
Red Wing Public Schools

Actuarial Valuation Report
Other Post-Employment Benefits
Under GASB Statements 74 & 75

Valuation Date:	July 1, 2019
Measurement Date:	June 30, 2020
Fiscal Year Beginning:	July 1, 2019
Fiscal Year Ending:	June 30, 2020

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Actuarial Certification

We have prepared an actuarial valuation of the other post employment benefit plans for the Red Wing Public Schools as of July 1, 2019 to enable the plan sponsor to satisfy the accounting requirements under Statements of Governmental Accounting Standards Nos. 74 and 75. The results of the valuation set forth in this report reflect the provisions of the plan communicated to us through July 1, 2019. This report should not be used for other purposes or relied upon by any other person without prior written consent from Hildi Incorporated.

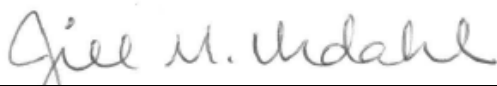
This valuation is based on participant and financial data provided by Red Wing Public Schools and is summarized in this report. An audit of the financial and participant data provided was not performed, but we have checked the data for reasonableness as appropriate based on the purpose of the valuation. We have relied on all the information provided, including plan provisions and asset information, as complete and accurate.

A range of results, different from those presented in this report, could be considered reasonable. The numbers are not rounded, but this is for convenience and should not imply precision. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements; and changes in plan provisions or applicable law. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of such future measurements.


All costs, liabilities and other factors under the plan were determined in accordance with generally accepted actuarial principles and procedures using assumptions that we believe reasonably estimate the anticipated experience of the plan. The calculations reported herein are consistent with our understanding of the provisions of GASB Statements 74 and 75.

Actuarial computations under Statements of Governmental Accounting Standards are for the purposes of fulfilling employer accounting requirements and trust accounting requirements. Computations for other purposes may differ significantly from the results shown in this report.

We are available to answer any questions on this material, or to provide explanations or further details, as may be appropriate. The undersigned credentialed actuaries meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained in this report.



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Report finished in April 2020

Executive Summary

This report has been prepared for Red Wing Public Schools, for the fiscal year beginning July 1, 2019 and ending June 30, 2020, to assist in complying with the reporting and disclosure requirements under GASB Statements 74 and 75.

Funding and Investment Policy

OPEB benefits have historically been funded on a pay-as-you-go basis (PAYGO). Under GASB 74/75, plan sponsors may set up a trust and pre-fund the benefits. There is no requirement to pre-fund benefits under GASB 74/75.

Results throughout the report reflect Red Wing Public Schools's decision to create an Irrevocable OPEB Trust. The trust value is \$10,101,585 as of July 1, 2019. The trust assets are expected to earn a long term annual rate of 6.20%.

Summary of Results

The results below reflect an initial implementation date under GASB 74/75 for the fiscal year ending June 30, 2017. The discount rate is determined by using a split interest rate based on the estimated investment return on the irrevocable trust for the funded portion of liabilities and the estimated yield of 20-Year AA-rated municipal bonds for the unfunded portion of liabilities. The overall single discount rate is 6.20%.

GASB Accounting Summary	
1. Estimated GASB Funded Status as of June 30, 2020	
a. Total OPEB Liability (TOL)	\$ 6,044,618
b. Fiduciary Net Position (FNP)	<u>9,784,811</u>
c. Net OPEB Liability (NOL), a. - b.	(3,740,193)
d. FNP as a % of TOL, b. / a.	162%
e. Valuation Salary	18,031,547
f. NOL as % of Payroll, c. / e.	-21%
2. Estimated Annual Costs for the Year Beginning 07/01/2019	
a. Pay-as-you-go Cost (PAYGO)	\$ 943,072
b. OPEB Expense Under GASB 75	(251,511)
3. Actuarially Determined Contribution (ADC) *	To be determined
4. Discount Rate	6.20%

* GASB has not defined an ADC, rather this needs to be defined/developed by the employer.

Events & Decisions

Plan Experience:

- There was a liability gain of \$604,232 due to updated census data.
- There was a liability loss of \$440,488 due to claims and premiums different than expected.

Plan Changes: None.

Assumption Changes:

- The health care trend rates were changed to better anticipate short term and long term medical increases.
- The mortality tables were updated from the RP-2014 White Collar Mortality Tables with MP-2016 Generational Improvement Scale to the Pub-2010 Public Retirement Plans Headcount-Weighted Mortality Tables (General, Teachers) with MP-2018 Generational Improvement Scale.
- The salary increase rates were changed from a flat 3.00% per year for all employees to rates which vary by service and contract group.
- These changes decreased the liability \$275,801.

Method Changes: None.

