0	0	0	133,698	145,664	151,183	139,116	0	0	0	144,834
55 to 59	0	0	0	0	0	0	0	153,500	0	0	0	0	0	153,500
60 to 64	0	0	0	0	0	0	0	0	0	0	0	0	0	0
65 to 69	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70 & up	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	86,535	0	109,430	114,875	119,248	133,176	148,969	165,468	146,048	139,116	0	0	0	134,591

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020**

APPENDIX A – MEMBERSHIP INFORMATION

Changes in Plan Membership: Marin County Miscellaneous

	Actives	Transfer to Participating Agency	Non-vested Terminations Due Refunds	Vested Terminations	Ordinary Disability	Duty Disability	Retired	Beneficiaries	Total Participants
June 30, 2019	1,705	179	350	234	29	84	1,606	275	4,462
New Entrants	196	0	0	0	0	0	0	0	196
Rehires	6	2	(2)	(4)	0	0	(2)	0	0
Duty Disabilities	0	0	0	0	0	0	0	0	0
Ordinary Disabilities	0	0	0	0	0	0	0	0	0
Retirements	(79)	(12)	(5)	(11)	0	0	107	0	0
Retirements from Safety with Misc Service	0	0	0	0	0	0	0	0	0
Vested Terminations	(26)	(1)	0	27	0	0	0	0	0
Died, With Beneficiaries' Benefit Payable	0	0	0	0	0	(1)	(17)	18	0
Non-Vested Terminations and Death without beneficiary	(63)	0	62	0	(1)	(2)	(27)	0	(31)
Transfers	3	8	(3)	(3)	0	0	0	0	5
Beneficiary Deaths	0	0	0	0	0	0	0	(16)	(16)
Domestic Relations Orders	0	0	0	1	0	0	0	1	2
Withdrawals Paid	(15)	0	(15)	(2)	0	0	0	0	(32)
Data Corrections	0	0	0	(1)	0	3	(3)	0	(1)
June 30, 2020	1,727	176	387	241	28	84	1,664	278	4,585

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020**

APPENDIX A – MEMBERSHIP INFORMATION

Changes in Plan Membership: Marin County Safety

	Actives	Transfer to Participating Agency	Non-vested Terminations Due Refunds	Vested Terminations	Ordinary Disability	Duty Disability	Retired	Beneficiaries	Total Participants
June 30, 2019	364	53	31	22	7	125	259	73	934
New Entrants	24	0	0	0	0	0	0	0	24
Rehires	1	0	(1)	0	0	0	0	0	0
Duty Disabilities	0	0	0	0	0	0	0	0	0
Ordinary Disabilities	0	0	0	(1)	1	0	0	0	0
Retirements	(16)	(3)	0	(1)	0	0	20	0	0
Retirements from Safety with Misc Service	0	0	0	0	0	0	0	0	0
Vested Terminations	(5)	0	0	5	0	0	0	0	0
Died, With Beneficiaries' Benefit Payable	0	0	0	0	0	(1)	(6)	7	0
Non-Vested Terminations and Death without beneficiary	(6)	(1)	7	0	0	0	(2)	0	(2)
Transfers	(1)	2	0	0	0	0	0	0	1
Beneficiary Deaths	0	0	0	0	0	0	0	(3)	(3)
Domestic Relations Orders	0	0	0	1	0	0	0	0	1
Withdrawals Paid	0	0	(1)	0	0	0	0	0	(1)
Data Corrections	0	4	0	0	0	2	(2)	0	4
June 30, 2020	361	55	36	26	8	126	269	77	958

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020**

APPENDIX A – MEMBERSHIP INFORMATION

Changes in Plan Membership: Marin Special Districts Miscellaneous

	Actives	Transfer to Participating Agency	Non-vested Terminations Due Refunds	Vested Terminations	Ordinary Disability	Duty Disability	Retired	Beneficiaries	Total Participants
June 30, 2019	156	27	39	18	2	6	134	14	396
New Entrants	19	0	0	0	0	0	0	0	19
Rehires	0	1	0	0	0	0	(1)	0	0
Duty Disabilities	0	0	0	0	0	0	0	0	0
Ordinary Disabilities	0	0	0	0	0	0	0	0	0
Retirements	(4)	(1)	0	0	0	0	5	0	0
Retirements from Safety with Misc Service	0	0	0	0	0	0	0	0	0
Vested Terminations	(2)	0	0	2	0	0	0	0	0
Died, With Beneficiaries' Benefit Payable	(2)	0	0	0	0	0	(1)	3	0
Non-Vested Terminations and Death without beneficiary	(11)	0	11	0	0	0	(2)	0	(2)
Transfers	0	4	0	(1)	0	0	0	0	3
Beneficiary Deaths	0	0	0	0	0	0	0	0	0
Domestic Relations Orders	0	0	0	0	0	0	0	0	0
Withdrawals Paid	(1)	0	(3)	0	0	0	0	0	(4)
Data Corrections	0	(1)	0	0	0	0	0	0	(1)
June 30, 2020	155	30	47	19	2	6	135	17	411

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020**

APPENDIX A – MEMBERSHIP INFORMATION

Changes in Plan Membership: Marin Special Districts Safety

	Actives	Transfer to Participating Agency	Non-vested Terminations Due Refunds	Vested Terminations	Ordinary Disability	Duty Disability	Retired	Beneficiaries	Total Participants
June 30, 2019	51	11	1	2	0	18	31	10	124
New Entrants	0	0	0	0	0	0	0	0	0
Rehires	0	0	0	0	0	0	0	0	0
Duty Disabilities	0	0	0	0	0	0	0	0	0
Ordinary Disabilities	0	0	0	0	0	0	0	0	0
Retirements	0	0	0	0	0	0	0	0	0
Retirements from Safety with Misc Service	0	0	0	0	0	0	0	0	0
Vested Terminations	0	0	0	0	0	0	0	0	0
Died, With Beneficiaries' Benefit Payable	0	0	0	0	0	0	0	0	0
Non-Vested Terminations and Death without beneficiary	0	0	0	0	0	(1)	0	0	(1)
Transfers	0	0	0	0	0	0	0	0	0
Beneficiary Deaths	0	0	0	0	0	0	0	0	0
Domestic Relations Orders	0	0	0	0	0	0	0	0	0
Withdrawals Paid	0	0	0	0	0	0	0	0	0
Data Corrections	0	0	0	0	0	1	(1)	0	0
June 30, 2020	51	11	1	2	0	18	30	10	123

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
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APPENDIX A – MEMBERSHIP INFORMATION

Changes in Plan Membership: Marin County and Special Districts All Groups

	Actives	Transfer to Participating Agency	Non-vested Terminations Due Refunds	Vested Terminations	Ordinary Disability	Duty Disability	Retired	Beneficiaries	Total Participants
June 30, 2019	2,276	270	421	276	38	233	2,030	372	5,916
New Entrants	239	0	0	0	0	0	0	0	239
Rehires	7	3	(3)	(4)	0	0	(3)	0	0
Duty Disabilities	0	0	0	0	0	0	0	0	0
Ordinary Disabilities	0	0	0	(1)	1	0	0	0	0
Retirements	(99)	(16)	(5)	(12)	0	0	132	0	0
Retirements from Safety with Misc Service	0	0	0	0	0	0	0	0	0
Vested Terminations	(33)	(1)	0	34	0	0	0	0	0
Died, With Beneficiaries' Benefit Payable	(2)	0	0	0	0	(2)	(24)	28	0
Non-Vested Terminations and Death without beneficiary	(80)	(1)	80	0	(1)	(3)	(31)	0	(36)
Transfers	2	14	(3)	(4)	0	0	0	0	9
Beneficiary Deaths	0	0	0	0	0	0	0	(19)	(19)
Domestic Relations Orders	0	0	0	2	0	0	0	1	3
Withdrawals Paid	(16)	0	(19)	(2)	0	0	0	0	(37)
Data Corrections	0	3	0	(1)	0	6	(6)	0	2
June 30, 2020	2,294	272	471	288	38	234	2,098	382	6,077

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
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APPENDIX A – MEMBERSHIP INFORMATION

Changes in Plan Membership: Novato Fire Protection District Miscellaneous

	Actives	Transfer to Participating Agency	Non-vested Terminations Due Refunds	Vested Terminations	Ordinary Disability	Duty Disability	Retired	Beneficiaries	Total Participants
June 30, 2019	9	0	1	1	0	0	6	1	18
New Entrants	0	0	0	0	0	0	0	0	0
Rehires	0	0	0	0	0	0	0	0	0
Duty Disabilities	0	0	0	0	0	0	0	0	0
Ordinary Disabilities	0	0	0	0	0	0	0	0	0
Retirements	0	0	0	0	0	0	0	0	0
Retirements from Safety with Misc Service	0	0	0	0	0	0	0	0	0
Vested Terminations	0	0	0	0	0	0	0	0	0
Died, With Beneficiaries' Benefit Payable	0	0	0	0	0	0	0	0	0
Non-Vested Terminations and Death without beneficiary	0	0	0	0	0	0	0	0	0
Transfers	1	0	0	0	0	0	0	0	1
Beneficiary Deaths	0	0	0	0	0	0	0	0	0
Domestic Relations Orders	0	0	0	0	0	0	0	0	0
Withdrawals Paid	0	0	0	0	0	0	0	0	0
Data Corrections	0	0	0	0	0	0	0	0	0
June 30, 2020	10	0	1	1	0	0	6	1	19

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
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APPENDIX A – MEMBERSHIP INFORMATION

Changes in Plan Membership: Novato Fire Protection District Safety

	Actives	Transfer to Participating Agency	Non-vested Terminations Due Refunds	Vested Terminations	Ordinary Disability	Duty Disability	Retired	Beneficiaries	Total Participants
June 30, 2019	66	11	3	2	0	33	57	15	187
New Entrants	5	0	0	0	0	0	0	0	5
Rehires	0	0	0	0	0	0	0	0	0
Duty Disabilities	0	0	0	0	0	0	0	0	0
Ordinary Disabilities	0	0	0	0	0	0	0	0	0
Retirements	(4)	0	0	(1)	0	0	4	1	0
Retirements from Safety with Misc Service	0	0	0	0	0	0	0	0	0
Vested Terminations	0	0	0	0	0	0	0	0	0
Died, With Beneficiaries' Benefit Payable	0	0	0	0	0	(1)	(2)	3	0
Non-Vested Terminations and Death without beneficiary	0	0	0	0	0	0	0	0	0
Transfers	0	0	0	0	0	0	0	0	0
Beneficiary Deaths	0	0	0	0	0	0	0	0	0
Domestic Relations Orders	0	0	0	0	0	0	0	0	0
Withdrawals Paid	0	0	0	0	0	0	0	0	0
Data Corrections	0	0	0	0	0	1	(1)	0	0
June 30, 2020	67	11	3	1	0	33	58	19	192

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
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APPENDIX A – MEMBERSHIP INFORMATION

Changes in Plan Membership: Novato Fire Protection District All Groups

	Actives	Transfer to Participating Agency	Non-vested Terminations Due Refunds	Vested Terminations	Ordinary Disability	Duty Disability	Retired	Beneficiaries	Total Participants
June 30, 2019	75	11	4	3	0	33	63	16	205
New Entrants	5	0	0	0	0	0	0	0	5
Rehires	0	0	0	0	0	0	0	0	0
Duty Disabilities	0	0	0	0	0	0	0	0	0
Ordinary Disabilities	0	0	0	0	0	0	0	0	0
Retirements	(4)	0	0	(1)	0	0	4	1	0
Retirements from Safety with Misc Service	0	0	0	0	0	0	0	0	0
Vested Terminations	0	0	0	0	0	0	0	0	0
Died, With Beneficiaries' Benefit Payable	0	0	0	0	0	(1)	(2)	3	0
Non-Vested Terminations and Death without beneficiary	0	0	0	0	0	0	0	0	0
Transfers	1	0	0	0	0	0	0	0	1
Beneficiary Deaths	0	0	0	0	0	0	0	0	0
Domestic Relations Orders	0	0	0	0	0	0	0	0	0
Withdrawals Paid	0	0	0	0	0	0	0	0	0
Data Corrections	0	0	0	0	0	1	(1)	0	0
June 30, 2020	77	11	4	2	0	33	64	20	211

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
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APPENDIX A – MEMBERSHIP INFORMATION

Changes in Plan Membership: City of San Rafael Miscellaneous

	Actives	Transfer to Participating Agency	Non-vested Terminations Due Refunds	Vested Terminations	Ordinary Disability	Duty Disability	Retired	Beneficiaries	Total Participants
June 30, 2019	207	67	75	43	3	18	274	39	726
New Entrants	26	0	0	0	0	0	0	0	26
Rehires	0	0	0	0	0	0	0	0	0
Duty Disabilities	0	0	0	0	0	0	0	0	0
Ordinary Disabilities	0	0	0	0	0	0	0	0	0
Retirements	(12)	(1)	0	(3)	0	0	14	2	0
Retirements from Safety with Misc Service	0	0	0	0	0	0	0	0	0
Vested Terminations	(5)	(2)	0	7	0	0	0	0	0
Died, With Beneficiaries' Benefit Payable	0	0	0	0	0	0	(4)	4	0
Non-Vested Terminations and Death without beneficiary	(10)	(5)	15	0	0	0	(6)	0	(6)
Transfers	0	1	0	0	0	0	0	0	1
Beneficiary Deaths	0	0	0	0	0	0	0	(2)	(2)
Domestic Relations Orders	0	0	0	1	0	0	0	0	1
Withdrawals Paid	(1)	0	(4)	0	0	0	0	0	(5)
Data Corrections	0	4	(1)	(2)	0	0	0	0	1
June 30, 2020	205	64	85	46	3	18	278	43	742

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
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APPENDIX A – MEMBERSHIP INFORMATION

Changes in Plan Membership: City of San Rafael Police

	Actives	Transfer to Participating Agency	Non-vested Terminations Due Refunds	Vested Terminations	Ordinary Disability	Duty Disability	Retired	Beneficiaries	Total Participants
June 30, 2019	64	15	8	13	0	41	79	23	243
New Entrants	7	0	0	0	0	0	0	0	7
Rehires	0	0	0	0	0	0	0	0	0
Duty Disabilities	(1)	(1)	0	0	0	2	0	0	0
Ordinary Disabilities	0	0	0	0	0	0	0	0	0
Retirements	(1)	(1)	0	0	0	0	2	0	0
Retirements from Safety with Misc Service	0	0	0	0	0	0	0	0	0
Vested Terminations	(4)	0	0	4	0	0	0	0	0
Died, With Beneficiaries' Benefit Payable	0	0	0	0	0	0	(1)	1	0
Non-Vested Terminations and Death without beneficiary	(5)	0	5	0	0	0	0	0	0
Transfers	0	1	0	0	0	0	0	0	1
Beneficiary Deaths	0	0	0	0	0	0	0	(1)	(1)
Domestic Relations Orders	0	0	0	3	0	0	0	1	4
Withdrawals Paid	0	0	0	0	0	0	0	0	0
Data Corrections	0	0	0	0	0	0	0	0	0
June 30, 2020	60	14	13	20	0	43	80	24	254

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
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APPENDIX A – MEMBERSHIP INFORMATION

Changes in Plan Membership: City of San Rafael Fire

	Actives	Transfer to Participating Agency	Non-vested Terminations Due Refunds	Vested Terminations	Ordinary Disability	Duty Disability	Retired	Beneficiaries	Total Participants
June 30, 2019	67	5	8	1	0	24	87	21	213
New Entrants	7	0	0	0	0	0	0	0	7
Rehires	0	0	0	0	0	0	0	0	0
Duty Disabilities	0	0	0	0	0	0	0	0	0
Ordinary Disabilities	0	0	0	0	0	0	0	0	0
Retirements	(1)	0	0	0	0	0	1	0	0
Retirements from Safety with Misc Service	0	0	0	0	0	0	0	0	0
Vested Terminations	(3)	0	0	3	0	0	0	0	0
Died, With Beneficiaries' Benefit Payable	0	0	0	0	0	(1)	0	1	0
Non-Vested Terminations and Death without beneficiary	(3)	0	3	0	0	0	(1)	0	(1)
Transfers	0	0	0	0	0	0	0	0	0
Beneficiary Deaths	0	0	0	0	0	0	0	0	0
Domestic Relations Orders	0	0	0	1	0	0	0	0	1
Withdrawals Paid	0	0	(1)	0	0	0	0	0	(1)
Data Corrections	0	0	0	0	0	1	(1)	0	0
June 30, 2020	67	5	10	5	0	24	86	22	219

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
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APPENDIX A – MEMBERSHIP INFORMATION

Changes in Plan Membership: City of San Rafael All Groups

	Actives	Transfer to Participating Agency	Non-vested Terminations Due Refunds	Vested Terminations	Ordinary Disability	Duty Disability	Retired	Beneficiaries	Total Participants
June 30, 2019	338	87	91	57	3	83	440	83	1,182
New Entrants	40	0	0	0	0	0	0	0	40
Rehires	0	0	0	0	0	0	0	0	0
Duty Disabilities	(1)	(1)	0	0	0	2	0	0	0
Ordinary Disabilities	0	0	0	0	0	0	0	0	0
Retirements	(14)	(2)	0	(3)	0	0	17	2	0
Retirements from Safety with Misc Service	0	0	0	0	0	0	0	0	0
Vested Terminations	(12)	(2)	0	14	0	0	0	0	0
Died, With Beneficiaries' Benefit Payable	0	0	0	0	0	(1)	(5)	6	0
Non-Vested Terminations and Death without beneficiary	(18)	(5)	23	0	0	0	(7)	0	(7)
Transfers	0	2	0	0	0	0	0	0	2
Beneficiary Deaths	0	0	0	0	0	0	0	(3)	(3)
Domestic Relations Orders	0	0	0	5	0	0	0	1	6
Withdrawals Paid	(1)	0	(5)	0	0	0	0	0	(6)
Data Corrections	0	4	(1)	(2)	0	1	(1)	0	1
June 30, 2020	332	83	108	71	3	85	444	89	1,215

