
Red Wing Public Schools

Post-Employment Benefit Valuation Report
Under GASB Statement 16
as of July 1, 2019

Plan Year Beginning: July 1, 2019
Plan Year Ending: June 30, 2020



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Actuarial Certification

We have prepared an actuarial valuation of the Red Wing Public Schools benefits which are related to compensated absences as of July 1, 2019 to enable the plan sponsor to satisfy the accounting requirements under Statements of Governmental Accounting Standards No. 16. 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.

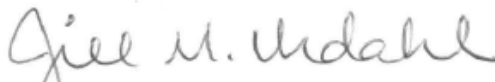
This valuation is based on participant and financial data provided by Red Wing Public Schools and is summarized in this report. An audit of the financial and participant data provided was not performed, but we have checked the data for reasonableness as appropriate based on the purpose of the valuation. 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 16.

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 to assist in complying with the reporting and disclosure requirements under GASB Statement 16.

Summary of Results

July 1, 2019	
1. Liabilities	
a. Present Value of Benefits	\$ 1,905,611
b. Accrued Liability	1,011,635
c. Normal Cost	70,816
d. Estimated Benefit Payments	97,217
e. Valuation Salary	16,388,097
2. Estimated Liability One Year Later	1,017,295
3. Key Assumptions	
a. Discount Rate	3.10%
b. Salary Increases	Service graded table

Present Value of Benefits: This is the estimated amount of money on the valuation date that would be sufficient to provide all expected future payments from the plan (including future service and pay increases for all employees).

Accrued Liability: The accrued liability is the portion of the present value of benefits earned as of the valuation date reflecting service as of that date. Under GASB 16 accrual accounting, this is the estimated amount that should be reflected on the books.

Normal Cost: The normal cost is the portion of the present value of benefits expected to be earned in the upcoming year.

Expected Benefit Payments: This reflects the estimated cash outlay for the upcoming year based on the plan's assumptions.

Comparison to Previous Results

The last valuation completed for Red Wing Public Schools was as of July 1, 2017. Below is a rough summary showing estimated reasons for changes in the accrued liability.

Comparison to Previous Results	July 1, 2019
1. Changes in Accrued Liability	
a. Expected Accrued Liability	\$ 1,016,396
b. Liability (Gain) / Loss	(85,643)
c. Assumption Changes	30,386
d. Plan Changes	<u>50,496</u>
e. Total Accrued Liability	1,011,635
2. Normal Cost	70,816
3. Discount Rate	3.10%

Other

Since the last actuarial valuation as of July 1, 2017, the following actuarial assumptions have changed:

- 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.
- The discount rate was changed from 3.40% to 3.10%.

Since the last actuarial valuation as of July 1, 2017, the following plan provisions have changed:

- The Student Services and MARSS Coordinator is no longer eligible to receive a GASB 16 benefit.
- The Teachers' benefit was increased from \$125 to \$135 per unused sick leave day, up to 160 days. Also, all Teachers now accrue 10 unused sick leave days per year. Previously, they accrued 9 days per year, until 50 days were accrued, and then 11 days per year thereafter.
- The Food Service employees' benefit increased to \$12.50 per unused sick leave hour, up to 1050 hours. The prior formula had a variable multiplier between \$10.00 and \$12.50 per unused sick leave hour.

Liability Details

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.)

Year Beginning July 1 and Ending June 30 of the Following Year	Total Projected Net Benefit Payments
2019	\$97,217
2020	90,252
2021	124,336
2022	136,381
2023	106,444
2024	105,676
2025	83,763
2026	67,239
2027	94,846
2028	93,315
2029	62,775
2030	156,810
2031	66,372
2032	87,501
2033 - 2037	328,101
2038 - 2042	324,108
2043 - 2047	379,189
2048 - 2052	358,497
2053 - 2057	236,062
2058 - 2062	97,041
2063 - 2067	1,715
2068 - 2072	0