Key Dates

The results presented in this report are based on a July 1, 2019 valuation date. GASB 74 allows the use of a valuation date that is up to 24 months prior to the most recent fiscal year end, while GASB 75 allows the use of a valuation date that is up to 30 months and one day prior to the most recent fiscal year end. A GASB 74 measurement date must be the same as the reporting date, while a GASB 75 measurement date may look back as far as the prior fiscal year end. Because Red Wing Public Schools has an irrevocable trust, both GASB 74 and 75 accounting are applicable.

Valuation Date	July 1, 2019
Measurement Date	June 30, 2020
Reporting Date	June 30, 2020

Plan and Employer Accounting

Reconciliation of Changes in Net OPEB Liability

Below is an estimated reconciliation of the Net OPEB Liability for the fiscal year ending June 30, 2020. **The Net OPEB Liability will need to be updated with final balances as of June 30, 2020, including any assumption changes, plan changes, contributions, and gains/losses. Please contact Hildi Inc. when preparing your disclosures at June 30, 2020.**

	Total OPEB Liability (a)	Fiduciary Net Position (b)	Net OPEB Liability (a) – (b)
1. Balances at June 30, 2019	\$ 6,825,165	\$ 10,101,585	\$ (3,276,420)
2. Expected Changes for the Current Year:			
a. Service Cost	195,579	-	195,579
b. Interest Cost	406,491	-	406,491
c. Assumption Changes	(275,801)	-	(275,801)
d. Plan Changes	0	-	0
e. Estimated Employer Contributions	-	0	0
f. Projected Investment Return	-	626,298	(626,298)
g. Differences between Expected and Actual Experience	(163,744)	0	(163,744)
h. Estimated Benefit Payments	(943,072)	(943,072)	0
i. Estimated Administrative Expenses	-	0	0
j. Other Changes	0	0	0
3. Total Estimated Net Changes	(780,547)	(316,774)	(463,773)
4. Estimated Balances at June 30, 2020	\$ 6,044,618	\$ 9,784,811	\$ (3,740,193)

Sensitivity to Changes in Discount Rate

	1% Decrease	Selected Discount Rate	1% Increase
1. Net OPEB Liability	\$ (3,476,431)	\$ (3,740,193)	\$ (3,989,644)
2. Discount Rate	5.20%	6.20%	7.20%

Sensitivity to Changes in Healthcare Cost Trend Rates

	1% Decrease	Selected Healthcare Trend Rate	1% Increase
1. Net OPEB Liability	\$ (4,003,690)	\$ (3,740,193)	\$ (3,440,108)
2. Medical Trend Rate	5.50% decreasing to 4.00% over 6 years	6.50% decreasing to 5.00% over 6 years	7.50% decreasing to 6.00% over 6 years
3. Medicare Supplement and Dental Trend Rate	3.00%	4.00%	5.00%

GASB 75 OPEB Expense

Below is the estimated OPEB Expense for the fiscal year ending June 30, 2020. **The OPEB Expense will need to be updated with final assets and liabilities as of June 30, 2020, including any assumption changes, plan changes, contributions, and gains/losses. Please contact Hildi Inc. when preparing your disclosures at June 30, 2020.**

Fiscal Year Ending	June 30, 2020
1. Components of OPEB Expense	
a. Service Cost	\$ 195,579
b. Interest Cost	406,491
c. Liability Gain or Loss	(174,287)
d. Assumption Changes	(48,682)
e. Projected Investment Return	(626,298)
f. Investment Gain or Loss	(4,314)
g. Administrative Expenses	0
h. Plan Changes	<u>0</u>
i. Total	(251,511)
2. Deferred Outflows of Resources	
a. Liability Losses	\$ 0
b. Assumption Changes	20,639
c. Investment Losses	74,032
d. Employer Contributions	<u>N/A</u>
e. Total	94,671
3. Deferred Inflows of Resources	
a. Liability Gains	\$ 724,434
b. Assumption Changes	257,201
c. Investment Gains	<u>0</u>
d. Total	981,635
4. Future Recognition of Deferred Flows in OPEB Expense (Fiscal Years Ending)	
a. June 30, 2020	N/A
b. June 30, 2021	\$ (227,281)
c. June 30, 2022	(178,663)
d. June 30, 2023	(188,931)
e. June 30, 2024	(222,961)
f. June 30, 2025	(69,128)
g. Thereafter	0

GASB 75 Amortization Schedule

Date Established	Type	Original Amount	Original Years	Amortization Amount	Remaining Amount as of 06/30/2020	Remaining Years as of 06/30/2020
7/1/2016	Investment (Gain)/Loss	(\$243,108)	5	(\$48,622)	(\$48,620)	1
7/1/2017	Liability (Gain)/Loss	(1,028,969)	7	(146,996)	(587,981)	4
7/1/2017	Assumption Change	(47,896)	7	(6,843)	(27,367)	4
7/1/2017	Investment (Gain)/Loss	51,328	5	10,266	20,530	2
7/1/2018	Assumption Change	28,895	7	4,128	20,639	5
7/1/2018	Investment (Gain)/Loss	170,206	5	34,042	102,122	3
7/1/2019	Liability (Gain)/Loss	(163,744)	6	(27,291)	(136,453)	5
7/1/2019	Assumption Change	(275,801)	6	(45,967)	(229,834)	5

Required Supplementary Information

Below is a schedule of changes in the Net OPEB Liability and related ratios for the two most recent fiscal years. Public entities are required to show 10 years of information, or as many years as available until a full 10-year trend is compiled.

