# San Rafael Elementary School District

GASB 45 Actuarial Valuation of
Post Employment Benefits Other than Pensions as of January 1, 2016

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***San Rafael Elementary School District–***
***GASB 45 Actuarial Valuation of Post Employment Benefits as of January 1, 2016***

At the request of the San Rafael City Schools (SRCS), we have completed an actuarial valuation of post employment benefits as of January 1, 2016.

The purpose of this report is to determine the Annual Required Contribution and required financial disclosures under the Governmental Accounting Standards Board Statement No. 45 – *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions* (GASB 45). Our determinations reflect the procedures and methods prescribed in GASB 45.

In preparing our report, we relied, without audit, on information (some oral and some in writing) supplied by SRCS. This information includes but not limited to employee census data, financial information and plan provisions. We found this information to be reasonably consistent and comparable with information used for other purposes. The valuation results depend on the integrity of this information. If any of this information is incomplete or inaccurate our results may be different and our calculations may need to be revised.

All costs, liabilities, rates of interest, and other factors for the District have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the District and reasonable expectations); and which, in combination, offer our best estimate of anticipated experience affecting the District. Further, in our opinion, each actuarial assumption used is reasonably related to the experience of the Plan and to reasonable expectations which, in combination, represent our best estimate of anticipated experience for the District.

This valuation report is only an estimate of the Plan's financial condition as of a single date. It can neither predict the Plan's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of District benefits, only the timing of District contributions. While the valuation is based on an array of individually reasonable assumptions, other assumption sets may also be reasonable and valuation results based on those assumptions would be different. No one set of assumptions is uniquely correct. Determining results using alternative assumptions is outside the scope of our engagement.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period); and changes in plan provisions or applicable law. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of future measurements. The District has the final decision regarding the appropriateness of the assumptions and actuarial cost methods.

Actuarial computations presented in this report under GASB Statement No. 45 are for purposes of assisting the District in fulfilling its financial accounting requirements. The calculations in the enclosed report have been made on a basis consistent with our understanding of the District's funding policy and goals. The calculations in this report have been made on a basis consistent with our understanding of the OPEB plan provisions described in Appendix A of this report, and of GASB Statement No. 45. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

Milliman's work is prepared solely for the internal business use of the San Rafael Elementary School District and San Rafael City Schools. To the extent that Milliman's work is not subject to disclosure under applicable public records laws, Milliman's work may not be provided to third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of its work product. Milliman's consent to release its work product to any third party may be conditioned on the third party signing a Release, subject to the following exceptions:

(a) The San Rafael Elementary School District and San Rafael City Schools may provide a copy of Milliman's work, in its entirety, to San Rafael Elementary School District and San Rafael City Schools' professional service advisors who are subject to a duty of confidentiality and who agree to not use Milliman's work for any purpose other than to benefit the San Rafael Elementary School District and San Rafael City Schools.

(b) The San Rafael Elementary School District and San Rafael City Schools may provide a copy of Milliman's work, in its entirety, to other governmental entities, as required by law.

No third party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

The consultants who worked on this assignment are actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

The signing actuary is independent of the plan sponsor. We are not aware of any relationship that would impair the objectivity of our work.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, the report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the applicable Actuarial Standards of Practice of the American Academy of Actuaries. The undersigned is a member of the American Academy of Actuaries and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Sincerely,

John R. Botsford, FSA, MAAA
Principal and Consulting Actuary

JRB:dyu

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## Introduction

Milliman, Inc. ("Milliman") has been retained by San Rafael City Schools (SRCS) to provide a GASB 45 actuarial valuation of its post employment benefit (OPEB) plans. In our valuation we:

- Project expected benefit payouts
- Calculate the present value of total benefits
- Calculate the actuarial liability (present value of benefits attributable to past service)
- Determine the Annual Required Contribution (ARC) and annual OPEB expense under GASB Statement No. 45
- Prepare the financial statement disclosures relating to the funded status of the plan

## Background

Retirees are eligible for retiree health benefits if they meet certain requirements relating to age and service. The retiree health benefits are described in the labor agreements between SRCS and San Rafael Elementary District (District) employees.

Appendix A provides a detailed summary of benefits.

## Rationale for Significant Assumptions

With any valuation of future benefits, assumptions of anticipated future events are required. If actual events differ from the assumptions made, the actual cost of the plan will vary as well.

*Demographic Rates*. Demographic assumptions regarding retirement, disability, and mortality are based on assumptions used for the 2015 California STRS valuation report. The mortality assumption includes a margin for future expected mortality improvement. The District's employee and retiree population is not large enough to develop a customized set of demographic assumptions based only on the District's employee and retiree data, and we believe the use of CalSTRS statistics, which are based on data of school employers similar to the District, is a reasonable approximation of the District's anticipated demographic experience. We compared several years of the District's employee termination experience to the CalSTRS termination rates and observed that the District's actual terminations were significantly higher than CalSTRS assumed rates. Therefore, we applied an adjustment factor to the CalSTRS termination rates (we increased each of the CalSTRS termination rates by a factor of 1.5) to better match the District's experience.

