

**WEST CONTRA COSTA  
UNIFIED SCHOOL DISTRICT**

Actuarial Valuation of  
Postemployment Health Benefits

Valuation Date: July 1, 2008 with  
results rolled back  
to July 1, 2007



July 18, 2008

Mr. Martin Coyne  
Director, Internal Audit  
West Contra Costa Unified School District  
1108 Bissell Avenue  
Richmond, CA 94801-3135

Dear Mr. Coyne:

Re: Actuarial Valuation of Postemployment Healthcare Plans

The Nicolay Consulting Group is pleased to present the results of the July 1, 2008 actuarial valuation of the West Contra Costa Unified School District postemployment health insurance plans. In preparing the report, we relied on employee data and plan information supplied by the District. On the basis of that information, this report has been prepared in accordance with generally accepted actuarial principles and methods. It is our opinion that the actuarial assumptions used are reasonably related to the actual experience of the plan and to anticipated future experience.

The financial projections presented in this letter are intended for the District's internal use in evaluating the potential cost of the retiree health programs. Because future events frequently do not occur as expected, it should be recognized that there are usually differences between anticipated and actual results. These differences may be material. Consequently, we can express no assurance that the projected values will occur. We recommend that the District obtain an updated actuarial valuation on a periodic basis. Questions about the report should be directed to Dennis Daugherty at (415) 512-5300 x221.

The undersigned meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Sincerely,

Nicolay Consulting Group

By:   
Dennis Daugherty, F.S.A.  
Member, American Academy of Actuaries

# WEST CONTRA COSTA UNIFIED SCHOOL DISTRICT

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# SECTION I

## Introduction

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The West Contra Costa Unified School District provides postemployment health benefits to retirees who meet plan eligibility requirements. This report provides an estimate of the District's obligation as of July 1, 2008, an illustration of GASB 45 accrual accounting requirements and a ten-year projection of the pay-as-you-go cost to provide the benefits. **Section II** contains valuation results. **Section III** describes the plans and presents a demographic summary. **Section IV** lists the actuarial assumptions used to complete the valuation.

### Accounting Requirements

In July 2004 the Governmental Accounting Standards Board issued **Statement 45**, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions*. This statement requires governmental entities to begin accounting for postemployment benefits on an accrual basis. When the new accounting rules are adopted public entities that sponsor postemployment benefits will be required to account for the cost of those benefits using accrual accounting rather than the more common pay-as-you-go accounting. This means that each employee's benefit will "accrue" throughout their working lifetime and that employers will be required to show the annual accruals as a current year expense. The change from pay-as-you-go accounting to accrual accounting will have a significant effect on the financial statements and balance sheets of many public sector employers.

Employers must adopt Statement 45 no later than the plan year that begins after December 15, 2006, 2007 or 2008 depending on the annual revenues of the entity (entities with total annual revenues of \$100 million or more will adopt no later than the first year listed above, entities with total annual revenues of \$10 to \$100 million no later than the second year and entities with total annual revenues of less than \$10 million will adopt no later than the third year). West Contra Costa Unified School District adopted Statement 45 as of July 1, 2007.



## SECTION II

### Valuation Results

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Table 2-1 contains estimates of the present value of the cost of postemployment healthcare benefits attributable to past service rendered by current retirees and employees who are expected to receive the benefit. The estimates are based on the assumptions and methodology prescribed for Agencies that participate in the CalPERS administered California Employers' Retiree Benefit Trust Fund (CERBT). The valuation results are based on a 4.50% discount rate under the assumption that the District will not be contributing the full Annual Required Contribution (ARC) to the Trust Fund each year. If the District contributes the full ARC each year, a higher discount rate would be justified. This could result in significantly lower annual costs as reported under GASB 45.

Table 2-2 contains an estimate of the present value of the cost of postemployment healthcare benefits attributable to future service that will be rendered by current employees who are expected to receive the benefit. Table 2-3 contains an estimate of the present value of the total cost of postemployment healthcare benefits expected to be paid to current employees and retirees.

Tables 2-4 and 2-5 illustrate the GASB 45 Actuarial Accrued Liability (AAL) and ARC.

Estimates were determined as of July 1, 2008 (Tables 2-1, 2-2, 2-3 and 2-5). For purposes of determining the 2007/08 ARC valuation results were rolled back to July 1, 2007 (Table 2-4).

Table 2-1

**West Contra Costa Unified School District**  
**Present Value of Future Postemployment Healthcare Benefits**  
Based on a 4.50% discount rate  
as of July 1, 2008

**Total Present Value Attributable to Past Service (i.e., GASB 45 Actuarial Accrued Liability)**

|                | Certificated<br><u>UTR</u> | Certificated<br><u>WCCAA</u> | Classified<br><u>Local #1</u> | Classified<br><u>SSA</u> | Unrep. Mgt.,<br>Confidential, Cabinet,<br><u>Retired Board</u> | <u>Total</u>  |
|----------------|----------------------------|------------------------------|-------------------------------|--------------------------|--|---------------|
| <b>Medical</b> |                            |                              |                               |                          |  |               |
| Actives        | \$131,221,548              | \$10,074,279                 | \$64,248,908                  | \$8,907,130              | \$3,656,743  | \$218,108,608 |
| Retirees       | \$137,739,996              | \$0                          | \$68,196,411                  | \$5,004,710              | \$17,774,942   | \$228,716,059 |
| Total          | \$268,961,544              | \$10,074,279                 | \$132,445,319                 | \$13,911,840             | \$21,431,685   | \$446,824,667 |
| <b>Dental</b>  |                            |                              |                               |                          |  |               |
| Actives        | \$14,139,103               | \$1,066,148                  | \$6,289,774                   | \$878,329                | \$579,022  | \$22,952,376  |
| Retirees       | \$16,239,397               | \$0                          | \$7,336,334                   | \$516,327                | \$2,008,202  | \$26,100,260  |
| Total          | \$30,378,500               | \$1,066,148                  | \$13,626,108                  | \$1,394,656              | \$2,587,224  | \$49,052,636  |
| <b>Total</b>   |                            |                              |                               |                          |  |               |
| Actives        | \$145,360,651              | \$11,140,427                 | \$70,538,682                  | \$9,785,459              | \$4,235,765  | \$241,060,984 |
| Retirees       | \$153,979,393              | \$0                          | \$75,532,745                  | \$5,521,037              | \$19,783,144   | \$254,816,319 |
| Total          | \$299,340,044              | \$11,140,427                 | \$146,071,427                 | \$15,306,496             | \$24,018,909   | \$495,877,303 |

Table 2-2  
West Contra Costa Unified School District  
Present Value of Future Postemployment Healthcare Benefits  
Based on a 4.50% discount rate  
as of July 1, 2008

*Total Present Value Attributable to Future Service*

|                | Certificated<br>UTR | Certificated<br>WCCAA | Classified<br>Local #1 | Classified<br>SSA | Unrep. Mgt.,<br>Confidential, Cabinet,<br>Retired Board | Total         |
|----------------|---------------------|-----------------------|------------------------|-------------------|---|---------------|
| <b>Medical</b> |                     |                       |                        |                   |   |               |
| Actives        | \$145,251,787       | \$7,573,888           | \$50,866,301           | \$6,331,447       | \$2,062,358   | \$212,085,781 |
| Retirees       | \$0                 | \$0                   | \$0                    | \$0               | \$0   | \$0           |
| Total          | \$145,251,787       | \$7,573,888           | \$50,866,301           | \$6,331,447       | \$2,062,358   | \$212,085,781 |
| <b>Dental</b>  |                     |                       |                        |                   |   |               |
| Actives        | \$13,465,460        | \$684,696             | \$4,617,154            | \$573,411         | \$365,437   | \$19,706,158  |
| Retirees       | \$0                 | \$0                   | \$0                    | \$0               | \$0   | \$0           |
| Total          | \$13,465,460        | \$684,696             | \$4,617,154            | \$573,411         | \$365,437   | \$19,706,158  |
| <b>Total</b>   |                     |                       |                        |                   |   |               |
| Actives        | \$158,717,247       | \$8,258,584           | \$55,483,455           | \$6,904,858       | \$2,427,795   | \$231,791,939 |
| Retirees       | \$0                 | \$0                   | \$0                    | \$0               | \$0   | \$0           |
| Total          | \$158,717,247       | \$8,258,584           | \$55,483,455           | \$6,904,858       | \$2,427,795   | \$231,791,939 |



