Michigan State Housing Development Authority

(a component unit of the State of Michigan)

Financial Report

with Supplemental Information

June 30, 2019

Contents

Report Letter	1-2
Management's Discussion and Analysis (Unaudited)	3-6
Basic Financial Statements	
Statement of Net Position	7
Statement of Revenue, Expenses, and Changes in Net Position	8
Statement of Cash Flows	9-10
Statement of Net Position - Michigan Homeowner Assistance Nonprofit Housing Corporation (Discretely Presented Component Unit)	11
Statement of Revenue, Expenses, and Changes in Net Position - Michigan Homeowner Assistance Nonprofit Housing Corporation (Discretely Presented Component Unit)	12
Statement of Cash Flows - Michigan Homeowner Assistance Nonprofit Housing Corporation (Discretely Presented Component Unit)	13
Notes to Financial Statements	14-65
Required Supplemental Information	66
Schedule of the Authority's Proportionate Share of Net Pension Liability	67
Schedule of the Authority's Pension Contributions	68
Notes to Pension Required Supplemental Information Schedules	69
Schedule of the Authority's Proportionate Share of Net OPEB Liability	70
Schedule of the Authority's OPEB Contributions	71
Notes to OPEB Required Supplemental Information Schedules	72
Schedule of the Authority's Proportionate Share of Total OPEB Liability	73
Other Supplemental Information	74
Statement of Net Position Information	75-76
Statement of Revenue, Expenses, and Changes in Net Position Information	77
Report on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with *Government Auditing Standards*	78-81

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Independent Auditor's Report

To the Board of Directors and
Mr. Doug A. Ringler, CPA, CIA,
Auditor General, State of Michigan
Michigan State Housing Development Authority

Report on the Financial Statements

We have audited the accompanying financial statements of the business-type activities and the discretely presented component unit of Michigan State Housing Development Authority (the "Authority"), a component unit of the State of Michigan, as of and for the years ended June 30, 2019 and 2018 and the related notes to the financial statements, which collectively comprise Michigan State Housing Development Authority'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.

Auditor's 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 and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audits 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 auditor's 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 relevant to the entity'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 entity'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 above present fairly, in all material respects, the financial position of the business-type activities and the discretely presented component unit of Michigan State Housing Development Authority as of June 30, 2019 and 2018 and the changes in its financial position and cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

To the Board of Directors and
Mr. Doug A. Ringler, CPA, CIA,
Auditor General, State of Michigan
Michigan State Housing Development Authority

Other Matters

Required Supplemental Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and other required supplemental information, as identified 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, which considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplemental 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.

Other Supplemental Information

Our audits were conducted for the purpose of forming an opinion on the financial statements that collectively comprise Michigan State Housing Development Authority's basic financial statements. The other supplemental information, as identified in the table of contents, is presented for the purpose of additional analysis and is not a required part of the basic financial statements.

The other supplemental information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the other supplemental information is fairly stated in all material respects in relation to the basic financial statements as a whole.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated October 22, 2019 on our consideration of Michigan State Housing Development Authority's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, grant agreements, and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering Michigan State Housing Development Authority's internal control over financial reporting and compliance.

Plante & Moran, PLLC

October 22, 2019

The Michigan State Housing Development Authority (the "Authority") provides financial and technical assistance through public and private partnerships to create and preserve decent, affordable housing for low- and moderate-income Michigan residents. The Authority was created under the terms of Act 346, Public Acts of Michigan of 1966, as amended. The Authority is authorized to issue its bonds and notes to the investing public in order to create a flow of private capital through the Authority into mortgage loans to qualified housing sponsors and to certain qualified individuals.

The Authority offers a variety of programs to provide affordable housing opportunities, such as single-family lending, low-interest property improvement lending, multifamily lending, mortgage credit certificates, and pass-through obligations.

The enclosed financial statements present the Authority's net position, revenue, expenses, changes in net position, and cash flows. The following is a condensed summary of financial information as of and for the years ended June 30, 2019, 2018, and 2017:

Condensed Financial Information
(in thousands of dollars)

	2019	2018	2017
Assets			
Investments	$ 845,303	$ 878,005	$ 808,575
Loans receivable - Net	3,122,759	2,617,819	2,413,644
Other assets	261,812	367,989	125,030
Capital assets	20,431	20,956	-
Total assets	4,250,305	3,884,769	3,347,249
Accumulated Decrease in Fair Value of Hedging Derivatives	41,372	12,564	52,634
Deferred Outflows of Resources	52,288	51,638	42,214
Total assets, hedging derivatives, and deferred outflows	**$ 4,343,965**	**$ 3,948,971**	**$ 3,442,097**
Liabilities			
Bonds payable	$ 2,837,404	$ 2,603,963	$ 2,049,494
Line of Credit	47,000	-	-
Hedging derivatives	41,372	12,564	52,634
Other liabilities	666,818	617,781	579,139
Total liabilities	3,592,594	3,234,310	2,681,267
Deferred Inflows of Resources	30,038	18,985	13,573
Net Position			
Net investment in capital assets	20,431	20,956	-
Restricted for bond repayment	474,964	434,314	434,389
Unrestricted	225,938	240,406	312,868
Total net position	721,333	695,676	747,257
Total liabilities, deferred inflows, and net position	**$ 4,343,965**	**$ 3,948,971**	**$ 3,442,097**

	2019	2018	2017
Operating Revenue			
Net investment income	$ 71,384	$ 49,835	$ 61,404
Federal and state assistance programs revenue	565,952	542,661	536,694
Section 8 program administrative fees	17,427	16,985	17,572
Contract administration fees	8,288	8,046	8,143
Other income	21,604	15,472	30,329
Total revenue	684,655	632,999	654,142
Operating Expenses			
Federal and state assistance programs expenses	566,428	542,661	536,655
Salaries and benefits	39,368	35,927	34,607
Other general operating expenses	29,568	31,222	35,408
Other expenses	16,784	6,229	13,700
Total expenses	652,148	616,038	620,371
Nonoperating Expenses - Grants and subsidies	6,850	7,526	43,022
Change in Net Position	**$ 25,657**	**$ 9,435**	**$ (9,251)**

Financial Analysis

Total assets, hedging derivatives, and deferred outflows increased from $3.95 billion at June 30, 2018 to $4.34 billion at June 30, 2019. This was an increase of approximately $394.9 million, or 10.0 percent. Total assets, hedging derivatives, and deferred outflows increased from $3.44 billion at June 30, 2017 to $3.95 billion at June 30, 2018. This was an increase of approximately $506.9 million, or 14.7 percent.

Net loans receivable increased from $2.61 billion at June 30, 2018 to $3.12 billion at June 30, 2019. Loans receivable increased due to an increase in the closing of both multifamily and single-family mortgages (net increases of $80.2 million and $430.0 million, respectively).

Net loans receivable increased from $2.40 billion at June 30, 2017 to $2.61 billion at June 30, 2018. Loans receivable increased due to an increase in the closing of both multifamily and single-family mortgages (net increases of $38.2 million and $178.0 million, respectively).

During the fiscal year ended June 30, 2018, the Authority purchased its previously leased building for $21.0 million. The capital assets reflect the purchase less accumulated depreciation.

Bonds payable increased from $2.6 billion at June 30, 2018 to $2.8 billion at June 30, 2019, a net increase of approximately $233.4 million. The increase in bonds outstanding for the year ended June 30, 2019 was due primarily to the issuance of $562.8 million in debt to fund the lending activities of the Authority, partially offset by early redemptions and maturities. Bonds payable were $2.0 billion at June 30, 2017 and $2.6 billion at June 30, 2018, a net increase of approximately $554.5 million. The increase in bonds outstanding for the year ended June 30, 2018 was due primarily to the issuance of $714.8 million in debt to fund lending activities for the Authority, partially offset by early redemptions and maturities.

The Authority entered into a revolving line of credit for the purpose of funding single-family mortgages and down payment assistance loans prior to the issuance of long-term debt financing. At June 30, 2019, the Authority had a balance due of $47 million.

Escrow funds, which are recorded in other liabilities, increased by $45.9 million from a year earlier to $498.1 million at June 30, 2019 due to additional multifamily escrow deposits and the market valuation of investments. Escrow funds decreased by $20.6 million from a year earlier to $452.2 million at June 30, 2018 due to the market value of investments.

The Authority's net position totaled $721.3 million at June 30, 2019, equal to 16.6 percent of total assets and 20.1 percent of total liabilities. A significant portion of net position is restricted. At June 30, 2019, $474.9 million of net position was pledged for payment against the various bond indentures. In addition, $266.0 million is designated by board resolution to the Mortgage Resource Fund.

The Authority's net position totaled $695.7 million at June 30, 2018, equal to 17.9 percent of total assets and 21.5 percent of total liabilities. A significant portion of net position is restricted. At June 30, 2018, $434.3 million of net position was pledged for payment against the various bond indentures. In addition, $257.9 million is designated by board resolution to the Mortgage Resource Fund.

The Authority's June 30, 2018 net position reflects a $61.0 million negative entry in order to recognize the Authority's portion of the net healthcare and life insurance other postemployment benefits (OPEB) liability as a result of implementing GASB 75. This action is further discussed in Note 18.

Operating Results

Operations for the year ended June 30, 2019 resulted in excess revenue over expenses of $25.7 million, compared to prior year results of excess revenues over expenses of $9.4 million. Operations for the year ended June 30, 2018 resulted in excess revenue over expenses of $9.4 million, compared to prior year results of excess expenses over revenues of $9.3 million. Under Governmental Accounting Standard Board ("GASB") Statement No. 31, the Authority is required to present investments at fair market value and reflect this adjustment in the statement of revenue, expenses, and change in net position. This presentation increased revenues over expenses by approximately $14.0 million for the year ended June 30, 2019. Results for the year ended June 30, 2018 were negatively impacted by a decrease of approximately $8.9 million. Currently, GASB Statement No. 31 has had a cumulative positive effect of $7.6 million on the Authority's net position; however, the Authority generally intends to hold these securities to maturity.

Net investment income increased from $49.8 million in 2018 to $71.4 million in 2019, an increase of $21.6 million.

Total revenue increased from $633.0 million for the year ended June 30, 2018 to $684.7 million for the year ended June 30, 2019, a net increase of $51.7 million. Total revenue increase is primarily due to the GASB Statement No. 31 adjustment to investments and federal revenue has increased approximately $24.0 million. Total revenue decreased from $654.1 million for the year ended June 30, 2017 to $633.0 million for the year ended June 30, 2018, a net decrease of

$21.1 million. Total revenue decreased due primarily to a one-time event, where the Authority realized $17.7 million of un-accrued interest in October of 2016.

Total operating expenses increased from $616.4 million for the year ended June 30, 2018 to $652.1 million for the year ended June 30, 2019, a net increase of $35.7 million. Total operating expenses increased due primarily to an increase in the federal and state assistance programs. Total operating expenses decreased from $620.4 million for the year ended June 30, 2017 to $616.0 million for the year ended June 30, 2018, a net decrease of $4.4 million.

Requests for Further Information

This financial report is intended to provide a general overview of the Authority’s finances and demonstrate the Authority’s accountability for the money it receives. If you have questions about this report or need additional information, please contact Authority's Finance Division at 517-335-9970. This report and other financial information are available on the Authority’s website at www.michigan.gov/mshda/.

Statement of Net Position
(in thousands of dollars)

June 30, 2019 and 2018

	June 30 2019	June 30 2018
Assets, Hedging Derivatives, and Deferred Outflows		
Cash and Cash Equivalents (Note 3)	$ 205,754	$ 299,603
Investments (Note 3)	845,303	878,005
Loans Receivable (Note 4)		
Multifamily mortgage loans	1,488,969	1,408,745
Single-family mortgage loans	1,630,861	1,200,914
Home improvement and moderate rehabilitation loans	3,189	3,804
Total	3,123,019	2,613,463
Accrued loan interest receivable	71,526	67,169
Allowance on loans receivable (Note 4)	(71,786)	(62,813)
Net loans receivable	3,122,759	2,617,819
Other Assets		
Real estate owned - Net	11,068	29,862
Other miscellaneous receivables and other assets	44,990	38,524
Total other assets	56,058	68,386
Capital Assets, net (Note 11)	20,431	20,956
Total assets	4,250,305	3,884,769
Accumulated Decrease in Fair Value of Hedging Derivatives (Note 15)	41,372	12,564
Deferred Outflows of Resources		
Deferred outflows related to pensions (Note 9)	3,037	3,429
Deferred outflows related to OPEB (Note 10)	7,757	3,504
Deferred charges on refunding - Reassigned swaps (Note 15)	41,494	44,705
Total deferred outflows of resources	52,288	51,638
Total assets, hedging derivatives, and deferred outflows	**$ 4,343,965**	**$ 3,948,971**
Liabilities, Deferred Inflows, and Net Position		
Liabilities		
Bonds payable (Notes 5 and 6)	$ 2,837,404	$ 2,603,963
Line of Credit (Notes 16)	47,000	-
Hedging derivatives (Note 15)	41,372	12,564
Accrued interest payable	15,021	12,124
Escrow funds	498,117	452,175
Unamortized mortgage interest income (Note 7)	15,970	13,061
Net pension liability (Note 9)	39,183	34,606
Net OPEB liability (Note 10)	59,103	63,229
Other liabilities	39,424	42,588
Total liabilities	3,592,594	3,234,310
Deferred Inflows of Resources		
Deferred inflows related to pensions (Note 9)	3,348	2,180
Deferred inflows related to OPEB (Note 10)	9,165	1,663
Loan origination fees	17,525	15,142
Total deferred inflows of resources	30,038	18,985
Net Position		
Net investment in capital assets	20,431	20,956
Restricted for bond repayment (Note 12)	474,964	434,314
Unrestricted	225,938	240,406
Total net position	721,333	695,676
Total liabilities, deferred inflows, and net position	**$ 4,343,965**	**$ 3,948,971**

See notes to financial statements.

Statement of Revenue, Expenses, and Changes in Net Position

(in thousands of dollars)

Years Ended June 30, 2019 and 2018

	Year Ended June 30 2019	2018
Operating Revenue		
Investment income (loss):		
Loan interest income	$ 140,024	$ 129,138
Investment interest income	14,935	13,682
Increase (decrease) in fair value of investments - Including change in unrealized gain of $13,997 in 2019 and unrealized loss of $8,884 in 2018	13,897	(9,729)
Total investment income	168,856	133,090
Less interest expense and debt financing costs	97,472	83,256
Net investment income	71,384	49,835
Other revenue:		
Federal and state assistance programs	565,952	542,661
Section 8 program administrative fees	17,427	16,985
Contract administration fees	8,288	8,046
Other income	21,604	15,472
Total other revenue	613,271	583,164
Total operating revenue	684,655	632,999
Operating Expenses		
Federal and state assistance programs	566,428	542,661
Salaries and benefits	39,368	35,927
Other general operating expenses	29,568	31,222
Loan servicing and insurance costs	6,191	6,151
Provision for possible losses on loans	10,593	77
Total operating expenses	652,148	616,038
Operating Income - Before nonoperating expenses	32,507	16,961
Nonoperating Expenses - Grants and subsidies	(6,850)	(7,526)
Change in Net Position	25,657	9,435
Net Position - Beginning of year	695,676	747,257
Restatement due to change in accounting principle (Note 18)	-	(61,016)
Net Position - End of year	**$ 721,333**	**$ 695,676**

See notes to financial statements.

Statement of Cash Flows
(in thousands of dollars)

Years Ended June 30, 2019 and 2018

	Year Ended June 30	
	2019	2018
Cash Flows from Operating Activities		
Loan receipts	$ 378,171	$ 334,519
Other receipts	756,874	706,213
Loan disbursements	(765,515)	(421,210)
Payments to vendors	(66,722)	(68,770)
Payments to employees	(19,731)	(20,947)
Other disbursements	(664,427)	(668,619)
Net cash used in operating activities	(381,350)	(138,814)
Cash Flows from Investing Activities		
Purchase of investments	(618,607)	(515,076)
Proceeds from sale and maturities of investments	701,618	421,950
Interest received on investments	10,425	9,595
Net cash provided (used in) by investing activities	93,436	(83,531)
Cash Flows from Capital Financing Activities		
Purchase of capital assets	-	(21,000)
Cash Flows from Noncapital Financing Activities		
Proceeds from issuance of bonds - Less discounts	572,125	716,840
Principal repayments on bonds	(336,460)	(171,255)
Draws on line of credit	217,000	-
Repayment on line of credit	(170,000)	-
Interest paid	(88,600)	(73,310)
Net cash provided by noncapital financing activities	194,065	472,275
Net (Decrease) Increase in Cash and Cash Equivalents	(93,849)	228,930
Cash and Cash Equivalents - Beginning of year	299,603	70,673
Cash and Cash Equivalents - End of year	**$ 205,754**	**$ 299,603**

See notes to financial statements.

