

**MILWAUKEE BOARD OF SCHOOL DIRECTORS
EARLY RETIREMENT SUPPLEMENT AND
BENEFIT IMPROVEMENT PLAN**

(A Pension Trust Fund of Milwaukee Public Schools)

FINANCIAL STATEMENTS AND
REQUIRED SUPPLEMENTARY INFORMATION

Including Independent Auditors' Report

As of and for the Years Ended June 30, 2018 and 2017

**MILWAUKEE BOARD OF SCHOOL DIRECTORS EARLY
RETIREMENT SUPPLEMENT AND BENEFIT IMPROVEMENT PLAN**

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INDEPENDENT AUDITORS' REPORT

To the Milwaukee Board of School Directors
Early Retirement Supplement and
Benefit Improvement Plan:

Report on the Financial Statements

We have audited the accompanying statements of fiduciary net position of the Milwaukee Board of School Directors Early Retirement Supplement and Benefit Improvement Plan (the Plan), as of June 30, 2018 and 2017, the statements of changes in fiduciary net position for the years then ended, and the related notes to the financial statements, which collectively comprise the Plan's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control over financial reporting relevant to the Plan's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances but not for the purpose of expressing an opinion on the effectiveness of the Plan's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to previously present fairly, in all material respects, the fiduciary net position of the Plan as of June 30, 2018 and 2017 and the changes in fiduciary net position of the Plan for the years then ended in conformity with accounting principles generally accepted in the United States of America.

Other Matters - Required Supplementary Information

Accounting principles generally accepted in the United States of America require that Management's Discussion and Analysis, the Schedules of Changes in Net Pension Liability and Related Ratios, Contributions, and Investment Returns, and the notes to required supplementary information as listed in the table of contents be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in appropriate operational, economical, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Baker Tilly Virchow Krause, LLP

Milwaukee, Wisconsin
December 18, 2018

**MILWAUKEE BOARD OF SCHOOL DIRECTORS EARLY
RETIREMENT SUPPLEMENT AND BENEFIT IMPROVEMENT PLAN
MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED)
As of and for the Years Ended June 30, 2018 and 2017**

Milwaukee Public Schools' (the District) Management's review of the changes in the pension plan fiduciary net position and actuarial liabilities for the Milwaukee Board of School Directors Early Retirement Supplement and Benefit Improvement Plan (the Plan) for the fiscal years ended on June 30, 2018 and 2017 is presented below. This information is intended to supplement the financial statements in this report.

Overview of the Financial Statements of the Plan

The two basic financial statements of the Plan are the *Statements of Fiduciary Net Position* and the *Statements of Changes in Fiduciary Net Position*. Statements are shown for the most recent and previous fiscal years for comparison and analysis of changes in individual line items. The statements are prepared in conformity with accounting principles generally accepted in the United States of America.

The *Statements of Fiduciary Net Position* is a measure of the plan assets and liabilities at the close of the fiscal year. Total assets less liabilities equal net position restricted for pensions.

The *Statements of Changes in Fiduciary Net Position* shows additions (investment income and employer contributions) and deductions (benefits and expenses) for the fiscal year. The net increase (or decrease) is the change in fiduciary net position since the end of the previous fiscal year.

The *Notes to Financial Statements* are a fundamental part of the financial statements and provide important information to augment the figures in the financial statements. The notes provide information pertaining to the plan provisions, a summary of significant accounting policies, contributions, investments, and tax status of the Plan. Supplementary disclosures of selected financial data are included in the notes.

In addition to the basic financial statements and notes, a *Schedule of Changes in Net Pension Liability and Related Ratios*, a *Schedule of Contributions* and a *Schedule of Investment Returns* are included as required supplementary information. These schedules emphasize the long-term nature of the Plan and show progress of the Plan in accumulating sufficient assets to pay benefits when due.

The *Schedule of Changes in Net Pension Liability and Related Ratios* shows actuarial trend information. It includes the ratio of the Plan Fiduciary Net Position to Total Pension Liability (funded ratio) as a percentage. The funded ratio increases or decreases over time depending upon the relationships between contributions, investment performance, benefit changes, and actuarial assumption changes based upon participant information and characteristics.

The *Schedule of Contributions* shows the amount of actuarially determined contributions and the actual contributions as a percentage of the covered payroll.

The *Schedule of Investment Returns* shows the percentage of annual money-weighted rate of return (net of investment expenses) by plan year on investments.

See accompanying independent auditors' report

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Analysis of Plan Fiduciary Net Position and Actuarial Liabilities

The Plan's assets are reported at fair market value. A summary of the Plan's net position as of June 30, 2018, 2017, and 2016 is as follows:

	<u>2018</u>	<u>2017</u>	<u>2016</u>
Assets			
Investments including investments receivables	\$ 48,264,151	\$ 46,914,293	\$ 46,528,483
Accrued interest and transfers receivable	5,676	1,004,123	4,079
Total assets	<u>48,269,827</u>	<u>47,918,416</u>	<u>46,532,562</u>
Liabilities (primarily benefits payable)	<u>878,031</u>	<u>434,593</u>	<u>421,796</u>
Plan Fiduciary Net Position	<u>\$ 47,391,796</u>	<u>\$ 47,483,823</u>	<u>\$ 46,110,766</u>

The Plan's Fiduciary Net Position decreased by approximately \$.1 million during the fiscal year ending on June 30, 2018. The decrease was due to benefit payments and expenses of approximately \$4.9 million that were more than a net investment gain of approximately \$3.7 million plus contributions of approximately \$1.1 million. The Plan's Fiduciary Net Position increased by approximately \$1.4 million during the fiscal year ending on June 30, 2017. As more fully described in the analysis of changes in plan net position below, the increase is due to a net investment gain of approximately \$5.2 million and contributions of \$1.2 million that were more than benefit payments and expenses of approximately \$5.0 million.

It is also helpful to analyze the Plan's Fiduciary Net Position in relation to the Total Pension Liability for plan benefits to evaluate the fiduciary net position of the Plan. An actuarial valuation is performed as of the beginning (July 1) of each year with the results projected to the end of the fiscal year (June 30) using various assumptions including a 7.5% future return on investments. This liability is then rolled forward to June 30 of the following year. Additionally, for this purpose, investments are valued at fair market value. The fiduciary net positions as a percentage of total liability as of June 30, 2018, 2017 and 2016 are as follows:

	<u>2018</u>	<u>2017</u>	<u>2016</u>
Plan Fiduciary Net Position	\$ 47,391,796	\$ 47,483,823	\$ 46,110,766
Total Pension Liability	<u>50,644,665</u>	<u>51,291,718</u>	<u>52,672,956</u>
Net Pension Liability	<u>\$ 3,252,869</u>	<u>\$ 3,807,895</u>	<u>\$ 6,562,190</u>
Fiduciary Net Position as a percentage of Total Pension Liability	<u>93.6%</u>	<u>92.6%</u>	<u>87.5%</u>

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**MILWAUKEE BOARD OF SCHOOL DIRECTORS EARLY
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MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED)
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Analysis of Changes in Fiduciary Net Position

A summary of the changes in the fiduciary net position for the years ended June 30, 2018, 2017, and 2016 is as follows:

	<u>2018</u>		<u>2017</u>		<u>2016</u>
Additions:					
Net investment income	\$ 3,728,578	\$	5,238,182	\$	345,326
Employer contributions	<u>1,119,896</u>		<u>1,209,134</u>		<u>1,498,910</u>
Total additions	<u>4,848,474</u>		<u>6,447,316</u>		<u>1,844,236</u>
Deductions:					
Benefit and refund payments	4,879,716		5,008,339		5,164,498
Administrative expenses	<u>60,785</u>		<u>65,920</u>		<u>62,511</u>
Total deductions	<u>4,940,501</u>		<u>5,074,259</u>		<u>5,227,009</u>
Net increase (decrease) in net position	<u>\$ (92,027)</u>	\$	<u>1,373,057</u>	\$	<u>(3,382,773)</u>

The net investment gains for the years ended June 30, 2018, 2017, and 2016 are the result of money-weighted returns on investments of 8.2%, 12.0%, and .6% for the years ended June 30, 2018, 2017 and 2016, respectively.

It is the District's practice to fund the Plan based on the actuarially determined contributions which were approximately \$1.3 million, \$1.5 million, and \$1.6 million, respectively, for the years ended June 30, 2018, 2017, and 2016. However, the District made prepayments during the years ended June 30, 2018, 2017 and 2016 toward the past service liability portion of the subsequent years' recommended contribution which resulted in a difference in the actual amounts contributed during the respective years. As of June 30, 2018, 2017, and 2016, the District had cumulative credits (prepayments) of \$1.0 million, \$1.0 million, and \$1.3 million, respectively, for the subsequent years' contribution.

Observations

- For the year ended on June 30, 2018, the Plan's time-weighted investment return of 8.07% was approximately 0.56% above its benchmark index return of 7.51% and 5.20% above inflation. Over the five years ended on June 30, 2018, the Plan's annualized investment return of 7.97% was 0.07% above its benchmark index return of 7.9% and 6.4% above inflation. For the year ended June 30, 2017, the Plan's time-weighted investment return of 12.3% was approximately 0.9% above its benchmark index return of 11.4% and 10.7% above inflation. Over the five years ended on June 30, 2017, the Plan's annualized investment return of 8.7% was 0.1% below its benchmark index return of 8.8% and 7.4% above inflation.
- For the ten fiscal years through June 30, 2018, the plan's money-weighted investment returns were as follows: 2018 – 8.2%; 2017 – 12.0%; 2016 – 0.6%; 2015 – 1.3%; 2014 – 16.9%; 2013 – 11.8%; 2012 – 0.9%; 2011 – 25.7%; 2010 – 14.3%; 2009 – (17.9%).
- The Plan's assets were invested 82% in the SWIB Core Fund, 10% in the SWIB Variable Fund and 8% in various bond funds on June 30, 2018. The Plan's assets were invested approximately 46% in Global Stocks, 41% in Fixed Income, 6% in Real Estate, and 7% in Alternative Investments on June 30, 2018. Relative to the allocation on June 30, 2017, there was a 6% decrease in the allocation to Global Stocks, a 6% increase in the allocation to Fixed Income, and a 1% increase in the allocation to Real Estate.

