

**HAMILTON COUNTY MATHEMATICS AND  
SCIENCE ACADEMY  
HAMILTON COUNTY, OHIO**

**REGULAR AUDIT**

**FOR THE FISCAL YEAR ENDED  
JUNE 30, 2020**





65 East State Street  
Columbus, Ohio 43215  
[ContactUs@ohioauditor.gov](mailto:ContactUs@ohioauditor.gov)  
800-282-0370

Board Members  
Hamilton County Mathematics and Science Academy  
2675 Civic Center Drive  
Cincinnati, Ohio 45231

We have reviewed the *Independent Auditor's Report* of the Hamilton County Mathematics and Science Academy, Hamilton County, prepared by Julian & Grube, Inc., for the audit period July 1, 2019 through June 30, 2020. Based upon this review, we have accepted these reports in lieu of the audit required by Section 117.11, Revised Code. The Auditor of State did not audit the accompanying financial statements and, accordingly, we are unable to express, and do not express an opinion on them. In conjunction with the work performed by the Independent Public Accountant, the Auditor of State is issuing the following:

The Auditor of State is conducting an investigation, which is on-going as of the date of this report. Dependent on the outcome of the investigation, results may be reported on at a later date.

#### **Finding for Recovery Partially Repaid – Late Fees and Bank Overdraft Fees**

From September 13, 2019, to February 11, 2020, Hamilton County Mathematics and Science Academy paid bank overdraft fees three times for a total of \$258.00. Two overdraft fees were charged from a Fifth Third account on September 13, 2019 and October 11, 2019, each in the amount of \$111.00, after the Treasurer's office made electronic payments to Paycor in order to pay payroll. The third overdraft fee occurred on October 11, 2019 on a PNC account after regular use of the Academy's debit card in the amount of \$36.00. The Academy used debit cards for purchases which were automatically withdrawn from the bank account.

Hamilton County Mathematics and Science Academy Board Policy 148.6 states that for purposes of this policy, credit cards are defined to include business check cards and debit cards. Section 6.h of the policy states the Principal or his/her designee will monitor the credit card account(s) and the treasurer will reconcile all credit card accounts on a monthly basis. The Principal, Dwan Moore, had the responsibility of monitoring the bank account under Board policy.

Under Ohio law, public officials are strictly liable for all public money received or collected by them or their subordinates under color of law. Ohio Rev. Code § 9.39; Cordray v. Internatl. Preparatory School, 128 Ohio St.3d 50 (2010). Dan Mpagi is the community school official who received and collected the community school's public money. Accordingly, he can be held strictly liable for any loss of community school money. Bank overdraft fees are a loss of community school moneys that could have been avoided. In addition, Ms. Moore, as Principal, was responsible for monitoring the use of the debit cards and for monitoring bank account balances. Permitting school employees to use debit cards without ensuring there were sufficient funds available to avoid overdraft fees constitutes the negligent performance of her duties assigned under Policy 148.6.

Board Members

Hamilton County Mathematics and Science Academy  
2675 Civic Center Drive  
Cincinnati, Ohio 45231  
Page 2

**Finding for Recovery Partially Repaid – Late Fees and Bank Overdraft Fees (continued)**

In addition, during the audit period the Academy incurred and paid \$880 in late fees and the Academy did not seek refunds of these fees from vendors. The Academy paid late fees totaling \$771.91 for copier contract payments. The remaining \$108.09 payments were late fees charged for electric and water utility services.

This repeated failure to make timely copier and utility payments is considered gross negligence. The late fees paid by the Academy that were incurred as a result of gross negligence are illegal expenditures. These late fees could have been avoided had the payments been made in a timely manner.

Ohio Rev. Code § 117.24 requires the Auditor of State to determine whether “public money has been illegally expended, any public money collected has not been accounted for, any public money due has not been collected, or any public property has been converted or misappropriated. . . .” These determinations in an audit report constitute “findings for recovery.” Ohio Rev. Code § 9.24(H)(3).

In accordance with the foregoing facts and pursuant to Ohio Rev. Code §§ 117.24 and 117.28, a Finding for Recovery for public monies illegally expended is hereby issued jointly and severally against Dan Mpagi, Treasurer and his bond issued through Merchants Bonding Company in the amount of \$1,138.00 in favor of Hamilton County Mathematics and Science Academy’s General Fund. Dwan Moore, Principal, is jointly and severally liable in the amount of \$36.00 in favor of Hamilton County Mathematics and Science Academy’s General Fund.