Statement of Cash Flows (Continued)
(in thousands of dollars)

Years Ended June 30, 2019 and 2018

	Year Ended June 30 2019	2018
Reconciliation of Operating Income to Net Cash from Operating Activities		
Operating income	$ 32,507	$ 16,961
Adjustments to reconcile operating income to net cash from operating activities:		
Change in deferred items	6,688	(2,277)
Arbitrage rebate expense	(501)	(146)
Investment interest income	(14,935)	(13,682)
(Increase) decrease in realized and unrealized gain on market value of investments	(19,155)	2,522
Interest expense on bonds and debt financing expense	100,639	84,882
Provision for possible losses on loans	10,593	77
Depreciation expense	525	44
Grants and subsidies	(6,850)	(7,526)
Changes in assets and liabilities:		
Accrued loan interest receivable	(4,357)	7,494
Loans receivable	(509,556)	(215,481)
Other assets	12,328	(14,030)
Escrow funds	13,889	364
Other liabilities	(3,164)	1,984
Net cash used in operating activities	**$ (381,350)**	**$ (138,814)**

Noncash Financing and Investing Activities - During the years ended June 30, 2019 and 2018, the Authority foreclosed on various properties with mortgage values of approximately $13.0 million and $10.2 million, respectively.

Statement of Net Position – Michigan Homeowner Assistance Nonprofit Housing Corporation (Discretely Presented Component Unit)

(in thousands of dollars)

June 30, 2019 and 2018

	2019	2018
Assets		
Cash and Cash Equivalents (Note 3)	$ 119,897	$ 95,021
Other Assets - Prepaid and other	196	133
Total assets	**$ 120,093**	**$ 95,154**
Liabilities and Net Position		
Liabilities - Accounts payable and other	$ 343	$ 331
Net Position - Restricted for Hardest Hit Program	119,750	94,823
Total liabilities and net position	**$ 120,093**	**$ 95,154**

See notes to financial statements.

Statement of Revenue, Expenses, and Changes in Net Position
Michigan Homeowner Assistance Nonprofit Housing Corporation
(Discretely Presented Component Unit)
(in thousands of dollars)

Years Ended June 30, 2019 and 2018

	2019	2018
Operating Revenue		
Hardest Hit Program	$ 110,776	$ -
Other income	1,221	1,084
Total operating revenue	111,997	1,084
Operating Expenses		
Program	82,885	61,761
Marketing	-	616
Contracted services	2,799	3,056
Other operating expenses	1,386	2,512
Total operating expenses	87,070	67,945
Change in Net Position	24,927	(66,861)
Net Position - Beginning of year	94,823	161,684
Net Position - End of year	**$ 119,750**	**$ 94,823**

See notes to financial statements.

Statement of Cash Flows – Michigan Homeowner Assistance Nonprofit Housing Corporation (Discretely Presented Component Unit) (in thousands of dollars)

Years Ended June 30, 2019 and 2018

	2019	2018
Cash Flows from Operating Activities		
Receipts of federal funds	$ 110,776	$ -
Payments to grantees	(82,885)	(61,761)
Payments to suppliers	(1,437)	(2,806)
Payments to contractors	(2,799)	(3,056)
Other receipts	1,221	1,084
Net Increase (Decrease) in Cash and Cash Equivalents	24,876	(66,539)
Cash and Cash Equivalents - Beginning of year	95,021	161,560
Cash and Cash Equivalents - End of year	**$ 119,897**	**$ 95,021**
Reconciliation of Change in Net Position to Net Cash from Operating Activities		
Change in net position	$ 24,927	$ (66,861)
Adjustments to reconcile change in net position to net cash from operating activities -		
Changes in assets and liabilities:		
Prepaid expenses and other assets	(63)	384
Accounts payable	12	(62)
Net cash and cash equivalents provided by (used in) operating activities	**$ 24,876**	**$ (66,539)**

See notes to financial statements.

Note 1 - Authorizing Legislation and Reporting Entity

The Michigan State Housing Development Authority (MSHDA or the "Authority") was created by the Michigan Legislature under the provisions of the State Housing Development Authority Act of 1966, as amended (the "Act"). The Authority, as a special purpose entity, is a component unit of the State of Michigan and is reported as an Enterprise Fund in the State's Comprehensive Annual Financial Report. The Act empowers the Authority, among other things, to issue notes and bonds to finance housing for sale or rental to families with low and moderate income and to finance home improvements. The enabling legislation, along with the various bond and note resolutions adopted by the Authority, contains specific provisions pertaining to (a) the use of the proceeds from the sale of the notes and bonds, (b) the application of the revenue from mortgages, and (c) the creation of certain funds along with the accounting policies for such funds. The Authority is authorized by statute to have notes and bonds outstanding up to a total of $3.4 billion. The Authority is currently working with Michigan Legislature to increase the amount of notes and bonds that can be outstanding.

Component Unit

Michigan Homeowner Assistance Nonprofit Housing Corporation - The Authority formed a nonprofit entity to operate the federal Hardest Hit Program. The entity, Michigan Homeowner Assistance Nonprofit Housing Corporation (the "Nonprofit"), was created on April 7, 2010 pursuant to the provisions of Act 162, Public Acts of 1982 and was formed as a 501(c)(3) of the Internal Revenue Code. The entity provides loans and grants, facilitates community development and revitalization in the state, and provides counseling, financial literacy education, and other services to prevent, reduce, and mitigate foreclosures and stabilized home values, and does not provide services to the Authority. The Authority is responsible for appointing, removing, and replacing the five members that make up the board of directors and can do so at will for any cause or without cause. The Authority's board of directors is not substantially the same as the Nonprofit's board of directors. The Nonprofit is considered a discretely presented component unit of the Michigan State Housing Development Authority and separately issues its own financial statements. The Nonprofit's separately issued financial statements can be obtained by contacting the Authority's management. The discretely presented component unit is reported in separate financial statements which follow the Authority's financial statements to emphasize that it is legally separate from the Authority.

Note 2 - Summary of Significant Accounting Policies

The following is a summary of the significant accounting policies used by the Authority:

Accounting and Reporting Principles - The Authority follows accounting principles generally accepted in the United States of America (GAAP) as applicable to governmental units. Accounting and financial reporting pronouncements are promulgated by the Government Accounting Standards Board (GASB). The Authority follows the business-type activities reporting requirements of GASB Statement No. 34, which provides a comprehensive one-line look at the Authority's financial activities.

Note 2 - Summary of Significant Accounting Policies (Continued)

Basis of Accounting - Proprietary funds use the economic resources measurement focus and the full accrual basis of accounting. Revenue is recorded when earned and expenses are recorded when a liability is incurred, regardless of the timing of related cash flows.

Report Presentation - This report includes the fund-based statements of the Authority. In accordance with government accounting principles, a government-wide presentation with program and general revenue is not applicable to special purpose governments engaged only in business-type activities. The Authority presents all funds in a single-column presentation.

Specific Balances and Transactions

Cash and Cash Equivalents - The Authority considers all highly liquid investments with an original maturity of three months or less to be cash and cash equivalents. The Authority also considers the U.S. government money market funds to be cash and cash equivalents.

Investments - The Authority reports investments at fair value. The net change in the fair value of investments includes both realized and unrealized gains and losses.

Single-family Mortgage Loans Receivable - Single-family mortgage loans receivable consists of the remaining principal due from each first mortgage and down payment assistance loan outstanding. Under the Authority's single-family program, participating lending institutions originate mortgages within underwriting parameters developed and provided by the Authority. Unless a mortgage loan meets the qualifying loan-to-value ratio, it must have private primary mortgage insurance or be insured by Federal Housing Administration (FHA) or guaranteed by the Veterans Administration (VA) or the United States Department of Agriculture. To date, the Authority has contracted with a sub-servicer to service the single-family mortgage portfolio.

Multifamily Mortgage Loans Receivable - Multifamily mortgage loans receivable consists of the remaining principal due from mortgagors of each completed development and construction advances for each development under construction under the multifamily program. Housing developments securing multifamily loans are subject to regulatory agreements under which the Authority has certain powers relating to rents, cash distributions, occupancy, management, and operations. Monies representing escrow funds for reserves for the payment of property taxes, insurance, property repairs and replacements, and income in excess of allowable cash distributions are required to be deposited with the Authority. Investment income earned on the deposited funds is credited to the respective mortgagor's escrow accounts.

Note 2 - Summary of Significant Accounting Policies (Continued)

Allowance on Loans Receivable - It is the Authority's policy to provide for future losses on mortgage loans based on an evaluation of the loan portfolio, current economic conditions, and such other factors which, in the Authority's judgment, require consideration in estimating future mortgage loan losses. The allowance is maintained at a level considered by management to be adequate to provide for probable mortgage loan losses inherent in the portfolio.

Capital Assets - Capital assets are defined by the Authority as assets with an initial individual cost of more than $100,000 (except for land and land improvements at any cost and office furniture and intangible assets of more than $5,000) and an estimated useful life in excess of one year. Such assets are recorded at fair value, historical cost or estimated historical cost if purchased or constructed.

Real Estate Owned - The Authority acquires real estate through foreclosure proceedings and holds that property until which time it can be sold at a fair price. These properties are valued at the lower of cost or fair market value and recorded net of estimated uncollectible amounts.

Bonds Payable - Bond premiums and discounts are deferred and amortized over the life of the bonds using the effective interest method; bonds payable are reported net of the applicable bond premium or discount. Bond issuance costs are expensed at the time they are incurred.

Line of Credit - The Authority may enter into a revolving line of credit for the purpose of funding single-family mortgages, down payment assistance loans and multi-family mortgages prior to the issuance of long-term debt financing. This revolving line of credit would then be paid down after closing long-term financing through bonds.

Compensated Absences - Authority's employees accrue vacation and sick leave in varying amounts for each biweekly period worked. Employees may accumulate, subject to certain limitations, vacation and sick leave and, upon retirement, termination, or death, may be compensated for certain accumulated amounts at their then-current rates of pay. The Authority's records an expense for all accumulated vacation and sick leave that the Authority would be required to pay if all employees terminated their employment. The compensated absences included in other liabilities at June 30, 2019 and 2018 totaled $2,148,904 and $2,431,624, respectively.

Arbitrage Rebate - Federal income tax rules limit the investment and loan yields which the Authority may retain for its own use from investing the proceeds from certain of its tax-exempt bond issues. The excess yields are payable to the U.S. Treasury and are recorded in other liabilities.

Loan Origination Fees - The Authority charges the mortgagor of each multifamily development a loan origination fee equal to 2 percent of the mortgage loan. These fees are amortized over the term of the loan receivable using the interest method.

Note 2 - Summary of Significant Accounting Policies (Continued)

Deferred Outflows/Inflows of Resources - In addition to assets, the statement of net position will sometimes report a separate section for deferred outflows of resources. This separate financial statement element represents a consumption of net position that applies to a future period and so will not be recognized as an outflow of resources (expense/expenditure) until then. The Authority has four items that qualify for reporting in this category: the deferred outflows of resources related to the pension, deferred outflows of resources related to the other postemployment benefit costs, deferred charges on refunding - reassigned swaps, and the accumulated decrease in the fair value of hedging derivatives.

In addition to liabilities, the statement of net position will sometimes report a separate section for deferred inflows of resources. This separate financial statement element represents an acquisition of net position that applies to a future period and so will not be recognized as an inflow of resources (revenue) until that time. The Authority has three items that qualify for reporting in this category: the deferred inflows of resources related to the pension, deferred inflows of resources related to the other postemployment benefit costs, and loan origination fees.

Net Position - Net position of the Authority is classified in three components. Net investment in capital assets consists of capital assets net of accumulated depreciation and is reduced by the current balances of any outstanding borrowings used to finance the purchase or construction of those assets. The restricted component of net position consists of amounts pledged for payment against the various bond indentures. All of the net position of the component unit is restricted for eligible federal program expenditures. Unrestricted net position is the remaining net position that does not meet the definition of invested in capital or restricted. When an expense is incurred for a purpose for which both restricted and unrestricted net position are available, the Authority's policy is generally to first apply restricted resources.

Federal and State Assistance Programs - The Authority administers various federal and state programs and initiatives in its efforts to create decent affordable housing for low- to moderate-income families.

- Section 8 Program - The Authority receives federal financial assistance through various housing and rental programs to provide rental subsidies and tenant vouchers.
- Hardest Hit Program - A component unit of the Authority, Michigan Homeowner Assistance Nonprofit Housing Corporation, administers funds under this program to prevent, reduce, mitigate foreclosures, and stabilize home values.
- State Assistance Programs - Pursuant to PA 296 of 2012, the Authority received national foreclosure settlement funds through the State of Michigan's Homeowner's Protection Fund to provide foreclosure counseling and legal aid to homeowners, blight elimination, a home affordable refinance program, down payment assistance to homebuyers, and housing and community development.

Note 2 - Summary of Significant Accounting Policies (Continued)

Pensions and Postemployment Benefits Other Than Pensions (OPEB) - For the purposes of measuring the net pension liability, net OPEB liability, deferred outflows of resources and deferred inflows of resources related to pensions and OPEB, and pension and OPEB expense, information about the fiduciary net position and additions to/deductions from fiduciary net position of the State Employees' Retirement System (SERS) or the postemployment life insurance benefits plan (the "Plan") have been determined on the same basis as they are reported by SERS or the Plan. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

Operating Revenue and Expenses - The Authority was created with the authority to issue bonds to the investing public in order to create a flow of private capital through the Authority into mortgage loans to qualified housing sponsors and to certain qualified individuals. The Authority's primary operation is to borrow funds in the bond market and use those funds to make single-family and multifamily loans. Its primary operating revenue is derived from loan interest income and the investment income from proceeds of bond funds. The primary cost of the program is interest expense on bonds outstanding. Net investment income is an important measure of performance under the Authority's primary operation. Investment income, interest expense, and net investment income are shown as operating revenue in the statement of revenue, expenses, and changes in net position.

Nonoperating Expenses - The nonoperating expenses are made up of nonfederal, nonrepayable grants and subsidies that the Authority awards on a discretionary basis. The awards are based on the amount of available authority funds and are not related to the operating activities of the Authority.

Use of Estimates - The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America 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 revenue and expenses during the reporting period. Actual results could differ from those estimates.

Note 3 - Deposits and Investments

Cash, cash equivalents, and investments held by the Authority were as follows (in thousands of dollars):

	MSHDA			Component Unit
	Cash and Cash Equivalents	Investments	Total	Cash and Cash Equivalents
2019				
Deposits	$ 6,948	$ -	$ 6,948	$ 2,644
Investments	198,806	845,303	1,044,109	117,253
Total	$ 205,754	$ 845,303	$ 1,051,057	$ 119,897
2018				
Deposits	$ 4,814	$ -	$ 4,814	$ 6,944
Investments	294,789	878,005	1,172,794	88,077
Total	$ 299,603	$ 878,005	$ 1,177,608	$ 95,021

The investment noted above within the component unit relates to an investment pool valued at amortized cost under GASB 79. There are no limitations or restrictions on participant withdrawals for the investment pool recorded at amortized cost.

The Authority has designated eight banks for the deposit of its funds. The investment policy adopted by the board in accordance with state statutes has authorized investment of funds held in reserve or sinking funds, or monies not required for immediate use or disbursement in obligations of the State of Michigan or the United States government, in obligations of which the principal and interest are guaranteed by the State of Michigan or the United States government, and in other obligations as may be approved by the State Treasurer, bank accounts, and CDs. The Authority's deposits and investment policies are in accordance with state statutes and any exceptions have had special approval from the State Treasurer.

The Authority's cash and investments are subject to several types of risk, which are examined in more detail below:

Note 3 - Deposits and Investments (Continued)

Custodial Credit Risk of Bank Deposits - Custodial credit risk is the risk that in the event of a bank failure, the Authority's deposits may not be returned to it. The Authority does not have a deposit policy for custodial credit risk.

At June 30, 2019, the Authority had approximately $9,592,000 of bank deposits (checking and savings accounts), and of that balance, approximately $1,176,000 was uninsured and uncollateralized. In addition, the Authority had $198,806,000 of government money market funds. The component unit does not have a deposit policy for custodial credit risk. At June 30, 2019, the component unit had approximately $3,711,000 of bank deposits (checking accounts), and of that balance, approximately $3,461,000 was uninsured and uncollateralized.

At June 30, 2018, the Authority had approximately $3,917,000 of bank deposits (certificates of deposit and checking and savings accounts), and of that balance, approximately $3,520,000 was uninsured and uncollateralized. In addition, the Authority had $294,789,000 of government money market funds. The component unit does not have a deposit policy for custodial credit risk. At June 30, 2018, the component unit had approximately $7,237,000 of bank deposits (checking accounts), and of that balance, approximately $6,987,000 was uninsured and uncollateralized.

The Authority believes that, due to the dollar amounts of cash deposits and the limits of the FDIC insurance, it is impractical to insure all deposits. At June 30, 2019 and 2018, there was $7,108,000 and $3,452,000, respectively, of deposits which was collateralized with securities held by the Federal Reserve Bank or held in safekeeping for the Authority at a financial institution's trust department, but not in the Authority's name. To also limit its risk, the Authority evaluates each financial institution with which it deposits funds and assesses the level of risk of each institution; only those institutions with an acceptable estimated risk level are used as depositories.

