

NOTE 6 – NET OTHER POSTEMPLOYMENT BENEFITS LIABILITY OF THE DEPARTMENT (Continued)

The Death Benefit Fund’s target asset allocation and projected arithmetic real rates of return for each major asset class, after deducting inflation but before deducting investment expenses, used in the derivation of the long-term expected investment rate of return assumptions valuation as of June 30, 2018 and 2017 are summarized in the following table. This information may change as the actuarial experience study is conducted at the maximum of five years interval.

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Fixed income	96.00%	0.82%
Cash and cash equivalents	4.00%	-0.46%
Total	100.00%	

Discount rate: The discount rate used to measure the total OPEB liability was 3.50% as of June 30, 2018 and 2017. A “crossover test” was not explicitly performed since the municipal bond rate as of June 30, 2018 and 2017 was 3.87% and 3.58%, respectively. Those municipal bond rates were actually higher than the 3.50% long-term expected rate of return on Death Benefit Fund’s investments. Therefore, the long-term expected rate of return on Death Benefit Fund’s investments was applied to all periods of projected benefit payments to determine the total OPEB liability as of June 30, 2018 and 2017.

Sensitivity of the net OPEB liability to changes in the discount rate: The following presents the Death Benefit Fund’s NOL as of June 30, 2018 and 2017, calculated using the discount rate of 3.50%, as well as what the NOL would be if it were calculated using a discount rate that is 1-percentage-point lower (2.50%) or 1-percentage-point higher (4.50%) than the current rate:

	1% Decrease (2.50%)	Current Discount Rate (3.50%)	1% Increase (4.50%)
NOL as of June 30, 2018	\$138,389,690	\$116,659,806	\$99,378,700
NOL as of June 30, 2017	\$140,751,137	\$119,224,438	\$102,000,459

Sensitivity of the net OPEB liability to changes in the cost trend rate: Since there is no trend rate assumption used in valuing these benefits, the net OPEB liability is unaffected by any changes in trend rates.

NOTE 7 – ACTUARIAL VALUATION – DISABILITY FUND

Actuarial studies are performed annually on the Disability Fund to determine and recommend the appropriate contribution rates and the benefit reserves levels needed to fund the current and future benefit liabilities. The results of the most recent annual actuarial reviews (as of July 1, 2017 and July 1, 2016) for the Disability Fund found that the Fund's accumulated reserves had met the recommended reserve level. The actuarial recommendations for the contribution rates, reserve levels, and general reserve transfers were approved by the Retirement Board.

For permanent total disability, the Department's contribution rate remains at \$0 per \$100 of covered payroll. As for temporary disability, the Department's contribution rate was decreased from \$1.52 per to \$1.44 per \$100 of covered payroll. The rate change was approved by the Retirement Board in January 2018 and was implemented the same month.

NOTE 8 – RESERVES AND DESIGNATED BALANCES

Reserve accounts are established to cover all deferred liabilities as they accrue. Reserves are established from members and Department contributions and the accumulation of investment income after satisfying investment and administrative expenses. There are four major classes of reserves and designated accounts.

Member contribution accounts represent the balance of member contributions. Additions include member contributions and interest. Deductions include refunds of member contributions and transfers to the reserve for retirement allowances and the reserve for death benefit.

Department contribution accounts represent the balance of Department contributions for future retirement payments to current active members. Additions include contributions from the Department and related earnings. Deductions include transfers to the reserve for retirement allowances and reserve for death benefit.

Estimated benefit liabilities reserves represent the balance of transfers from member contribution and/or Department contribution accounts and related earnings less payments to retired members, members on disability and beneficiaries.

General reserves represent reserves accumulated for future earnings deficiencies, investment losses and other contingencies. Additions include investment income and other revenue. Deductions include investment expense, interest allocated to member and Department contribution accounts, and interest allocated to the estimated benefits liabilities reserves accounts.