Fiscal Year Ending June 30	2020	2019
1. Total OPEB Liability (TOL) -- Beginning	\$ 6,825,165	\$ 6,996,966
a. Service Cost	195,579	190,756
b. Interest Cost	406,491	427,426
c. Assumption Changes	(275,801)	28,895
d. Plan Changes	0	0
e. Differences between Expected and Actual Experience	(163,744)	0
f. Benefit Payments	(943,072)	(818,878)
g. Other Changes	0	0
h. Net Change in Total OPEB Liability	(780,547)	(171,801)
2. Total OPEB Liability (TOL) -- Ending	\$ 6,044,618	\$ 6,825,165
3. Plan Fiduciary Net Position (FNP) -- Beginning	\$ 10,101,585	\$ 10,443,191
a. Employer Contributions	0	0
b. Net Investment Income	626,298	477,272
c. Benefit Payments	(943,072)	(818,878)
d. Administrative Expense	0	0
e. Other Changes	0	0
f. Net Change in Plan Fiduciary Net Position	(316,774)	(341,606)
4. Plan Fiduciary Net Position (FNP) -- Ending	\$ 9,784,811	\$ 10,101,585
5. Net OPEB Liability -- Ending (NOL = TOL - FNP)	(3,740,193)	(3,276,420)
6. FNP as a % of TOL	162%	148%
7. Covered Employee Payroll	18,031,547	17,973,472
8. NOL as % of Payroll	-21%	-18%

Notes to Schedule

Benefit Changes: None.

Assumption Changes

- For the fiscal year ending June 30, 2019:
 - The expected long-term investment return and the discount rate were changed from 6.30% to 6.20%.
- For the fiscal year ending June 30, 2020:
 - The health care trend rates, mortality tables, and salary increase rates were updated.

Projected Benefit Payments

The Projected Benefit Payments are based on the assumptions, plan provisions, and participant data as of July 1, 2019. The Projected Benefit Payments are prepared on a closed group basis (i.e. no new entrants).

Discount Rate Selection

The Funded portion of benefit payments are determined by:

- Projecting forward the Fiduciary Net Position (Assets) as of the valuation date,
- Increasing by the investment return assumption, and
- Reducing by benefit payments in each period until assets are exhausted.
- The contribution/benefit payment history, as well as the funding policy have also been taken into account.

Payment Year	Funded Portion of Payments	Unfunded Portion of Payments	Present Value (Separate Discount Rates)	Present Value (Single Discount Rate)
2019 - 2023	\$ 4,469,837	\$ 0	\$ 3,885,352	\$ 3,885,352
2024 - 2028	2,752,516	0	1,778,480	1,778,480
2029 - 2033	1,940,093	0	926,657	926,657
2034 - 2038	1,479,497	0	520,049	520,049
2039 - 2043	1,400,069	0	360,585	360,585
2044 - 2048	1,501,907	0	288,720	288,720
2049 - 2053	1,134,602	0	162,627	162,627
2054 - 2058	704,910	0	75,335	75,335
2059 - 2063	209,334	0	17,201	17,201
2064 - 2068	6,307	0	408	408
2069 - 2073	0	0	0	0

Benefit Payments by Benefit Type

Year Beginning July 1 and Ending June 30 of the Following Year	Implicit Subsidy Only Payments	Subsidized Payments	Total Projected Net Payments
2019	\$ 250,184	\$ 692,888	\$ 943,072
2020	290,934	657,365	948,299
2021	322,980	665,055	988,035
2022	297,096	557,047	854,143
2023	257,901	478,387	736,288
2024 - 2028	1,043,238	1,709,278	2,752,516
2029 - 2033	836,860	1,103,233	1,940,093
2034 - 2038	682,120	797,377	1,479,497
2039 - 2043	779,861	620,208	1,400,069
2044 - 2048	966,667	535,240	1,501,907
2049 - 2053	815,930	318,672	1,134,602
2054 - 2058	662,366	42,544	704,910
2059 - 2063	209,334	0	209,334
2064 - 2068	6,307	0	6,307
2069 - 2073	0	0	0

Note: The subsidized payment projections are estimates. When preparing fiscal year-end disclosures, the actual subsidized benefit payments that were made for the fiscal year from Red Wing Public Schools should be used. **Please contact Hildi Inc. when preparing your disclosures at June 30, 2020.**

Plan Liabilities

GASB 74 & 75 Liabilities

The following table compares the liabilities calculated as of the current and prior valuation date.