See accompanying independent auditors' report

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- SWIB's Core and Variable Funds included derivative investments in futures contracts, foreign exchange forward and spot contracts, and options in 2018, 2017 and in 2016.
- Based on the funding assumptions, the actuarial accrued liabilities for retired participants, terminated vested participants and active participants represented 80%, 5%, and 15%, respectively, of total accrued liabilities on July 1, 2017 and 81%, 5%, and 14% of total accrued liabilities on July 1, 2016.
- The fiduciary net position as a percent of the total pension liability increased by 1% from 92.6% on June 30, 2017 to 93.6% on June 30, 2018.
- The plan's actuarially determined contribution decreased by approximately \$200,000 for the fiscal year ended on June 30, 2018. The Plan's actuary comments that the decrease is primarily due to the amortization policy used to finance the unfunded actuarial liability. The plan's actuarially determined contribution decreased by approximately \$100,000 for the fiscal year ended on June 30, 2017. The Plan's actuary comments that the decrease is due to favorable demographic experience.

Investment Performance

The returns versus benchmarks were as follows for the one and five-year periods through June 30, 2018:

	<u>1 Year</u>	<u>5 Years</u>
SWIB Core Fund	8.6%	8.0%
<i>Benchmark Index Return</i>	7.9%	8.3%
SWIB Variable Fund	12.7%	11.4%
<i>Benchmark Index Return</i>	13.4%	12.0%
Employer Benefit Payment Fund	0.3%	2.4%
<i>Benchmark Index Return</i>	(0.6)%	1.6%
Employee Contribution Fund	0.3%	2.3%
<i>Benchmark Index Return</i>	(0.6)%	1.6%
Total Portfolio	8.1%	8.0%
<i>Benchmark Index</i>	7.5%	7.9%

The benchmark indices for each fund were as follows:

<u>Funds</u>	<u>Index Benchmarks</u>
SWIB Core Fund	39% Russell 3000 18% Morgan Stanley All World ex U.S. 34% Barclays Aggregate Bond Index 4% NCREIF 5% "15%" Rate of Return
SWIB Variable Fund	80% Russell 3000 20% Morgan Stanley All World ex U.S.
Employer Benefit Payment Fund and Employee Contribution Fund	100% Barclays Intermediate Government/Credit Bond Index
Total Portfolio	35% S&P 500 10% Russell 2000 15% EAFE 40% Barclays Aggregate Bond Index

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Asset Allocation by Fund and by Asset Class

The asset allocations by Fund as of June 30, 2018, 2017, and 2016 were as follows:

	June 30		
	2018	2017	2016
SWIB Core Fund	82%	81%	81%
SWIB Variable Fund	10%	11%	11%
Employer Benefit Payment Fund at BMO	7%	7%	7%
Employee Contribution Fund at BMO	1%	1%	1%

On June 30, 2018, the SWIB Core Fund was broadly diversified into U.S. stocks, fixed income, international stocks, real estate, and alternative investments; the SWIB Variable Fund was invested in U.S. stocks and international stocks; and the other four portfolios were invested in fixed income. The Total Portfolio allocations by asset class were approximately as follows:

<u>Asset Class</u>	<u>Percentage Allocation on June 30:</u>		
	<u>2018</u>	<u>2017</u>	<u>2016</u>
Global Stocks	46%	52%	50%
Fixed Income	41%	35%	36%
Real Estate	6%	5%	6%
Alternative Investment	7%	8%	8%

Requests for Information

This report is designed to provide a financial overview of the Plan. Questions or requests for additional information regarding the financial information presented in this report may be addressed in writing to Pension Office, Department of Pensions and Data Systems, Milwaukee Public Schools, 5225 W Vliet Street, Room 124, Milwaukee, WI 53208.

See accompanying independent auditors' report

**MILWAUKEE BOARD OF SCHOOL DIRECTORS EARLY
RETIREMENT SUPPLEMENT AND BENEFIT IMPROVEMENT PLAN**

**STATEMENTS OF FIDUCIARY NET POSITION
AS OF JUNE 30, 2018 AND 2017**

	ASSETS	<u>2018</u>	<u>2017</u>
Investments, at fair value			
Money market accounts		\$ 993,074	\$ 1,051,724
Mortgage-backed securities		60	65
Nongovernmental obligations		2,782,793	2,089,076
Investment in the state of Wisconsin:			
Core retirement investment trust fund		39,671,154	38,593,641
Variable retirement investment trust fund		<u>4,817,070</u>	<u>5,179,787</u>
Total investments		48,264,151	46,914,293
Receivables			
Accrued interest receivable		5,676	4,123
Transfers receivable		<u>-</u>	<u>1,000,000</u>
Total receivables		<u>5,676</u>	<u>1,004,123</u>
Total assets		<u>48,269,827</u>	<u>47,918,416</u>
	LIABILITIES		
Benefits payable		401,293	412,373
Administrative expenses payable		26,685	22,220
Payable for investments purchased		<u>450,053</u>	<u>-</u>
Total liabilities		<u>878,031</u>	<u>434,593</u>
NET POSITION RESTRICTED FOR PENSIONS		<u>\$ 47,391,796</u>	<u>\$ 47,483,823</u>
Net position restricted for pensions attributable to:			
Nondedicated fund		\$ 46,898,346	\$ 46,931,042
Participant contribution fund		<u>493,450</u>	<u>552,781</u>
		<u>\$ 47,391,796</u>	<u>\$ 47,483,823</u>

The accompanying notes are an integral part of the basic financial statements.

**MILWAUKEE BOARD OF SCHOOL DIRECTORS EARLY
RETIREMENT SUPPLEMENT AND BENEFIT IMPROVEMENT PLAN**

**STATEMENTS OF CHANGES IN FIDUCIARY NET POSITION
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017**

	2018	2017
ADDITIONS		
Investment income:		
Net investment income from the state of Wisconsin:		
Core retirement investment trust fund	\$ 3,077,513	\$ 4,162,123
Variable retirement trust fund	637,283	1,004,530
Investment income from other investments	19,309	77,088
Total investment income	3,734,105	5,243,741
Less: investment expenses	(5,527)	(5,559)
Net investment income	3,728,578	5,238,182
Employer contributions	1,119,896	1,209,134
Total additions	4,848,474	6,447,316
DEDUCTIONS		
Benefits paid to participants or beneficiaries	4,832,520	4,981,004
Distribution of participant contribution accounts	47,196	27,335
Administrative expenses	60,785	65,920
Total deductions	4,940,501	5,074,259
Net increase (decrease) in net position	(92,027)	1,373,057
NET POSITION RESTRICTED FOR PENSIONS		
Beginning of year	47,483,823	46,110,766
End of year	\$ 47,391,796	\$ 47,483,823

The accompanying notes are an integral part of the basic financial statements.

**MILWAUKEE BOARD OF SCHOOL DIRECTORS EARLY
RETIREMENT SUPPLEMENT AND BENEFIT IMPROVEMENT PLAN**

**NOTES TO FINANCIAL STATEMENTS
As of and for the Years Ended June 30, 2018 and 2017**

1. DESCRIPTION OF THE PLAN

The Milwaukee Board of School Directors Early Retirement Supplement and Benefit Improvement Plan (the Plan) is a single-employer defined benefit pension plan for certain employees of the Milwaukee Board of School Directors (MBSD). The Plan is administered by an administrative committee under the direction of the MBSD. The following brief description is provided for general information purposes only. Participants should refer to the plan document for more complete information.

- a. *General* - The Plan is a defined benefit pension plan established to provide benefits after early retirement, which will supplement the pension benefits provided by the Wisconsin Retirement Systems (WRS) and the Employees' Retirement System of the City of Milwaukee (ERSCM). A participant must be an administrative, supervisory, or professional staff employee of the Milwaukee Public Schools (the District or MPS) who is in the collective bargaining unit represented by the Administrators and Supervisors Council, Inc. (the ASC), be an exempt employee excluded by the ASC bargaining contract, or any other employee who is identified as a covered employee by the MBSD through an employment contract between such employee and the MBSD. Such employees shall become participants in the Plan on the later of the effective date of the Plan or the date they become a participant in the WRS. Certain classified participants represented by the ASC or any exempt employee excluded by the ASC bargaining contract and covered by the ERSCM and certain psychologists who elected to remain in the Plan after June 30, 1980 are also eligible for participation.

The Plan is classified as a "governmental plan" and is, therefore, exempt from the provisions of the Employee Retirement Security Act of 1974 (ERISA).

- b. *Retirement, Disability, and Death Benefits* - Participants are eligible for retirement benefits provided they have made three years of participant contributions and have eight or more years of vesting service. For Plan years, effective July 1, 2003, vesting under the Plan is modified to be three years of service as a covered employee and eight or more years of vesting service. The Plan provides for unreduced benefits on or after age 60 and for reduced benefits between ages 55 and 60. For participants who retire between ages 60 and 65 under the ERSCM or under the WRS, a special supplemental benefit, as defined, shall be paid until the retiree attains age 65. Benefits are paid in the form of monthly payments based on years of service and average monthly compensation for the three highest fiscal years of earnings preceding the date of retirement to a maximum benefit, for this plan and either ERSCM or WRS, of 70% of average monthly compensation. The benefit paid under this plan for participants whose benefit is related to the WRS shall be reduced by the amount of the WRS benefit paid. Wisconsin Act 11 directly affects the Plan by decreasing the benefits paid and increasing the funded status of the Plan.

In consideration of the reduced benefits to be paid by the Plan as a result of Wisconsin Act 11, the District signed an agreement with the ASC to amend the Plan effective July 1, 2003 as follows:

- Transfer the benefit formula under the Milwaukee Board of School Directors Supplemental Early Retirement Plan for Teachers (Teachers Plan) to the Plan for those individuals who have prior MPS teaching service after July 1, 1982 and are eligible to receive a benefit from the Teachers Plan. Such individuals will have the option of electing either the Teachers or Plan benefit formula.

**MILWAUKEE BOARD OF SCHOOL DIRECTORS EARLY
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NOTES TO FINANCIAL STATEMENTS
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1. DESCRIPTION OF THE PLAN (cont.)

- Eliminate employee contributions to the Plan.
- Close the Plan to anyone who is not a covered employee as of June 30, 2003 and previous employees who are rehired after June 30, 2003.
- Eliminate the suspension of benefits provision in the Plan and replace it with a new provision that suspends benefits paid from the Plan if the retired annuitant is rehired as a covered employee and elects to participate as an active employee under the WRS.

