

**Cabrillo Community College District
Actuarial Study of
Retiree Health Liabilities**

*Prepared by:
Total Compensation Systems, Inc.*

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CABRILLO COMMUNITY COLLEGE DISTRICT
Actuarial Study of Retiree Health Liabilities

PART I: EXECUTIVE SUMMARY

A. Introduction

Cabrillo Community College District asked Total Compensation Systems, Inc. (TCS) to analyze liabilities associated with its current retiree health program as of January 1, 2005.

This actuarial study is intended to serve the following purposes:

- » To provide information to enable Cabrillo CCD to manage the costs and liabilities associated with its retiree health benefits.
- » To provide information to enable Cabrillo CCD to communicate the financial implications of retiree health benefits to internal financial staff, the Board, employee groups and other affected parties.
- » To provide information needed to comply with Governmental Accounting Standards Board Accounting Standard 12 (GASB 12) and with the forthcoming GASB accounting standard related to "other postemployment benefits" (OPEB's). (See Appendix E)

This actuarial report includes several estimates for Cabrillo CCD's retiree health program. We calculated the following estimates separately for active employees and retirees. As requested, we also separated results by the following employee classifications: Faculty, Classified and Non-represented. We estimated the following:

- the total liability created.
- the ten year "pay-as-you-go" cost to provide these benefits.
- the "past service liability." (The past service liability is the amount that would currently be in funds earmarked for retiree benefits if the College had begun prefunding each employee's benefit cost when that employee was hired.)
- the amount necessary to amortize the initial "past service liability" over a period of 30 years.
- the annual contribution required to fund retiree benefits over the working lifetime of eligible employees (the "annual accrual cost").

We summarized the data used to perform this study in Appendix A. No effort was made to verify this information beyond brief tests for reasonableness and consistency.

All cost and liability figures contained in this study are estimates of future results. Future results can vary dramatically and the accuracy of estimates contained in this report depend on the actuarial assumptions used. Actual costs and liabilities could easily vary by 10 - 20% or more from estimates contained in this report. The best way to respond to this uncertainty of future results is to have an actuarial study performed regularly - no less frequently than

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every three years.

B. General Findings

We estimate the "pay-as-you-go" cost of providing retiree health benefits in the year beginning January 1, 2005 to be \$743,425 (see Section IV.A.). However, this cost would increase over the next ten years at an annual rate of 8.1%.

There are several reasons why it is important for community college districts to evaluate retiree health costs and liabilities. The Governmental Accounting Standards Board (GASB) will soon require accounting for the costs and liabilities associated with retiree health benefits on an accrual basis -- i.e. over the working lifetime of eligible employees. (The effective date of the GASB accounting standard will range from 2007 to 2009, depending on the annual revenue of the College during the 1998-99 fiscal year. Auditors may require an actuarial study for an unqualified audit based on AICPA Statement of Position 92-06.

Community College Districts may have additional reasons to obtain a retiree health valuation. Accreditation teams have been instructed to look for an actuarial valuation when district-paid retiree health benefits are provided. Also, charging any part of retiree benefit costs to categorical programs requires an actuarial valuation and funding on an actuarial basis.

To comply with accounting and regulatory requirements will effectively require that retiree health benefit costs be prefunded. "Prefunding" retiree health benefits refers to the practice of setting aside funds that are earmarked for retiree health benefits while employees are still actively employed - i.e. before the funds are actually expended to pay for retiree health benefits. By prefunding retiree benefits, there will be enough funds available at retirement (on average) that, with interest, will be sufficient to pay all promised retiree health benefits without the need for any post-retirement College contributions.

For current employees, the value of benefits "accrued" in the year beginning January 1, 2005 is \$858,481. This accrual cost would increase each year based on covered payroll. Had Cabrillo CCD begun pre-funding retiree health benefits when each current employee and retiree was hired, a substantial fund would have accumulated. We estimate the amount that would have accumulated to be \$11,692,233. This amount is often called the "past service liability."

We calculated the annual cost to amortize the unfunded past service liability using a 5% interest discount rate. We used a 30 year amortization period. The current year cost to amortize the unfunded "past service liability" is \$517,885. This amortization payment would increase each year based on covered payroll. Payments would continue for 30 years, after which time amortization payments would end.

Combining the accrual and amortization costs in the first year produces total first year pre-funding costs of \$1,376,366. This amount would be in lieu of (rather than in addition to) the "pay-as-you-go" cost. The additional cost of prefunding is therefore \$632,941.

Funding retiree benefits over employees' working lifetime would add to total compensation an average of \$1,789 per year per employee from each employee's hire date until the employee reaches retirement. This accrual cost would increase each year based on covered payroll.

We based all of the above estimates on employees as of January, 2004. Over time, liabilities and cash flow will vary based on the number and demographic characteristics of employees and retirees. It will be important to periodically revalue costs and liabilities.