NOTE 8 – RESERVES AND DESIGNATED BALANCES (Continued)

The WPERP's reserves and designated balances at June 30, 2018 and 2017 are as follows:

	<u>2018</u>	<u>2017</u>
<u>Retirement Fund - Reserves and Designated Balances</u>		
Reserve for retirement allowances	\$ 7,409,140,493	\$ 6,942,830,729
Contributions:		
Members' contributions	1,667,598,977	1,592,237,219
Department contributions	(1,382,598,166)	(1,335,629,737)
Total contributions	<u>285,000,811</u>	<u>256,607,482</u>
General reserve	<u>2,388,641,092</u>	<u>2,118,011,960</u>
Total reserves and designated balances	10,082,782,396	9,317,450,171
Unrealized appreciation in the fair value of investments	<u>2,194,302,867</u>	<u>1,996,449,164</u>
Total reserves and designated balances at fair value	<u>\$ 12,277,085,263</u>	<u>\$ 11,313,899,335</u>
<u>Disability Fund - Reserves and Designated Balances</u>		
Estimated liability for temporary and permanent disability cases	\$ 17,458,849	\$ 16,697,388
General reserve	<u>24,940,465</u>	<u>25,366,403</u>
Total reserves and designated balances	42,399,314	42,063,791
Unrealized appreciation in the fair value of investments	<u>4,014,563</u>	<u>5,131,612</u>
Total reserves and designated balances at fair value	<u>\$ 46,413,877</u>	<u>\$ 47,195,403</u>
<u>Death Benefit Fund - Reserves and Designated Balances</u>		
Estimated liability for family allowances	\$ 3,941,818	\$ 4,192,337
Contribution account - family allowances	7,254,184	6,861,583
General reserve	<u>13,594,205</u>	<u>13,252,783</u>
Total reserves and designated balances	24,790,207	24,306,703
Unrealized appreciation in the fair value of investments	<u>2,420,013</u>	<u>3,277,431</u>
Total reserves and designated balances at fair value	<u>\$ 27,210,220</u>	<u>\$ 27,584,134</u>
<u>Retiree Health Benefits Fund - Reserves and Designated Balances</u>		
Department contributions (net of insurance premiums payment)	\$ 1,037,604,927	\$ 1,037,604,927
General reserve	<u>658,580,136</u>	<u>521,256,877</u>
Total reserves and designated balances	1,696,185,063	1,558,861,804
Unrealized appreciation in the fair value of investments	<u>389,506,015</u>	<u>353,018,732</u>
Total reserves and designated balances at fair value	<u>\$ 2,085,691,078</u>	<u>\$ 1,911,880,536</u>

NOTE 9 – PLAN AMENDMENTS

The Plan is periodically amended to meet changes in economic conditions and sound business practices. The following is a summary of the more significant Plan amendments taken effect during the fiscal years ended June 30, 2018 and 2017:

Fiscal year ended June 30, 2018

The Regular Interest rate, as defined in the Plan, is used to credit members' retirement contributions on deposit with the Plan. An amendment was adopted to align the Regular Interest rate with the Plan's investment return assumption as adopted by the Retirement Board, so long as the investment return assumption is at least 7.00%. Post adoption, the Regular Interest rate was decreased from 7.50% to 7.25% effective March 1, 2018.

Another amendment aligned the mortality tables used by the Plan to calculate retirement allowances and the conversion to optional benefit amounts with the mortality assumptions as adopted by the Retirement Board. Effective July 1, 2018, such calculations shall be based upon the mortality and associated interest rate assumptions as adopted by the Retirement Board, so long as the interest rate assumption is at least 7.00%.

Lastly an amendment was adopted to reduce the minimum vesting requirement for all Tier 2 members to 5 years of continuous Department service.

Fiscal year ended June 30, 2017

Effective for fiscal years beginning after June 30, 2016, the Reserve for Investment Gains and Losses within the Retirement Fund is eliminated. Realized investment gains and losses are recorded and accumulated within the Retirement Fund's General Reserve instead.

NOTE 10 – RISKS AND UNCERTAINTIES

The WPERP invests in various investment securities. Investment securities are exposed to various risks such as interest rate, market, and credit risks. Due to the level of risk associated with certain investment securities, it is at least reasonably possible that changes in the values of investment securities will occur in the near term and that such changes could materially affect the amounts reported in the statements of fiduciary net position. Department contributions and actuarial valuations are reported based on certain assumptions pertaining to interest rates and employee demographics, all of which are subject to change. Due to uncertainties inherent in the estimations and assumptions process, it is at least reasonably possible that changes in these estimates and assumptions in the near term would be material to the financial statements.