In fiscal year 2004, the District received more than the required 95% of signed waivers and consents from covered employees to implement the negotiated changes to the Plan. Subsequently, the MBSD adopted the restated Plan at its June 2004 regular meeting.

The amendments to the Plan were included in the July 1, 2003 actuarial valuation. These amendments resulted in an increase to the actuarial accrued liability of \$4,973,000 as of July 1, 2003.

In fiscal year 2005, the definition of "Year of Benefit Service" of the Plan was amended to provide for the addition of the following at the end of such definition:

For a covered employee who was an active participant in the Plan on or after July 1, 2004 and who:

- Became a covered employee on or after July 1, 1982; and
- Was covered under the MTEA-teacher collective bargaining unit and under the WRS on or after July 1, 1982, and
- Is vested under the Teachers Plan, and
- Has consented in writing to the amendment of the Plan as provided in a Negotiating Note between the Board and the ASC dated June 24, 2003.

A covered employee shall continue to be credited with Years of Benefit Service without giving effect to Years of Benefit Service provisions of the Teachers Plan, for the periods beginning on and after July 1, 2004, except for the purpose of computing the Alternate Benefit for certain Teachers Plan participants as a result of Wisconsin Act 11 discussed above.

The Plan also provides for disability benefits to vested participants if employment is terminated between ages 55 and 65 by reason of total and permanent disability as approved by WRS. Upon the death of an active participant who is not eligible for any other form of benefit under the Plan, a lump-sum death benefit of the value of the participant's employee contribution account is provided to the participant's beneficiary.

The Plan does not provide for any postretirement increases.

**MILWAUKEE BOARD OF SCHOOL DIRECTORS EARLY
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NOTES TO FINANCIAL STATEMENTS

As of and for the Years Ended June 30, 2018 and 2017

1. DESCRIPTION OF THE PLAN (cont.)

- c. *Member Contribution Accounts* - The District maintains a separate “Member Contribution Account” for each participant. Annually, as of June 30, the portion of investment income of the fund attributable to the participant’s contribution is credited to the respective member contribution accounts. If a participant leaves covered employment or dies, accumulated employee contributions plus related investment earnings are refunded to the employee or designated beneficiary based on their election. Classified employees are not required to make member contributions under the Plan.

Effective July 1, 2003, participants are no longer required to make contributions to the Plan and the employer shall pay 100% of required plan contributions.

- d. *Reduction in Accrued Plan Liabilities* - Accrued plan liabilities are reduced by the amount attributed to employer contributions for employees who are not vested for benefits and who terminate participation under the Plan for reasons that include termination of employment. These employer contributions are applied to reduce the cost of the Plan and not to increase benefits otherwise payable to eligible participants.

- e. *Plan Membership* - Plan membership consisted of the following:

	July 1	
	2017	2016
Inactive plan members or beneficiaries currently receiving benefit	745	758
Inactive members entitled to but not yet receiving benefits	95	97
Active plan members:		
Certificated	95	105
Classified	31	32
	<u>966</u>	<u>992</u>

Plan membership as of July 1, 2017 and 2016 is a close approximation of Plan membership as of June 30, 2018 and 2017. As the Plan was frozen as of July 1, 2003, the Plan membership as of July 1, 2017 was used as of June 30, 2018 (Measurement Date and Reporting Date for Net Pension Liability).

- f. *Plan Administration* - Management of the Plan is vested in the Milwaukee Board of School Directors (Board), which consists of nine elected officials. The Board has authority to establish and amend benefit terms, actuary assumptions and funding of the actuarially determined contributions. The Board grants the plan administration authority and responsibilities to the District’s administration.

**MILWAUKEE BOARD OF SCHOOL DIRECTORS EARLY
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NOTES TO FINANCIAL STATEMENTS

As of and for the Years Ended June 30, 2018 and 2017

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The financial statements of the Plan have been prepared in accordance with accounting principles generally accepted in the United States of America (GAAP), as prescribed by the Governmental Accounting Standards Board (GASB). To facilitate the understanding of data included in the financial statements, summarized below are the more significant accounting policies.

- a. *Reporting Entity* – As defined by GAAP, the financial reporting entity consists of a primary government, as well as its component units, which are legally separate organizations for which the elected officials of the primary government are financially accountable. Based upon required criteria, the Plan has no component units. However, the Plan is included in the financial statements of the Milwaukee Public Schools as a pension trust fund.
- b. *Measurement Focus and Basis of Accounting* - The Plan's financial statements are prepared using the accrual basis of accounting. Plan member contributions are recognized in the period in which the contributions are due. Employer contributions to the Plan are recognized when due. Benefits and refunds are recognized when due and payable in accordance with the terms of the Plan. The Plan is accounted for on a flow of economic resources measurement focus. With this measurement focus, all assets and all liabilities associated with the operation of these funds are included on the Statements of Fiduciary Net Position.
- c. *Investment Valuation and Income Recognition* - Investments are recorded at fair value. Short-term investments include money market accounts and are reported at cost, which approximates fair value. The specific identification basis is used in the determination of realized gains and losses on sales of securities, excluding the investments in the State of Wisconsin Core Retirement Investment Trust Fund and the State of Wisconsin Variable Retirement Investment Trust Fund (collectively, the "Trusts"). Purchases and sales of securities are recorded on a trade-date basis.

The Plan's investments in the Trusts are stated at fair value. Quoted market prices are used to value investments in the Trusts. Net investment income (loss) in the Trusts consists of realized and unrealized gains and losses and investment income (net of fund investment fees).

Dividends and interest are recorded as earned. All dividend and interest income, and all realized investment gains and losses, are allocated to the individual funds based on fund balances at the beginning of the year.

Investment securities, in general, are exposed to various risks, such as interest rate, credit, and overall market volatility. Due to the level of risk associated with certain investment securities, it is reasonably possible that changes in the values of the investment securities will occur in the near terms and that such changes could materially affect the amounts reported in the Statements of Fiduciary Net Position.

- d. *Use of Estimates* – The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of additions and deductions of the Plan's net position during the reporting period. Actual results could differ from those estimates.

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2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (cont.)

- e. *Contingencies* - Claims and judgments are recorded as liabilities if all the conditions of GASB pronouncements are met. Claims and judgments are recorded as expenses when the related liabilities are incurred.
- f. *Benefits Payable* – Plan benefits are paid on the first day of the month for the prior month. Hence, Plan benefits paid on July 1 for the month of June are accrued at Plan year-end on June 30.
- g. *New Accounting Pronouncement* – In March 2016, the GASB issued statement No. 82 – *Pension Issues* (an amendment of GASB Statements No. 67, No. 68 and No. 73). The objective of the Standard is to improve consistency in the application of pension accounting and financial reporting requirements. The requirements of this Statement will improve financial reporting by enhancing consistency in the application of financial reporting requirements to certain pension issues. The Plan adopted the guidance for the year ending June 30, 2018 and the adoption of the standard had no impact on the basic financial statements or note disclosures.

3. PLAN TERMINATION

Although the District has expressed no intent to terminate the plan agreement, it may do so at any time, subject to the provisions of any collective bargaining agreement in effect at the time. In the event the Plan terminates, the net position of the Plan will be allocated, as prescribed by the Plan provisions, generally to provide the following benefits in the order indicated:

1. To provide a refund of participant contributions and accumulated investment income as reflected in the separate Member Contribution Account balances.
2. To provide pensions for those persons who are receiving benefits under the Plan on the date of termination.
3. To provide pensions for participants who have attained age 60 prior to the date of termination.
4. To provide pensions for participants who have attained age 55 prior to the date of termination.
5. To provide benefits for participants who have completed eight years of service and who are eligible for a deferred vested pension.
6. To provide benefits for all other participants according to the respective actuarial values of their accrued pension benefits as of the date of termination.

4. CONTRIBUTIONS DETERMINED AND CONTRIBUTIONS MADE

The Plan's funding policy provides for periodic employer contributions at actuarially determined rates that, expressed as percentages of annual covered payroll, are sufficient to accumulate assets to pay benefits when due. Level percentages of payroll employer contribution rates are determined using the entry age normal actuarial funding method. Effective July 1, 2003, the employer pays 100% of required plan contributions.

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4. CONTRIBUTIONS DETERMINED AND CONTRIBUTIONS MADE (cont.)

The recommended contribution for the year ended June 30, 2018 of \$1,274,784 to the Plan is an actuarially determined contribution amount determined through an actuarial valuation performed at July 1, 2017. The recommended contribution for the year ended June 30, 2018 consisted of \$253,063 normal cost and \$1,021,721 amortization of the unfunded actuarial accrued liability, assuming a funding date of July 1, 2017.

The recommended contribution for the year ended June 30, 2017 of \$1,477,690 to the Plan is an actuarially determined contribution amount determined through an actuarial valuation performed at July 1, 2016. The recommended contribution for the year ended June 30, 2017 consisted of \$288,583 normal cost and \$1,189,107 amortization of the unfunded actuarial accrued liability, assuming a funding date of July 1, 2016.

The District actually contributed \$1,119,896 in the year ended June 30, 2018 (including net interest owed of \$3,656). As of June 30, 2018, the District has a cumulative credit (prepayment) of \$821,105 to be used for the subsequent year's recommended contributions, which was based on estimates provided by the Plan's actuary.

The District actually contributed \$1,209,134 in the year ended June 30, 2017 (including net interest paid of \$1,367). As of June 30, 2017, the District had a cumulative credit (prepayment) of \$982,468 to be used for the subsequent year's recommended contributions, which was based on estimates provided by the Plan's actuary.

Based on the funding assumptions, the unfunded actuarial liability, for the year ended June 30, 2018 and June 30, 2017 is being amortized over 5-year open, level dollar used to determine contributions. The annual amortization is included in the recommended contributions.

The Schedule of Changes in Net Pension Liability and Related Ratios and Schedule of Contributions are presented as required supplementary information following the notes to the financial statements. These schedules present information about the Plan fiduciary net position relative to the total pension liability for fiscal year ending June 30, 2018 and contributions made in the past ten years.

5. NET PENSION LIABILITY

The components of the net pension liability for the year ending June 30, 2018 and 2017, respectively, were as follows:

	<u>2018</u>	<u>2017</u>
Total pension liability	\$ 50,644,665	\$ 51,291,718
Plan fiduciary net position	<u>(47,391,796)</u>	<u>(47,483,823)</u>
Net pension liability	<u>\$ 3,252,869</u>	<u>\$ 3,807,895</u>
Plan fiduciary net position as a percentage of total pension liability	93.58%	92.58%
Net pension liability as a percentage of covered payroll	23.96%	26.71%

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5. NET PENSION LIABILITY (cont.)