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C. Description of Retiree Benefits

Following is a description of the current retiree benefit plan:

	<u>Faculty</u>	<u>Classified</u>	<u>Non-represented</u>
Benefit types provided	Medical only	Medical only	Medical only
Duration of Benefits	To age 70	To age 65	To age 70
Required Service	10 years	10 years	10 years
Minimum Age	50	50	50
Dependent Coverage	Yes*	Yes	Yes*
College Contribution %	100%	100%	100%
College Cap	None	None	None

*Spouse benefits are only provided until the retiree reaches age 65

D. Recommendations

It is outside the scope of this report to make specific recommendations of actions Cabrillo CCD should take to manage the substantial liability created by the current retiree health program. Total Compensation Systems, Inc. can assist in identifying options once this report has been studied. The following recommendations are intended only to allow the College to get more information from this and future studies.

- Until GASB issues an accounting standard, we recommend that Cabrillo CCD conduct a study whenever events or contemplated actions significantly affect present or future liabilities, but no less frequently than every three years. (See Part VI for a list of events that can affect retiree health liabilities.)
- We recommend that the College communicate the magnitude of these costs to employees and include employees in discussions of options to control the costs.
- Because of the significant liabilities created by the current retiree health program, the College should maintain a program of earmarking funds to pay future benefits. It should be noted that the upcoming GASB accounting standard will require assets sufficient to offset retiree health liabilities. (See Part V for a review of funding alternatives.)
- Under GASB 45, it is important to isolate the cost of retiree health benefits. We strongly urge Cabrillo CCD to have all premiums, claims and expenses for retirees separated from active employee premiums, claims, expenses, etc. To the extent any retiree benefits are made available to retirees over the age of 65 – ***even on a retiree-pay-all basis*** – all premiums, claims and expenses for post-65 retiree coverage should be segregated from those for pre-65 coverage.
- Several assumptions were made in estimating costs and liabilities under Cabrillo CCD's retiree health program. Further studies may be desired to validate any assumptions where there is any doubt that the assumption is appropriate. (See Appendices B and C for a list of assumptions and concerns.)
- Segregating plan assets will allow taking advantage of California Government Code Sections 53620 through 53622 to achieve greater investment income on plan assets. This

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study assumes an investment return net of all investment and plan expenses of 5%. We recommend Cabrillo CCD take actions to achieve a long term rate of return that reflects the long term nature of the liabilities.

Respectfully submitted,

Geoffrey L. Kischuk, FSA, MAAA, FCA
Consultant
Total Compensation Systems, Inc.
(805) 496-1700

PART II: BACKGROUND

A. Summary

Accounting principles have long held that the cost of retiree benefits should be “accrued” over employees' working lifetime. For this reason, the Governmental Accounting Standards Board (GASB) issued in 2004 Accounting Standards 43 and 45 for retiree health benefits. These standards will apply to all public employers that pay any part of the cost of retiree health benefits for current or future retirees (including early retirees).

The GASB standards will become effective on a phased basis based on revenue during the 1998-99 fiscal year. For employers, the first phase will be \$100 million or more in revenue. The effective date will be the first fiscal year on or after December 15, 2006. Successive annual phases will sweep in “\$10 to \$100 million” and “less than \$10 million” employers. The effective date for “plans” will be one year earlier than the dates for employers. A “plan” is a trust or other arrangement that is exclusively for retiree health benefits and the assets of which are protected from creditors.

Until the new GASB standards take effect, the Governmental Accounting Standards Board (GASB) currently requires public employers to disclose the existence and/or cost of retiree health benefits. GASB requirements are contained in GASB 12.

Prudent fiscal management of retiree health costs and liabilities requires establishment of a long-term plan. For most public employers, the magnitude of the accrued liability makes it difficult to immediately begin to fully pre-fund retiree health benefits on an actuarial basis. Fortunately, the current absence of stringent accounting or regulatory funding requirements allows public employers flexibility to transition into full actuarial pre-funding over the next few years. Transitioning into full actuarial pre-funding provides public employers with the time to establish fiscal management plans that

- protect retiree benefit security to the greatest possible extent;
- involve employee groups in discussions of benefit design and funding options; and
- minimize disruptions to core services that could result from rapidly increasing retiree benefit costs.

Waiting to address retiree health benefit funding until the GASB accounting standards become effective will dramatically reduce employers' fiscal options. By then, unfunded accrued liabilities will be bigger, thereby increasing the payments needed to amortize the unfunded liability. Higher future amortization payments would squeeze financial resources for vital services. Waiting to pre-fund until required by GASB will result in less time to evaluate options and take action to protect benefits for future retirees and/or reduce benefit costs. To the extent retiree benefits are subject to collective bargaining, the timing and extent of benefit and funding changes may be constrained.

B. Actuarial Pre-funding

To actuarially pre-fund retiree health benefits requires determining the amount to be set aside each year so that funds available at retirement are, on average, sufficient (with interest) to pay all retiree health expenditures without the need for additional employer contributions. There are many different ways to determine the annual pre-funding cost. The calculation method used is called an “actuarial cost method.”

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Conceptually, there are two components of actuarial cost - an “accrual cost” and amortization of something called a “past service liability.” Both accounting standards and actuarial standards usually address these two components separately (though alternative terminology is sometimes used).