Table 2-3  
West Contra Costa Unified School District  
Present Value of Future Postemployment Healthcare Benefits  
Based on a 4.50% discount rate  
as of July 1, 2008

| <i>Total Present Value</i> |                      | Certificated<br><u>UTR</u> | Certificated<br><u>WCCAA</u> | Certificated<br><u>Local #1</u> | Classified<br><u>SSA</u> | Unrep. Mgt.,<br>Confidential, Cabinet,<br><u>Retired Board</u> | <u>Total</u>  |
|----------------------------|----------------------|----------------------------|------------------------------|---------------------------------|--------------------------|--|---------------|
| <b>Medical</b>             |                      |                            |                              |                                 |                          |  |               |
| Actives                    | \$276,473,335        |                            | \$17,648,167                 | \$115,115,209                   | \$15,238,577             | \$5,719,101  | \$430,194,389 |
| Retirees                   | \$137,739,996        |                            | <u>\$0</u>                   | \$68,196,411                    | \$5,004,710              | \$17,774,942   | \$228,716,059 |
| Total                      | \$414,213,331        |                            | \$17,648,167                 | \$183,311,620                   | \$20,243,287             | \$23,494,043   | \$658,910,448 |
| <b>Dental</b>              |                      |                            |                              |                                 |                          |  |               |
| Actives                    | \$27,604,563         |                            | \$1,750,844                  | \$10,906,928                    | \$1,451,740              | \$944,459  | \$42,658,534  |
| Retirees                   | <u>\$16,239,397</u>  |                            | <u>\$0</u>                   | \$7,336,334                     | \$516,327                | \$2,008,202  | \$26,100,260  |
| Total                      | \$42,864,384         |                            | \$1,585,325                  | \$17,535,874                    | \$1,588,440              | \$2,723,271  | \$66,297,294  |
| <b>Total</b>               |                      |                            |                              |                                 |                          |  |               |
| Actives                    | \$304,077,898        |                            | \$19,399,011                 | \$126,022,137                   | \$16,690,317             | \$6,663,560  | \$472,852,923 |
| Retirees                   | <u>\$153,979,393</u> |                            | <u>\$0</u>                   | \$75,532,745                    | \$5,521,037              | \$19,783,144   | \$254,816,319 |
| Total                      | \$458,057,291        |                            | \$19,399,011                 | \$201,554,882                   | \$22,211,354             | \$26,446,704   | \$727,669,242 |



## Health Benefit Costs Under GASB 45

The first year Annual Required Contribution (ARC) consists of the Normal Cost plus the portion of the Unfunded Actuarial Accrued Liability that is to be amortized in the current period.

Normal Cost is the portion of the actuarial present value of future benefits that is allocated to a particular year. Another interpretation is that the Normal Cost is the present value of future benefits that are "earned" by employees for service rendered during the current year. This valuation is based on the Entry Age Normal actuarial cost method and an attribution period that runs from date of hire until the expected retirement date.

In the year the new accounting rules become effective an employer is allowed to commence amortization of the Unfunded Actuarial Accrued Liability over a period not to exceed 30 years. The following Tables illustrate amortization as a level percentage of payroll over a closed 30-year period commencing in the July 2007 through June 2008 fiscal year.

Table 2-4  
**2007/2008 Fiscal Year**  
**OPEB Annual Required Contribution – based on a 4.50% discount rate**

|  |                     |
|--|---------------------|
| Actuarial Accrued Liability as of July 1, 2007   | \$469,884,318       |
| Assumed Actuarial Value of Assets at July 1, 2007  | <u>\$0</u>          |
| Unfunded Actuarial Accrued Liability   | \$469,884,318       |
| Amortization Period  | 30 years            |
| Level percent of pay Amortization Factor (based on a 4.50% discount rate and a 3.25% annual increase in payroll) | 24.2425             |
| Annual Level Percentage of Pay Amort. of Unfunded AAL  | \$19,382,646        |
| Normal Cost (based on the Entry Age Normal Method)   | <u>\$19,604,336</u> |
| Annual Required Contribution   | \$38,986,982        |

Table 2-5  
**2008/2009 Fiscal Year**  
**OPEB Annual Required Contribution – based on a 4.50% discount rate**

|  |                     |
|--|---------------------|
| Actuarial Accrued Liability as of July 1, 2008   | \$495,877,303       |
| Actuarial Value of Assets at July 1, 2008  | <u>\$8,500,000</u>  |
| Unfunded Actuarial Accrued Liability   | \$487,377,303       |
| Remaining Amortization Period  | 29 years            |
| Level percent of pay Amortization Factor (based on a 4.50% discount rate and a 3.25% annual increase in payroll) | 23.567              |
| Annual Level Percentage of Pay Amort. of Unfunded AAL  | \$20,680,062        |
| Normal Cost (based on the Entry Age Normal Method)   | <u>\$20,682,574</u> |
| Annual Required Contribution   | \$41,362,636        |

Table 2-6 contains a ten-year projection of the District's pay-as-you-go cost to provide postemployment benefits to current and future retirees.

| <p style="text-align: center;">Table 2-6</p> <p style="text-align: center;"><b>West Contra Costa Unified School District</b></p> <p style="text-align: center;"><b>Estimated Annual Postemployment Pay-as-you-go Cost</b></p> |                            |                              |                                 |                          |  |              |
|---|----------------------------|------------------------------|---------------------------------|--------------------------|--|--------------|
|   | Certificated<br><u>UTR</u> | Certificated<br><u>WCCAA</u> | Certificated<br><u>Local #1</u> | Classified<br><u>SSA</u> | Unrep. Mgt.,<br>Confidential, Cabinet,<br><u>Retired Board</u> | <u>Total</u> |
| 2008/2009   | \$9,136,893                | \$52,541                     | \$4,699,928                     | \$400,288                | \$1,300,078  | \$15,589,728 |
| 2009/2010   | \$9,991,512                | \$112,191                    | \$5,114,456                     | \$444,607                | \$1,369,166  | \$17,031,932 |
| 2010/2011   | \$10,887,058               | \$181,188                    | \$5,540,961                     | \$495,427                | \$1,422,566  | \$18,527,200 |
| 2011/2012   | \$11,771,653               | \$245,358                    | \$5,951,901                     | \$553,103                | \$1,477,773  | \$19,999,788 |
| 2012/2013   | \$12,643,875               | \$303,924                    | \$6,327,589                     | \$609,189                | \$1,519,464  | \$21,404,041 |
| 2013/2014   | \$13,541,674               | \$372,480                    | \$6,764,923                     | \$658,019                | \$1,555,340  | \$22,892,436 |
| 2014/2015   | \$14,395,919               | \$426,734                    | \$7,188,953                     | \$718,471                | \$1,587,967  | \$24,318,044 |
| 2015/2016   | \$15,320,372               | \$476,070                    | \$7,620,342                     | \$772,332                | \$1,623,531  | \$25,812,647 |
| 2016/2017   | \$16,212,240               | \$541,403                    | \$8,068,184                     | \$829,575                | \$1,641,821  | \$27,293,223 |
| 2017/2018   | \$17,118,717               | \$614,523                    | \$8,528,580                     | \$892,689                | \$1,662,005  | \$28,816,514 |



Table 2-7 presents a five-year projection under the assumptions that the District **contributes the expected retiree premium cost each year**, the discount rate remains 4.50%, the Normal Cost component of the ARC increases by 5.50% per year and investment earnings on funds contributed to the CERBT will be 7.75% per year.