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
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APPENDIX A – MEMBERSHIP INFORMATION

Benefit Form Elections: Marin County and Special Districts					
Status	Marin County		Marin Special Districts		Total
	Misc	Safety	Misc	Safety	
Service Retired					
Option 1 - Cash Refund Annuity	57	3	5	0	65
Option 2 - J&S 100%	79	24	8	6	117
Option 3 - J&S 50%	11	2	0	1	14
Option 4	1	0	0	0	1
Unmodified Benefit Option	1,516	239	122	22	1,899
Unmodified Option - Service Connected Disability (missing)	0	1	0	1	2
	0	0	0	0	0
Total Service Retired	1,664	269	135	30	2,098
Ordinary Disability					
Option 1 - Cash Refund Annuity	4	0	0	0	4
Option 2 - J&S 100%	3	1	0	0	4
Option 3 - J&S 50%	0	0	0	0	0
Option 4	0	0	0	0	0
Unmodified Benefit Option	21	7	2	0	30
Unmodified Option - Service Connected Disability (missing)	0	0	0	0	0
	0	0	0	0	0
Total Ordinary Disability	28	8	2	0	38
Duty Disability					
Option 1 - Cash Refund Annuity	1	2	1	0	4
Option 2 - J&S 100%	0	1	0	1	2
Option 3 - J&S 50%	1	1	0	0	2
Option 4	0	0	0	0	0
Unmodified Benefit Option	0	1	0	0	1
Unmodified Option - Service Connected Disability (missing)	82	121	5	17	225
	0	0	0	0	0
Total Duty Disability	84	126	6	18	234
Total	1,776	403	143	48	2,370

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
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APPENDIX A – MEMBERSHIP INFORMATION

Benefit Form Elections: Novato Fire Protection District			
Status	Miscellaneous	Safety	Total
Service Retired			
Option 1 - Cash Refund Annuity	0	0	0
Option 2 - J&S 100%	0	2	2
Option 3 - J&S 50%	1	0	1
Option 4	0	0	0
Unmodified Benefit Option	5	56	61
Unmodified Option - Service Connected Disability	0	0	0
(missing)	0	0	0
Total Service Retired	6	58	64
Ordinary Disability			
Option 1 - Cash Refund Annuity	0	0	0
Option 2 - J&S 100%	0	0	0
Option 3 - J&S 50%	0	0	0
Option 4	0	0	0
Unmodified Benefit Option	0	0	0
Unmodified Option - Service Connected Disability	0	0	0
(missing)	0	0	0
Total Ordinary Disability	0	0	0
Duty Disability			
Option 1 - Cash Refund Annuity	0	0	0
Option 2 - J&S 100%	0	0	0
Option 3 - J&S 50%	0	0	0
Option 4	0	0	0
Unmodified Benefit Option	0	0	0
Unmodified Option - Service Connected Disability	0	33	33
(missing)	0	0	0
Total Duty Disability	0	33	33
Total	6	91	97

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
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APPENDIX A – MEMBERSHIP INFORMATION

Benefit Form Elections: City of San Rafael				
	Miscellaneous	Police	Fire	Total
Service Retired				
Option 1 - Cash Refund Annuity	6	1	0	7
Option 2 - J&S 100%	27	14	6	47
Option 3 - J&S 50%	2	0	1	3
Option 4	0	0	0	0
Unmodified Benefit Option	243	64	79	386
Unmodified Option - Service Connected Disability (missing)	0	0	0	0
	0	1	0	1
Total Service Retired	278	80	86	444
Ordinary Disability				
Option 1 - Cash Refund Annuity	0	0	0	0
Option 2 - J&S 100%	0	0	0	0
Option 3 - J&S 50%	0	0	0	0
Option 4	0	0	0	0
Unmodified Benefit Option	3	0	0	3
Unmodified Option - Service Connected Disability (missing)	0	0	0	0
	0	0	0	0
Total Ordinary Disability	3	0	0	3
Duty Disability				
Option 1 - Cash Refund Annuity	1	1	0	2
Option 2 - J&S 100%	0	0	0	0
Option 3 - J&S 50%	0	0	0	0
Option 4	0	0	0	0
Unmodified Benefit Option	0	0	0	0
Unmodified Option - Service Connected Disability (missing)	17	42	24	83
	0	0	0	0
Total Duty Disability	18	43	24	85
Total	299	123	110	532

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
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APPENDIX A – MEMBERSHIP INFORMATION

Marin County and Special Districts: Service Retired

Age	Marin County				Marin Special Districts				Total	
	Miscellaneous		Safety		Miscellaneous		Safety		Number	Average Annual Benefit
	Number	Average Annual Benefit	Number	Average Annual Benefit	Number	Average Annual Benefit	Number	Average Annual Benefit		
0 to 24	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0
25 to 29	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0
30 to 34	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0
35 to 39	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0
40 to 44	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0
45 to 49	1	\$6,796	3	\$47,903	0	\$0	0	\$0	4	\$37,626
50 to 54	23	\$20,695	31	\$46,640	1	\$15,465	1	\$16,663	56	\$34,892
55 to 59	93	\$27,583	57	\$71,205	11	\$24,945	8	\$41,601	169	\$42,787
60 to 64	211	\$34,443	56	\$67,250	29	\$43,967	10	\$94,218	306	\$43,303
65 to 69	314	\$44,017	50	\$83,488	29	\$36,678	6	\$70,131	399	\$48,822
70 to 74	406	\$40,986	30	\$77,130	32	\$38,028	2	\$97,762	470	\$43,334
75 to 79	290	\$43,388	26	\$84,002	24	\$40,412	3	\$96,090	343	\$46,719
80 to 84	178	\$41,638	13	\$89,559	7	\$52,950	0	\$0	198	\$45,184
85 to 89	95	\$34,216	2	\$24,733	2	\$29,688	0	\$0	99	\$33,933
90 to 94	37	\$33,343	1	\$67,591	0	\$0	0	\$0	38	\$34,244
95+	16	\$25,633	0	\$0	0	\$0	0	\$0	16	\$25,633
<Total>	1,664	\$39,462	269	\$72,000	135	\$38,855	30	\$73,208	2,098	\$44,078

Marin County and Special Districts: Duty Disabled

Age	Marin County				Marin Special Districts				Total	
	Miscellaneous		Safety		Miscellaneous		Safety		Number	Average Annual Benefit
	Number	Average Annual Benefit	Number	Average Annual Benefit	Number	Average Annual Benefit	Number	Average Annual Benefit		
0 to 24	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0
25 to 29	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0
30 to 34	0	\$0	1	\$52,213	0	\$0	0	\$0	1	\$52,213
35 to 39	0	\$0	1	\$47,355	0	\$0	0	\$0	1	\$47,355
40 to 44	0	\$0	3	\$51,603	0	\$0	0	\$0	3	\$51,603
45 to 49	3	\$33,844	6	\$56,505	1	\$15,957	0	\$0	10	\$45,652
50 to 54	2	\$29,502	18	\$54,129	0	\$0	3	\$60,718	23	\$52,847
55 to 59	7	\$30,808	21	\$55,478	1	\$48,600	0	\$0	29	\$49,286
60 to 64	12	\$42,079	20	\$67,442	1	\$66,217	3	\$64,155	36	\$58,680
65 to 69	20	\$33,038	21	\$77,363	0	\$0	5	\$55,403	46	\$55,704
70 to 74	18	\$41,926	11	\$79,446	0	\$0	4	\$63,273	33	\$57,020
75 to 79	11	\$39,817	13	\$64,747	3	\$25,218	3	\$73,211	30	\$52,499
80 to 84	8	\$68,356	8	\$45,965	0	\$0	0	\$0	16	\$57,160
85 to 89	3	\$29,191	2	\$39,991	0	\$0	0	\$0	5	\$33,511
90 to 94	0	\$0	1	\$34,434	0	\$0	0	\$0	1	\$34,434
95+	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0
<Total>	84	\$40,107	126	\$62,730	6	\$34,404	18	\$62,464	234	\$53,862

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
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APPENDIX A – MEMBERSHIP INFORMATION

Marin County and Special Districts: Ordinary Disabled

Age	Marin County				Marin Special Districts				Total	
	Miscellaneous		Safety		Miscellaneous		Safety		Number	Average Annual Benefit
	Number	Average Annual Benefit	Number	Average Annual Benefit	Number	Average Annual Benefit	Number	Average Annual Benefit		
0 to 24	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0
25 to 29	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0
30 to 34	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0
35 to 39	0	\$0	1	\$2,432	0	\$0	0	\$0	1	\$2,432
40 to 44	1	\$24,782	1	\$37,986	0	\$0	0	\$0	2	\$31,384
45 to 49	1	\$2,382	0	\$0	0	\$0	0	\$0	1	\$2,382
50 to 54	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0
55 to 59	0	\$0	4	\$46,701	1	\$38,087	0	\$0	5	\$44,978
60 to 64	4	\$26,291	0	\$0	0	\$0	0	\$0	4	\$26,291
65 to 69	4	\$25,217	1	\$98,129	0	\$0	0	\$0	5	\$39,800
70 to 74	8	\$19,889	1	\$27,940	1	\$14,691	0	\$0	10	\$20,174
75 to 79	7	\$22,395	0	\$0	0	\$0	0	\$0	7	\$22,395
80 to 84	1	\$10,212	0	\$0	0	\$0	0	\$0	1	\$10,212
85 to 89	1	\$3,118	0	\$0	0	\$0	0	\$0	1	\$3,118
90 to 94	1	\$62,204	0	\$0	0	\$0	0	\$0	1	\$62,204
95+	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0
<Total>	28	\$22,307	8	\$44,162	2	\$26,389	0	\$0	38	\$27,123

Marin County and Special Districts: Beneficiaries

Age	Marin County				Marin Special Districts				Total	
	Miscellaneous		Safety		Miscellaneous		Safety		Number	Average Annual Benefit
	Number	Average Annual Benefit	Number	Average Annual Benefit	Number	Average Annual Benefit	Number	Average Annual Benefit		
0 to 24	3	\$32,041	0	\$0	0	\$0	0	\$0	3	\$32,041
25 to 29	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0
30 to 34	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0
35 to 39	1	\$33,898	0	\$0	0	\$0	0	\$0	1	\$33,898
40 to 44	3	\$6,712	1	\$31,873	0	\$0	0	\$0	4	\$13,002
45 to 49	2	\$34,338	0	\$0	1	\$15,957	1	\$48,822	4	\$33,363
50 to 54	3	\$20,562	9	\$37,975	2	\$17,248	0	\$0	14	\$31,283
55 to 59	15	\$18,590	8	\$44,253	2	\$8,941	2	\$62,236	27	\$28,712
60 to 64	26	\$22,080	9	\$41,266	3	\$58,344	1	\$49,361	39	\$29,996
65 to 69	36	\$24,579	11	\$41,073	1	\$41,971	1	\$65,444	49	\$29,470
70 to 74	50	\$31,820	10	\$49,970	3	\$15,928	2	\$36,454	65	\$34,021
75 to 79	34	\$25,177	14	\$49,676	3	\$31,218	1	\$54,982	52	\$32,695
80 to 84	45	\$32,593	5	\$23,020	1	\$18,014	1	\$41,186	52	\$31,557
85 to 89	31	\$28,161	8	\$40,812	1	\$5,035	0	\$0	40	\$30,113
90 to 94	21	\$26,842	1	\$25,163	0	\$0	1	\$8,458	23	\$25,970
95+	8	\$27,337	1	\$59,825	0	\$0	0	\$0	9	\$30,947
<Total>	278	\$27,293	77	\$42,501	17	\$26,460	10	\$46,563	382	\$30,826

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020**

APPENDIX A – MEMBERSHIP INFORMATION

Novato Fire Protection District: Service Retired

Age	<u>Miscellaneous</u>		<u>Safety</u>		<u>Total</u>	
	Number	Average Annual Benefit	Number	Average Annual Benefit	Number	Average Annual Benefit
0 to 24	0	\$0	0	\$0	0	\$0
25 to 29	0	\$0	0	\$0	0	\$0
30 to 34	0	\$0	0	\$0	0	\$0
35 to 39	0	\$0	0	\$0	0	\$0
40 to 44	0	\$0	0	\$0	0	\$0
45 to 49	0	\$0	0	\$0	0	\$0
50 to 54	0	\$0	4	\$111,053	4	\$111,053
55 to 59	2	\$8,042	7	\$133,222	9	\$105,404
60 to 64	2	\$41,053	8	\$88,926	10	\$79,352
65 to 69	1	\$30,807	12	\$121,857	13	\$114,854
70 to 74	0	\$0	12	\$112,893	12	\$112,893
75 to 79	1	\$112,788	11	\$119,555	12	\$118,991
80 to 84	0	\$0	4	\$80,541	4	\$80,541
85 to 89	0	\$0	0	\$0	0	\$0
90 to 94	0	\$0	0	\$0	0	\$0
95+	0	\$0	0	\$0	0	\$0
<Total>	6	\$40,297	58	\$112,801	64	\$106,004

Novato Fire Protection District: Duty Disabled

Age	<u>Miscellaneous</u>		<u>Safety</u>		<u>Total</u>	
	Number	Average Annual Benefit	Number	Average Annual Benefit	Number	Average Annual Benefit
0 to 24	0	\$0	0	\$0	0	\$0
25 to 29	0	\$0	0	\$0	0	\$0
30 to 34	0	\$0	0	\$0	0	\$0
35 to 39	0	\$0	0	\$0	0	\$0
40 to 44	0	\$0	1	\$63,428	1	\$63,428
45 to 49	0	\$0	0	\$0	0	\$0
50 to 54	0	\$0	3	\$148,377	3	\$148,377
55 to 59	0	\$0	4	\$84,926	4	\$84,926
60 to 64	0	\$0	2	\$107,734	2	\$107,734
65 to 69	0	\$0	6	\$69,474	6	\$69,474
70 to 74	0	\$0	6	\$94,233	6	\$94,233
75 to 79	0	\$0	9	\$70,154	9	\$70,154
80 to 84	0	\$0	2	\$65,737	2	\$65,737
85 to 89	0	\$0	0	\$0	0	\$0
90 to 94	0	\$0	0	\$0	0	\$0
95+	0	\$0	0	\$0	0	\$0
<Total>	0	\$0	33	\$85,116	33	\$85,116

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020**

APPENDIX A – MEMBERSHIP INFORMATION

Novato Fire Protection District: Ordinary Disabled

Age	<u>Miscellaneous</u>		<u>Safety</u>		<u>Total</u>	
	Number	Average Annual Benefit	Number	Average Annual Benefit	Number	Average Annual Benefit
0 to 24	0	\$0	0	\$0	0	\$0
25 to 29	0	\$0	0	\$0	0	\$0
30 to 34	0	\$0	0	\$0	0	\$0
35 to 39	0	\$0	0	\$0	0	\$0
40 to 44	0	\$0	0	\$0	0	\$0
45 to 49	0	\$0	0	\$0	0	\$0
50 to 54	0	\$0	0	\$0	0	\$0
55 to 59	0	\$0	0	\$0	0	\$0
60 to 64	0	\$0	0	\$0	0	\$0
65 to 69	0	\$0	0	\$0	0	\$0
70 to 74	0	\$0	0	\$0	0	\$0
75 to 79	0	\$0	0	\$0	0	\$0
80 to 84	0	\$0	0	\$0	0	\$0
85 to 89	0	\$0	0	\$0	0	\$0
90 to 94	0	\$0	0	\$0	0	\$0
95+	0	\$0	0	\$0	0	\$0
<Total>	0	\$0	0	\$0	0	\$0

Novato Fire Protection District: Surviving Beneficiaries

Age	<u>Miscellaneous</u>		<u>Safety</u>		<u>Total</u>	
	Number	Average Annual Benefit	Number	Average Annual Benefit	Number	Average Annual Benefit
0 to 24	0	\$0	0	\$0	0	\$0
25 to 29	0	\$0	0	\$0	0	\$0
30 to 34	0	\$0	0	\$0	0	\$0
35 to 39	0	\$0	0	\$0	0	\$0
40 to 44	0	\$0	0	\$0	0	\$0
45 to 49	0	\$0	0	\$0	0	\$0
50 to 54	0	\$0	1	\$81,981	1	\$81,981
55 to 59	1	\$12,798	4	\$33,379	5	\$29,263
60 to 64	0	\$0	2	\$32,038	2	\$32,038
65 to 69	0	\$0	4	\$34,729	4	\$34,729
70 to 74	0	\$0	7	\$49,060	7	\$49,060
75 to 79	0	\$0	1	\$65,695	1	\$65,695
80 to 84	0	\$0	0	\$0	0	\$0
85 to 89	0	\$0	0	\$0	0	\$0
90 to 94	0	\$0	0	\$0	0	\$0
95+	0	\$0	0	\$0	0	\$0
<Total>	1	\$12,798	19	\$43,558	20	\$42,020