Liabilities at Valuation Date		
1. Valuation Date	July 1, 2019	July 1, 2017
2. Discount rate	6.20%	6.20%
3. Medical trend rate		
a. Current year	6.50%	6.50%
b. Ultimate year	5.00%	5.00%
c. Years to ultimate trend rate	6	6
4. Present value of benefits	\$ 8,015,414	\$ 8,646,153
5. Accrued liability (Total OPEB Liability)		
a. Split by implicit rate liability vs. direct subsidy liability		
i. Implicit rate liability	2,088,488	2,163,225
ii. Direct subsidized liability	<u>4,322,793</u>	<u>5,005,297</u>
iii. Total	6,411,281	7,168,522
b. Split by status		
i. Actives	3,207,032	3,976,648
ii. Retirees and beneficiaries	<u>3,204,249</u>	<u>3,191,874</u>
iii. Total	6,411,281	7,168,522
6. Service Cost	195,579	185,200
7. Estimated net benefit payments		
a. Actives (from expected retirements)	86,938	74,156
b. Retirees and beneficiaries	<u>856,134</u>	<u>771,022</u>
c. Total	943,072	845,178

Results by Contract Group

July 1, 2019

	Directors and Program Supervisors	Custodians	Food Service Employees	Non-Classified and Non-Union Personnel	Principals and Superintendent	Support Personnel	Teachers	Total
Counts								
Active	8	25	21	24	8	89	193	368
Retiree	<u>1</u>	<u>0</u>	<u>0</u>	<u>4</u>	<u>2</u>	<u>1</u>	<u>60</u>	<u>68</u>
Total	9	25	21	28	10	90	253	436
Present Value of Future Benefits								
Active	\$ 162,135	\$ 90,988	\$ 90,713	\$ 101,555	\$ 225,878	\$ 375,953	\$ 3,763,943	\$ 4,811,165
Retiree	<u>27,500</u>	<u>0</u>	<u>0</u>	<u>124,170</u>	<u>89,146</u>	<u>18,716</u>	<u>2,944,717</u>	<u>3,204,249</u>
Total	189,635	90,988	90,713	225,725	315,024	394,669	6,708,660	8,015,414
Total OPEB Liability								
Active	132,727	44,029	48,032	44,400	100,604	153,044	2,684,196	3,207,032
Retiree	<u>27,500</u>	<u>0</u>	<u>0</u>	<u>124,170</u>	<u>89,146</u>	<u>18,716</u>	<u>2,944,717</u>	<u>3,204,249</u>
Total	160,227	44,029	48,032	168,570	189,750	171,760	5,628,913	6,411,281
Service Cost	6,447	8,078	5,960	6,053	14,685	27,059	127,297	195,579
Expected Benefit Payments								
Active (expected to retire)	6,010	4,123	3,043	764	960	5,977	66,061	86,938
Retiree	<u>9,739</u>	<u>0</u>	<u>0</u>	<u>42,405</u>	<u>32,168</u>	<u>5,900</u>	<u>765,922</u>	<u>856,134</u>
Total	15,749	4,123	3,043	43,169	33,128	11,877	831,983	943,072

Plan Assets

Plan Asset Reconciliation

Irrevocable OPEB Assets for Fiscal Year Ending	June 30, 2019	June 30, 2018
1. Value at beginning of fiscal year	\$ 10,443,191	\$ 10,583,744
a. Employer Contributions	0	0
b. Other nonemployer contributions	0	0
c. Benefits paid	(818,878)	(756,001)
d. Non-investment expense paid	0	0
e. Return on plan assets	<u>477,272</u>	<u>615,448</u>
2. Value at end of fiscal year	10,101,585	10,443,191
3. Estimated return for prior year	4.6%	5.8%

Development of Expected Long-Term Rate of Portfolio Return

Asset Class	Target Allocation	Expected Class Return
Cash	1.00%	2.50%
Fixed income	39.00%	2.60%
Domestic Equity	26.00%	9.00%
International Equity	14.00%	10.00%
Real estate	10.00%	8.70%
Other (Hedged Equity Funds)	<u>10.00%</u>	<u>5.80%</u>
Total Portfolio	100.0%	6.20%

Other Information

Plan Participants

	July 1, 2019	July 1, 2017
1. Participant counts		
a. Actives	368	406
b. Retirees receiving payments	68	73
c. Spouses receiving payments	<u>22</u>	<u>17</u>
d. Total participants	458	496
2. Active participant statistics		
a. Average age	45.4	45.9
b. Average hire service	9.0	10.1
c. Total expected pay for year	\$ 17,506,356	\$ 16,941,721
3. Retirees (excludes spouse)		
a. Average age: Pre-65	61.3	61.1
b. Average age: Post-65	68.0	67.9
4. Number of retirees by age		
a. Under 50	0	0
b. 50 to 54	0	0
c. 55 to 59	14	22
d. 60 to 64	35	30
e. 65+	<u>19</u>	<u>21</u>
f. Total	68	73