Table 2-7  
**West Contra Costa Unified School District**  
**Five-year Projection of Annual OPEB Cost and Net OPEB Obligation**  
Based on a 4.50% discount rate and  
assuming funding equal to projected retiree premium costs

|  | 2008/09             | 2009/10             | 2010/11             | 2011/12              | 2012/13              |
|--|---------------------|---------------------|---------------------|----------------------|----------------------|
| Actuarial Accrued Liability (AAL)              | \$495,877,303       | \$522,937,719       | \$550,879,098       | \$579,749,405        | \$609,679,631        |
| Actuarial Value of Assets at beginning of year | \$8,500,000         | \$9,158,750         | \$9,868,553         | \$10,633,366         | \$11,457,452         |
| Unfunded Actuarial Accrued Liability (UAAL)    | \$487,377,303       | \$513,778,969       | \$541,010,545       | \$569,116,039        | \$598,222,179        |
| <b>Remaining Amortization Period</b>           | <b>29</b>           | <b>28</b>           | <b>27</b>           | <b>26</b>            | <b>25</b>            |
| Normal Cost                                    | \$20,682,574        | \$21,820,116        | \$23,020,222        | \$24,286,334         | \$25,622,082         |
| Amortization of UAAL                           | \$20,680,062        | \$22,451,160        | \$24,377,727        | \$26,479,163         | \$28,781,910         |
| Annual Required Contribution (ARC)             | \$41,362,636        | \$44,271,276        | \$47,397,949        | \$50,765,497         | \$54,403,992         |
| Annual Required Contribution (ARC)             | \$41,362,636        | \$44,271,276        | \$47,397,949        | \$50,765,497         | \$54,403,992         |
| Interest on net OPEB Obligation                | \$722,342           | \$1,883,979         | \$3,112,202         | \$4,411,200          | \$5,788,922          |
| Adjustment to ARC                              | (\$681,110)         | (\$1,829,473)       | (\$3,116,325)       | (\$4,560,870)        | (\$6,189,310)        |
| Annual OPEB Cost                               | \$41,403,868        | \$44,325,782        | \$47,393,826        | \$50,615,827         | \$54,003,604         |
| Trust Fund Contribution                        | (\$15,589,728)      | (\$17,031,932)      | (\$18,527,200)      | (\$19,999,788)       | (\$21,404,041)       |
| Increase in net OPEB Obligation                | \$25,814,140        | \$27,293,850        | \$28,866,626        | \$30,616,039         | \$32,599,563         |
| <b>Net OPEB Obligation – Beginning of Year</b> | <b>\$16,052,049</b> | <b>\$41,866,189</b> | <b>\$69,160,039</b> | <b>\$98,026,666</b>  | <b>\$128,642,705</b> |
| <b>Net OPEB Obligation – End of Year</b>       | <b>\$41,866,189</b> | <b>\$69,160,039</b> | <b>\$98,026,666</b> | <b>\$128,642,705</b> | <b>\$161,242,268</b> |
| Projected Retiree Premium Cost                 | \$15,589,728        | \$17,031,932        | \$18,527,200        | \$19,999,788         | \$21,404,041         |

Note: the ARC adjustment is calculated by dividing the beginning of year net OPEB obligation by the same amortization factor used to amortize the Unfunded Actuarial Accrued Liability.



## SECTION III

### Plan Description and Demographic Summary

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#### Eligibility and Benefits

**Employees hired prior to January 1, 2007** who have a minimum of 5 years of continuous service with the District, retire from the District, begin receiving a PERS or STRS pension and are eligible for health benefits at the time of retirement are eligible for postemployment medical benefits.

**Employees hired after December 31, 2006 (July 1, 2006 for UTR employees)** who have ten or more years of continuous service with the District, retire from the District, begin receiving a PERS or STRS pension and are eligible for health benefits at the time of retirement are eligible for postemployment medical benefits.

#### Dental

District employees who have a minimum of 10 years of service with the District, retire from the District and begin receiving a PERS or STRS pension are eligible for postemployment dental benefits when their age plus years of service is at least 75.

#### Medical and Dental Plans

Retirees may enroll in any plan offered through the CalPERS medical program. Dental benefits are provided by Delta Dental.

Retirees who are eligible must enroll in Medicare Part B coverage in order for their coverage to continue beyond age 65.

#### Duration of Benefits

District provided medical benefits continue throughout the lifetime of the retiree and surviving spouse. Dental benefits continue throughout the lifetime of the retiree. However, surviving spouses are not eligible for postemployment dental coverage.

## **Contributions**

### **Employees who retired prior to January 1, 2007**

The District pays the cost of medical coverage for retirees, their spouses and surviving spouse up to a specified cap on the District's contribution.

The District will contribute an amount not to exceed the greater of the cost of CalPERS Bay Area Kaiser or Blue Shield HMO coverage. The District's cap is based on each retiree's enrollment category. For example, single retirees will receive a maximum District contribution equal to the greater of the Employee Only Bay Area Kaiser or Blue Shield HMO rate. Similarly, retirees who have enrolled a spouse will receive a maximum District contribution equal to the greater of the Two-Party Bay Area Kaiser or Blue Shield HMO rate.

Retirees who enroll in a more expensive plan must pay the difference.

In addition, the District contributes 100% of the composite cost of retiree dental coverage.

### **UTR employees who retire after December 31, 2006**

The District pays the cost of medical coverage for retirees, their spouses and surviving spouse up to a specified cap on the District's contribution.

The District will contribute up to 100% of the cost of CalPERS Bay Area Kaiser coverage based on each retiree's enrollment category. Retirees who enroll in a more expensive plan must pay the difference.

In addition, the District contributes 100% of the composite cost of retiree dental coverage.

### **All other (i.e., non-UTR employees) who retire after December 31, 2006**

The District pays the cost of medical coverage for retirees, their spouses and surviving spouse up to a specified cap on the District's contribution.

The District will contribute an amount not to exceed the greater of the cost of CalPERS Bay Area Kaiser or Blue Shield HMO coverage. The District's cap is based on each retiree's enrollment category. However, the annual increase in the District's contribution toward the cost of CalPERS Bay Area Blue Shield HMO coverage will not exceed 10%. Retirees who enroll in a more expensive plan must pay the difference.

In addition, the District contributes 100% of the composite cost of retiree dental coverage.



## Demographic Data

The District provided demographic information on all current active and retired employees. Tables 3-1 to 3-8 contain summaries of the demographic information used in the valuation.

Table 3-1  
**Age and Service Table**  
**Active Certificated UTR Employees**  
as of July 1, 2008

| <u>Age</u>   | <u>Years of Service</u> |            |              |              |              |              |            | <u>Total</u> |
|--------------|-------------------------|------------|--------------|--------------|--------------|--------------|------------|--------------|
|              | <u>0-4</u>              | <u>5-9</u> | <u>10-14</u> | <u>15-19</u> | <u>20-24</u> | <u>25-29</u> | <u>30+</u> |              |
| Under 25     | 28                      | 1          | 0            | 0            | 0            | 0            | 0          | 29           |
| 25-29        | 116                     | 6          | 0            | 0            | 0            | 0            | 0          | 122          |
| 30-34        | 110                     | 56         | 2            | 0            | 0            | 0            | 0          | 168          |
| 35-39        | 75                      | 90         | 25           | 0            | 0            | 0            | 0          | 190          |
| 40-44        | 54                      | 36         | 32           | 5            | 0            | 0            | 0          | 127          |
| 45-49        | 63                      | 68         | 52           | 26           | 14           | 0            | 0          | 223          |
| 50-54        | 77                      | 57         | 45           | 28           | 21           | 8            | 1          | 237          |
| 55-59        | 47                      | 59         | 71           | 40           | 46           | 16           | 31         | 310          |
| 60-64        | 31                      | 50         | 51           | 33           | 32           | 12           | 50         | 259          |
| 65-69        | 12                      | 15         | 18           | 12           | 7            | 4            | 5          | 73           |
| 70 +         | 1                       | 9          | 3            | 7            | 1            | 1            | 2          | 24           |
| <b>Total</b> | <b>614</b>              | <b>447</b> | <b>299</b>   | <b>151</b>   | <b>121</b>   | <b>41</b>    | <b>89</b>  | <b>1,762</b> |

