



Actuarial Valuation Report

Miami-Dade County Public Schools

Retiree Medical Program

For the Fiscal Year Ending June 30, 2022

Measurement Date June 30, 2021

Introduction

This report documents the results of the actuarial valuation for the fiscal year ending June 30, 2022 of the Retiree Medical Program for the Miami-Dade County Public Schools. The plan is a single-employer plan and does not issue a separate financial statement. As a result, all reporting requirements are included in the employer's financial statement. These results are based on a Measurement Date of June 30, 2021. The information provided in this report is intended strictly for documenting information relating to company and plan disclosure and reporting requirements.

Determinations for purposes other than the financial accounting requirements may be significantly different from the results in this report. Thus, the use of this report for purposes other than those expressed here may not be appropriate.

This valuation has been conducted in accordance with generally accepted actuarial principles and practices, including the applicable Actuarial Standards of Practice as issued by the Actuarial Standards Board. In addition, the valuation results are based on our understanding of the financial accounting and reporting requirements under U.S. Generally Accepted Accounting Principles as set forth in Government Accounting Standards Board Statement 75 (GASB 75) including any guidance or interpretations provided by the Company and/or its audit partners prior to the issuance of this report. The information in this report is not intended to supersede or supplant the advice and interpretations of the Miami-Dade County Public Schools' auditors. Additional disclosures may be required under GASB 74.

A valuation model was used to develop the liabilities for the June 30, 2022 valuation. The valuation model relies on ProVal software, which was developed by Winklevoss Technologies, LLC. Experts within Aon selected this software and determined it is appropriate for performing valuations. We coded and reviewed the software for the provisions, assumptions, methods, and data of the Retiree Medical Program.

The valuation model outputs various cost scenarios. The "1% increase" and "1% decrease" interest rate scenarios vary only the discount rate assumption, in order to illustrate the impact of a change in that assumption in isolation. In practice, certain other assumptions, would also be expected to vary when the discount rate changes. Therefore, the output from these scenarios should be used solely for assessing the impact of the discount rate in isolation and may not represent a realistic set of results for other purposes.

The "1% increase" and "1% decrease" healthcare cost trend scenarios vary only the healthcare cost trend assumption, in order to illustrate the impact of a change in that assumption in isolation. Therefore, the output from these scenarios should be used solely for assessing the impact of the healthcare cost trend in isolation and may not represent a realistic set of results for other purposes.

Models are used to estimate underlying per capita medical, prescription drug, and plan design actuarial values components, subsequently utilized as assumption inputs for valuation models used to develop the liabilities for the 2022 and future valuations. The model used for the development of plan design actuarial value components was developed by experts outside of Aon, specifically Optum. The Aon consulting team leveraged expertise of Health experts within Aon as it relates to reviewing the models developed by experts outside of Aon, and those used for development of the per capita claims costs and future trend rates.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to (but not limited to) such factors as the following:

- Plan experience differing from that anticipated by the economic or demographic assumptions;
- Changes in actuarial methods or in economic or demographic assumptions;
- Increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period); and
- Changes in plan provisions or applicable law.

Due to the limited scope of our assignment, we did not perform an analysis of the potential range of such future measurements.

Funded status measurements shown in this report are determined based on various measures of plan assets and liabilities. For entity and plan disclosure and reporting purposes, funded status is determined using plan assets measured at market value. Plan liabilities are measured based on the interest rates and other assumptions summarized in the Actuarial Assumptions and Methods section of this report.

These funded status measurements may not be appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligations, and funded status measurements for Miami-Dade County Public Schools and plan disclosure and reporting purposes may not be appropriate for assessing the need for or the amount of future contributions. In conducting the valuation, we have relied on personnel, plan design, health care claim cost, and asset information supplied by Miami-Dade County Public Schools as of the valuation date. While we cannot verify the accuracy of all the information, the supplied information was reviewed for consistency and reasonableness. As a result of this review, we have no reason to doubt the substantial accuracy or completeness of the information and believe that it has produced appropriate results.

The actuarial assumptions and methods used in this valuation are described in the Actuarial Assumptions and Methods section of this report. Miami-Dade County Public Schools selected the economic and demographic assumptions and prescribed them for use for purposes of compliance with GASB 75. Aon provided guidance with respect to these assumptions, and it is our belief that the assumptions represent reasonable expectations of anticipated plan experience.

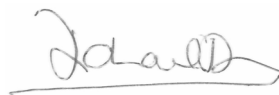
Based on the actuary's experience and professional expertise, the claims development methodology followed generally accepted actuarial practices and is consistent with applicable ASOPs. Based on comparison of the historical actual claims costs, we believe the assumed per capita claims costs are reasonable and representative of future costs.

The undersigned are familiar with the near-term and long-term aspects of OPEB valuations and collectively meet the Qualification Standards of the American Academy of Actuaries necessary to render the actuarial opinions contained herein. The information provided in this report is dependent upon various factors as documented throughout this report, which may be subject to change. Each section of this report is considered to be an integral part of the actuarial opinions.

To our knowledge, no colleague of Aon providing services to Miami-Dade County Public Schools has any material direct or indirect financial interest in Miami-Dade County Public Schools. Thus, we believe there is no relationship existing that might affect our capacity to prepare and certify this actuarial report for Miami-Dade County Public Schools.



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Accounting Requirements

Development of GASB 75 Net OPEB Expense

Calculation Details

The following table illustrates the Net OPEB Liability under GASB 75.