*Health Cost Trend*. We have assumed medical premiums will increase according to the health cost inflation trend derived by using the "Getzen" model developed by the Society of Actuaries. Please see Appendix B for an explanation of this trend model. We have assumed that the CalPERS minimum contribution amount will increase 3.5% per year, down from 4.0% assumed in the prior valuation. The minimum contribution is indexed to the medical component of CPI. Over the past 10 years, medical CPI has averaged approximately 3.5% per year.

*Implicit Rate Subsidy*. Actuarial standards of practice now require measurement of an implicit rate subsidy for community rated health plans (this includes all health plans sponsored by CalPERS). The CalPERS health plans charge the same premiums for retirees who are not yet eligible for Medicare as for active employees. Therefore, the retiree premium rates are being subsidized by the inclusion of active lives in setting rates. (Premiums calculated only based on retiree health claims experience would have resulted in higher retiree premiums.) GASB 45 requires that the value of this subsidy be recognized as a liability in valuations of OPEB costs. To account for the fact that per member health costs vary depending on age (higher health costs at older ages), we have calculated equivalent per member per month (PMPM) costs that vary by age based on the age distribution of covered members in the Community rated pool in which the District employees and retirees participate, and based on relative cost factors by age. The difference between the age adjusted PMPM costs and the premium amounts charged by CalPERS is the value of the implicit rate subsidy. Appendix B provides a detailed summary of the age based claims costs.

*Coverage Election Rates.* We reviewed the retiree and spouse coverage election patterns and modified the coverage election assumptions to reflect recent experience as follows: We have assumed that 75% of Certificated employees who retire before age 65 will elect medical coverage, and that 33% of those Certificated employees who retired before age 65 and elected medical coverage before age 65 will drop coverage upon attainment of age 65. For Certificated employees retiring on or after age 65 and for all retiring Classified employees regardless of age at retirement, we have assumed that 50% of retiring employees will elect medical coverage. We have also assumed that 40% of retirees electing medical coverage will also elect spouse coverage.

*Discount Rate*. GASB 45 requires that the interest rate used to discount future benefit payments back to the present be based on the expected rate of return on any investments set aside to pay for these benefits. The District funds its OPEB obligation on a "pay-as-you-go" basis (retiree health benefits are paid from the District's general funds), with no funds set aside for this purpose. For this valuation, we recommend using a discount rate of 3.50% based on the long-term expected return for the District's operating funds. The prior valuation was based on a 3.75% discount rate. For comparison purposes, we have also shown valuation results using a discount rate of 7.00% to illustrate the impact that funding its liabilities in a separate, irrevocable trust may have on the District's annual OPEB costs.

A complete summary of the actuarial assumptions is presented in Appendix B.

## GASB 74/75 and Actuarial Cost Method

In June 2015, the Governmental Accounting Standards Board adopted GASB 74 and 75 which will replace GASB 43 and 45. The new standards, which will be first effective for the District for the 2018 fiscal year, contain significant changes from the current standards. One such change is the requirement that Districts use the Individual Entry Age Normal Level Percent of Pay cost method. To align this year's valuation with the cost method prescribed in the new standard, we updated the cost method from the Projected Unit Credit Cost method to the Individual Entry Age Normal Level Percent of Pay cost method. Please see Appendix B for a description of the cost method.

A study of the impact of the new standard (aside from the cost method change) was beyond the scope of this valuation. If the District would like an analysis of the impact of the new standard on the District's financial statements, we would be happy to assist.

## Results of Study

The valuation results are summarized in the following exhibit and use the following terms:

The **Present Value of Benefits** is the present value of projected benefits discounted at the valuation interest rate (3.50%).

The **Actuarial Accrued Liability (AAL)** is the present value of benefits that are attributed to employee service rendered prior to the valuation date. For retirees, this is equal to the present value of benefits. For active employees the AAL equals the present value of benefits multiplied by a fraction equal to service to date over service at expected retirement.

The **Normal Cost** is the actuarial present value of benefits attributed to one year of service. This equals the present value of benefits divided by service at expected retirement. Since retirees are not accruing any more service, their normal cost is zero.

The **Annual Required Contribution (ARC)** is equal to the Normal Cost plus an amount to amortize the unfunded AAL over a period of 30 years on a "closed" basis from January 1, 2008 (i.e. the amortization period remaining is 22 years as of January 1, 2016 for Fiscal Year ending June 30, 2017). The Annual OPEB Cost (shown in Exhibit 4) is equal to the ARC plus a technical adjustment and is the amount the District would be required to report as an expense for the 2016-2017 fiscal year under GASB 45.