NOTE 11 – SUBSEQUENT EVENTS

The WPERP has evaluated subsequent events through November 2, 2018, the date the financial statements were available to be issued, and has determined that no other significant subsequent events have occurred through that date.

	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>
Total pension liability						
Service cost	\$ 228,621,066	\$ 217,276,778	\$ 209,832,859	\$ 214,735,027	\$ 193,661,118	\$ 189,950,104
Interest	913,798,415	887,133,571	837,977,383	821,047,664	779,396,615	748,904,919
Change of benefit terms	(59,019,242)	-	-	(144,007,904)	-	-
Differences between expected and actual experience	10,253,750	(196,176,749)	(189,461,173)	(162,912,927)	(154,221,968)	(98,062,638)
Change of assumptions	-	-	722,927,661	-	525,443,921	-
Benefit payments, including refund of member contributions	(563,212,525)	(540,361,335)	(510,484,986)	(485,966,910)	(463,596,940)	(438,527,366)
Net change in total pension liability	530,441,464	367,872,265	1,070,791,744	242,894,950	880,682,746	402,265,019
Total pension liability - beginning	12,657,109,576	12,289,237,311	11,218,445,567	10,975,550,617	10,094,867,871	9,692,602,852
Total pension liability - ending	<u>\$ 13,187,551,040</u>	<u>\$ 12,657,109,576</u>	<u>\$ 12,289,237,311</u>	<u>\$ 11,218,445,567</u>	<u>\$ 10,975,550,617</u>	<u>\$ 10,094,867,871</u>
Fiduciary net position						
Contributions - employer, including administrative expenses	\$ 439,298,444	\$ 397,747,778	\$ 368,259,056	\$ 382,231,868	\$ 389,138,324	\$ 372,819,194
Contributions - employees	93,659,240	83,239,105	75,068,523	68,552,375	72,299,526	69,633,449
Net investment income	998,777,227	1,280,806,288	95,807,981	410,778,109	1,405,686,199	919,679,147
Benefit payments, including refund of member contribution	(563,212,525)	(540,361,335)	(510,484,986)	(485,966,910)	(463,596,941)	(438,527,366)
Administrative expense	(5,336,458)	(5,375,229)	(5,108,115)	(4,612,476)	(4,221,234)	(3,736,871)
Net change in fiduciary net position	963,185,928	1,216,056,607	23,542,459	370,982,966	1,399,305,874	919,867,553
Fiduciary net position - beginning	11,313,899,335	10,097,842,728	10,074,300,269	9,703,317,303	8,304,011,429	7,384,143,876
Fiduciary net position - ending	<u>\$ 12,277,085,263</u>	<u>\$ 11,313,899,335</u>	<u>\$ 10,097,842,728</u>	<u>\$ 10,074,300,269</u>	<u>\$ 9,703,317,303</u>	<u>\$ 8,304,011,429</u>
Net pension liability	<u>\$ 910,465,777</u>	<u>\$ 1,343,210,241</u>	<u>\$ 2,191,394,583</u>	<u>\$ 1,144,145,298</u>	<u>\$ 1,272,233,314</u>	<u>\$ 1,790,856,442</u>
Fiduciary net position as % of total pension liability	93.10%	89.39%	82.17%	89.80%	88.41%	82.26%
Covered employee payroll	\$ 953,635,670	\$ 892,332,196	\$ 861,818,854	\$ 839,213,254	\$ 819,923,866	\$ 817,421,028
Net pension liability as % of covered employee payroll	95.47%	150.53%	254.28%	136.34%	155.16%	219.09%

Note to Schedule:

This schedule is presented for those years for which information is available.