Changes in the net pension liability for the years ending June 30, 2018 and 2017, were as follows:

	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability
Balances as of 6/30/2017	<u>\$ 51,291,718</u>	<u>\$ 47,483,823</u>	<u>\$ 3,807,895</u>
Changes for the year:			
Service cost	187,143	-	187,143
Interest	3,703,571	-	3,703,571
Differences between expected and actual expense	341,949	-	341,949
Contributions - employer	-	1,119,896	(1,119,896)
Contributions - employee	-	-	-
Net investment income	-	3,728,578	(3,728,578)
Benefit payments	(4,832,520)	(4,832,520)	-
Refunds	(47,196)	(47,196)	-
Administrative expense	-	(60,785)	60,785
Net changes	<u>(647,053)</u>	<u>(92,027)</u>	<u>(555,026)</u>
Balances as of 6/30/2018	<u>\$ 50,644,665</u>	<u>\$ 47,391,796</u>	<u>\$ 3,252,869</u>

	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability
Balances as of 6/30/2016	<u>\$ 52,672,956</u>	<u>\$ 46,110,766</u>	<u>\$ 6,562,190</u>
Changes for the year:			
Service cost	226,072	-	226,072
Interest	3,753,201	-	3,753,201
Differences between expected and actual expense	(352,172)	-	(352,172)
Contributions - employer	-	1,209,134	(1,209,134)
Contributions - employee	-	-	-
Net investment income	-	5,238,182	(5,238,182)
Benefit payments	(4,981,004)	(4,981,004)	-
Refunds	(27,335)	(27,335)	-
Administrative expense	-	(65,920)	65,920
Net changes	<u>(1,381,238)</u>	<u>1,373,057</u>	<u>(2,754,295)</u>
Balances as of 6/30/2017	<u>\$ 51,291,718</u>	<u>\$ 47,483,823</u>	<u>\$ 3,807,895</u>

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5. NET PENSION LIABILITY (cont.)

Actuarial Assumptions: In February 2012, the Plan actuary performed an experience study based on actuarial valuations for the period July 1, 2006 to July 1, 2011. Based on this study the following assumptions were implemented effective for the July 1, 2012 actuarial valuation. The total pension liability was determined by an actuarial valuation as of July 1, 2017 and data rolled forward to June 30, 2018, using the following actuarial methods and assumptions:

Actuarial Cost Method	Entry Age Normal
Actuarial Value of Assets	5-year smoothed market
Inflation	Price Inflation 2.8% per year
Salary increases	Certificated Participants: In addition to Price Inflation, service based increases of up to 3.7% per year Classified Participants: 4.0% to 5.0% per year
Investment rate of return	7.5% net of investment expenses
Mortality rate	Based on Wisconsin Projected Experience Table - 2005 for women and 90% of Wisconsin Projected Experience Table - 2005 for men.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of geometric real rates of return for each major asset class as of December 31, 2017 and 2016 are as follows:

Asset Class	2017		2016	
	Actual Allocation	Long-Term Expected Real Rate of Return	Actual Allocation	Long-Term Expected Real Rate of Return
<i>SWIB Core Fund</i>				
Global Equities	50.0%	5.3%	45.0%	5.4%
Fixed Income	24.5%	1.4%	37.0%	1.4%
Inflation Sensitive Assets	15.5%	1.0%	20.0%	1.5%
Real Estate	8.0%	3.6%	7.0%	3.6%
Private Equity/Debt	8.0%	6.5%	7.0%	6.5%
Multi-Asset	4.0%	3.6%	4.0%	3.7%
Cash	(10.0)%	0%	(20.0)%	0.5%
Portfolio Target Allocation	79.0%		79.0%	

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5. NET PENSION LIABILITY (cont.)

<u>Asset Class</u>	<u>2017</u>		<u>2016</u>	
	<u>Actual Allocation</u>	<u>Long-Term Expected Real Rate of Return</u>	<u>Actual Allocation</u>	<u>Long-Term Expected Real Rate of Return</u>
<u>SWIB Variable Fund</u>				
Domestic Equity	70.0%	4.6%	70.0%	4.7%
International Equity	30.0%	4.9%	30.0%	5.6%
Portfolio Target Allocation		14.0%		14.0%
<u>BMO Fund</u>				
Intermediate Fixed Income	100.0%	1.45%	100.0%	0.5%
Portfolio Target Allocation		7.0%		7.0%
Long-Term Inflation Assumption		2.75%		2.75%

Single Discount Rate: The Plan is closed to future members, and the funding policy is projected to fully finance plan liabilities in the future. Actuarially determined contributions will be adjusted in the future, as experience emerges, to ensure that retiree benefits are paid.

A single discount rate of 7.5% was used to measure the total pension liability. This single discount rate was based on the expected rate of return on pension plan investments of 7.5%. The projection of cash flows used to determine this single discount rate assumed that the plan sponsor would make the actuarially determined contribution as defined by the funding policy. Based on these assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of Net Pension Liability(Asset) to the Single Discount Rate Assumption: Regarding the sensitivity of the net pension liability(asset) to changes in the single discount rate, the following presents the Plan's net pension liability(asset), calculated using a single discount rate of 7.5%, as well as what the Plan's net pension liability(asset) would be if it were calculated using a single discount rate that is 1-percentage-point lower (6.5%) or 1-percentage-point higher (8.5%) for the years ending June 30, 2018 and 2017:

	<u>1% Decrease 6.5%</u>	<u>Current Single Discount Rate Assumption 7.5%</u>	<u>1% Increase 8.5%</u>
2018 Net Pension Liability	\$7,354,080	\$3,252,869	(\$411,043)
2017 Net Pension Liability	\$8,014,392	\$3,807,895	\$58,029

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6. INVESTMENTS

The following table presents a summarization of the fair values of the Plan's investments at June 30, 2018 and 2017. All categorized investments unregistered are held by the counterparty or by its trust department or agent but not in the Plan's name for the facilitation of trading by the Plan's investment managers. Money market accounts and investments in State of Wisconsin Core Retirement Investment Trust Fund (the "Core Trust") and Variable Retirement Investment Trust Fund (the "Variable Trust") are not categorized because the relationship between the fund and the investment agent is a direct contractual relationship and a transferable instrument that evidences ownership or creditorship does not support the investments.

	June 30	
	2018	2017
Categorized:		
Mortgage-backed securities	\$ 60	\$ 65
Nongovernment obligations	2,782,793	2,089,076
Non-categorized:		
Money market accounts	993,074	1,051,724
Investment in the State of Wisconsin		
Core retirement investment trust fund	39,671,154	38,593,641
Variable retirement investment trust fund	4,817,070	5,179,787
Total Investments	\$ 48,264,151	\$ 46,914,293

The Plan's investments in the Core Trust and the Variable Trust were established for the investment of assets of the Plan and several other governmental sponsored retirement plans. Each participating retirement plan has undivided interest in the Trusts. The assets of the Trusts are held by the State of Wisconsin and BMO Global Asset Management ("BMO" or the "Trustee") and each exceeds 5% of net position restricted for pensions. At June 30, 2018 and 2017, the Plan's interest in the plan net position of the Core Trust was 0.036% and 0.041% respectively, and the Plan's interest in the plan net position of the Variable Trust was approximately 0.058% and 0.070%, respectively.

Investment income and administrative expenses relating to the Trusts are allocated to the individual plans based upon average monthly balances invested by each plan. The Core Trust invests primarily in equity and fixed income securities, while the Variable Trust invests primarily in equity securities.

In accordance with the Plan's investment policy, the Plan did not have any significant investment in mortgage-backed securities as of June 30, 2018 and June 30, 2017. These securities are reported at fair value in the statements of fiduciary net position and are based on the cash flows from interest and principal payments by the underlying mortgages. As a result, they are sensitive to repayments by mortgages that may result from a decline in interest rates. For example, if interest rates decline and homeowners refinance mortgages, thereby repaying the mortgages underlying these securities, the cash flow from interest payments is reduced and the value of these securities declines. Likewise, if homeowners pay on mortgages longer than anticipated, the cash flows are greater and the return on the initial investment would be higher than anticipated.

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6. INVESTMENTS (cont.)

The Plan invests in mortgage-backed securities to diversify the portfolio and to increase the return while minimizing the extent of risk.

Also in accordance with the Plan's investment policy, the Plan invests in nongovernment obligations (5.76% and 4.45% of plan assets in 2018 and 2017, respectively). These securities are reported at fair value in the statements of fiduciary net position.

For the year ended June 30, 2018 and 2017, the annual money-weighted rate of return on Plan investments, net of pension plan investment expense, was 8.2% and 12.0%, respectively. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

7. DEPOSIT AND INVESTMENT RISK

The Trustees of the Plan have adopted a Statement of Investment Policy (the "Policy"). It articulates asset allocation targets; guidelines for interest rate risk, credit risk, and concentration of credit risk for separately managed portfolios; and performance benchmarks. Under Wisconsin statutes, equities, other than investments in the State of Wisconsin Employee Trust Funds ("SWIB funds"), are subject to the statutory limitation that they may not exceed 50% of the market value of the plan assets. The Plan has no equity investments other than those in the SWIB funds. The Policy targets equities in the SWIB Variable Fund to equal 150% of the amount in Fixed Income securities at BMO, with the remainder of the portfolio allocated to the SWIB Core Fund. The Policy target for Fixed Income is the sum of six months benefit payments plus six months administrative expense. The portfolio is rebalanced toward the Policy targets quarterly. On June 30, 2018, the SWIB Core Fund strategic targets were 51% to Global Stocks, 41% to Fixed Income, 7% to Real Estate, and 11% to Alternative Investments. On June 30, 2017, the SWIB Core Fund strategic targets were 53% to Global Stocks, 41% to Fixed Income, 6% to Real Estate, and 9% to Alternative Investments. The strategic target allocations total 110% and 109% on June 30, 2018 and 2017, respectively, reflecting the possibility of introducing leverage into the portfolio. On June 30, 2018, the SWIB Variable Fund strategic targets were 70% to U.S. Stocks, 30% to International Stocks, and 0% to Alternative Investments. On June 30, 2017, the SWIB Variable Fund asset-mix targets also were 70% to U.S. Stocks, 30% to International Stocks, and 0% to Alternative Investments.