Note 3 - Deposits and Investments (Continued)

Custodial Credit Risk of Investments - Custodial credit risk is the risk that, in the event of the failure of the counterparty, the Authority will not be able to recover the value of its investments or collateral securities that are in the possession of an outside party. The Authority does not have a policy for custodial credit risk. At year end, the following investment securities were uninsured and unregistered, with securities held by the counterparty's trust department or agent, but not in the Authority's name:

Type of Investment	Fair Value (in thousands of dollars) 2019	2018	How Held
MSHDA			
U.S. government securities	$ 219,501	$ 275,451	Counterparty's trust dept.
Mortgage-backed securities	476,115	390,146	Counterparty's trust dept.
U.S. government agency securities	145,538	209,451	Counterparty's trust dept.
U.S. government money market funds	198,806	294,789	Counterparty's trust dept.
Component Unit			
U.S. government money market funds	117,253	88,077	Counterparty's trust dept.

Interest Rate Risk - Interest rate risk is the risk that the value of investments will decrease as a result of a rise in interest rates. The Authority's investment policy does not restrict investment maturities. At year end, the average maturities of investments are as follows (in thousands of dollars):

Type of Investment	Fair Value	Less than One Year	1-5 Years	6-10 Years	More Than 10 Years
2019					
MSHDA					
U.S. government securities	$ 219,501	$ 124,160	$ 51,582	$ 40,403	$ 3,356
Mortgage-backed securities	476,115	-	27,267	2,795	446,053
U.S. government agency securities	145,538	19,783	8,001	38,460	79,294
U.S. government money market funds	198,806	198,806	-	-	-
Component Unit					
U.S. government money market funds	117,253	117,253	-	-	-

Note 3 - Deposits and Investments (Continued)

Type of Investment	Fair Value	Less than One Year	1-5 Years	6-10 Years	More Than 10 Years
2018					
MSHDA					
U.S. government securities	$ 275,451	$ 124,067	$ 105,280	$ 43,141	$ 2,963
Mortgage-backed securities	390,146	-	29,239	6,942	353,965
U.S. government agency securities	209,451	162,255	21,908	-	25,288
U.S. government money market funds	294,789	294,789	-	-	-
Component Unit					
U.S. government money market funds	88,077	88,077	-	-	-

Credit Risk - The Authority has no investment policy that would limit its investment choices, except as noted in the state statute. As of year-end, the credit quality ratings of debt securities are as follows (in thousands of dollars):

Investment	Fair Value	Rating	Rating Organization
2019			
MSHDA			
U.S. government securities	$ 219,501	AA+	S&P
Mortgage-backed securities	476,115	AA+	S&P
U.S. government agency securities	145,538	AA+	S&P
U.S. government money market funds	198,806	Not rated	-
Component Unit			
U.S. government money market funds	117,253	Not rated	-

Note 3 - Deposits and Investments (Continued)

Investment	Fair Value	Rating	Rating Organization
2018			
MSHDA			
U.S. government securities	$ 275,451	AA+	S&P
Mortgage-backed securities	390,146	AA+	S&P
U.S. government agency securities	209,451	AA+	S&P
U.S. government money market funds	294,789	Not rated	-
Component Unit			
U.S. government money market funds	88,077	Not rated	-

Concentration of Credit Risk - The Authority has 31 percent and 29 percent of its investment portfolio invested in the securities of government-sponsored enterprises as of June 30, 2019 and 2018, respectively. These include securities issued by the Federal Home Loan Banks, the Federal Home Loan Mortgage Corporation, and the Federal National Mortgage Corporation. Excluding U.S. government securities, no other issuer represents over 5 percent of the Authority's investment portfolio.

Escrow Funds - Included in investments are funds held in trust for mortgagors with a carrying value of approximately $558,916,000 and $468,547,000 at June 30, 2019 and 2018, respectively.

Fair Value Measurements - The Authority categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset. Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are significant other observable inputs; Level 3 inputs are significant unobservable inputs.

In instances whereby inputs used to measure fair value fall into different levels in the above fair value hierarchy, fair value measurements in their entirety are categorized based on the lowest level input that is significant to the valuation. The Authority's assessment of the significance of particular inputs to these fair value measurements requires judgment and considers factors specific to each asset.

The Authority has the following recurring fair value measurements as of June 30, 2019 and 2018:

Note 3 - Deposits and Investments (Continued)

Type of Investment	Fair Value	Level 1	Level 2	Level 3
2019				
MSHDA				
U.S. government securities	$ 219,501	$ 219,501	$ -	$ -
Mortgage-backed securities	476,115	-	476,115	-
U.S. government agency securities	145,538	-	145,538	-
U.S. government money market funds	198,806	-	198,806	-

Type of Investment	Fair Value	Level 1	Level 2	Level 3
2018				
MSHDA				
U.S. government securities	$ 275,451	$ 275,451	$ -	$ -
Mortgage-backed securities	390,146	-	390,146	-
U.S. government agency securities	209,451	-	209,451	-
U.S. government money market funds	294,789	-	294,789	-

U.S. government securities classified in Level 1 are valued using prices quoted in active markets for those securities.

The fair value of mortgage-backed securities, U.S. government agency securities, and U.S. government money market funds is determined primarily based on Level 2 inputs. The Authority estimates the fair value of these investments using other inputs such as interest rates and yield curves that are observable at commonly quoted intervals.

The Authority also has interest rate swaps reported as liabilities on the statement of net position based on Level 2 inputs. The methodology used to determine the fair values of these swaps as well as the fair values of investments are shown within Note 15.

Note 4 - Loans Receivable

All loans receivable are collateralized by first liens on the real property developed or purchased with the proceeds of the loans, except for certain home improvement and moderate rehabilitation loans. Substantially all single-family loans are insured by the Federal Housing Administration (FHA) or private mortgage insurance companies, or are guaranteed by the Veterans Administration (VA) or the United States Department of Agriculture. Substantially all multifamily loans are uninsured.

Note 4 - Loans Receivable (Continued)

A summary of loans receivable is as follows (in thousands of dollars):

	2019	2018
Loans receivable:		
FHA insured, VA, or U.S. Department of Agriculture guaranteed	$ 1,104,238	$ 973,117
Insured by private mortgage insurance companies	373,534	101,877
Uninsured	1,645,247	1,538,469
Total loans receivable	$ 3,123,019	$ 2,613,463

A summary of the allowance for possible loan losses is as follows:

	2019	2018
Beginning balance	$ 62,813	$ 59,001
Provision for possible losses	10,593	77
Write-offs of uncollectible losses - Net of recoveries	(1,620)	3,735
Ending balance	$ 71,786	$ 62,813

Note 5 - Bonds Payable

The Authority issues revenue bonds to fund loans to finance multifamily housing developments and single-family housing units for persons of low and moderate income within the state of Michigan. Such bonds constitute a direct obligation of the Authority and are not a debt of the State of Michigan. Each bond issue is secured by the pledge of all repayments to the Authority of loans issued with the proceeds of the bond issue and all income earned by the Authority relating to those bonds. The bonds are full faith and credit general obligations of the Authority. Interest on fixed rate bonds is payable semiannually, while interest on variable rate debt can be payable semiannually, quarterly, or monthly. All bonds are subject to a variety of redemption provisions as set forth in the official statements for each of the issues. One such redemption provision is that each of the bond resolutions contains cross-default provisions which permit the acceleration of the maturity of all such bonds, as well as certain other remedies, in the event of a default by the Authority in the payment of principal or interest on any bond of the Authority.

Note 5 - Bonds Payable (Continued)

Changes in bonds are as follows (in thousands of dollars):

As of June 30, 2019

	Beginning Balance	Additions	Payments	Ending Balance
Revenue bonds:				
Single-family mortgage	1,177,565	549,825	129,685	1,597,705
Rental housing	1,373,480	12,925	206,775	1,179,630
Total revenue bonds	$ 2,551,045	$ 562,750	$ 336,460	$ 2,777,335
Due within one year				$ 91,595

As of June 30, 2018

	Beginning Balance	Additions	Payments	Ending Balance
Revenue bonds:				
Single-family home ownership	$ 21,060	$ -	$ 21,060	$ -
Single-family mortgage	969,420	306,860	98,715	1,177,565
Multifamily housing	1,565	-	1,565	-
Rental housing	1,015,495	407,900	49,915	1,373,480
Total revenue bonds	$ 2,007,540	$ 714,760	$ 171,255	$ 2,551,045
Due within one year				$ 70,495

Note 5 - Bonds Payable (Continued)

Bonds payable at June 30 are as follows (in thousands of dollars):

	2019	2018
Single-Family Mortgage Revenue bonds:		
2006 Series C, 2035, variable rate (Note 6)	50,600	50,600
2007 Series B, 2038, variable rate (Note 6)	97,335	107,995
2007 Series D, E, and F, 2038, variable rate (Note 6)	135,440	157,320
2009 Series D, 2030, variable rate (Note 6)	42,090	47,950
2014 Series A, 2030 to 2044, 3.70% to 4.00%	11,415	22,065
2015 Series A, 2019 to 2046, 1.65% to 4.00%	43,785	65,350
2016 Series A, 2019 to 2046, 1.30% to 4.00%	78,120	86,800
2016 Series B and C, 2019 to 2047, 1.50% to 3.70%	298,770	334,240
2017 Series A, 2043, variable rate #	45,000	45,000
2017 Series B, 2019 to 2048, 1.25% to 3.50%	85,185	90,245
2018 Series A, 2019 to 2048, 1.60% to 4.00%	114,350	120,000
2018 Series B, 2044, variable rate #	50,000	50,000
2018 Series C, 2019 to 2049, 2.125% to 4.25%	261,690	-
2018 Series D, 2042, variable rate #	50,000	-
2019 Series A, 2019 to 2048, 1.70% to 4.25%	233,925	-
Total Single-family Mortgage Revenue Bonds	1,597,705	1,177,565
Rental Housing Revenue Bonds:		
2000 Series A, 2035, variable rate (Note 6)	32,770	33,795
2002 Series A, 2037, variable rate (Note 6)	43,145	44,660
2003 Series A, 2023, variable rate #	12,095	17,330
2005 Series A, 2040, variable rate **	-	59,450
2007 Series C, 2042, variable rate**	-	71,455
2008 Series A, C and D, 2023 to 2039, variable rate (Note 6)	131,840	138,935
2009 Series A and B-1, 2019 to 2020, 4.50% to 4.875%	1,500	15,715
2010 Series A, 2019 to 2040, 3.375% to 5.125%	31,210	35,505
2011 Series A and B, 2019 to 2031, 4.50% to 5.625%	5,020	14,085
2012 Series A, B and C, 2019 to 2046, 2.375% to 5.622%	32,270	33,720
2012 Series D, 2019 to 2048, 2.05% to 4.50%	48,085	49,130
2014 Series A, 2019 to 2050, 2.00% to 4.875%	52,285	52,830
2015 Series A and B, 2019 to 2052, 1.80% to 4.60%	99,575	110,765
2016 Series A and B, 2019 to 2052, 1.00% to 3.736%	136,230	149,925
2016 Series C, D and E, 2040 to 2042, variable rate (Note 6) #	134,865	138,280
2017 Series A, 2019 to 2053, 1.30% to 4.00%	92,275	92,770
2018 Series A and B, 2019 to 2053, 1.75% to 4.15%	198,065	185,460
2018 Series C, 2040, variable rate (Note 6)	128,400	129,670
Total Rental Housing Revenue Bonds	1,179,630	1,373,480
Total revenue bonds	2,777,335	2,551,045
Off-Market borrowings (Note 15)	41,494	44,705
Deferred charges - Bond discounts and premiums net of amortization	18,575	8,213
Total	$ 2,837,404	$ 2,603,963

** These bonds were paid off during the 2018-2019 fiscal year
# These bonds include a private placement portion

Note 5 - Bonds Payable (Continued)

The annual requirements to service debt outstanding, including both principal and interest (in thousands of dollars), are as follows. Interest on variable rate bonds is based on the effective rate as of June 30, 2019.

Fiscal Years Ending	Principal - All other debt	Principal - Private placement	Interest - All other debt	Interest - Private placement	Total
2020	$ 84,755	$ 6,840	$ 90,588	$ 6,185	$ 188,368
2021	57,225	3,670	88,867	6,048	155,810
2022	80,510	2,075	87,141	5,981	175,707
2023	63,725	2,195	85,148	5,929	156,997
2024	65,830	750	83,334	5,882	155,796
2025-2029	411,710	4,345	381,723	28,999	826,777
2030-2034	548,590	5,480	300,511	28,183	882,764
2035-2039	521,110	17,395	201,174	26,938	766,617
2040-2044	307,245	135,575	125,570	17,235	585,625
2045-2049	366,210	3,995	57,158	67	427,430
2050-2054	88,105	-	8,335	-	96,440
Total	$ 2,595,015	$ 182,320	$ 1,509,549	$ 131,447	$ 4,418,331

Early Retirement of Debt - Under provisions of the Authority's bond issues, the Authority is able to retire bonds, without the payment of call premiums, prior to their maturity dates from the proceeds of loan prepayments and foreclosures and, for certain bonds, from excess program revenue. Bonds retired pursuant to such provisions total \$264,200,000 and \$113,765,000 during the years ended June 30, 2019 and 2018, respectively. Such bond retirements, in the aggregate, resulted in a net gain of \$3,166,853 and \$1,626,610 for the years ended June 30, 2019 and 2018, respectively.

Note 6 - Demand Bonds

The following table summarizes the demand bonds outstanding at June 30, 2019, which are included in the bonds payable disclosed in Note 5:

Debt Associated		Outstanding (in thousands)	Remarketing Agent	Standby Bond Purchase Agreement Provider	Remarketing Fee (1)	SBPA Fee		Expiration Date of Agreement
Single-family Mortgage Revenue Bonds								
2006 Series C	$	50,600	Barclays Capital Inc.	Barclays Bank PLC	0.07%	0.42%	(7)	6/18/2020
2007 Series B	$	97,335	Jefferies LLC	ICBC	0.07%	Undisclosed	(5)	11/1/2022
2007 Series E	$	93,125	Morgan Stanley	MUFG Bank, LTD	0.10%	0.45%	(2)	6/29/2020
2007 Series F	$	42,315	Merrill Lynch & Co.	Bank of America, N.A.	0.07%	0.43%	(4)	11/15/2019
2009 Series D	$	42,090	Jefferies LLC	ICBC	0.07%	Undisclosed	(5)	11/1/2022
Rental Housing Revenue Bonds								
2000 Series A	$	32,770	JPMorgan	JPMorgan Chase Bank, N.A.	0.10%	0.46%	(3)	5/15/2020
2002 Series A	$	43,145	Merrill Lynch & Co.	Bank of America, N.A.	0.07%	0.43%	(6)	4/24/2020
2008 Series A	$	72,575	JPMorgan	JPMorgan Chase Bank, N.A.	0.10%	0.46%	(3)	5/15/2020
2008 Series C	$	7,770	Morgan Stanley	MUFG Bank, LTD	0.10%	0.45%	(2)	8/21/2019
2008 Series D	$	51,495	Morgan Stanley	MUFG Bank, LTD	0.10%	0.45%	(2)	8/21/2019
2016 Series C	$	57,140	RBC Capital Markets, LLC	Royal Bank of Canada	0.07%	0.40%	(9)	2/26/2020
2016 Series D	$	52,500	Merrill Lynch & Co.	Bank of America, N.A.	0.10%	0.43%	(8)	4/24/2020
2018 Series C	$	128,400	Merrill Lynch & Co.	JPMorgan Chase Bank, N.A.	0.07%	0.34%	(3)	5/15/2020

(1) Fee is per annum based on the outstanding principal amount of the bonds.

(2) While the MUFG Bank, LTD (f/k/a Bank of Tokyo-Mitsubishi UFJ, LTD) ("MUFG") is holding the bonds, they will bear interest at the higher of MUFG's prime rate plus 3.00 percent, the federal funds rate plus 5.00 percent, or 8.00 percent per annum. Once MUFG becomes the owner of the bonds, the bonds will be subject to a mandatory redemption that begins 91 days after MUFG becomes the holder of the bonds and will amortize in 16 equal quarterly installments. The Authority is required to pay MUFG an annual liquidity fee per annum on the amount of bonds outstanding plus interest for 34 days at a rate of 14 percent. Standard & Poor's rating on the MUFG Bank, LTD is "A/A-1" at June 30, 2019. On July 25th, PNC Bank became the SBPA provider for the Rental Housing Revenue Bonds, 2008 Series C and D with a new agreement that expires July 25, 2022.

(3) While JPMorgan is holding the bonds, they will bear interest at the higher of the bank's prime rate plus 1.0 percent, the federal funds rate plus 0.50, or 8.50 percent per annum. Once the bank becomes the owner of the bonds, the bonds will be subject to a mandatory redemption 91 days after the bank becomes the holder of the bonds and will amortize in six equal semiannual installments. The Authority is required to pay the bank an annual liquidity fee per annum on the amount of bonds outstanding plus interest for 34 days at a rate of 14 percent. Standard & Poor's rating on JPMorgan is "A+/A-1" at June 30, 2019.

Note 6 - Demand Bonds (Continued)

(4) While Bank of America, N.A. (Bank of America) is holding the bonds, they will bear interest at the higher of the Prime Rate plus 1.00 percent, the Federal Funds Rate plus 2.00 percent or 7.50 percent per annum. Once Bank of America becomes the owner of the bonds and has held such bonds for six months, the bonds become subject to mandatory redemption over a three-year period with principal payable in six equal semiannual installments. The Authority shall pay Bank of America a liquidity fee per annum on outstanding bonds plus 184 days of interest at 12 percent, based on a 365-day year. Standard & Poor's rating on Bank of America, N.A. is "A+" at June 30, 2019.