On October 17, 2025, Dwan Moore repaid \$36 to the Hamilton County Mathematics and Science Academy’s General Fund. Ms. Moore’s finding is repaid in full.

**Finding for Recovery – Sales Tax**

**Ohio Rev. Code § 5739.02(A)** imposes an excise tax, commonly referred to as a sales tax, on each retail sale made in the State of Ohio. **Ohio Rev. Code § 5739.02(B)(1)** explicitly exempts sales to the State of Ohio or any of its political subdivisions from this excise tax. “Political subdivision,” while not expressly defined in Chapter 5739, has been generally understood by Ohio courts to include: municipal corporations, townships, counties, school districts, or other bodies corporate and politic responsible for governmental activities in a geographic area smaller than that of the state.

Hamilton County Mathematics and Science Academy is a community school. Community schools are explicitly considered to be political subdivisions under Ohio Rev. Code § 2744.01, and community schools are “public school[s].” Ohio Rev. Code § 3314.01(B); *Cordray v. Internatl. Preparatory Sch.*, N.E.2d 1170, 1174.

Sales tax erroneously paid by a political subdivision, exempt from the sales tax under Ohio Rev. Code § 5739.02(B)(1), constitutes money owed to the political subdivision by virtue of the sales tax refund process provided for in Ohio Rev. Code § 5739.07. Under this refund process, a person has a legal right to claim and receive a refund for sales tax erroneously paid on a purchase that was properly subject to exemption. Generally, any refund application filed with the Tax Commissioner must be filed within four years from the date of the erroneous payment and is subject to the rules outlined in Ohio Admin. Code § 5703-9-07.

Board Members

Hamilton County Mathematics and Science Academy  
2675 Civic Center Drive  
Cincinnati, Ohio 45231

Page 3

**Finding for Recovery – Sales Tax (continued)**

Hamilton County Mathematics and Science Academy Policy 148.6 defined credit cards to include debit cards. Section 6.a. of the policy requires employees to inform merchants that the purchase is for "Official School Business" and is not subject to State or local sales tax. Section 6 further requires employees to provide all documentation of purchases, and upon receipt of appropriate documentation, the Treasurer's Office will pay credit card expenditures.

Contrary to Board policy, employees using the debit card of the Academy paid \$3,517.93 in sales tax on purchases of goods during fiscal year 2020. Pursuant to the policy of the Academy, the Treasurer had the responsibility to obtain appropriate documentation for all transactions charged on the debit card. When reviewing those receipts, it would have been apparent that sales tax was paid. As treasurer, Dan Mpagi has the responsibility to ensure that the public money of the school is spent responsibly and carefully and recovered if erroneously paid out. Accordingly, he should have endeavored to recover from vendors or from the Ohio Tax Commissioner any erroneously collected sales tax paid by the school. Because there is no indication that he attempted to recover the sales tax paid, a finding for recovery for public moneys due but not collected is being issued against the Treasurer.

Ohio Rev. Code § 117.24 requires the Auditor of State to determine whether "public money has been illegally expended, any public money collected has not been accounted for, any public money due has not been collected, or any public property has been converted or misappropriated. . ." These determinations in an audit report constitute "findings for recovery." Ohio Rev. Code § 9.24(H)(3).

In accordance with the foregoing facts, and pursuant to Ohio Rev. Code §§ 117.24 and 117.28, a Finding for Recovery for public money due but not collected is hereby issued jointly and severally against Dan Mpagi, Treasurer and his bonding company, Merchants Bonding Company, in the amount of \$3,517.93 in favor of Hamilton County Mathematics and Science Academy's General Fund.

Our review was made in reference to the applicable sections of legislative criteria, as reflected by the Ohio Constitution, and the Revised Code, policies, procedures and guidelines of the Auditor of State, regulations and grant requirements. The Hamilton County Mathematics and Science Academy is responsible for compliance with these laws and regulations.