Under the SWIB Investment Policy, the Core and Variable Fund asset allocations will be reviewed monthly for potential rebalancing. For the SWIB funds, when a major liquid asset class (i.e., Total Public Equities, Total Public Fixed Income) exceeds its target allocation by plus or minus 4%, a rebalancing exercise will be initiated. The Plan's investment portfolio (the Fund) has two investment managers: the State of Wisconsin Investment Board (SWIB) and BMO. Each investment manager is responsible for managing the portion of the Fund assets under its control in accordance with its policy and guidelines. BMO is also responsible for managing its Plan portfolios in accordance with the guidelines adopted by the Trustees. Milwaukee Public Schools completes a comprehensive review of the Fund relative to the Policy on an annual basis.

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7. DEPOSIT AND INVESTMENT RISK (cont.)

A. Interest Rate Risk

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. Milwaukee Public Schools uses both duration and weighted average maturity as methods of monitoring interest rate risk. SWIB data is expressed in terms of modified duration and option adjusted duration. Modified duration, which is stated in years, is the measure of price sensitivity of a fixed income security to an interest rate change of 100 basis points. The calculation is based on the weighted average of the present value of all cash flows. Some pooled investments are analyzed using an option adjusted duration calculation which is similar to the modified duration method. Option adjusted duration incorporates the duration shortening effect of any embedded call provisions in securities.

The following schedule summarizes the duration and fair value of the investments (excluding receivables) at BMO as of June 30, 2018 and the fair value at SWIB as of June 30, 2018:

<u>Investments</u>	<u>Duration (Years)</u>	<u>Fair Value</u>
SWIB Core and Variable Funds	Details on the SWIB fixed income investments as of 12/31/2017 are included below.	\$44,488,224
Money market accounts (at BMO)	0.08	\$ 993,074
Mutual Funds (at BMO)	4.06	\$ 2,782,793
Mortgage Backed Securities	N/A	\$ 60

SWIB information provided within the accompanying financial statement is as of December 31, 2017. There has been no significant change in SWIB's investment strategies, asset allocations and investment pricing methods from December 31, 2017 to June 30, 2018. Based on SWIB information, the District feels the information presented for SWIB Investments as of December 31, 2017 is a fair representation for June 30, 2018.

The following schedule displays the duration or weighted average maturity of the investments by type of investment at SWIB as of December 31, 2017.

<u>SWIB Investments</u>	<u>Duration (Years)</u>	<u>Fair Value</u>
Asset Backed Securities	4.1	\$ 72 Million
Commercial Paper	15 days	\$ 398 Million
Corporate Bonds and Private Placements	6.3	\$ 4,985 Million
Foreign Gov./Agency Bonds.	8.0	\$ 2,511 Million
Municipal Bonds	10.3	\$ 122 Million
Repurchase Agreements	2 days	\$ 14 Million
U.S Government Agencies	4.2	\$ 216 Million
U.S. TIPS	7.6	\$ 12,781 Million
U.S. Treasury Securities	5.0	\$ 3,701 Million
Commingled Funds	45 days to 7.9	\$ 9,093 Million

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7. DEPOSIT AND INVESTMENT RISK (cont.)

Note: On June 30, 2018, SWIB's Core Fund and Variable Fund had \$100.2 billion and \$8.1 billion in assets, respectively. As of June 30, 2018, the Plan's assets were invested 82% in the SWIB Core Fund, 10% in the SWIB Variable Fund, and 8% in portfolios managed by BMO. For SWIB, the duration of each U.S. Fixed Income portfolio shall remain within 15% of the assigned benchmark's duration. For the bond portfolio for the payment of benefits and expenses, the duration will be within a range of 50% to 150% of the duration of the benchmark index.

The following schedule summarizes the duration and fair value of the investments (excluding receivables) at BMO as of June 30, 2017 and the fair value at SWIB as of June 30, 2017:

<u>Investments</u>	<u>Duration (Years)</u>	<u>Fair Value</u>
SWIB Core and Variable Funds	Details on the SWIB fixed income investments as of 12/31/2016 are included below.	\$43,773,428
Money market accounts (at BMO)	0.1	\$ 1,051,724
Mutual Funds (at BMO)	3.7	\$ 2,089,076
Mortgage Backed Securities	N/A	\$ 65

SWIB information provided within the accompanying financial statement is as of December 31, 2016. There has been no significant change in SWIB's investment strategies, asset allocations and investment pricing methods from December 31, 2016 to June 30, 2017. Based on SWIB information, the District feels the information presented for SWIB Investments as of December 31, 2016 is a fair representation for June 30, 2017.

The following schedule displays the duration or weighted average maturity of the investments by type of investment at SWIB as of December 31, 2016.

<u>SWIB Investments</u>	<u>Duration (Years)</u>	<u>Fair Value</u>
Asset Backed Securities	1.8	\$ 28 Million
Commercial Paper	18 days	\$ 217 Million
Corporate Bonds and Private Placements	6.0	\$ 5,356 Million
Foreign Gov./Agency Bonds.	7.1	\$ 4,288 Million
Municipal Bonds	9.6	\$ 117 Million
Repurchase Agreements	3 days	\$ 456 Million
U.S Government Agencies	4.1	\$ 294 Million
U.S. TIPS	7.5	\$ 9,297 Million
U.S. Treasury Securities	5.2	\$ 4,161 Million
U.S. Treasury Short Positions	0.2	\$ (55) Million
Commingled Funds	0.2 to 6.7	\$ 11,183 Million

Note: On June 30, 2017, SWIB's Core Fund and Variable Fund had \$89.4 billion and \$7.1 billion in assets, respectively. As of June 30, 2017, the Plan's assets were invested 82% in the SWIB Core Fund, 11% in the SWIB Variable Fund, and 7% in portfolios managed by BMO. For SWIB, the duration of each U.S. Fixed Income portfolio shall remain within 15% of the assigned benchmark's duration. For the bond portfolio for the payment of benefits and expenses, the duration will be within a range of 50% to 150% of the duration of the benchmark index.

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7. DEPOSIT AND INVESTMENT RISK (cont.)

B. Credit Risk

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. The following schedule displays the credit quality percentage distributions of the fixed income investments in the SWIB Core and Variable Funds on December 31, 2017 and December 31, 2016 and in the separate accounts managed by BMO on June 30, 2018 and June 30, 2017. For SWIB, the schedule displays the lowest credit rating assigned by several nationally recognized statistical rating organizations.

Rating*	SWIB		BMO	
	12/31/2017	12/31/2016	6/30/2018	6/30/2017
P-1 or A-1	0%	0%	N/A	N/A
P-2 or A-2	1%	1%	N/A	N/A
UST and AGY	N/A**	N/A**	N/A	N/A
AAA/Aaa	1%	1%	74%	67%
AA/Aa	51%	41%	N/A	N/A
A	6%	8%	N/A	N/A
BBB/ Baa	6%	7%	N/A	N/A
BB/Ba	3%	3%	N/A	N/A
B	2%	3%	N/A	N/A
CCC/Caa	1%	1%	N/A	N/A
CC/Ca	N/A	N/A	N/A	N/A
C	N/A	N/A	N/A	N/A
D	N/A	N/A	N/A	N/A
Commingled Funds & Mutual Funds***	27%	32%	26%	33%
Not-Rated	2%	3%	0%	0%

*As defined by Moody's Bond Ratings or Standard and Poor's

**As of 12/13/2013 and 6/30/2013 SWIB's holdings of UST and AGY are included in the "AA" category.

*** Additional information on the Fixed Income Fund Commingled Funds in the SWIB portfolio is in the table labeled "Investments Measured at Net Asset Value." The weighted average quality of the mutual funds in the BMO Portfolio was A (excluding BMO's money market fund which was rated AAA).

SWIB's Core Fund's Government/Credit Portfolio shall maintain an average quality rating of A or better. Non-Investment Grade securities shall not exceed 15% of the portfolio's market value. For SWIB's Global Bond Portfolio, overall portfolio quality must be maintained at an average rating of A or better. Corporate securities may not exceed 20% of the portfolio's market value and must be rated at least "B-" and above. Corporate securities rated "BB+" or lower but no lower than "B-" may not exceed 5% of the portfolio's market value. Emerging market sovereign debt is limited to (a) securities that are rated "B-" or above and (b) debt of countries in the J.P. Morgan Emerging Market Bond Index Global Diversified; Emerging market corporate debt is limited to (a) securities that are rated "B-" or above and (b) issuers in the Bloomberg Barclays US Credit Index. Relative emerging market debt shall not exceed 10% of the portfolio's market value.

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7. DEPOSIT AND INVESTMENT RISK (cont.)

C. Custodial Credit Risk

The Plan does not have a deposit or investment policy specifically related to custodial credit risk. The Plan's assets are restricted to investments in the SWIB Core and Variable Funds and in portfolios at BMO.

Deposits - Custodial credit risk for deposits is the risk that, in the event of the failure of a depository financial institution, the fund will not be able to recover deposits that are in the possession of an outside party. SWIB had uninsured and uncollateralized deposits totaling \$363.1 million and \$551.6 million on December 31, 2017 and December 31, 2016, respectively. In addition, SWIB held certificates of deposit which were covered by depository insurance with a fair value of \$24.9 million and \$72.2 million on December 31, 2017 and 2016, respectively. In total, these deposits represented 0.33% and 0.65% of the combined assets of the SWIB Core and Variable Funds, on December 31, 2017 and on December 31, 2016, respectively.

Investments - Custodial credit risk for investments is the risk that, in the event of the failure of a counterparty to a transaction, SWIB will not be able to recover the value of investments that are in the possession of an outside party. The repurchase agreements held by the fund were 2 agreements totaling \$14.2 million as of December 31, 2017 and 8 agreements totaling \$455.9 million as of December 31, 2016. All of these repurchase agreements were tri-party agreements held in short-term cash management portfolios managed by SWIB's custodian. The underlying securities for these repurchase agreements were held by the tri-party's agent, not in SWIB's name. These agreements represented 0.01% and 0.50% of the combined assets of the SWIB Core and Variable Funds on December 31, 2017 and December 31, 2016, respectively.

