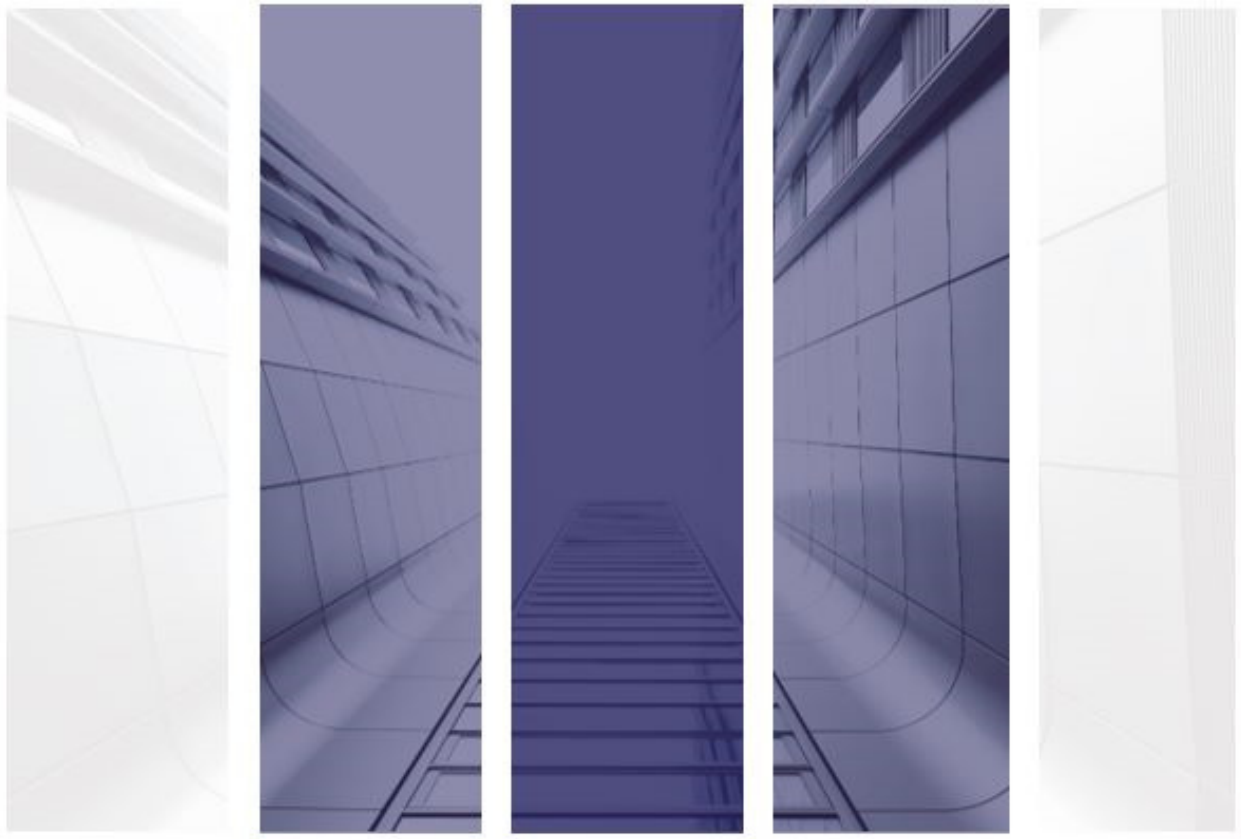
Actuarial Valuation for Other Postemployment Benefits Accounting



BIG SPRING SCHOOL DISTRICT
POSTEMPLOYMENT BENEFITS PLAN
For purposes of
Governmental Accounting Standards Board Statement
No. 75
As of July 1, 2022
for Fiscal Year July 1, 2022 to June 30, 2023

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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 Big Spring 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.

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.