Results by Contract Group

July 1, 2019

	Directors	Custodians	Food Service Employees	Non- Classified Personnel	Principals and Superintendent	Support Personnel	Teachers	Total
Counts								
Active	2	25	21	5	8	89	193	343
Retiree	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total	2	25	21	5	8	89	193	343
Present Value of Future Benefits								
Active	\$ 104,347	\$ 48,024	\$ 85,071	\$ 1,027	\$ 95,183	\$ 205,387	\$ 1,366,572	\$ 1,905,611
Retiree	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total	104,347	48,024	85,071	1,027	95,183	205,387	1,366,572	1,905,611
Accrued Liability								
Active	96,822	27,996	58,638	1,027	49,975	94,872	682,305	1,011,635
Retiree	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total	96,822	27,996	58,638	1,027	49,975	94,872	682,305	1,011,635
Normal Cost	3,461	1,920	2,996	0	5,892	8,743	47,804	70,816
Expected Benefit Payments								
Active (expected to retire)	18,529	4,427	15,034	1,043	2,145	8,736	47,303	97,217
Retiree	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total	18,529	4,427	15,034	1,043	2,145	8,736	47,303	97,217

Other Information

Plan Participants

Plan Participants	July 1, 2019	July 1, 2017
1. Participant Counts		
a. Actives	343	380
b. Retirees receiving payments	<u>0</u>	<u>0</u>
c. Total participants	343	380
2. Active participant statistics		
a. Average age	45.9	46.3
b. Average hire service	9.3	10.5
c. Total expected pay for year	\$ 16,388,097	\$ 15,924,624

Active Participants Age/Service Grid

Years of Service																						
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	
Attained Age	Avg. Comp		Avg. Comp		Avg. Comp		Avg. Comp		Avg. Comp		Avg. Comp		Avg. Comp		Avg. Comp		Avg. Comp		Avg. Comp		Avg. Comp	
	No.		No.		No.		No.		No.		No.		No.		No.		No.		No.		No.	
Under 25	13	32,823	4	33,443	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	32,969
25 to 29	16	36,265	12	48,346	3	49,022	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	42,176
30 to 34	5	35,280	14	49,941	14	57,059	1	67,008	0	0	0	0	0	0	0	0	0	0	0	0	34	51,218
35 to 39	11	32,991	9	40,750	6	65,317	11	68,323	0	0	0	0	0	0	0	0	0	0	0	0	37	50,625
40 to 44	7	33,904	8	54,505	6	43,649	4	66,204	3	67,228	0	0	0	0	0	0	0	0	0	0	28	50,063
45 to 49	3	34,240	18	40,213	6	54,248	5	66,662	3	55,460	3	71,206	1	70,558	0	0	0	0	0	0	39	49,639
50 to 54	9	39,243	11	41,526	11	54,204	7	52,059	5	62,580	3	47,014	6	74,236	3	74,236	0	0	0	0	55	52,594
55 to 59	7	32,150	5	43,893	5	61,667	8	55,790	4	46,877	10	48,298	7	50,938	5	64,425	0	0	0	0	51	49,968
60 to 64	7	21,366	9	35,668	2	42,558	3	53,596	5	62,593	7	48,036	8	40,642	5	38,836	0	0	1	51,918	47	41,211
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	78	33,514	90	43,744	54	55,209	39	61,236	21	59,262	24	49,658	22	54,440	14	55,833	0	0	1	51,918	343	47,779

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

Methods and Assumptions

Methods	
Census Data Date	July 1, 2019
Valuation Date / Measurement Date	July 1, 2019
Actuarial Cost Method	Projected unit credit
Actuarial Assets	None

Economic Assumptions	
Discount Rate	3.10%
Salary Increases*	Service graded table, see sample rates

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
Future Unused Sick Leave and Vacation Days	Applicable Employees are assumed to carryover 50% of the maximum number of days accrued each year.
District Contributions to Tax Deferred Plan	All applicable employees are assumed to receive 100% of the maximum District paid match for all future years. Past contributions were provided by the plan sponsor for each employee.

