

Actuarial Valuation for Other Postemployment Benefits Accounting

As of July 1, 2016

Centennial School District Postemployment Benefits Plan

For purposes of

Governmental Accounting Standards Board Statement No. 75

for Fiscal Year July 1, 2017 to June 30, 2018

Centennial School District Postemployment Benefits Plan
Actuarial Valuation as of July 1, 2016 for Fiscal Year Ending June 30, 2018
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Disclosure Statement

Purpose

Actuarial computations under Governmental Accounting Standards Board Statement No. 75 (GASB No. 75) are for purposes of fulfilling employer accounting requirements. The calculations reported herein have been performed in accordance with generally accepted actuarial principles and practices, and on a basis consistent with our understanding of GASB No. 75. In preparing this report, we have relied upon information furnished to us by Centennial School District. This information includes data pertaining to the Plan, as well as a description of the substantive plan. The information has been reviewed and determined to be reasonable and consistent; however, we have not audited the data or reviewed plan provisions for compliance with IRS or DOL regulations.

Determinations for purposes other than meeting the employer financial accounting requirements may be significantly different from the results reported herein. The funded status, measured by comparing the Accrued Liability against the Actuarial Value of Plan Assets, is not an appropriate measure for assessing the sufficiency of the plan assets to cover the estimated cost of settling the plan's benefit obligations upon plan termination nor is it appropriate for measuring the need for, or the amount of, future contributions. Accordingly, additional determinations are needed for other purposes, such as judging benefit security at termination or adequacy of funding for an ongoing plan. The actuarial calculations contained in this report are not intended or written to be used, and cannot be used, for the purposes of avoiding penalties under the Internal Revenue Code.

This valuation involves estimates of the value of reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality, and the healthcare cost trend. Amounts determined regarding the funded status of the plan and the annual required contributions of the employer are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future.

Calculations are based on the types of benefits provided under the terms of the substantive plan at the time of the valuation and on the pattern of sharing of costs between the employer and plan members to that point. Calculations reflect a long-term perspective, so methods and assumptions used include techniques that are designed to reduce short-term volatility in actuarial accrued liabilities and the actuarial value of assets.

Benefits Not Included

Defined contribution benefits and insured benefits under GASB No. 75 paragraph 11, pension benefits accounted for under GASB 68, and benefits for compensated absences under GASB 16 are not included in this valuation.

Multiple Year Reporting

Pursuant to GASB No. 75, an actuarial valuation can be used over a two-year period. The figures in this report are reflected as of the measurement date for the specified fiscal year and are based on an actuarial valuation date or rolled forward from an actuarial valuation date. Some figures have been determined based on estimated contributions for the period. These figures may need to be adjusted for actual contributions deposited to the trust or claims paid on behalf of plan benefits.

A new valuation should be performed if, between the actuarial valuation date and measurement date, material changes have occurred that affect the results of this valuation, including significant changes in benefit provisions, the size or composition of the population covered by the plan, or other changes that impact long-term assumptions. If roll forward procedures have been used, this report reflects any necessary adjustments to the interest rate as of the measurement date.

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Valuation For Funded Plans

The interest rate used for this valuation reflects future contributions as allowed under GASB No. 75. If there are any changes to the formal, written funding policy or changes in the statute or contract which determines the contribution amount, a new valuation that reflects the appropriate interest rate may need to be completed.

I am a member of the American Academy of Actuaries and a Fellow of the Society of Actuaries, and I meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained in this valuation.



