

Total Compensation Systems, Inc.

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 certain to be *in*accurate. However, these estimates show the size of cash outflow.

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

Year Beginning July 1	<u>All Employees</u>
2011	\$5,245
2012	\$6,970
2013	\$10,382
2014	\$14,548
2015	\$18,848
2016	\$23,638
2017	\$28,983
2018	\$34,816
2019	\$44,612
2020	\$48,712

PART V: 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. GASB 43/45 require biennial or triennial valuations. In addition, a valuation should be conducted whenever plan changes, changes in actuarial assumptions or other employer actions are likely to cause a material change in accrual costs and/or liabilities.

Following are examples of actions that could trigger a new valuation.

- 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 the employer introduces or changes retiree contributions.

We recommend Gold Coast Transit 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 District should review the actuarial assumptions in Appendix C carefully. If the District has any reason to believe that any of these assumptions do not reasonably represent the expected future experience of the retiree health plan, the District should engage in discussions or perform analyses to determine the best estimate of the assumption in question.

PART VI: APPENDICES

APPENDIX A: MATERIALS USED FOR THIS STUDY

We relied on the following materials to complete this study.

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

APPENDIX B: EFFECT OF ASSUMPTIONS USED IN CALCULATIONS

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 District 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 District 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. There is an additional fee required to calculate the impact of alternative trend assumptions.
2. We used an "entry age normal" actuarial cost method to estimate the actuarial accrued 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 AND METHODS

Following is a summary of actuarial assumptions and methods used in this study. The District should carefully review these assumptions and methods to make sure they reflect the District's assessment of its underlying experience. It is important for Gold Coast Transit to understand that the appropriateness of all selected actuarial assumptions and methods are Gold Coast Transit's responsibility. Unless otherwise disclosed in this report, TCS believes that all methods and assumptions are within a reasonable range based on the provisions of GASB 43 and 45, applicable actuarial standards of practice, Gold Coast Transit's actual historical experience, and TCS's judgement based on experience and training.

ACTUARIAL METHODS AND ASSUMPTIONS:

ACTUARIAL COST METHOD: Entry age normal. The allocation of OPEB cost is based on years of service. We used the level percentage of payroll method to allocate OPEB cost over years of service.

Entry age is based on the age at hire for eligible employees. The attribution period is determined as the difference between the expected retirement age and the age at hire. The present value of future benefits and present value of future normal costs are determined on an employee by employee basis and then aggregated.

To the extent that different benefit formulas apply to different employees of the same class, the normal cost is based on the benefit plan applicable to the most recently hired employees (including future hires if a new benefit formula has been agreed to and communicated to employees).

AMORTIZATION METHODS: We used the level percentage of payroll method to allocate amortization cost by year. We used a closed 30 year amortization period for the initial UAAL.

SUBSTANTIVE PLAN: As required under GASB 43 and 45, we based the valuation on the substantive plan. The formulation of the substantive plan was based on a review of written plan documents as well as historical information provided by Gold Coast Transit regarding practices with respect to employer and employee contributions and other relevant factors.

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ECONOMIC ASSUMPTIONS:

Economic assumptions are set under the guidance of Actuarial Standard of Practice 27 (ASOP 27). Among other things, ASOP 27 provides that economic assumptions should reflect a consistent underlying rate of general inflation. For that reason, we show our assumed long-term inflation rate below.

INFLATION: We assumed 3% per year.

INVESTMENT RETURN / DISCOUNT RATE: We assumed 5% per year. This is based on assumed long-term return on employer assets. We used the "Building Block Method" as described in ASOP 27 Paragraph 3.6.2. Our assessment of long-term returns for employer assets is based on long-term historical returns for surplus funds invested pursuant to California Government Code Sections 53601 et seq.

TREND: We assumed 4% per year. Our long-term trend assumption is based on the conclusion that, while medical trend will continue to be cyclical, the average increase over time cannot continue to outstrip general inflation by a wide margin. Trend increases in excess of general inflation result in dramatic increases in unemployment, the number of uninsured and the number of underinsured. These effects are nearing a tipping point which will inevitably result in fundamental changes in health care finance and/or delivery which will bring increases in health care costs more closely in line with general inflation. We do not believe it is reasonable to project historical trend vs. inflation differences several decades into the future.

PAYROLL INCREASE: We assumed 3% per year. This assumption applies only to the extent that either or both of the normal cost and/or UAAL amortization use the level percentage of payroll method. For purposes of applying the level percentage of payroll method, payroll increase must not assume any increases in staff or merit increases.