KEITH FABER  
Ohio Auditor of State



Tiffany L. Ridenbaugh, CPA, CFE, CGFM  
Chief Deputy Auditor

January 14, 2026

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**HAMILTON COUNTY MATHEMATICS AND SCIENCE ACADEMY  
HAMILTON COUNTY, OHIO**

**TABLE OF CONTENTS**

Independent Auditor's Report .....	1 - 2
Management's Discussion and Analysis .....	4 - 8
Basic Financial Statements:	
Statement of Net Position.....	9
Statement of Revenues, Expenses and Changes in Net Position.....	10
Statement of Cash Flows.....	11
Notes to the Basic Financial Statements.....	12 - 33
Required Supplementary Information:	
Schedule of the Academy's Proportionate Share of the Net Pension Liability:	
School Employees Retirement System (SERS) of Ohio .....	35
Schedule of Academy's Contributions for Net Pension Liability:	
School Employees Retirement System (SERS) of Ohio .....	36
Schedule of the Academy's Proportionate Share of the Net Pension Liability:	
State Teachers Retirement System (STRS) of Ohio.....	37
Schedule of Academy's Contributions for Net Pension Liability:	
State Teachers Retirement System (STRS) of Ohio.....	38
Schedule of the Academy's Proportionate Share of the Net OPEB Liability:	
School Employees Retirement System (SERS) of Ohio .....	39
Schedule of Academy's Contributions for Net OPEB Liability:	
School Employees Retirement System (SERS) of Ohio .....	40
Schedule of the Academy's Proportionate Share of the Net OPEB (Asset)/Liability:	
State Teachers Retirement System (STRS) of Ohio.....	41
Schedule of Academy's Contributions for Net OPEB (Asset)/Liability:	
State Teachers Retirement System (STRS) of Ohio.....	42
Notes to the Required Supplementary Information .....	43 - 46
Independent Auditor's Report on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance With <i>Government Auditing Standards</i> .....	47 - 48
Schedule of Findings and Responses.....	49 - 50
Summary Schedule of Prior Audit Findings.....	51 - 52

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## Independent Auditor's Report

Hamilton County Mathematics and Science Academy  
Hamilton County  
2675 Civic Center Drive  
Cincinnati, Ohio 45231

To the Governing Board:

### ***Report on the Financial Statements***

We have audited the accompanying financial statements of the Hamilton County Mathematics and Science Academy, Hamilton County, Ohio, as of and for the fiscal year ended June 30, 2020, and the related notes to the financial statements, which collectively comprise the Hamilton County Mathematics and Science Academy'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 audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the financial audit standards in the Comptroller General of the United States' *Government Auditing Standards*. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the 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 Hamilton County Mathematics and Science Academy'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 Hamilton County Mathematics and Science Academy'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 qualified audit opinion.

### ***Basis for Qualified Opinion***

The Hamilton County Mathematics and Science Academy paid supplemental contracts and additional payments to several employees in the estimated amount of \$256,022, or approximately 8% of the total salary expense. We were unable to obtain sufficient appropriate audit evidence to support salary expense and possible related fringe benefit expense or substantiate that the additional duties in certain supplemental contracts did not overlap with duties listed in the initial annual contract and certain individual payments/stipends. Consequently, we were unable to determine whether any adjustments to these amounts were necessary.

Hamilton County Mathematics and Science Academy  
Hamilton County  
Independent Auditor's Report

***Qualified Opinion***

In our opinion, except for the possible effects of the matter described in the "Basis for Qualified Opinion" paragraph, the financial statements referred to above present fairly, in all material respects, the financial position of the Hamilton County Mathematics and Science Academy, Hamilton County, Ohio, as of June 30, 2020, and the changes in financial position and cash flows for the fiscal year then ended in accordance with accounting principles generally accepted in the United States of America.

***Other Matters***

***Required Supplementary Information***

Accounting principles generally accepted in the United States of America require that the *management's discussion and analysis, and schedules of net pension and other postemployment benefit assets and liabilities and pension and other postemployment benefit contributions* listed in the table of contents, be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

***Other Reporting Required by Government Auditing Standards***

In accordance with *Government Auditing Standards*, we have also issued our report dated July 31, 2024, on our consideration of the Hamilton County Mathematics and Science Academy's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely 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 effectiveness of the Hamilton County Mathematics and Science Academy's 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 the Hamilton County Mathematics and Science Academy's internal control over financial reporting and compliance.