(5) While the Industrial and Commercial Bank of China Limited, New York Branch ("ICBC") is holding the bonds, they will bear interest at the Bank Rate, which will be the rate of interest per annum, based upon Daily One Month LIBOR or the Base Rate (as such terms are defined in the agreement), as determined by the Authority on the purchase date of the applicable bonds (i) for any day commencing on the purchase date to and including the 90th day next succeeding the purchase date, equal to: (x) Daily One Month LIBOR plus 1.50% or (y) the Base Rate from time to time in effect; (ii) for any day commencing on the 91st day next succeeding the purchase date to and including the 180th day next succeeding the purchase date, equal to: (x) Daily One Month LIBOR plus 1.75% or (y) the Base Rate from time to time in effect plus 0.25%; (iii) for any day commencing on the 181st day next succeeding the purchase date to and including the 365th day next succeeding the purchase date, equal to: (x) Daily One Month LIBOR plus 2.00% or (y) the Base Rate from time to time in effect plus 0.50%; (iv) for any day commencing on the 366th day next succeeding the purchase date to and including the 730th day next succeeding the purchase date, equal to: (x) Daily One Month LIBOR plus 2.50% or (y) the Base Rate from time to time in effect plus 1.00%; and (v) for any day commencing on the 731st day next succeeding the purchase date and thereafter, equal to the sum of the Base Rate from time to time in effect plus 2.00%; provided, however, that immediately upon the occurrence and continuation of an Event of Default (as defined in the agreement), the Bank Rate shall be equal to the Base Rate plus 5.00%; and provided further that, at no time shall the Bank Rate exceed the lesser of 25.00% per annum or the maximum rate permitted by law or be less than the applicable rate of interest on Eligible Bonds (as defined in the agreement) which are not bank bonds. At the request of ICBC, the Authority has agreed to not include the liquidity fee in its disclosure documents. Standard & Poor's rating of the ICBC is "A/A-1" at June 30, 2019.

(6) While Bank of America, N.A. is holding the bonds, they will bear interest at the higher of the prime rate plus 1.00 percent, the Federal Funds Rate plus 3.00 percent, LIBOR plus 5.00 percent, or 7.50 percent per annum. Once Bank of America becomes the owner of the bonds and has held such bonds for six months, the bonds become subject to mandatory redemption over a three-year period with principal payable in six equal semiannual installments. The Authority shall pay Bank of America a liquidity fee per annum on outstanding bonds plus 34 days of interest at 14 percent, based on a 365-day year. Standard & Poor's rating on Bank of America, N.A. is "A+" at June 30, 2019.

(7) While Barclays Bank PLC (Barclays) is holding the bonds, they will bear interest at the higher of the prime rate plus 5.00 percent, the federal funds rate plus 5.00 percent, or LIBOR plus 5.00 percent per annum. Once Barclays becomes the owner of the bonds and has held such bonds for 90 days, the bonds become subject to mandatory redemption in full on the third-year anniversary of the first purchase date. The Authority shall pay Barclays a liquidity fee per annum on outstanding bonds plus 186 days of interest at 12 percent, based on a 365-day year. Standard & Poor's rating on Barclays Bank PLC is "A/A-1" at June 30, 2019.

Note 6 - Demand Bonds (Continued)

(8) While Bank of America, N.A. is holding the bonds, they will bear interest at the higher of the Prime Rate plus 1.00 percent, the Federal Funds Rate plus 3.00 percent, LIBOR plus 5.00 percent, or 7.50 percent per annum. Once Bank of America becomes the owner of the bonds and has held such bonds for six months, the bonds become subject to mandatory redemption over a three-year period with principal payable in six equal semiannual installments. The Authority shall pay Bank of America a liquidity fee per annum on outstanding bonds plus 184 days of interest at 12 percent, based on a 365-day year. Standard & Poor's rating on Bank of America, N.A. is "A+" at June 30, 2019.

(9) While the Royal Bank of Canada (RBC) is holding the bonds, they will bear interest at the higher of 8 percent, Federal Funds Rate plus 2.50 percent, or the prime rate plus 2.50 percent. Once RBC becomes the owner of the bonds and has held such bonds for 365 days, the bonds become subject to mandatory redemption over six equal semiannual payments. The Authority shall pay RBC a liquidity fee per annum on outstanding bonds plus 185 days of interest at 12 percent, based on a 365-day year. Standard & Poor's rating on Royal Bank of Canada is "AA-/A-1+" at June 30, 2019.

Note 7 - Unamortized Mortgage Interest Income

Since 1990, the Authority has refunded a substantial amount of high-yielding multifamily bond issues with lower-yielding bonds. In conjunction with the sale of certain refunding bonds, the Authority has sold additional bonds to provide funds for new multifamily mortgage loans, generally with interest rates below the interest rates on the bonds. The Authority is deferring the interest income on mortgage loans funded by the new bonds to the extent that the total exceeds the total interest income that would have been earned if the average interest rate on such loans was equal to the average interest rate paid on the new bonds plus approximately 1.5 percent. This interest income is and will continue to be amortized to income in the future as the average rate on the outstanding mortgage loans drops to a rate that is less than 1.5 percent above the average rate on the new bonds. The average rate will decline primarily because the higher-yielding mortgage loans have average remaining lives substantially shorter than the lower-yielding mortgage loans.

Note 8 - Limited Obligation Bonds

The Act, as amended, authorizes the Authority to issue limited obligation bonds to finance multifamily housing. Such bonds are not general obligations of the Authority and the Authority has no liability for this debt. Such bonds are secured solely by revenue and property derived from or obtained in connection with the housing projects. Thus, with the exception of limited obligation bond financing fees, transactions related to these bonds are not reflected in the Authority's financial statements. At June 30, 2019, limited obligation bonds had been issued totaling approximately $909,097,000, of which 85 issues totaling $796,492,000 have been retired. At June 30, 2018, limited obligation bonds had been issued totaling approximately $909,097,000, of which 77 issues totaling $730,587,000 have been retired.

Note 9 - Pension Plans

Defined Benefit Pension Plan

Plan Description - The Michigan State Employees' Retirement System (the "System" or SERS) is a single-employer, statewide, defined benefit public employee retirement plan governed by the State of Michigan (the "State") and created under Public Act 240 of 1943, as amended. Section 2 of this Act established the board's authority to promulgate or amend the provisions of the System. Executive Order 2015-13, signed by the Governor on October 27, 2015, established the State of Michigan Retirement Board. The board consists of nine members – five appointed by the Governor, which consist of one member or retirant of the State Employees' Retirement System; one member of the Judges Retirement System; one current or former officer or enlisted person in the Michigan Military Establishment who is a member or retirant under the Military Retirement Provisions; one member of the general public; and the attorney general, state treasurer, legislative auditor general, and state personnel director.

The Michigan State Employees' Retirement System is accounted for in a separate pension trust fund and also issues a publicly available financial report that includes financial statements and required supplementary information. That report may be obtained by visiting www.michigan.gov/ors or by calling the Customer Information Center at (517) 322-5103 or (800) 381-5111.

Benefits Provided

Introduction - Benefit provisions of the defined benefit pension plan are established by State statute, which may be amended. Public Act 240 of 1943, State Employees' Retirement Act, as amended, establishes eligibility and benefit provisions for the defined benefit pension plan. Retirement benefits are determined by final average compensation and years of service. Members are eligible to receive a monthly benefit when they meet certain age and service requirements. The System also provides duty disability, nonduty disability, and survivor benefits.

A member who has separated from employment may request a refund of his or her member contribution account. A refund may cancel a former member's rights to future benefits. However, former members who return to employment and who previously received a refund of their contributions may reinstate their service through repayment of the refund upon satisfaction of certain requirements.

Effective March 31, 1997, Public Act 487 of 1996 closed the plan to new entrants. All new employees become members of the defined contribution plan. The Public Act allows returning employees and members who left state employment on or before March 31, 1997 to elect the defined benefit plan instead of the defined contribution plan.

Note 9 - Pension Plans (Continued)

Pension Reform of 2012 - On December 15, 2011, the governor signed Public Act 264 of 2011 into law. The legislation granted members a choice regarding their future retirement plan. They had the following options:

- Option 1: DB Classified - Members voluntarily elected to remain in the defined benefit (DB) plan for future service and contribute 4 percent of their annual compensation to the pension fund until they terminate state employment. The 4 percent contribution began on April 1, 2012.

- Option 2: DB 30 - Members voluntarily elected to remain in the DB plan for future service and contribute 4 percent of pay until they reach 30 years of service. When they reach 30 years of service, they will switch to the State's defined contribution (DC) plan. The 4 percent contribution began on April 1, 2012 and continues until they switch to the DC plan or terminate employment, whichever comes first.

- Option 3: DB/DC Blend - Members voluntarily elected not to pay the 4 percent and therefore became participants in the DC plan for future service beginning on April 1, 2012. As a DC plan participant, they receive a 4 percent employer contribution to their 401(k) account and are eligible for an additional dollar-for-dollar employer match of up to 3 percent of pay to the plan.

Deferred members of the DB plan (with 10 or more years of service) who are reemployed by the State on or after January 1, 2012 become participants in the DC plan. Their pension calculation is determined by their final average compensation (FAC) and years of service as of March 31, 2012. They retain their eligibility for the retiree health insurance premium subsidy offered by the State.

Former nonvested members of the DB plan (with less than 10 years of service) who are reemployed by the State on or after January 1, 2012 and before January 1, 2014, become participants in the DC plan. When they have earned sufficient service credit for vesting (10 years), they would be eligible for a pension based on their FAC and years of service in the DB plan as of March 31, 2012. They retain their eligibility for the retiree health insurance premium subsidy offered by the State.

Former nonvested members (with less than 10 years of service) of the DB plan who are reemployed by the State on or after January 1, 2014 become members of the DC plan. Any service credit previously earned would count towards vesting for the DC plan. They will not be eligible for any pension or retiree health insurance coverage premium, but will become participants in the Personal Healthcare Fund wherein they will contribute up to 2 percent of their compensation to a 401(k) or 457 account, earning a matching 2 percent employer contribution. They will also receive a credit into a health reimbursement account (HRA) at termination if they terminate employment with at least 10 years of service. The credit will be $2,000 for participants who are at least 60 years old or $1,000 for participants who are less than 60 years old at termination.

Note 9 - Pension Plans (Continued)

Regular Retirement - The retirement benefit is based on a member's years of credited service (employment) and FAC. The normal benefit equals 1.5 percent of a member's FAC multiplied by the years and partial year of credited service and is payable monthly over the member's lifetime.

Under PA 264 of 2011, FAC is initially determined as the annual average of the highest three years of compensation (including overtime paid before January 1, 2012, but excluding overtime paid after December 31, 2011). If the end date for the initial FAC calculation is between January 1, 2012, and January 1, 2015, then a prorated amount of post-2008 average overtime will be added to the initial FAC calculation. If the end date for the initial FAC calculation is January 1, 2015 or later, then an annual average of overtime - for the six-year period ending on the FAC calculation date - will be added to that initial FAC calculation to get the final FAC number.

For members who switch to the DC plan for future service, the pension calculation (FAC times 1.5 percent times years of service) will be determined as of the point the member switches to the DC plan. If the FAC period includes the date of the switch to the DC plan, then the FAC will include up to 240 hours of accrued annual leave multiplied by the rate of pay as of the date of the switch. The hours will be paid at separation.

A member may retire and receive a monthly benefit after attaining the following:

1. Age 60 with 10 or more years of credited service
2. Age 55 with 30 or more years of credited service
3. Age 55 with at least 15 but less than 30 years of credited service. The benefit allowance is permanently reduced 0.5 percent for each month from the member's age on the effective date of retirement to the date the member will attain age 60.

Employees in covered positions are eligible for supplemental benefits and may retire after attaining the following:

1. Age 51 with 25 or more years in a covered position
2. Age 56 with 10 or more years in a covered position

In either case, the three years immediately preceding retirement must have been in a covered position.

Deferred Retirement - Any member with 10 or more years of credited service who terminates employment but has not reached the age of retirement is a deferred member and is entitled to receive a monthly pension upon reaching age 60, provided the member's accumulated contributions have not been refunded. Deferred retirement is available after five years of service for state employees occupying unclassified positions in the executive and legislative branches and certain Department of Community Health employees subject to reduction in force lay-offs by reason of deinstitutionalization.

Note 9 - Pension Plans (Continued)

Nonduty Disability Benefit - A member with 10 or more years of credited service who becomes totally and permanently disabled not due to performing duties as a state employee is eligible for a nonduty disability pension. The nonduty disability benefit is computed in the same manner as an age and service allowance based upon service and salary at the time of disability.

Duty Disability Benefit - A member who becomes totally and permanently disabled from performing duties as a state employee as a direct result of state employment and who has not met the age and service requirement for a regular pension is eligible for a duty disability pension. Public Act 109 of 2004 amended the State Employees' Retirement Act to change the calculation of the pension benefit and increase the minimum annual payment. If the member is under age 60, the duty disability allowance is now a minimum of $6,000 payable annually. At age 60 the benefit is recomputed under service retirement.

Survivor Benefit - Upon the death of a member who was vested, the surviving spouse shall receive a benefit calculated as if the member had retired the day before the date of death and selected a survivor pension. Certain designated beneficiaries can be named to receive a survivor benefit. Public Act 109 of 2004 amended the State Employees' Retirement Act to change the calculation of duty death benefits and redefines eligibility for deceased member's survivors. The new minimum duty-related death benefit has been increased to $6,000.

Pension Payment Options - When applying for retirement, an employee may name a person other than his or her spouse as a beneficiary if the spouse waives this right. If a beneficiary is named, the employee must choose whether the beneficiary will receive 100 percent, 75 percent, or 50 percent of the retiree's pension benefit after the retiree's death. The decision is irrevocable. A description of the options follows:

Regular Pension - The pension benefit is computed with no beneficiary rights. If the retiree made contributions while he or she was an employee and has not received the total accumulated contributions before death, a refund of the balance of the contributions is made to the beneficiary of record. If the retiree did not make any contributions, there will not be payments to beneficiaries.

100 Percent Survivor Pension - Under this option, after the retiree's death, the beneficiary will receive 100 percent of the pension for the remainder of the beneficiary's lifetime. If this option is elected, the normal retirement benefit is reduced by a factor based upon the ages of the retiree and of the beneficiary. If the beneficiary predeceases the retiree, the pension "pops-up" to the regular pension amount; another beneficiary cannot be named.

75 Percent Survivor Pension - Under this option, after the retiree's death, the beneficiary will receive 75 percent of the pension for the remainder of the beneficiary's lifetime. If this option is elected, the normal retirement benefit is reduced by a factor based upon the ages of the retiree and of the beneficiary. The reduction factor is lower

Note 9 - Pension Plans (Continued)

than the factor used in the 100 percent option previously described. If the beneficiary predeceases the retiree, the pension "pops-up" to the regular pension amount; another beneficiary cannot be named.

50 Percent Survivor Pension - Under this option, after the retiree's death, the beneficiary will receive 50 percent of the pension for the remainder of the beneficiary's lifetime. If this option is elected, the normal retirement benefit is reduced by a factor based upon the ages of the retiree and of the beneficiary. The reduction factor is lower than the factor used in the 100 percent or 75 percent option previously described. If the beneficiary predeceases the retiree, the pension "pops-up" to the regular pension amount; another beneficiary cannot be named.

Equated Pension - An equated pension may be chosen by any member under age 65, except a disability retiree and an early supplemental retiree. Equated pensions provide an additional amount until age 65 and may be combined with the regular, 100 percent, 75 percent, or 50 percent options. At age 65, the monthly amount is permanently reduced. The initial and reduced amounts are based on an estimate of Social Security benefits at age 65, provided by the Social Security Administration Office. In order to calculate this benefit, members choosing this option must provide the Office of Retirement Services (ORS) with an estimate from the Social Security Administration Office. The actual amount received from social security may vary from the estimate.

Postretirement Adjustments - One-time upward benefit adjustments were made in 1972, 1974, 1976, 1977, and 1987. Beginning on October 1, 1988, a 3 percent non-compounding increase, up to a maximum of $25 monthly, is paid each October to recipients who have been retired for 12 full months. Beginning in 1983, eligible benefit recipients share in a distribution of investment income earned in excess of 8 percent annually. This distribution is known as the supplemental payment. The supplemental payment is offset by one year's cumulative increases received after the implementation of the annual 3 percent increase in benefits. These adjustment payments were not issued during fiscal years 1991 through 1994. Members who retired on or after October 1, 1987 are not eligible for the supplemental payment.

Contributions

Member Contributions - Under Public Act 264 of 2011, members who voluntarily elected to remain in the DB plan contribute 4 percent of compensation to the retirement system. In addition, members may voluntarily contribute to the System for the purchase of creditable service, such as military service or maternity leave, or a universal buy-in. If a member terminates employment before a retirement benefit is payable, the member's contribution and interest on deposit may be refunded. If the member dies before being vested, the member's contribution and interest are refunded to the designated beneficiaries.

