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May 3, 2012

Mr. Scott Hood  
Assistant Chief Executive Officer  
San Mateo County Employees' Retirement Association  
100 Marine Parkway, Suite 125  
Redwood Shores, CA 94065-5208

Re: Cost of Additional Year of Service

Dear Scott:

Per your request, we are providing an actuarial certification of the estimated costs associated with the County adopting Section 31641.04 of the '37 Act, the retirement incentive benefit. We previously provided you an Excel calculator that determines the actuarial equivalent value of the increased benefit. This calculator will provide you the costs to satisfy this section of the code.

### **Background**

Section 31641.04 allows the County to grant up to two years of additional retirement service credit if certain requirements are met. One of these requirements is that: "The County transmits to the retirement fund an amount determined by the board of retirement which is equal to the actuarial equivalent of the difference between the allowance the member receives after the receipt of service credit under this section and the amount he would have received without such service credit." The purpose of the calculator is to determine this amount.

This calculation is very similar to the calculation of costs for Additional Retirement Credit (ARC). Therefore, we have used the ARC calculator with one modification. We have assumed the member retires immediately.

### **Cost is Estimated**

The true cost of any service purchase is not known until the member receives his final payment. However, we believe the calculator provides a reasonable estimate of these costs. Note that by encouraging these members to retire earlier than they otherwise might have without the additional service, this increases the value of the member's current service, because benefits paid earlier are generally more valuable. We have not estimated the cost associated with the earlier retirement, as the '37 Act section only specifies the cost of the additional service.

In determining the cost of the service purchase, the actuarial valuation assumptions, with some modifications, are used as the basis of the calculation. This ensures that the additional liability assumed by the System when the member purchases service is "matched" by a cash contribution of approximately actuarially equivalent value, so that at the time of purchase *SamCERA's* Unfunded Actuarial Accrued Liability (UAAL) is unchanged.

As with all aspects of an actuarial valuation, to the extent that actual experience is different than assumed, gains or losses will arise. A gain occurs when the true cost of the service is less than

the purchase cost; conversely, a loss occurs when the true cost is greater than the purchase cost. If a loss occurs, the cost of the additional service is greater than the County's original payment. Therefore, additional contributions would be required. Potential sources of financial risk, in rough order of magnitude, are:

- **Rate of investment return** – To the extent *SamCERA* earns less than the assumed annual rate of investment return (7.75%), a loss will occur. Conversely, annual investment returns in excess of 7.75% will result in gains to the System.
- **Mortality** – Generally an individual (or surviving spouse) who survives longer than assumed by the mortality assumption will cause a loss to *SamCERA*. An individual (or surviving spouse) who dies earlier than assumed will cause a gain for *SamCERA*.
- **Eligible Beneficiary** – Our calculations assume that 63.33% of General members (75.83% of Safety members) have a beneficiary who is eligible for the automatic continuance at time of retirement. This assumption is a blended average of our valuation assumptions which are gender distinct. If the actual portion of members receiving additional service who have an eligible beneficiary is greater than the assumed rate, a loss will likely occur. Similarly, a gain will occur if the actual portion is less than assumed.
- **Inflation** – If inflation is greater than the actuarial assumption (3.50%), the actual COLA granted to Tier 1 members will likely be greater than assumed. This will increase the true cost and a loss will occur. Conversely, low inflation could result in gains to the System for all members receiving COLA benefits. Inflation may also affect the costs for Tiers 2 and 4, but to a lesser extent.

### Assumptions and Plan Provisions

In preparing the spreadsheet used in these estimates, we used *SamCERA*'s provisions as outlined in Appendix B of the June 30, 2011 actuarial valuation. The assumptions are as follows:

Investment Return	7.75%
Cost-of-Living Increase	2.75%
Retirement	Immediate
Form of Payment	38% Joint & Survivor Continuance (based on probability of marriage assumption of 63.3%)
Beneficiary Age	Same as Member
Healthy Retiree Mortality (General)	Weighted average (1/3 <sup>rd</sup> male, 2/3 <sup>rd</sup> female) of: <ul style="list-style-type: none"> <li>■ RP-2000 Healthy Annuitant Mortality Table with adjustment for White Collar workers – Male with 2-year setback</li> <li>■ RP-2000 Healthy Annuitant Mortality Table with adjustment for White Collar workers – Female with 3-year setback</li> </ul>

**Beneficiary Mortality (General)**Weighted average (2/3<sup>rd</sup> male, 1/3<sup>rd</sup> female) of:

- RP-2000 Healthy Annuitant Mortality Table with adjustment for White Collar workers – Male with 2-year setback
- RP-2000 Healthy Annuitant Mortality Table with adjustment for White Collar workers – Female with 3-year setback

**Actuarial Certification**

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this cost certification and Excel calculator are complete and accurate and have been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the Actuarial Standards of Practice promulgated by the Actuarial Standards Board and the applicable Guides to Professional Conduct, amplifying Opinions, and supporting Recommendations of the American Academy of Actuaries.

We further certify that all costs, liabilities, rates of interest, and other factors for *SamCERA* have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of *SamCERA* and reasonable expectations) and which, in combination, offer a reasonable estimate of anticipated experience affecting *SamCERA*. Nevertheless, the emerging costs will vary from those determined by the calculator to the extent that actual experience differs from that projected by the actuarial assumptions. The Board of Retirement has the final decision regarding the appropriateness of the assumptions. The valuation assumptions were adopted as indicated in Appendix A of the valuation report. The Board has also adopted the procedures and assumptions for ARC as discussed in this letter.

Actuarial computations presented in this report are for purposes of determining the additional cost of service. The calculations in this letter report have been made on a basis consistent with our understanding of Section 31641 of the '37 Act. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this letter report. Accordingly, additional determinations may be needed for other purposes.

Milliman's work product was prepared to satisfy sections 31641.04, 31516 and 7507 of the Government Code. It is a complex, technical analysis that assumes a high level of knowledge concerning *SamCERA*'s operations. It is not for the use or benefit of any third party for any purpose. Any third party recipient of Milliman's work product who desires professional guidance should not rely upon Milliman's work product, but should engage qualified professionals for advice appropriate to its own specific needs.

This model has been prepared for internal use by the System's staff. The model may not be provided to or used by any other party without Milliman's express written consent.

I, Nick Collier, am a consulting actuary for Milliman, Inc. I am a member of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.



Mr. Scott Hood  
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Please let us know if you have any questions or need any additional information.

Sincerely,

A handwritten signature in black ink that reads "Nick Collier".

Nick J. Collier, ASA, EA, MAAA  
Consulting Actuary  
NJC/nlo