Table 3-2  
**Age and Service Table**  
**Active Certificated Administrators (WCCAA) Employees**  
as of July 1, 2008

| <u>Age</u>   | <u>Years of Service</u> |            |              |              |              |              |            | <u>Total</u> |
|--------------|-------------------------|------------|--------------|--------------|--------------|--------------|------------|--------------|
|              | <u>0-4</u>              | <u>5-9</u> | <u>10-14</u> | <u>15-19</u> | <u>20-24</u> | <u>25-29</u> | <u>30+</u> |              |
| Under 25     | 0                       | 0          | 0            | 0            | 0            | 0            | 0          | 0            |
| 25-29        | 0                       | 0          | 0            | 0            | 0            | 0            | 0          | 0            |
| 30-34        | 8                       | 2          | 0            | 0            | 0            | 0            | 0          | 10           |
| 35-39        | 6                       | 4          | 1            | 0            | 0            | 0            | 0          | 11           |
| 40-44        | 5                       | 3          | 0            | 2            | 0            | 0            | 0          | 10           |
| 45-49        | 3                       | 2          | 0            | 2            | 1            | 0            | 0          | 8            |
| 50-54        | 2                       | 4          | 1            | 3            | 2            | 1            | 0          | 13           |
| 55-59        | 2                       | 6          | 4            | 1            | 9            | 2            | 6          | 30           |
| 60-64        | 2                       | 4          | 1            | 1            | 5            | 1            | 6          | 20           |
| 65-69        | 0                       | 1          | 0            | 1            | 0            | 0            | 0          | 2            |
| 70 +         | 0                       | 0          | 0            | 0            | 0            | 0            | 0          | 0            |
| <b>Total</b> | <b>28</b>               | <b>26</b>  | <b>7</b>     | <b>10</b>    | <b>17</b>    | <b>4</b>     | <b>12</b>  | <b>104</b>   |

Table 3-3  
**Age and Service Table for**  
**Active Classified Local #1 Employees**  
as of July 1, 2008

| <u>Age</u>   | <u>Years of Service</u> |            |              |              |              |              |            | <u>Total</u> |
|--------------|-------------------------|------------|--------------|--------------|--------------|--------------|------------|--------------|
|              | <u>0-4</u>              | <u>5-9</u> | <u>10-14</u> | <u>15-19</u> | <u>20-24</u> | <u>25-29</u> | <u>30+</u> |              |
| Under 25     | 5                       | 0          | 0            | 0            | 0            | 0            | 0          | 5            |
| 25-29        | 24                      | 3          | 0            | 0            | 0            | 0            | 0          | 27           |
| 30-34        | 23                      | 20         | 2            | 0            | 0            | 0            | 0          | 45           |
| 35-39        | 32                      | 21         | 11           | 4            | 0            | 0            | 0          | 68           |
| 40-44        | 31                      | 29         | 15           | 12           | 5            | 0            | 0          | 92           |
| 45-49        | 37                      | 38         | 27           | 12           | 14           | 6            | 0          | 134          |
| 50-54        | 34                      | 37         | 25           | 13           | 13           | 10           | 4          | 136          |
| 55-59        | 13                      | 22         | 24           | 19           | 18           | 8            | 12         | 116          |
| 60-64        | 6                       | 16         | 12           | 18           | 12           | 13           | 13         | 90           |
| 65-69        | 2                       | 7          | 4            | 0            | 2            | 5            | 4          | 24           |
| 70 +         | <u>3</u>                | <u>0</u>   | <u>1</u>     | <u>0</u>     | <u>1</u>     | <u>2</u>     | <u>3</u>   | <u>10</u>    |
| <b>Total</b> | <b>210</b>              | <b>193</b> | <b>121</b>   | <b>78</b>    | <b>65</b>    | <b>44</b>    | <b>36</b>  | <b>747</b>   |

Table 3-4  
**Age and Service Table for**  
**Active Classified Supervisors (SSA) Employees**  
as of July 1, 2008

| <u>Age</u>   | <u>Years of Service</u> |            |              |              |              |              |            | <u>Total</u> |
|--------------|-------------------------|------------|--------------|--------------|--------------|--------------|------------|--------------|
|              | <u>0-4</u>              | <u>5-9</u> | <u>10-14</u> | <u>15-19</u> | <u>20-24</u> | <u>25-29</u> | <u>30+</u> |              |
| Under 25     | 0                       | 0          | 0            | 0            | 0            | 0            | 0          | 0            |
| 25-29        | 7                       | 0          | 0            | 0            | 0            | 0            | 0          | 7            |
| 30-34        | 7                       | 2          | 1            | 0            | 0            | 0            | 0          | 10           |
| 35-39        | 2                       | 1          | 3            | 0            | 0            | 0            | 0          | 6            |
| 40-44        | 2                       | 5          | 2            | 1            | 1            | 0            | 0          | 11           |
| 45-49        | 4                       | 3          | 1            | 3            | 0            | 2            | 0          | 13           |
| 50-54        | 3                       | 3          | 2            | 2            | 1            | 5            | 2          | 18           |
| 55-59        | 3                       | 4          | 7            | 0            | 1            | 3            | 1          | 19           |
| 60-64        | 1                       | 1          | 1            | 3            | 3            | 1            | 2          | 12           |
| 65-69        | 0                       | 0          | 0            | 1            | 0            | 0            | 1          | 2            |
| 70 +         | <u>0</u>                | <u>0</u>   | <u>1</u>     | <u>0</u>     | <u>0</u>     | <u>0</u>     | <u>1</u>   | <u>2</u>     |
| <b>Total</b> | <b>29</b>               | <b>19</b>  | <b>18</b>    | <b>10</b>    | <b>6</b>     | <b>11</b>    | <b>7</b>   | <b>100</b>   |



Table 3-5  
**Age and Service Table for**  
**Active Unrepresented Management, Confidential,**  
**Superintendent's Cabinet and Board Members**  
as of July 1, 2008

| <u>Age</u>   | <u>Years of Service</u> |            |              |              |              |              |            | <u>Total</u> |
|--------------|-------------------------|------------|--------------|--------------|--------------|--------------|------------|--------------|
|              | <u>0-4</u>              | <u>5-9</u> | <u>10-14</u> | <u>15-19</u> | <u>20-24</u> | <u>25-29</u> | <u>30+</u> |              |
| Under 25     | 0                       | 0          | 0            | 0            | 0            | 0            | 0          | 0            |
| 25-29        | 1                       | 0          | 0            | 0            | 0            | 0            | 0          | 1            |
| 30-34        | 1                       | 0          | 0            | 0            | 0            | 0            | 0          | 1            |
| 35-39        | 3                       | 1          | 0            | 0            | 0            | 0            | 0          | 4            |
| 40-44        | 2                       | 1          | 0            | 0            | 1            | 0            | 0          | 4            |
| 45-49        | 4                       | 1          | 3            | 0            | 0            | 0            | 0          | 8            |
| 50-54        | 4                       | 3          | 1            | 4            | 0            | 1            | 1          | 14           |
| 55-59        | 3                       | 3          | 0            | 0            | 0            | 3            | 2          | 11           |
| 60-64        | 3                       | 2          | 1            | 2            | 2            | 1            | 7          | 18           |
| 65-69        | 0                       | 0          | 0            | 0            | 0            | 0            | 0          | 0            |
| 70 +         | <u>0</u>                | <u>0</u>   | <u>0</u>     | <u>0</u>     | <u>0</u>     | <u>0</u>     | <u>0</u>   | <u>0</u>     |
| <b>Total</b> | <b>21</b>               | <b>11</b>  | <b>5</b>     | <b>6</b>     | <b>3</b>     | <b>5</b>     | <b>10</b>  | <b>61</b>    |