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020**

APPENDIX A – MEMBERSHIP INFORMATION

City of San Rafael: Service Retired

Age	<u>Miscellaneous</u>		<u>Police</u>		<u>Fire</u>		<u>Total</u>	
	Number	Average Annual Benefit	Number	Average Annual Benefit	Number	Average Annual Benefit	Number	Average Annual Benefit
0 to 24	0	\$0	0	\$0	0	\$0	0	\$0
25 to 29	0	\$0	0	\$0	0	\$0	0	\$0
30 to 34	0	\$0	0	\$0	0	\$0	0	\$0
35 to 39	0	\$0	0	\$0	0	\$0	0	\$0
40 to 44	0	\$0	0	\$0	0	\$0	0	\$0
45 to 49	0	\$0	0	\$0	0	\$0	0	\$0
50 to 54	4	\$21,224	4	\$26,662	2	\$77,812	10	\$34,717
55 to 59	30	\$40,614	13	\$50,177	13	\$91,661	56	\$54,684
60 to 64	45	\$46,604	16	\$62,523	23	\$103,828	84	\$65,305
65 to 69	71	\$44,317	17	\$83,700	15	\$120,474	103	\$61,908
70 to 74	64	\$42,603	18	\$111,177	14	\$102,190	96	\$64,151
75 to 79	30	\$37,855	8	\$60,626	5	\$66,239	43	\$45,392
80 to 84	19	\$18,405	4	\$55,803	10	\$85,515	33	\$43,275
85 to 89	7	\$27,834	0	\$0	2	\$49,044	9	\$32,548
90 to 94	7	\$16,884	0	\$0	1	\$70,088	8	\$23,534
95+	1	\$1,397	0	\$0	1	\$60,953	2	\$31,175
<Total>	278	\$39,832	80	\$73,645	86	\$97,541	444	\$57,102

City of San Rafael: Duty Disabled

Age	<u>Miscellaneous</u>		<u>Police</u>		<u>Fire</u>		<u>Total</u>	
	Number	Average Annual Benefit	Number	Average Annual Benefit	Number	Average Annual Benefit	Number	Average Annual Benefit
0 to 24	0	\$0	0	\$0	0	\$0	0	\$0
25 to 29	0	\$0	0	\$0	0	\$0	0	\$0
30 to 34	0	\$0	0	\$0	0	\$0	0	\$0
35 to 39	0	\$0	0	\$0	0	\$0	0	\$0
40 to 44	0	\$0	8	\$63,819	0	\$0	8	\$63,819
45 to 49	0	\$0	3	\$62,892	0	\$0	3	\$62,892
50 to 54	2	\$20,880	4	\$53,509	2	\$59,257	8	\$46,789
55 to 59	2	\$40,927	2	\$64,670	1	\$89,516	5	\$60,142
60 to 64	3	\$14,738	5	\$60,405	3	\$106,524	11	\$60,528
65 to 69	3	\$30,446	6	\$103,258	6	\$104,881	15	\$89,345
70 to 74	2	\$44,205	7	\$54,474	7	\$95,419	16	\$71,104
75 to 79	5	\$32,239	4	\$58,766	5	\$101,049	14	\$64,393
80 to 84	1	\$38,647	4	\$32,397	0	\$0	5	\$33,647
85 to 89	0	\$0	0	\$0	0	\$0	0	\$0
90 to 94	0	\$0	0	\$0	0	\$0	0	\$0
95+	0	\$0	0	\$0	0	\$0	0	\$0
<Total>	18	\$30,412	43	\$63,027	24	\$97,086	85	\$65,737

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020**

APPENDIX A – MEMBERSHIP INFORMATION

City of San Rafael: Ordinary Disabled

Age	<u>Miscellaneous</u>		<u>Police</u>		<u>Fire</u>		<u>Total</u>	
	Number	Average Annual Benefit	Number	Average Annual Benefit	Number	Average Annual Benefit	Number	Average Annual Benefit
0 to 24	0	\$0	0	\$0	0	\$0	0	\$0
25 to 29	0	\$0	0	\$0	0	\$0	0	\$0
30 to 34	0	\$0	0	\$0	0	\$0	0	\$0
35 to 39	0	\$0	0	\$0	0	\$0	0	\$0
40 to 44	0	\$0	0	\$0	0	\$0	0	\$0
45 to 49	1	\$29,197	0	\$0	0	\$0	1	\$29,197
50 to 54	0	\$0	0	\$0	0	\$0	0	\$0
55 to 59	0	\$0	0	\$0	0	\$0	0	\$0
60 to 64	0	\$0	0	\$0	0	\$0	0	\$0
65 to 69	0	\$0	0	\$0	0	\$0	0	\$0
70 to 74	0	\$0	0	\$0	0	\$0	0	\$0
75 to 79	1	\$17,421	0	\$0	0	\$0	1	\$17,421
80 to 84	0	\$0	0	\$0	0	\$0	0	\$0
85 to 89	0	\$0	0	\$0	0	\$0	0	\$0
90 to 94	0	\$0	0	\$0	0	\$0	0	\$0
95+	1	\$8,959	0	\$0	0	\$0	1	\$8,959
<Total>	3	\$18,526	0	\$0	0	\$0	3	\$18,526

City of San Rafael: Surviving Beneficiaries

Age	<u>Miscellaneous</u>		<u>Police</u>		<u>Fire</u>		<u>Total</u>	
	Number	Average Annual Benefit	Number	Average Annual Benefit	Number	Average Annual Benefit	Number	Average Annual Benefit
0 to 24	0	\$0	0	\$0	0	\$0	0	\$0
25 to 29	0	\$0	0	\$0	0	\$0	0	\$0
30 to 34	0	\$0	0	\$0	0	\$0	0	\$0
35 to 39	0	\$0	0	\$0	0	\$0	0	\$0
40 to 44	0	\$0	0	\$0	0	\$0	0	\$0
45 to 49	0	\$0	0	\$0	0	\$0	0	\$0
50 to 54	2	\$10,268	3	\$28,960	1	\$16,310	6	\$20,621
55 to 59	4	\$14,799	3	\$38,008	2	\$30,387	9	\$25,999
60 to 64	4	\$19,821	3	\$18,315	3	\$48,125	10	\$27,860
65 to 69	5	\$13,784	4	\$30,483	3	\$66,314	12	\$32,483
70 to 74	6	\$34,209	4	\$42,137	1	\$104,653	11	\$43,496
75 to 79	5	\$33,304	2	\$19,900	4	\$30,835	11	\$29,969
80 to 84	4	\$15,960	2	\$74,466	3	\$36,969	9	\$35,964
85 to 89	6	\$23,107	3	\$42,849	3	\$29,620	12	\$29,671
90 to 94	6	\$25,842	0	\$0	2	\$33,474	8	\$27,750
95+	1	\$8,855	0	\$0	0	\$0	1	\$8,855
<Total>	43	\$22,467	24	\$35,984	22	\$41,596	89	\$30,841

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020**

APPENDIX A – MEMBERSHIP INFORMATION

Plan	Retirement Eligibility								
	Current Actives	Number Reaching Service Retirement Eligibility As Defined in Section 1.1 in Year(s)							
		0	1	2	3	4	5	6-10	Total
County									
Miscellaneous Tier 1	4	4	0	0	0	0	0	0	4
Miscellaneous Tier 2	35	35	0	0	0	0	0	0	35
Miscellaneous Tier 3	668	448	22	24	24	24	18	69	629
Miscellaneous Tier 3A	82	14	7	7	7	5	0	15	55
Miscellaneous Tier 4	136	5	3	2	11	12	7	40	80
Miscellaneous Tier 5	780	49	23	38	32	48	50	75	315
Safety Tier 1A	1	1	0	0	0	0	0	0	1
Safety Tier 2A	46	21	2	6	1	1	0	9	40
Safety Tier 2B	193	71	8	6	15	10	12	42	164
Safety Tier 3	124	1	2	0	0	2	4	3	12
Total County	2,069	649	67	83	90	102	91	253	1,335
Courts									
Courts Tier 1	1	1	0	0	0	0	0	0	1
Courts Tier 2	1	1	0	0	0	0	0	0	1
Courts Tier 3	59	35	1	4	3	0	4	8	55
Courts Tier 4	4	2	0	0	0	0	0	2	4
Courts Tier 5	33	2	2	1	0	1	2	5	13
Total Courts	98	41	3	5	3	1	6	15	74
Special Districts									
South Marin Fire Miscellaneous	4	0	1	0	0	0	0	1	2
South Marin Fire Safety	51	15	1	2	2	1	2	9	32
Mosquito District	33	15	1	0	2	0	1	8	27
LAFCO	3	0	1	0	0	0	0	1	2
Tamalpais CSD	13	5	0	0	1	0	0	3	9
Marin CSD	5	1	0	0	0	0	1	2	4
Total Special Districts	109	36	4	2	5	1	4	24	76
Total County and Special Districts	2,276	726	74	90	98	104	101	292	1,485
Novato									
Miscellaneous	9	3	0	0	0	0	0	4	7
Safety	66	20	6	5	6	2	10	5	54
Total Novato	75	23	6	5	6	2	10	9	61
San Rafael									
Miscellaneous Tier 1	98	62	3	4	5	4	1	13	92
Miscellaneous Tier 2	16	1	0	0	2	1	0	4	8
Miscellaneous Tier 3	93	2	4	3	1	3	5	11	29
Fire Tier 1	32	10	5	2	2	1	1	8	29
Fire Tier 2	15	0	0	0	0	0	0	1	1
Fire Tier 3	20	0	0	0	0	0	0	0	0
Safety Tier 1	34	15	2	2	5	3	3	4	34
Safety Tier 2	4	0	0	0	1	0	0	1	2
Safety Tier 3	26	0	0	0	0	0	0	0	0
Total San Rafael	338	90	14	11	16	12	10	42	195

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020**

APPENDIX B – STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS

The assumptions and methods used in the actuarial valuation as of June 30, 2020 are based on an experience study covering the period from July 1, 2017 through June 30, 2020, as adopted by the Board at a meeting on January 13, 2021. Please refer to the experience study report for the rationale for each assumption.

Actuarial Methods

1. Actuarial Cost Method

The actuarial valuation is prepared using the entry age actuarial cost method (CERL 31453.5). Under the principles of this method, the actuarial present value of the projected benefits of each individual included in the valuation is allocated as a level percentage of the individual's projected compensation between entry age and assumed exit (until maximum retirement age). For members who transferred from outside of MCERA, entry age is based on entry into the system. The normal cost for the Plan is based on the sum of the individual normal costs for each member (Individual Entry Age Method).

The UAL (or Surplus Funding) is amortized as a percentage of the projected salaries of present and future members of MCERA. Effective with the June 30, 2013 valuation, the UAL as of June 30, 2013 is amortized over a closed 17-year period (10 years remaining as of June 30, 2020), except for the additional UAL attributable to the extraordinary loss from 2008-2009, which is being amortized over a separate closed period (18 years as of June 30, 2020). Surplus Funding is only amortized if the Plan's Funded Ratio exceeds 120%.

Any subsequent unexpected change in the Unfunded Actuarial Liability after June 30, 2013 is amortized over 24 years (22 years for assumption changes) that includes a five-year phase-in and four-year phase-out (three/two years for assumption changes) of the payments/credits for each annual layer.

2. Valuation of Assets

As of the June 30, 2014 valuation, assets are valued using the market value. The assets used to compute the UAL are the Market Value of Assets, minus the value of any non-valuation contingency reserves.

Actuarial Assumptions

1. Rate of Return

Assets are assumed to earn 6.75% net of investment expenses.

2. Administrative Expenses

Administrative expenses are assumed to be \$5.0 million for the next year, to be split between employees and employers based on their share of the overall contributions. Administrative expenses are assumed to increase by 2.75% per year.

MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020

APPENDIX B – STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS

3. Cost-of-Living

The cost-of-living as measured by the Consumer Price Index (CPI) will increase at the rate of 2.50% per year.

4. Post Retirement COLA

COLAs are assumed at the rate of 2.5% for members with a 4% COLA cap, 2.4% for members with a 3% COLA cap, and 1.9% for members with a 2% COLA cap.

5. Internal Revenue Code Section 415 Limit

The Internal Revenue Code Section 415 maximum benefit limitations are not reflected in the valuation for funding purposes. Any limitation is reflected in a member's benefit at the time of retirement.

6. Internal Revenue Code Section 401(a)(17)

The Internal Revenue Code Section 401(a)(17) maximum compensation limitation is reflected in the valuation to project compensation and benefits. The limit is expected to increase by 2.50% in future years.

7. PEPRA Compensation Limit

The PEPRA Pensionable Compensation Limit (GC 7522.10) is reflected in the valuation to project compensation and benefits for PEPRA members. The limit is expected to increase by 2.50% in future years.

8. Interest on Member Contributions

The annual credited interest rate on member contributions is assumed to be 6.75%.

9. Sick Leave Service Credit Upon Retirement

Active members' benefits are adjusted by a percentage, in accordance with the table below, for anticipated conversions of sick leave or other terminal earnings to retirement service credit or final compensation.

	Rate
Non-PEPRA	
Marin County	1.50%
Marin Courts	1.50%
Marin Special Districts	1.50%
Novato Fire Protection District	4.00%
City of San Rafael	1.50%
PEPRA	1.50%

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020**

APPENDIX B – STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS

10. Family Composition

Percentage married for all active members who retire, become disabled, or die during active service is shown in the table below. Male members are assumed to be three years older than their spouses and female members are assumed to be two years younger than their spouses.

Percentage Married	
Class and Gender	Percentage
Miscellaneous Males	75%
Miscellaneous Females	55%
Safety Males	85%
Safety Females	55%

11. Increases in Pay

Wage inflation component: 3.00%

Additional longevity and promotion component:

Service	Miscellaneous	Safety
0	6.00%	5.00%
1	6.00%	5.00%
2	5.00%	4.50%
3	4.00%	4.00%
4	3.00%	3.50%
5	2.25%	3.00%
6	1.75%	2.50%
7	1.40%	2.20%
8	1.20%	1.90%
9	1.00%	1.70%
10	0.85%	1.50%
11	0.75%	1.40%
12	0.75%	1.30%
13+	0.75%	1.25%

12. Overall Pensionable Compensation Growth

Overall pensionable compensation – used in the calculation of the UAL amortization payments – is expected to increase by 2.75% in future years.

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020**

APPENDIX B – STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS

13. Rates of Termination (All Types)

Rates of termination are shown in the following tables below, with sample rates shown for those with at least five years of service. Note that termination rates do not apply once a member is eligible for retirement.

Service	Miscellaneous	Service	Miscellaneous
0	14.00%	11	4.75%
1	13.00%	12	4.50%
2	12.00%	13	4.25%
3	9.50%	14	4.00%
4	8.25%	15	3.50%
5	7.50%	16	3.25%
6	6.75%	17	3.00%
7	6.25%	18	2.75%
8	5.75%	19	2.50%
9	5.25%	20+	0.00%
10	5.00%		

Service	Safety
0	9.00%
1	7.00%
2	5.00%
3	5.00%
4	5.00%

Age	Safety
	5-19 Years of Service
20	2.06%
25	2.24%
30	3.53%
35	3.41%
40	1.14%
45	1.70%
50	0.27%
55	0.09%
60	0.00%

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020**

APPENDIX B – STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS

14. Withdrawal, Reciprocal Transfers, and Vested Termination

The following rates apply to active members who terminate their employment. Members, who withdraw their member contributions, forfeit entitlement to future Plan benefits.

Service	Miscellaneous			Safety		
	Withdrawal	Reciprocal	Vested Term	Withdrawal	Reciprocal	Vested Term
0	40.00%	24.00%	36.00%	20.00%	68.00%	12.00%
1	35.00%	26.00%	39.00%	20.00%	68.00%	12.00%
2	20.00%	32.00%	48.00%	20.00%	68.00%	12.00%
3	20.00%	32.00%	48.00%	20.00%	68.00%	12.00%
4	20.00%	32.00%	48.00%	20.00%	68.00%	12.00%
5	10.00%	36.00%	54.00%	20.00%	68.00%	12.00%
6	10.00%	36.00%	54.00%	20.00%	68.00%	12.00%
7	10.00%	36.00%	54.00%	20.00%	68.00%	12.00%
8	10.00%	36.00%	54.00%	20.00%	68.00%	12.00%
9	10.00%	36.00%	54.00%	20.00%	68.00%	12.00%
10+	10.00%	36.00%	54.00%	15.00%	72.25%	12.75%

15. Reciprocal Transfers and Vested Termination Deferral Age

Miscellaneous members who terminate employment and do not withdraw their member contributions are assumed to retire at age 59. Safety members who terminate employment and do not withdraw their member contributions are assumed to retire at age 50 if their benefits are calculated under CERL section 31664.1 and are not currently working in reciprocal service, age 53 if their benefits are calculated under CERL section 31664.1 and they are in reciprocal service, and age 55 otherwise.

16. Projected Pay for Reciprocal Transfers

Members who terminate and transfer to a reciprocal employer are expected to have their wages increase from their date of termination to their assumed retirement age by 3.00% wage inflation and either 0.75% for Miscellaneous members or 1.25% for Safety members.

Members who have terminated and transferred to a reciprocal employer or have transferred within MCERA are assumed to have the same salary increases, and are exposed to the same rates of mortality and retirement as if they were active. No other decrements are assumed.

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APPENDIX B – STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS

17. Rates of Disability

The rates of disability for Miscellaneous members are based on the 2017 CalPERS Public Agency Miscellaneous Ordinary Disability rates for males and females without adjustment.

The rates of disability for Safety members are based on adjusted 2020 CalPERS Peace Officers and Fire Fighter (POFF) Industrial and Ordinary Disability rates (multiplied by 120%).

75% of all Miscellaneous and 100% of all Safety disabilities are assumed to be service-connected. Sample *service-connected* disability rates of active participants are shown below.

Age	Miscellaneous		Safety
	Male	Female	
20	0.0128%	0.0075%	0.0828%
25	0.0128%	0.0075%	0.1404%
30	0.0143%	0.0180%	0.2364%
35	0.0293%	0.0533%	0.3828%
40	0.0765%	0.1013%	0.6048%
45	0.1133%	0.1410%	0.9192%
50	0.1185%	0.1493%	1.3500%
55	0.1185%	0.1119%	1.9020%
60	0.1148%	0.0780%	2.5848%
65	0.0960%	0.0660%	3.4164%

Sample *non service-connected* disability rates of active participants are shown below.