Covered Population: All of the active employees who have access to health insurance and all retirees who have elected to continue coverage on the employer's medical plan after retirement have been included in this valuation. Post-age 65 retirees and their spouses are excluded as they are assumed to have Medicare as their primary health insurance so no Implicit Rate Subsidy applies. Also, post-age 65 retirees with dental insurance only have been excluded since the implicit rate dental liability is being valued to age 65 and all retirees with life insurance coverage only have been excluded. The implicit rate liability associated with life insurance is not significant so has not been included in this valuation. The post-age 65 retirees included in the valuation have post-employment subsidized benefits remaining.

Active Participants Age/Service Grid

		Years of Service																				
Attained Age	Under 1		1 to 4		5 to 9		10 to 14		15 to 19		20 to 24		25 to 29		30 to 34		35 to 39		40 & up		Total	
	No.	Avg. Comp	No.	Avg. Comp	No.	Avg. Comp	No.	Avg. Comp	No.	Avg. Comp	No.	Avg. Comp	No.	Avg. Comp	No.	Avg. Comp	No.	Avg. Comp	No.	Avg. Comp	No.	Avg. Comp
Under 25	15	32,488	4	33,443	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19	32,689
25 to 29	17	36,387	15	47,135	3	49,022	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35	42,076
30 to 34	6	39,193	16	47,084	15	58,283	1	67,008	0	0	0	0	0	0	0	0	0	0	0	0	38	50,783
35 to 39	12	32,522	12	46,647	8	60,066	11	68,323	0	0	0	0	0	0	0	0	0	0	0	0	43	50,746
40 to 44	7	33,904	8	54,505	7	50,343	4	66,204	3	67,228	0	0	0	0	0	0	0	0	0	0	29	51,457
45 to 49	3	34,240	19	40,243	7	52,972	5	66,662	3	55,460	3	71,206	1	70,558	0	0	0	0	0	0	41	49,317
50 to 54	11	38,199	12	42,676	12	51,120	7	52,059	5	62,580	3	47,014	6	74,236	3	74,236	0	0	0	0	59	51,394
55 to 59	7	32,150	5	43,893	5	61,667	9	56,353	4	46,877	10	48,298	7	50,938	5	64,425	0	0	0	0	52	50,177
60 to 64	7	21,366	9	35,668	2	42,558	4	44,720	5	62,593	7	48,036	8	40,642	5	38,836	0	0	1	51,918	48	40,730
65 to 69	0	0	0	0	1	66,408	0	0	1	63,070	1	17,885	0	0	1	42,655	0	0	0	0	4	47,504
70 & up	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	85	33,720	100	44,072	60	54,972	41	60,175	21	59,262	24	49,658	22	54,440	14	55,833	0	0	1	51,918	368	47,572

The average compensation shown in each cell represents the average for the number of active participants in that cell.

Methods and Assumptions

Summary of Methods	
Valuation/Census Data Date	July 1, 2019
Measurement Date	June 30, 2020
Actuarial Cost Method	Entry Age, level percentage of pay
Actuarial Assets	Trustee value as of the measurement date
Amortization of Deferred Resource Flows	Average of expected remaining service on a closed basis for differences between expected and actual experience and assumption changes. Closed five-year period for differences between expected and actual asset returns.
Economic Assumptions	
Discount Rate	6.20%
Expected Long-Term Investment Return	6.20% (net of investment expenses)
20-Year Municipal Bond Yield	3.10%
Inflation Rate	2.50%
Salary Increases*	Service graded table, see sample rates
Medical Trend Rate	6.50% in 2019 grading to 5.00% over 6 years Note: The Medicare Supplement premiums are assumed to increase 4.00%.
Dental Trend Rate	4.00%
Other Assumptions	
Mortality*	Pub-2010 Public Retirement Plans Headcount-Weighted Mortality Tables (General, Teachers) with MP-2018 Generational Improvement Scale
Disability	None
Withdrawal	See sample rates
Retirement	See sample rates
Expenses	Assumed paid outside of Plan
Percent Married	Current Retirees: Actual retiree/spouse elections used. Future Retirees: Males 85%, Females 65%
Age Difference	Actual spouse birthdate for current retirees (if provided). For all others, males assumed to be 3 years older than females.
Retiree Plan Participation	Future Retirees Electing Coverage: Pre-65 subsidy available: <ul style="list-style-type: none"> • Teachers 90% • All Others 100% Pre-65 subsidy not available: 50%
Percent of Married Retirees Electing Spouse Coverage	Percent Future Retirees Electing Pre-65 Spouse Coverage: Spouse subsidy available: 100% Spouse subsidy not available: 25%
Benefits Not Included	Red Wing Schools provides access to life insurance during retirement. However, the implicit rate liability is not significant for life insurance and has not been included in this valuation. Also, the implicit rate liability for dental insurance is being valued to age 65.