D. Concentration of Credit Risk

Concentration of credit risk is the risk of loss attributed to the magnitude of a fund's investment in a single issuer. SWIB limits concentrations of credit risk by establishing investment guidelines for individual portfolios or groups of portfolios (excluding U.S. Government and Agency Securities) that generally restrict issuer concentrations in any one company to less than 5% and under Rule 144A to less than 20% of the portfolio's market value. For the other separately managed portfolios, the policy guidelines specify that individual securities (excluding U.S. Government and Agency securities) in a separate portfolio should not exceed 7% of the value of that portfolio. None of the securities in these portfolios represented more than 5% of the market value of the Fund.

E. Foreign Currency Risk

Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment or deposit. As of December 31, 2017, \$22.8 billion of the SWIB Core and Variable Funds currency exposure was denominated in foreign currency. As of December 31, 2016, \$21.5 billion of the SWIB Core and Variable Funds currency exposure was denominated in foreign currency. For the BMO managed portfolios, there was no foreign currency exposure.

The risk definitions noted above are from the GASB. The data, risk descriptions, and guidelines for the SWIB Funds were provided by SWIB and the data and risk information for the other investment types were provided by BMO.

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8. DERIVATIVE INVESTMENTS

The Plan holds investments in SWIB Funds, which may enter into a variety of financial contracts, including futures and options, primarily to enhance performance, reduce volatility of the portfolio, and aid in cash flow management. SWIB also enters into foreign exchange positions, such as forward and spot contracts, to obtain or hedge foreign currency exposure. The financial contracts are included in SWIB Variable and Core Investments on the Statement of Net Investment Position. At June 30, 2018 and 2017, the Plan's interest in the plan net position of the Core Trust was approximately 0.036% and 0.041%, respectively, and the Plan's interest in the plan net position of the Variable Trust was approximately 0.058% and 0.070%, respectively. The SWIB Funds are exposed to credit risk in the event of non-performance by counterparties to financial instruments. Exposure to market risk, the risk that future changes in market conditions may make an instrument less valuable, is managed in accordance with risk limits through buying or selling instruments or entering into offsetting positions.

A financial futures contract is an exchange traded agreement to buy or sell a financial instrument at an agreed upon price and time in the future. Futures contracts are marked to market daily, based upon the closing market price of the contract at the board of trade or exchange on which they are traded. The resulting gain or loss is typically received or paid the following day until the contract expires. Futures contracts involve, to varying degrees, risk of loss in excess of the variation margin. Losses may arise from future changes in the value of the underlying instrument. Substantially all future contracts have a maturity date of less than one year.

Option contracts give the purchaser of the contract the right to buy (call) or sell (put) the security or index underlying the contract at an agreed upon price on or before the expiration of the option contract. The fair value of option contracts is based upon the closing market price of the contract. The seller of the contract is subject to market risk, while the purchaser is subject to credit risk and market risk to the extent of the premium paid to enter into the contract.

Foreign exchange contracts involve an agreement to exchange the currency of one country for the currency of another country at an agreed-upon price and settlement date. Spot and forward contracts entered into by SWIB are over-the-counter contracts, entered into with various counterparties. These contracts are valued daily, and guidelines have been established which provide minimum credit ratings for counterparties. Losses may arise from future changes in value of the underlying currency, or if the counterparties do not perform under the terms of the contract.

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8. DERIVATIVE INVESTMENTS (cont.)

The following table summarizes the aggregate notional or fair value amounts for SWIB's derivative financial instruments at December 31, 2017 and December 31, 2016 (in thousands):

	<u>12/31/2017</u>	<u>12/31/2016</u>
Future contracts (Notional)	\$ 11,954,025	\$15,710,232
Foreign currency spot and forward contracts -- Receivable (Fair Value)	\$ 2,482,831	\$ 3,733,790
Foreign currency spot and forward contracts -- Payable (Fair Value)	\$ (2,483,962)	\$(3,666,766)
OTC Derivative Investments subject to Counterparty Credit Risk – Receivable (Fair Value)	\$ 2,486,927	\$ 5,103,202
OTC Derivative Investments subject to Counterparty Credit Risk – Payable (Fair Value)	\$ (2,482,758)	\$ (5,013,557)
Options – puts (Notional)	\$ (137,003)	\$ (47,994)
Options – calls (Notional)	\$ (73,263)	\$ 17,963

9. FAIR VALUE MEASUREMENTS

The framework for measuring fair value provides a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (level 1) and the lowest priority to unobservable inputs (level 3). The three levels of the fair value hierarchy under authoritative guidance are described as follows:

Level 1 - Inputs to the valuation methodology are unadjusted quoted market prices for identical assets in active markets that the plan has the ability to access.

Level 2 - Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly, such as:

- quoted prices for similar assets or liabilities in active markets;
- quoted prices for identical or similar assets or liabilities in inactive markets;
- inputs other than quoted prices that are observable for the asset or liability;
- inputs that are derived principally from or corroborated by observable market data by correlation or other means.

If the asset or liability has a specified (contractual) term, the Level 2 input must be observable for substantially the full term of the asset or liability

Level 3 - Inputs to the valuation methodology are unobservable and significant to the fair value measurement.

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9. FAIR VALUE MEASUREMENTS (cont.)

The asset's or liability's fair value measurement level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. Valuation techniques maximize the use of relevant observable inputs and minimize the use of unobservable inputs.

The following is a description of the valuation methodologies used for assets measured at fair value. There were no changes to the methodologies during the years ended June 30, 2018 and 2017.

Money market accounts: Valued at the quoted net asset value (NAV) of shares held by the Plan at year end.

Mutual funds: Mutual funds are valued at the daily closing price as reported by the fund. Mutual funds held by the Plan are open-end mutual funds that are registered with the U.S. Securities and Exchange Commission. These funds are required to publish their daily NAV and to transact at that price. The mutual funds held by the Plan are deemed to be actively traded.

The plan sponsor is responsible for the determination of fair value. The plan sponsor has not historically adjusted the prices obtained from pricing services. The preceding methods described may produce a fair value calculation that may not be indicative of net realizable value or reflective of future fair values. Furthermore, although the Plan believes its valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different fair value measurement at the reporting date.

The following tables set forth by level, within the fair value hierarchy, the Plan's investments held at BMO at fair value as of June 30, 2018 and 2017.

	June 30, 2018			
	Level 1	Level 2	Level 3	Total
Money market accounts	\$ -	\$ 993,074	\$ -	\$ 993,074
Mortgage-backed securities	-	60	-	60
Mutual funds:				
Short-Term Investment Grade Bond Funds	1,171,702	-	-	1,171,702
Intermediate-Term Investment Grade Bond Funds	1,611,091	-	-	1,611,091
Investments at fair value	\$ 2,782,793	\$ 993,134	\$ -	\$ 3,775,927

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9. FAIR VALUE MEASUREMENTS (cont.)

	June 30, 2017			
	Level 1	Level 2	Level 3	Total
Money market accounts	\$ -	\$ 1,051,724	\$ -	\$ 1,051,724
Mortgage-backed securities	-	65	-	65
Mutual funds:				
Short-Term Investment Grade Bond Funds	880,509	-	-	880,509
Intermediate-Term Investment Grade Bond Funds	1,208,567	-	-	1,208,567
Investments at fair value	<u>\$ 2,089,076</u>	<u>\$ 1,051,789</u>	<u>\$ -</u>	<u>\$ 3,140,865</u>

Short-Term Investment Grade Bond Funds include funds with a duration of less than three years and Intermediate-Term Investment Grade Bond Funds include funds with a duration greater than three years.

SWIB information by Fair Value Level as of as of December 31, 2017 and 2016, respectively are provided below.

The following is a description of the valuation methodologies used for SWIB assets measured at fair value. There are no changes to the methodologies used during the years ended December 31, 2017 and December 31, 2016.

Level 1 investments are generally valued at the official closing price (usually the last trade price) or the last bid price on the security's primary exchange. Such investments generally include exchange-traded securities such as equities, preferred stock, certain derivatives, and exchange-traded funds. U.S. Treasury Bills and only the most recently-issued US Treasury Notes and Bonds are classified as level 1 because available pricing for these securities is similarly reliable to exchange-traded securities.

Level 2 investments are valued using observable inputs by third-party pricing services using either a bid evaluation or a matrix-pricing technique. Bid evaluations may include market quotations that are based on yields, maturities, call features, and ratings. Matrix-pricing is used to value securities based on their relationship to benchmark market prices for securities with similar interest rates, maturities, and credit ratings. Pricing in this level may also include market approaches that incorporate benchmark interest rates. Debt securities comprise the majority of the level 2 investments because they are generally traded using a dealer market, with lower trading volumes than level 1 securities. Over-the-counter derivatives, such as swaps, TBAs, and foreign exchange contracts, are also included in level 2 because they are priced using a market approach that considers benchmark interest rates and foreign exchange rates.

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9. FAIR VALUE MEASUREMENTS (cont.)

Level 3 investments are generally valued using significant inputs that are unobservable to the marketplace. This may occur if an investment is illiquid or its value is based on estimates. For the WRS, such investments primarily include directly-held real estate, valued using appraisals and, as such, rely on unobservable inputs. Foreign Government/Agency securities in level 3 are valued using proprietary valuation models. Asset Backed Securities included in level 3 represent private placements that are valued at purchase price because third-party valuations are unavailable. Equities, convertibles, and preferred securities included in the level 3 hierarchy are generally privately-held securities valued using valuation models such as price multiples incorporating public company comparables, discounted cash flows and milestone valuation models. In some instances of privately-held preferred securities, valuation is determined based on recent financing rounds. Bank loans, which represent the majority of corporate bonds and private placements in the level 3 category, are priced by vendors using proprietary models which may incorporate unobservable inputs. Cash and Cash Equivalents included in level 3 represent securities priced at cost. Typically, due to their short-term nature, cost approximates fair value for these investments. Other factors such as infrequent trading, inactive market, or adjusted quoted prices may also result in level 3 measurements.

SWIB Investments by Fair Value Level as of December 31, 2017 and 2016 (in thousands) are noted in the following tables.

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9. FAIR VALUE MEASUREMENTS (cont.)