Table 3-6  
**Age and Service Table for**  
**All Active Employees**  
as of July 1, 2008

| <u>Age</u>   | <u>Years of Service</u> |            |              |              |              |              |            | <u>Total</u> |
|--------------|-------------------------|------------|--------------|--------------|--------------|--------------|------------|--------------|
|              | <u>0-4</u>              | <u>5-9</u> | <u>10-14</u> | <u>15-19</u> | <u>20-24</u> | <u>25-29</u> | <u>30+</u> |              |
| Under 25     | 33                      | 1          | 0            | 0            | 0            | 0            | 0          | 34           |
| 25-29        | 148                     | 9          | 0            | 0            | 0            | 0            | 0          | 157          |
| 30-34        | 149                     | 80         | 5            | 0            | 0            | 0            | 0          | 234          |
| 35-39        | 118                     | 117        | 40           | 4            | 0            | 0            | 0          | 279          |
| 40-44        | 94                      | 74         | 49           | 20           | 7            | 0            | 0          | 244          |
| 45-49        | 111                     | 112        | 83           | 43           | 29           | 8            | 0          | 386          |
| 50-54        | 120                     | 104        | 74           | 50           | 37           | 25           | 8          | 418          |
| 55-59        | 68                      | 94         | 106          | 60           | 74           | 32           | 52         | 486          |
| 60-64        | 43                      | 73         | 66           | 57           | 54           | 28           | 78         | 399          |
| 65-69        | 14                      | 23         | 22           | 14           | 9            | 9            | 10         | 101          |
| 70 +         | <u>4</u>                | <u>9</u>   | <u>5</u>     | <u>7</u>     | <u>2</u>     | <u>3</u>     | <u>6</u>   | <u>36</u>    |
| <b>Total</b> | <b>902</b>              | <b>696</b> | <b>450</b>   | <b>255</b>   | <b>212</b>   | <b>105</b>   | <b>154</b> | <b>2,774</b> |

Table 3-7  
**Age and Sex Table for Retirees and Surviving Spouses**  
**Currently Receiving Medical Benefits**  
as of July 1, 2008

| <u>Age</u>   | <u>Female</u> | <u>Male</u> | <u>Total</u>  |
|--------------|---------------|-------------|---------------|
| Under 50     | 1             | 2           | 3             |
| 50-54        | 10            | 8           | 18            |
| 55-59        | 49            | 35          | 84            |
| 60-64        | 210           | 71          | 281           |
| 65-69        | 303           | 110         | 413           |
| 70-74        | 251           | 95          | 346           |
| 75-79        | 238           | 83          | 321           |
| 80-84        | 178           | 70          | 248           |
| 85-89        | 159           | 57          | 216           |
| 90-94        | 68            | 23          | 91            |
| 95+          | <u>21</u>     | <u>3</u>    | <u>24</u>     |
| <b>Total</b> | <b>1,488</b>  | <b>557</b>  | <b>2,045*</b> |

\* In addition, 881 dependent spouses of retirees are receiving postemployment medical benefits.

Table 3-8  
**Retiree Enrollment by Plan**  
as of July 1, 2008

| <u>Medical Plan</u> | <u>Total</u> |
|---------------------|--------------|
| Blue Shield         | 762          |
| Kaiser              | 944          |
| PERSCare            | 90           |
| PERS Choice         | <u>249</u>   |
| <b>Total</b>        | <b>2,045</b> |

Note: 1,809 retirees and surviving spouses are receiving dental benefits

## SECTION IV

### **Actuarial Method and Assumptions**

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In order to project the District's liabilities into the future, a number of economic, demographic, and baseline cost assumptions are necessary.

#### **Actuarial Cost Method**

An actuarial cost method is "a procedure for allocating the actuarial present value of benefits and expenses and for developing an actuarially equivalent allocation of such value to time periods, usually in the form of a Normal Cost and an Actuarial Accrued Liability." The CalPERS postemployment healthcare trust (the CERBT) specifies that Agencies joining the CERBT must submit actuarial valuation reports completed based on the Entry Age Normal cost method. The Entry Age Normal cost method is one in which the Actuarial Present Value of the Projected Benefits of each individual included in the Valuation is allocated on a level basis over the earnings (as calculated in this valuation) or service of the individual between entry age and the assumed exit age.

The valuation results presented in this report are based on the Entry Age Normal actuarial cost method.

#### **Amortization Methodology**

Consistent with CERBT requirements the amortization of the Unfunded Actuarial Accrued Liability was developed as a level percentage of payroll assuming a 3.25% annual increase in payroll.

#### **Valuation Date**

The valuation date is July 1, 2008. This date is the starting point from which current health premium costs are increased according to the assumed annual rates of health care cost trend. The District census is projected from the valuation date to the date of the final benefit payment for each employee and retiree on the census. After calculating future costs for the projected retiree and dependent population, all liabilities are discounted back to the valuation date to obtain the present value of future costs. The July 1, 2008 valuation results were rolled back to July 1, 2007. The rolled back results serve as the basis for calculating the District's 2007/08 GASB 45 Annual Required Contribution.

## Economic Assumptions

### Health Care Trend

We used the annual trend rates shown in Table 4-1. These rates represent our best estimate of the future annual increases in CalPERS and dental plan premium rates.

| Table 4-1  |                |               |
|--|----------------|---------------|
| Projected Annual Health Care Premium<br>Rate Increases |                |               |
| <u>Plan Year<br/>Beginning</u>                         | <u>Medical</u> | <u>Dental</u> |
| 2009   | 8.5%           | 4.0%          |
| 2010   | 8.2%           | 4.0%          |
| 2011   | 7.9%           | 4.0%          |
| 2012   | 7.6%           | 4.0%          |
| 2013   | 7.3%           | 4.0%          |
| 2014   | 7.0%           | 4.0%          |
| 2015   | 6.7%           | 4.0%          |
| 2016   | 6.4%           | 4.0%          |
| 2017   | 6.1%           | 4.0%          |
| 2018   | 5.8%           | 4.0%          |
| 2019 & thereafter                                      | 5.5%           | 4.0%          |

### Discount Rate

The District elected to use a 4.5% discount rate. We believe this rate reasonably represents the long term rate of return the District could obtain on investments.



## Baseline Cost

Estimates of retiree health benefit obligations are normally based on current costs for a one year period. We refer to this as the *baseline cost*. The components of baseline cost, such as average per capita cost, and the current plan population are projected into the future to estimate the cost of future benefits.

GASB 45 allows employers who participate in community-rated plans to use unadjusted premium rates as the basis for the projection of retiree benefits. We believe the CalPERS medical program can be considered to be a community-rated plan.

Table 4-2 contains 2008 CalPERS program premium rates and the 2007/08 Delta Dental funding rate.

| Table 4-2   |                       |
|---|-----------------------|
| CalPERS Bay Area/Sacramento and Delta Dental Monthly Rates          |                       |
|   | Calendar Year<br>2008 |
| Rate per Early Retiree or Dependent                                 |                       |
| Blue Shield   | \$532.93              |
| Kaiser  | \$470.67              |
| PERSCare  | \$749.83              |
| PERS Choice   | \$482.48              |
| Rate per Medicare Eligible Retiree or Dependent                     |                       |
| Blue Shield   | \$341.44              |
| Kaiser  | \$273.36              |
| PERSCare  | \$404.60              |
| PERS Choice   | \$349.11              |
| Delta Dental Composite Rate October 2007 through<br>September 2008: | \$83.00               |

The rates in Table 4-3 are a composite of the 2008 and assumed 2009 CalPERS program premium rates, weighted by retiree enrollment in the various plans. We assumed CalPERS premium rates will increase by 8.5% on January 1, 2009. The baseline costs take into account the limit on District contributions (i.e., Bay Area Kaiser rates for UTR retirees and the greater of Bay Area Kaiser and Bay Area Blue Shield rates for all other retirees).