John W. Jeffrey, FSA, EA, MAAA
Partner & Consulting Actuary

8/28/2018
Date

Centennial School District Postemployment Benefits Plan
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Summary of Plan Provisions

<i>GROUP</i>	<i>ELIGIBILITY</i>	<i>COVERAGE AND PREMIUM SHARING</i>	<i>DURATION</i>
<u>I. ADMINISTRATORS</u>			
A) ACT93 Early Retirement Incentive for 2012	N/A – Already retired	<ul style="list-style-type: none"> • Coverage: Medical, Prescription Drug, Dental, and Vision • Premium Sharing: District will deposit \$10,000 per year for 3 years into an HRA. Retiree pays full premium for Medical, Prescription Drug, Dental, and Vision. • Dependents: Spouse included 	HRA payments are made for 3 years, regardless of member age or survival Medical benefits cease at member Medicare age
B) All Other Administrators	Act 110/43	Act 110/43	Until member Medicare age
<u>II. TEACHERS</u>			
A) Early Retirement Incentive for years 1997, 1999 and 2005	N/A – Already retired	<ul style="list-style-type: none"> • Coverage: Medical, Prescription Drug, Dental, and Vision • Premium Sharing: District pays full premium for the HMO option and Prescription Drug. If retiree chooses another option, retiree pays the difference in premium. Retiree pays full premium for Dental and Vision. • Dependents: Spouse included 	Until member Medicare age
B) Early Retirement Incentive for 2012	PSERS Retirement	Same as IA	Until member Medicare age
C) All Other Teachers	Act 110/43	Act 110/43	Until member Medicare age
<u>III. SUPPORT STAFF</u>			
	Act 110/43	Act 110/43	Until member Medicare age

Notes: Act 110/43 Eligibility: All employees are eligible for this benefit upon retirement with 30 years of PSERS service or upon superannuation retirement.

Act 110/43 Coverage and Premium Sharing: Retired employees are allowed to continue coverage for themselves and their dependents in the employer's group health plan until the retired employee reaches Medicare age. In order to obtain coverage, retired employees must provide payment equal to the premium determined for the purpose of COBRA.

PSERS Retirement:

- 1) For individuals who were members of PSERS prior to July 1, 2011, an employee is eligible for PSERS retirement if he (or she) is eligible for either: 1) PSERS early retirement while under 62 with 5 years of PSERS Service or 2) PSERS superannuation retirement upon reaching age 60 with 30 years of PSERS service, age 62 with 1 year of PSERS service or 35 years of PSERS service regardless of age.
- 2) For individuals who became members of PSERS on or after July 1, 2011, an employee is eligible for PSERS retirement if he (or she) is eligible for either: 1) PSERS early retirement while under 65 with 10 years of PSERS Service or 2) PSERS superannuation retirement upon reaching age 65 with 3 years of PSERS service or upon attainment of a total combination of age plus service equal to or greater than 92 with a minimum of 35 years of PSERS service.
- 3) All individuals are eligible for a special early retirement upon reaching age 55 with 25 years of PSERS service.

Coordination with Medicare: Medicare pays primary.

Centennial School District Postemployment Benefits Plan
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Actuarial Assumptions and Methods (1 of 2)

Discount Rate

3.01%¹

Salary

An assumption for salary increases is used only for spreading contributions over future pay under the entry age normal cost method. For this purpose, salary increases are composed of a 2.5% cost of living adjustment, 1% real wage growth, and for teachers and administrators a merit increase which varies by age from 2.75 to 0%.

Withdrawal

Rates of withdrawal vary by age, gender and years of service. Sample rates for employees with more than 10 years of service are shown below. Rates for new employees start at 22.9% for both men and women and decrease with age and service.

Age	Male Rate	Female Rate	Age	Male Rate	Female Rate
25	2.5700%	5.0200%	45	1.3700%	1.6500%
30	2.5700%	4.0200%	50	1.9200%	2.0600%
35	1.5000%	2.8500%	55	3.3800%	3.1100%
40	1.3400%	1.6000%	60	5.5700%	6.4000%

Mortality

Separate rates are assumed preretirement and postretirement using the rates assumed in the PSERS defined benefit pension plan actuarial valuation.

Incorporated into the table are rates projected generationally by the Buck Modified 2016 projection scale to reflect mortality improvement.