Age	Miscellaneous		Safety
	Male	Female	
20	0.0042%	0.0025%	0.0000%
25	0.0042%	0.0025%	0.0000%
30	0.0047%	0.0600%	0.0000%
35	0.0097%	0.0178%	0.0000%
40	0.0255%	0.0338%	0.0000%
45	0.0377%	0.0470%	0.0000%
50	0.0395%	0.0498%	0.0000%
55	0.0395%	0.0373%	0.0000%
60	0.0382%	0.0263%	0.0000%
65	0.0320%	0.0220%	0.0000%

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18. Rates of Mortality for Active Lives

Mortality rates for Miscellaneous active members are based on the sex distinct Public General 2010 Employee Mortality Table, with generational mortality improvements projected from 2010 using Projection Scale MP-2020, with no adjustments.

Mortality rates for Safety active members are based on the sex distinct Public Safety 2010 Above-Median Income Employee Mortality Table, with generational mortality improvements projected from 2010 using Projection Scale MP-2020, with no adjustments. 10% of Safety member active deaths are assumed to occur in the line of duty.

19. Rates of Mortality for Retired Healthy Lives

Mortality rates for Miscellaneous retired members are based on the sex distinct Public General 2010 Healthy Retiree Mortality Table, with generational mortality improvements projected from 2010 using Projection Scale MP-2020, with no adjustments.

Mortality rates for Safety retired members are based on the sex distinct Public Safety 2010 Above-Median Income Healthy Retiree Mortality Table, with generational mortality improvements projected from 2010 using Projection Scale MP-2020, with no adjustments.

20. Rates of Mortality for Retired Disabled Lives

Rates of mortality for Miscellaneous disabled members are based on the sex distinct Public General 2010 Disabled Retiree Mortality Table, with generational mortality improvements projected from 2010 using Projection Scale MP-2020, with no adjustments.

Rates of mortality for Safety disabled members are based on the sex distinct Public Safety 2010 Disabled Retiree Mortality Table, with generational mortality improvements projected from 2010 using Projection Scale MP-2020, adjusted by 95% for males with no adjustment for females.

21. Rates of Mortality for Beneficiaries

Rates of mortality for members' beneficiaries once their benefits commence are given by sex distinct Public 2010 Contingent Survivor Mortality Table, using General 2010 Healthy Retiree Mortality Table before age 45, with generational mortality improvements projected from 2010 using Projection Scale MP-2020, adjusted by 105% for females and no adjustments to males. Prior to the death of the member, the mortality of the beneficiaries is assumed to use the same sex distinct assumptions as the retired healthy members.

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22. Mortality Improvement

Mortality is assumed to improve in future years in accordance with the MP-2020 generational improvement tables.

23. Rates of Retirement

Rates of retirement are based on age according to the following tables below.

Miscellaneous Rates

Age	<20 Years of Service	20-29 Years of Service	30+ Years of Service
50-52	3.00%	3.00%	3.00%
53	5.00%	5.00%	10.00%
54	5.00%	5.00%	15.00%
55-59	5.00%	10.00%	15.00%
60	10.00%	10.00%	30.00%
61	10.00%	10.00%	30.00%
62	12.00%	20.00%	30.00%
63	14.00%	20.00%	30.00%
64	16.00%	20.00%	30.00%
65	18.00%	20.00%	30.00%
66-69	20.00%	30.00%	30.00%
70-79	25.00%	30.00%	30.00%
80	100.00%	100.00%	100.00%

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PEPRA Miscellaneous Rates

2017 CalPERS 2.0% @ 62 Public Agency			
Age	Miscellaneous Sample Rates		
	15 Years of Service	20 Years of Service	25 Years of Service
52	1.20%	1.50%	1.90%
55	2.80%	3.60%	6.10%
60	7.10%	9.10%	11.10%
61	7.90%	10.00%	12.10%
62	10.40%	13.40%	16.40%
63	13.40%	16.30%	19.20%
64	12.90%	15.80%	18.70%
65	17.30%	20.60%	23.90%
66	21.20%	25.20%	29.20%
67	21.20%	25.20%	29.20%
68-74	19.30%	22.90%	26.50%
75+	100.00%	100.00%	100.00%

Non-PEPRA Safety Rates

Age	3% @ 50	3% @ 50	3% @ 50
	<20 Years of Service	20-29 Years of Service	30+ Years of Service
40-44	0.00%	3.00%	3.00%
45-48	0.00%	3.00%	3.00%
49	0.00%	15.00%	15.00%
50	5.00%	15.00%	50.00%
51-52	5.00%	10.00%	20.00%
53-54	10.00%	10.00%	20.00%
55	10.00%	25.00%	50.00%
56	10.00%	30.00%	50.00%
57	10.00%	35.00%	50.00%
58	10.00%	40.00%	50.00%
59	10.00%	45.00%	50.00%
60-64	50.00%	50.00%	50.00%
65	100.00%	100.00%	100.00%

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
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2017 CalPERS 3.0% @ 55 Public Agency			
Age	Safety Police Sample Rates		
	15 Years of Service	20 Years of Service	25 Years of Service
50	3.50%	3.50%	7.00%
51	2.80%	2.90%	6.50%
52	3.20%	3.90%	6.60%
53	2.80%	4.30%	7.50%
54	3.80%	7.40%	11.80%
55	7.00%	12.00%	17.50%
56	6.00%	11.00%	16.50%
57	6.00%	11.00%	16.50%
58	8.00%	10.00%	18.50%
59	9.50%	13.00%	18.50%
60	15.00%	15.00%	18.50%
61	12.00%	12.00%	16.00%
62	15.00%	15.00%	20.00%
63	15.00%	15.00%	20.00%
64	15.00%	15.00%	17.50%
65	100.00%	100.00%	100.00%

PEPRA Safety Rates

2017 CalPERS 2.7% @ 57 Public Agency			
Age	Safety Police Sample Rates		
	15 Years of Service	20 Years of Service	25 Years of Service
50	5.00%	5.00%	5.00%
51	4.00%	4.00%	5.75%
52	3.80%	3.80%	5.80%
53	3.80%	3.80%	7.74%
54	3.80%	4.37%	9.31%
55	6.84%	9.12%	13.40%
56	6.27%	8.36%	12.28%
57	6.00%	8.00%	11.75%
58	8.00%	8.80%	13.75%
59	8.00%	9.20%	14.00%
60	15.00%	15.00%	15.00%
61	14.40%	14.40%	14.40%
62	15.00%	15.00%	15.00%
63	15.00%	15.00%	15.00%
64	15.00%	15.00%	15.00%
65	100.00%	100.00%	100.00%

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
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APPENDIX B – STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS

24. Changes Since Last Valuation

Rates of retirement, disability, termination, and mortality were changed as a result of an experience study covering the period between July 1, 2017 through June 30, 2020. The discount rate, salary growth, inflation, COLA assumption, mortality improvement projection scale, family composition, deferred retirement commencement ages, termination types (withdrawal, deferred vested or reciprocal transfer), and sick leave service credits upon retirement also changed. Please refer to the experience study report for details of the assumption changes and the rationale.

APPENDIX C – SUMMARY OF PLAN PROVISIONS

Brief Outline of Plan Provisions

Definitions

Compensation

Compensation means the cash remuneration for services paid by the employer. It includes base pay and certain differential, incentive, and special pay allowances defined by the Board of Retirement. Overtime is excluded, with the exception of overtime paid under the Fair Labor Standards Act that is regular and recurring.

PEPRA: For non-reciprocal members joining the Plan on and after January 1, 2013 (New Members), only base compensation or normal monthly rate of pay, as defined, up to the PEPRA wage cap (\$126,291 for 2020) will count for computing Plan benefits and employee contributions and employer contributions for those participating in Social Security. For those not participating in Social Security, the compensation cap is 120% of the cap above (\$151,549 for 2020). In addition, some sources of compensation, such as leave cashouts, allowances, and some types of special pays, will be excluded from benefit and contribution computations for New Members.

Credited Service

In general, Credited Service is earned for the period during which Member Contributions are paid.

Temporary service for which the Member was not credited, or service for which the Member withdrew his or her Member Contributions, may be purchased by paying or repaying the Member Contributions with interest. The categories of services that credit may be purchased for are listed below:

- Leave without Pay (Member's illness): Member may purchase only up to twelve months of service per incident.
- Re-deposits: Member may only purchase the amount of service previously withdrawn.
- Service Prior to Membership: Member must pay employee portion and applicable interest.
- Military Leave without Pay: Member, who has taken a leave without pay in order to serve in the military, will be given an option to buy the service time.
- Service In-Between: Member may purchase service per incident.
- Public Service: Member must have been employed by the date as indicated below and cannot be receiving a benefit from the other entity.

MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
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APPENDIX C – SUMMARY OF PLAN PROVISIONS

April 16, 1979:

Novato Fire Protection District

May 1, 1979:

County of Marin
Marin County Courts
Marin City Community Service District
Tamalpais Community Service District
Southern Marin Fire Protection District
Marin/Sonoma Mosquito and Vector Control District
Local Agency Formation Commission (LAFCO)

May 7, 1979:

City of San Rafael

In all cases of service buybacks, repayment terms for most payment plans may not exceed the length of the period of service being purchased, with a maximum of five years. Payment for public service purchases may also not exceed five years. In the event of an active Member's death, the beneficiary is given the opportunity to pay off any service purchase agreements at the time of death.

A percentage of credited sick leave may be credited according to the Member's applicable bargaining unit.

Final Compensation

For County employees hired after June 30, 1980, and Bargaining Units 10 and 13, LAFCO Tier 3 members and San Rafael employees hired after July 1, 2011, Final Compensation means the highest Compensation earned during any thirty-six consecutive months of the Member's employment. For all others, it is the highest Compensation earned during any twelve months of employment.

PEPRA: For all New Members, highest average Compensation will be based on the highest thirty-six consecutive months, rather than 12 months.

Miscellaneous Member

Any Member who is not a Safety Member is a Miscellaneous Member. Miscellaneous Members are called "Nonsafety Members" Under PEPRA.

Safety Member

Any sworn Member engaged in law enforcement or fire suppression, and most probation officers are Safety Members.

MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
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APPENDIX C – SUMMARY OF PLAN PROVISIONS

Membership

Eligibility

All full-time, permanent employees of the City of San Rafael, Novato Fire Protection Districts, Marin County, and other participating special districts become Members on their date of appointment.

PEPRA: A New Member is any Member joining the Plan for the first time on or after January 1, 2013, or who was a member of the Plan previously but withdrew MCERA contributions and did not redeposit them with interest upon reentry. Employees who transfer from and are eligible for reciprocity with another public employer will not be New Members if their service in the reciprocal system was under a pre-PEPRA tier.

Member Contributions

Each Member contributes a percentage of Compensation to the Plan through payroll deduction. The percentage contributed depends on the Member's age upon joining the Plan, and is determined in accordance with the requirements of the '37 Act. Members do not contribute after earning 30 years of Credited Service.

Interest is credited semiannually to each Member's accumulated contributions. The crediting rate is set by the Board; the current annual rate is 6.75%.

PEPRA: New Members must contribute half of the normal cost of the Plan. Contributions for these Members will be based on the Normal Cost associated with their benefits; General and Safety members will pay different rates, as will those with different COLA caps.

New Members will pay a single contribution rate, not a rate based on entry age. All New Members are expected to continue contributing after earning 30 years of service.

Service Retirement

Eligibility

Miscellaneous County Members hired after July 1, 2008, Courts Members hired after January 1, 2009, and San Rafael Miscellaneous Members hired after July 1, 2011 are eligible to retire at age 55 if they have earned 10 years of Credited Service. All other Miscellaneous Members are eligible to retire at age 50 if they have earned 10 years of Credited Service. Alternatively, Miscellaneous Members are eligible to retire at any age after having earned 30 years of Credited Service, or upon reaching age 70 with no service requirement.

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
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APPENDIX C – SUMMARY OF PLAN PROVISIONS

Safety Members are eligible to retire at age 50 if they have earned 10 years of Credited Service. Alternatively, Safety Members are eligible to retire at any age after having earned 20 years of Credited Service, or upon reaching age 70 with no service requirement.

PEPRA: New Nonsafety Members are eligible to retire upon attaining age 52 and completing five or more years of service, or upon reaching age 70 with no service requirement. New Safety Members are eligible to retire upon attaining age 50 and completing five or more years of service, or upon reaching age 70 with no service requirement. New Members must reach PEPRA-specified ages, regardless of their years of service, to retire for service.

Benefit Amount

The Service Retirement Benefit payable to the Member is equal to the Member's Final Compensation multiplied by credited service, the benefit factor from Table 1 and the age factor from Table 2 corresponding to the Member's code section. The age factor multiplied by the benefit factor for each code section is also shown in Table 2, other than the PEPRA factors. The appropriate code sections for each group are listed in Table 1 on the next page.

The percentage of Final Compensation for Non-PEPRA Members may not exceed 100%.

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
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APPENDIX C – SUMMARY OF PLAN PROVISIONS

Table 1: Member Group Descriptions

Description	Class	FAP	COLA	Code Section	Formula Retirement Age ¹	Benefit Factor
Special Districts Courts Tier 1	Miscellaneous	1	4	31676.14	55.50	2.00%
Special Districts Courts Tier 2	Miscellaneous	3	2	31676.1	61.25	2.00%
Special Districts Courts Tier 3	Miscellaneous	3	2	31676.16	55.00	2.00%
Special Districts Courts Tier 4 ²	Miscellaneous	3	2	31676.16	55.00	2.00%
Special Districts Courts Tier 5	Miscellaneous	3	2	7522.20	62.00	2.00%
Special Districts LAFCO Tier 7 (also referred to as Tier 2)	Miscellaneous	1	4	31676.11	58.50	2.00%
Special Districts LAFCO Tier 3	Miscellaneous	3	2	31676.16	55.00	2.00%
Special Districts LAFCO Tier 4	Miscellaneous	3	2	7522.20	62.00	2.00%
Special Districts Marin City CSD Tier 1	Miscellaneous	1	4	31676.11	58.50	2.00%
Special Districts Marin City CSD Tier 2	Miscellaneous	3	4	7522.20	62.00	2.00%
Special Districts Mosquito District Tier 1	Miscellaneous	1	4	31676.14	55.50	2.00%
Special Districts Mosquito District Tier 2	Miscellaneous	3	4	7522.20	62.00	2.00%
Special Districts Tamalpais CSD Tier 1	Miscellaneous	1	4	31676.11	58.50	2.00%
Special Districts Tamalpais CSD Tier 2	Miscellaneous	3	4	7522.20	62.00	2.00%
Special Districts South Marin Fire Miscellaneous Tier 1	Miscellaneous	1	4	31676.19	55.00	2.70%
Special Districts South Marin Fire Miscellaneous Tier 2	Miscellaneous	3	4	7522.20	62.00	2.00%
Special Districts South Marin Fire Safety Tier 1	Safety	1	4	31664.1	50.00	3.00%
Special Districts South Marin Fire Safety Tier 2	Safety	1	4	31664.2	55.00	3.00%
Special Districts South Marin Fire Safety Tier 2A	Safety	3	3	31664.2	55.00	3.00%
Special Districts South Marin Fire Safety Tier 3	Safety	3	4	7522.25(d)	57.00	2.70%
Special Districts South Marin Fire Safety Tier 3A	Safety	3	3	7522.25(d)	57.00	2.70%
County Miscellaneous Tier 1	Miscellaneous	1	4	31676.14	55.50	2.00%
County Miscellaneous Tier 2	Miscellaneous	3	2	31676.1	61.25	2.00%
County Miscellaneous Tier 3	Miscellaneous	3	2	31676.16	55.00	2.00%
County Miscellaneous Tier 3A ²	Miscellaneous	3	2	31676.16	55.00	2.00%
County Miscellaneous Tier 4 ²	Miscellaneous	3	2	31676.1	61.25	2.00%
County Miscellaneous Tier 5	Miscellaneous	3	2	7522.20	62.00	2.00%
County Safety Tier 1A	Safety	1	4	31664.2	55.00	3.00%
County Safety Tier 1B	Safety	1	4	31664.1	50.00	3.00%
County Safety Tier 2A	Safety	3	2	31664.2	55.00	3.00%
County Safety Tier 2B	Safety	3	2	31664.1	50.00	3.00%
County Safety Tier 3	Safety	3	2	7522.25(d)	57.00	2.70%
Novato Miscellaneous Tier 1	Miscellaneous	1	4	31676.16	55.00	2.00%
Novato Miscellaneous Tier 2	Miscellaneous	3	4	7522.20	62.00	2.00%
Novato Miscellaneous Tier 2A	Miscellaneous	3	2	7522.20	62.00	2.00%
Novato Safety Tier 1	Safety	1	4	31664.1	50.00	3.00%
Novato Safety Tier 2	Safety	1	4	31664.2	55.00	3.00%
Novato Safety Tier 3	Safety	3	4	7522.25(d)	57.00	2.70%
Novato Safety Tier 3A	Safety	3	2	7522.25(d)	57.00	2.70%
San Rafael Miscellaneous Tier 1	Miscellaneous	1	3	31676.19	55.00	2.70%
San Rafael Miscellaneous Tier 2 ²	Miscellaneous	3	2	31676.16	55.00	2.00%
San Rafael Miscellaneous Tier 3	Miscellaneous	3	2	7522.20	62.00	2.00%
San Rafael Fire Tier 1	Safety	1	3	31664.2	55.00	3.00%
San Rafael Fire Tier 2	Safety	3	2	31664.2	55.00	3.00%
San Rafael Fire Tier 3	Safety	3	2	7522.25(d)	57.00	2.70%
San Rafael Safety Tier 1	Safety	1	3	31664.2	55.00	3.00%
San Rafael Safety Tier 2	Safety	3	2	31664.2	55.00	3.00%
San Rafael Safety Tier 3	Safety	3	2	7522.25(d)	57.00	2.70%

¹ This represents the age at which a retiring member would receive the benefit factor shown in the final column.