| | January 1, 2016 | January 1, 2014 | January 1, 2012 |
|---|---|---|---|
| Participants | | | |
| Active employees | 411 | 416 | 335 |
| Retirees | 77 | 75 | 72 |
| Total | 488 | 491 | 407 |
| Present Value of Benefits | $ 14,156,635 | $ 12,849,190 | $ 11,463,043 |
| Actuarial Accrued Liability | $ 6,106,316 | $ 6,168,215 | $ 5,462,058 |
| Assets | 0 | 0 | 0 |
| Unfunded Actuarial Accrued Liability | $ 6,106,316 | $ 6,168,215 | $ 5,462,058 |
| Normal Cost | $ 483,217 | $ 453,065 | $ 406,462 |
| Annual Required Contribution (ARC) (for fiscal Year Beginning after Valuation Date) | $ 918,393 | $ 880,377 | $ 768,217 |
| Annual OPEB Cost (for fiscal Year Beginning after Valuation Date) | $ TBD | $ 795,234 | $ 720,245 |
| Est. benefit payments (Calendar Year after Valuation Date) | $ 158,098 | $ 87,366 | $ 74,245 |

### Changes from Prior Valuation

The Actuarial Accrued Liability (AAL) decreased by approximately $0.1 million since the last valuation. Exhibit 7 shows a summary of changes since the last valuation and their approximate impact on the Actuarial Accrued Liability (AAL).

### Variability of Results

The results contained in this report represent our best estimates. However, variation from these or any other estimates of future retiree medical costs is not only possible but probable. Actual future costs may vary significantly from estimates in this report.

Valuation results are particularly sensitive to the assumptions used to project future health plan cost increases (medical inflation trend) and to discount projected benefits to the present (discount rate). To illustrate this variability, Exhibit 6 shows a comparison of valuation results based on best estimate assumptions and on an alternate discount rate.

## Exhibit 1. Projected Benefit Payments

The table below illustrates the projected pay-as-you-go District costs of providing retiree health benefits. The projections only consider the closed group of existing employees and retirees and is based on the current labor agreements.

| Calendar Year | Current Retiree Explicit Subsidy | Current Retiree Implicit Subsidy | Future Retiree Explicit Subsidy | Future Retiree Implicit Subsidy | Total |
|---|---|---|---|---|---|
| 2016 | $89,156 | $54,917 | $6,292 | $7,733 | $158,098 |
| 2017 | 91,834 | 41,070 | 19,909 | 26,351 | 179,164 |
| 2018 | 98,227 | 30,846 | 32,197 | 39,859 | 201,129 |
| 2019 | 104,198 | 12,244 | 40,386 | 41,652 | 198,480 |
| 2020 | 111,305 | 9,920 | 55,015 | 61,288 | 237,528 |
| 2021 | 116,011 | 7,863 | 67,842 | 83,221 | 274,937 |
| 2022 | 116,466 | 9,093 | 76,265 | 98,145 | 299,969 |
| 2023 | 115,447 | 0 | 92,581 | 125,273 | 333,301 |
| 2024 | 115,485 | 0 | 108,025 | 156,817 | 380,327 |
| 2025 | 114,914 | 0 | 126,905 | 165,424 | 407,243 |
| 2026 | 113,722 | 0 | 137,748 | 171,622 | 423,092 |
| 2027 | 111,890 | 0 | 160,275 | 219,946 | 492,111 |
| 2028 | 109,414 | 0 | 181,687 | 237,123 | 528,224 |
| 2029 | 106,840 | 0 | 208,399 | 281,970 | 597,209 |
| 2030 | 103,556 | 0 | 233,313 | 347,956 | 684,825 |
| 2031 | 99,570 | 0 | 246,647 | 362,626 | 708,843 |
| 2032 | 94,910 | 0 | 261,494 | 371,905 | 728,309 |
| 2033 | 90,038 | 0 | 285,710 | 423,970 | 799,718 |
| 2034 | 84,562 | 0 | 302,540 | 429,576 | 816,678 |
| 2035 | 78,580 | 0 | 312,389 | 421,946 | 812,915 |
| 2036 | 72,224 | 0 | 325,689 | 419,661 | 817,574 |
| 2037 | 65,898 | 0 | 334,243 | 383,899 | 784,040 |
| 2038 | 59,436 | 0 | 346,626 | 367,005 | 773,067 |
| 2039 | 52,975 | 0 | 364,578 | 407,059 | 824,612 |
| 2040 | 46,806 | 0 | 380,539 | 375,639 | 802,984 |
| 2041 | 40,872 | 0 | 400,426 | 424,306 | 865,604 |
| 2042 | 35,280 | 0 | 419,803 | 506,785 | 961,868 |
| 2043 | 30,183 | 0 | 426,820 | 467,320 | 924,323 |
| 2044 | 25,525 | 0 | 445,383 | 528,294 | 999,202 |
| 2045 | 21,336 | 0 | 458,245 | 545,118 | 1,024,699 |

### Exhibit 2. Liabilities and Normal Cost

The **Present Value of Benefits** is the actuarial present value of benefits expected to be paid for all retirees and covered employees.

The **Actuarial Accrued Liability (AAL)** is the present value of benefits attributed to employee service rendered prior to the valuation date. The AAL equals the present value of benefits multiplied by a fraction equal to service to date over service at expected retirement.