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

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	Since the plan is not funded (has no assets), the discount rate was developed by estimating the long term investment yield on the employer funds that will be used to pay benefits as they come due.
Salary Increases	The salary scale used to value GASB 16 liabilities is similar to the table used to value pension liabilities for Minnesota school district employees. The state pension plans base their assumptions on periodic experience studies.
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 16 liabilities are similar to those used to value pension liabilities for Minnesota school district employees. The state pension plans base their assumptions on periodic experience studies.
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.
Future Unused Sick Leave and Vacation Days and Future District Contributions to Tax Deferred Plan	The future unused sick leave and vacation days and future district contributions to the tax deferred plan assumptions reflect past, current, and expected future expectations. These amounts are adjusted to reflect population changes and differences in actual versus expected liabilities.

Changes since prior valuation:

- 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.
- The discount rate was changed from 3.40% to 3.10%.

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 plan provisions based on the most recent contracts/statements provided to us. This summary should not be used in determining benefits.

Contract Group	Teachers (includes ECFE and Special Education Teachers)	Food Service Employees	Support Personnel	Custodians and Non-Classified Personnel	Principals	Directors and Superintendent
Source of Plan Information	Contract effective July 1, 2019	Contract effective July 1, 2017	Contract effective July 1, 2017	Contracts effective July 1, 2018	Contract effective July 1, 2018	Contracts effective July 1, 2018 (Directors) and July 1, 2019 (Superintendent)
Eligibility Age & Service Hire by date	55 & 10 NA	55 & 10 NA	55 & 10 NA	55 & 10 July 1, 2001 (N/C Personnel Only)	55 & 7 NA	50 & 8 July 1, 2001 (Directors Only)
Benefit Unused Sick Leave x Dollar Amount or Percent of Daily Rate of Pay	Unused Sick Days x \$135 per day, up to 160 days	Unused Sick Hours x \$12.50 per hour, up to 1,050 hours	<u>Unused Sick Hours</u> 0 to 210 \$10 211 to 420 \$10.83 421 to 630 \$11.67 631 to 1,050 \$12.50	<u>Unused Sick Days</u> 0 to 50 \$65 51 to 100 \$70 101 to 150 \$75 151 to 200 \$80	<u>Unused Sick Days</u> <u>% of Daily Rate of Pay</u> 0 to 35 65% 36 to 70 70% 71 to 100 75%	Unused Sick Days x Daily Rate of Pay
Offset by accumulated district contributions to the matching program	No	No	No	No - Custodians Yes - Non-Classified Personnel	Yes	No
District matching contribution (see note below)	NA	NA	NA	\$2,000 per year	\$5,500 per year	NA
Sick Leave Accumulation	10 days per year	1 day per month worked	1 day per month worked	12 (9 for Custodians) days per year	12 days per year and 15 days per year after 50 days have accumulated	12 days per year and 15 days per year after 50 days have accumulated
Limitation on Total Benefit	\$21,600	\$13,125	\$12,075	\$14,500	100 days of pay	Directors - 130 days of pay Superintendent – see below
Form of Payment	Lump Sum	Lump Sum	Lump Sum	Lump Sum	Lump Sum	Lump Sum
Other	NA	NA	NA	NA	NA	The age requirement is not applicable to the Superintendent. The maximum number of USL days is 170 for the Superintendent. However, if the Superintendent retires before age 55, the maximum number of USL days taken into account is 40 instead of 170.

Note: The district matching contributions shown above are not included in the GASB 16 liabilities. They are used as an offset to GASB 16 benefits.

Changes since prior valuation:

- The Student Services and MARSS Coordinator is no longer eligible to receive a GASB 16 benefit.
- The Teachers' benefit was increased from \$125 to \$135 per unused sick leave day, up to 160 days. Also, all Teachers now accrue 10 unused sick leave days per year. Previously, they accrued 9 days per year, until 50 days were accrued, and then 11 days per year thereafter.
- The Food Service employees' benefit increased to \$12.50 per unused sick leave hour, up to 1,050 hours. The prior formula had a variable multiplier between \$10.00 and \$12.50 per unused sick leave hour.