<u>Plan Year Ended June 30</u>	<u>Actuarially Determined Contributions</u>	<u>Actual Contributions</u>	<u>Contribution Deficiency/ (Excess)</u>	<u>Covered Employee Payroll</u>	<u>Contribution as Percentage of Covered Payroll</u>
2018	\$ 425,512,236	\$ 433,412,569	\$ (7,900,333)	\$ 953,635,670	45.45%
2017	403,780,319	391,717,359	12,062,960	892,332,196	43.90%
2016	368,599,924	362,359,894	6,240,030	861,818,854	42.05%
2015	387,464,759	376,902,022	10,562,737	839,213,254	44.91%
2014	387,823,989	384,265,892	3,558,097	819,923,866	46.87%
2013	376,667,610	368,426,348	8,241,262	817,421,028	45.07%
2012	336,874,865	321,688,919	15,185,946	805,607,436	39.93%
2011	304,431,910	286,699,384	17,732,526	791,760,493	36.21%
2010	200,578,278	201,034,807	(456,529)	767,912,436	26.18%
2009	141,291,589	145,941,276	(4,649,687)	696,704,083	20.95%

Valuation date	Actuarially determined contribution rates are calculated as of June 30, one year prior to the end of the fiscal year in which contributions are reported.
Actuarial cost method	Entry age actuarial cost method
Amortization method	Level dollar amortization
Remaining amortization period	The July 1, 2004 Unfunded Actuarial Accrued Liability is amortized over a 15-year period commencing July 1, 2004. Any subsequent changes in Unfunded Actuarial Accrued Liability are amortized over separate 15-year periods effective with that valuation.
Asset valuation method	The market value of assets less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between the actual market returns and the expected returns on a market value basis, and is recognized over a five-year period. As directed by the Retirement Office, the actuarial valuation of assets may be reduced by an amount classified as a non-valuation reserve.
Other information	All members hired on or after January 1, 2014 enter Tier 2.
Actuarial assumptions:	
Investment rate of return	7.25%
Inflation rate	3.00%
Projected salary increases	4.50% to 10.00%
Cost of living adjustments	3.00% (actual increases are contingent upon CPI increases with a 3.00% maximum for Tier 1, 2.00% maximum for Tier 2)
Mortality	Head count-weighted RP-2014 Health Annuitant Mortality Table with no age adjustment for males and set back one year for females, projected generationally with the two-dimensional MP-2015 projected scale.
Other assumptions	Same as those used in the July 1, 2018 funding actuarial valuation

	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>
Annual money-weighted rate of return, net of investment expense	8.89%	12.79%	0.96%	4.27%	17.05%

Note to schedule:

This schedule is presented for the year for which information is available.

	<u>2018</u>	<u>2017</u>	<u>2016</u>
Total OPEB liability			
Service cost	\$ 49,190,698	\$ 49,295,168	\$ 38,342,912
Interest	170,306,670	169,518,251	146,596,915
Change of benefit terms	(285,566)	-	-
Differences between expected and actual experience	(6,956,314)	(44,553,945)	87,184,567
Change of assumptions	4,798,880	(70,508,237)	185,583,627
Benefit payments	(95,233,622)	(90,310,419)	(79,895,671)
	<u>121,820,746</u>	<u>13,440,818</u>	<u>377,812,350</u>
Net change in total OPEB liability			
	121,820,746	13,440,818	377,812,350
Total OPEB liability - beginning	<u>2,347,483,631</u>	<u>2,334,042,813</u>	<u>1,956,230,463</u>
Total OPEB liability - ending	<u>\$ 2,469,304,377</u>	<u>\$ 2,347,483,631</u>	<u>\$ 2,334,042,813</u>
Fiduciary net position			
Contributions - employer, including administrative expenses	\$ 95,918,712	\$ 91,023,926	\$ 80,606,726
Net investment income	173,674,359	218,835,834	14,462,876
Benefit payments	(95,233,622)	(90,310,419)	(79,895,671)
Administrative expense	(548,907)	(585,352)	(578,174)
	<u>173,810,542</u>	<u>218,963,989</u>	<u>14,595,757</u>
Net change in fiduciary net position			
	173,810,542	218,963,989	14,595,757
Fiduciary net position - beginning	<u>1,911,880,536</u>	<u>1,692,916,547</u>	<u>1,678,320,790</u>
Fiduciary net position - ending	<u>\$ 2,085,691,078</u>	<u>\$ 1,911,880,536</u>	<u>\$ 1,692,916,547</u>
Net OPEB liability	<u>\$ 383,613,299</u>	<u>\$ 435,603,095</u>	<u>\$ 641,126,266</u>
Fiduciary net position as % of total OPEB liability	84.46%	81.44%	72.53%
Covered employee payroll	\$ 953,635,670	\$ 892,332,196	\$ 861,818,854
Net OPEB liability as % of covered employee payroll	40.23%	48.82%	74.39%

Note to Schedule:

This schedule is presented for those years for which information is available.