Note 9 - Pension Plans (Continued)

Employer Contributions - The statute requires the employer to contribute to finance the benefits of plan members. These employer contributions are determined annually by the System's actuary and are based upon level-dollar value funding principles so the contribution rates do not have to increase over time. For fiscal year 2019, the Authority's contribution rate ranged from 22.0 to 24.6 percent of the defined benefit employee wages and 17.7 to 19.7 percent of the defined contribution employee wages. The Authority's contribution to SERS for the fiscal year ended June 30, 2019 was $4,139,000.

For fiscal year 2018, the Authority's contribution rate ranged from 24.6 to 25.5 percent of the defined benefit employee wages and 19.7 to 22.2 percent of the defined contribution employee wages. The Authority's contribution to SERS for the fiscal year ended June 30, 2018 was $4,252,000.

Actuarial Assumptions - The Authority's net pension liability for the year ended June 30, 2019 was measured as of September 30, 2018, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of September 30, 2017 and rolled forward using generally accepted actuarial procedures. The Authority's net pension liability for the year ended June 30, 2018 was measured as of September 30, 2017, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of September 30, 2016 and rolled forward using generally accepted actuarial procedures. The total pension liability was determined using the following actuarial assumptions, at the valuation dates:

	September 30, 2017
Wage inflation rate	2.75 percent
Projected salary increases	2.75 through 11.75 percent
Investment rate of return	7.0 percent
Cost-of-living pension adjustment	3 percent annual non-compounded with maximum annual increase of $300 for those eligible
Mortality	RP-2014 Male and Female Employee Annuitant Mortality Table, adjusted for mortality improvements using the projection scale MP-2017 from 2006.
Notes	The actuarial assumptions were based upon the results of an experience study covering the period September 30, 2012 through September 30, 2017.

Note 9 - Pension Plans (Continued)

	September 30, 2016
Wage inflation rate	3.50 percent
Projected salary increases	3.50 through 12.5 percent
Investment rate of return	7.5 percent
Cost-of-living pension adjustment	3 percent annual non-compounded with maximum annual increase of $300 for those eligible
Mortality	RP-2000 Male and Female combined Healthy Life Mortality Table, adjusted for mortality improvements to 2015 projections scale BB. For retirees, 100 percent of the table rates were used. For active members, 50 percent of the table rates were used for male and females.
Notes	The actuarial assumptions were based upon the results of an experience study covering the period October 1, 2007 through September 30, 2012.

The investment return assumption was updated beginning with the September 30, 2016 valuation to reflect reductions in capital market assumptions for the asset classes in which the System invests. The investment return assumption was updated again beginning with the September 30, 2017 valuation as a result of a new experience study. This assumption change increased the computed liabilities.

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 (expected returns, net of pension plan investment expense and inflation) 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 arithmetic real rates of return for each major asset class included in the pension plan's target asset allocation as of September 30, 2018 and 2017 are summarized in the following tables:

Note 9 - Pension Plans (Continued)

September 30, 2018
Asset Allocation

Asset Class	Target Allocation	Long-term Expected Real Rate of Return*
Domestic equity pools	28.0 %	5.7 %
International equity pools	16.0	7.2
Private equity pools	18.0	9.2
Real estate and infrastructure pools	10.0	3.9
Fixed-income pools	10.5	0.5
Absolute return pools	15.5	5.2
Short-term investment pools	2.0	-
Total	100 %	

* Long-term rates of return are net of administrative expenses and 2.3% inflation.

September 30, 2017
Asset Allocation

Asset Class	Target Allocation	Long-term Expected Real Rate of Return*
Domestic equity pools	28.0 %	5.6 %
International equity pools	16.0	7.2
Private equity pools	18.0	8.7
Real estate and infrastructure pools	10.0	4.2
Fixed-income pools	10.5	(0.1)
Absolute return pools	15.5	5.0
Short-term investment pools	2.0	(0.9)
Total	100 %	

* Long-term rates of return are net of administrative expenses and 2.3% inflation.

Note 9 - Pension Plans (Continued)

Discount Rate - A discount rate of 7.0 and 7.5 percent was used to measure the total pension liability as of September 30, 2018 and 2017, respectively. This discount rate was based on the long-term expected rate of return on pension plan investments of 7.0 and 7.5 percent, as of September 30, 2018 and 2017, respectively. The projection of cash flows used to determine this discount rate assumed that plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rate. 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.

Net Pension Liability - At June 30, 2019, the Authority reported a liability of $39,182,681 for its proportionate share of SERS' net pension liability. The net pension liability was measured as of September 30, 2018, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of September 30, 2017 and rolled forward using generally accepted actuarial procedures. The Authority's proportion of the net pension liability was based on MSHDA's required pension contributions received by SERS during the measurement period from October 1, 2017 through September 30, 2018, relative to the total required employer contributions from all of SERS' participating employers. At September 30, 2018, the Authority's proportion was 0.648 percent.

At June 30, 2018, the Authority reported a liability of $34,605,684 for its proportionate share of SERS' net pension liability. The net pension liability was measured as of September 30, 2017, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of September 30, 2016 and rolled forward using generally accepted actuarial procedures. The Authority's proportion of the net pension liability was based on MSHDA's required pension contributions received by SERS during the measurement period from October 1, 2016 through September 30, 2017, relative to the total required employer contributions from all of SERS' participating employers. At September 30, 2017, the Authority's proportion was 0.666 percent.

Pension Liability Sensitivity - The following presents the Authority's proportionate share of the net pension liability calculated using the discount rate as well as what the proportionate share of the net pension liability would be if it were calculated using a discount rate that is one percentage point lower or one percentage point higher than the current discount rate:

Note 9 - Pension Plans (Continued)

	June 30, 2019		
	1 Percent Decrease (6.0 Percent)	Current Discount (7.0 Percent)	1 Percent Increase (8.0 Percent)
Authority's proportionate share of the net pension liability	$ 51,250,380	$ 39,182,681	$ 28,905,293

	June 30, 2018		
	1 Percent Decrease (6.5 Percent)	Current Discount (7.5 Percent)	1 Percent Increase (8.5 Percent)
Authority's proportionate share of the net pension liability	$ 45,210,638	$ 34,605,684	$ 25,465,778

Pension Plan Fiduciary Net Position - Detailed information about the pension plan's fiduciary net position is available in the SERS Comprehensive Annual Financial Report that may be obtained by visiting www.michigan.gov/ors.

Pension Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions - For the years ended June 30, 2019 and 2018, the Authority recognized pension expense of $10,276,097 and $4,941,440, respectively. At June 30, 2019 and 2018, the Authority reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	June 30, 2019	
	Deferred Outflows of Resources	Deferred Inflows of Resources
Net difference between projected and actual earnings on investments	$ -	$ 3,347,586
Authority's contributions subsequent to the measurement date	3,036,992	-
Total	$ 3,036,992	$ 3,347,586

Note 9 - Pension Plans (Continued)

	June 30, 2018	
	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ 7,936	$ -
Changes of assumptions	284,863	-
Net difference between projected and actual earnings on investments	-	2,076,438
Changes in proportion and differences between actual contributions and proportionate share of contributions	2,032	103,693
Authority's contributions subsequent to the measurement date	3,134,325	-
Total	$ 3,429,156	$ 2,180,131

Amounts reported as deferred outflows of resources related to pensions resulting from the Authority's contributions subsequent to the measurement date will be recognized as a reduction of the net pension liability in the year ending June 30, 2020. Other amounts reported as deferred outflows and inflows of resources related to pensions at June 30, 2019 will be recognized in pension expense as follows:

Year Ended June 30	Pension Expense Amount
2020	$ (371,747)
2021	(1,183,823)
2022	(1,256,353)
2023	(535,663)

Defined Contribution Plan

The Authority participates in the State of Michigan's defined contribution plan system. The Authority is required to contribute to the defined contribution plan 4.0 percent of payroll with an additional match of up to 3.0 percent. The contribution requirements of plan members and the Authority are established and may be amended by the State Legislature. The State Legislature establishes the extent to which the employer and employees are required to make contributions and establishes the benefit provisions for the plan. The Authority's contributions to the plan were $891,440 and $958,738 for the years ended June 30, 2019 and 2018, respectively, and are recorded in salaries and benefits expense.

Note 10 - Other Postemployment Benefit (OPEB) Plans

Defined Benefit OPEB Plan - Healthcare

Plan Description - The Michigan State Employees Retirement System (the “System” or “SERS”) is a single-employer, state-wide, defined benefit public employee retirement plan governed by the State of Michigan (State) and created under Public Act 240 of 1943, as amended. Section 2 of this Act established the board’s authority to promulgate or amend the provisions of the System. Executive Order 2015-13, signed by the Governor on October 27, 2015, established the State of Michigan Retirement Board. The board consists of nine members – five appointed by the Governor, which consist of one member or retirant of the State Employees’ Retirement System; one member of the Judges Retirement System; one current or former officer or enlisted person in the Michigan Military Establishment who is a member or retirant under the Military Retirement Provisions; one member of the general public; and the attorney general, state treasurer, legislative auditor general, and state personnel director. The System’s OPEB plan provides all retirees with the option of receiving health, dental, and vision coverage under the Michigan State Employees’ Retirement Act.

The Michigan State Employees’ Retirement System is accounted for in a separate OPEB trust fund and issues a publicly available financial report that includes financial statements and required supplementary information. That reports may be obtained by visiting www.michigan.gov/ors or by calling the Customer Information Center at (517) 322-5103 or 1-800-381-5111.

Benefits Provided - Benefit provisions of the other postemployment benefit (OPEB) plan are established by State statute, which may be amended. Public Act 240 of 1943, as amended, establishes eligibility and benefit provisions for the OPEB plan. Defined Benefit (Tier 1) members are eligible to receive health, prescription drug, dental, and vision coverage on the first day they start receiving pension benefits. Defined Contribution (Tier 2) participants who elected to retain the graded premium subsidy benefit under the reform elections of Public Act 264 of 2011 are also eligible to receive subsidized health prescription drug, dental and vision coverage after terminating employment, if they meet eligibility requirements. Retirees with the Premium Subsidy benefit contribute 20 percent of the monthly premium amount for the health (including prescription coverage), dental and vision coverage. Retirees with a graded premium subsidy benefit accrue credit towards insurance premiums in retirement, earnings a 30% subsidy with ten years of service, with an additional 3 percent subsidy for each year of service thereafter, not to exceed the maximum allowed by statute or 80 percent. There is no provision for ad hoc or automatic increases. The State Employees’ Retirement Act requires joint authorization by DTMB and the Civil Service Commission to make changes to retiree medical benefit plans. Defined Contribution (Tier 2) participants who elected the Personal Healthcare Fund under Public Act 264 of 2011, and those hired on or after January 1, 2012, are not eligible for any subsidized health, prescription drug, dental or vision coverage in retirement, but may purchase it at their own expense (certain conditions apply).

Note 10 - Other Postemployment Benefit (OPEB) Plans (Continued)

Former nonvested members of the DB plan who are reemployed by the state on or after January 1, 2014 are not eligible for retiree health insurance coverage premium subsidy but will become a participant in the Personal Healthcare Fund. This plan is closed to new hires.

Contributions - The statute requires the employer to contribute to finance the benefits of plan members. These employer contributions are determined annually by the System's actuary and are based upon level-percent of payroll value funding principles so the contribution rates do not have to increase over time. For fiscal year 2019, the Authority's contribution rate ranged from 22.1 to 23.8 percent of the defined benefit employee wages and 22.1 to 23.8 percent of the defined contribution employee wages. The Authority's contribution to SERS for the fiscal year ending June 30, 2019 was $4,436,000. Active employees are not required to contribute to SERS OPEB.

For fiscal year 2018, the Authority's contribution rate ranged from 21.1 to 22.1 percent of the defined benefit employee wages and 21.1 to 22.1 percent of the defined contribution employee wages. The Authority's contribution to SERS for the fiscal year ended June 30, 2018 was $4,301,000. Active employees are not required to contribute to SERS OPEB.

Actuarial Assumptions - The Authority's net OPEB liability for the year ended June 30, 2019 was measured as of September 30, 2018, and the total OPEB liability used to calculate the net OPEB liability was determined by an actuarial valuation as of September 30, 2017, and rolled-forward using generally accepted actuarial procedures. The Authority's net OPEB liability for the year ended June 30, 2018 was measured as of September 30, 2017, and the total OPEB liability used to calculate the net OPEB liability was determined by an actuarial valuation as of September 30, 2016, and rolled-forward using generally accepted actuarial procedures. The total OPEB liability was determined using the following actuarial assumptions, at the valuation date:

	September 30, 2017
Wage inflation rate	2.75 percent
Projected salary increases	2.75 through 11.75 percent
Investment rate of return	7.0 percent
Healthcare cost trend rate	8.25 percent year 1 graded to 3.00 percent year 10
Mortality	RP-2014 Male and Female Employee Annuitant Mortality Table, adjusted for mortality improvements using the projection scale MP-2017 from 2006.
Notes	The actuarial assumptions were based upon the results of an experience study covering the period September 30, 2012 through September 30, 2017.

Note 10 - Other Postemployment Benefit (OPEB) Plans (Continued)

	September 30, 2016
Wage inflation rate	3.5 percent
Investment rate of return	7.5 percent
Projected salary increases	3.5-12.5 percent
Health care cost trend rate	9 percent Year 1 graded to 3.5 percent Year 10
Mortality	RP-2000 Combined Healthy Life Mortality Table, adjusted for mortality improvements. For active members, 50 percent of the male table rates were used. For women, 50 percent of the female table rates were used.
Notes	The actuarial assumptions were based upon the results of an experience study covering the period October 1, 2007 through September 30, 2012.

The investment return assumption was updated beginning with the September 30, 2016 valuation to reflect reductions in capital market assumptions for the asset classes in which the System invests. The investment return assumption was updated again beginning with the September 30, 2017 valuation as a result of a new experience study. This assumption change increased the computed liabilities.

The long-term expected rate of return on OPEB plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of OPEB plan investment expense and inflation) 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 arithmetic real rates of return for each major asset class included in the OPEB plan's target asset allocation as of September 30, 2018 and 2017, are summarized in the following tables:

Note 10 - Other Postemployment Benefit (OPEB) Plans (Continued)

September 30, 2018

Asset Allocation

Asset Class	Target Allocation	Long-term Expected Real Rate of Return*
Domestic equity pools	28.0 %	5.7 %
International equity pools	16.0	7.2
Private equity pools	18.0	9.2
Real estate and infrastructure pools	10.0	3.9
Fixed-income pools	10.5	0.5
Absolute return pools	15.5	5.2
Short-term investment pools	2.0	-
Total	100 %	

* Long-term rates of return are net of administrative expenses and 2.3% inflation

September 30, 2017

Asset Allocation

Asset Class	Target Allocation	Long-term Expected Real Rate of Return*
Domestic equity pools	28.0 %	5.6 %
International equity pools	16.0	7.2
Private equity pools	18.0	8.7
Real estate and infrastructure pools	10.0	4.2
Fixed-income pools	10.5	(0.1)
Absolute return pools	15.5	5.0
Short-term investment pools	2.0	(0.9)
Total	100 %	

* Long-term rates of return are net of administrative expenses and 2.3% inflation

Note 10 - Other Postemployment Benefit (OPEB) Plans (Continued)

Discount Rate – A Single Discount Rate of 7.0 and 7.5 percent was used to measure the total OPEB liability as of September 30, 2018 and 2017, respectively. This Single Discount Rate was based on the expected rate of return on OPEB plan investments of 7.0 and 7.5 percent, as of September 30, 2018 and 2017, respectively. The projection of cash flows used to determine this Single Discount Rate assumed that in the future, plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member (retiree) rate. Based on these assumptions, the OPEB 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 OPEB plan investments was applied to all periods of projected benefit payments to determine the total OPEB liability.

Net OPEB Liability - At June 30, 2019, the Authority reported a liability of $51,037,629 for its proportionate share of SERS' net OPEB liability. The net OPEB liability was measured as of September 30, 2018, and the total OPEB liability used to calculate the net OPEB liability was determined by an actuarial valuation as of September 30, 2017, and rolled-forward using generally accepted actuarial procedures. The Authority's proportion of the net OPEB liability was based on the Authority's required OPEB contributions received by SERS during the measurement period October 1, 2017 through September 30, 2018, relative to the total required employer contributions from all of SERS's participating employers. At September 30, 2018, the Authority's proportion was 0.643 percent.

At June 30, 2018, the Authority reported a liability of $54,803,287 for its proportionate share of SERS' net OPEB liability. The net OPEB liability was measured as of September 30, 2017, and the total OPEB liability used to calculate the net OPEB liability was determined by an actuarial valuation as of September 30, 2016, and rolled-forward using generally accepted actuarial procedures. The Authority's proportion of the net OPEB liability was based on the Authority's required OPEB contributions received by SERS during the measurement period October 1, 2016 through September 30, 2017, relative to the total required employer contributions from all of SERS's participating employers. At September 30, 2017, the Authority's proportion was 0.665 percent.