ACTUARIAL ASSET VALUATION: There were no plan assets on the valuation date.

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NON-ECONOMIC ASSUMPTIONS:

Economic assumptions are set under the guidance of Actuarial Standard of Practice 35 (ASOP 35).

MORTALITY: CalPERS mortality for Miscellaneous employees for all employees.

RETIREMENT RATES: CalPERS retirement rates for the 2.7 %@ 55 pension formula for all employees.

VESTING RATES:

	<u>All Employees</u>
Vesting Percentage	100%
Vesting Period	5 years

COSTS FOR RETIREE COVERAGE:

There was not sufficient information available to determine whether there is an implicit subsidy for retiree health costs. Based on ASOP 6, there can be justification for using “community-rated” premiums as the basis for the valuation where the insurer is committed to continuing rating practices. This is especially true where sufficient information is not available to determine the magnitude of the subsidy. However, Gold Coast Transit should recognize that costs and liabilities in this report could change significantly if either the current insurer changes rating practices or if Gold Coast Transit changes insurers.

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

All
Employees

Current Retirees: based on actual costs

Current Plan:

Future Retirees Pre-65	\$648
Future Retirees Post-65	\$648

PARTICIPATION RATES: 50%

TURNOVER: CalPERS turnover for Miscellaneous employees for all employees.

SPOUSE PREVALENCE: To the extent not provided and when needed to calculate benefit liabilities, 80% of retirees assumed to be married at retirement. After retirement, the percentage married is adjusted to reflect mortality.

SPOUSE AGES: To the extent spouse dates of birth are not provided and when needed to calculate benefit liabilities, female spouse assumed to be three years younger than male.

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AGING FACTORS:

<u>Attained Age</u>	<u>Medical Annual Increases</u>
50-64	3.5%
65-69	3.0
70-74	2.5
75-79	1.5
80-84	0.5
85+	0.0

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APPENDIX D: DISTRIBUTION OF ELIGIBLE PARTICIPANTS BY AGE

ELIGIBLE ACTIVE EMPLOYEES:

<u>Age</u>	<u>All Employees</u>
Under 25	1
25-29	11
30-34	13
35-39	12
40-44	22
45-49	20
50-54	17
55-59	24
60-64	14
65 and older	6
Total	<u>140</u>

ELIGIBLE RETIREES:

<u>Age</u>	<u>Total</u>
Under 50	0
50-54	1
55-59	2
60-64	1
65-69	0
70-74	1
75-79	1
80-84	0
85-89	0
90 and older	0
Total	<u>6</u>

APPENDIX E: CALCULATION OF GASB 43/45 ACCOUNTING ENTRIES

This report is to be used to calculate accounting entries rather than to provide the dollar amount of accounting entries. How the report is to be used to calculate accounting entries depends on several factors. Among them are:

- 1) The amount of prior accounting entries;
- 2) Whether individual components of the ARC are calculated as a level dollar amount or as a level percentage of payroll;
- 3) Whether the employer using a level percentage of payroll method elects to use for this purpose projected payroll, budgeted payroll or actual payroll;
- 4) Whether the employer chooses to adjust the numbers in the report to reflect the difference between the valuation date and the first fiscal year for which the numbers will be used.

To the extent the level percentage of payroll method is used, the employer should adjust the numbers in this report as appropriate to reflect the change in OPEB covered payroll. It should be noted that OPEB covered payroll should only reflect types of pay generating pension credits for plan participants. Please note that plan participants do not necessarily include all active employees eligible for health benefits for several reasons. Following are examples.

- 1) The number of hours worked or other eligibility criteria may differ for OPEB compared to active health benefits;
- 2) There may be active employees over the maximum age OPEB are paid through. For example, if an OPEB plan pays benefits only to Medicare age, any active employees currently over Medicare age are not plan participants;
- 3) Employees hired at an age where they will exceed the maximum age for benefits when the service requirement is met are also not plan participants.

Finally, GASB 43 and 45 require reporting covered payroll in RSI schedules regardless of whether any ARC component is based on the level percentage of payroll method. This report does not provide, nor should the actuary be relied on to report covered payroll.

GASB 45 Paragraph 26 specifies that the items presented as RSI "should be calculated in accordance with the parameters." The RSI items refer to Paragraph 25.c which includes annual covered payroll. Footnote 3 provides that when the ARC is based on covered payroll, the payroll measure may be the projected payroll, budgeted payroll or actual payroll. Footnote 3 further provides that comparisons between the ARC and contributions should be based on the same measure of covered payroll.