The **Normal Cost** is the actuarial present value of benefits attributed to one year of service. The Projected Unit Credit cost method as described in Appendix A was used to determine the normal cost in this valuation. Since retirees are not accruing any more service, their normal cost is zero.

| | January 1, 2016 | January 1, 2014 | January 1, 2012 |
|---|---|---|---|
| **Present Value of Benefits** | | | |
| Active employees | $ 12,274,945 | $ 11,033,904 | $ 9,760,529 |
| Retirees | 1,881,690 | 1,815,286 | 1,702,514 |
| Total | $ 14,156,635 | $ 12,849,190 | $ 11,463,043 |
| **Actuarial Accrued Liability** | | | |
| Active employees | $ 4,224,626 | $ 4,352,929 | $ 3,759,544 |
| Retirees | 1,881,690 | 1,815,286 | 1,702,514 |
| Total | $ 6,106,316 | $ 6,168,215 | $ 5,462,058 |
| **Normal Cost** | $ 483,217 | $ 453,065 | $ 406,462 |

## Exhibit 3. Unfunded Actuarial Accrued Liability

The **Unfunded Actuarial Accrued Liability (UAAL)** is the actuarial liability offset by any assets set-aside to provide retiree health benefits. This is equal to the value of the retiree health benefits accrued to date that has not been funded. The District amortizes the UAAL as a level dollar amount over 30 years on a “closed” basis from January 1, 2008, (i.e. the remaining amortization period is 22 years as of January 1, 2016 for the fiscal year ending June 30, 2017).

| | January 1, 2016 |
|---|---|
| **Unfunded Actuarial Liability (UAAL)** | |
| Actuarial Accrued Liability | $ 6,106,316 |
| Assets | 0 |
| Unfunded Actuarial Accrued Liability | $ 6,106,316 |
| Funded percentage | 0.00% |
| **Amortization of UAAL for ARC** | |
| UAAL | $ 6,106,316 |
| Amortization Period | 22 years |
| Level Dollar Amortization Factor | 15.6980 |
| Amortization Amount – January 1, 2016 | $ 388,987 |
| Interest to June 30, 2017 | $ 20,599 |
| Amortization Amount – June 30, 2017 | $ 409,586 |

## Exhibit 4. Required Financial Statement Disclosures

The following table shows the calculation of the Annual Required Contribution and Net OPEB Obligation for the 2016-2017 fiscal year.

| | FISCAL YEAR ENDING June 30, 2017 | June 30, 2016 |
|---|---|---|
| **Determination of Annual Required Contribution** | | |
| Normal Cost at fiscal year end | $ 508,807 | |
| Amortization of UAAL | 409,586 | |
| Annual Required Contribution(ARC) | $ 918,393 | $ 880,377 |
| **Determination of Net OPEB Obligation / (Asset)** | | |
| Annual Required Contribution | $ 918,393 | $ 880,377 |
| Interest on prior year Net OPEB Obligation / (Asset) | TBD | 158,895 |
| Adjustment to ARC | TBD | (268,131) |
| Annual OPEB Cost | TBD | $ 771,141 |
| Contributions made [1] | TBD | TBD |
| Increase in Net OPEB Obligation | TBD | TBD |
| Net OPEB Obligation / (Asset) – beginning of year | TBD | $ 4,237,200 |
| Net OPEB Obligation / (Asset) – end of year | TBD | TBD |

[1] GASB 45 defines contributions for this purpose to be actual benefit payments made directly by the District during the year and contributions made to a separate, irrevocable trust. This exhibit will need to be completed at the end of the fiscal year once actual contributions are known. Beginning with the 2016-17 fiscal year, the actual benefit payments should be increased to reflect the value of the implicit rate subsidy.

The following table shows the annual OPEB cost and net OPEB obligation for the prior years.

| Fiscal Year Ended | Annual OPEB Cost | Percentage of OPEB Cost Contributed | Net OPEB Obligation |
|---|---|---|---|
| 06/30/2014 | $ 706,744 | 11.1% | $ 3,531,608 |
| 06/30/2015 | 795,234 | 11.3% | 4,237,200 |
| 06/30/2016 | 771,141 | TBD | TBD |

**Funded Status and Funding Progress.** As of January 1, 2016, the most recent actuarial valuation date, the plan was zero percent funded. The actuarial accrued liability for benefits was $6.1 million, and the actuarial value of assets was zero, resulting in an unfunded actuarial accrued liability of $6.1 million.

## Exhibit 5. Required Supplementary Information

The following table shows a schedule of Funding Progress required under GASB 45.

| Actuarial Valuation Date | Actuarial Value of Assets | AAL Unit Credit | UAAL | Funded Ratio |
|---|---|---|---|---|
| 01/01/2012 | $ 0 | $ 5,462,058 | $ 5,462,058 | 0.0% |
| 01/01/2014 | 0 | 6,168,215 | 6,168,215 | 0.0% |
| 01/01/2016 | 0 | 6,106,316 | 6,106,316 | 0.0% |

### Exhibit 6. Valuation Results – Alternate Discount Rates

The following exhibit shows the results of the valuation based on alternative discount rates of 3.50% and 7.00%. The discount rate is used to calculate the present value of expected future benefit payments. The lower the discount rated used, the higher the present value will be.