Disability

No disability was assumed.

Retirement

Assumed retirement rates are based on PSERS plan experience and vary by age, service and gender.

Age	Age 55 & 25 years of service		Superannuation	
	Male	Female	Male	Female
55	19%	19%	27%	10%
56	17%	17%	32%	30%
57	17%	17%	32%	30%
58	17%	17%	32%	35%
59	22%	21%	31%	36%
60	14%	17%	31%	36%
61	29%	30%	29%	31%
62	51%	61%	51%	61%
63	26%	26%	26%	26%
64	21%	22%	21%	22%
65	100%	100%	100%	100%

¹The discount rate is determined following the procedures of Illustration B2 in the GASB 74 implementation guide. The long-term expected rate of return on OPEB plan investments is 6.50% and the municipal bond rate is 3.13% based on the S&P Municipal Bond 20 Year High Grade Rate Index as of June 30, 2017.

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Actuarial Valuation as of July 1, 2016 for Fiscal Year Ending June 30, 2018
Actuarial Assumptions and Methods (2 of 2)

Percent of Eligible Retirees Electing Coverage in Plan

100% of Teachers eligible for an Early Retirement Incentive, 50% of Teachers eligible but not in an Early Retirement Incentive year, 75% of Administrators, and 25% of Support Staff are assumed to elect coverage. A spouse paying the full premium is assumed to withdraw from coverage upon eligibility for Medicare.

Percent Married at Retirement

25% of employees are assumed to be married and have a spouse covered by the plan at retirement. Non-spouse dependents are deemed to be immaterial.

Spouse Age

Wives are assumed to be two years younger than their husbands.

Per Capita Claims Cost

Making use of weighted averages for various plan designs, the per capita claims cost for medical and prescription drug is based on the expected portion of the group's overall cost attributed to individuals in the specified age and gender brackets. Dental and vision costs are assumed to not vary with age or gender. The resulting costs are as follows:

Age	Medical and Prescription Drug Combined	
	Males	Females
45-49	\$7,285	\$10,520
50-54	\$9,647	\$11,890
55-59	\$11,751	\$12,441
60-64	\$15,334	\$14,293

The expected claims for a 65+ spouse eligible for Medicare are assumed to be equal to the plan's premium

Retiree Contributions

Retiree contributions are assumed to increase at the same rate as the Health Care Cost Trend Rate.

Health Care Cost Trend Rate

6.0% in 2017, and 5.5% in 2018 through 2023. Rates gradually decrease from 5.4% in 2024 to 3.9% in 2075 and later based on the Society of Actuaries Long-Run Medical Cost Trend Model.

Actuarial Value of Assets

Equal to the Market Value of Assets

Actuarial Cost Method - Entry Age Normal

Under the Entry Age Normal Cost Method, the Normal Cost is the present value of benefits allocated to the year following the valuation date. Benefits are allocated on a level basis over the earnings of an individual between the date of hire and the assumed retirement age. The Accrued Liability as of the valuation date is the excess of the present value of future benefits over the present value of future Normal Cost. The Unfunded Accrued Liability is the excess of the Accrued Liability over the Actuarial Value of Assets. Actuarial gains and losses serve to reduce or increase the Unfunded Accrued Liability.

Participant Data

Based on census information as of April 2016. Due to the timing of school district turnover, the data is believed to be representative of the population for the 2016-2017 school year.