	Fiscal Year Ending 6/30/2021	Fiscal Year Ending 6/30/2022
(1) OPEB Liability		
(a) Retired Participants and Beneficiaries Receiving Payment	\$ 38,389,631	\$ 28,552,840
(b) Active Participants	<u>231,146,205</u>	<u>265,007,968</u>
(c) Total	\$ 269,535,836	\$ 293,560,808
(2) Plan Fiduciary Net Position	<u>0</u>	<u>0</u>
(3) Net OPEB Liability	\$ 269,535,836	\$ 293,560,808
(4) Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability	0.00%	0.00%
(5) Deferred Outflow of Resources for Contributions Made After Measurement Date	\$ 6,288,239	\$ 8,279,985

Expense

The following table illustrates the OPEB expense under GASB 75.

	Fiscal Year Ending 6/30/2021	Fiscal Year Ending 6/30/2022
(1) Service Cost	\$ 11,669,962	\$ 22,302,906
(2) Interest Cost	7,369,050	6,380,531
(3) Expected Investment Return	0	0
(4) Employee Contributions	0	0
(5) Administrative Expense	0	0
(6) Plan Changes	0	0
(7) Amortization of Unrecognized		
(a) Liability (Gain)/Loss	(8,455,704)	(8,370,688)
(b) Asset (Gain)/Loss	0	0
(c) Assumption Change (Gain)/Loss	<u>10,124,879</u>	<u>10,243,585</u>
(8) Total Expense	\$ 20,708,187	\$ 30,556,334

Shown below are details regarding the calculation of Service, Interest Cost and Expected Investment Return components of the Expense.

	Fiscal Year Ending 6/30/2021	Fiscal Year Ending 6/30/2022
(1) Development of Service Cost:		
(a) Normal Cost at Beginning of Measurement Period	\$ 11,669,962	\$ 22,302,906
(2) Development of Interest Cost:		
(a) Total OPEB Liability at Beginning of Measurement Period	\$ 201,342,704	\$ 269,535,836
(b) Normal Cost at Beginning of Measurement Period	11,669,962	22,302,906
(c) Actual Benefit Payments	(6,189,819)	(6,288,239)
(d) Discount Rate	3.51%	2.21%
(e) Interest Cost	\$ 7,369,050	\$ 6,380,531
(3) Development of Expected Investment Return:		
(a) Plan Fiduciary Net Position at Beginning of Measurement Period	\$ 0	\$ 0
(b) Actual Contributions—Employer	6,189,819	6,288,239
(c) Actual Contributions—Employee	0	0
(d) Actual Benefit Payments	(6,189,819)	(6,288,239)
(e) Administrative Expenses	0	0
(f) Other	0	0
(g) Expected Return on Assets		
(h) Expected Return	\$ 0	\$ 0

Reconciliation of Net OPEB Liability

Shown below are details regarding the Total OPEB Liability, Plan Fiduciary Net Position, and Net OPEB Liability for the Measurement Period from June 30, 2020 to June 30, 2021:

	Increase (Decrease)		
	Total OPEB Liability (a)	Plan Fiduciary Net Position (b)	Net OPEB Liability (c) = (a) – (b)
Balance Recognized at 6/30/2021 (Based on 6/30/2020 Measurement Date)	\$ 269,535,836	\$ 0	\$ 269,535,836
Changes Recognized for the Fiscal Year:			
Service Cost	\$ 22,302,906	N/A	\$ 22,302,906
Interest on the Total OPEB Liability	6,380,531	N/A	6,380,531
Changes of Benefit Terms	0	N/A	0
Differences Between Expected and Actual Experience	680,130	N/A	680,130
Changes of Assumptions	949,644	N/A	949,644
Benefit Payments	(6,288,239)	(6,288,239)	0
Contributions From the Employer	N/A	6,288,239	(6,288,239)
Contributions From the Employee	N/A	0	0
Net Investment Income	N/A	0	0
Administrative Expense	N/A	0	0
Net Changes	\$ 24,024,972	\$ 0	\$ 24,024,972
Balance Recognized at 6/30/2022 (Based on 6/30/2021 Measurement Date)	\$ 293,560,808	\$ 0	\$ 293,560,808

Liability (Gain)/Loss

The following table illustrates the liability gain/loss under GASB 75.

	Fiscal Year Ending 6/30/2021	Fiscal Year Ending 6/30/2022
(1) OPEB Liability at Beginning of Measurement Period	\$ 201,342,704	\$ 269,535,836
(2) Service Cost	11,669,962	22,302,906
(3) Interest on the Total OPEB Liability	7,369,050	6,380,531
(4) Changes of Benefit Terms	0	0
(5) Changes of Assumptions	85,724,945	949,644
(6) Benefit Payments	<u>(6,189,819)</u>	<u>(6,288,239)</u>
(7) Expected OPEB Liability at End of Measurement Period	\$ 299,916,842	\$ 292,880,678
(8) Actual OPEB Liability at End of Measurement Period	<u>269,535,836</u>	<u>293,560,808</u>
(9) OPEB Liability (Gain)/Loss	\$ (30,381,006)	\$ 680,130
(10) Average Future Working Life Expectancy	<u>6.72</u>	<u>8.00</u>
(11) OPEB Liability (Gain)/Loss Amortization	\$ (4,520,983)	\$ 85,016

Asset (Gain)/Loss

The following table illustrates the asset gain/loss under GASB 75.