*Teacher rates are being applied to Principals and the Superintendent in addition to the Teachers.

Other Assumptions <i>continued</i>	
Patient Protection and Affordable Care Act (PPACA)	The PPACA may add a new high-cost plan excise tax (e.g. the Cadillac Tax) starting in calendar year 2022. We have determined the effect of this tax is negligible so no adjustment to the liability was made. We will continue to monitor the impact of this provision under the future guidance on this assumption.

Analysis of Prescribed Assumptions

None.

Analysis of Non-prescribed Assumptions

Unless otherwise specified below, all non-prescribed assumptions have been determined with input from the actuary, even though the plan sponsor may be ultimately responsible for selecting the assumption.

Economic Assumption	Rationale
All Economic Assumptions	Economic assumptions are based on input from a variety of published sources of historical and projected future financial data. Each assumption was reviewed for reasonableness with the source information as well as for consistency with the other economic assumptions.
Discount rate	Assets were projected using expected benefit payments and expected asset returns. Expected benefit payments by year were discounted using the expected asset return assumption for years in which the assets were sufficient to pay all benefit payments. Any remaining benefit payments after the trust fund is exhausted are discounted at the 20-year municipal bond rate. The equivalent single rate is the discount rate.
Expected asset return	The long-term return on assets has been set based on the plan's target investment allocation along with long-term return expectations by asset class. When there is sufficient historical evidence of market outperformance, historical average returns may be considered.
20-Year Municipal Bond Yield	The municipal bond rate assumption was set by considering published rate information for 20-year high quality, tax-exempt, general obligation municipal bonds as of the Measurement Date.
Salary Increases	The salary scale used to value GASB 74/75 liabilities is similar to the table used to value pension liabilities for Minnesota school district employees. The rates for teachers, principals and the superintendent are based on the Teacher Retirement Association of Minnesota actuarial experience study for the period July 1, 2008 through June 30, 2014 and a study of economic assumptions dated November 2017. The rates for other employees are based on the Public Employees Retirement Association of Minnesota most recent six-year experience study for the General Employees Plan completed in 2015 and a review of the inflation assumption dated September 11, 2017.

Analysis of Non-prescribed Assumptions *continued*

Economic Assumption	Rationale
Inflation	The long-term inflation assumption has been chosen based on a review of historical changes in the Consumer Price Index (CPI.) Published projections of future inflation rates were also considered.
Healthcare Trend Rates	The medical and dental trend rates have been chosen based on a review of historical health care increase rates, projected health care increase rates, and projected health care expenditures as a percentage of GDP. The components of health care costs were considered when developing the aggregate set of trend rates. We have reviewed all provisions of the PPACA that may apply to this valuation and have not made any adjustments, currently, to the medical trend rate due to the potential future Cadillac Tax of the PPACA. We will continue to monitor the PPACA provisions and make adjustments to the Medical Trend Rate, if material.

Non-Economic Assumption	Rationale
Mortality	The rates used are recent tables developed and recommended by the Society of Actuaries.
Retirement & Withdrawal	The retirement and withdrawal assumptions used to value GASB 74/75 liabilities are similar to those used to value pension liabilities for Minnesota school district employees. The rates are based on the Teacher Retirement Association of Minnesota actuarial experience study for the period July 1, 2008 through June 30, 2014.
Disability	Plan disability benefits are of similar value to other plan benefits. Therefore, disability incidence is presumed to be included in retirement and withdrawal incidence.
Retiree Plan Participation & Percent of Married Retirees Electing Spouse Coverage	The plan participation percentages for retirees and their spouses reflect past, current, and expected future expectations of medical plan enrollment for current actives and retirees. These amounts are adjusted to reflect population changes, differences in actual versus expected liabilities, and changes in enrollment/participation patterns.

Changes since prior valuation

- The health care trend rates were changed to better anticipate short term and long term medical increases.
- The mortality tables were updated from the RP-2014 White Collar Mortality Tables with MP-2016 Generational Improvement Scale to the Pub-2010 Public Retirement Plans Headcount-Weighted Mortality Tables (General, Teachers) with MP-2018 Generational Improvement Scale.
- The salary increase rates were changed from a flat 3.00% per year for all employees to rates which vary by service and contract group.