Centennial School District Postemployment Benefits Plan
Actuarial Valuation
as of July 1, 2016
for Purposes of Other Postemployment Benefits Plan Accounting
for Fiscal Year July 1, 2017 to
June 30, 2018

Section 1

Asset Information

Centennial School District Postemployment Benefits Plan
 Actuarial Valuation as of July 1, 2016 for Fiscal Year Ending June 30, 2018
Plan Fiduciary Net Position

Receipts and Disbursements

Market Value at June 30, 2017 \$ 330,992.44

Receipts

Contributions - Employer \$ 114,851.00

Contributions - Employee 0.00

Net Investment Income 13,026.21

Total Receipts **127,877.21**

Disbursements

Benefit Payments \$ (114,851.00)

Administrative Expenses (3,000.92)

Total Disbursements **(117,851.92)**

Market Value at June 30, 2018 **\$ 341,017.73**

Assets and Liabilities

Assets

Cash \$ 0.00

Money Markets 0.00

Common Stocks 0.00

Corporate Bonds 0.00

Municipal Bonds 0.00

Master Trust 341,017.73

Mutual Funds 0.00

Total Assets in Fund \$ 341,017.73

Benefits Receivable 0.00

Accrued Income 0.00

Total Assets **\$ 341,017.73**

Liabilities

Benefits Payable \$ 0.00

Administrative Expenses Payable 0.00

Total Liabilities **0.00**

Market Value at June 30, 2018 **\$ 341,017.73**

Centennial School District Postemployment Benefits Plan
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Section 2

Calculations for GASB No. 75 Reporting

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GASB No. 75 Summary Information

Demographic Information	Total
Active Participants	563
Vested Former Participants	0
Retired Participants	25
Total	588

Annual Payroll of Active Participants \$48,106,817

Financial Information

Total OPEB Liability	\$ 9,112,573
Plan Fiduciary Net Position	341,018
Net OPEB Liability (Asset)	\$ 8,771,555
Deferred Outflows of Resources	\$ 608,669
Deferred Inflows of Resources	\$ 0

Plan Fiduciary Net Position as a
 % of Total OPEB Liability 3.74%

Net OPEB Liability as a % of
 Covered-Employee Payroll 18.23%

OPEB Expense \$ 803,054

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Changes in the Net OPEB Liability

	Total
Total OPEB Liability	
Fiscal Year Ending 6/30/2018	
Balance at 6/30/2017	\$ 7,807,857
Service Cost	507,592
Interest ²	261,628
Changes of Benefit Terms	0
Differences between Expected and Actual Experience ¹	0
Changes of Assumptions ¹	650,347
Benefit Payments ²	(114,851)
Other Changes	0
Net Changes	1,304,716
Balance at 6/30/2018	\$ 9,112,573

Plan Fiduciary Net Position

Fiscal Year Ending 6/30/2018	
Balance at 6/30/2017	\$ 330,992
Contributions - Employer	114,851
Contributions - Employee	0
Net Investment Income	13,027
Benefit Payments ²	(114,851)
Administrative Expense	(3,001)
Net Changes	10,026
Balance at 6/30/2018	\$ 341,018

Net OPEB Liability (Asset)

Balance at 6/30/2018	\$ 8,771,555
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Changes of Assumptions

The discount rate changed from 3.17% to 3.01%. The trend assumption was updated. Assumptions for salary, mortality, withdrawal and retirement were updated based on new PSERS assumptions.

Changes of Benefit Terms

¹Each year's loss (or gain) is recognized over a closed period, using the average of the expected remaining service lives of all active and inactive employees that are currently receiving a benefit or may be eligible to receive a benefit in the future.

²These figures are based on estimated benefit payments. These amounts may be adjusted for actual benefit payments made during the year.

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Deferred Outflows/Inflows and Sensitivity

Deferred Outflows of Resources	Total
Differences between Expected and Actual Experience	\$ 0
Changes of Assumptions	600,320
Net Difference between Projected and Actual Earnings	8,349
Benefit Payments subsequent to the Measurement Date (6/30/2018) ¹	0
Total Deferred Outflows	\$ 608,669

Deferred Inflows of Resources	
Differences between Expected and Actual Experience	\$ 0
Changes of Assumptions	0
Net Difference between Projected and Actual Earnings	0
Total Deferred Inflows	\$ 0