	Fiscal Year Ending 6/30/2021	Fiscal Year Ending 6/30/2022
(1) OPEB Asset at Beginning of Measurement Period	\$ 0	\$ 0
(2) Contributions—Employer	6,189,819	6,288,239
(3) Contributions—Employee	0	0
(4) Expected Investment Income	0	0
(5) Benefit Payments	<u>(6,189,819)</u>	<u>(6,288,239)</u>
(6) Administrative Expense	0	0
(7) Other	0	0
(8) Expected OPEB Asset at End of Measurement Period	\$ 0	\$ 0
(9) Actual OPEB Asset at End of Measurement Period	<u>0</u>	<u>0</u>
(10) OPEB Asset (Gain)/Loss	\$ 0	\$ 0
(11) Amortization Factor	<u>5.00</u>	<u>5.00</u>
(12) OPEB Asset (Gain)/Loss Amortization	\$ 0	\$ 0

Deferred Outflows/Inflows

The following table illustrates the Deferred Inflows and Outflows as of June 30, 2022 under GASB 75.

	Deferred Outflows	Deferred Inflows
(1) Difference Between Actual and Expected Experience	\$ 595,114	\$ 31,639,112
(2) Net Difference Between Expected and Actual Earnings on OPEB Plan Investments	0	0
(3) Assumption Changes	<u>71,401,390</u>	<u>22,509,070</u>
(4) Sub Total	\$ 71,996,504	\$ 54,148,182
(5) Contributions Made in Fiscal Year Ending 6/30/2022 After Measurement Date	<u>8,279,985</u>	<u>N/A</u>
(6) Total	\$ 80,276,489	\$ 54,148,182

Amortization of Deferred Inflows/Outflows

The table below lists the amortization bases included in the deferred inflows/outflows as of June 30, 2022.

Date Established	Type of Base	Period		Balance		Annual Payment
		Original	Remaining	Original	Remaining	
6/30/2021	Liability (Gain)/Loss	8.00	7.00	\$680,130	\$595,114	85,016
6/30/2021	Assumptions	8.00	7.00	949,644	830,938	118,706
6/30/2020	Liability (Gain)/Loss	6.72	4.72	(30,381,006)	(21,339,040)	(4,520,983)
6/30/2020	Assumptions	6.72	4.72	85,724,945	60,211,569	12,756,688
6/30/2019	Liability (Gain)/Loss	6.72	3.72	(2,354,352)	(1,303,302)	(350,350)
6/30/2019	Assumptions	6.72	3.72	(37,410,629)	(20,709,455)	(5,567,058)
6/30/2018	Liability (Gain)/Loss	6.51	2.51	(23,334,254)	(8,996,770)	(3,584,371)
6/30/2018	Assumptions	6.51	2.51	26,867,063	10,358,883	4,127,045
6/30/2017	Assumptions	6.51	1.51	(7,758,595)	(1,799,615)	(1,191,796)
	Total Charges				17,848,322	1,872,897

Amounts Recognized in the deferred outflows of resources and deferred inflows of resources related to OPEB will be recognized in the OPEB expense as follows:

Year End June 30:

2023	\$ 1,872,897
2024	\$ 2,456,874
2025	\$ 2,798,784
2026	\$ 4,178,894
2027	\$ 6,133,431
Total Thereafter	\$ 407,442

Plan Fiduciary Net Position Projection

The plan is unfunded, so no projection of Fiduciary Net Position is required.

The discount rate is the Bond Buyer GO-20 Index rate with no blending of the expected return on assets.

Interest Rate Sensitivity

The following table illustrates the impact of interest rate sensitivity on the Net OPEB Liability for fiscal year ending June 30, 2021:

	1% Decrease (1.21%)	Current Rate (2.21%)	1% Increase (3.21%)
(1) Total OPEB Liability	\$ 283,340,883	\$ 269,535,836	\$ 254,788,104
(2) Plan Fiduciary Net Position	<u>0</u>	<u>0</u>	<u>0</u>
(3) Net OPEB Liability	\$ 283,340,883	\$ 269,535,836	\$ 254,788,104

The following table illustrates the impact of interest rate sensitivity on the Net OPEB Liability for fiscal year ending June 30, 2022:

	1% Decrease (1.16%)	Current Rate (2.16%)	1% Increase (3.16%)
(1) Total OPEB Liability	\$ 310,325,041	\$ 293,560,808	\$ 276,230,167
(2) Plan Fiduciary Net Position	<u>0</u>	<u>0</u>	<u>0</u>
(3) Net OPEB Liability	\$ 310,325,041	\$ 293,560,808	\$ 276,230,167

Healthcare Cost Trend Sensitivity

The following table illustrates the impact of healthcare cost trend sensitivity on the Net OPEB Liability for fiscal year ending June 30, 2021:

	1% Decrease	Trend Rate	1% Increase
(1) Total OPEB Liability	\$ 238,856,323	\$ 269,535,836	\$ 305,616,403
(2) Plan Fiduciary Net Position	<u>0</u>	<u>0</u>	<u>0</u>
(3) Net OPEB Liability	\$ 238,856,323	\$ 269,535,836	\$ 305,616,403

The following table illustrates the impact of healthcare cost trend sensitivity on the Net OPEB Liability for fiscal year ending June 30, 2022:

	1% Decrease	Trend Rate	1% Increase
(1) Total OPEB Liability	\$ 259,165,077	\$ 293,560,808	\$ 334,075,188
(2) Plan Fiduciary Net Position	<u>0</u>	<u>0</u>	<u>0</u>
(3) Net OPEB Liability	\$ 259,165,077	\$ 293,560,808	\$ 334,075,188

Disclosure—Changes in the Net OPEB Liability and Related Ratios

Changes in the Net OPEB Liability and Related Ratios¹

	Fiscal Year Ending					
	2017	2018	2019	2020	2021	2022
Total OPEB Liability						
Service Cost	N/A	\$ 11,359,955	\$ 10,496,179	\$ 12,767,792	\$ 11,669,962	\$ 22,302,906
Interest Cost	N/A	6,197,455	7,829,022	9,116,772	7,369,050	6,380,531
Changes of Benefit Terms	N/A	0	0	0	0	0
Differences Between Expected and Actual Experiences	N/A	0	(23,334,254)	(2,354,352)	(30,381,006)	680,130
Changes of Assumptions	N/A	(7,758,595)	26,867,063	(37,410,629)	85,724,945	949,644
Benefit Payments	N/A	(8,027,745)	(7,384,457)	(7,101,770)	(6,189,819)	(6,288,239)
Net Change in Total OPEB Liability	N/A	\$ 1,771,070	\$ 14,473,553	\$ (24,982,187)	\$ 68,193,132	\$ 24,024,972
Total OPEB Liability (Beginning)	N/A	210,080,268	211,851,338	226,324,891	201,342,704	269,535,836
Total OPEB Liability (Ending)	\$ 210,080,268	\$ 211,851,338	\$ 226,324,891	\$ 201,342,704	\$ 269,535,836	\$ 293,560,808
Plan Fiduciary Net Position						
Contributions—Employer	N/A	\$ 8,333,975	\$ 7,384,457	\$ 7,101,770	\$ 6,189,819	\$ 6,288,239
Contributions—Member	N/A	0	0	0	0	0
Net Investment Income	N/A	0	0	0	0	0
Benefit Payments	N/A	(8,027,745)	(7,384,457)	(7,101,770)	(6,189,819)	(6,288,239)
Administrative Expense	N/A	(306,230)	0	0	0	0
Other	N/A	0	0	0	0	0
Net Change in Plan Fiduciary Net Position	N/A	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
Plan Fiduciary Net Position (Beginning)	N/A	0	0	0	0	0
Plan Fiduciary Net Position (Ending)	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
Net OPEB Liability (Ending)	\$ 210,080,268	\$ 211,851,338	\$ 226,324,891	\$ 201,342,704	\$ 269,535,836	\$ 293,560,808
Net Position as a Percentage of OPEB Liability	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Covered-Employee Payroll	\$ 1,719,579,649	\$ 1,782,584,169	\$ 1,819,691,449	\$ 1,833,336,413	\$ 1,969,261,849	\$ 1,933,153,712
Net OPEB Liability as a Percentage of Payroll	12.22%	11.88%	12.44%	10.98%	13.69%	15.19%

¹ GASB 75 was effective first for employer fiscal years beginning after June 15, 2017.

Disclosure—Contribution Schedule

Contributions

	Fiscal Year Ending					
	2017	2018	2019	2020	2021	2022
Actuarially Determined Contribution	\$ 17,768,059	\$ 25,889,467	\$ 23,080,028	\$ 35,665,280	\$ 37,121,784	TBD
Contributions Made in Relation to the Actuarially Determined Contribution	<u>8,027,745</u>	<u>7,384,457</u>	<u>7,101,770</u>	<u>6,189,819</u>	<u>6,288,239</u>	TBD
Contribution Deficiency (Excess)	\$ 9,740,314	\$ 18,505,010	\$ 15,978,258	\$ 29,475,461	\$ 30,833,545	TBD
Covered-Employee Payroll	\$ 1,719,579,649	\$ 1,782,584,169	\$ 1,819,691,449	\$ 1,833,336,413	\$ 1,969,261,849	\$ 1,933,153,712
Contributions as a Percentage of Payroll	0.47%	0.41%	0.39%	0.34%	0.32%	TBD

Notes to Schedule:

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.

Methods and assumptions used to determine contribution rates:

Actuarial Cost Method	Entry Age Normal with 30-year closed amortization period for past unfunded liability. As of Fiscal Year Ending 2021, there are 26 years remaining.
Asset Valuation Method	Market Value
Discount Rate	2.16% for Fiscal Year Ending 2021
Investment Rate of Return	N/A
Retirement Age	See retirement rates in Assumptions
Mortality	Pub-2010 Teachers (head-count weighted) projected with scale MP-2021

Appendix

Participant Data

The actuarial valuation was based on personnel information from Miami-Dade County Public Schools records as of May 1, 2021. Following are some of the pertinent characteristics from the personnel data as of that date. Prior year characteristics are also provided for comparison purposes. Both age and service have been determined using years and months as of the valuation date.

	May 1, 2019	May 1, 2021
Health Care Participants		
Active Participants		
Number	29,332 ¹	30,014 ²
Average Age	48.0	48.4
Average Service	18.2	18.1
Inactive Participants		
Retirees With Single Coverage	754	664
Average Age	61.7	62.5
Retirees With Covered Spouses	41	51
Average Age	61.1	61.5
Total Participants		
Number	30,127	30,729

¹ May 1, 2019 Active participant count does not include actives who are over age 65 at July 1, 2019.