Investments by Fair Value Level as of December 31, 2017 (in thousands)

Asset Type	Level 1	Level 2	Level 3	TOTAL
Cash Equivalents				
Corporates & Private Placements	\$ -	\$ 4,373	\$ 36,987	\$ 41,360
Foreign Government/Agency Securities	-	-	397,860	397,860
U.S. Treasury Securities	<u>104,900</u>	<u>-</u>	<u>-</u>	<u>104,900</u>
Total Cash Equivalents	104,900	4,373	434,847	544,120
Stocks				
Domestic	36,000,791	-	136,296	36,137,087
International	<u>20,262,996</u>	<u>-</u>	<u>1,304</u>	<u>20,264,300</u>
Total Stocks	56,263,787	-	137,600	56,401,387
Fixed Income				
Asset Backed Securities	-	54,543	17,250	71,793
Corporate & Private Placements	-	4,621,721	104,772	4,726,493
Foreign Government/Agency Bonds	-	2,506,420	5,037	2,511,457
Municipal Bonds	-	122,400	-	122,400
U.S. Government Agencies	-	215,869	-	215,869
U.S. Treasury Inflation Protected Securities	-	12,780,811	-	12,780,811
U.S. Treasury Securities	<u>115,658</u>	<u>3,480,078</u>	<u>-</u>	<u>3,595,736</u>
Total Fixed Income	115,658	23,781,842	127,059	24,024,559
Real Estate	-	-	1,368,583	1,368,583
Preferred Securities				
Domestic	-	43,760	53,934	97,694
International	<u>131,089</u>	<u>12,890</u>	<u>-</u>	<u>143,979</u>
Total Preferred Securities	131,089	56,650	53,934	241,673
Convertibles	-	-	196	196
Derivatives				
Foreign Exchange Contracts	-	(1,131)	-	(1,131)
Futures	47,079	-	-	47,079
Options	(3,830)	-	-	(3,830)
Swaps	-	4,171	-	4,171
To Be Announces Securities	<u>-</u>	<u>95,489</u>	<u>-</u>	<u>95,489</u>
Total Derivatives	43,249	98,529	-	141,778
Equity Short Sales	<u>(2,662,107)</u>	<u>(60,087)</u>	<u>-</u>	<u>(2,722,194)</u>
Total	\$ 53,996,576	\$ 23,881,307	\$ 2,122,219	\$ 80,000,102

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9. FAIR VALUE MEASUREMENTS (cont.)

Investments by Fair Value Level as of December 31, 2016 (in thousands)

Asset Type	Level 1	Level 2	Level 3	TOTAL
Cash Equivalents				
Corporates & Private Placements	\$ -	\$ 2,346	\$ -	\$ 2,346
Foreign Government/Agency Securities	-	-	341,915	341,915
U.S. Treasury Securities	156,793	-	-	156,793
Total Cash Equivalents	156,793	2,346	341,915	501,054
Stocks				
Domestic	22,081,128	-	79,966	22,161,094
International	16,768,342	81	-	16,768,423
Total Stocks	38,849,470	81	79,966	38,929,517
Fixed Income				
Asset Backed Securities	-	26,721	1,545	28,266
Corporate & Private Placements	-	4,963,128	142,898	5,106,026
Foreign Government/Agency Bonds	-	3,921,823	24,579	3,946,402
Municipal Bonds	-	117,483	-	117,483
U.S. Government Agencies	-	294,270	-	294,270
U.S. Treasury Inflation Protected Securities	-	9,296,546	-	9,296,546
U.S. Treasury Securities	-	4,003,844	-	4,003,844
Total Fixed Income	-	22,623,815	169,022	22,792,837
Real Estate	-	-	1,275,526	1,275,526
Preferred Securities				
Domestic	-	38,506	33,687	72,193
International	94,348	-	-	94,348
Total Preferred Securities	94,348	38,506	33,687	166,541
Convertibles	-	-	639	639
Derivatives				
Foreign Exchange Contracts	-	67,024	-	67,024
Futures	(79,142)	-	-	(79,142)
Options	252	-	-	252
Swaps	-	23,624	-	23,624
Total Derivatives	(78,890)	90,648	-	11,758
Equity Short Sales	(278,726)	-	-	(278,726)
Fixed Income Short Sales				
Exchange Traded Funds-Short Positions	(450)	-	-	(450)
U.S. Treasury Securities-Short Positions	(8,988)	(46,411)	-	(55,399)
Total Fixed Income Short Sales	(9,438)	(46,411)	-	(55,849)
Total	\$ 38,733,557	\$ 22,708,985	\$ 1,900,755	\$ 63,343,297

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9. FAIR VALUE MEASUREMENTS (cont.)

SWIB notes that the fair value of investments in certain fixed income funds, private equity limited partnerships, stock funds, real estate limited partnerships, and hedge funds are based on the investments' net asset value (NAV) per share (or its equivalent) provided by the investee. The December 31, 2017 and 2016 investments valued using NAV are shown in the tables below and include commingled/pooled funds, private equity and real estate limited partnerships

Investments Measured at NAV as of December 31, 2017 (in thousands)

Investments Measured at NAV	Fair Value	Unfunded Commitments	Redemption Frequency	Redemption Notice Period (7)
Cash and Cash Equivalents (1)	\$ 2,335,166	\$ -	Daily	Same day
Fixed Income (2)	6,960,023	228,636	Daily, Monthly, N/A (1)	2-90 days, N/A (2)
Private Equity Limited Partnerships (3)	7,407,515	5,300,600	N/A	N/A
Equities (4)	6,839,675	-	Daily, Monthly, Quarterly	2-30 days
Real Estate Limited Partnerships (5)	4,804,895	1,287,600	N/A, Quarterly	N/A, 30-90 days
Hedge Funds (6)	4,701,121	91,144	Weekly, Monthly, Quarterly	7-90 days
Total (7)	<u>\$ 33,048,395</u>	<u>\$ 6,907,980</u>		

- (1) This category consists of short-term cash funds with the investment objective of safety of principal and liquidity while earning a competitive money market rate of return. The short-term cash funds have daily liquidity with same day notice.
- (2) Corporate and government bond index funds make up a significant portion of this category (82%) and have the investment objective of approximating as closely as practicable the return of a given segment of the markets for publicly-traded investments. The corporate and government index funds have daily liquidity with 2 days' notice. An additional 15% of this category represents long-only fixed income managers, which can invest across the credit quality spectrum, in varying geographies, and can include derivatives, high yield and structured securities. These long-only managers require a redemption notice period between one and two weeks and have daily or monthly liquidity. One of these funds also has an investor level gate, limiting daily withdrawals to \$2 million per day or 5% of the portfolio's net asset value. The remaining 3% of this category includes LLCs which invest in private real estate debt. The majority of these LLC investments distribute earnings over the life of the investment and have an average remaining life of less than 5 years. The private real estate debt LLC's that do not distribute earnings over the life of the fund permit quarterly redemptions with 90 days' notice.
- (3) Private Equity Limited Partnerships include direct, co-investments with existing SWIB general partners, direct secondary investments and fund of funds. These investments are illiquid and are generally not resold or redeemed. Distributions from each fund will be received as the underlying investments are liquidated.
- (4) This category includes emerging markets equity index funds (54%) with an investment strategy designed to track the return of the given segment of the emerging equity markets. These investments can be redeemed daily with 2 days' notice. An additional 46% of this category represents long-only equity managers with various fundamental, quantitative and other approaches spanning various styles, geographies and market cap weights. These long-only manager investments can be redeemed monthly, with between 10 and 30 days' notice.

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9. FAIR VALUE MEASUREMENTS (cont.)

- (5) This category includes funds that invest directly in real estate and real estate related assets. Approximately 68% of these investments are generally not resold or redeemed. Distributions from each fund will be received as the underlying investments are liquidated. The remaining 32% of this category consists of open-ended funds that invest directly in real estate and real estate related assets. Such investments can be redeemed quarterly with between 30 and 90 days' notice.
- (6) Hedge Fund investments are private investment funds that seek to produce absolute returns using a broad range of strategies. In certain instances, Hedge Fund investments are structured as limited partnerships, whereby participants receive distributions over the life of the fund. Estimated remaining life of funds structured as limited partnerships is estimated to be between 5-10 years. Additional information relating to Hedge Funds can be found in Note 4(D).
- (7) SWIB had additional unfunded commitments of approximately \$10.2 million, relating to assets not valued using NAV.
- (8) Redemption terms described for NAV investments reflect contractual agreements and assume withdrawals are made without adverse market impact and under normal market conditions.

Investments Measured at NAV as of December 31, 2016 (in thousands)

Investments Measured at NAV	Fair Value	Unfunded Commitments	Redemption Frequency	Redemption Notice Period (7)
Fixed Income (1)	\$ 11,391,233	\$ 136,614	Daily, Monthly, N/A (1)	0-15 days, N/A (1)
Private Equity Limited Partnerships (2)	6,564,294	4,951,712	N/A	N/A
Stock (3)	6,053,490	-	Daily, Monthly, Quarterly	2-45 days
Real Estate Limited Partnerships (4)	4,721,621	1,103,455	N/A, Quarterly	N/A, 30-90 days
Hedge Funds (5)	4,407,772	100,000	Weekly, Monthly, Quarterly	3-90 days
Total (6)	<u>\$ 33,138,410</u>	<u>\$ 6,291,781</u>		

- (1) A large portion of this category consists of short-term cash funds (47%) with the investment objective of safety of principal and liquidity while earning a competitive money market rate of return. Corporate and government bond index funds are another significant portion of this category (46%) and have the investment objective of approximating as closely as practicable the return of a given segment of the market for publicly traded investments. The short-term cash funds and the Corporate and government index funds all have daily liquidity with 0-2 days' notice. An additional 5% of this category represents long-only fixed income managers, which can invest across the credit quality spectrum, in varying geographies, and can include derivatives, high yield, and structured securities. These long-only managers require a redemption notice period of approximately 2 weeks and have monthly liquidity. The remaining 2% of this category includes LLCs which invest in private real estate debt. These LLC investments distribute earnings over the life of the investment and have an average remaining life of between 0-5 years.
- (2) Private Equity Limited Partnerships include direct, co-investments with existing SWIB general partners, direct secondary investments, and fund of funds. These investments are illiquid and are generally not resold or redeemed. Distributions from each fund will be received as the underlying investments are liquidated.

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9. FAIR VALUE MEASUREMENTS (cont.)