² Members of these Tiers must be age 55 with 10 years of service to receive a service retirement benefit.



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APPENDIX C – SUMMARY OF PLAN PROVISIONS

Table 2: Age & Service Factors

Miscellaneous

Age	Misc 2% at Age 61.25 CERL §: 31676.1		Misc 2% at Age 58.5 CERL §: 31676.11		Misc 2% at Age 55.5 CERL §: 31676.14		Misc 2% at Age 55 CERL §: 31676.16		Misc 2.7% at Age 55 CERL §: 31676.19		Misc 2.7% at Age 67 GC §: 7522.20	
	Age Factor	Age x Benefit	Age Factor	Age x Benefit	Age Factor	Age x Benefit	Age Factor	Age x Benefit	Age Factor	Age x Benefit	Age Factor	Age x Benefit
50	0.7091	1.18%	0.7454	1.24%	0.8850	1.48%	0.7130	1.43%	1.0000	2.00%	1.0000	1.00%
51	0.7457	1.24%	0.7882	1.31%	0.9399	1.57%	0.7610	1.52%	1.0700	2.14%	1.0000	1.00%
52	0.7816	1.30%	0.8346	1.39%	1.0000	1.67%	0.8140	1.63%	1.1400	2.28%	1.0000	1.00%
53	0.8181	1.36%	0.8850	1.48%	1.0447	1.74%	0.8710	1.74%	1.2100	2.42%	1.1000	1.10%
54	0.8556	1.43%	0.9399	1.57%	1.1048	1.84%	0.9330	1.87%	1.2800	2.56%	1.2000	1.20%
55	0.8954	1.49%	1.0000	1.67%	1.1686	1.95%	1.0000	2.00%	1.3500	2.70%	1.3000	1.30%
56	0.9382	1.56%	1.0447	1.74%	1.2365	2.06%	1.0260	2.05%	1.3500	2.70%	1.4000	1.40%
57	0.9846	1.64%	1.1048	1.84%	1.3093	2.18%	1.0520	2.10%	1.3500	2.70%	1.5000	1.50%
58	1.0350	1.73%	1.1686	1.95%	1.3608	2.27%	1.0780	2.16%	1.3500	2.70%	1.6000	1.60%
59	1.0899	1.82%	1.2365	2.06%	1.4123	2.35%	1.1050	2.21%	1.3500	2.70%	1.7000	1.70%
60	1.1500	1.92%	1.3093	2.18%	1.4638	2.44%	1.1310	2.26%	1.3500	2.70%	1.8000	1.80%
61	1.1947	1.99%	1.3608	2.27%	1.5153	2.53%	1.1570	2.31%	1.3500	2.70%	1.9000	1.90%
62	1.2548	2.09%	1.4123	2.35%	1.5668	2.61%	1.1830	2.37%	1.3500	2.70%	2.0000	2.00%
63	1.3186	2.20%	1.4638	2.44%	1.5668	2.61%	1.2090	2.42%	1.3500	2.70%	2.1000	2.10%
64	1.3865	2.31%	1.5153	2.53%	1.5668	2.61%	1.2090	2.42%	1.3500	2.70%	2.2000	2.20%
65	1.4593	2.43%	1.5668	2.61%	1.5668	2.61%	1.2090	2.42%	1.3500	2.70%	2.3000	2.30%
66	1.4593	2.43%	1.5668	2.61%	1.5668	2.61%	1.2090	2.42%	1.3500	2.70%	2.4000	2.40%
67+	1.4593	2.43%	1.5668	2.61%	1.5668	2.61%	1.2090	2.42%	1.3500	2.70%	2.5000	2.50%

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020**

APPENDIX C – SUMMARY OF PLAN PROVISIONS

Safety

Age	Safety 2% at Age 50 CERL §: 31664		Safety 3% at Age 50 CERL §: 31664.1		Safety 3% at Age 55 CERL §: 31664.2		Safety 2.7% at Age 57 GC §: 7522.25(d)	
	Age Factor	Age x Benefit	Age Factor	Age x Benefit	Age Factor	Age x Benefit	Age Factor	Age x Benefit
41	0.6258	1.25%	0.6258	1.88%	0.4777	1.43%	2.0000	2.00%
42	0.6625	1.33%	0.6625	1.99%	0.5058	1.52%	2.0000	2.00%
43	0.7004	1.40%	0.7004	2.10%	0.5347	1.60%	2.0000	2.00%
44	0.7397	1.48%	0.7397	2.22%	0.5647	1.69%	2.0000	2.00%
45	0.7805	1.56%	0.7805	2.34%	0.5958	1.79%	2.0000	2.00%
46	0.8226	1.65%	0.8226	2.47%	0.6280	1.88%	2.0000	2.00%
47	0.8678	1.74%	0.8678	2.60%	0.6625	1.99%	2.0000	2.00%
48	0.9085	1.82%	0.9085	2.73%	0.6936	2.08%	2.0000	2.00%
49	0.9522	1.90%	0.9522	2.86%	0.7269	2.18%	2.0000	2.00%
50	1.0000	2.00%	1.0000	3.00%	0.7634	2.29%	2.0000	2.00%
51	1.0516	2.10%	1.0000	3.00%	0.8028	2.41%	2.1000	2.10%
52	1.1078	2.22%	1.0000	3.00%	0.8457	2.54%	2.2000	2.20%
53	1.1692	2.34%	1.0000	3.00%	0.8926	2.68%	2.3000	2.30%
54	1.2366	2.47%	1.0000	3.00%	0.9418	2.83%	2.4000	2.40%
55	1.3099	2.62%	1.0000	3.00%	1.0000	3.00%	2.5000	2.50%
56	1.3099	2.62%	1.0000	3.00%	1.0000	3.00%	2.6000	2.60%
57+	1.3099	2.62%	1.0000	3.00%	1.0000	3.00%	2.7000	2.70%

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
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APPENDIX C – SUMMARY OF PLAN PROVISIONS

PEPRA: For New Nonsafety Members, the benefit multiplier will be 1% at age 52, increasing by 0.1% for each year of age to 2.5% at 67. For New Safety Members, the benefit multiplier will be 2% at age 50, increasing by 0.1% for each year of age to 2.7% at age 57. In between exact ages, the multiplier will increase by 0.025% for each quarter year increase in age.

New Members are subject to the PEPRA caps and other restrictions on pensionable compensation described in other parts of the valuation.

Form of Benefit

The Service Retirement Benefit will be paid monthly beginning at retirement and for the life of the Member. If the member selects the unmodified benefit form, in the event of the Member's death 60% of the benefit will continue for the life of the Member's spouse or to the age of majority of dependent minor children if there is no spouse. In the event there is no surviving spouse or minor children, any unpaid remainder of the Member's accumulated contributions will be paid to the Member's designated beneficiary.

Actuarially equivalent optional benefit forms are also available.

Annually on April 1, benefits are increased or decreased to reflect changes in the CPI for the San Francisco Bay Area. Annual increases may not exceed the COLA figures shown in Table 1, but CPI increases above this figure are "banked" and used for future increases when the CPI increases by less than the figures shown.

In addition, ad hoc cost-of-living adjustments have been granted in the past and may be granted in the future.

A lump sum benefit of \$5,000 will be payable upon the death of a retired member.

MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020

APPENDIX C – SUMMARY OF PLAN PROVISIONS

Service-Connected Disability

Eligibility

Members are eligible for Service-Connected Disability Retirement benefits at any age if they are permanently disabled as a result of injuries or illness sustained in the line of duty.

Benefit Amount

The Service-Connected Disability Retirement Benefit payable to Members is equal to the greater of 50% of their Final Compensation or – if the Member is eligible at disability for a Service Retirement Benefit – the Service Retirement Benefit accrued on the date of disability.

PEPRA: The Service-Connected Disability Retirement Benefit for New Members will be based on the new definitions of Pensionable Compensation and Final Compensation applicable to New Members.

Form of Benefit

The Service-Connected Disability Retirement Benefit will be paid monthly beginning at the effective date of disability retirement and for the life of the Member; in the event of the Member's death, 100% of the benefit will continue for the life of the Member's spouse or to the age of majority of dependent minor children if there is no spouse. In the event there is no surviving spouse or minor children, any unpaid remainder of the Member's accumulated contributions will be paid to the Member's designated beneficiary.

Actuarially equivalent optional benefit forms and COLA adjustments (as described for the Service Retirement benefit) are also available. A lump sum benefit of \$5,000 will be payable upon the death of the member.

APPENDIX C – SUMMARY OF PLAN PROVISIONS

Nonservice-Connected Disability

Eligibility

Members are eligible for Nonservice-Connected Disability Retirement benefits if they are permanently disabled at any age after earning five years of Credited Service.

Benefit Amount

The Nonservice-Connected Disability Retirement Benefit payable to Miscellaneous Members is equal to the greatest of:

- 1.5% of Final Compensation at disability multiplied by years of Credited Service at disability,
- 1.5% of Final Compensation at disability multiplied by years of Credited Service projected to age 65, but not to exceed one-third of Final Compensation, or
- If the Member is eligible at disability for a Service Retirement Benefit, the Service Retirement Benefit accrued on the date of disability.

The Nonservice-Connected Disability Retirement Benefit payable to Safety Members is equal to the greatest of:

- 1.8% of Final Compensation at disability multiplied by years of Credited Service at disability,
- 1.8% of Final Compensation at disability multiplied by years of Credited Service projected to age 55, but not to exceed one-third of Final Compensation, or
- If the Member is eligible at disability for a Service Retirement Benefit, the Service Retirement Benefit accrued on the date of disability.

PEPRA: The Nonservice-Connected Disability Retirement Benefit for New Members will be based on the new definitions of Pensionable Compensation and Final Compensation applicable to New Members.

Form of Benefit

The Nonservice-Connected Disability Retirement Benefit will be paid monthly beginning at the effective date of disability retirement, and for the life of the Member; in the event of the Member's death, 60% of the benefit will continue for the life of the Member's spouse or to the age of majority of dependent minor children if there is no spouse. In the event there is no surviving spouse or minor children, any unpaid remainder of the Member's accumulated contributions will be paid to the Member's designated beneficiary.

Actuarially equivalent optional benefit forms and COLA adjustments (as described for the Service Retirement benefit) are also available. A lump sum benefit of \$5,000 will be payable upon the death of the member.

MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020

APPENDIX C – SUMMARY OF PLAN PROVISIONS

Pre-Retirement Death

Eligibility

A Member's survivors are eligible to receive different Death benefits dependent on the Member's cause of death and retirement eligibility.

Benefit Amount

In the event the Member's death resulted from injury or illness sustained in connection with the Member's duties, the Death Benefit payable to a surviving spouse or domestic partner will be 50% of the Member's Final Compensation.

In the event the Member was eligible for Service Retirement or Non-Service Connected Disability, the Death Benefit payable to the survivor will be 60% of the Nonservice-Connected Disability Retirement Benefit based on benefit due on Member's date of death.

In all other cases, the eligible survivor will receive a refund of the Member's contributions with interest plus one month of Final Compensation for each year of service to a maximum of six years.

PEPRA: The Death Benefits for New Members related to Final Compensation will be based on the new definitions of Pensionable Compensation and Final Compensation applicable to New Members.

Form of Benefit

The Service-Connected Death Benefit will be paid monthly beginning at the Member's death and for the life of the surviving spouse or to the age of majority of dependent minor children if there is no spouse.

COLA adjustments (as described for the Service Retirement benefit) are also available.

Withdrawal Benefit

Eligibility

A Member is eligible for a Withdrawal Benefit upon termination of employment.

Benefit Amount

The Withdrawal Benefit is a refund of the Member's accumulated Contributions with interest. Upon receipt of the Withdrawal Benefit the Member forfeits all Credited Service. Alternatively, the Member can leave contributions on deposit and retire at the date first eligible (age 70 for those not vested).

MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020

APPENDIX C – SUMMARY OF PLAN PROVISIONS

Form of Benefit

The Withdrawal Benefit is paid in a lump sum upon election by the Member.

Deferred Vested Benefit

Eligibility

A Member is eligible for a Deferred Vested Benefit upon termination of employment after earning five years of Credited Service, including reciprocity service from another system. The Member must leave his or her Member Contributions with interest on deposit with the Plan.

Benefit Amount

The Deferred Vested Benefit is computed in the same manner as the Service Retirement Benefit, but it is based on Credited Service and Final Compensation on the date of termination.

PEPRA: For New Members, the Deferred Vested Benefit will be based on the new benefit formulas, and will be based on the new definitions of Pensionable Compensation and Final Compensation applicable to New Members.

Form of Benefit

The Deferred Vested Benefit will be paid monthly beginning at retirement and for the life of the Member; in the event of the Member's death, 60% of the benefit will continue for the life of the Member's spouse or to the age of majority of dependent minor children if there is no spouse. In the event there is no surviving spouse or minor children, any unpaid remainder of the Member's accumulated contributions will be paid to the Member's designated beneficiary.

Actuarially equivalent optional benefit forms and COLA adjustments (as described for the Service Retirement benefit) are also available. A lump sum benefit of \$ 5,000 will be payable upon the death of the member.

PEPRA: For New Members, the Deferred Vested Benefit may commence at the new service retirement eligibility criteria (age 52 for Nonsafety, age 50 for Safety.)

MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020

APPENDIX C – SUMMARY OF PLAN PROVISIONS

Reciprocal Benefit

Eligibility

A Member is eligible for a Reciprocal Benefit upon termination of employment and entry, within a specified period of time, into another retirement system recognized as a reciprocal system by the Plan. In addition, the Member must leave his or her Member Contributions with interest on deposit with the Plan.

Benefit Amount

The Reciprocal Benefit is computed in the same manner as the Service Retirement Benefit, but it is based on Credited Service on the date of termination and Final Compensation on the date of retirement; Final Compensation is based on the highest of the Compensation earned under this Plan or the reciprocal plan.

PEPRA: For New Members, the Reciprocal Benefit will be based on the new benefit formulas, and will be based on the new definitions of Pensionable Compensation and Final Compensation applicable to New Members.

Form of Benefit

The Reciprocal Benefit will be paid monthly beginning at retirement and for the life of the Member; in the event of the Member's death, 60% of the benefit will continue for the life of the Member's spouse or to the age of majority of dependent minor children if there is no spouse. In the event there is no surviving spouse or minor children, any unpaid remainder of the Member's accumulated contributions will be paid to the Member's designated beneficiary.

Actuarially equivalent optional benefit forms and COLA adjustments (as described for the Service Retirement benefit) are also available.

A lump sum benefit may be payable upon the death of a retired Member by the last system the Member worked under.

PEPRA: For New Members, the Reciprocal Benefit may commence at the new service retirement eligibility criteria (age 52 for Nonsafety, age 50 for Safety.)

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020**

APPENDIX C – SUMMARY OF PLAN PROVISIONS

Optional Benefit Forms

Prior to retirement, a member may elect to convert his retirement allowance into a benefit of equivalent actuarial value in accordance with one of the optional forms described below.

1. A reduced retirement allowance payable during his life with the provision that on his death the excess, if any, of his accumulated deductions at the time of retirement over the annuity payments made to him will be paid to his designated beneficiary or estate, or
2. A reduced retirement allowance payable during his life with the provision that after his death the reduced allowance will be continued for life to the beneficiary designated by him at the time of his retirement, or
3. A reduced retirement allowance payable during his life with the provision that after his death an allowance of one-half of his reduced allowance will be continued for life to the beneficiary designated by him at the time of his retirement.

PEPRA: No change.

APPENDIX D – GLOSSARY

1. Actuarial Assumptions

Assumptions as to the occurrence of future events affecting pension costs such as mortality, withdrawal, disability, retirement, changes in compensation, and rates of investment return.

2. Actuarial Cost Method

A procedure for determining the actuarial present value of pension plan benefits and expenses and for developing an allocation of such value to each year of service, usually in the form of a normal cost and an Actuarial Liability.

3. Actuarial Gain (Loss)

The difference between actual experience and that expected based upon a set of actuarial assumptions during the period between two actuarial valuation dates, as determined in accordance with a particular actuarial cost method.

4. Actuarial Liability

The portion of the actuarial present value of projected benefits which will not be paid by future normal costs. It represents the value of the past normal costs with interest to the valuation date.

5. Actuarial Present Value (Present Value)

The value as of a given date of a future amount or series of payments. The actuarial present value discounts the payments to the given date at the assumed investment return and includes the probability of the payment being made.

6. Actuarial Valuation

The determination, as of a specified date, of the normal cost, Actuarial Liability, Actuarial Value of Assets, and related actuarial present values for a pension plan.

7. Actuarial Value of Assets

The value of cash, investments, and other property belonging to a pension plan as used by the actuary for the purpose of an actuarial valuation. The purpose of an Actuarial Value of Assets is generally to smooth out fluctuations in market values. As of the June 30, 2014 valuation, no smoothing of the assets is applied, and the actuarial value equals the market value.

APPENDIX D – GLOSSARY

8. Actuarially Equivalent

Of equal actuarial present value, determined as of a given date, with each value based on the same set of actuarial assumptions.

9. Amortization Payment

The portion of the pension plan contribution, which is designed to pay interest and principal on the Unfunded Actuarial Liability in order to pay for that liability in a given number of years.

10. Entry Age Normal 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 of the individual between entry age and assumed exit ages.

11. Funded Ratio

The ratio of the Actuarial Value of Assets to the Actuarial Liability.

12. Normal Cost

That portion of the actuarial present value of pension plan benefits and expenses which is allocated to a valuation year by the actuarial cost method.