² May 1, 2021 Active participant count does not include actives who are over age 65 at July 1, 2021.

Asset Allocation

The plan is unfunded.

Health Care Claims Development

Health Care Claims Development

The sample per capita claims cost assumptions shown below by age represent the true underlying baseline experience estimated for Miami-Dade County Public Schools' sponsored postretirement benefits and costs. These rates are used for the valuation "run date" of May 1, 2021 and include administrative expenses. Results are then "rolled forward" to July 1, 2021 for the fiscal year 2022 expense.

Age	Blended Claims Assumptions
50	\$ 12,297
55	\$ 15,098
60	\$ 18,676
65	\$ 8,163
70	\$ 9,584
75	\$ 10,670
80	\$ 11,355
85	\$ 12,016
90+	\$ 12,381

Historical Claims and Enrollment basis—The average medical and Rx per capita claims costs were developed from actual claims experience and enrollment for the thirty-six-month period May 1, 2018 through April 30, 2021. Medical claims experience for the period from March 1, 2020 through April 30, 2021 was adjusted to remove the estimated impact from COVID-19. The annualized paid claims experience for each respective historical base period was adjusted to an incurred basis by assuming claim lag of two months for medical and one-half month for prescription drugs. Claims experience was adjusted for differences in plan design between the historical periods and the projection period using plan design relative values from Aon's actuarial models. Rx claims were further adjusted by assuming an offset of 8% for rebates. The average medical and Rx per capita claims costs from each respective historical base period were trended to the mid-point of the annual period following the valuation date.

To improve the credibility of a single projection estimate, a combination of estimates from the distinct historical periods was used, placing 50% credibility on the most recent period, 33 1/3% on the next most recent period, and 16 2/3% on the oldest period.

Administrative costs: Administration and other fixed costs were added onto the claims cost using information supplied by Miami-Dade County Public Schools equaling \$362 annually per person for pre-65 and post-65 retirees and spouses.

Health Care Aging (Morbidity) Factors

Since health care costs increase with age, and an OPEB valuation is by its nature an analysis of a closed group that will age throughout the measurement, the effect that this aging of the population will have on claims costs must be reflected in the valuation. The claim costs for medical and prescription drugs were assumed to increase with age according to the table below.

Age Band	Medical	Rx	Composite
40–44	3.00%	4.80%	3.3%
45–49	3.70%	4.70%	3.8%
50–54	4.20%	4.70%	4.3%
55–59	4.40%	4.60%	4.4%
60–64	3.70%	4.60%	3.8%
65–69	2.70%	3.80%	3.1%
70–74	1.80%	2.50%	2.1%
75–79	2.20%	0.80%	1.4%
80–84	2.80%	0.20%	1.3%
85–89	1.40%	0.10%	0.6%
90+	0.00%	0.00%	0.0%

The aging factor assumptions shown above were based on normative data analyses, along with consideration of the results from the 2013 Society of Actuaries sponsored study “Health Care Costs—From Birth to Death” prepared by Dale H. Yamamoto, reporting on the effect of age on claims costs. In addition to age, this study shows the effect of service type (medical vs. pharmacy) and gender on claims costs.

Health Care Cost Trend Rates

The health care cost trend assumptions shown below were based on national average information from a variety of sources, including S&P Healthcare Economic Index, NHCE data, plan renewal data, and vendor Rx reports, with adjustments based on the provisions of the benefits sponsored by Miami-Dade County Public Schools.

Year	Pre-65/Post-65 Composite
2020 to 2021	6.25%
2021 to 2022	6.05%
2022 to 2023	5.85%
2023 to 2024	5.60%
2024 to 2025	5.40%
2025 to 2026	5.15%
2026 to 2027	4.95%
2027 to 2028	4.70%
2028 to 2029+	4.50%

Health Care Reform Excise Tax Adjustment

The “*Further Consolidated Appropriations Act, 2020*” signed into law on December 20, 2019, included a permanent repeal of the excise tax on high-cost plans (a.k.a. “the Cadillac tax”) originally imposed by the Affordable Care Act in 2010. As a result, there is no impact from the excise tax in the valuation.

Actuarial Assumptions and Methods

Discount Rate	2.16% as of June 30, 2021. ¹ 2.21% as of June 30, 2020.
20 Year Municipal Bond Rate	2.16% as of June 30, 2021. 2.21% as of June 30, 2020.
Municipal Bond Rate Basis	Bond Buyer GO 20-Bond Municipal Bond Index
Expected Return on Assets	N/A
Salary Increases	3.00%
Payroll Growth	3.50%
General Inflation	2.20%
Retirement Rates	See Table 1.
Mortality Rates	
Healthy	Pub-2010 for Teachers (head count weighted) projected with scale MP-2021.
Disabled	Pub-2010 Disabled Mortality for Teachers (head count weighted) projected with scale MP-2021.
Withdrawal Rates	See Table 2.
Disability Rates	See Table 3.
Decrement Timing	Beginning of year decrements.
Asset Method	Fair Market Value
Employees Included in the Calculations	All employees under age 65 and actively employed on the valuation date are included.
Marital Status and Age of Spouse	The following marriage, family coverage and spouse's age difference assumption have been made for active participants:
	Male Female
Married	85% 65%
Elect Spouse Coverage	15% 10%
Spouse Age Difference	3 years younger 3 years older

¹ Based on the employer's funding policy, projected assets are not projected to always be sufficient to cover projected benefit payments, so the EROA is not used as the discount rate.