The accrual cost (also called the “normal cost”) can be thought of as the cost of the benefit earned each year if benefits are accrued during the working lifetime of employees. This report will not discuss differences between actuarial cost methods or their application. Instead, following is a description of a commonly used, generally accepted actuarial cost method that will be permitted under the upcoming GASB accounting standard. This actuarial cost method is called the “entry age normal” method.

Under the entry age normal cost method, an average age at hire and average retirement age are determined for eligible employees. Then, the actuary determines what amount needs to be set aside each year from hire until retirement to fully prefund the expected cost of retiree health benefits. This amount is the accrual cost (or normal cost). The accrual cost is typically expressed either as a level dollar amount or as a level percentage of salary.

The accrual cost is determined using several key assumptions:

- The current ***cost of retiree health benefits*** (often varying by age, Medicare status and/or dependent coverage). The higher the current cost of retiree benefits, the higher the accrual cost.
- The “***trend***” ***rate*** at which retiree health benefits are expected to increase over time. A higher trend rate increases the accrual cost. A “cap” on College contributions can reduce trend to zero once the cap is reached thereby dramatically reducing accrual costs.
- ***Mortality rates*** that vary by age and sex. (Unisex mortality rates are not usually used because an individual’s retiree benefits do not depend on the mortality table used.) If employees die prior to retirement, contributions attributable to deceased employees are available to fund benefits for employees who live to retirement. After retirement, death results in benefit termination. Although higher mortality rates reduce accrual costs, the mortality assumption is not likely to vary from employer to employer.
- ***Employment termination rates*** have the same effect as mortality inasmuch as higher termination rates reduce accrual costs. Employment termination rates do not vary much between community college districts.
- ***Vesting rates*** reflect years of service required to earn full or partial retiree benefits. While longer vesting periods reduce costs, cost reductions are not meaningful unless full vesting requires more than 20 years of service. For most community college districts, this is not a viable option.
- ***Retirement rates*** determine what proportion of employees retire at each age (assuming employees reach the requisite length of service). Retirement rates often vary by employee classification and implicitly reflect the minimum retirement age required for eligibility. Higher retirement rates increase accrual costs but, except for differences in minimum retirement age, retirement rates tend to be consistent between community college districts for each employee type.
- ***Participation rates*** indicate what proportion of retirees are expected to elect retiree health benefits if a significant retiree contribution is required. Higher participation rates increase costs.
- The ***interest discount rate*** estimates investment earnings for assets earmarked to cover retiree health

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benefit liabilities. The interest discount rate is dependent on the nature of underlying assets. For example, earmarked funds earning money market rates in the county treasury are likely to earn far less than a diversified portfolio including stocks, bonds, etc. A higher interest discount rate can dramatically lower accrual costs. The GASB accounting standard will require the interest assumption to reflect likely *long term* investment return.

The assumptions listed above are not exhaustive, but are the most common assumptions used in actuarial cost calculations. The actuary selects the assumptions which - taken together - will yield reasonable results. It's not necessary (or even possible) to predict individual assumptions with complete accuracy.

If all actuarial assumptions were exactly met and an employer had put aside the accrual cost every year for all past and current employees and retirees, the funds would have accumulated to a sizeable amount (after adding interest and subtracting retiree benefit costs from the accumulated funds). The fund that would have accumulated can be thought of as the "past service liability." The excess of the past service liability over funds earmarked for retiree health benefits is called the *unfunded* past service liability.

The past service liability (PSL) can arise in two ways. First, at the inception of actuarial funding, there is usually a substantial unfunded past service liability. Under accounting standards, this amount is often referred to as the "transition obligation." Under the upcoming GASB accounting standard, this transition obligation can be recognized over a period of up to 30 years. A past service liability can also emerge as the result of operation of a retiree health plan - e.g., as a result of plan changes or changes in actuarial assumptions. The PSL arising from plan operation is usually amortized over ten years. Under the upcoming GASB accounting standard, either a level dollar or level percentage of payroll amortization method can be used.

Past service liability amortization payments can be higher than the accrual cost. The magnitude of the PSL depends not only on all the assumptions discussed earlier, but also on the average age of employees. The higher employees' average age, the greater the past service liability.

PART III: LIABILITIES AND COSTS FOR RETIREE BENEFITS

A. Introduction.

We calculated the liability for retiree benefits separately for each employee. We determined eligibility for retiree benefits based on information supplied by Cabrillo CCD. We then selected assumptions for the factors discussed in the above Section that, based on our training and experience, represent our best prediction of future plan experience. For each employee, we applied the appropriate factors based on the employee's age, sex and length of service.

We summarized actuarial assumptions used for this study in Appendix C.

B. Medicare

The extent of Medicare coverage can affect projections of retiree health costs. The method of coordinating Medicare benefits with the retiree health plan's benefits can have a substantial impact on retiree health costs. We will be happy to provide more information about Medicare integration methods if requested.