- (3) This category includes emerging markets equity index funds (56%) with an investment strategy designed to track the return of the given segment of the emerging equity markets. This investment can be redeemed daily with 2 days' notice. An additional 40% of this category represents long-only equity managers with various fundamental, quantitative, and other approaches spanning various styles, geographies, and market cap weights. These long-only manager investments can be redeemed monthly, with between 10 and 30 days' notice. The remaining 4% of this category includes investments structured as Real Estate Investment Trusts which can be redeemed quarterly, with 45 days' notice.
- (4) This category includes funds that invest directly in real estate and real estate related assets. Approximately 67% of these investments are generally not resold or redeemed. Distributions from each fund will be received as the underlying investments are liquidated. The remaining 33% of this category consists of open-ended funds that invest directly in real estate and real estate related assets. Such investments can be redeemed quarterly with between 30 and 90 days' notice.
- (5) Hedge Fund investments are private investment funds that seek to produce absolute returns using a broad range of strategies. In certain instances, Hedge Fund investments are structured as limited partnerships, whereby participants receive distributions over the life of the fund. Estimated remaining life of funds structured as limited partnerships is estimated to be between 6-10 years.
- (6) SWIB had additional unfunded commitments of approximately \$22.4 million, relating to assets not values using NAV.
- (7) Redemption terms described for NAV investments reflect contractual agreements and assume withdrawals are made without adverse market impact and under normal market conditions.

10. RISKS AND UNCERTAINTIES

The total pension liability is reported based on certain assumptions pertaining to interest rates, inflation rates, and employee demographics, all of which are subject to change. Due to uncertainties inherent in the estimations and assumptions process, it is at least reasonably possible that changes in these estimates and assumptions in the near term would be material to the financial statements.

11. TAX STATUS

The District has received tax determination letters dated April 11, 1980, August 26, 1991, and June 15, 2004 from the Internal Revenue Service (IRS) indicating that the Plan qualifies under the applicable provisions of the Internal Revenue Code (IRC) and the related trust is exempt from federal income taxes. With respect to the August 26, 1991 determination letter, the IRS did not determine whether the Plan's provisions complied with the Tax Reform Act of 1986 and subsequent applicable legislation. The Plan was amended to comply with the Tax Reform Act of 1986 and subsequent legislation and filed timely with the IRS on June 19, 2002 for an updated favorable determination letter. The determination letter was received on June 15, 2004 and was conditional upon adoption of the proposed restated Plan. Subsequently, MBSD adopted the restated Plan. The determination letter also acknowledges receipt of provisions intended to satisfy the requirements of Section 401(a) of the Code, as amended by the Economic Growth and Tax Relief Reconciliation Act of 2001. On September 9, 2014, the District received a favorable tax determination letter from the Internal Revenue Service, which indicates that it considered the 2007 Cumulative List of Changes in Plan Qualification Requirements and is entitled to be treated as Governmental plan under the section 414(d) of the Internal Revenue Code. The MBSD's management believes that the Plan is currently designed and being operated in compliance with the applicable requirements of the IRC. Therefore, no provision for income taxes has been reflected in the accompanying basic financial statements.

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12. SUBSEQUENT EVENTS

Management has evaluated subsequent events occurring through December 18, 2018, the date the financial statements were available to be issued, for events requiring recording or discussion in the financial statements. Management feels no material event occurred that would require disclosure.

REQUIRED SUPPLEMENTARY INFORMATION

(See Independent Auditors' Report on Page 1)

MILWAUKEE BOARD OF SCHOOL DIRECTORS
EARLY RETIREMENT SUPPLEMENT AND BENEFIT IMPROVEMENT PLAN
Required Supplementary Information
Schedule of Changes in Net Pension Liability and Related Ratios
Last 5 Fiscal Years

Fiscal year ending June 30	2018	2017	2016	2015	2014
Total Pension Liability					
Service cost	\$ 187,143	\$ 226,072	\$ 283,894	\$ 276,863	\$ 267,144
Interest on the total pension Liability	3,703,571	3,753,201	3,855,014	3,949,902	3,988,475
Benefit changes	-	-	-	-	-
Difference between expected and actual expense	341,949	(352,172)	(297,565)	383,007	-
Assumption changes	-	-	-	200,199	-
Benefit payments	(4,832,520)	(4,981,004)	(5,145,099)	(5,215,227)	(5,399,893)
Refunds	(47,196)	(27,335)	(19,399)	(23,068)	(87,514)
Net Change in Total Pension Liability	<u>(647,053)</u>	<u>(1,381,238)</u>	<u>(1,323,155)</u>	<u>(428,324)</u>	<u>(1,231,788)</u>
Total Pension Liability - Beginning	51,291,718	52,672,956	53,996,111	54,424,435	55,656,223
Total Pension Liability - Ending (a)	<u>\$ 50,644,665</u>	<u>\$ 51,291,718</u>	<u>\$ 52,672,956</u>	<u>\$53,996,111</u>	<u>\$54,424,435</u>
Plan Fiduciary Net Position					
Employer contributions	\$ 1,115,710	\$ 1,209,134	\$ 1,498,910	\$ 1,710,809	\$ 2,451,003
Employee contributions	-	-	-	-	-
Net investment income	3,728,578	5,238,182	345,326	799,276	7,589,400
Benefit payments	(4,832,520)	(4,981,004)	(5,145,099)	(5,215,227)	(5,399,893)
Refunds	(47,196)	(27,335)	(19,399)	(23,068)	(87,514)
Administrative expense	(60,785)	(65,920)	(62,511)	(58,374)	(56,590)
Other *	4,186	-	-	-	-
Net Change in Plan Fiduciary Net Position	<u>(92,027)</u>	<u>1,373,057</u>	<u>(3,382,773)</u>	<u>(2,786,584)</u>	<u>4,496,406</u>
Plan Fiduciary Net Position - Beginning	47,483,823	46,110,766	49,493,539	52,280,123	47,783,717
Plan Fiduciary Net Position - Ending (b)	<u>\$ 47,391,796</u>	<u>\$ 47,483,823</u>	<u>\$ 46,110,766</u>	<u>\$49,493,539</u>	<u>\$52,280,123</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 3,252,869</u>	<u>\$ 3,807,895</u>	<u>\$ 6,562,190</u>	<u>\$ 4,502,572</u>	<u>\$ 2,144,312</u>
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	93.58%	92.6%	87.5%	91.7%	96.1%
Covered Employee Payroll	\$ 13,574,881	\$ 14,255,879	\$ 15,674,128	\$17,917,354	\$18,483,299
Net Pension Liability as a Percentage of Covered Employee Payroll	23.96%	26.7%	41.9%	25.1%	11.6%

Notes to Schedule:

* Transfer from Teacher's Plan to Director's Plan during plan year end June 30, 2018.

The Plan implemented GASB Statement No. 67 in fiscal year 2014.
Information that complies with GASB 67 prior to fiscal year 2014 is not available.

See accompanying independent auditors' report and notes to required supplementary information.

**MILWAUKEE BOARD OF SCHOOL DIRECTORS
EARLY RETIREMENT SUPPLEMENT AND BENEFIT IMPROVEMENT PLAN
Required Supplementary Information
Schedule of Contributions
Last 10 Fiscal years**

Fiscal year ending June 30	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>	<u>2012</u>	<u>2011</u>	<u>2010</u>	<u>2009</u>
Actuarially determined contribution	\$1,274,784	\$1,477,690	\$1,618,641	\$2,346,545	\$3,214,623	\$3,519,437	\$4,210,948	\$3,595,479	\$3,242,746	\$2,482,200
Contributions in relation to the actuarially determined contribution	\$1,115,710	\$1,209,134	\$1,498,910	\$1,710,809	\$2,451,003	\$3,073,400	\$3,829,233	\$7,209,843	\$742,746	\$2,662,961
Contribution deficiency (excess)	<u>\$159,074</u>	<u>\$268,556</u>	<u>\$119,731</u>	<u>\$635,736</u>	<u>\$763,620</u>	<u>\$446,037</u>	<u>\$381,715</u>	<u>(\$3,614,364)</u>	<u>\$2,500,000</u>	<u>(\$180,761)</u>
Covered-employee payroll	\$13,574,881	\$14,255,879	\$15,674,128	\$17,917,354	\$18,483,299	\$23,710,188	\$25,014,230	\$33,781,612	\$36,616,849	\$38,094,012
Contributions as a percentage of covered-employee payroll	9.4%	10.4%	10.3%	13.1%	17.4%	14.8%	16.8%	10.6%	8.9%	6.5%

See accompanying independent auditors' report and notes to required supplementary information.

**MILWAUKEE BOARD OF SCHOOL DIRECTORS
EARLY RETIREMENT SUPPLEMENT AND BENEFIT IMPROVEMENT PLAN
Required Supplementary Information
Schedule of Investment Returns
Last 6 Fiscal Years**

Fiscal year ending, June 30	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>
Annual money-weighted rate of return, net of investment expense	8.2%	12.0%	0.6%	1.3%	16.9%	11.8%

The Plan implemented GASB Statement No. 67 in fiscal year 2014.
Information that complies with GASB 67 prior to fiscal year 2013 is not available.

See accompanying independent auditors' report and notes to required supplementary information.

**MILWAUKEE BOARD OF SCHOOL DIRECTORS
EARLY RETIREMENT SUPPLEMENT AND BENEFIT IMPROVEMENT PLAN
Notes to Required Supplementary Information
As of and for the Years Ended June 30, 2018 and 2017**

1. SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS

The total pension liability contained in this schedule was provided by the Plan's actuary, Gabriel, Roeder, Smith & Company. The net pension liability is measured as the total pension liability less the amount of the fiduciary net position of the Plan.

2. SCHEDULE OF CONTRIBUTIONS

The determined employer contributions and the amounts of the contributions actually made are presented in the schedule.

3. ACTUARIAL INFORMATION

The information presented in the required supplementary schedules was used in the actuarial valuations for purposes of determining the actuarially determined contribution rate. The assumptions and methods used for this actuarial valuation were recommended by the actuary and adopted by the District. Additional information as of the latest actuarial valuation follows:

Valuation date	July 1, 2017
Actuarial cost method	Entry age normal
Asset valuation method	5-year smoothed market
Amortization method	5-year open period, level dollar
Investment rate of return	7.50%
Projected salary increases	Certificated Participants: Wage inflation of 2.8% per year with additional service-based of up to 3.7% per year. Classified Participants: 4.0% to 5.0% per year.
Cost of living increases	0.0% per year
Mortality table	Wisconsin Projected Experience Table - 2005

See accompanying independent auditors' report and notes to required supplementary information.