<u>Plan Year Ended June 30</u>	<u>Actuarially Determined Contributions</u>	<u>Actual Contributions</u>	<u>Contribution Deficiency/ (Excess)</u>	<u>Covered Employee Payroll</u>	<u>Contribution as Percentage of Covered Payroll</u>
2018	\$ 85,339,091	\$ 95,233,622	\$ (9,894,531)	\$ 953,635,670	9.99%
2017	93,920,143	90,310,419	3,609,724	892,332,196	10.12%
2016	61,971,138	79,895,671	(17,924,533)	861,818,854	9.27%
2015	70,748,429	78,496,618	(7,748,189)	839,213,254	9.35%
2014	58,453,215	74,105,548	(15,652,333)	819,923,866	9.04%
2013	36,907,715	67,562,881	(30,655,166)	817,421,028	8.27%
2012	40,094,940	101,720,586	(61,625,646)	805,607,436	12.63%
2011	66,188,311	140,132,520	(73,944,209)	791,760,493	17.70%
2010	56,294,335	160,236,897	(103,942,562)	767,912,436	20.87%
2009	58,717,975	159,412,621	(100,694,646)	696,704,083	22.88%

Revenues by Source

Fiscal Year	Members' Contributions	Department Contributions*	Investment Income**	Total
2018	\$ 93,659,240	\$ 442,535,901	\$ 223,611,026	\$ 759,806,167
2017	\$ 83,239,105	\$ 401,127,290	\$ 208,617,806	\$ 692,984,201
2016	\$ 75,068,523	\$ 371,845,053	\$ 184,829,756	\$ 631,743,332
2015	\$ 68,552,375	\$ 386,286,580	\$ 175,987,770	\$ 630,826,725
2014	\$ 72,299,526	\$ 394,811,381	\$ 191,737,068	\$ 658,847,975
2013	\$ 69,633,449	\$ 378,115,576	\$ 191,561,805	\$ 639,310,830
2012	\$ 60,088,614	\$ 331,276,047	\$ 193,927,979	\$ 585,292,640
2011	\$ 65,954,329	\$ 293,311,870	\$ 201,657,143	\$ 560,923,342
2010	\$ 71,240,553	\$ 208,518,237	\$ 180,881,790	\$ 460,640,580
2009	\$ 59,394,076	\$ 154,140,202	\$ 192,121,861	\$ 405,656,139

Expenses by Type

Fiscal Year	Benefits	Administrative Expenses***	Refunds****	Total
2018	\$ 558,900,946	\$ 48,293,515	\$ 7,549,036	\$ 614,743,497
2017	\$ 535,914,984	\$ 40,643,556	\$ 7,825,863	\$ 584,384,403
2016	\$ 505,591,726	\$ 33,807,268	\$ 8,479,257	\$ 547,878,251
2015	\$ 480,465,024	\$ 35,470,631	\$ 9,556,598	\$ 525,492,253
2014	\$ 457,558,214	\$ 32,227,775	\$ 11,711,783	\$ 501,497,772
2013	\$ 432,708,113	\$ 27,233,363	\$ 11,115,635	\$ 471,057,111
2012	\$ 410,814,067	\$ 24,147,076	\$ 10,805,587	\$ 445,766,730
2011	\$ 396,124,862	\$ 25,146,053	\$ 4,425,116	\$ 425,696,031
2010	\$ 377,051,650	\$ 20,790,611	\$ 6,028,583	\$ 403,870,844
2009	\$ 363,691,635	\$ 17,842,282	\$ 8,062,235	\$ 389,596,152

* Represents Department contributions before Current Service reversions and includes contributions towards administrative expenses.

** Represents "booked" investment income and excludes "net appreciation (depreciation) in fair value of investment."

*** Represents investment and administrative expenses.

**** Represents both refunds on members' contributions and reversions on Department Current Service contributions.