C. Liability for Retiree Benefits.

For each employee, we projected future premium costs using an assumed trend rate (see Appendix C). A constant trend rate was used for all years. This rate may understate trend in some years but might overstate it in others. As long as trend averages the assumed rate over a long period, it is not critical the rate be correct in any one year.

We multiplied each year's projected cost by the probability that premium will be paid; i.e. based on the probability that the employee is living, has not terminated employment and has retired. The probability that premium will be paid is zero if the employee is not eligible. The employee is not eligible if s/he has not met minimum service, minimum age or, if applicable, maximum age requirements.

The product of each year's premium cost and the probability that premium will be paid equals the expected cost for that year. We discounted the expected cost for each year to the valuation date January 1, 2005 at 5% interest.

Finally, we multiplied the above discounted expected cost figures by the probability that the retiree would elect coverage. A retiree may not elect to be covered if retiree health coverage is available less expensively from another source (e.g. Medicare risk contract) or the retiree is covered under a spouse's plan. We then added all these discounted expected cost figures for each employee to get the total "gross" retiree liability estimate.

For current retirees, the approach used was similar. The major difference is that the probability of payment for current retirees depends only on mortality and age restrictions (i.e. for retired employees the probability of being retired and of not being terminated are always both 1.0000).

We added the gross liability estimates for all employees to get the *total* gross liability. The total gross liability (sometimes called the expected postemployment benefit obligation, or EPBO) is the estimated present value of all future retiree health benefits for all **current** employees and retirees. The total gross liability is the amount of money to put aside on January 1, 2005 so that, if all actuarial assumptions are exactly right, it would be sufficient to pay all promised benefits until the last current employee or retiree dies.

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Total Gross Liability as of

January 1, 2005	<u>Total</u>	<u>Faculty</u>	<u>Classified</u>	<u>Non-represented</u>
Active: Pre-65	\$11,170,578	\$5,021,357	\$5,123,199	\$1,026,022
Post-65	\$3,433,766	\$2,797,139	\$0	\$636,627
Subtotal	\$14,604,344	\$7,818,496	\$5,123,199	\$1,662,649
Retiree: Pre-65	\$2,766,385	\$812,573	\$1,738,802	\$215,010
Post-65	\$1,169,541	\$1,069,300	\$0	\$100,241
Subtotal	\$3,935,926	\$1,881,873	\$1,738,802	\$315,251
Grand Total	\$18,540,271	\$9,700,369	\$6,862,002	\$1,977,900
Subtotal Pre-65	\$13,936,963	\$5,833,929	\$6,862,002	\$1,241,032
Subtotal Post-65	\$4,603,307	\$3,866,439	\$0	\$736,868

The gross liability should be funded over the working lifetime of employees. At any time much of it has not been "earned" by employees. The gross liability is used to develop expense and liability figures. To do so, the gross liability is divided into two parts: the portions attributable to service rendered prior to the valuation date (the past service liability) and to service after the valuation date but prior to retirement (the future service liability).

The past service and future service liabilities are usually each funded in a different way. We will start with the future service liability which is funded by payments called the normal cost (or accrual cost).

D. Cost to Prefund Retiree Benefits

1. Normal Cost

The average hire age for eligible employees is 38. To accrue the liability by retirement, the College would accrue the retiree liability over a period of about 22 years (assuming an average retirement age of 60). We applied an "entry age normal" actuarial cost method to determine funding rates for active employees. The table below summarizes the calculated accrual cost.

Accrual Cost Year Beginning

January 1, 2005	<u>Total</u>	<u>Faculty</u>	<u>Classified</u>	<u>Non-represented</u>
# of Employees	480	213	223	44
Per Capita Accrual Cost				
Pre-65 Benefit	N/A	\$1,359	\$1,520	\$1,657
Post-65 Benefit	N/A	\$594	\$0	\$696

First Year Accrual Cost

Pre-65 Benefit	\$701,335	\$289,467	\$338,960	\$72,908
Post-65 Benefit	\$157,146	\$126,522	\$0	\$30,624
Total	\$858,481	\$415,989	\$338,960	\$103,532

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Funding retiree health benefits using accrual costs would level out the cost of retiree health benefits over time and more fairly reflect the value of benefits "earned" each year by employees.

2. Amortization of Past Service Liability

If actuarial assumptions are borne out by experience, the College could fully fund retiree benefits by contributing an amount each year that equals the accrual cost. If no funding had taken place in the past, there would be a shortfall of many years' contributions, accumulated interest and forfeitures for terminated employees. This shortfall is called the past service liability. We calculated the past service liability as the total gross liability minus the present value of future accrual costs.

The College can amortize the past service liability over many years. The table below also shows the annual amount necessary to amortize the past service liability over a period of 30 years at 5% interest. (Thirty years is the longest amortization period allowable under the upcoming GASB accounting standard.) The upcoming GASB standard will allow amortizing the PSL using either payments that stay the same as a dollar amount, or payments that are a flat percentage of covered payroll over time. The figures below reflect the level percentage of payroll method.