Laura V. Hess, FSA, EA, MAAA
Partner & Consulting Actuary

September 19, 2023
Date

LVH/PJL

GROUP	ELIGIBILITY	COVERAGE AND PREMIUM SHARING	DURATION
I. ADMINISTRATORS			
A) Hired Prior to July 1, 2007	Subsidized – 30 years of District service Unsubsidized – PSERS retirement	• Coverage: Medical and Prescription Drug • Premium Sharing: The member and dependents may elect medical and prescription drug coverage upon retirement. If the member is eligible for the subsidized benefit, the District will contribute 50% of the single premium up to $4,000 towards medical and prescription drug coverage until the earlier of five years or Medicare age. Dependents may elect coverage by paying the full premiums. If the five-year subsidy period is exhausted or the member is not eligible for the subsidized benefit but has retired through PSERS, the member and dependents may continue coverage by paying the full premiums. • Dependents: Family Included --- Special Benefit: One retired administrator contributes the active Act 93 cost share amount for coverage until Medicare age.	Benefits cease upon member Medicare age.
B) Hired On or After July 1, 2007	PSERS Retirement	Act 110/43	Same as IA
II. TEACHERS			
A) Retired Prior to July 1, 2022	N/A – already retired	• Coverage: Medical and Prescription Drug • Premium Sharing: The member and dependents may elect medical and prescription drug coverage upon retirement. If the member is eligible for the subsidized benefit, the District will contribute up to $4,000 towards medical and prescription drug coverage until the earlier of five years or Medicare age. Dependents may elect coverage by paying the full premiums. If the five-year subsidy period is exhausted or the member is not eligible for the subsidized benefit but has retired through PSERS, the member and dependents may continue coverage by paying the full premiums. • Dependents: Family Included	Same as IA
B) Retired On or After July 1, 2022	Subsidized – 25 years of District service Unsubsidized – PSERS retirement	• Coverage: Medical and Prescription Drug • Premium Sharing: The member and dependents may elect medical and prescription drug coverage upon retirement. If the member is eligible for the subsidized benefit, the District will contribute 50% of the single premium up to	Same as IA

		$6,000 towards medical and prescription drug coverage until the earlier of five years or Medicare age. Dependents may elect coverage by paying the full premiums. If the five-year subsidy period is exhausted or the member is not eligible for the subsidized benefit but has retired through PSERS, the member and dependents may continue coverage by paying the full premiums. • Dependents: Family Included	
III. CLASSIFIED EMPLOYEES			
A) Hired Prior to July 1, 2007	Subsidized – 25 years of District service Unsubsidized – PSERS retirement	Same as IIB	Same as IA
B) Hired On or After July 1, 2007	PSERS Retirement	Act 110/43	Same as IA

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) Pension Class T-C or T-D: An employee is eligible for PSERS retirement if he (or she) is eligible for either: i) PSERS early retirement while under 62 with 5 years of PSERS Service or ii) 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. In general, these pension classes apply to individuals who were members of PSERS prior to July 1, 2011.
2) Pension Class T-E or T-F: An employee is eligible for PSERS retirement if he (or she) is eligible for either: i) PSERS early retirement while under 65 with 10 years of PSERS Service or ii) 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. In general, these pension classes apply to individuals who became members of PSERS on or after July 1, 2011 and prior to July 1, 2019.
3) Pension Class T-G: An employee is eligible for PSERS retirement if he (or she) is eligible for either: i) PSERS early retirement while under 67 with 10 years of PSERS Service or ii) PSERS superannuation retirement upon reaching age 67 with 3 years of PSERS service or upon attainment of a total combination of age plus service equal to or greater than 97 with a minimum of 35 years of PSERS service. In general, this pension class applies to individuals who became members of PSERS on or after July 1, 2019.
4) Pension Class T-H: An employee is eligible for PSERS retirement if he (or she) is eligible for either: i) PSERS early retirement while under 67 with 10 years of PSERS Service or ii) PSERS superannuation retirement upon reaching age 67 with 3 years of PSERS. In general, this pension class applies to individuals who became members of PSERS on or after July 1, 2019.
5) All individuals except those in Pension Class T-G are eligible for a special early retirement upon reaching age 55 with 25 years of PSERS service. Individuals in Pension Class T-G are eligible for a special early retirement upon reaching age 57 with 25 years of PSERS service.

Coordination with Medicare: The group medical plan pays primary to Medicare.

Discount Rate

4.06% Based on S&P Municipal Bond 20-Year High Grade Rate Index at July 1, 2022.

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, 1.5% real wage growth, and for teachers and administrators a merit increase which varies by age from 2.75 to 0%.

Withdrawal

Rates of withdrawal are based on PSERS plan experience and vary by age, gender, years of service and PSERS Pension Class. Sample rates for employees with more than 10 years of service are shown below. Rates for new employees start at 25.93% for men and 27.46% for women and decrease with age and service.

Age	Male Rate	Female Rate	Age	Male Rate	Female Rate
25	4.5500%	3.9000%	45	1.4100%	1.6000%
30	4.5500%	3.9000%	50	1.8900%	2.0800%
35	1.6800%	2.8300%	55	3.6300%	3.6600%
40	1.4200%	1.6700%	60	5.4900%	5.9400%

Mortality

PubT-2010 headcount-weighted mortality table including rates for contingent survivors for teachers. PubG-2010 headcount-weighted mortality table including rates for contingent survivors for all other employees.