GASB 45 requires that the discount rate be reflective of the assets used to pay benefits. For unfunded OPEB liabilities, the rate would be the expected return on the District's general funds. For funded OPEB liabilities – with the ARC set aside in a separate trust each year – the discount rate would be the expected return on assets invested in such a trust. A higher expected return and discount rate would result in a much lower OPEB liability and ARC for the District. To illustrate the effect of alternative discount rates on liabilities and costs, the following table shows a comparison of valuation results based on discount rates of 3.50% (no advanced funding) and 7.00% (funding through contributions to a trust with assets invested in a manner similar to a typical pension fund):

| | 3.50% | 7.00% |
|---|---|---|
| Actuarial Accrued Liability | $ 6,106,316 | $ 4,138,964 |
| Assets | 0 | 0 |
| Unfunded Actuarial Accrued Liability | $ 6,106,316 | $ 4,138,964 |
| Annual Required Contribution (ARC) | $ 918,393 | $ 662,695 |

## Exhibit 7. Valuation Results – Changes from Prior Valuation

The following exhibit shows changes of Actuarial Accrued Liability (AAL) from the prior valuation:

| | | In Millions |
|---|---|---|
| Actuarial Accrued Liability (AAL) as of January 1, 2014 | $ | 6.2 |
| Increase due to benefits accrued from January 1, 2014 to December 31, 2015 | $ | 0.9 |
| Decrease due to expected benefit payments made from January 1, 2014 to December 31, 2015 | | (0.2) |
| Increase due to interest on AAL from January 1, 2014 to December 31, 2015 | | 0.5 |
| Decrease due to actual premium increases less than expected | | (0.1) |
| Decrease due to updates to health cost trends | | (0.3) |
| Decrease due to demographic assumption updates [1] | | (2.5) |
| Increase due to inclusion of implicit rate subsidy | | 2.2 |
| Decrease due to change in actuarial cost method from Projected Unit Credit to Entry Age Normal | | (0.4) |
| Increase due to change in discount rate form 3.75% to 3.50% | | 0.2 |
| Decrease due to other changes (such as census data and other experience) | | (0.4) |
| Total change in Actuarial Accrued Liability | $ | (0.1) |
| Actuarial Accrued Liability (AAL) as of January 1, 2016 | $ | 6.1 |

1. *We updated the demographic assumptions based on the latest demographic assumptions adopted by STRS for their pension actuarial valuation. Termination rates were changed to better reflect recent District experience. We also updated the future retirees' coverage election and lapse assumptions. See Appendix B for detailed descriptions of the assumptions used in this valuation.*

## Appendix A. Summary of Benefits

The following description of retiree health benefits is intended to be only a brief summary. For details, reference should be made to Summary Plan Descriptions, Plan Documents, and employee booklets.

### *Eligibility*

Employees are eligible for retiree health benefits if they satisfy the following requirements:

| | |
|---|---|
| Classified | Classified employees who retire directly from the District and commence receiving pension benefits from CalPERS are eligible for a District paid subsidy equal to the PEMHCA minimum if they elect to continue medical coverage upon retirement. |
| Certificated | Certificated employees who retire directly from the District and commence receiving pension benefits from CalSTRS or CalPERS are eligible for a District paid subsidy equal to the PEMHCA minimum if they elect to continue medical coverage upon retirement. Employees must be at least 55 and have at least 10 consecutive full-time years of service with the District at retirement to be eligible for the additional $230 subsidy defined below. |

### *District Benefits*

| | |
|---|---|
| Classified | The District will pay the minimum monthly premium amount specified by PEMHCA, and the retiree will pay the remaining premium amount. The minimum is $100.00 per month for 2016. |
| Certificated | The District will pay the minimum monthly premium amount specified by PEMHCA, and the retiree will pay the remaining premium amount. The minimum is $93.75 per month for 2016. In addition, the District will pay an additional $230.00 per month toward the cost of health benefits for five years after retirement or until age 65, whichever comes first. |

### *Survivor Benefits*

Upon the retiree's death, a surviving spouse may elect to continue the PEMHCA health coverage, and the District will continue to pay the minimum monthly contribution amount required by PEMHCA.

## Appendix A. Summary of Benefits (continued)

### *Schedule of District Minimum Contributions under PEMHCA*

Assembly Bill 2544 (AB 2544) defines the scheduled increases in the District's contribution for retirees enrolled in the CalPERS health benefit program (PEMHCA). The District contributes under the "Unequal" method as described in the California Government Code section 22892(c). The computation formula takes into account the District's years of participation in PEMHCA as follows:

- (# of years with PEMHCA) x (5%) x (District minimum contribution amount for actives)
- The annual adjustment to the minimum monthly District contribution cannot exceed $100.00 per retiree per month.