13. Projected Benefits

Those pension plan benefit amounts which are expected to be paid in the future under a particular set of actuarial assumptions, taking into account such items as increases in future compensation and service credits.

14. Unfunded Actuarial Liability

The excess of the Actuarial Liability over the Actuarial Value of Assets.

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020**

APPENDIX E – MEMBER CONTRIBUTION RATES

Employee contribution rates vary by member Group and Tier. The basic rates are determined based on Government Code Section 31621 for General members (31621.1 for members under benefit section 31676.11 and 31621.8 for members under benefit 31676.19) and Section 31639.25 for Safety members. The COLA rates for members are determined based on 50% of the normal cost associated with the expected COLA benefits, determined for each individual entry age. A cap on the employee COLA contribution rate is applied to the County and Courts members. Some County Safety groups are paying additional employee contributions as a result of bargaining agreements.

The current rates were determined based on an interest rate of 6.75% per annum, an average salary increase of 3.00% per year (plus service-based increases for merit/longevity), and the Pub-2010 General and above-median Safety mortality rates, projected from 2010 to 2044 for Miscellaneous members and 2047 for Safety members using Scale MP-2020.

The rates are blended based on a male/female weighting of 40% male/60% female for General members, and 85% male/15% female for Safety members. Basic and COLA rates were determined based on an assumption that members would cease making contributions after 30 years of service.

Employee contribution rates for PEPRA members are determined based on half the normal cost for the PEPRA members (computed separately for General and Safety members, and those with 2%, 3%, or 4% capped COLAs). Contribution rates for PEPRA members are not rounded, and are recomputed each year.

A load is added to the employee contributions to cover their share of the expected administrative expenses. For the current valuation, the load is 4.4% of the total unadjusted contribution rate.

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020**

APPENDIX E – MEMBER CONTRIBUTION RATES

County Miscellaneous and Courts: Tier 1 (31676.14)					
Entry Age	Basic	COL	COL Limited to 1.58%	Total	Prior Total
20	7.02%	2.10%	1.58%	8.60%	8.01%
21	7.04%	2.15%	1.58%	8.62%	8.04%
22	7.07%	2.21%	1.58%	8.65%	8.07%
23	7.08%	2.27%	1.58%	8.66%	8.09%
24	7.08%	2.33%	1.58%	8.66%	8.11%
25	7.08%	2.39%	1.58%	8.66%	8.13%
26	7.08%	2.44%	1.58%	8.66%	8.14%
27	7.07%	2.51%	1.58%	8.65%	8.14%
28	7.04%	2.56%	1.58%	8.62%	8.14%
29	7.02%	2.62%	1.58%	8.60%	8.13%
30	6.99%	2.67%	1.58%	8.57%	8.12%
31	7.11%	2.73%	1.58%	8.69%	8.24%
32	7.23%	2.77%	1.58%	8.81%	8.36%
33	7.35%	2.83%	1.58%	8.93%	8.49%
34	7.47%	2.89%	1.58%	9.05%	8.62%
35	7.60%	2.95%	1.58%	9.18%	8.74%
36	7.72%	3.02%	1.58%	9.30%	8.88%
37	7.86%	3.08%	1.58%	9.44%	9.00%
38	7.99%	3.14%	1.58%	9.57%	9.15%
39	8.13%	3.21%	1.58%	9.71%	9.29%
40	8.27%	3.27%	1.58%	9.85%	9.43%
41	8.41%	3.33%	1.58%	9.99%	9.57%
42	8.56%	3.38%	1.58%	10.14%	9.73%
43	8.71%	3.40%	1.58%	10.29%	9.88%
44	8.86%	3.44%	1.58%	10.44%	10.04%
45	9.03%	3.47%	1.58%	10.61%	10.21%
46	9.20%	3.51%	1.58%	10.78%	10.38%
47	9.37%	3.53%	1.58%	10.95%	10.55%
48	9.55%	3.55%	1.58%	11.13%	10.74%
49	9.74%	3.58%	1.58%	11.32%	10.93%
50	9.93%	3.60%	1.58%	11.51%	11.12%
51	10.11%	3.60%	1.58%	11.69%	11.31%
52	10.29%	3.59%	1.58%	11.87%	11.50%
53	10.46%	3.55%	1.58%	12.04%	11.67%
54	10.60%	3.50%	1.58%	12.18%	11.82%
55	10.70%	3.42%	1.58%	12.28%	11.93%
56	10.73%	3.33%	1.58%	12.31%	11.96%
57	10.68%	3.23%	1.58%	12.26%	11.94%
58	10.56%	3.10%	1.58%	12.14%	11.83%
59+	10.45%	2.99%	1.58%	12.03%	11.73%

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020**

APPENDIX E – MEMBER CONTRIBUTION RATES

County Miscellaneous and Courts: Tier 2 (31676.1)					
Entry Age	Basic	COL	COL Limited to 1.58%	Total	Prior Total
20	6.70%	1.17%	1.17%	7.87%	7.11%
21	6.72%	1.19%	1.19%	7.91%	7.18%
22	6.74%	1.22%	1.22%	7.96%	7.24%
23	6.76%	1.25%	1.25%	8.01%	7.31%
24	6.76%	1.28%	1.28%	8.04%	7.36%
25	6.75%	1.32%	1.32%	8.07%	7.41%
26	6.75%	1.35%	1.35%	8.10%	7.46%
27	6.74%	1.38%	1.38%	8.12%	7.51%
28	6.72%	1.42%	1.42%	8.14%	7.56%
29	6.70%	1.45%	1.45%	8.15%	7.59%
30	6.67%	1.48%	1.48%	8.15%	7.62%
31	6.79%	1.52%	1.52%	8.31%	7.78%
32	6.90%	1.56%	1.56%	8.46%	7.93%
33	7.03%	1.60%	1.58%	8.61%	8.09%
34	7.20%	1.64%	1.58%	8.78%	8.26%
35	7.33%	1.67%	1.58%	8.91%	8.43%
36	7.45%	1.71%	1.58%	9.03%	8.59%
37	7.58%	1.76%	1.58%	9.16%	8.74%
38	7.71%	1.81%	1.58%	9.29%	8.88%
39	7.84%	1.85%	1.58%	9.42%	9.01%
40	7.97%	1.90%	1.58%	9.55%	9.15%
41	8.11%	1.93%	1.58%	9.69%	9.29%
42	8.26%	1.96%	1.58%	9.84%	9.43%
43	8.40%	1.99%	1.58%	9.98%	9.58%
44	8.55%	2.02%	1.58%	10.13%	9.74%
45	8.70%	2.04%	1.58%	10.28%	9.89%
46	8.87%	2.07%	1.58%	10.45%	10.06%
47	9.04%	2.09%	1.58%	10.62%	10.23%
48	9.21%	2.11%	1.58%	10.79%	10.41%
49	9.36%	2.13%	1.58%	10.94%	10.58%
50	9.53%	2.15%	1.58%	11.11%	10.74%
51	9.68%	2.16%	1.58%	11.26%	10.90%
52	9.81%	2.17%	1.58%	11.39%	11.04%
53	9.92%	2.17%	1.58%	11.50%	11.15%
54	9.98%	2.16%	1.58%	11.56%	11.21%
55	9.98%	2.13%	1.58%	11.56%	11.23%
56	9.92%	2.08%	1.58%	11.50%	11.18%
57	9.81%	2.03%	1.58%	11.39%	11.09%
58	10.12%	1.96%	1.58%	11.70%	11.40%
59+	10.45%	1.90%	1.58%	12.03%	11.73%

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
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APPENDIX E – MEMBER CONTRIBUTION RATES

County Miscellaneous Tiers 3 and 3A, Courts Tiers 3 and 4 (31676.16)						
Entry Age	Basic	COL	COL Limited to 1.58%	Additional Cost Sharing	Total	Prior Total
20	6.75%	1.41%	1.41%	1.14%	9.30%	8.52%
21	6.78%	1.45%	1.45%	1.14%	9.37%	8.59%
22	6.79%	1.48%	1.48%	1.14%	9.41%	8.67%
23	6.81%	1.52%	1.52%	1.14%	9.47%	8.74%
24	6.80%	1.56%	1.56%	1.14%	9.50%	8.80%
25	6.81%	1.59%	1.58%	1.14%	9.53%	8.85%
26	6.84%	1.62%	1.58%	1.14%	9.56%	8.90%
27	6.86%	1.65%	1.58%	1.14%	9.58%	8.96%
28	6.84%	1.68%	1.58%	1.14%	9.56%	9.00%
29	6.82%	1.72%	1.58%	1.14%	9.54%	9.03%
30	6.79%	1.75%	1.58%	1.14%	9.51%	9.07%
31	6.91%	1.79%	1.58%	1.14%	9.63%	9.20%
32	7.02%	1.82%	1.58%	1.14%	9.74%	9.32%
33	7.14%	1.86%	1.58%	1.14%	9.86%	9.43%
34	7.26%	1.90%	1.58%	1.14%	9.98%	9.56%
35	7.38%	1.94%	1.58%	1.14%	10.10%	9.68%
36	7.50%	1.97%	1.58%	1.14%	10.22%	9.81%
37	7.63%	2.02%	1.58%	1.14%	10.35%	9.94%
38	7.76%	2.06%	1.58%	1.14%	10.48%	10.07%
39	7.89%	2.10%	1.58%	1.14%	10.61%	10.21%
40	8.02%	2.13%	1.58%	1.14%	10.74%	10.34%
41	8.16%	2.17%	1.58%	1.14%	10.88%	10.48%
42	8.31%	2.20%	1.58%	1.14%	11.03%	10.63%
43	8.45%	2.22%	1.58%	1.14%	11.17%	10.77%
44	8.60%	2.23%	1.58%	1.14%	11.32%	10.93%
45	8.75%	2.24%	1.58%	1.14%	11.47%	11.09%
46	8.92%	2.27%	1.58%	1.14%	11.64%	11.26%
47	9.09%	2.28%	1.58%	1.14%	11.81%	11.42%
48	9.26%	2.29%	1.58%	1.14%	11.98%	11.60%
49	9.41%	2.31%	1.58%	1.14%	12.13%	11.77%
50	9.58%	2.32%	1.58%	1.14%	12.30%	11.94%
51	9.73%	2.32%	1.58%	1.14%	12.45%	12.10%
52	9.86%	2.31%	1.58%	1.14%	12.58%	12.23%
53	9.97%	2.29%	1.58%	1.14%	12.69%	12.35%
54	10.03%	2.26%	1.58%	1.14%	12.75%	12.41%
55	10.03%	2.21%	1.58%	1.14%	12.75%	12.42%
56	9.97%	2.15%	1.58%	1.14%	12.69%	12.38%
57	9.86%	2.08%	1.58%	1.14%	12.58%	12.28%
58	10.17%	2.00%	1.58%	1.14%	12.89%	12.60%
59+	10.50%	1.93%	1.58%	1.14%	13.22%	12.92%

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020**

APPENDIX E – MEMBER CONTRIBUTION RATES

County Miscellaneous Tier 4 (31676.1)					
Entry Age	Basic	COL	COL Limited to 1.58%	Total	Prior Total
20	6.70%	1.17%	1.17%	7.87%	7.12%
21	6.72%	1.19%	1.19%	7.91%	7.18%
22	6.74%	1.22%	1.22%	7.96%	7.24%
23	6.76%	1.24%	1.24%	8.00%	7.31%
24	6.76%	1.27%	1.27%	8.03%	7.37%
25	6.75%	1.31%	1.31%	8.06%	7.41%
26	6.75%	1.34%	1.34%	8.09%	7.46%
27	6.74%	1.38%	1.38%	8.12%	7.51%
28	6.72%	1.41%	1.41%	8.13%	7.56%
29	6.70%	1.44%	1.44%	8.14%	7.59%
30	6.67%	1.47%	1.47%	8.14%	7.62%
31	6.79%	1.50%	1.50%	8.29%	7.78%
32	6.91%	1.53%	1.53%	8.44%	7.93%
33	7.01%	1.57%	1.57%	8.58%	8.09%
34	7.17%	1.61%	1.58%	8.75%	8.26%
35	7.32%	1.64%	1.58%	8.90%	8.43%
36	7.45%	1.67%	1.58%	9.03%	8.58%
37	7.58%	1.71%	1.58%	9.16%	8.74%
38	7.71%	1.75%	1.58%	9.29%	8.88%
39	7.84%	1.80%	1.58%	9.42%	9.01%
40	7.97%	1.84%	1.58%	9.55%	9.15%
41	8.11%	1.88%	1.58%	9.69%	9.29%
42	8.26%	1.93%	1.58%	9.84%	9.43%
43	8.40%	1.96%	1.58%	9.98%	9.58%
44	8.55%	2.00%	1.58%	10.13%	9.74%
45	8.70%	2.04%	1.58%	10.28%	9.89%
46	8.87%	2.07%	1.58%	10.45%	10.06%
47	9.04%	2.09%	1.58%	10.62%	10.23%
48	9.21%	2.11%	1.58%	10.79%	10.41%
49	9.36%	2.13%	1.58%	10.94%	10.58%
50	9.53%	2.15%	1.58%	11.11%	10.74%
51	9.68%	2.16%	1.58%	11.26%	10.90%
52	9.81%	2.17%	1.58%	11.39%	11.04%
53	9.92%	2.17%	1.58%	11.50%	11.15%
54	9.98%	2.16%	1.58%	11.56%	11.21%
55	9.98%	2.13%	1.58%	11.56%	11.23%
56	9.92%	2.08%	1.58%	11.50%	11.18%
57	9.81%	2.03%	1.58%	11.39%	11.09%
58	10.12%	1.96%	1.58%	11.70%	11.40%
59+	10.45%	1.90%	1.58%	12.03%	11.73%

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020**

APPENDIX E – MEMBER CONTRIBUTION RATES

County Safety: Tier 1A (31664.2)						
Entry Age	Basic	COL	COL Limited to 3.10%	Additional Cost Sharing	Total	Prior Total
20	10.25%	4.46%	3.10%	3.64%	16.99%	16.21%
21	10.39%	4.56%	3.10%	3.64%	17.13%	16.35%
22	10.53%	4.70%	3.10%	3.64%	17.27%	16.50%
23	10.68%	4.81%	3.10%	3.64%	17.42%	16.64%
24	10.82%	4.94%	3.10%	3.64%	17.56%	16.79%
25	10.97%	5.03%	3.10%	3.64%	17.71%	16.94%
26	11.11%	5.15%	3.10%	3.64%	17.85%	17.09%
27	11.27%	5.23%	3.10%	3.64%	18.01%	17.25%
28	11.43%	5.31%	3.10%	3.64%	18.17%	17.41%
29	11.58%	5.41%	3.10%	3.64%	18.32%	17.58%
30	11.75%	5.48%	3.10%	3.64%	18.49%	17.74%
31	11.92%	5.55%	3.10%	3.64%	18.66%	17.91%
32	12.10%	5.62%	3.10%	3.64%	18.84%	18.09%
33	12.27%	5.69%	3.10%	3.64%	19.01%	18.27%
34	12.45%	5.75%	3.10%	3.64%	19.19%	18.46%
35	12.65%	5.82%	3.10%	3.64%	19.39%	18.65%
36	12.85%	5.88%	3.10%	3.64%	19.59%	18.84%
37	13.05%	5.93%	3.10%	3.64%	19.79%	19.05%
38	13.25%	5.98%	3.10%	3.64%	19.99%	19.26%
39	13.45%	6.06%	3.10%	3.64%	20.19%	19.46%
40	13.64%	6.15%	3.10%	3.64%	20.38%	19.66%
41	13.83%	6.23%	3.10%	3.64%	20.57%	19.85%
42	13.99%	6.33%	3.10%	3.64%	20.73%	20.02%
43	14.13%	6.43%	3.10%	3.64%	20.87%	20.17%
44	14.23%	6.54%	3.10%	3.64%	20.97%	20.27%
45	14.28%	6.63%	3.10%	3.64%	21.02%	20.34%
46	14.29%	6.68%	3.10%	3.64%	21.03%	20.36%
47	14.25%	6.77%	3.10%	3.64%	20.99%	20.33%
48	14.15%	6.87%	3.10%	3.64%	20.89%	20.27%
49+	14.06%	6.95%	3.10%	3.64%	20.80%	20.20%

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020**

APPENDIX E – MEMBER CONTRIBUTION RATES

Entry Age	County Safety: Tier 1B (31664.1)				Total	Prior Total
	Basic	COL	COL Limited to 3.10%	Additional Cost Sharing		
20	10.25%	5.25%	3.10%	3.64%	16.99%	16.21%
21	10.39%	5.23%	3.10%	3.64%	17.13%	16.35%
22	10.53%	5.34%	3.10%	3.64%	17.27%	16.50%
23	10.68%	5.45%	3.10%	3.64%	17.42%	16.64%
24	10.82%	5.57%	3.10%	3.64%	17.56%	16.79%
25	10.97%	5.67%	3.10%	3.64%	17.71%	16.94%
26	11.11%	5.75%	3.10%	3.64%	17.85%	17.09%
27	11.27%	5.85%	3.10%	3.64%	18.01%	17.25%
28	11.43%	5.94%	3.10%	3.64%	18.17%	17.41%
29	11.58%	6.05%	3.10%	3.64%	18.32%	17.58%
30	11.75%	6.06%	3.10%	3.64%	18.49%	17.74%
31	11.92%	6.10%	3.10%	3.64%	18.66%	17.91%
32	12.10%	6.18%	3.10%	3.64%	18.84%	18.09%
33	12.27%	6.28%	3.10%	3.64%	19.01%	18.27%
34	12.45%	6.40%	3.10%	3.64%	19.19%	18.46%
35	12.65%	6.53%	3.10%	3.64%	19.39%	18.65%
36	12.85%	6.60%	3.10%	3.64%	19.59%	18.84%
37	13.05%	6.66%	3.10%	3.64%	19.79%	19.05%
38	13.25%	6.71%	3.10%	3.64%	19.99%	19.26%
39	13.45%	6.78%	3.10%	3.64%	20.19%	19.46%
40	13.64%	6.84%	3.10%	3.64%	20.38%	19.66%
41	13.83%	6.91%	3.10%	3.64%	20.57%	19.85%
42	13.99%	7.00%	3.10%	3.64%	20.73%	20.02%
43	14.13%	7.09%	3.10%	3.64%	20.87%	20.17%
44	14.23%	7.13%	3.10%	3.64%	20.97%	20.27%
45	14.28%	7.18%	3.10%	3.64%	21.02%	20.34%
46	14.29%	7.26%	3.10%	3.64%	21.03%	20.36%
47	14.25%	7.34%	3.10%	3.64%	20.99%	20.33%
48	14.15%	7.44%	3.10%	3.64%	20.89%	20.27%
49+	14.06%	7.56%	3.10%	3.64%	20.80%	20.20%

Some members who are receiving enhanced benefits under 31664.1 are paying an additional 2.60%, 3.530% or 3.885%, depending on their bargaining agreement.