Sensitivity of the Net OPEB Liability to Changes in the Discount Rate - The following presents the Authority's proportionate share of the net OPEB liability calculated using the discount rate as well as what the proportionate share of the net OPEB liability would be if it were calculated using a discount rate that is one percentage point lower or one percentage point higher than the current discount rate:

Note 10 - Other Postemployment Benefit (OPEB) Plans (Continued)

	June 30, 2019		
	1 Percent Decrease (6 Percent)	Current Discount (7 Percent)	1 Percent Increase (8 Percent)
Authority's proportionate share of the net OPEB liability	$ 58,939,920	$ 51,037,629	$ 44,409,786

	June 30, 2018		
	1 Percent Decrease (6.5 Percent)	Current Discount (7.5 Percent)	1 Percent Increase (8.5 Percent)
Authority's proportionate share of the net OPEB liability	$ 62,392,223	$ 54,803,287	$ 48,372,611

Sensitivity of the Net OPEB Liability to Healthcare Cost Trend Rates - The following presents the Authority's proportionate share of the net OPEB liability calculated using the assumed trend rate as well as what the proportionate share of the net OPEB liability would be if it were calculated using a trend rate that is one percentage point lower or one percentage point higher than the current trend rate:

	June 30, 2019		
	1 Percent Decrease (7.25 to 2 Percent)	Current Trend Rate (8.25 to 3 Percent)	1 Percent Increase (9.25 to 4 Percent)
Authority's proportionate share of the net OPEB liability	$ 44,006,579	$ 51,037,629	$ 59,207,029

Note 10 - Other Postemployment Benefit (OPEB) Plans (Continued)

	June 30, 2018		
	1 Percent Decrease (8.0 to 2.5 Percent)	Current Trend Rate (9.0 to 3.5 Percent)	1 Percent Increase (10.0 to 4.5 Percent)
Authority's proportionate share of the net OPEB liability	$ 47,998,482	$ 54,803,287	$ 62,607,528

OPEB Plan Fiduciary Net Position - Detailed information about the OPEB plan's fiduciary net position is available in the SERS Comprehensive Annual Financial Report that may be obtained by visiting (www.michigan.gov/ors).

OPEB Expense and Deferred Outflows of Resources and Deferred inflows of Resources Related to OPEB - For the years ended June 30, 2019 and 2018, the Authority recognized OPEB expense of $3,481,735 and $4,489,560. At June 30, 2019 and 2018, the Authority reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources:

	June 30, 2019	
	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ -	$ 5,862,268
Changes of assumptions	4,257,240	-
Net difference between projected and actual earnings on investments	-	680,271
Changes of assumptions and differences between actual contributions and proportion share of contributions	14,086	1,734,308
Authority's contributions subsequent to the measurement date	3,274,376	-
Total	$ 7,545,702	$ 8,276,847

Note 10 - Other Postemployment Benefit (OPEB) Plans (Continued)

	June 30, 2018	
	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ -	$ 397,544
Net difference between projected and actual earnings on investments	-	474,647
Changes of assumptions and differences between actual contributions and proportionate share of contributions	-	333,933
Authority's contributions subsequent to the measurement date	3,285,990	-
Total	$ 3,285,990	$ 1,206,124

Amounts reported as deferred outflows of resources related to OPEB resulting from the Authority's contributions subsequent to the measurement date will be recognized as a reduction of the net OPEB liability in the year ended June 30, 2020. Other amounts reported as deferred outflows and inflows of resources related to OPEB at June 30, 2019 will be recognized in OPEB expense as follows:

Year Ended June 30	OPEB Expense Amount
2020	$ (954,648)
2021	(954,648)
2022	(954,648)
2023	(837,731)
2024	(303,846)

Note 10 - Other Postemployment Benefit (OPEB) Plans (Continued)

Postemployment Life Insurance Benefits

Plan Description - The State of Michigan provides postemployment life insurance benefits (the Plan) to eligible individuals upon retirement from State employment. Members of the State Employees Retirement System (SERS), the State Police Retirement System (SPRS), the Judges' Retirement System (JRS), and certain members of the Military Retirement Provisions (MMRP) may receive a life insurance benefit if they meet the benefit eligibility requirements. The Plan is a single-employer, state-wide, defined benefit other postemployment benefits (OPEB) plan. The State contracts with Minnesota Life to administer the payout of life insurance benefits. The Plan is managed by the Michigan Civil Service Commission under Article XI, Section 5 of the Michigan Constitution of 1963 and Michigan Civil Service Commission Rule 5-11.

Activity of the Plan is accounted for in the State Sponsored Group Insurance Fund (Fund), an internal service fund in the State of Michigan Comprehensive Annual Financial Report (SOMCAFR). The Fund was administratively established to account for employee insurance benefit programs, which are largely self-funded. Five group insurance programs are offered to State employees: health, dental, vision, long-term disability, and life.

The Plan is not a trust and has no assets.

Benefits Provided - The State's group policy with Minnesota Life includes any active employee in the category of classified State service with an appointment of at least 720 hours duration, but excluding employees with non-career appointments and those working less than 40% of full time; any active official or active unclassified employee of the State who has been approved for coverage by the Civil Service Commission; any retired employee or official who was insured under this policy or the prior policies it replaced prior to entry into a State Retirement System; and Wayne County employees who a) were State Judicial Council employees on October 1, 1996 and whose employment was transferred to the Recorder's Court on October 1, 1996 and b) whose employer subsequently became the Wayne County Clerk's Office.

Eligible retirees are provided with life insurance coverage equal to 25 percent of the active life insurance coverage (which amount is rounded to the next higher $100 provided the retiree retired after July 1, 1974), $1,000 for spouse and $1,000 for each dependent under age 23.

The active life insurance amount is either a) two times the employee's basic annual salary, the result rounded to the next higher $1,000 if not already a multiple thereof, with a minimum of $100,000 and a maximum of $200,000; or b) one times the employee's basic annual salary, the result rounded to the next higher $1,000 if not already a multiple thereof, with a minimum of $10,000 and a maximum of $50,000.

Note 10 - Other Postemployment Benefit (OPEB) Plans (Continued)

Contributions - The State contributes 100 percent of the premiums for employee and retiree life insurance coverage. The premium rate for fiscal year 2018 was $.24 for each $1,000 of coverage through October 8, 2017. It was then updated to $.28 for each $1,000 of coverage for the remainder of the fiscal year. The employee contributes 100 percent of the premiums for dependent life coverage, and an employee must have been enrolled in dependent life insurance to maintain eligibility for dependent coverage as a retiree. The State is liable for benefit payments that exceed premiums paid.

More specific information concerning eligibility requirements, benefit level, and funding policies is included in employee collective bargaining agreements, benefit plan booklets, and rules and regulations issued by the Michigan Civil Service Commission.

Actuarial Valuations and Assumptions - The Authority's total OPEB liability for the year ended June 30, 2019 was measured as of September 30, 2018 and is based on an actuarial valuation performed as of September 30, 2017 and rolled forward using generally accepted actuarial procedures. The Authority's total OPEB liability for the year ended June 30, 2018 was measured as of September 30, 2017 and is based on an actuarial valuation performed as of that date.

Projections of benefits for financial reporting purposes are based on the substantive plan (the plan as understood by the employer and plan members) and include the types of benefits provided at the time of each valuation and the historical pattern of sharing of benefit costs between the employer and plan members to that point. The actuarial methods and assumptions used include techniques that are designed to reduce the effects of short-term volatility in actuarial accrued liabilities consistent with the long-term perspective of the calculations.

The normal cost and the allocation of benefit values between service rendered before and after the valuation date was determined using an Individual Entry-Age Actuarial Cost Method with these characteristics: a) the annual normal cost for each individual active member, payable from the date of employment to the date of retirement, is sufficient to accumulate the value of the member's benefit at the time of retirement; and b) each annual normal cost is a constant percentage of the member's year by year projected covered pay.

The total OPEB liability was measured using the following actuarial assumptions:

Wage Inflation Rate:	3.5 percent
Investment Rate of Return (discount rate):	3.83 percent per year at September 30, 2018 and 3.5 percent per year at September 30, 2017

Mortality: Healthy Life and Disabled Life Mortality, with 115 percent of the Male rates and 121 percent of the Female rates used in the pension valuations for SERS plan members.

Note 10 - Other Postemployment Benefit (OPEB) Plans (Continued)

IBNR: A liability equal to 25 percent of expected first year cash flow was held for postemployment life insurance benefits claims incurred but not reported (IBNR).

Spouse Benefits for Future Retirees: The liabilities for active members were loaded to account for potential postemployment life insurance benefits payable to spouses of future retirees at 3 percent for SERS retirees.

Spouse Benefits for Current Retirees: Data regarding postemployment life insurance benefits coverage for spouses of current retirees was not available. Liabilities for retired members were loaded to account for postemployment life insurance benefits payable to the spouses of current retirees at 4 percent for SERS retirees.

Compensation: For some SERS retirees, FAC was not reported. The FAC for these members was assumed to be $51,045 (the average of all SERS retiree records reported with FAC).

For purposes of valuing the postemployment life insurance benefit policies for retirees, base wage at retirement was not available and was approximated by applying a factor to the reported FAC at retirement. The factor used to convert a FAC to a base wage is based on the length of the FAC period for each group. The factor used for SERS was 0.983092 (2 year FAC) for Conservation and 0.966565 (3 year FAC) for Corrections and All Others.

For SERS DC plan retirees, compensation at retirement and other information was not provided to the actuary. The postemployment life insurance benefit policies for this group were assumed to have the same average value as the policies for retirees in the SERS DB plan.

Other: The face values of The Plan policies currently in force were requested by the actuary but were not available for use in this valuation. The actuary estimated the value of the postemployment life insurance benefit policies for retirees as follows:

Individuals retired after July 1974: 50% x compensation at retirement (compensation reported for the 2017 retirement system valuations)

Spousal benefits: $1,000

Individuals retired on or before July 1974: $3,000

Spousal benefits: $1,000

Data for current retiree members of the Plan was not available for use in this valuation. All current retiree members of the retirement plans deemed eligible for postemployment life insurance benefits and reported in connection with the 2017 retirement valuations were included in this valuation of the Plan.

Note 10 - Other Postemployment Benefit (OPEB) Plans (Continued)

Discount Rate - A discount rate of 3.83 and 3.50 percent was used to measure the ending total OPEB liability for Postemployment Life Insurance Benefits as of September 30, 2018 and 2017, respectively. This discount rate was based on the tax-exempt municipal bond rate based on an index of 20-year general obligation bonds with an average AA credit rating as of the measurement date since the plan has no assets.

Total OPEB Liability for Postemployment Life Insurance Benefits - As of June 30, 2019, the Authority reported a liability of $8,065,818 for its proportionate share of the State's Postemployment Life Insurance Benefit's total OPEB liability. The total OPEB liability was measured as of September 30, 2018 based on an actuarial valuation as of September 30, 2017 and rolled-forward using generally accepted actuarial procedures. The Authority's proportion of the total OPEB liability was determined by dividing the Authority's actual contributions to the Plan during the measurement period of October 1, 2017 through September 30, 2018, by the percent of OPEB actual contributions received from all applicable employers. At September 30, 2018, the Authority's proportion was 0.646 percent.

As of June 30, 2018, the Authority reported a liability of $8,425,888 for its proportionate share of the State's Postemployment Life Insurance Benefit's total OPEB liability. The total OPEB liability was measured as of September 30, 2017 based on an actuarial valuation as of that date. The Authority's proportion of the total OPEB liability was determined by dividing the Authority's actual contributions to the Plan during the measurement period of October 1, 2016 through September 30, 2017, by the percent of OPEB actual contributions received from all applicable employers. At September 30, 2017, the Authority's proportion was 0.659 percent.

Sensitivity of the Total OPEB Liability for Postemployment Life Insurance - The following presents the Authority's proportionate share of the total OPEB liability calculated using the discount rate as well as what the proportionate share of the total OPEB liability would be if it were calculated using a discount rate that is one percentage point lower or one percentage point higher than the current discount:

	June 30, 2019		
	1 Percent Decrease (2.83 Percent)	Current Discount (3.83 Percent)	1 Percent Increase (4.83 Percent)
Authority's proportionate share of the net OPEB liability	$ 9,430,716	$ 8,065,818	$ 6,975,538

Note 10 - Other Postemployment Benefit (OPEB) Plans (Continued)

	June 30, 2018		
	1 Percent Decrease (2.5 Percent)	Current Discount (3.5 Percent)	1 Percent Increase (4.5 Percent)
Authority's proportionate share of the net OPEB liability	$ 9,903,786	$ 8,425,888	$ 7,247,794

OPEB Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to OPEB for Postemployment Life Insurance Benefits - For the years ended June 30, 2019 and 2018, the Authority recognized OPEB expense of $275,128 and $453,043, respectively. At June 30, 2019 and 2018, the Authority reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources:

	June 30, 2019	
	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ 5,509	$ 40,905
Changes of assumptions	-	701,535
Changes in proportion and differences between actual contributions and proportion share of contributions	-	146,182
Authority's contributions subsequent to the measurement date	206,258	-
Total	$ 211,767	$ 888,622

Note 10 - Other Postemployment Benefit (OPEB) Plans (Continued)

	June 30, 2018	
	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ 7,072	$ -
Changes of assumptions	-	456,815
Authority's contributions subsequent to the measurement date	210,594	-
Total	$ 217,666	$ 456,815

Amounts reported as deferred outflows of resources related to OPEB resulting from the Authority's contributions subsequent to the measurement date will be recognized as a reduction of the total OPEB liability in the year ended June 30, 2019. Other amounts reported as deferred outflows and inflows of resources related to OPEB will be recognized in OPEB expense as follows:

Year Ended June 30	OPEB Expense Amount
2020	$ (199,789)
2021	(199,789)
2022	(199,789)
2023	(188,301)
2024	(95,445)

Amounts reported for defined benefit postemployment benefits other than pensions and postemployment life insurance benefits are aggregated on the Statement of Net Position as follows:

	June 30, 2019		
	Net OPEB Liability	Deferred Outflows of Resources	Deferred Inflows of Resources
Postemployment benefits other than pensions - healthcare	$ 51,037,629	$ 7,545,702	$ 8,276,847
Postemployment life insurance benefits	8,065,818	211,767	888,622
Total	$ 59,103,447	$ 7,757,469	$ 9,165,469

Note 10 - Other Postemployment Benefit (OPEB) Plans (Continued)

	June 30, 2018		
	Net OPEB Liability	Deferred Outflows of Resources	Deferred Inflows of Resources
Postemployment benefits other than pensions - healthcare	$ 54,803,287	$ 3,285,990	$ 1,206,124
Postemployment life insurance benefits	8,425,888	217,666	456,815
Total	$ 63,229,175	$ 3,503,656	$ 1,662,939

Defined Contribution OPEB Plan

Employees hired on or after January 1, 2012 will not be eligible for any retiree health insurance coverage but will become participants in the Personal Healthcare Fund wherein, they will contribute up to 2 percent of their compensation into a 401(k) or 457 account, earning a matching 2 percent employer contribution. Also, the employee will receive a credit into a health reimbursement at termination of employment if he or she has at least 10 years of service at termination. The credit will be $2,000 for participants who are at least 60 years old or $1,000 for participants who are less than 60 years old at termination.

Note 11 - Capital Assets

The Authority previously leased its office building in Lansing, Michigan under an agreement that was set to expire on February 28, 2021. On May 30, 2018, the Authority purchased the office building for $21,000,000. The building has an estimated useful asset life of 40 years. Accumulated depreciation was $569,000 and $44,000 for the year ended June 30, 2019 and 2018, respectively. Depreciation expense was $525,000 and $44,000 for the year ended June 30, 2019 and 2018, respectively. Expense incurred related to the building operating lease prior to the purchase was approximately $3,108,000 for the years ended June 30, 2018.

Note 12 - Restricted Net Position

The components of restricted net position are as follows (in thousands of dollars):

	2019	2018
Pledged for payment of:		
All bond issues (capital reserve account)	$ 103,465	$ 97,830
Single-family Mortgage Revenue Bonds	119,707	104,033
Rental Housing Revenue Bonds	251,792	232,451
Total	$ 474,964	$ 434,314

Note 13 - Contingencies

The Authority is involved in various legal proceedings, claims, and disputes arising in the ordinary course of its financing activities with real estate developers and others. Management does not expect the amount of the ultimate liability, with respect to the disposition of these matters, will have any material adverse impact on the financial condition or results of operations of the Authority.

Note 14 - Commitments

As of June 30, 2019 and 2018, the Authority has commitments to issue multifamily mortgage loans in the amounts of $130,234,814 and $129,977,056, respectively, and single-family mortgage loans in the amounts of $73,595,000 and $59,859,000, respectively.

The Authority has committed up to approximately $1,055,000 per year for up to 30 years from the date of completion of the respective developments (subject to three years' advance notice of termination) from its accumulated reserves and future income to subsidize operations or rents for certain tenants occupying units in certain developments funded under the Authority's multifamily program. Such developments receive funds either for the purpose of subsidizing rents so that some units can be afforded by families with incomes at 50 percent or less of median income or to subsidize operations in general. Subsidy disbursements totaled approximately $85,000 and $90,000 for the years ended June 30, 2019 and 2018 respectively.