Future Medical Plan Participation

Below are the assumed participation rates:

Pre-65 retirement: 30% with no continuation after 65
Post-65 retirement: 0%

Choice of Plans:

Cigna OAP Standard	43%
Cigna OAP High	55%
Cigna SureFit	2%

Lapse Rates

It is assumed that 1% of participants with medical coverage between the ages of 55 and 65 will drop coverage annually. This includes both current retirees and expected medical coverage of future retirees.

Actuarial Cost Method

Entry Age Normal cost method.

Measurement Date

June 30, 2021

Measurement Period

July 1, 2020 to June 30, 2021.

Valuation Date

May 1, 2021

Census Data

May 1, 2021

Results were rolled from the valuation date to the measurement date using standard methodology.

Changes in Financial Accounting Methods/Assumptions Since the Prior Year

Method Changes

There have been no method changes in the financial accounting valuation since the prior year.

Assumption Changes

The financial accounting valuation reflects the following assumption changes:

- The discount rate decreased from 2.21% at June 30, 2020 to 2.16% at June 30, 2021.
- The mortality projection scale was updated from MP-2020 to MP-2021.

Miami-Dade County Public Schools selected the economic and demographic assumptions and prescribed them for use for purposes of compliance with GASB 75. Aon provided guidance with respect to the mortality assumption, and it is our belief that these assumptions represent reasonable expectations of anticipated plan experience.

Actuarial Assumptions and Methods

Table 1—Page 1 of 4

Retirement Rates—Males Hired Before July 1, 2011

Age	Years of Service				
	6	10	20	30	33+
<48	0.0%	0.0%	0.0%	0.0%	0.0%
48	11.5%	8.5%	6.0%	4.5%	4.5%
49	11.5%	8.5%	6.0%	4.5%	4.5%
50	11.5%	8.5%	6.0%	4.5%	4.5%
51	11.5%	8.5%	6.0%	4.5%	8.5%
52	11.5%	8.5%	6.0%	4.5%	8.5%
53	11.5%	8.5%	6.0%	4.5%	8.5%
54	11.5%	8.5%	6.0%	4.5%	8.5%
55	12.5%	9.5%	7.0%	5.5%	9.5%
56	12.5%	9.5%	7.0%	5.5%	9.5%
57	12.5%	9.5%	7.0%	5.5%	9.5%
58	13.5%	10.5%	8.0%	6.5%	10.5%
59	13.5%	10.5%	8.0%	6.5%	11.5%
60	13.5%	10.5%	8.0%	6.5%	14.5%
61	17.5%	14.5%	12.0%	10.5%	18.5%
62	19.5%	16.5%	14.0%	12.5%	21.5%
63	16.5%	13.5%	11.0%	9.5%	18.5%
64	18.5%	15.5%	13.0%	11.5%	25.5%
65	22.5%	38.5%	36.0%	34.5%	34.5%
66	17.5%	23.5%	25.5%	24.0%	24.0%
67	17.5%	22.5%	22.5%	22.5%	22.5%
68	17.5%	20.5%	20.5%	20.5%	20.5%
69	17.5%	20.5%	20.5%	20.5%	20.5%
70–79	17.5%	20.5%	20.5%	20.5%	20.5%
80+	100.0%	100.0%	100.0%	100.0%	100.0%

Table 1—Page 2 of 4

Retirement Rates—Females Hired Before July 1, 2011

Age	Years of Service				
	6	10	20	30	33+
<48	0.0%	0.0%	0.0%	0.0%	0.0%
48	10.0%	8.0%	6.0%	4.5%	4.5%
49	10.0%	8.0%	6.0%	4.5%	4.5%
50	10.0%	8.0%	6.0%	4.5%	4.5%
51	10.0%	8.0%	6.0%	4.5%	8.5%
52	10.0%	8.0%	6.0%	4.5%	8.5%
53	10.0%	8.0%	6.0%	4.5%	8.5%
54	10.0%	8.0%	6.0%	4.5%	8.5%
55	10.0%	8.0%	6.0%	4.5%	8.5%
56	10.0%	8.0%	6.0%	4.5%	9.5%
57	11.0%	9.0%	7.0%	5.5%	10.5%
58	11.0%	9.0%	7.0%	5.5%	11.5%
59	12.0%	10.0%	8.0%	6.5%	12.5%
60	16.0%	14.0%	12.0%	10.5%	20.5%
61	19.0%	17.0%	15.0%	13.5%	23.5%
62	15.0%	13.0%	11.0%	9.5%	19.5%
63	17.0%	15.0%	13.0%	11.5%	24.5%
64	24.0%	22.0%	20.0%	18.5%	34.5%
65	26.0%	50.0%	48.0%	46.5%	46.5%
66	26.0%	32.0%	30.0%	28.5%	28.5%
67	20.0%	25.0%	25.0%	25.0%	25.0%
68	20.0%	25.0%	25.0%	25.0%	25.0%
69	20.0%	23.0%	23.0%	23.0%	23.0%
70–79	20.0%	25.0%	25.0%	25.0%	25.0%
80+	100.0%	100.0%	100.0%	100.0%	100.0%