Past Service Liability as of January 1, 2005

	<u>Total</u>	<u>Faculty</u>	<u>Classified</u>	<u>Non-represented</u>
Active: Pre-65	\$5,485,919	\$2,783,072	\$2,117,394	\$585,453
Post-65	\$2,270,388	\$1,818,816	\$0	\$451,572
Subtotal	\$7,756,307	\$4,601,888	\$2,117,394	\$1,037,025
Retiree: Pre-65	\$2,766,385	\$812,573	\$1,738,802	\$215,010
Post-65	\$1,169,541	\$1,069,300	\$0	\$100,241
Subtotal	\$3,935,926	\$1,881,873	\$1,738,802	\$315,251
Subtot Pre-65	\$8,252,302	\$3,595,644	\$3,856,196	\$800,462
Subtot Post-65	\$3,439,929	\$2,888,116	\$0	\$551,813
Grand Total	\$11,692,233	\$6,483,761	\$3,856,196	\$1,352,276
Funded at January 1, 2005	\$0	\$0	\$0	\$0
Unfunded PSL	\$11,692,233	\$6,483,761	\$3,856,196	\$1,352,276
1st Year PSL Amortization at 5.0% over 30 Years	\$517,885	\$287,186	\$170,803	\$59,896

3. Other Components of Cost

Once the upcoming GASB accounting standard is implemented, future year calculations may include more components of cost than the normal cost plus amortization of past service liability. The other possible components are:

- The difference between interest earned on funds earmarked for retiree benefits and assumed interest.

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- Amortization of changes in liability due to actual experience that differs from assumptions.
- Amortization of changes in liability that arise because of changes in the retiree health plan that weren't anticipated in the prior retiree health valuation.

4. Total First Year Prefunding Cost

If the College funds the retiree health plan based on estimated accrual rates, and amortizes the past service liability over a period of 30 years, first year costs will include both accrual and amortization costs. The sum of accrual and amortization costs are shown below.

Total Prefunding Cost Year Beginning

January 1, 2005	<u>Total</u>	<u>Faculty</u>	<u>Classified</u>	<u>Non-represented</u>
Accrual Cost	\$858,481	\$415,989	\$338,960	\$103,532
PSL Amortization	\$517,885	\$287,186	\$170,803	\$59,896
Total Prefunding Cost	\$1,376,366	\$703,175	\$509,763	\$163,428
Pay-As-You-Go Cost	\$743,425	\$427,229	\$278,586	\$37,610
Added Cost to Prefund	\$632,941	\$275,946	\$231,177	\$125,818

After 30 years contributions to amortize the past service liability for active employees would end and, as a result, the prefunding cost would drop significantly. The accrual cost remains as long as there are active employees who may some day qualify for College-paid retiree health benefits. Both the PSL amortization payments and accrual cost would increase each year based on covered payroll.

If Cabrillo CCD does not prefund these liabilities by the full prefunding amount, future years' costs to prefund would be even higher. This is because the past service liability would grow by required interest plus each year's accrual (offset by retiree benefits paid).

Should Cabrillo CCD decide to prefund retiree health benefits as shown above, the cost of current retiree benefits would be deducted from earmarked funds. This means the true cost is the difference between the prefunding costs and "pay-as-you-go" costs. The above table shows the additional cost necessary to prefund retiree health benefits.

PART IV: "PAY AS YOU GO" FUNDING OF RETIREE BENEFITS

We used the actuarial assumptions shown in Appendix C to project ten year cash flow under the retiree health program. Because these cash flow estimates reflect average assumptions applied to a relatively small number of employees, estimates for individual years are **certtain** to be **in**accurate. However, these estimates show the size of needed cash flow and also the rate of increase in annual costs. Because we have used trend rates that are constant over time, it is likely that medical costs will be understated in some years and overstated in others.

We have estimated that over the next ten years, pay-as-you-go retiree health costs will increase at an average rate of about 8.1% per year.

The following table shows a projection of annual amounts needed to pay the College share of retiree health premiums.

Year Beginning January 1	<u>Total</u>	<u>Faculty</u>	<u>Classified</u>	<u>Non-represented</u>
2005	\$743,425	\$427,229	\$278,586	\$37,610
2006	\$828,196	\$474,887	\$296,390	\$56,919
2007	\$917,041	\$517,051	\$323,719	\$76,271
2008	\$994,537	\$527,530	\$367,709	\$99,298
2009	\$1,124,385	\$597,011	\$402,512	\$124,862
2010	\$1,239,559	\$634,243	\$462,348	\$142,968
2011	\$1,367,963	\$663,185	\$550,182	\$154,596
2012	\$1,393,932	\$685,604	\$539,310	\$169,018
2013	\$1,401,967	\$713,805	\$511,049	\$177,113
2014	\$1,494,329	\$762,766	\$531,090	\$200,473

PART V: FUNDING ALTERNATIVES

Until GASB accounting standards become effective, public employers have considerable latitude in deciding how to fund retiree benefits. Following is a summary of several broad options.