At the time the valuation is being done, the actuary may not know which payroll method will be used for reporting purposes. The actuary may not even know for which period the valuation will be used to determine the ARC. Furthermore, the actuary doesn't know if the client will make adjustments to the ARC in order to use it for the first year of the biennial or triennial period. (GASB 45 is silent on this.) Even if the actuary were to know all of these things, it would be a rare situation that would result in me knowing the appropriate covered payroll

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number to report. For example, if the employer uses actual payroll, that number would not be known at the time the valuation is done.

As a result, we believe the proper approach is to report the ARC components as a dollar amount. It is the client's responsibility to turn this number into a percentage of payroll factor by using the dollar amount of the ARC (adjusted, if desired) as a numerator and then calculating the appropriate amount of the denominator based on the payroll determination method elected by the client for the appropriate fiscal year.

If we have been provided with payroll information, we are happy to use that information to help the employer develop an estimate of covered payroll for reporting purposes. However, the validity of the covered payroll remains the employer's responsibility even if TCS assists the employer in calculating it.

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APPENDIX F: 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.

<u>Actuarial Accrued Liability:</u>	The amount of the actuarial present value of total projected benefits attributable to employees' past service based on the actuarial cost method used.
<u>Actuarial Cost Method:</u>	A mathematical model for allocating OPEB costs by year of service.
<u>Actuarial Present Value of Total Projected Benefits:</u>	The projected amount of all OPEB benefits to be paid to current and future retirees discounted back to the valuation date.
<u>Actuarial Value of Assets:</u>	Market-related value of assets which may include an unbiased formula for smoothing cyclical fluctuations in asset values.
<u>Annual OPEB Cost:</u>	This is the amount employers must recognize as an expense each year. The annual OPEB expense is equal to the Annual Required Contribution plus interest on the Net OPEB obligation minus an adjustment to reflect the amortization of the net OPEB obligation.
<u>Annual Required Contribution:</u>	The sum of the normal cost and an amount to amortize the unfunded actuarial accrued liability. This is the basis of the annual OPEB cost and net OPEB obligation.
<u>Closed Amortization Period:</u>	An amortization approach where the original ending date for the amortization period remains the same. This would be similar to a conventional, 30-year mortgage, for example.
<u>Discount Rate:</u>	Assumed investment return net of all investment expenses. Generally, a higher assumed interest rate leads to lower normal costs and actuarial accrued liability.
<u>Implicit Rate Subsidy:</u>	The estimated amount by which retiree rates are understated in situations where, for rating purposes, retirees are combined with active employees.
<u>Mortality Rate:</u>	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.
<u>Net OPEB Obligation:</u>	The accumulated difference between the annual OPEB cost and amounts contributed to an irrevocable trust exclusively providing retiree OPEB benefits and protected from creditors.
<u>Normal Cost:</u>	The dollar value of the "earned" portion of retiree health benefits if retiree health benefits are to be fully accrued at retirement.

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<u>OPEB Benefits:</u>	Other PostEmployment Benefits. Generally medical, dental, prescription drug, life, long-term care or other postemployment benefits that are not pension benefits.
<u>Open Amortization Period:</u>	Under an open amortization period, the remaining unamortized balance is subject to a new amortization schedule each valuation. This would be similar, for example, to a homeowner refinancing a mortgage with a new 30-year conventional mortgage every two or three years.
<u>Participation Rate:</u>	The proportion of retirees who elect to receive retiree benefits. A lower participation rate results in lower normal cost and actuarial accrued liability. The participation rate often is related to retiree contributions.
<u>Retirement Rate:</u>	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 normal costs and actuarial accrued liability will be.
<u>Transition Obligation:</u>	The amount of the unfunded actuarial accrued liability at the time actuarial accrual begins in accordance with an applicable accounting standard.
<u>Trend Rate:</u>	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 normal costs and actuarial accrued liability.
<u>Turnover Rate:</u>	The rate at which employees cease employment due to reasons other than death, disability or retirement. Turnover rates usually vary based on length of service and may vary by other factors. Higher turnover rates reduce normal costs and actuarial accrued liability.
<u>Unfunded Actuarial Accrued Liability:</u>	This is the excess of the actuarial accrued liability over assets irrevocably committed to provide retiree health benefits.
<u>Valuation Date:</u>	The date as of which the OPEB obligation is determined. Under GASB 43 and 45, the valuation date does not have to coincide with the statement date.
<u>Vesting Rate:</u>	The proportion of retiree benefits earned, based on length of service and, sometimes, age. (Vesting rates are often set in conjunction with retirement rates.) More rapid vesting increases normal costs and actuarial accrued liability.