Below is an illustrative schedule of District contributions as amended by AB 2544 assuming the District's Certificated group joined PEMHCA in year 2001. A slightly different schedule would apply for the Classified group that joined PEMHCA in 2000.

| Years in PEMHCA | Year | Monthly District Contribution for Active* | Pre AB 2544 | Post AB 2544 |
|---|---|---|---|---|
| 0 | 2001 | 16.00 | 1.00 | 1.00 |
| 1 | 2002 | 16.00 | 1.80 | 1.80 |
| 2 | 2003 | 16.00 | 2.60 | 2.60 |
| 3 | 2004 | 32.20 | 4.21 | 4.21 |
| 4 | 2005 | 48.40 | 6.63 | 6.63 |
| 5 | 2006 | 64.60 | 9.86 | 9.86 |
| 6 | 2007 | 80.80 | 13.90 | 13.90 |
| 7 | 2008 | 97.00 | 18.75 | 33.95 |
| 8 | 2009 | 101.00 | n/a | 40.40 |
| 9 | 2010 | 105.00 | n/a | 47.25 |
| 10 | 2011 | 108.00 | n/a | 54.00 |
| 11 | 2012 | 112.00 | n/a | 61.60 |
| 12 | 2013 | 115.00 | n/a | 69.00 |
| 13 | 2014 | 119.00 | n/a | 77.35 |
| 14 | 2015 | 122.00 | n/a | 85.40 |
| 15 | 2016 | 125.00 | n/a | 93.75 |
| 16 | 2017 | 129.00 | n/a | 103.20 |
| 17 | 2018 | 134.00 | n/a | 113.90 |
| 18 | 2019 | 139.00 | n/a | 125.10 |
| 19 | 2020 | 144.00 | n/a | 136.80 |
| 20 | 2021 | 149.00 | n/a | 149.00 |

* Minimum District contributions for actives are estimated to increase by 3.50% per year. Actual increases will be based on Medical CPI.

## Appendix B. Actuarial Cost Method and Assumptions

The actuarial cost method described below is one of several acceptable costs methods described in GASB 45, and the assumptions represent our best estimate of anticipated future experience based on information provided to us. Note, that the ultimate responsibility of selecting/approving the actuarial cost method and assumptions lies with the District and its auditor.

### *Actuarial Cost Method*

The actuarial cost method used for determining the benefit obligations is the individual Entry Age Normal Cost Method (EAN). 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 expected salary for each year of employment between entry age (defined as age at hire) and assumed exit.

The portion of this actuarial present value allocated to a valuation year is called the normal cost. The portion of this actuarial present value not provided for at a valuation date by the sum of (a) the actuarial value of the assets, and (b) the actuarial present value of future normal costs is called the Unfunded Actuarial Accrued Liability (UAAL).

In determining the Annual Required Contribution, the Unfunded AAL is amortized as a level dollar amount over a period of 30 years on a "closed" basis from January 1, 2008 (i.e. the remaining amortization period is 22 years as of January 1, 2016 for Fiscal Year ending June 30, 2017).

### *Valuation Date*

January 1, 2016 for Fiscal Year Ending June 30, 2017

### *Economic Assumptions*

| | | |
|---|---|---|
| Discount Rate (liabilities) | Unfunded | 3.50% |
| | Funded | 7.00% |

Salary Scale (used only for allocation of costs in connection with Entry Age Normal Cost Method)

| Years of Service | Increases | Years of Service | Increases |
|---|---|---|---|
| 0 | 9.041% | 10 | 6.541% |
| 1 | 8.989% | 15 | 5.161% |
| 2 | 8.834% | 20 | 4.891% |
| 3 | 8.678% | 25 | 4.632% |
| 4 | 8.523% | 30 | 4.373% |
| 5 | 8.367% | 35+ | 4.321% |

## Appendix B. Actuarial Cost Method and Assumptions (continued)

### *Demographic Assumptions*

Below is a summary of the assumed rates for disability, service retirement, termination, and mortality.

*Disability*

| Age | Males | Females |
|---|---|---|
| 25 | 0.010% | 0.020% |
| 35 | 0.030% | 0.040% |
| 45 | 0.100% | 0.110% |
| 55 | 0.245% | 0.300% |