Table 1—Page 3 of 4

Retirement Rates—Males Hired On and After July 1, 2011

Age	Years of Service				
	6	10	20	30	33+
<48	0.0%	0.0%	0.0%	0.0%	0.0%
48	9.5%	8.5%	6.0%	4.5%	4.5%
49	9.5%	8.5%	6.0%	4.5%	4.5%
51	9.5%	8.5%	6.0%	4.5%	8.5%
52	9.5%	8.5%	6.0%	4.5%	8.5%
53	9.5%	8.5%	6.0%	4.5%	8.5%
54	9.5%	8.5%	6.0%	4.5%	8.5%
55	10.5%	9.5%	7.0%	5.5%	9.5%
56	10.5%	9.5%	7.0%	5.5%	9.5%
57	10.5%	9.5%	7.0%	5.5%	9.5%
58	11.5%	10.5%	8.0%	6.5%	10.5%
59	11.5%	10.5%	8.0%	6.5%	11.5%
60	11.5%	10.5%	8.0%	6.5%	14.5%
61	15.5%	14.5%	12.0%	10.5%	18.5%
62	15.5%	14.5%	12.0%	10.5%	19.5%
63	15.5%	14.5%	12.0%	10.5%	19.5%
64	15.5%	14.5%	12.0%	10.5%	24.5%
65	23.0%	22.0%	19.5%	18.0%	32.0%
66	17.5%	17.5%	19.5%	18.0%	32.0%
67	17.5%	17.5%	17.5%	17.5%	31.5%
68	17.5%	17.5%	31.5%	31.5%	31.5%
69	17.5%	17.5%	20.5%	20.5%	20.5%
70–79	17.5%	17.5%	20.5%	20.5%	20.5%
80+	100.0%	100.0%	100.0%	100.0%	100.0%

Table 1—Page 4 of 4

Retirement Rates—Females Hired On and After July 1, 2011

Age	Years of Service				
	6	10	20	30	33+
<48	0.0%	0.0%	0.0%	0.0%	0.0%
48	9.0%	8.0%	6.0%	4.5%	4.5%
49	9.0%	8.0%	6.0%	4.5%	4.5%
51	9.0%	8.0%	6.0%	4.5%	8.5%
52	9.0%	8.0%	6.0%	4.5%	8.5%
53	9.0%	8.0%	6.0%	4.5%	8.5%
54	9.0%	8.0%	6.0%	4.5%	8.5%
55	9.0%	8.0%	6.0%	4.5%	8.5%
56	9.0%	8.0%	6.0%	4.5%	9.5%
57	10.0%	9.0%	7.0%	5.5%	10.5%
58	10.0%	9.0%	7.0%	5.5%	11.5%
59	11.0%	10.0%	8.0%	6.5%	12.5%
60	12.0%	11.0%	9.0%	7.5%	17.5%
61	15.0%	14.0%	12.0%	10.5%	20.5%
62	15.0%	14.0%	12.0%	10.5%	20.5%
63	15.0%	14.0%	12.0%	10.5%	23.5%
64	15.0%	14.0%	12.0%	10.5%	26.5%
65	25.0%	24.0%	22.0%	20.5%	36.5%
66	25.0%	24.0%	22.0%	20.5%	36.5%
67	20.0%	20.0%	20.0%	20.0%	36.0%
68	20.0%	20.0%	36.0%	36.0%	36.0%
69	20.0%	20.0%	23.0%	23.0%	23.0%
70–79	20.0%	20.0%	23.0%	23.0%	23.0%
80+	100.0%	100.0%	100.0%	100.0%	100.0%

Table 2

Termination Rates—Males

Age	Years of Service										
	0	1	2	3	4	5	10	15	20	25	30+
18–24	27.0%	19.0%	17.5%	16.0%	15.5%	10.5%	4.0%	2.5%	1.5%	1.0%	0.5%
25–29	25.0%	17.0%	13.5%	11.5%	10.0%	9.0%	4.0%	2.5%	1.5%	1.0%	0.5%
30–34	23.0%	15.0%	12.0%	10.0%	8.5%	8.5%	4.0%	1.5%	1.5%	1.0%	0.5%
35–44	22.0%	15.0%	12.0%	10.0%	8.5%	8.5%	4.0%	2.0%	1.0%	1.0%	0.5%
45–54	21.0%	12.5%	9.5%	7.8%	6.5%	6.0%	4.0%	2.5%	1.5%	1.0%	0.5%
55–65	27.0%	12.5%	9.0%	7.8%	6.5%	6.0%	3.0%	2.5%	1.5%	1.0%	0.5%
66+	27.0%	12.5%	9.0%	7.8%	6.5%	6.0%	3.0%	2.5%	1.5%	1.0%	0.5%

Termination Rates—Females

Age	Years of Service										
	0	1	2	3	4	5	10	15	20	25	30+
18–24	28.0%	18.0%	16.0%	16.0%	16.0%	13.0%	4.5%	3.0%	2.0%	1.0%	0.5%
25–29	28.0%	17.0%	13.5%	11.5%	10.0%	8.0%	4.5%	3.0%	2.0%	1.0%	0.5%
30–34	27.0%	16.0%	12.5%	10.5%	9.0%	8.0%	4.5%	3.0%	2.0%	1.0%	0.5%
35–44	26.0%	15.0%	11.5%	9.5%	8.0%	7.5%	4.5%	2.8%	2.0%	1.0%	0.5%
45–54	25.0%	12.5%	10.0%	9.0%	7.5%	7.5%	4.5%	2.8%	2.0%	1.0%	0.5%
55–65	30.0%	12.5%	10.0%	9.0%	7.5%	7.5%	4.5%	2.8%	2.0%	1.0%	0.5%
66+	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.8%	2.0%	1.0%	0.5%