*Julian & Grube, Inc.*

Julian & Grube, Inc.  
July 31, 2024

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**Hamilton County Mathematics and Science Academy**  
**Management's Discussion and Analysis**  
**For the Fiscal Year Ended June 30, 2020**  
**(Unaudited)**

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The discussion and analysis of Hamilton County Mathematics and Science Academy's (the Academy) financial performance provides an overall review of the financial activities for the fiscal year ended June 30, 2020. The intent of this discussion and analysis is to look at the Academy's financial performance as a whole; readers should also review the basic financial statements and notes to the basic financial statements to enhance their understanding of the Academy's financial performance.

### **Financial Highlights**

Key financial highlights for fiscal year 2020 are as follows:

- Total net position decreased \$450,391 during fiscal year 2020, which represents an 11% decrease from the prior year.
- Total assets increased \$89,815, which represents a 4% increase from the prior year.
- The Academy reported an operating loss of \$1,105,479 for fiscal year 2020. There was an increase in operating revenues of \$143,688 and an increase in operating expenses of \$662,282.

### **Using this Financial Report**

This financial report contains the basic financial statements of the Academy, as well as the management's discussion and analysis and the notes to the basic financial statements. The basic financial statements include a statement of net position, a statement of revenues, expenses and changes in net position, and a statement of cash flows. As the Academy reports its operations using enterprise fund accounting, all financial transactions and accounts are reported as one activity, therefore the entity-wide and fund presentation information is the same.

#### *Statement of Net Position and the Statement of Revenues, Expenses and Changes in Net Position*

The view of the Academy as a whole looks at all financial transactions and asks the question, "How did we do financially during 2020?" The statement of net position and the statement of revenue, expenses and changes in net position answer this question. These statements include all assets, liabilities, deferred inflows/outflows of resources, revenues, and expenses using the accrual basis of accounting similar to the accounting used by most private-sector companies. This basis of accounting considers all of the current year's revenues and expenses regardless of when cash is received or paid.

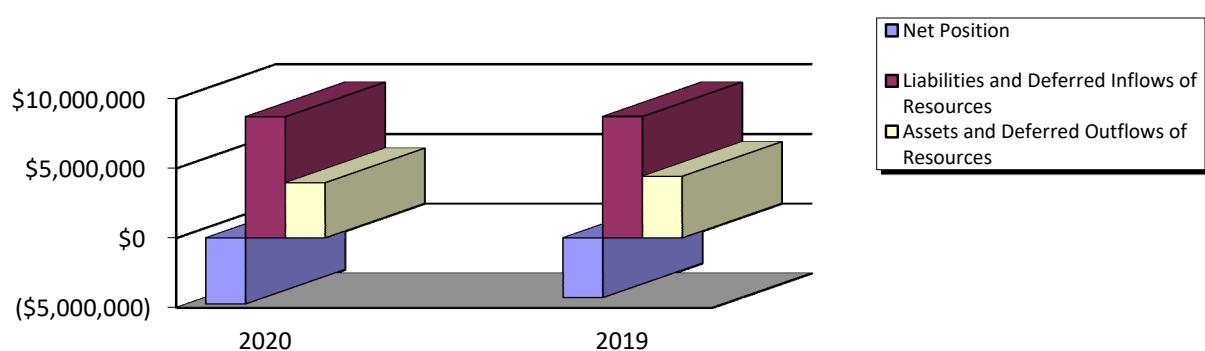
These two statements report the Academy's net position and changes in net position. This change in net position is important because it tells the reader whether, for the Academy as a whole, the financial position has improved or diminished. The causes of this may be the result of many factors, some financial, some not. Non-financial factors include current laws in Ohio restricting revenue growth, facility conditions, required educational programs and other factors.

Table 1 provides a summary of the Academy's net position at June 30, 2020 as compared to June 30, 2019.