*Service Retirement*

| | 10-29 YEARS OF SERVICE [1] | | 30+ YEARS OF SERVICE | |
|---|---|---|---|---|
| Age | Male | Female | Male | Female |
| 55 | 2.7% | 4.5% | 8.0% | 9.0% |
| 56 | 1.8% | 3.2% | 8.0% | 9.0% |
| 57 | 1.8% | 3.2% | 10.0% | 11.0% |
| 58 | 2.7% | 4.1% | 14.0% | 16.0% |
| 59 | 4.5% | 5.4% | 18.0% | 19.0% |
| 60 | 6.3% | 9.0% | 27.0% | 31.0% |
| 61 | 6.3% | 9.0% | 47.5% | 47.5% |
| 62 | 10.8% | 10.8% | 42.5% | 45.0% |
| 63 | 11.7% | 16.2% | 35.0% | 40.0% |
| 64 | 10.8% | 13.5% | 30.0% | 35.0% |
| 65 | 13.5% | 14.4% | 32.5% | 37.5% |
| 66 | 10.8% | 13.5% | 30.0% | 32.0% |
| 67 | 10.8% | 13.5% | 30.0% | 32.0% |
| 68 | 10.8% | 13.5% | 30.0% | 32.0% |
| 69 | 10.8% | 13.5% | 30.0% | 32.0% |
| 70 | 10.8% | 13.5% | 30.0% | 35.0% |
| 71 | 10.8% | 13.5% | 30.0% | 35.0% |
| 72 | 10.8% | 13.5% | 30.0% | 35.0% |
| 73 | 10.8% | 13.5% | 30.0% | 35.0% |
| 74 | 10.8% | 13.5% | 30.0% | 35.0% |
| 75 | 100.0% | 100.0% | 100.0% | 100.0% |

*1- For members with 25, 26, or 27 years of service, the retirement probability at a given age is double what is shown in the table.*

## Appendix B. Actuarial Cost Method and Assumptions (continued)

### *Demographic Assumptions (continued)*

*Termination*

| Years of Service | Male | Female |
|---|---|---|
| 0 | 24.00% | 22.50% |
| 1 | 19.50% | 18.00% |
| 2 | 13.50% | 12.75% |
| 3 | 9.60% | 9.60% |
| 4 | 6.90% | 6.90% |
| 5 | 5.91% | 5.91% |
| 10 | 2.70% | 2.70% |
| 15 | 1.35% | 1.35% |
| 20 | 0.75% | 0.75% |
| 25 | 0.51% | 0.51% |
| 30+ | 0.36% | 0.36% |

*Mortality*

Actives 2011 CalSTRS Retired Male and Female tables with 2 years set back.
Retirees 2011 CalSTRS Retired Male and Female tables

*The mortality assumption specified contain a margin for expected future mortality improvement.*

| | Actives | | | Retirees | |
|---|---|---|---|---|---|
| Age | Male | Female | Age | Male | Female |
| 25 | 0.023% | 0.013% | 55 | 0.164% | 0.118% |
| 30 | 0.033% | 0.014% | 60 | 0.300% | 0.254% |
| 35 | 0.034% | 0.018% | 65 | 0.596% | 0.468% |
| 40 | 0.057% | 0.034% | 70 | 1.095% | 0.864% |
| 45 | 0.076% | 0.041% | 75 | 1.886% | 1.451% |
| 50 | 0.103% | 0.063% | 80 | 3.772% | 2.759% |
| 55 | 0.143% | 0.093% | 85 | 7.619% | 5.596% |
| 60 | 0.238% | 0.179% | 90 | 14.212% | 11.702% |

### *Coverage Election Assumptions*

We have assumed that 75% of Certificated employees who retire before age 65 will elect medical coverage, and that 33% of those Certificated employees who retired before age 65 and elected medical coverage before age 65 will drop coverage upon attainment of age 65.

For Certificated employees retiring on or after age 65 and for all retiring Classified employees regardless of age at retirement, we have assumed that 50% of retiring employees will elect medical coverage.

We have also assumed that 40% of all future retirees electing medical coverage will also elect spouse coverage.

We have assumed that no employees who terminate employment with the District prior to obtaining age 55 and 10 years of district service will elect to continue medical coverage with PEMHCA.

### *Implicit Rate Subsidy*

The California PERS (PEMHCA) health plans charge the same premiums for retirees who are not yet eligible for Medicare as for active employees. Therefore, the retiree premium rates are being subsidized by the inclusion of active lives in setting rates. Premiums calculated only based on retiree health claims experience would have resulted in higher retiree premiums. GASB 45 requires that the value of this subsidy be recognized as a liability in valuations of OPEB costs. To account for the fact that per member health costs vary depending on age (higher health costs at older ages), we calculated equivalent per member per month (PMPM) costs that vary by age based on the age distribution of covered members, and based on relative cost factors by age. The covered members are based on the enrollment information released by CalPERS for the entire Bay Area Region. The relative cost factors were developed from the Milliman Health Cost Guidelines™. Based on the carrier premium rates and relative age cost factors assumptions, we developed age adjusted monthly PMPM health costs for 2016-17 plan year to be used in valuing the implicit rate subsidy.

**Age Adjusted Medical PMPM Costs for 2016-17 Plan Year**

| | Retirees | | Spouses | |
|---|---|---|---|---|
| Age | Male | Female | Male | Female |
| 50 | 696 | 870 | 696 | 870 |
| 55 | 917 | 1,015 | 917 | 1,015 |
| 60 | 1,188 | 1,194 | 1,188 | 1,194 |
| 64 | 1,504 | 1,378 | 1,504 | 1,378 |

Since premiums for retirees with Medicare are determined without regard to active life experience, no such subsidy exists for this group.