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020**

APPENDIX E – MEMBER CONTRIBUTION RATES

Entry Age	County Safety: Tier 2A (31664.2)					Prior Total
	Basic	COL	COL Limited to 3.10%	Additional Cost Sharing	Total	
20	9.71%	3.04%	3.04%	3.64%	16.39%	15.21%
21	9.86%	3.11%	3.10%	3.64%	16.60%	15.41%
22	10.08%	3.19%	3.10%	3.64%	16.82%	15.64%
23	10.26%	3.28%	3.10%	3.64%	17.00%	15.86%
24	10.39%	3.37%	3.10%	3.64%	17.13%	16.08%
25	10.54%	3.42%	3.10%	3.64%	17.28%	16.29%
26	10.68%	3.51%	3.10%	3.64%	17.42%	16.54%
27	10.83%	3.57%	3.10%	3.64%	17.57%	16.78%
28	10.98%	3.62%	3.10%	3.64%	17.72%	16.99%
29	11.13%	3.69%	3.10%	3.64%	17.87%	17.15%
30	11.29%	3.75%	3.10%	3.64%	18.03%	17.30%
31	11.45%	3.80%	3.10%	3.64%	18.19%	17.47%
32	11.62%	3.84%	3.10%	3.64%	18.36%	17.64%
33	11.78%	3.88%	3.10%	3.64%	18.52%	17.82%
34	11.96%	3.94%	3.10%	3.64%	18.70%	18.00%
35	12.15%	3.98%	3.10%	3.64%	18.89%	18.17%
36	12.33%	4.02%	3.10%	3.64%	19.07%	18.36%
37	12.51%	4.06%	3.10%	3.64%	19.25%	18.55%
38	12.69%	4.09%	3.10%	3.64%	19.43%	18.73%
39	12.86%	4.15%	3.10%	3.64%	19.60%	18.91%
40	13.01%	4.21%	3.10%	3.64%	19.75%	19.06%
41	13.15%	4.27%	3.10%	3.64%	19.89%	19.21%
42	13.25%	4.33%	3.10%	3.64%	19.99%	19.33%
43	13.33%	4.41%	3.10%	3.64%	20.07%	19.41%
44	13.36%	4.48%	3.10%	3.64%	20.10%	19.45%
45	13.35%	4.54%	3.10%	3.64%	20.09%	19.46%
46	13.30%	4.58%	3.10%	3.64%	20.04%	19.42%
47	13.22%	4.65%	3.10%	3.64%	19.96%	19.36%
48	13.63%	4.71%	3.10%	3.64%	20.37%	19.77%
49+	14.06%	4.77%	3.10%	3.64%	20.80%	20.20%

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020**

APPENDIX E – MEMBER CONTRIBUTION RATES

Entry Age	County Safety: Tier 2B (31664.1)					Prior Total
	Basic	COL	COL Limited to 3.10%	Additional Cost Sharing	Total	
20	9.85%	3.57%	3.10%	3.64%	16.59%	15.79%
21	9.99%	3.56%	3.10%	3.64%	16.73%	15.92%
22	10.12%	3.63%	3.10%	3.64%	16.86%	16.12%
23	10.26%	3.71%	3.10%	3.64%	17.00%	16.26%
24	10.39%	3.79%	3.10%	3.64%	17.13%	16.39%
25	10.54%	3.86%	3.10%	3.64%	17.28%	16.54%
26	10.68%	3.92%	3.10%	3.64%	17.42%	16.69%
27	10.83%	3.98%	3.10%	3.64%	17.57%	16.83%
28	10.98%	4.05%	3.10%	3.64%	17.72%	16.99%
29	11.13%	4.12%	3.10%	3.64%	17.87%	17.15%
30	11.29%	4.12%	3.10%	3.64%	18.03%	17.30%
31	11.45%	4.16%	3.10%	3.64%	18.19%	17.47%
32	11.62%	4.22%	3.10%	3.64%	18.36%	17.64%
33	11.78%	4.28%	3.10%	3.64%	18.52%	17.82%
34	11.96%	4.36%	3.10%	3.64%	18.70%	18.00%
35	12.15%	4.46%	3.10%	3.64%	18.89%	18.17%
36	12.33%	4.50%	3.10%	3.64%	19.07%	18.36%
37	12.51%	4.54%	3.10%	3.64%	19.25%	18.55%
38	12.69%	4.58%	3.10%	3.64%	19.43%	18.73%
39	12.86%	4.63%	3.10%	3.64%	19.60%	18.91%
40	13.01%	4.67%	3.10%	3.64%	19.75%	19.06%
41	13.15%	4.72%	3.10%	3.64%	19.89%	19.21%
42	13.25%	4.78%	3.10%	3.64%	19.99%	19.33%
43	13.33%	4.84%	3.10%	3.64%	20.07%	19.41%
44	13.36%	4.88%	3.10%	3.64%	20.10%	19.45%
45	13.35%	4.92%	3.10%	3.64%	20.09%	19.46%
46	13.30%	4.96%	3.10%	3.64%	20.04%	19.42%
47	13.22%	5.02%	3.10%	3.64%	19.96%	19.36%
48	13.63%	5.10%	3.10%	3.64%	20.37%	19.77%
49+	14.06%	5.18%	3.10%	3.64%	20.80%	20.20%

Some members who are receiving enhanced benefits under 31664.1 are paying an additional 2.60%, 3.530% or 3.885%, depending on their bargaining agreement.

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020**

APPENDIX E – MEMBER CONTRIBUTION RATES

South Marin Fire: Miscellaneous Tier 1 (31676.19)				
Entry Age	Basic	COL	Total	Prior Total
20	8.89%	2.46%	11.35%	10.52%
21	8.88%	2.55%	11.43%	10.64%
22	8.87%	2.63%	11.50%	10.74%
23	8.85%	2.70%	11.55%	10.85%
24	8.81%	2.77%	11.58%	10.92%
25	8.78%	2.80%	11.58%	10.95%
26	8.93%	2.86%	11.79%	11.18%
27	9.08%	2.91%	11.99%	11.42%
28	9.23%	2.97%	12.20%	11.67%
29	9.38%	3.03%	12.41%	11.91%
30	9.55%	3.09%	12.64%	12.16%
31	9.71%	3.14%	12.85%	12.39%
32	9.88%	3.18%	13.06%	12.62%
33	10.04%	3.26%	13.30%	12.87%
34	10.22%	3.33%	13.55%	13.13%
35	10.40%	3.40%	13.80%	13.41%
36	10.57%	3.45%	14.02%	13.63%
37	10.76%	3.50%	14.26%	13.87%
38	10.95%	3.55%	14.50%	14.12%
39	11.15%	3.61%	14.76%	14.37%
40	11.36%	3.66%	15.02%	14.63%
41	11.57%	3.71%	15.28%	14.87%
42	11.80%	3.76%	15.56%	15.15%
43	12.03%	3.77%	15.80%	15.39%
44	12.27%	3.77%	16.04%	15.60%
45	12.50%	3.77%	16.27%	15.82%
46	12.74%	3.79%	16.53%	16.04%
47	12.96%	3.79%	16.75%	16.22%
48	13.18%	3.80%	16.98%	16.41%
49	13.36%	3.81%	17.17%	16.58%
50	13.48%	3.84%	17.32%	16.71%
51	13.51%	3.82%	17.33%	16.74%
52	13.46%	3.80%	17.26%	16.64%
53	13.31%	3.75%	17.06%	16.46%
54+	13.16%	3.69%	16.85%	16.27%

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020**

APPENDIX E – MEMBER CONTRIBUTION RATES

South Marin Fire Safety: Tier 1 (31664.1)				
Entry Age	Basic	COL	Total	Prior Total
20	9.95%	5.25%	15.20%	14.35%
21	10.10%	5.23%	15.33%	14.47%
22	10.23%	5.34%	15.57%	14.76%
23	10.38%	5.45%	15.83%	15.04%
24	10.52%	5.57%	16.09%	15.33%
25	10.67%	5.67%	16.34%	15.62%
26	10.82%	5.75%	16.57%	15.88%
27	10.97%	5.85%	16.82%	16.15%
28	11.13%	5.94%	17.07%	16.43%
29	11.28%	6.05%	17.33%	16.73%
30	11.45%	6.06%	17.51%	16.91%
31	11.62%	6.10%	17.72%	17.12%
32	11.80%	6.18%	17.98%	17.39%
33	11.97%	6.28%	18.25%	17.66%
34	12.15%	6.40%	18.55%	17.97%
35	12.35%	6.53%	18.88%	18.29%
36	12.55%	6.60%	19.15%	18.55%
37	12.75%	6.66%	19.41%	18.80%
38	12.96%	6.71%	19.67%	19.05%
39	13.15%	6.78%	19.93%	19.30%
40	13.34%	6.84%	20.18%	19.54%
41	13.53%	6.91%	20.44%	19.78%
42	13.68%	7.00%	20.68%	20.00%
43	13.83%	7.09%	20.92%	20.21%
44	13.93%	7.13%	21.06%	20.31%
45	13.98%	7.18%	21.16%	20.40%
46	13.99%	7.26%	21.25%	20.44%
47	13.95%	7.34%	21.29%	20.44%
48	13.86%	7.44%	21.30%	20.42%
49+	13.76%	7.56%	21.32%	20.40%

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020**

APPENDIX E – MEMBER CONTRIBUTION RATES

South Marin Fire Safety: Tier 2 (31664.2)				
Entry Age	Basic	COL	Total	Prior Total
20	9.95%	4.46%	14.41%	13.38%
21	10.10%	4.56%	14.66%	13.65%
22	10.23%	4.70%	14.93%	13.93%
23	10.38%	4.81%	15.19%	14.21%
24	10.52%	4.94%	15.46%	14.48%
25	10.67%	5.03%	15.70%	14.74%
26	10.81%	5.15%	15.96%	15.06%
27	10.97%	5.23%	16.20%	15.38%
28	11.13%	5.31%	16.44%	15.68%
29	11.29%	5.41%	16.70%	15.99%
30	11.46%	5.48%	16.94%	16.30%
31	11.63%	5.55%	17.18%	16.59%
32	11.80%	5.62%	17.42%	16.90%
33	11.98%	5.69%	17.67%	17.19%
34	12.16%	5.75%	17.91%	17.48%
35	12.35%	5.82%	18.17%	17.78%
36	12.55%	5.88%	18.43%	18.04%
37	12.75%	5.93%	18.68%	18.25%
38	12.96%	5.98%	18.94%	18.52%
39	13.15%	6.06%	19.21%	18.79%
40	13.34%	6.15%	19.49%	19.08%
41	13.53%	6.23%	19.76%	19.35%
42	13.69%	6.33%	20.02%	19.61%
43	13.84%	6.43%	20.27%	19.83%
44	13.92%	6.54%	20.46%	20.01%
45	13.98%	6.63%	20.61%	20.13%
46	13.99%	6.68%	20.67%	20.00%
47	13.94%	6.77%	20.71%	19.97%
48	13.86%	6.87%	20.73%	19.91%
49+	13.76%	6.95%	20.71%	19.86%

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020**

APPENDIX E – MEMBER CONTRIBUTION RATES

South Marin Fire Safety: Tier 2A (31664.2)				
Entry Age	Basic	COL	Total	Prior Total
20	9.56%	4.06%	13.62%	12.65%
21	9.68%	4.16%	13.84%	12.89%
22	9.83%	4.27%	14.10%	13.15%
23	9.97%	4.37%	14.34%	13.42%
24	10.10%	4.49%	14.59%	13.67%
25	10.25%	4.57%	14.82%	13.91%
26	10.38%	4.68%	15.06%	14.20%
27	10.54%	4.76%	15.30%	14.50%
28	10.69%	4.83%	15.52%	14.79%
29	10.84%	4.92%	15.76%	15.08%
30	11.00%	4.99%	15.99%	15.37%
31	11.15%	5.05%	16.20%	15.65%
32	11.31%	5.12%	16.43%	15.93%
33	11.48%	5.18%	16.66%	16.21%
34	11.66%	5.23%	16.89%	16.50%
35	11.85%	5.29%	17.14%	16.77%
36	12.02%	5.35%	17.37%	17.01%
37	12.21%	5.40%	17.61%	17.20%
38	12.39%	5.44%	17.83%	17.43%
39	12.56%	5.51%	18.07%	17.68%
40	12.71%	5.59%	18.30%	17.90%
41	12.85%	5.67%	18.52%	18.13%
42	12.96%	5.75%	18.71%	18.33%
43	13.03%	5.85%	18.88%	18.49%
44	13.06%	5.94%	19.00%	18.58%
45	13.06%	6.02%	19.08%	18.65%
46	13.00%	6.08%	19.08%	18.47%
47	12.93%	6.15%	19.08%	18.40%
48	13.34%	6.24%	19.58%	18.82%
49+	13.76%	6.32%	20.08%	19.27%

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020**

APPENDIX E – MEMBER CONTRIBUTION RATES

Entry Age	Marin City CSD Tier 1, LAFCO Tier 7, Tamalpais CSD Tier 1 (31676.11)			Prior Total
	Basic	COL	Total	
20	7.40%	1.86%	9.26%	8.56%
21	7.40%	1.91%	9.31%	8.64%
22	7.39%	1.95%	9.34%	8.70%
23	7.38%	2.00%	9.38%	8.77%
24	7.35%	2.06%	9.41%	8.83%
25	7.32%	2.11%	9.43%	8.88%
26	7.44%	2.16%	9.60%	9.08%
27	7.57%	2.21%	9.78%	9.28%
28	7.69%	2.28%	9.97%	9.49%
29	7.82%	2.33%	10.15%	9.68%
30	7.96%	2.38%	10.34%	9.89%
31	8.09%	2.43%	10.52%	10.11%
32	8.23%	2.48%	10.71%	10.31%
33	8.37%	2.55%	10.92%	10.53%
34	8.52%	2.61%	11.13%	10.75%
35	8.67%	2.67%	11.34%	10.97%
36	8.81%	2.74%	11.55%	11.19%
37	8.97%	2.81%	11.78%	11.42%
38	9.14%	2.87%	12.01%	11.67%
39	9.30%	2.94%	12.24%	11.90%
40	9.47%	3.01%	12.48%	12.13%
41	9.65%	3.06%	12.71%	12.36%
42	9.83%	3.12%	12.95%	12.62%
43	10.03%	3.15%	13.18%	12.85%
44	10.23%	3.19%	13.42%	13.08%
45	10.42%	3.24%	13.66%	13.32%
46	10.61%	3.28%	13.89%	13.53%
47	10.81%	3.31%	14.12%	13.73%
48	10.97%	3.34%	14.31%	13.92%
49	11.13%	3.37%	14.50%	14.09%
50	11.24%	3.40%	14.64%	14.20%
51	11.27%	3.41%	14.68%	14.25%
52	11.22%	3.42%	14.64%	14.19%
53	11.09%	3.41%	14.50%	14.07%
54	10.97%	3.38%	14.35%	13.92%
55	10.86%	3.33%	14.19%	13.73%
56	10.74%	3.25%	13.99%	13.54%
57	10.63%	3.15%	13.78%	13.33%
58	10.50%	3.05%	13.55%	13.12%
59+	10.38%	2.94%	13.32%	12.88%

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020**

APPENDIX E – MEMBER CONTRIBUTION RATES

Mosquito District Tier 1 (31676.14)				
Entry Age	Basic	COL	Total	Prior Total
20	6.95%	2.10%	9.05%	8.32%
21	6.98%	2.15%	9.13%	8.43%
22	7.00%	2.21%	9.21%	8.53%
23	7.00%	2.27%	9.27%	8.64%
24	7.00%	2.33%	9.33%	8.73%
25	7.01%	2.39%	9.40%	8.83%
26	7.01%	2.44%	9.45%	8.92%
27	6.99%	2.51%	9.50%	8.99%
28	6.97%	2.56%	9.53%	9.08%
29	6.95%	2.62%	9.57%	9.14%
30	6.93%	2.67%	9.60%	9.21%
31	7.03%	2.73%	9.76%	9.39%
32	7.16%	2.77%	9.93%	9.57%
33	7.28%	2.83%	10.11%	9.77%
34	7.40%	2.89%	10.29%	9.97%
35	7.53%	2.95%	10.48%	10.18%
36	7.65%	3.02%	10.67%	10.37%
37	7.79%	3.08%	10.87%	10.56%
38	7.93%	3.14%	11.07%	10.77%
39	8.06%	3.21%	11.27%	10.97%
40	8.19%	3.27%	11.46%	11.18%
41	8.34%	3.33%	11.67%	11.36%
42	8.49%	3.38%	11.87%	11.58%
43	8.65%	3.40%	12.05%	11.75%
44	8.79%	3.44%	12.23%	11.91%
45	8.95%	3.47%	12.42%	12.10%
46	9.12%	3.51%	12.63%	12.28%
47	9.30%	3.53%	12.83%	12.45%
48	9.48%	3.55%	13.03%	12.62%
49	9.67%	3.58%	13.25%	12.81%
50	9.86%	3.60%	13.46%	13.00%
51	10.05%	3.60%	13.65%	13.19%
52	10.22%	3.59%	13.81%	13.32%
53	10.39%	3.55%	13.94%	13.44%
54	10.53%	3.50%	14.03%	13.54%
55	10.63%	3.42%	14.05%	13.54%
56	10.66%	3.33%	13.99%	13.47%
57	10.60%	3.23%	13.83%	13.35%
58	10.49%	3.10%	13.59%	13.15%
59+	10.37%	2.99%	13.36%	12.90%