“Pay-As-You-Go” Funding: Under pay-as-you-go funding, retiree benefit costs are paid from general funds as they arise. (Retiree benefit costs are premiums under insured and HMO plans, or claims under self-funded plans.)

- Advantages:
- 1) Lowest current cost.
 - 2) Simplest method.
- Disadvantages:
- 1) Doesn't provide benefit security for current and future retirees.
 - 2) Doesn't provide fiscal stability.
 - 3) Doesn't comply with current accounting principles or future accounting standards.
 - 4) Will require higher cost when future GASB accounting standard becomes effective.
 - 5) Does not allow any retiree health costs to be charged to categorical programs.

“Ad Hoc” Funding: Under Ad Hoc funding, retiree benefit costs continue to be paid from general funds, but the College adds money to an earmarked retiree benefit fund when funds are available. Interest on the earmarked funds may or may not be left in the fund.

- Advantages:
- 1) Simple.
 - 2) Does not add additional cost item to budget.
 - 3) Makes progress toward full, actuarial pre-funding. Progress depends on amount and frequency of ad hoc deposits as well as whether interest is accrued.
- Disadvantages:
- 1) Uncertain amount and frequency of future ad hoc deposits limits benefit security.
 - 2) Doesn't comply with current accounting principles or future accounting standards.
 - 3) Will require addition of a budget item when future GASB accounting standard becomes effective.

- 4) Does not allow any retiree health costs to be charged to categorical programs.

Systematic Actuarial Funding: Under systematic actuarial funding, contributions are made that, over a specified period of time will fully pre-fund retiree health benefits. Interest on earmarked funds is left in the fund.

- Advantages:
- 1) Maximizes benefit security for current and future retirees.
 - 2) Provides predictable, budgetable retiree health costs.
 - 3) Complies with accounting guidelines.
 - 4) Judicious selection of an actuarial cost method can minimize the fiscal disruption of adapting to the future GASB accounting standard.
 - 5) Allows retiree health pre-funding costs to be charged to categorical programs.

- Disadvantages:
- 1) Highest cost funding approach. The magnitude of the cost depends on the length of time for amortizing any unfunded past service liability.
 - 2) Reduced fiscal flexibility.

Combination Funding Approaches: Under combination approaches, two or even all three of the above approaches can be used. Following are examples of combination approaches we have seen public employers use.

Example 1: Fund current and future retiree benefit costs on a pay-as-you-go basis, fund the accrual cost on a systematic actuarial basis, and fund the PSL on an ad hoc basis.

Example 2: Fund early retiree benefits on a pay-as-you-go basis, and fund retiree benefits for retirees 65 and older on a systematic actuarial basis.

Example 3: Fund benefits for current retirees and for employees who retire over the next five years on a pay-as-you-go basis, and fund benefits for employees retiring in more than five years on a systematic actuarial basis.

There are an infinite number of combination funding approaches, so a combination approach can be tailored to an individual employer's unique situation.

For public employers that make benefits available to future retirees, we recommend that those employers set up a regular schedule of contributions on an actuarial basis (but not necessarily full pre-funding contributions). By setting up a regular schedule of contributions an employer can reap the following benefits.

- The employer will recognize the real cost of benefits that are "earned" by current employees.

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- The employer will get information that allows it to make sound benefit decisions based on a more accurate picture of the cost of benefits "earned" by employees each year.
- The employer will prepare itself for the imminent GASB accounting standard.
- Pre-funding provides additional security to retirees for promised benefits.

Some community college districts do not routinely provide retiree health benefits but occasionally offer College paid coverage as part of an early retirement incentive program. We recommend that public employers considering early retirement incentive programs that include employer paid health coverage consider the additional liabilities created as a cost of the program **before finalizing program details.**

PART VI: RECOMMENDATIONS FOR FUTURE VALUATIONS

To effectively manage benefit costs, an employer must periodically examine the existing liability for retiree benefits as well as future annual expected premium costs. However, without accounting standards in place, a public employer has considerable latitude in deciding how to measure liabilities and costs, how to account for them, whether funds should be earmarked for future premiums and how often to calculate liabilities.

Until applicable accounting standards apply, community college districts should conduct retiree benefit valuations in the following situations.

- For existing retiree health plans, a public employer should perform a valuation no less frequently than every three years to update liability and cost estimates for planning and budgeting.
- An employer should perform a valuation whenever the employer considers or puts in place an early retirement incentive program.
- An employer should perform a valuation whenever the employer adopts a retiree benefit plan for some or all employees.
- An employer should perform a valuation whenever the employer considers or implements changes to retiree benefit provisions or eligibility requirements.
- An employer should perform a valuation whenever retiree benefit plan provisions or plan costs are the subject of collective bargaining.
- An employer should perform a valuation whenever the employer introduces or changes retiree contributions.

We recommend Cabrillo CCD take the following actions to ease future valuations.

- We have used our training, experience and information available to us to establish the actuarial assumptions used in this valuation. We have no information to indicate that any of the assumptions do not reasonably reflect future plan experience. However, the College should review the actuarial assumptions in Appendix C carefully. If the College has any reason to believe that any of these assumptions do not reasonably represent the expected future experience of the retiree health plan, the College should engage in discussions or perform analyses to determine the best estimate of the assumption in question.