### *Medical Inflation*

We assumed future increases to the health premiums based on the "Getzen" model published by the Society of Actuaries for purposes of evaluating long term medical trend. Under the Patient Protection and Affordable Care Act of 2010. These trend rate assumptions include provisions of the Consolidated Appropriations Act of 2016 signed into law on December 18, 2015, which delays the Excise Tax by two years, makes the tax a deductible business expense, and removes the health insurer fee for one year only in calendar year 2017. A Federal excise tax will apply for high cost health plans beginning in 2020. A margin to reflect the impact of the excise tax in future years is reflected in the assumed trend. Also the "Getzen" model was updated to reflect latest economic growth factors. The following table shows the assumed rate increases in future years for Medical premiums.

| Calendar Year | Pre 65 | Calendar | Pre 65 |
|---|---|---|---|
| 2016 | 4.50% | 2045 – 2057 | 5.50% |
| 2017 | 8.00% | 2058 – 2063 | 5.25% |
| 2018 – 2021 | 5.50% | 2064 – 2065 | 5.00% |
| 2022 – 2036 | 6.25% | 2066 – 2069 | 4.75% |
| 2037 – 2038 | 6.00% | 2070 + | 4.50% |
| 2039 – 2044 | 5.75% | | |

California Government Code Section 22890 (b) specifies that annual increases to the minimum District contribution are based on medical CPI. We assumed this index will increase by 3.50% per year.

## Appendix C. Summary of Participant Data

The following census of participants was used in the actuarial valuation and provided by the San Rafael City Schools.

### *Covered Active Employees*

| | CERTIFICATED | | | CLASSIFIED | | |
|---|---|---|---|---|---|---|
| Age | Males | Females | Total | Males | Females | Total |
| Under 25 | 2 | 3 | 5 | 2 | 3 | 5 |
| 25 – 29 | 2 | 32 | 34 | 4 | 6 | 10 |
| 30 – 34 | 9 | 31 | 40 | 1 | 7 | 8 |
| 35 – 39 | 5 | 25 | 30 | 1 | 8 | 9 |
| 40 – 44 | 8 | 27 | 35 | 3 | 8 | 11 |
| 45 – 49 | 12 | 40 | 52 | 4 | 16 | 20 |
| 50 – 54 | 7 | 27 | 34 | 5 | 15 | 20 |
| 55 – 59 | 5 | 25 | 30 | 3 | 15 | 18 |
| 60 – 64 | 0 | 16 | 16 | 4 | 13 | 17 |
| 65 & Over | 2 | 3 | 5 | 2 | 10 | 12 |
| Total | 52 | 229 | 281 | 29 | 101 | 130 |

| | TOTAL | | |
|---|---|---|---|
| Age | Males | Females | Total |
| Under 25 | 4 | 6 | 10 |
| 25 – 29 | 6 | 38 | 44 |
| 30 – 34 | 10 | 38 | 48 |
| 35 – 39 | 6 | 33 | 39 |
| 40 – 44 | 11 | 35 | 46 |
| 45 – 49 | 16 | 56 | 72 |
| 50 – 54 | 12 | 42 | 54 |
| 55 – 59 | 8 | 40 | 48 |
| 60 – 64 | 4 | 29 | 33 |
| 65 & Over | 4 | 13 | 17 |
| Total | 81 | 330 | 411 |

Average Age at Valuation Date: 45.42
Average Service at Valuation Date: 8.19

### Appendix C. Summary of Participant Data (continued)

***Current Retirees***

| | CERTIFICATED | | | CLASSIFIED | | |
|---|---|---|---|---|---|---|
| Age | Males | Females | Total | Males * | Females | Total |
| Under 55 | 0 | 0 | 0 | 0 | 0 | 0 |
| 55 – 59 | 0 | 1 | 1 | 0 | 0 | 0 |
| 60 – 64 | 1 | 6 | 7 | 2 | 1 | 3 |
| 65 – 69 | 0 | 10 | 10 | 0 | 3 | 3 |
| 70 – 74 | 7 | 15 | 22 | 1 | 1 | 2 |
| 75 – 79 | 8 | 6 | 14 | 0 | 3 | 3 |
| 80 – 84 | 1 | 6 | 7 | 0 | 0 | 0 |
| 85 & Over | 0 | 3 | 3 | 0 | 2 | 2 |
| Total | 17 | 47 | 64 | 3 | 10 | 13 |

| | TOTAL | | |
|---|---|---|---|
| Age | Males | Females | Total |
| Under 55 | 0 | 0 | 0 |
| 55 – 59 | 0 | 1 | 1 |
| 60 – 64 | 3 | 7 | 10 |
| 65 – 69 | 0 | 13 | 13 |
| 70 – 74 | 8 | 16 | 24 |
| 75 – 79 | 8 | 9 | 17 |
| 80 – 84 | 1 | 6 | 7 |
| 85 & Over | 0 | 5 | 5 |
| Total | 20 | 57 | 77 |

Average Age at Valuation Date: 72.75