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020**

APPENDIX E – MEMBER CONTRIBUTION RATES

LAFCO Tier 3 (31676.16)				
Entry Age	Basic	COL	Total	Prior Total
20	6.70%	1.41%	8.11%	7.33%
21	6.73%	1.45%	8.18%	7.40%
22	6.74%	1.48%	8.22%	7.47%
23	6.76%	1.52%	8.28%	7.55%
24	6.75%	1.56%	8.31%	7.61%
25	6.75%	1.59%	8.34%	7.65%
26	6.75%	1.62%	8.37%	7.70%
27	6.74%	1.65%	8.39%	7.77%
28	6.73%	1.68%	8.41%	7.81%
29	6.71%	1.72%	8.43%	7.84%
30	6.68%	1.75%	8.43%	7.87%
31	6.78%	1.79%	8.57%	8.03%
32	6.90%	1.82%	8.72%	8.19%
33	7.01%	1.86%	8.87%	8.34%
34	7.14%	1.90%	9.04%	8.51%
35	7.26%	1.94%	9.20%	8.69%
36	7.39%	1.97%	9.36%	8.85%
37	7.50%	2.02%	9.52%	9.00%
38	7.64%	2.06%	9.70%	9.18%
39	7.77%	2.10%	9.87%	9.35%
40	7.90%	2.13%	10.03%	9.52%
41	8.04%	2.17%	10.21%	9.68%
42	8.19%	2.20%	10.39%	9.86%
43	8.34%	2.22%	10.56%	10.02%
44	8.48%	2.23%	10.71%	10.18%
45	8.64%	2.24%	10.88%	10.33%
46	8.80%	2.27%	11.07%	10.51%
47	8.96%	2.28%	11.24%	10.67%
48	9.13%	2.29%	11.42%	10.84%
49	9.29%	2.31%	11.60%	10.99%
50	9.46%	2.32%	11.78%	11.16%
51	9.60%	2.32%	11.92%	11.32%
52	9.74%	2.31%	12.05%	11.43%
53	9.84%	2.29%	12.13%	11.52%
54	9.90%	2.26%	12.16%	11.55%
55	9.91%	2.21%	12.12%	11.51%
56	9.85%	2.15%	12.00%	11.40%
57	9.74%	2.08%	11.82%	11.25%
58	10.06%	2.00%	12.06%	11.51%
59+	10.38%	1.93%	12.31%	11.75%

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020**

APPENDIX E – MEMBER CONTRIBUTION RATES

Novato Miscellaneous Tier 1 (31676.16)				
Entry Age	Basic	COL	Total	Prior Total
20	6.95%	2.09%	9.04%	8.29%
21	6.97%	2.14%	9.11%	8.40%
22	7.00%	2.19%	9.19%	8.50%
23	7.00%	2.26%	9.26%	8.59%
24	7.00%	2.31%	9.31%	8.69%
25	7.01%	2.35%	9.36%	8.76%
26	7.01%	2.39%	9.40%	8.84%
27	7.00%	2.44%	9.44%	8.91%
28	6.97%	2.50%	9.47%	8.98%
29	6.95%	2.55%	9.50%	9.05%
30	6.92%	2.60%	9.52%	9.11%
31	7.04%	2.65%	9.69%	9.28%
32	7.17%	2.69%	9.86%	9.46%
33	7.27%	2.76%	10.03%	9.66%
34	7.40%	2.82%	10.22%	9.86%
35	7.53%	2.88%	10.41%	10.06%
36	7.66%	2.93%	10.59%	10.24%
37	7.79%	2.99%	10.78%	10.43%
38	7.92%	3.05%	10.97%	10.63%
39	8.06%	3.10%	11.16%	10.82%
40	8.20%	3.16%	11.36%	11.03%
41	8.34%	3.22%	11.56%	11.19%
42	8.49%	3.27%	11.76%	11.41%
43	8.64%	3.29%	11.93%	11.58%
44	8.79%	3.30%	12.09%	11.73%
45	8.96%	3.33%	12.29%	11.91%
46	9.13%	3.35%	12.48%	12.07%
47	9.31%	3.37%	12.68%	12.23%
48	9.48%	3.38%	12.86%	12.41%
49	9.67%	3.40%	13.07%	12.59%
50	9.85%	3.44%	13.29%	12.78%
51	10.05%	3.42%	13.47%	12.96%
52	10.23%	3.41%	13.64%	13.10%
53	10.39%	3.38%	13.77%	13.23%
54	10.54%	3.33%	13.87%	13.33%
55	10.63%	3.26%	13.89%	13.34%
56	10.66%	3.17%	13.83%	13.27%
57	10.61%	3.06%	13.67%	13.15%
58	10.50%	2.95%	13.45%	12.95%
59+	10.38%	2.84%	13.22%	12.72%

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020**

APPENDIX E – MEMBER CONTRIBUTION RATES

Novato Safety: Tier 1 (31664.1)				
Entry Age	Basic	COL	Total	Prior Total
20	9.95%	5.37%	15.32%	14.39%
21	10.09%	5.34%	15.43%	14.52%
22	10.23%	5.44%	15.67%	14.80%
23	10.37%	5.57%	15.94%	15.08%
24	10.52%	5.68%	16.20%	15.38%
25	10.67%	5.81%	16.48%	15.67%
26	10.82%	5.89%	16.71%	15.93%
27	10.98%	5.98%	16.96%	16.20%
28	11.13%	6.09%	17.22%	16.50%
29	11.29%	6.19%	17.48%	16.79%
30	11.46%	6.20%	17.66%	16.97%
31	11.62%	6.24%	17.86%	17.18%
32	11.80%	6.34%	18.14%	17.45%
33	11.98%	6.43%	18.41%	17.72%
34	12.15%	6.56%	18.71%	18.04%
35	12.35%	6.68%	19.03%	18.36%
36	12.55%	6.76%	19.31%	18.61%
37	12.75%	6.82%	19.57%	18.88%
38	12.96%	6.88%	19.84%	19.13%
39	13.16%	6.94%	20.10%	19.37%
40	13.34%	7.01%	20.35%	19.60%
41	13.53%	7.09%	20.62%	19.84%
42	13.69%	7.17%	20.86%	20.07%
43	13.83%	7.27%	21.10%	20.27%
44	13.93%	7.31%	21.24%	20.38%
45	13.98%	7.36%	21.34%	20.46%
46	13.99%	7.43%	21.42%	20.51%
47	13.95%	7.52%	21.47%	20.51%
48	13.86%	7.62%	21.48%	20.49%
49+	13.76%	7.75%	21.51%	20.47%

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020**

APPENDIX E – MEMBER CONTRIBUTION RATES

Novato Safety: Tier 2 (31664.2)				
Entry Age	Basic	COL	Total	Prior Total
20	9.95%	4.53%	14.48%	13.43%
21	10.09%	4.65%	14.74%	13.69%
22	10.23%	4.77%	15.00%	13.96%
23	10.37%	4.89%	15.26%	14.25%
24	10.53%	5.03%	15.56%	14.53%
25	10.67%	5.13%	15.80%	14.78%
26	10.82%	5.26%	16.08%	15.10%
27	10.97%	5.35%	16.32%	15.42%
28	11.13%	5.44%	16.57%	15.72%
29	11.29%	5.53%	16.82%	16.05%
30	11.45%	5.62%	17.07%	16.35%
31	11.62%	5.69%	17.31%	16.65%
32	11.80%	5.75%	17.55%	16.96%
33	11.97%	5.83%	17.80%	17.25%
34	12.15%	5.89%	18.04%	17.55%
35	12.35%	5.96%	18.31%	17.84%
36	12.55%	6.02%	18.57%	18.10%
37	12.75%	6.08%	18.83%	18.31%
38	12.96%	6.13%	19.09%	18.58%
39	13.16%	6.20%	19.36%	18.86%
40	13.34%	6.30%	19.64%	19.14%
41	13.53%	6.39%	19.92%	19.41%
42	13.69%	6.48%	20.17%	19.67%
43	13.83%	6.59%	20.42%	19.89%
44	13.93%	6.69%	20.62%	20.07%
45	13.98%	6.79%	20.77%	20.21%
46	13.99%	6.85%	20.84%	20.07%
47	13.95%	6.93%	20.88%	20.03%
48	13.85%	7.04%	20.89%	19.98%
49+	13.76%	7.13%	20.89%	19.92%

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020**

APPENDIX E – MEMBER CONTRIBUTION RATES

San Rafael Miscellaneous Tier 1 (31676.19)				
Entry Age	Basic	COL	Total	Prior Total
20	8.88%	2.35%	11.23%	10.42%
21	8.89%	2.42%	11.31%	10.52%
22	8.86%	2.50%	11.36%	10.64%
23	8.84%	2.57%	11.41%	10.73%
24	8.81%	2.63%	11.44%	10.81%
25	8.78%	2.66%	11.44%	10.84%
26	8.93%	2.71%	11.64%	11.06%
27	9.07%	2.77%	11.84%	11.30%
28	9.23%	2.82%	12.05%	11.53%
29	9.39%	2.88%	12.27%	11.77%
30	9.56%	2.94%	12.50%	12.02%
31	9.71%	2.99%	12.70%	12.25%
32	9.88%	3.03%	12.91%	12.48%
33	10.04%	3.09%	13.13%	12.73%
34	10.23%	3.16%	13.39%	12.99%
35	10.40%	3.24%	13.64%	13.25%
36	10.58%	3.28%	13.86%	13.48%
37	10.77%	3.33%	14.10%	13.72%
38	10.96%	3.38%	14.34%	13.97%
39	11.15%	3.44%	14.59%	14.21%
40	11.36%	3.49%	14.85%	14.47%
41	11.57%	3.53%	15.10%	14.72%
42	11.80%	3.57%	15.37%	14.99%
43	12.03%	3.58%	15.61%	15.22%
44	12.27%	3.58%	15.85%	15.44%
45	12.50%	3.59%	16.09%	15.66%
46	12.74%	3.60%	16.34%	15.89%
47	12.96%	3.60%	16.56%	16.08%
48	13.18%	3.61%	16.79%	16.26%
49	13.36%	3.63%	16.99%	16.43%
50	13.48%	3.65%	17.13%	16.56%
51	13.51%	3.63%	17.14%	16.59%
52	13.46%	3.61%	17.07%	16.50%
53	13.31%	3.57%	16.88%	16.31%
54+	13.16%	3.51%	16.67%	16.13%

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020**

APPENDIX E – MEMBER CONTRIBUTION RATES

San Rafael Miscellaneous Tier 2 (31676.16)				
Entry Age	Basic	COL	Total	Prior Total
20	6.70%	1.41%	8.11%	7.34%
21	6.72%	1.44%	8.16%	7.41%
22	6.74%	1.48%	8.22%	7.48%
23	6.76%	1.51%	8.27%	7.56%
24	6.75%	1.55%	8.30%	7.62%
25	6.75%	1.56%	8.31%	7.65%
26	6.75%	1.59%	8.34%	7.70%
27	6.74%	1.63%	8.37%	7.76%
28	6.72%	1.66%	8.38%	7.80%
29	6.70%	1.69%	8.39%	7.84%
30	6.68%	1.73%	8.41%	7.87%
31	6.79%	1.75%	8.54%	8.02%
32	6.91%	1.77%	8.68%	8.16%
33	7.01%	1.81%	8.82%	8.32%
34	7.14%	1.85%	8.99%	8.50%
35	7.26%	1.88%	9.14%	8.67%
36	7.38%	1.91%	9.29%	8.81%
37	7.51%	1.95%	9.46%	8.98%
38	7.65%	1.98%	9.63%	9.15%
39	7.76%	2.03%	9.79%	9.32%
40	7.90%	2.06%	9.96%	9.49%
41	8.04%	2.11%	10.15%	9.64%
42	8.19%	2.15%	10.34%	9.83%
43	8.33%	2.18%	10.51%	10.00%
44	8.48%	2.21%	10.69%	10.17%
45	8.64%	2.24%	10.88%	10.34%
46	8.80%	2.27%	11.07%	10.52%
47	8.96%	2.28%	11.24%	10.68%
48	9.13%	2.29%	11.42%	10.85%
49	9.29%	2.31%	11.60%	11.01%
50	9.46%	2.32%	11.78%	11.17%
51	9.60%	2.32%	11.92%	11.33%
52	9.74%	2.31%	12.05%	11.45%
53	9.84%	2.29%	12.13%	11.53%
54	9.90%	2.26%	12.16%	11.56%
55	9.91%	2.20%	12.11%	11.51%
56	9.85%	2.15%	12.00%	11.41%
57	9.74%	2.08%	11.82%	11.26%
58	10.06%	2.00%	12.06%	11.52%
59+	10.38%	1.93%	12.31%	11.76%

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020**

APPENDIX E – MEMBER CONTRIBUTION RATES

San Rafael Safety Tier 1 (31664.2)				
Entry Age	Basic	COL	Total	Prior Total
20	9.95%	4.24%	14.19%	13.21%
21	10.10%	4.33%	14.43%	13.46%
22	10.23%	4.46%	14.69%	13.73%
23	10.38%	4.56%	14.94%	14.00%
24	10.52%	4.69%	15.21%	14.28%
25	10.67%	4.77%	15.44%	14.53%
26	10.81%	4.89%	15.70%	14.84%
27	10.97%	4.97%	15.94%	15.15%
28	11.13%	5.04%	16.17%	15.45%
29	11.28%	5.14%	16.42%	15.75%
30	11.45%	5.21%	16.66%	16.06%
31	11.62%	5.27%	16.89%	16.35%
32	11.79%	5.34%	17.13%	16.64%
33	11.97%	5.40%	17.37%	16.94%
34	12.15%	5.46%	17.61%	17.23%
35	12.35%	5.52%	17.87%	17.51%
36	12.55%	5.59%	18.14%	17.77%
37	12.75%	5.64%	18.39%	17.99%
38	12.96%	5.69%	18.65%	18.26%
39	13.16%	5.75%	18.91%	18.52%
40	13.34%	5.84%	19.18%	18.80%
41	13.53%	5.92%	19.45%	19.08%
42	13.69%	6.01%	19.70%	19.33%
43	13.83%	6.11%	19.94%	19.55%
44	13.93%	6.21%	20.14%	19.71%
45	13.98%	6.30%	20.28%	19.85%
46	13.99%	6.36%	20.35%	19.73%
47	13.95%	6.43%	20.38%	19.68%
48	13.85%	6.53%	20.38%	19.63%
49+	13.76%	6.61%	20.37%	19.59%

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020**

APPENDIX E – MEMBER CONTRIBUTION RATES

San Rafael Safety Tier 2 (31664.2)				
Entry Age	Basic	COL	Total	Prior Total
20	9.55%	3.04%	12.59%	11.40%
21	9.69%	3.11%	12.80%	11.61%
22	9.83%	3.19%	13.02%	11.83%
23	9.96%	3.28%	13.24%	12.06%
24	10.10%	3.37%	13.47%	12.27%
25	10.25%	3.42%	13.67%	12.49%
26	10.38%	3.51%	13.89%	12.73%
27	10.54%	3.57%	14.11%	12.99%
28	10.68%	3.62%	14.30%	13.24%
29	10.83%	3.69%	14.52%	13.49%
30	10.99%	3.75%	14.74%	13.73%
31	11.15%	3.80%	14.95%	13.98%
32	11.32%	3.84%	15.16%	14.22%
33	11.49%	3.88%	15.37%	14.47%
34	11.66%	3.94%	15.60%	14.73%
35	11.85%	3.98%	15.83%	14.97%
36	12.03%	4.02%	16.05%	15.20%
37	12.22%	4.06%	16.28%	15.39%
38	12.40%	4.09%	16.49%	15.61%
39	12.56%	4.15%	16.71%	15.84%
40	12.71%	4.21%	16.92%	16.04%
41	12.85%	4.27%	17.12%	16.25%
42	12.96%	4.33%	17.29%	16.42%
43	13.03%	4.41%	17.44%	16.55%
44	13.06%	4.48%	17.54%	16.64%
45	13.05%	4.54%	17.59%	16.69%
46	13.00%	4.58%	17.58%	16.56%
47	12.92%	4.65%	17.57%	16.50%
48	13.33%	4.71%	18.04%	16.92%
49+	13.76%	4.77%	18.53%	17.36%

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2020**

APPENDIX E – MEMBER CONTRIBUTION RATES

PEPRA Rates				
All Ages	Basic	COLA	Total	Prior Total
PEPRA Misc 2% COLA	7.58%	2.13%	9.71%	9.22%
PEPRA Misc 4% COLA	7.97%	2.78%	10.75%	10.25%
PEPRA Safety 2% COLA	11.38%	3.61%	14.99%	14.40%
PEPRA Safety 3% COLA	11.59%	4.82%	16.41%	16.82%
PEPRA Safety 4% COLA	12.54%	5.24%	17.78%	17.32%



Classic Values, Innovative Advice