PART VII: BENEFIT DESIGN ISSUES

As stated in the Executive Summary, it is outside the scope of this report to recommend what retiree health program changes (if any) may be appropriate. However, to help the College identify potential actions to manage its retiree health program, we are providing the following list of possible actions with the probable impact of each. Some items on the list may not be applicable to Cabrillo CCD.

<u>ACTION</u>	<u>IMPACT</u>
Implement retiree contributions.	Reduces Cabrillo CCD cost directly. May reduce the number of retirees participating in retiree health program thereby cutting liabilities even further.
Reduce plan benefits.	Reduces liabilities. Liabilities would be reduced even more if this is applied retroactively to current employees and/or current retirees.
Increase eligible retirement age or length of service.	Reduces liability by reducing the number of eligible retirees <u>and</u> the length of time benefits are payable.

PART VIII: APPENDICES

APPENDIX A: MATERIALS USED FOR THIS STUDY

We used the following materials to complete this study.

- We used paper reports and digital files containing employee demographic data from the College personnel records.
- We used relevant sections of collective bargaining agreements provided by the College.

**APPENDIX B: EFFECT OF ASSUMPTIONS USED TO CALCULATE
LIABILITIES AND CASH FLOW**

While we believe the estimates in this study are reasonable overall, it was necessary for us to use assumptions which inevitably introduce errors. We believe that the errors caused by our assumptions will not materially affect study results. If the College wants more refined estimates for decision-making, we recommend additional investigation. Following is a brief summary of the impact of some of the more critical assumptions.

1. Where actuarial assumptions differ from expected experience, our estimates could be overstated or understated. One of the most critical assumptions is the medical trend rate. The College may want to commission further study to assess the sensitivity of liability estimates to our medical trend assumptions. For example, it may be helpful to know how liabilities would be affected by using a trend factor 1% higher than what was used in this study.
2. We did not project mortality rates to decrease over time although they have been and are likely to continue declining. Not projecting mortality rates understates liabilities. The impact on the liability estimates is not likely to be significant.
3. We used an "entry age normal" actuarial cost method to estimate the past service liability and normal cost. GASB will allow this as one of several permissible methods under its upcoming accounting standard. Using a different cost method could result in a somewhat different recognition pattern of costs and liabilities.

APPENDIX C: ACTUARIAL ASSUMPTIONS

Following is a summary of actuarial assumptions used in this study. The College should carefully review these assumptions to make sure they reflect the College's assessment of its underlying experience.

MORTALITY: We used the 1983 Group Annuity Mortality Table (sex distinct), with male ages set back 5 years and female ages set back 3 years.

INFLATION: We assumed 3% per year.

INTEREST: We assumed 5% per year.

TREND: We assumed 4% per year.

TURNOVER: We used a unisex table developed by TCS based on community college district data. Rates are based on length of service as follows:

<u>Length of Service</u>	<u>Turnover Rate</u>
0 – 1	10.2%
2 – 6	5.1%
7 – 12	3.7%
13 – 14	1.7%
15 – 19	0.9%
20+	0.0%

VESTING RATES:

	<u>Faculty</u>	<u>Classified</u>	<u>Non-represented</u>
Vesting Percentage	100%	100%	100%
Vesting Period	10 years	10 years	10 years

COSTS FOR RETIREE COVERAGE:

First Year costs are as shown below. Subsequent years' costs are based on first year costs adjusted for trend and limited by any College contribution caps.

	<u>Faculty</u>	<u>Classified</u>	<u>Non-represented</u>
Current Retirees: based on actual costs			
<u>Current Plan:</u>			
Future Retirees Pre-65	\$8,763	\$8,763	\$8,763
Future Retirees Post-65	\$4,529	\$0	\$4,529

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PARTICIPATION RATES: 100%

RETIREMENT RATES: These rates are applied to the number of employees still working at the age shown.

<u>Age</u>	<u>Faculty Rate</u>	<u>Non-Faculty Rate</u>
50	0%	2%
51	0%	2%
52	0%	3%
53	0%	3%
54	0%	5%
55	3.5%	5%
56	6%	7%
57	8%	7%
58	9.5%	7%
59	22.2%	10%
60	25%	10%
61	21%	20%
62	22%	40%
63	22%	40%
64	28%	40%
65	30%	60%
66	27.5%	30%
67	26.5%	30%
68	23.5%	90%
69	27%	90%
70	50%	90%
71	50%	90%

APPENDIX D: DISTRIBUTION OF ELIGIBLE PARTICIPANTS BY AGE

ELIGIBLE ACTIVE EMPLOYEES:

<u>Age</u>	<u>Total</u>	<u>Faculty</u>	<u>Classified</u>	<u>Non-represented</u>
Under 25	4	0	4	0
25-29	13	1	12	0
30-34	32	12	20	0
35-39	46	20	24	2
40-44	54	22	26	6
45-49	76	31	39	6
50-54	124	61	49	14
55-59	87	40	35	12
60-64	38	23	11	4
65 and older	6	3	3	0
Total	480	213	223	44