Table 3**Disability Rates**

Age	Male and Female
20	0.00%
21–35	0.01%
36–40	0.02%
41–44	0.03%
45–46	0.04%
47–50	0.08%
51–54	0.13%
55	0.16%
56	0.17%
57	0.19%
58	0.19%
59	0.23%
60	0.21%
61	0.20%
62	0.11%
63	0.08%
64	0.04%

Actuarial Assumptions and Methods

Discussion of Actuarial Assumptions and Methods

Retiree Medical Program selected the economic, demographic and health care claim cost assumptions and prescribed them for use for purposes of compliance with GASB 75. Aon provided guidance with respect to these assumptions, and it is our belief that the assumptions represent reasonable expectations of anticipated plan experience.

Calculation of Normal Costs and Liabilities

The method used to calculate the service cost and accumulated postretirement benefit obligation for determining OPEB expense is the entry age normal cost method. Under this cost method, the actuarial accrued liability is based on a prorated portion of the present value of all benefits earned to date over expected future working life time as defined by GASB. The proration is determined so that the cost with respect to service accrued from date of hire is recognized as a level percentage of pay each year. The Normal Cost is equal to the prorated cost for the year of the valuation.

Accounting Information Under GASB 75

Benefit obligations and expense/(income) are calculated under U.S. Generally Accepted Accounting Principles as set forth in Government Accounting Standards Board Statement 75.

The total OPEB liability represents the actuarial present value of benefits based on the entry age normal cost method as of the measurement date. The service cost represents the actuarial present value of benefits that are attributed to the 2020-2021 fiscal year, reflecting the effect of assumed future health care claim cost and/or pay increases.

The OPEB expense is the annual amount to be recognized in the income statement as the cost of OPEB benefits for this plan for the period ending June 30, 2022.

Plan Provisions

General Eligibility Rules

Employees satisfy retirement eligibility if (1) they commence FRS benefits immediately upon termination; and (2) meet any one of the following conditions:

If hire date is before July 1, 2011 (Tier I):

1. In the FRS Pension Plan and eligible to retire:
 - a) Disability—Eight years of service
 - b) Early Retirement - At least six years of service and over age 42 and one month.
 - c) Normal Retirement
 - i) At least six years of service and at least age 62;
 - OR
 - ii) At least 30 years of service.
2. In the FRS Investment Plan with at least one year of service¹

If hire date is on or after July 1, 2011 (Tier II):

1. In the FRS Pension Plan and eligible to retire:
 - a) Disability—Eight years of service
 - b) Early Retirement - At least eight years of service and over age 45 and one month.
 - c) Normal Retirement
 - i) At least eight years of service and at least age 65;
 - OR
 - ii) At least 33 years of service.

¹ Plan is being administered providing retiree medical coverage to former active participants enrolled in the FRS investment plan who retire after one year of service regardless of age. Plan liabilities as of July 1, 2022 were calculated based on the current administrative practice.

3. In the FRS Investment Plan with at least one year of service¹

Medical and Drug Benefits Covered

Eligible retirees are covered by three medical plans administered through CIGNA. In addition to the CIGNA plans Medicare eligible retirees may participate in Medicare Group Plan offered through AvMed, Cigna Leon, Humana, and UnitedHealthcare. The Medicare advantage plans have no cost sharing with the employer, therefore are not valued in this report. The district provides retirees who meet normal retirement conditions and participate in the district's medical plan a subsidy of \$100 per month until age 65.

The 2022 CIGNA plans have the following provisions:

	OAP High		OAP Standard		SureFit
Plan Type	Open Access		Open Access		Open Access
Network	In	Out	In	Out	In
Deductible	\$500	\$1,000	\$750	\$1,500	\$150
Coinsurance	70%	50% AD	70% AD	50%AD	70% AD
Copayment	\$25	50% AD	\$30	\$0	\$20
Out-Of-Pocket Limit	\$3,000	\$6,000	\$4,000	\$8,000	\$1,500

In addition to the plans described above, Medicare eligible retirees have the option to participate in a Medicare Advantage plan. The employer has no liability for this plan because retirees pay the full cost with no cost sharing.

Integration With Medicare

Medicare eligible retirees coordinate benefits with Medicare on a "Coordination of Benefits" basis. That is, the plan pays up to the amount it would pay as primary payer, except that it will not pay benefits already paid by Medicare (which is actually the primary payer) or if the retiree elects not to participate in Medicare Parts A and B, the hypothetical amount that Medicare would have paid.

Spouses Covered

Spouses of retirees or surviving spouses of retirees of the School District who meet the above conditions and started receiving pension benefits at termination may elect medical coverage.

¹ Plan is being administered providing retiree medical coverage to former active participants enrolled in the FRS investment plan who retire after one year of service regardless of age. Plan liabilities as of July 1, 2022 were calculated based on the current administrative practice.

Employee Costs

The chart below shows the calendar year 2021 monthly retiree cost of medical and drug benefits:

	OAP High	OAP Standard	SureFit
Individual	\$771	\$746	\$724
Retiree Plus Spouse	\$1,860	\$1,800	\$1,746

Dental, Vision, and Life Benefits

These benefits are not provided.

Plan Changes Since the Prior Year

The financial accounting valuation does not reflect any plan changes.