Incorporated into the tables are rates projected generationally using Scale MP-2021 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.

	Special Early Retirement		TC & TD Superannuation		TE, TF, TG, & TH Superannuation	
Age	Male	Female	Male	Female	Male	Female
55	14.5%	14.5%	25.0%	16.0%	16.3%	19.5%
56	14.5%	14.5%	25.0%	20.0%	16.3%	19.5%
57	14.5%	15.0%	28.0%	28.0%	16.3%	19.5%
58	14.5%	15.0%	28.0%	30.0%	16.3%	19.5%
59	21.6%	20.7%	28.0%	30.0%	16.3%	19.5%
60	14.5%	15.0%	29.0%	31.0%	16.3%	19.5%
61	29.0%	29.0%	29.0%	31.0%	16.3%	19.5%
62	29.0%	29.0%	36.0%	31.0%	16.3%	19.5%
63	29.0%	29.0%	21.0%	20.0%	16.3%	19.5%
64	29.0%	29.0%	22.0%	25.0%	16.3%	19.5%
65	29.0%	29.0%	23.0%	28.0%	16.3%	19.5%
66	29.0%	29.0%	23.0%	27.0%	16.3%	19.5%
67	29.0%	29.0%	20.0%	23.0%	16.3%	19.5%
68	29.0%	29.0%	20.0%	22.0%	16.3%	19.5%
69	29.0%	29.0%	20.0%	23.0%	16.3%	19.5%
70	29.0%	29.0%	20.0%	23.0%	16.3%	19.5%
71-73	29.0%	29.0%	20.0%	20.0%	16.3%	19.5%
74-79	29.0%	29.0%	25.0%	25.0%	16.3%	19.5%
80+	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Percent of Eligible Retirees Electing Coverage in Plan

100% of teachers and administrators eligible to receive a subsidy are assumed to elect coverage, and if the subsidy exhausts prior to the member reaching Medicare age, 75% are assumed to elect coverage thereafter. 75% of teachers and administrators not eligible to receive a subsidy are assumed to elect coverage. Support staff employees eligible to receive a subsidy prior to Medicare age are assumed to follow the same election percentages as teachers and administrators. 40% of support staff employees never eligible to receive a subsidy are assumed to elect coverage.

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

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. The resulting costs are as follows:

	Medical and Prescription Drug Combined	
Age	Males	Females
45-49	$7,322	$10,575
50-54	$9,697	$11,952
55-59	$11,811	$12,506
60-64	$15,413	$14,366
65+	$19,735	$18,389

Retiree Contributions

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

Health Care Cost Trend Rate

6.5% in 2022, 6.0% in 2023 and 5.5% in 2024-2025. Rates gradually decrease from 5.4% in 2026 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 November 2022. Due to the timing of school district turnover, the data is believed to be representative of the population for the 2022-2023 school year.

Big Spring School District Postemployment Benefits Plan
Actuarial Valuation
as of July 1, 2022
for Purposes of Other Postemployment Benefits Accounting
for Fiscal Year July 1, 2022 to
June 30, 2023

Calculations for GASB No. 75 Reporting

Big Spring School District Postemployment Benefits Plan
Actuarial Valuation as of July 1, 2022 for Fiscal Year Ending June 30, 2023
GASB No. 75 Summary Information

Demographic Information

	Total
Active Participants	281
Vested Former Participants	0
Retired Participants	17
Total	**298**
Annual Payroll of Active Participants	$18,162,101

Financial Information

		Total
Total OPEB Liability	$	4,588,341
Plan Fiduciary Net Position		0
Net OPEB Liability (Asset)	$	4,588,341
Deferred Outflows of Resources	$	1,352,622
Deferred Inflows of Resources	$	2,451,278
Plan Fiduciary Net Position as a % of Total OPEB Liability		0.00%
Net OPEB Liability as a % of Covered-Employee Payroll		25.26%
OPEB Expense	$	901,264

Changes in the Net OPEB Liability

Total OPEB Liability	Total
Fiscal Year Ending 6/30/2023	
Balance at 7/1/2021	$ 4,156,663
Service Cost	269,468
Interest[2]	99,550
Changes of Benefit Terms	653,575
Differences between Expected and Actual Experience[1]	855,766
Changes of Assumptions[1]	(1,336,070)
Benefit Payments[2]	(110,611)
Other Changes	0
Net Changes	431,678
Balance at 7/1/2022	**$ 4,588,341**

Changes of Assumptions

The discount rate changed from 2.28% to 4.06%. The trend assumption was updated. Assumptions for salary, mortality, withdrawal and retirement were updated based on new PSERS assumptions.