Sample Withdrawal and Retirement Rates

Years of Service	Withdrawal % for Males	Withdrawal % for Females
0	32.00%	29.00%
1	15.00%	13.00%
2	11.00%	11.00%
3	8.50%	9.00%
4	6.25%	7.00%
5	5.25%	5.50%
6	4.60%	4.00%
7	4.10%	3.50%
8	2.80%	3.00%
9	2.30%	2.50%
10	2.00%	2.10%
15	1.10%	1.10%
20	0.60%	0.60%
25 or more	0.50%	0.50%

Attained Age	Retirement % Rule of 90	Retirement % Not Rule of 90
55	35%	5%
56	35%	5%
57	35%	5%
58	35%	5%
59	35%	5%
60	35%	10%
61	35%	10%
62	35%	25%
63	35%	10%
64	35%	10%
65+	100%	100%

Salary Increase Rates

Years of Service	Teacher Salary Increase	Others Salary Increase
1	8.85%	11.25%
2	7.10%	8.25%
3	6.60%	6.75%
4	6.35%	5.75%
5	6.75%	5.25%
6	6.20%	4.95%
7	6.05%	4.65%
8	5.90%	4.55%
9	5.75%	4.45%
10	5.60%	4.25%
11	5.35%	4.00%
12	5.10%	3.85%
13	4.85%	3.75%

Years of Service	Teacher Salary Increase	Others Salary Increase
14	4.60%	3.65%
15	4.35%	3.65%
16	4.10%	3.60%
17	3.85%	3.55%
18	3.65%	3.50%
19	3.55%	3.50%
20	3.45%	3.50%
21	3.35%	3.50%
22	3.25%	3.45%
23	3.15%	3.35%
24	3.05%	3.35%
25	2.95%	3.35%
26 or more	2.85%	3.25%

Summary of Plan Provisions

Following is a summary of the major plan provisions used to determine the plan's financial position. It should not be used in determining plan benefits.

Contract Group		Principals				Directors		Program Supervisors		Teachers (includes ECFE and Special Education)		All Others	
Source of Plan Provision Information		Contract effective July 1, 2018				Contract effective July 1, 2018		Contract effective July 1, 2018		Contract effective July 1, 2019		Contract effective July 1, 2017 for Support and Food Service; July 1, 2019 for the Superintendent; and July 1, 2018 for all others	
Access to Group Insurance													
Eligibility	Age*	55	55	55	55	55	55	55	55	55	55	55	55
	Service**	3	3	3	3	3	3	3	3	3	3	3	3
Monthly Blended Premium	Medical	Blended monthly premium is \$590 for single and \$1,479 for family to Medicare eligibility; Medicare supplement rates are \$368 single and \$736 employee + spouse											
	Dental	Blended premium is \$29 for single and \$57 for employee + 1 to Medicare eligibility											
	Life	2019-2020 average premium of \$.16 per thousand per month											
Subsidized Benefits													
Eligibility	Age	50	One Grandfathered Retiree Only	50	55	One Grandfathered Retiree Only	55	15 in State of MN (at least 5 in District) Before July 1, 2008	NA				
	Service	10		8	8			NA					
	Hire Date	N/A	Before July 1, 2000	Before July 1, 2001	After July 1, 2001 and Before July 1, 2013	Before July 1, 2001		NA					
Medical	Retiree Benefit	District pays \$11,500 annually to an HRA for 8 years (District pays Medicare supplement rate after age 65)	Full single premium coverage for 8 years or Medicare eligibility, whichever is first.	Full single premium coverage for 10 years (limited to Medicare supplement rate after age 65)	District pays \$11,500 annually to an HRA for 8 years (District pays Medicare supplement rate after age 65)	Full single premium for 96 months (limited to Medicare supplement rate after age 65)	District pays \$11,500 annually to an HRA for 8 years (District pays Medicare supplement rate after age 65) prorated for 50-75% FTE	None					
	Spouse Benefit	See above	100% of premium for 8 years or Medicare eligibility, whichever is first	75% of premium for 10 years (100% for the Retired Director of Instructional Services)	See above	None	See above	NA					
Dental	Retiree Benefit	None	Full premium coverage for 8 years or Medicare eligibility, whichever is first.	Full premium coverage for 10 years	None	None	None	None					
	Spouse Benefit	None	100% of premium coverage for 8 years or Medicare eligibility, whichever is first	75% of premium coverage for 10 years (100% for the Retired Director of Instructional Services)	None	None	None	None					
Life	Benefit	None	Full premium for a \$150,000 policy for 8 years or Medicare eligibility, whichever is first.	Full premium for a \$150,000 policy for 10 years	None	None	None	None					

Summary of Plan Provisions *continued*

- * The access to medical, dental, and life insurance for retirees could possibly happen prior to age 55 (due to certain pension provisions). For OPEB valuation purposes, we have assumed the first access eligibility age to be 55.
- ** For Non-TRA employees, the service requirement is 5 years for employees hired after July 1, 2010. The effect of this vesting change as of July 1, 2019 is immaterial and is not included in this report.

Changes since prior valuation: None.

Claim Cost Development

Estimated Annual Claims at Age 65		
	Medical	Dental
Pre-65	\$14,680	\$664
Post-65	\$0	\$0

Pre-65 Healthcare Claims

Starting claim costs were developed using medical claim and enrollment information provided by Red Wing Public Schools and HealthPartners. Due to the small size of the pre-65 retiree population, active and pre-65 information was used to develop the starting claim costs. We used information from January 1, 2017 through October 31, 2019.