The dental rate is a blending of the 2007/08 composite rate and an assumed 4% rate increase on October 1, 2008.

Because the 2008 valuation baseline cost of each current retiree, dependent of retiree and surviving spouse is based on each individual's medical plan enrollment and actual calendar year 2008 and assumed calendar year 2009 premium rates the medical amounts shown in Table 4-3 were only applied to assumed future retirees.

| Table 4-3  |                |
|--|----------------|
| Baseline Cost for the Plan Year<br>Beginning July 1, 2008    |                |
| <b>Medical - Annual Cost per Future Retiree or Dependent</b> |                |
| Future UTR Retirees and Dependents                           |                |
| Younger than age 65  | \$5,888        |
| Age 65 and older   | \$3,420        |
| All Other Future Retirees and Dependents                     |                |
| Younger than age 65  | \$6,130        |
| Age 65 and older   | \$3,684        |
| <b>Dental - Annual Composite Cost per Retiree</b>            | <b>\$1,026</b> |

### Administrative Expenses

We understand that CalPERS assesses an administrative charge equal to .44% of premium. We included this charge in the medical valuations.

### Plan Assets

We understand that the District has designated \$8,500,000 to be used as a partial prefunding of this obligation. The illustrations in this report assume that this amount will be contributed to the CERBT early in the 2008/09 fiscal year.

## **Demographic Assumptions**

In estimating this obligation, a number of demographic assumptions are needed. In most cases, the same demographic assumptions used in valuing an employer's pension obligation can be used in projecting retiree health care obligations. We used the same demographic assumptions as those used in the most recent California PERS (for Classified employees) and STRS (for Certificated employees) pension valuations.

### **Census Data**

The District provided census data as of May 6, 2008. We assumed that there will be no changes in the census between the census date and the July 1, 2008 valuation date.

### **Health Plan Participation**

100% of eligible employees will enroll in the postemployment medical and dental plans. We assumed that employees will not change their health plan enrollment when they retire, although we understand that those who re-locate are likely to change their enrollment.

### **Dependents**

Dependents of retirees can be covered under this plan and the District contributes to their cost. Based on the enrollment pattern of retirees who are younger than age 65, we assume that 60% of future retirees will enroll a spouse. Female spouses are assumed to be three years younger than male spouses.

### **Medicare Coverage**

We assumed that all classified employees and retirees and their spouses will qualify for Medicare coverage and enroll in Part A and Part B when they reach age 65.

We assumed that all certificated employees and retirees and their spouses who are currently younger than age 65 will either qualify for Medicare coverage and enroll in Part A and Part B when they reach age 65, or if they are not qualified for coverage they will pay the required Medicare Part B premium and enroll.



## Retirement Rates

The rates shown in Table 4-4 and Table 4-5 match rates used by PERS and STRS in the most recent pension valuations.

Table 4-4  
PERS School Employees - Annual Rates of Retirement

| <u>Age</u> | ----- Years of Service ----- |         |         |         |         |         |         |
|------------|------------------------------|---------|---------|---------|---------|---------|---------|
|            | 5                            | 10      | 15      | 20      | 25      | 30      | 35      |
| 50         | 0.00360                      | 0.00710 | 0.01000 | 0.01180 | 0.01310 | 0.01470 | 0.01720 |
| 51         | 0.00350                      | 0.00690 | 0.00960 | 0.01140 | 0.01270 | 0.01420 | 0.01660 |
| 52         | 0.00350                      | 0.00690 | 0.00960 | 0.01140 | 0.01270 | 0.01420 | 0.01670 |
| 53         | 0.00460                      | 0.00920 | 0.01290 | 0.01520 | 0.01700 | 0.01900 | 0.02230 |
| 54         | 0.00600                      | 0.01180 | 0.01650 | 0.01960 | 0.02180 | 0.02440 | 0.02860 |
| 55         | 0.01940                      | 0.03840 | 0.05370 | 0.06350 | 0.07070 | 0.07920 | 0.09290 |
| 56         | 0.01580                      | 0.03140 | 0.04390 | 0.05190 | 0.05780 | 0.06470 | 0.07600 |
| 57         | 0.01700                      | 0.03370 | 0.04710 | 0.05570 | 0.06200 | 0.06940 | 0.08150 |
| 58         | 0.02020                      | 0.04020 | 0.05620 | 0.06630 | 0.07390 | 0.08270 | 0.09710 |
| 59         | 0.02310                      | 0.04570 | 0.06400 | 0.07560 | 0.08420 | 0.09420 | 0.11060 |
| 60         | 0.03680                      | 0.07290 | 0.10200 | 0.12050 | 0.13420 | 0.15020 | 0.17630 |
| 61         | 0.03640                      | 0.07210 | 0.10090 | 0.11920 | 0.13280 | 0.14860 | 0.17440 |
| 62         | 0.07620                      | 0.15120 | 0.21150 | 0.24980 | 0.27840 | 0.31140 | 0.36570 |
| 63         | 0.06870                      | 0.13630 | 0.19060 | 0.22520 | 0.25100 | 0.28080 | 0.32970 |
| 64         | 0.05340                      | 0.10600 | 0.14820 | 0.17510 | 0.19510 | 0.21830 | 0.25630 |
| 65         | 0.09060                      | 0.17970 | 0.25130 | 0.29690 | 0.33080 | 0.37010 | 0.43450 |
| 66         | 0.05780                      | 0.11460 | 0.16030 | 0.18940 | 0.21110 | 0.23610 | 0.27720 |
| 67         | 0.05330                      | 0.10560 | 0.14770 | 0.17450 | 0.19440 | 0.21750 | 0.25540 |
| 68         | 0.04760                      | 0.09440 | 0.13210 | 0.15600 | 0.17380 | 0.19450 | 0.22840 |
| 69         | 0.04480                      | 0.08890 | 0.12440 | 0.14690 | 0.16370 | 0.18320 | 0.21500 |
| 70         | 0.06600                      | 0.13080 | 0.18300 | 0.21620 | 0.24080 | 0.26950 | 0.31640 |
| 71         | 0.05140                      | 0.10190 | 0.14250 | 0.16830 | 0.18760 | 0.20990 | 0.24640 |
| 72         | 0.04530                      | 0.08990 | 0.12580 | 0.14860 | 0.16550 | 0.18520 | 0.21750 |
| 73         | 0.04410                      | 0.08750 | 0.12230 | 0.14450 | 0.16100 | 0.18020 | 0.21150 |
| 74         | 0.05510                      | 0.10920 | 0.15270 | 0.18040 | 0.20110 | 0.22490 | 0.26410 |
| 75         | 0.05460                      | 0.10820 | 0.15130 | 0.17880 | 0.19920 | 0.22290 | 0.26170 |
| 76         | 0.04360                      | 0.08640 | 0.12109 | 0.14280 | 0.15910 | 0.17800 | 0.20900 |
| 77         | 0.04950                      | 0.09820 | 0.13740 | 0.16230 | 0.18090 | 0.20240 | 0.23760 |
| 78         | 0.05040                      | 0.10000 | 0.13990 | 0.16530 | 0.18410 | 0.20600 | 0.24190 |
| 79         | 0.09310                      | 0.18470 | 0.25820 | 0.30510 | 0.33990 | 0.38030 | 0.44660 |
| 80         | 1.00000                      | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 | 1.00000 |