In addition, the Authority makes available up to approximately $1,000,000 per year for up to 30 years to subsidize rents in a similar fashion for 20 percent of the units in certain other developments financed or to be financed under its multifamily mortgage lending program. Under this program, the Authority is entitled to receive a portion of any excess cash flow generated by the developments as well as a share of the profits from the sale of the developments and is able to reduce the rent subsidies if the interest rates being charged by the Authority on the related mortgage loans are below certain preset levels. Subsidy repayment of $71,000 and $2,000 exceeded subsidy disbursements for the years ended June 30, 2019 and 2018, respectively.

Note 15 – Interest Rate Swaps

In connection with the issuance of various debt, the Authority has entered into interest rate swap contracts. To date, the interest rate swap contracts have all been the type whereby the Authority pays a fixed rate and receives a variable rate. No amount of compensation was paid or received at the time the contracts were executed. Interest rate swap agreements are important tools that the Authority utilizes to accomplish its goals. The Authority entered into the agreements in connection with the issuance of certain variable rate debt, with the intent of creating a synthetic fixed-rate debt, at an interest rate that is lower than if fixed-rate debt were to have been issued directly. These contracts have reduced the Authority's cost of borrowing and reduced exposure to variable interest rate risk. This has allowed the Authority to finance developments, reduce single-family mortgage rates, and fund programs that otherwise would not have been feasible.

Note 15 – Interest Rate Swaps (Continued)

The Authority is issuing the June 30, 2019 and 2018 financial statements in accordance with Governmental Accounting Standards Board (GASB) Statement No. 53. This standard is used to determine whether a derivative instrument will result in an effective hedge. Changes in the market value of effective hedges are recognized in the year to which they relate. Effective hedge changes do not affect investment income, but are reported as deferrals in the statement of net position. Derivatives that are not deemed effective would be reported at fair market value and recognized as investments.

The fair values of the interest rate swaps were estimated using the zero-coupon method. This method calculates the future net settlement payments required by the swap, assuming that the current forward rates implied by the yield curve correctly anticipate future spot interest rates. These payments are then discounted using the spot rates implied by the current yield curve for hypothetical zero-coupon bonds due on the date of each future net settlement on the swaps.

Note 15 - Interest Rate Swaps (Continued)

The following table summarizes the interest rate swap contracts at June 30, 2019:

Associated Debt/Swap Agreement	Effective Date	Notional Amount as of June 30, 2019	Termination Date	Rate	Fixed Rate	Optional Termination Date/Without Payment (9)	Market (Payment) to Terminate Swap	GASB No. 53 Presentation in Statement of Net Position	Type of Risk Associated With Swap Contract (4)(5)(6)(8)
Rental housing revenue bonds (effective hedges):									
2000 Series A (1)	09/25/00	$ 32,770,000	10/01/20	70% of 1 M LIBOR	4.960%	N.A.	$ (1,546,381)	$ (1,546,381)	(7)
2002 Series A (1)	07/03/02	43,145,000	04/01/37	70% of 1 M LIBOR	4.560%	N.A.	(12,898,589)	(12,898,589)	
2008 Series A (1)(10)	04/01/01	14,100,000	04/01/23	SIFMA + 0.10%	5.350%	N.A.	(983,802)	(720,283)	
2008 Series D (3)(10)	11/18/04	19,320,000	10/01/39	65% of 1 M LIBOR+0.23%	3.705%	10/01/24	(2,164,153)	(1,799,694)	
2008 Series D (3)(10)	11/18/04	32,175,000	10/01/39	65% of 3 M LIBOR+0.16%	3.597%	10/01/24	(3,448,791)	(2,951,296)	
2008 Series C (1)(10)	04/01/01	7,000,000	04/01/23	SIFMA	4.770%	N.A.	(510,086)	(226,870)	
2016 Series C (3)(10)	03/16/06	57,140,000	10/01/40	65% of 3 M LIBOR+0.16%	3.514%	04/01/26	(7,188,197)	1,880,774	
2016 Series D (3)(10)	07/25/06	52,500,000	04/01/41	61% of 1 M LIBOR+0.40%	3.996%	10/01/26	(8,486,256)	2,399,650	
2016 Series E (3)(10)	07/02/07	25,225,000	04/01/42	65% of 3 M LIBOR+0.16%	3.378%	04/01/27	(3,327,149)	1,196,528	
2018 Series C (3)(10)	09/22/05	58,125,000	04/01/40	65% of 1 M LIBOR+0.23%	3.514%	10/01/25	(7,037,416)	(2,836,852)	
2018 Series C (3)(10)	01/23/08	70,275,000	10/01/42	61% of 1 M LIBOR+0.40%	3.564%	10/01/22	(9,317,468)	(3,526,685)	
Subtotal		411,775,000					(56,908,289)	(21,029,698)	
Single-family mortgage revenue bonds (effective hedges):									
2006 Series C (2)	12/01/06	46,190,000	06/01/33	Floating Rate	4.417%	12/01/19	(677,768)	(677,768)	(7)
2006 Series C (2)	12/01/19	35,000,000	12/01/27	SIFMA	2.703%	12/01/24	(2,294,714)	(2,294,714)	(7)
2007 Series E (2)	06/02/08	11,035,000	12/01/38	Floating Rate	3.846%	12/01/19	(126,741)	(126,741)	
2007 Series E (2)	12/01/19	40,000,000	12/01/27	SIFMA	2.726%	12/01/24	(2,601,375)	(2,601,375)	(7)
2007 Series F (2)	12/01/08	15,415,000	12/01/38	Floating Rate	4.340%	N.A.	(4,313,070)	(4,313,070)	
2009 Series D (2)(10)	04/01/07	17,945,000	06/01/30	Floating Rate	4.574%	12/01/19	(270,835)	(126,197)	
2009 Series D (2)	12/01/19	20,000,000	06/01/30	SIFMA	2.746%	12/01/24	(1,262,902)	(1,262,902)	(7)
2017 Series A (2)(10)	10/05/17	45,000,000	12/01/32	70% of 1 M LIBOR+1.00%	3.559%	12/01/24	(2,757,006)	(1,520,785)	(7)
2018 Series B (2)	03/28/18	50,000,000	12/01/33	70% of 1 M LIBOR+0.85%	3.351%	12/01/25	(3,292,577)	(3,292,577)	(7)
2018 Series D (2)	12/01/18	50,000,000	12/01/38	70% of 1 M LIBOR+0.85%	3.696%	12/01/24	(4,126,551)	(4,126,551)	(7)
Subtotal		330,585,000					(21,723,539)	(20,342,680)	
Total interest rate swaps		$ 742,360,000					$ (78,631,828)	(41,372,378)	(12)
				Unamortized off-market borrowings				(41,494,209)	(11)
Total swaps								$ (82,866,587)	

(1) Counterparty risk is the risk that the swap counterparty will not fulfill its obligations set forth under the terms and conditions of the swap contract. The counterparty associated with these bonds is Goldman Sachs Mitsui Marine Derivative Products, L.P. (GSMMDP). GSMMDP is currently rated AA- stable outlook by S&P and Aa2 by Moody's as of June 30, 2019.

(2) Counterparty risk is the risk that the swap counterparty will not fulfill its obligations set forth under the terms and conditions of the swap contract. The counterparty associated with these bonds is Barclays Bank PLC (Barclays). Barclays is currently rated A stable outlook by S&P and A2 by Moody's as of June 30, 2019.

(3) Counterparty risk is the risk that the swap counterparty will not fulfill its obligations set forth under the terms and conditions of the swap contract. The counterparty associated with these bonds is Merrill Lynch Capital Services, Inc. (MLCS) or Merrill Lynch Derivative Products (MLDP). MLDP is currently rated AA by S&P and Aa3 by Moody's as of June 30, 2019. MLCS is not rated by Moody's or S&P. MLCS's obligations under each agreement are guaranteed by Bank of America Corporation, which has a rating of A- by S&P and A2 by Moody's as of June 30, 2019.

Note 15 - Interest Rate Swaps (Continued)

(4) Termination risk is the risk that the swap could be terminated by the counterparty due to any of several events, which may include an authority or counterparty ratings downgrade, covenant violation by either party, bankruptcy of either party, swap payment default by either party, and default events as defined in the Authority's bond indentures. All contracts have this risk.

(5) Basis risk refers to a mismatch between the interest rate received from the swap contract and the interest actually paid on the Authority's debt. All contracts have this risk.

(6) Tax event risk is the risk that a change in the marginal income tax rates or a change in the tax code impacts the trading value of tax-exempt bonds. All contracts have this risk.

(7) Rollover risk is the risk that the swap contract is not coterminous with the related debt.

(8) Amortization risk is the risk that there is a mismatch or potential mismatch between the Authority's bonds and the notional amount of the swap outstanding. This mismatch could expose the Authority to variable interest rates if the swap amortizes quicker than the bonds or subject the Authority to a payment to the counterparty to terminate a portion of the swap contract early if the bonds are redeemed more quickly than anticipated. All contracts have this risk.

(9) The Authority has the option to terminate the contract in whole or in part without payment after the stated date.

(10) These interest rate swap agreements have either been reassigned from their original bond issue as part of an economic refunding or have been executed at terms that do not reflect current market terms. GASB Statement No. 53 has termed these off-market swaps to be "in-substance hybrids." Essentially, the swaps have two components as follows:

a. On-market component - This is the component of the swap that requires a calculation on the effectiveness and to be valued at the market on an annual basis. In the case of the Authority, these twelve swaps' "on-market" components have been determined to be effective based on the calculation and are included in interest rate swaps in the table.

b. Off-market component - This is the component of the swap that, at the time of the reassignment, is determined to be "off-market" and takes on the characteristics of a "fixed contract." Therefore, at the time of reassignment, this component needs to be valued based on the rate differential, which compares the market rates to the original swap rates. This component is then considered a fixed contract and should be amortized over the life of the new debt and added to the deferred cost of issuance. See table below summarizing this component.

Note 15 - Interest Rate Swaps (Continued)

(11) Table of off-market borrowings:

	Off-market Borrowing Rate	On-market Borrowing rate	Unamortized Off-market Borrowing Balance
Rental Housing			
Revenue Bonds:			
2008 Series A	1.920%	3.433%	$ (601,217)
2008 Series D	0.404%	3.301%	(646,978)
2008 Series D	0.331%	3.266%	(844,344)
2008 Series C	1.982%	2.788%	(267,224)
2016 Series C	2.143%	1.371%	(9,486,495)
2016 Series D	2.609%	1.387%	(11,292,905)
2016 Series E	2.122%	1.256%	(4,540,474)
2018 Series C	1.085%	2.429%	(4,496,535)
2018 Series C	1.079%	2.485%	(6,120,996)
Single-family Mortgage			
Revenue Bonds:			
2009 Series D	1.320%	3.254%	(1,034,958)
2017 Series A	0.430%	3.129%	(2,162,082)
Total			$ (41,494,209)

(12) Cumulative decrease in fair market value of hedging derivatives is a deferred outflow of resources per GASB Statement No. 53.

A comparative summary of the changes resulting from GASB Statement No. 53 is as follows:

	Changes in Fair Value		Fair Value at June 30, 2019		
	Classification	Amount	Classification	Amount	Notional
Cash flow hedges:					
Pay-fixed interest rate swaps (receive-variable)	Deferred charge	$ (28,808,076)	Hedging derivatives	$ (41,372,378)	$ 742,360,000
Off-market borrowings	Interest expense	-	Off-market borrowings	(41,494,209)	-

	Changes in Fair Value		Fair Value at June 30, 2018		
	Classification	Amount	Classification	Amount	Notional
Cash flow hedges:					
Pay-fixed interest rate swaps (receive-variable)	Deferred charge	$ 40,069,897	Hedging derivatives	$ (12,564,302)	$ 804,385,000
Off-market borrowings	Interest expense	-	Off-market borrowings	(44,705,210)	-

Note 16 – Line of Credit

The Authority issues debt to fund single-family loans. At times it may be advantageous for the Authority to originate these loans with its own liquidity or a revolving line of credit prior to the closing of the long-term bond financing. For this reason, the Authority may enter into revolving credit facilities. Typically, the facilities will be paid down to a zero outstanding balance when bonds are sold. The outstanding balance drawn on the line of credit at June 30 is as follows:

	2019	2018
TD Bank, N.A. - Revolving Line Credit (13)	$ 47,000,000	$ -

(13) On February 26, 2019, the Authority entered into a revolving credit agreement with TD Bank, N.A. The agreement allows the Authority to borrow up to $100 million for the purpose of purchasing single-family mortgages. The agreement expires February 26, 2021.

Fiscal Year 2019 Activity with TD Bank, N.A.:

3/1/2019	$	20,000,000.00	Draw
3/15/2019	$	20,000,000.00	Draw
3/26/2019	$	30,000,000.00	Draw
4/11/2019	$	70,000,000.00	Repayment (Plus interest)
6/18/2019	$	47,000,000.00	Draw

In addition, on July 26, 2018, the Authority entered into a $100 million line of credit with Barclays Capital. On July 26, 2018, $50 million was drawn and another $50 million was drawn on September 4, 2018. The $100 million plus interest was repaid on November 1, 2018. This line of credit was not revolving and was set to expire on the earlier of repayment or November 15, 2018.

Subsequent to year end, on September 26, 2019, the Authority drew down an additional $20 million on the revolving line of credit with TD Bank, N.A., bringing the total outstanding to $67 million.

Note 17 – Risk Management

The Authority is exposed to various risks of loss related to property loss, torts, errors and omissions, employee injuries (workers' compensation), and employee medical benefits. The State of Michigan is self-insured and provides coverage to the Authority for these potential losses. Additional information on risk management can be found in the footnotes of the State of Michigan Comprehensive Annual Financial Report. Settled claims related to the commercial insurance have not exceeded the amount of insurance coverage in any of the past three fiscal years.

Note 18 - Change in Accounting Principle

During the year ended June 30, 2018, the Authority adopted Governmental Accounting Standards Board (GASB) Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*. As a result, the financial statements now include a net other postemployment benefit (OPEB) liability for the Authority's unfunded postemployment benefit plan legacy costs. Some of the changes in this net OPEB liability each year will be recognized immediately as part of the OPEB expense measurement, and part will be deferred and recognized over future years. Refer to Note 10 for further details. As a result of implementing this statement, the net position of the Authority as of July 1, 2017 has been restated by ($61,016,000) to $686,241,000. Of the ($61,016,000) restatement, ($64,415,000) was related to the beginning of year net OPEB liability and $3,399,000 was related to the beginning of year deferred outflows for employer contributions made subsequent to the measurement date.

Note 19 - Upcoming Accounting Pronouncements

In January 2017, the Governmental Accounting Standards Board (GASB) issued Statement No. 84, *Fiduciary Activities*. This statement establishes criteria for identifying fiduciary activities of all state and local governments. An activity meeting the criteria should be reported in a fiduciary fund in the basic financial statements. The Authority is currently evaluating the impact this standard will have on the financial statements when adopted. The provisions of this statement are effective for the Authority's financial statements for the year ending June 30, 2020.

In June 2017, the Governmental Accounting Standards Board issued Statement No. 87, *Leases*, which improves accounting and financial reporting for leases by governments. This statement requires recognition of certain lease assets and liabilities for leases that previously were classified as operating leases and recognized as inflows of resources or outflows of resources based on the payment provisions of the contract. It establishes a single model for lease accounting based on the foundational principle that leases are financings of the right to use an underlying asset. Under this statement, a lessee is required to recognize a lease liability and an intangible right-to-use lease asset, and a lessor is required to recognize a lease receivable and a deferred inflow of resources. This standard will not have a significant impact on the financial statements when adopted. The provisions of this statement are effective for the Authority’s financial statements for the year ending June 30, 2021.

Note 19 - Upcoming Accounting Pronouncements (Continued)

In May 2019, the GASB issued Statement No. 91, *Conduit Debt Obligations*, which clarifies the existing definition of conduit debt, provides a single method of reporting conduit debt obligations by issuers, and eliminates diversity in practice associated with commitments extended by issuers, arrangements associated with conduit debt obligations, and related note disclosures. As a result, issuers should not recognize a liability for items meeting the definition of conduit debt; however, a liability should be recorded for additional or voluntary commitments to support debt service if certain recognition criteria are met. The standard also addresses the treatment of arrangements where capital assets are constructed or acquired with the proceeds of a conduit debt obligation and used by a third-party obligor. The requirements of the standard will be applied retrospectively and are effective for the Authority's financial statements for the June 30, 2022 fiscal year.

Note 20 - Subsequent Events

Subsequent to year end and through October 22, 2019, the date of the report, the Authority issued Rental Housing Revenue Bond 2019 Series A-1 and A-2 in the amount of $203,985,000.

The Authority sold and is awaiting closing for the Single Housing Revenue Bond 2019 Series B and C in the amount of $325,000,000.

Also, see Note 16 related to subsequent draw down on the revolving line of credit.

An executive order No. 2019-13 was issued to move a segment of the Authority’s employees, State Historic Preservation Review Board, to another state agency, Michigan Strategic Fund, effective August 11, 2019.