Sensitivity of Net OPEB Liability to Changes in the Discount Rate

The following presents the net OPEB liability of the Plan, as well as what the Plan's net OPEB liability would be if it were calculated using a discount rate that is 1-percentage-point lower or 1-percentage-point higher than the current rate:

Net OPEB Liability (Asset)

1% Increase (4.01%)	\$ 8,026,204
Current Discount Rate (3.01%)	\$ 8,771,555
1% Decrease (2.01%)	\$ 9,553,775

Sensitivity of Net OPEB Liability to Changes in the Healthcare Cost Trend Rate

The following presents the net OPEB liability of the Plan, as well as what the Plan's net OPEB liability would be if it were calculated using healthcare cost trend rates that are 1-percentage-point lower or 1-percentage-point higher than the current healthcare cost trend rates:

Net OPEB Liability (Asset)

1% Increase	\$ 10,385,168
Current Rates	\$ 8,771,555
1% Decrease	\$ 7,427,468

¹These figures are based on estimated benefit payments. These amounts may be adjusted for actual benefit payments made.

Centennial School District Postemployment Benefits Plan
 Actuarial Valuation as of July 1, 2016 for Fiscal Year Ending June 30, 2018
OPEB Expense and Future Recognition of Deferred Outflows and (Inflows)

OPEB Expense

	Total
Fiscal Year Ending 6/30/2018	
Service Cost	\$ 507,592
Interest on Total OPEB Liability	261,628
Changes of Benefit Terms	0
Expected Investment Income	(21,417)
Contributions - Employee	0
Amortization of Deferred Outflows	52,250
Amortization of Deferred Inflows	0
Administrative Expense	3,001
Other Changes	0
Total OPEB Expense	\$ 803,054

Future Deferred Outflows and (Inflows) to be Recognized as OPEB Expense (Income)

Fiscal Year Ending	
June 30, 2019	\$ 52,250
June 30, 2020	52,250
June 30, 2021	52,252
June 30, 2022	51,705
June 30, 2023	50,027
Thereafter	350,185

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Deferred Outflows and Inflows of Resources Bases

Deferred Outflows of Resources

Date	Initial Balance	Annual Recognition	Remaining Balance	Remaining Recognition Period	Type
June 30, 2017	2,727	545	1,637	3 years	Asset Loss
June 30, 2018	650,347	50,027	600,320	12 years	Assumption Change
June 30, 2018	8,390	1,678	6,712	4 years	Asset Loss
Total		52,250	608,669		

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Required Supplementary Information

Fiscal Year Ending ¹	2018	2017
Total OPEB Liability		
Service Cost	\$ 507,592	\$ 479,532
Interest	261,628	241,466
Changes of Benefit Terms	0	0
Differences between Expected and Actual Experience	0	0
Changes of Assumptions	650,347	0
Benefit Payments	(114,851)	(110,893)
Other Changes	0	0
Net Change	1,304,716	610,105
Total OPEB Liability - Beginning	7,807,857	7,197,752
Total OPEB Liability - Ending	\$ 9,112,573	\$ 7,807,857
Plan Fiduciary Net Position		
Contributions - Employer	\$ 114,851	\$ 47,356
Contributions - Employee	0	0
Net Investment Income	13,027	19,674
Benefit Payments	(114,851)	(110,893)
Administrative Expense	(3,001)	(3,074)
Net change	10,026	(46,937)
Plan Fiduciary Net Position - Beginning	330,992	377,929
Plan Fiduciary Net Position - Ending	\$ 341,018	\$ 330,992
Net OPEB Liability (Asset)	\$ 8,771,555	\$ 7,476,865
Plan Fiduciary Net Position as a % of Total OPEB Liability	3.74%	4.24%
Covered-Employee Payroll	\$ 48,106,817	\$ 48,106,817
Net OPEB Liability as a % of Covered-Employee Payroll	18.23%	15.54%

¹This information is shown for the last 10 years, if available.