Changes of Benefit Terms

The District contributes 50% of the single premium up to $6,000 towards medical and prescription drug coverage for teachers with at least 25 years of District service retiring on or after July 1, 2022.

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

Deferred Outflows/Inflows and Sensitivity

Deferred Outflows of Resources	Total
Differences between Expected and Actual Experience	$ 789,938
Changes of Assumptions	407,916
Benefit Payments subsequent to the Measurement Date (7/1/2022)[1]	154,768
Total Deferred Outflows	**$ 1,352,622**

Deferred Inflows of Resources	
Differences between Expected and Actual Experience	$ 752,017
Changes of Assumptions	1,699,261
Total Deferred Inflows	**$ 2,451,278**

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 (5.06%)	$ 4,235,372
Current Discount Rate (4.06%)	$ 4,588,341
1% Decrease (3.06%)	$ 4,960,874

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	$ 5,077,602
Current Rates	$ 4,588,341
1% Decrease	$ 4,171,963

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

OPEB Expense and Future Recognition of Deferred Outflows and (Inflows)

OPEB Expense

	Total
Fiscal Year Ending 6/30/2023	
Service Cost	$ 269,468
Interest on Total OPEB Liability	99,550
Changes of Benefit Terms	653,575
Contributions - Employee	0
Amortization of Deferred Outflows	104,659
Amortization of Deferred Inflows	(225,988)
Other Changes	0
Total OPEB Expense	**$ 901,264**

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

Fiscal Year Ending	
June 30, 2024	$ (121,329)
June 30, 2025	(121,329)
June 30, 2026	(121,329)
June 30, 2027	(121,329)
June 30, 2028	(121,329)
Thereafter	(646,779)

Deferred Outflows and Inflows of Resources Bases

Deferred Outflows of Resources

Date	Initial Balance	Annual Recognition	Remaining Balance	Remaining Recognition Period	Type
July 1, 2017	46,111	3,843	23,053	6 years	Assumption Change
July 1, 2020	489,827	34,988	384,863	11 years	Assumption Change
July 1, 2022	855,766	65,828	789,938	12 years	Experience Change
Total		**104,659**	**1,197,854**		

Deferred Inflows of Resources

Date	Initial Balance	Annual Recognition	Remaining Balance	Remaining Recognition Period	Type
July 1, 2018	568,920	40,637	365,735	9 years	Experience Change
July 1, 2018	401,877	28,706	258,347	9 years	Assumption Change
July 1, 2019	121,935	8,710	87,095	10 years	Assumption Change
July 1, 2020	491,630	35,116	386,282	11 years	Experience Change
July 1, 2021	140,612	10,044	120,524	12 years	Assumption Change
July 1, 2022	1,336,070	102,775	1,233,295	12 years	Assumption Change
Total		**225,988**	**2,451,278**		

Required Supplementary Information

Fiscal Year Ending[1]	2023	2022	2021	2020	2019	2018
Total OPEB Liability						
Service Cost	$ 269,468	$ 276,141	$ 237,279	$ 241,912	$ 290,074	$ 292,483
Interest	99,550	79,323	132,938	114,194	143,670	106,568
Changes of Benefit Terms	653,575	0	0	0	(42,532)	0
Differences between Expected and Actual Experience	855,766	0	(491,630)	0	(568,920)	0
Changes of Assumptions	(1,336,070)	(140,612)	489,827	(121,935)	(401,877)	46,111
Benefit Payments	(110,611)	(101,983)	(95,632)	(116,240)	(146,972)	(115,421)
Other Changes	0	0	0	0	0	0
Net Change	431,678	112,869	272,782	117,931	(726,557)	329,741
Total OPEB Liability - Beginning	4,156,663	4,043,794	3,771,012	3,653,081	4,379,638	4,049,897
Total OPEB Liability - Ending	**$ 4,588,341**	**$ 4,156,663**	**$ 4,043,794**	**$ 3,771,012**	**$ 3,653,081**	**$ 4,379,638**
Covered-Employee Payroll	$ 18,162,101	$ 17,614,203	$ 17,614,203	$ 17,785,580	$ 17,785,580	$ 15,054,068
Total OPEB Liability as a % of Covered-Employee Payroll	25.26%	23.60%	22.96%	21.20%	20.54%	29.09%

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