ELIGIBLE RETIREES:

<u>Age</u>	<u>Total</u>	<u>Faculty</u>	<u>Classified</u>	<u>Non-represented</u>
Under 50	0	0	0	0
50-54	5	0	4	1
55-59	25	3	20	2
60-64	44	31	11	2
65-69	31	30	1	0
70-74	1	1	0	0
75-79	0	0	0	0
80-84	0	0	0	0
85-89	0	0	0	0
90 and older	0	0	0	0
Total	106	65	36	5

APPENDIX E: GASB 12 COMPLIANCE INFORMATION

GASB 12 specifies disclosure requirements for employers that provide postemployment benefits other than pension (OPEB).

If Cabrillo CCD chooses to prefund retiree health benefits using figures in this report, the following information will assist in compiling the disclosure required by GASB 12.

Actuarial cost method:	Entry age normal
Interest rate assumption:	5%
Projected salary increase assumption:	3%
Health inflation assumption:	4%
Actuarially required contributions Year Beginning January 1, 2005	
Normal cost:	\$858,481
Unfunded Past service liability amortization:	\$517,885
Actuarial accrued liability as of January 1, 2005:	\$11,692,233

The unfunded actuarial accrued liability should be calculated as the actuarial accrued liability shown above minus the amount of net assets available for OPEB.

APPENDIX F: RETIREE HEALTH EXPENSES CHARGEABLE TO CATEGORICAL PROGRAMS

California Community Colleges Accounting Advisory 96-02 allows districts to charge retiree health costs to categorical programs subject to certain restrictions. First, the charges must be based on a recent actuarial valuation. Second, only costs associated with current employees may be so charged. Although this Accounting Advisory was issued by California Community Colleges, it provides a reasonable basis for K-12 Districts to determine appropriate charges to categorical programs.

The College may charge accrual costs at the rates shown on page 11 to categorical programs. In addition, the College may charge the portion of the past service liability amortization payment attributable to active employees. These amortization payments are as follows:

\$421 per classified employee
\$957 per faculty member
\$1,044 per management employee

APPENDIX G: GLOSSARY OF RETIREE HEALTH VALUATION TERMS

Note: The following definitions are intended to help a *non*-actuary understand concepts related to retiree health valuations. Therefore, the definitions may not be actuarially accurate.

Accrual Cost: The dollar value of the “earned” portion of retiree health benefits if retiree health benefits are to be fully funded at retirement.

Accrued Liability: Another name for “past service liability.”

Interest Discount Rate: Assumed investment return net of all investment expenses. Generally, a higher assumed interest rate leads to lower accrual costs and past service liability.

Mortality Rate: Assumed proportion of people who die each year. Mortality rates always vary by age and often by sex. A mortality table should always be selected that is based on a similar “population” to the one being studied.

Normal Cost: Another name for “accrual cost.”

Participation Rate: The proportion of retirees who elect to receive retiree benefits. A lower participation rate results in lower accrual cost and past service liability. The participation rate often is related to retiree contributions.

Past Service Liability: The funds that would have accumulated if the accrual cost had been set aside for every employee (past and present) every year and if all actuarial assumptions were exactly met.

Pre-funding: "Pre-funding" retiree health benefits refers to the practice of setting aside funds that are earmarked for retiree health benefits while employees are still actively employed - i.e. before the funds are actually expended to pay for retiree health benefits. By pre-funding retiree benefits, there will be enough funds available at retirement (on average) that, with interest, will be sufficient to pay all promised retiree health benefits without the need for any post-retirement employer contributions.

Retirement Rate: The proportion of active employees who retire each year. Retirement rates are usually based on age and/or length of service. (Retirement rates can be used in conjunction with vesting rates to reflect both age and length of service). The more likely employees are to retire early, the higher accrual costs and past service liability will be.

Transition Obligation: The amount of the unfunded past service liability at the time actuarial funding begins in accordance with an applicable accounting standard.

Trend Rate: The rate at which the cost of retiree benefits is expected to increase over time. The trend rate usually varies by type of benefit (e.g. medical, dental, vision, etc.) and may vary over time. A higher trend rate results in higher accrual costs and past service liability.

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Turnover Rate: The rate at which employees cease employment due to reasons other than death and retirement. Turnover rates usually vary based on length of service and may vary by other factors. Higher turnover rates reduce accrual costs and past service liability.

Unfunded Accrued Liability: Another name for “unfunded past service liability.”

Unfunded Past Service Liability: This is the excess of the past service liability over assets set aside to fund retiree health benefits. If the actual net investment return is less than the interest discount rate (and all other actuarial assumptions are met), the unfunded past service liability will grow.

Vesting Rate: The proportion of retiree benefits earned, based usually on length of service and, sometimes, age. (Vesting rates are often set in conjunction with retirement rates.) More rapid vesting increases accrual costs and past service liability.