Table 4-5  
STRS Employees - Annual Rates of Retirement

| <u>Age</u> | Male<br>Years of Service |         | Female<br>Years of Service |         |
|------------|--------------------------|---------|----------------------------|---------|
|            | 0-29                     | 30+     | 0-29                       | 30+     |
| 50         | 0.00000                  | 0.01500 | 0.00000                    | 0.01500 |
| 51         | 0.00000                  | 0.01500 | 0.00000                    | 0.01500 |
| 52         | 0.00000                  | 0.01500 | 0.00000                    | 0.01500 |
| 53         | 0.00000                  | 0.02000 | 0.00000                    | 0.01500 |
| 54         | 0.00000                  | 0.02000 | 0.00000                    | 0.02000 |
| 55         | 0.03000                  | 0.06000 | 0.05000                    | 0.08000 |
| 56         | 0.02000                  | 0.06000 | 0.03500                    | 0.08000 |
| 57         | 0.02000                  | 0.08000 | 0.03500                    | 0.10000 |
| 58         | 0.03000                  | 0.12000 | 0.04500                    | 0.15000 |
| 59         | 0.05000                  | 0.16000 | 0.06000                    | 0.18000 |
| 60         | 0.07000                  | 0.25000 | 0.10000                    | 0.30000 |
| 61         | 0.07000                  | 0.40000 | 0.10000                    | 0.35000 |
| 62         | 0.09000                  | 0.35000 | 0.12000                    | 0.32000 |
| 63         | 0.13000                  | 0.27000 | 0.18000                    | 0.30000 |
| 64         | 0.12000                  | 0.27000 | 0.15000                    | 0.27000 |
| 65         | 0.14000                  | 0.27000 | 0.16000                    | 0.27000 |
| 66         | 0.10000                  | 0.27000 | 0.15000                    | 0.27000 |
| 67         | 0.10000                  | 0.27000 | 0.15000                    | 0.27000 |
| 68         | 0.10000                  | 0.27000 | 0.15000                    | 0.27000 |
| 69         | 0.10000                  | 0.27000 | 0.15000                    | 0.27000 |
| 70         | 1.00000                  | 1.00000 | 1.00000                    | 1.00000 |

## Mortality

Table 4-6 and Table 4-7 contain samples of mortality rates used in the valuation. These rates match rates used by PERS and STRS in the most recent pension valuations.

Table 4-6  
Sample PERS Mortality Rates

| <u>Age</u> | <u>Preretirement</u> |               | <u>Postemployment</u> |               |
|------------|----------------------|---------------|-----------------------|---------------|
|            | <u>Male</u>          | <u>Female</u> | <u>Male</u>           | <u>Female</u> |
| 25         | 0.034%               | 0.021%        |                       |               |
| 30         | 0.048%               | 0.031%        |                       |               |
| 35         | 0.067%               | 0.044%        |                       |               |
| 40         | 0.094%               | 0.063%        |                       |               |
| 45         | 0.130%               | 0.088%        |                       |               |
| 50         | 0.179%               | 0.125%        | 0.245%                | 0.136%        |
| 55         | 0.248%               | 0.178%        | 0.429%                | 0.253%        |
| 60         | 0.344%               | 0.256%        | 0.721%                | 0.442%        |
| 65         | 0.480%               | 0.369%        | 1.302%                | 0.795%        |
| 70         | 0.671%               | 0.537%        | 2.135%                | 1.276%        |
| 75         |                      |               | 3.716%                | 2.156%        |
| 80         |                      |               | 6.256%                | 3.883%        |
| 85         |                      |               | 10.195%               | 7.219%        |
| 90         |                      |               | 17.379%               | 12.592%       |

Table 4-7  
Sample STRS Mortality Rates

| <u>Age</u> | <u>Preretirement</u> |               | <u>Postemployment</u> |               |
|------------|----------------------|---------------|-----------------------|---------------|
|            | <u>Male</u>          | <u>Female</u> | <u>Male</u>           | <u>Female</u> |
| 25         | 0.051%               | 0.029%        |                       |               |
| 30         | 0.066%               | 0.029%        |                       |               |
| 35         | 0.080%               | 0.037%        |                       |               |
| 40         | 0.085%               | 0.051%        |                       |               |
| 45         | 0.107%               | 0.077%        |                       |               |
| 50         | 0.158%               | 0.103%        | 0.190%                | 0.121%        |
| 55         | 0.258%               | 0.157%        | 0.321%                | 0.191%        |
| 60         | 0.443%               | 0.256%        | 0.558%                | 0.336%        |
| 65         | 0.798%               | 0.509%        | 1.015%                | 0.668%        |
| 70         |                      |               | 1.803%                | 1.176%        |
| 75         |                      |               | 2.848%                | 1.702%        |
| 80         |                      |               | 5.021%                | 3.778%        |
| 85         |                      |               | 9.419%                | 6.503%        |
| 90         |                      |               | 14.754%               | 11.627%       |



## Termination

Sample termination rates are shown below. They match rates used by PERS and STRS in the most recent pension valuations.

Table 4-8  
PERS School Employees - Annual Withdrawal Rates

| Service | Entry Age |         |         |         |         |         |         |
|---------|-----------|---------|---------|---------|---------|---------|---------|
|         | 20        | 25      | 30      | 35      | 40      | 45      | 50      |
| 0       | 0.16170   | 0.15210 | 0.14250 | 0.13290 | 0.12330 | 0.06870 | 0.01410 |
| 1       | 0.14810   | 0.13850 | 0.12890 | 0.11930 | 0.10970 | 0.10010 | 0.09050 |
| 2       | 0.13460   | 0.12495 | 0.11530 | 0.10570 | 0.09610 | 0.08650 | 0.07690 |
| 3       | 0.12100   | 0.11140 | 0.10180 | 0.09220 | 0.08260 | 0.07295 | 0.06330 |
| 4       | 0.10740   | 0.09780 | 0.08820 | 0.07860 | 0.06900 | 0.05940 | 0.04980 |
| 5       | 0.09380   | 0.08425 | 0.07460 | 0.06505 | 0.05540 | 0.03440 | 0.01340 |
| 6       | 0.08850   | 0.07885 | 0.06930 | 0.05965 | 0.05010 | 0.03060 | 0.01110 |
| 7       | 0.08310   | 0.07355 | 0.06390 | 0.05435 | 0.04470 | 0.02680 | 0.00890 |
| 8       | 0.07780   | 0.06820 | 0.05860 | 0.03985 | 0.03940 | 0.02315 | 0.00690 |
| 9       | 0.07250   | 0.06295 | 0.05330 | 0.04370 | 0.03410 | 0.01950 | 0.00490 |
| 10      | 0.06710   | 0.05750 | 0.04790 | 0.03825 | 0.00920 | 0.00615 | 0.00310 |
| 15      | 0.05330   | 0.04370 | 0.03410 | 0.00660 | 0.00400 | 0.00215 | 0.00030 |
| 20      | 0.03950   | 0.02990 | 0.00470 | 0.00250 | 0.00030 | 0.00025 | 0.00020 |
| 25      | 0.02570   | 0.00290 | 0.00120 | 0.00070 | 0.00020 | 0.00020 | 0.00020 |
| 30      | 0.00190   | 0.00105 | 0.00020 | 0.00020 | 0.00020 | 0.00020 | 0.00020 |
| 35+     | 0.00020   | 0.00020 | 0.00020 | 0.00020 | 0.00020 | 0.00010 | 0.00000 |