Required Supplemental Information

Schedule of the Authority's Proportionate Share of Net Pension Liability

State Employees' Retirement System

(in thousands of dollars)

	June 30, 2019	June 30, 2018	June 30, 2017	June 30, 2016	June 30, 2015
Authority's proportion of the net pension liability	0.648%	0.666%	0.700%	0.707%	0.685%
Authority's proportionate share of the net pension liability	$ 39,183	$ 34,606	$ 37,029	$ 38,909	$ 35,279
Authority's covered payroll	$ 19,662	$ 20,269	$ 20,894	$ 20,749	$ 20,741
Authority's proportionate share of the net pension liability as a percentage of its covered payroll	199%	171%	180%	188%	170%
Plan fiduciary net position as a percentage of the total pension liability	67.22%	69.45%	67.48%	66.11%	68.07%

The amounts presented for each fiscal year were determined as of the measurement date of September 30 of the previous year. This schedule is presented to illustrate the requirement to show information for 10 years. However, until a full 10-year trend is compiled, the Authority presents information for those years for which information is available.

Schedule of the Authority's Pension Contributions
State Employees' Retirement System
(in thousands of dollars)

	June 30, 2019	June 30, 2018	June 30, 2017	June 30, 2016	June 30, 2015
Statutorily required contribution	$ 4,139	$ 4,252	$ 4,823	$ 5,030	$ 5,161
Contributions in relation to the statutorily required contribution	$ 4,139	$ 4,252	$ 4,823	$ 5,030	$ 5,161
Contribution deficiency (excess)	-	-	-	-	-
Authority's covered payroll	$ 19,535	$ 19,652	$ 20,580	$ 20,749	$ 20,741
Contributions as a percentage of covered payroll	21%	22%	23%	24%	25%

This schedule is presented to illustrate the requirement to show information for 10 years. However, until a full 10-year trend is compiled, the Authority presents information for those years for which information is available.

The comparability of trend information is affected by changes in actuarial assumptions, benefit provisions, actuarial funding methods, accounting policies, and other changes. Those changes usually affect trends in contribution requirements and in ratios that use the pension and other postemployment benefit obligations as a factor.

The Schedule of Contributions for Pension is presented to show the responsibility of the Authority in meeting the actuarial requirements to maintain the System on a sound financial basis.

The Schedule of the Proportionate Share of the Net Pension Liability and Schedule of Contributions for Pension are schedules that are required in implementing GASB Statement No. 68. The Schedule of the Proportionate Share of the Net Pension Liability represents, in actuarial terms, the accrued liability less the market value of assets. The Schedule of Contributions for Pension is a comparison of the Authority's contributions to the actuarially determined contributions.

The information presented in the schedule of contributions was used in the actuarial valuation for the purpose of determining the actuarially determined contribution rate. Additional information as of the latest actuarial valuation for the pension plan follows.

Valuation - Actuarially determined contribution amounts are calculated as of September 30 each year.

Methods and Assumptions Used to Determine Contribution for Fiscal Year 2018

Actuarial cost method	Entry age, normal
Amortization method	Level dollar, closed
Remaining amortization period	20 years
Asset valuation method	Five-year smoothed market
Inflation	3.5 percent
Salary increases	3.5 to 12.5 percent wage inflation
Investment rate of return	7.5 percent net of investment and administrative expenses
Retirement age	Experience-based table of rates that are specific to the type of eligibility condition
Mortality	RP-2000 combined health life mortality table, adjusted for mortality improvements to 2015 using projection scale BB. For active member, 50 percent of the tables rates were used for males and females.

Schedule of the Authority's Proportionate Share of Net OPEB Liability

State Employees' Retirement System - Healthcare

(in thousands of dollars)

	June 30, 2019	June 30, 2018
Authority's proportion of the net OPEB liability	0.643%	0.665%
Authority's proportionate share of the net OPEB liability	$ 51,038	$ 54,803
Authority's covered payroll	$ 19,662	$ 20,269
Authority's proportionate share of the net OPEB liability as a percentage of its covered payroll	260%	270%
Plan fiduciary net position as a percentage of the total OPEB liability	24%	20%

The amounts presented for each fiscal year were determined as of the measurement date of September 30 of the previous year. This schedule is presented to illustrate the requirement to show information for 10 years. However, until a full 10-year trend is compiled, the Authority presents information for those years for which information is available.

Schedule of the Authority's OPEB Contributions
State Employees' Retirement System – Healthcare
(in thousands of dollars)

	June 30, 2019	June 30, 2018
Statutorily required contribution	$ 4,436	$ 4,301
Contributions in relation to the statutorily required contribution	$ 4,436	$ 4,301
Contribution deficiency (excess)	-	-
Authority's covered payroll	$ 19,535	$ 19,652
Contributions as a percentage of covered payroll	23%	22%

This schedule is presented to illustrate the requirement to show information for 10 years. However, until a full 10-year trend is compiled, the Authority presents information for those years for which information is available.

June 30, 2019

The comparability of trend information is affected by changes in actuarial assumptions, benefit provisions, actuarial funding methods, accounting policies, and other changes. Those changes usually affect trends in contribution requirements and in ratios that use the other postemployment benefit obligations as a factor.

The Schedule of Contributions for OPEB is presented to show the responsibility of the Employer in meeting the actuarial requirements to maintain the System on a sound financial basis.

The Schedule of the Proportionate Share of the Net OPEB Liability and Schedule of Contributions for OPEB are schedules that are required in implementing GASB Statement No. 75. The Schedule of Contributions is a comparison of the employer's contributions to the actuarially determined contributions.

The information presented in the Schedule of Contributions was used in the actuarial valuation for purposes of determining actuarially determined contribution rate. Additional information as of the latest actuarial valuation for the OPEB plan follows.

Valuation - Actuarially determined contribution amounts are calculated as of September 30 each year.

Methods and Assumptions Used to Determine Contribution for Fiscal Year 2018

Actuarial cost method	Entry-age
Amortization method	Level-Percent of Payroll
Remaining amortization period	20 years
Asset valuation method	Market Value of Assets
Salary increases	3.5 percent
Investment rate of return	7.5 percent Per Year
Health care cost trend rate	9.0 percent Year 1 Graded to 3.5 percent Year 10
Mortality	RP-2000 Combined Healthy Mortality Table, adjusted for mortality improvements to 2015 using projection scale BB. For men and women, 50% of the male table rates were used.

Schedule of the Authority's Proportionate Share of Total OPEB Liability
Postemployment Life Insurance Benefit
(in thousands of dollars)

	June 30, 2019	June 30, 2018
Authority's proportion of the total OPEB liability	0.646%	0.659%
Authority's proportionate share of the total OPEB liability	$ 8,066	$ 8,426
Authority's covered employee payroll	$ 19,274	$ 19,374
Authority's proportionate share of the total OPEB liability as a percentage of its covered employee payroll	42%	43%

The amounts presented for each fiscal year were determined as of the measurement date of September 30 of the previous year. This schedule is presented to illustrate the requirement to show information for 10 years. However, until a full 10-year trend is compiled, the Authority presents information for those years for which information is available.

The Plan is not a trust and has no assets.

Other Supplemental Information

Statement of Net Position Information
(in thousands of dollars)

June 30, 2019

	Activities						
	Single-family Mortgage Revenue Bonds	Rental Housing Revenue Bonds	General Operating	Capital Reserve	Mortgage Escrow and Reserve	Other	Combined
Assets, Hedging Derivatives, and Deferred Outflows							
Cash and Investments							
Cash and cash equivalents	$ 107,508	$ 33,819	$ 19,064	$ 135	$ 37,324	$ 7,904	$ 205,754
Investments	108,919	88,792	61	103,330	544,198	3	845,303
Total cash and investments	216,427	122,611	19,125	103,465	581,522	7,907	1,051,057
Loans Receivable							
Multifamily mortgage loans:							
Construction in progress	-	230,553	7,218	-	-	-	237,771
Completed construction	-	1,058,476	52,463	-	-	138,056	1,248,995
Housing development loans	-	-		-	-	2,203	2,203
Single-family mortgage loans	1,588,512	-	42,349	-	-	-	1,630,861
Home improvement and moderate rehabilitation loans	-	-	3,189	-	-	-	3,189
Total	1,588,512	1,289,029	105,219	-	-	140,259	3,123,019
Accrued loan interest receivable	5,984	33,799	8,421	-	-	23,322	71,526
Allowance on loans receivable	(45,448)	(22,105)	(4,044)	-	-	(189)	(71,786)
Net loans receivable	1,549,048	1,300,723	109,596	-	-	163,392	3,122,759
Capital Assets, net	-	-	20,431	-	-	-	20,431
Other Assets							
Real estate owned - net	7,887	2,276	905	-	-	-	11,068
Other	28,772	-	9,024	-	-	7,194	44,990
Interfund accounts	(61,036)	32,412	18,418	-	15,508	(5,302)	-
Total other assets	(24,377)	34,688	28,347	-	15,508	1,892	56,058
Total assets	1,741,098	1,458,022	177,499	103,465	597,030	173,191	4,250,305
Accumulated Decrease in Fair Value of Hedging Derivatives	20,342	21,030	-	-	-	-	41,372
Deferred Outflows of Resources							
Deferred outflows related to pensions	-	-	3,037	-	-	-	3,037
Deferred outflows related to OPEB	-	-	7,757	-	-	-	7,757
Deferred charges on refunding - Reassigned swaps	3,197	38,297	-	-	-	-	41,494
Total deferred outflows of resources	3,197	38,297	10,794	-	-	-	52,288
Total assets, hedging derivatives, and deferred outflows	**$ 1,764,637**	**$ 1,517,349**	**$ 188,293**	**$ 103,465**	**$ 597,030**	**$ 173,191**	**$ 4,343,965**

Statement of Net Position Information (continued)

(in thousands of dollars)

June 30, 2019

	Activities						
	Single-family Mortgage Revenue Bonds	Rental Housing Revenue Bonds	General Operating	Capital Reserve	Mortgage Escrow and Reserve	Other	Combined
Liabilities, Deferred Inflows, and Net Position							
Liabilities							
Bonds payable	$ 1,619,078	$ 1,218,326	$ -	$ -	$ -	$ -	$ 2,837,404
Line of credit	-	-	47,000	-	-	-	47,000
Hedging derivatives	20,342	21,030	-	-	-	-	41,372
Accrued interest payable	5,510	9,463	48	-	-	-	15,021
Escrow funds	-	768	243	-	597,030	(99,925)	498,117
Unamortized mortgage interest income	-	15,970	-	-	-	-	15,970
Net pension liability	-	-	39,183	-	-	-	39,183
Net OPEB liability	-	-	59,103	-	-	-	59,103
Other liabilities	-	-	32,352	-	-	7,072	39,424
Total liabilities	1,644,930	1,265,557	177,929	-	597,030	(92,853)	3,592,594
Deferred Inflows of Resources							
Deferred inflows related to pensions	-	-	3,348	-	-	-	3,348
Deferred inflows related to OPEB	-	-	9,165	-	-	-	9,165
Loan origination fees	-	-	17,525	-	-	-	17,525
Total deferred inflows of resources	-	-	30,038	-	-	-	30,038
Net Position	119,707	251,792	(19,675)	103,465	-	266,044	721,333
Total liabilities, deferred inflows, and net position	**$ 1,764,637**	**$ 1,517,349**	**$ 188,293**	**$ 103,465**	**$ 597,030**	**$ 173,191**	**$ 4,343,965**

Michigan State Housing Development Authority

Statement of Revenue, Expenses, and Changes in Net Position Information

(in thousands of dollars)

June 30, 2019

	Activities					
	Single-family Mortgage Revenue Bonds	Rental Housing Revenue Bonds	General Operating	Capital Reserve	Other	Combined
Operating Revenue						
Investment income (loss):						
Loan interest income	$ 58,702	$ 68,999	$ 7,110	$ -	$ 5,213	$ 140,024
Investment interest income	5,073	4,369	68	2,823	2,602	14,935
Increase (decrease) in fair value of investments - Including change in unrealized gains (losses)	8,157	3,011	(83)	2,812	-	13,897
Total investment income	71,932	76,379	7,095	5,635	7,815	168,856
Less interest expense and debt financing costs	46,728	49,459	1,285	-	-	97,472
Net investment income	25,204	26,920	5,810	5,635	7,815	71,384
Other revenue:						
Federal and state assistance programs	-	-	1,845	-	564,107	565,952
Section 8 program administrative fees	-	-	17,427	-	-	17,427
Contract administration fees	-	-	8,288	-	-	8,288
Other income	-	1,818	13,550	-	6,236	21,604
Total operating revenue	25,204	28,738	46,920	5,635	578,158	684,655
Operating Expenses (Revenue)						
Federal and state assistance programs	-	-	2,840	-	563,588	566,428
Salaries and benefits	-	-	39,368	-	-	39,368
Other general operating expenses	-	-	29,568	-	-	29,568
Loan servicing and insurance costs	1,014	-	5,177	-	-	6,191
Provision for possible losses on loans	11,095	(673)	171	-	-	10,593
Total operating expenses (revenue)	12,109	(673)	77,124	-	563,588	652,148
Operating Income (Loss) - Before nonoperating expenses	13,095	29,411	(30,204)	5,635	14,570	32,507
Nonoperating Expenses - Grants and subsidies	-	-	(455)	-	(6,395)	(6,850)
Change in Net Position	13,095	29,411	(30,659)	5,635	8,175	25,657
Net Position - Beginning of year	104,033	232,451	3,493	97,830	257,869	695,676
Transfers to Other Funds for Payment of Operating Fund Expenses	-	(10,000)	10,000	-	-	-
Funding to Provide Additional Cash Flow and Payment of Bond Issuance Costs	2,579	(70)	(2,509)	-	-	-
Net Position - End of year	**$ 119,707**	**$ 251,792**	**$ (19,675)**	**$ 103,465**	**$ 266,044**	**$ 721,333**

Report on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with *Government Auditing Standards*

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Report on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with *Government Auditing Standards*

Independent Auditor's Report

To Management, the Board of Directors, and
Mr. Doug A. Ringler, CPA, CIA,
Auditor General, State of Michigan
Michigan State Housing Development Authority

We have audited, in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the business-type activities and the discretely presented component unit of Michigan State Housing Development Authority (the "Authority") as of and for the year ended June 30, 2019 and the related notes to the financial statements, which collectively comprise the Authority's basic financial statements, and have issued our report thereon dated October 22, 2019.

Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered Michigan State Housing Development Authority's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Authority's internal control. Accordingly, we do not express an opinion on the effectiveness of the Authority's internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A material weakness is a deficiency, or a combination of deficiencies, in internal control such that there is a reasonable possibility that a material misstatement of the Authority's financial statements will not be prevented, or detected and corrected, on a timely basis. A significant deficiency is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies, and, therefore, material weaknesses or significant deficiencies may exist that were not identified. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. We did identify a certain deficiency in internal control, described in the accompanying schedule of findings as Finding 2019-001, that we consider to be a significant deficiency.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether the Authority's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and, accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards.*

The Authority's Response to the Finding

The Authority's response to the finding identified in our audit is described in the accompanying schedule of finding. The Authority's response was not subjected to the auditing procedures applied in the audit of the financial statements, and, accordingly, we express no opinion on it.

To Management, the Board of Directors, and
Mr. Doug A. Ringler, CPA, CIA,
Auditor General, State of Michigan
Michigan State Housing Development Authority

Purpose of This Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the Authority's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Authority's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Plante & Moran, PLLC

October 22, 2019

Reference Number	Finding
2019-001	**Finding Type** - Significant deficiency

Criteria - Good business practices require the general ledger to be complete and free of misstatements before financial statement audits begin. The general ledger should be complete, reconciled, and reviewed during the year-end close process.

Condition - Certain general ledger account balances were not appropriately stated on the trial balance received, and some reconciliation and review processes had not occurred prior to the beginning of the audit.

Context - The Authority has a significant amount of activity related to operations, especially near year end. Consequently, the audit and portions of the year-end close process were performed simultaneously.

We identified immaterial adjustments as a result of audit procedures, and the Authority provided us with several journal entries during the audit that impacted the following balances in the financial statements:

(1) Cash
(2) Escrow funds
(3) Other miscellaneous receivables
(4) Other liabilities
(5) Loan origination fees
(6) Loan interest income
(7) Federal program revenue
(8) Federal program expense

Cause - There is a high level of operational activity performed at year end with limited staff preparing journal entries. There was not time for sufficient reviews and reconciliations to occur and to identify errors before the general ledger was provided for audit purposes.

Effect - Multiple immaterial account adjustments were identified as a result of audit procedures.

Recommendation - The Authority should put appropriate controls in place to ensure timely and accurate close of its year-end balances.

Views of Responsible Officials and Planned Corrective Actions - The Authority agrees with Plante & Moran PLLC's finding that staff was not prepared when Plante & Moran PLLC's staff were expected to begin their audit procedures. We are also in agreement that additional adjustments and reconciliations were being performed during the audit.

During fiscal year 2019, the finance division lost a number of key accounting staff. A few of these positions have been filled, and the remaining will be soon. The new staff will be trained and prepared to produce reporting in a timely manner. Finance has recently gone through a lean process improvement (LPI) related to the production of financial reports; with the LPI and being fully staffed, the Authority believes it will produce monthly financials on a timely basis, as well as be fully prepared when Plante & Moran, PLLC begins its audit procedures for the fiscal year 2020.