The following summary outlines the process used to develop the starting claim costs:

- Medical claims and enrollment information for each group (pre-65 retirees and active employees) and time period were summarized.
- Claims information was provided on an incurred basis.
- Incurred claims per person for each time period were trended forward to the valuation period.
- Trended claims per person for each time period were adjusted for differences in plan design and demographics.
- An administrative load was added to the trended claims for each time period.
- The costs calculated for each time period were weighted together to obtain a weighted-average cost.
- The weighted-average cost was then adjusted to account for expected changes in plan enrollment for future retirees.
- The adjusted weighted-average cost was then adjusted to age 65 for valuation purposes.

Starting dental claims costs were developed by age adjusting the premium rates.

A full age-based table of claims costs is developed by applying the aging factors (table below) to the claims at age 65.

Aging Table			
Medical costs per individual are assumed to change as follows:			
Pre-65		Post-65	
Ages	% Decrease	Ages	% Increase
15 to 45	2.0%	65 to 70	3.0%
45 to 50	2.5%	70 to 75	2.5%
50 to 55	3.3%	75 to 80	2.0%
55 to 60	3.6%	80 to 85	1.0%
60 to 65	4.2%	85 to 90	0.5%
		90+	0.0%

Glossary

Actuarial Cost Method: Sometimes called 'funding method,' a particular technique used by actuaries to establish the amount and incidence of the annual actuarial cost of OPEB plan benefits, or normal cost, and the related unfunded liability.

Actuarially determined contribution (ADC): A target or recommended contribution to a defined benefit OPEB plan for the reporting period, determined in conformity with Actuarial Standards of Practice based on the most recent measurement available when the contribution for the reporting period was adopted. **GASB has not defined an ADC, rather this needs to be defined/developed by the employer.**

Collective deferred outflows of resources and deferred inflows of resources related to OPEB: Deferred outflows of resources and deferred inflows of resources related to OPEB arising from certain changes in the collective net OPEB liability or collective total OPEB liability.

Defined benefit OPEB: OPEB for which the benefits that the employee will receive at or after separation from employment are defined by the benefit terms. The OPEB may be stated as (a) a specified dollar amount; (b) an amount that is calculated based on one or more factors such as age, years of service, and compensation; or (c) a type or level of coverage such as prescription drug coverage or a percentage of health insurance premiums. (OPEB that does not have all of the terms of defined contribution OPEB is classified as defined benefit OPEB.)

Defined contribution OPEB: OPEB having terms that (a) provide an individual account for each employee; (b) define the contributions that an employer or nonemployer contributing entity is required to make (or the credits that it is required to provide) to an active employee's account for periods in which that employee renders service; and (c) provide that the OPEB an employee will receive will depend only on the contributions (or credits) to the employee's account, actual earnings on investments of those contributions (or credits), and the effects of forfeitures of contributions (or credits) made for other employees, as well as OPEB plan administrative costs, that are allocated to the employee's account.

Discount Rate: The single interest rate that will calculate the same Total OPEB Liability as the rates used to calculate the funded and unfunded portion of Total OPEB Liability.

Fiduciary Net Position: Plan assets based on market value as of the measurement date including receivable contributions and offset by plan payables. Market values are sometimes smoothed to soften the impact of investment gains and losses.

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: The rate used to adjust a series of future payments to reflect the time value of money. The long-term expected rate of return should be based on the nature and mix of current and expected OPEB plan investments over a period representative of the expected length of future benefit payments. The long-term expected rate of return should be determined net of OPEB plan investment expense but without reduction for OPEB plan administrative expense.

Net OPEB Liability: The difference between Total OPEB Liability and Net Fiduciary Position.

Glossary continued

Other Post-employment Benefits: Benefits (such as death benefits, life insurance, disability, and long-term care) that are paid in the period after employment and that are provided separately from a pension plan, as well as healthcare benefits paid in the period after employment, regardless of the manner in which they are provided. OPEB does not include termination benefits or termination payments for sick leave.

Plan Members: The individuals covered by the terms of the plan. The plan membership generally includes employees in active service, terminated employees who have accumulated benefits but are not yet receiving them, and retired employees and beneficiaries currently receiving benefits.

Post-employment Healthcare Benefits: Medical, dental, vision, and other health-related benefits provided to terminated or retired employees and their dependents and beneficiaries

Required Supplementary Information (RSI): Schedules, statistical data, and other information that are an essential part of financial reporting. RSI should be presented with, but is not part of, the basic financial statements of a governmental entity.

Service Cost: The portions of the actuarial present value of projected benefit payments that are attributed to valuation years.

Total OPEB Liability: The portion of the present value of prospective benefits allocated to service before the valuation date in accordance with the actuarial cost method.