Table 4-9  
STRS Employees - Annual Withdrawal Rates

| Service | Male      |       |       |       | Female    |       |       |       |
|---------|-----------|-------|-------|-------|-----------|-------|-------|-------|
|         | Entry Age |       |       |       | Entry Age |       |       |       |
|         | 27        | 32    | 37    | 42    | 27        | 32    | 37    | 42    |
| 0       | 0.125     | 0.125 | 0.125 | 0.125 | 0.100     | 0.100 | 0.100 | 0.100 |
| 1       | 0.077     | 0.077 | 0.077 | 0.077 | 0.072     | 0.072 | 0.072 | 0.072 |
| 2       | 0.054     | 0.054 | 0.054 | 0.054 | 0.063     | 0.060 | 0.053 | 0.049 |
| 3       | 0.044     | 0.044 | 0.044 | 0.044 | 0.058     | 0.052 | 0.043 | 0.039 |
| 4       | 0.030     | 0.030 | 0.030 | 0.030 | 0.058     | 0.042 | 0.031 | 0.025 |
| 10      | 0.020     | 0.020 | 0.020 | 0.020 | 0.020     | 0.017 | 0.014 | 0.016 |
| 15      | 0.011     | 0.011 | 0.012 |       | 0.009     | 0.010 | 0.009 |       |
| 20      | 0.006     | 0.006 |       |       | 0.007     | 0.009 |       |       |
| 25+     | 0.005     |       |       |       | 0.006     |       |       |       |

## SECTION V

### Glossary

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- Accrual Accounting – A method of matching the cost of an employee's service, including long term obligations such as OPEB, to that employee's period of active service.
- Actuarial Accrued Liability (AAL) – The Actuarial Present Value of all postemployment benefits attributable to past service. Note: the AAL is sometimes referred to as the Past Service Liability.
- Actuarial Cost Method – A procedure for allocating the actuarial present value of benefits and expenses and for developing an actuarially equivalent allocation of such value to time periods, usually in the form of a Normal Cost and an Actuarial Accrued Liability.
- Actuarial Present Value – The value of an amount or series of amounts payable or receivable at various times. Each such amount or series of amounts is:
  - a. adjusted for the probable financial effect of certain intervening events (such as changes in compensation levels, Social Security, marital status, etc.)
  - b. multiplied by the probability of the occurrence of an event (such as survival, death, disability, termination of employment, etc.) on which the payment is conditioned, and
  - c. discounted according to an assumed rate (or rates) of return to reflect the time value of money
- Actuarial Valuation – The determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets and related Actuarial Present Values.
- Actuarial Value of Assets – The value of cash, investments and other property belonging to a plan. These are amounts that may be applied to fund the Actuarial Accrued Liability. Note: assets must be segregated and placed in a Trust in order to be considered OPEB assets
- Amortization Payment – That portion of the Annual OPEB cost which is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability.



In the year that Statement 45 becomes effective an employer is allowed to commence amortization of the Unfunded Actuarial Accrued Liability, over a period not to exceed 30 years.

- Annual Other Postemployment Benefit Cost (OPEB) cost - An accrual-basis measure of the periodic cost of an employer's participation in a defined benefit OPEB plan. The annual OPEB cost is the amount that must be calculated and reported as an expense.

When an employer has no net OPEB obligation (e.g., in the year of implementation) the annual OPEB cost is equal to the Annual Required Contribution (ARC).

In subsequent years the Annual OPEB cost will include:

- the ARC (equal to the Normal Cost plus one year's amortization of the Unfunded Actuarial Accrued Liability);
  - one year's interest on the net OPEB obligation at the beginning of the year using the valuation discount rate; and
  - an adjustment to the ARC. This adjustment is intended to provide a reasonable approximation of that portion of the ARC that consists of interest associated with past contribution deficiencies. GASB Statement No. 45 specifies that this adjustment should be equal to an amortization of the discounted present value of the net OPEB obligation at the beginning of the year. The amortization should be calculated using the same amortization method and period used in determining the ARC for that year. If the net OPEB obligation is positive the adjustment should be deducted from the ARC.
  - Note: As long as the net OPEB obligation is zero, there will not be any interest charge or adjustment to the ARC. However, if an employer does not contribute the full amount of the ARC, a net OPEB obligation will emerge.
- Annual required contributions of the employer (ARC) - The employer's periodic required contributions to a defined benefit OPEB plan, calculated in accordance with the parameters.
  - Defined benefit OPEB plan - An OPEB plan having terms that specify the *benefits* to be provided at or after separation from employment. The benefits may be specified in dollars (for example, a flat dollar payment or an amount based on one or more factors, such as age, years of service, and compensation), or as a type or level of coverage (for example, prescription drugs or a percentage of healthcare insurance premiums).



- Defined contribution plan - A pension or OPEB plan having terms that (a) provide an individual account for each plan member and (b) specify how contributions to an active plan member's account are to be determined, rather than the income or other benefits the member or his beneficiaries are to receive at or after separation from employment. Those benefits will depend only on the amounts contributed to the member's account, earnings on investments of those contributions, and forfeitures of contributions made for other members that may be allocated to the member's account. For example, an employer may contribute a specified amount to each active member's postemployment healthcare account each month. At or after separation from employment, the balance of the account may be used by the member or on the member's behalf for the purchase of health insurance or other healthcare benefits.
- Employer's contributions - Contributions made in relation to the annual required contributions of the employer (ARC). An employer has made a contribution in relation to the ARC if the employer has (a) made payments of benefits directly to or on behalf of a retiree or beneficiary, (b) made premium payments to an insurer, or (c) irrevocably transferred assets to a trust, or an equivalent arrangement, in which plan assets are dedicated to providing benefits to retirees and their beneficiaries in accordance with the terms of the plan and are legally protected from creditors of the employer(s) or plan administrator.
- Entry Age Normal Actuarial Cost Method – An actuarial cost method under which the Actuarial Present Value of the Projected Benefits of each individual included in the valuation is allocated on a level basis over the earnings or service of the individual between entry age and assumed exit age(s). The portion of this Actuarial Present Value allocated to a valuation year is called the Normal Cost. The portion allocated to prior years of service is called the Actuarial Accrued Liability.
- Healthcare cost trend rate - The rate of change in per capita health claims costs over time as a result of factors such as medical inflation, utilization of healthcare services, plan design, and technological developments.
- Investment return assumption (discount rate) - The rate used to adjust a series of future payments to reflect the time value of money.
- Net OPEB obligation - The cumulative difference since the effective date of GASB Statement 45 between annual OPEB cost and the employer's contributions to the plan, including the OPEB liability (asset) at transition, if any, and excluding (a) short-term differences and (b) unpaid contributions that have been converted to OPEB-related debt.

Most employers will have no net OPEB obligation at the beginning of the year in which Statement 45 is implemented.



If an employer contributes the annual OPEB cost to the plan each year, and there are no actuarial or investment gains or losses then the net OPEB Obligation will remain zero.

- Normal Cost - That portion of the Actuarial Present Value of benefits and expenses which is allocated to a valuation year by the Actuarial Cost Method. Another interpretation is that the Normal Cost is the present value of future benefits that are “earned” by employees for service rendered during the current year.
- OPEB assets - The amount recognized by an employer for contributions to an OPEB plan greater than OPEB expenses.
- OPEB expense - The amount recognized by an employer in each accounting period for contributions to an OPEB plan on the accrual basis of accounting.
- Other postemployment benefits (OPEB) - Postemployment benefits other than pension benefits. Other postemployment benefits (OPEB) include postemployment healthcare benefits, regardless of the type of plan that provides them, and all postemployment benefits provided separately from a pension plan, except benefits defined as special termination benefits.
- Plan assets - Resources, usually in the form of stocks, bonds, and other classes of investments, that have been segregated and restricted in a trust, or in an equivalent arrangement, in which (a) employer contributions to the plan are irrevocable, (b) assets are dedicated to providing benefits to retirees and their beneficiaries, and (c) assets are legally protected from creditors of the employer(s) or plan administrator, for the payment of benefits in accordance with the terms of the plan.
- Present Value – See Actuarial Present Value.
- Projected Unit Credit Cost Method – An actuarial cost method under which the projected benefits of each individual included in an Actuarial Valuation are separately calculated and allocated to each year service by a consistent formula.
- Substantive plan - The terms of an OPEB plan as understood by the employer(s) and plan members.
- Unfunded Actuarial Accrued Liability (UAAL) – The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets.
- Valuation date – The date as of which the Postemployment benefit obligation is determined.