**Hamilton County Mathematics and Science Academy**  
**Management's Discussion and Analysis**  
**For the Fiscal Year Ended June 30, 2020**  
**(Unaudited)**

**Table 1**  
**Net Position**

	Fiscal Year	
	2020	2019
<b>Assets:</b>		
Current and Other Assets	\$349,996	\$217,595
Net OPEB Asset	316,866	291,878
Capital Assets	<u>1,724,938</u>	<u>1,792,512</u>
<b>Total Assets</b>	<b><u>2,391,800</u></b>	<b><u>2,301,985</u></b>
<b>Deferred Outflows of Resources:</b>		
Pension	1,302,734	1,853,879
OPEB	<u>254,960</u>	<u>258,015</u>
<b>Total Deferred Outflows of Resources</b>	<b><u>1,557,694</u></b>	<b><u>2,111,894</u></b>
<b>Liabilities:</b>		
Other Liabilities	590,435	464,213
Long-Term Liabilities	<u>6,840,385</u>	<u>7,387,919</u>
<b>Total Liabilities</b>	<b><u>7,430,820</u></b>	<b><u>7,852,132</u></b>
<b>Deferred Inflows of Resources:</b>		
Pension	517,485	320,531
OPEB	<u>736,171</u>	<u>525,807</u>
<b>Total Deferred Inflows of Resources</b>	<b><u>1,253,656</u></b>	<b><u>846,338</u></b>
<b>Net Position:</b>		
Net Investment in Capital Assets	794,968	794,075
Restricted	56,718	5,870
Unrestricted	<u>(5,586,668)</u>	<u>(5,084,536)</u>
<b>Total Net Position</b>	<b><u>(\$4,734,982)</u></b>	<b><u>(\$4,284,591)</u></b>



Total assets increased by \$89,815. This increase was primarily due an increase in pooled cash and investments. Deferred outflows of resources decreased \$554,200 due to changes related to the net

**Hamilton County Mathematics and Science Academy**  
**Management's Discussion and Analysis**  
**For the Fiscal Year Ended June 30, 2020**  
**(Unaudited)**

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pension and other post employment benefits liabilities. Total liabilities decreased \$421,312 primarily due to a decrease in net pension liability and OPEB estimates. Deferred inflows of resources increased by \$407,318 due to changes related to the net pension and other post employment benefits liabilities.

Table 2 shows the changes in net position for fiscal years 2020 and 2019.

**Table 2**  
**Changes in Net Position**

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	Fiscal Year	
	2020	2019
Operating Revenues:		
State Foundation	\$4,605,241	\$4,451,117
Charges for Services	5,646	18,908
Other Operating Revenues	<u>107,710</u>	<u>104,884</u>
Total Operating Revenues	<u>4,718,597</u>	<u>4,574,909</u>
Operating Expenses:		
Salaries	3,109,668	2,869,817
Fringe Benefits	1,389,950	793,053
Purchased Services	957,202	1,096,559
Materials and Supplies	241,550	264,137
Depreciation	103,794	112,575
Other Operating Expenses	<u>21,912</u>	<u>25,653</u>
Total Operating Expenses	<u>5,824,076</u>	<u>5,161,794</u>
Operating (Loss)/Gain	<u>(1,105,479)</u>	<u>(586,885)</u>
Non-Operating Revenues (Expenses):		
Interest Revenue	47	28
Intergovernmental	698,570	614,888
Interest Expense	<u>(43,529)</u>	<u>(46,537)</u>
Total Non-Operating Revenues	<u>655,088</u>	<u>568,379</u>
Change in Net Position	<u>(450,391)</u>	<u>(18,506)</u>
Net Position - Beginning of Year	<u>(4,284,591)</u>	<u>(4,266,085)</u>
Net Position - End of Year	<u><b>(\$4,734,982)</b></u>	<u><b>(\$4,284,591)</b></u>

Total operating expenses increased from 2019 to 2020 mainly due to changes related to net pension liability and net OPEB liability.

Total operating revenues increased \$143,688 or 3.1% from the prior fiscal year. The increase was

**Hamilton County Mathematics and Science Academy**  
**Management's Discussion and Analysis**  
**For the Fiscal Year Ended June 30, 2020**  
**(Unaudited)**

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primarily due to an increase in state foundation revenues from the prior year. Nonoperating revenues from intergovernmental grants increased \$83,682 from the prior fiscal year due to an increase in awards of federal grants from the State.

**Capital Assets**

At the end of fiscal year 2020, the Academy had \$1,724,938 invested in land, a building, building and improvements, and furniture and equipment, which represented a decrease of \$67,574 from the prior fiscal year.

Table 3 shows capital assets, net of accumulated depreciation at June 30, 2020 as compared to June 30, 2019:

**Table 3**  
**Capital Assets at Year End**  
**(Net of Depreciation)**

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	<b>Fiscal Year</b>	
	<b>2020</b>	<b>2019</b>
Land	\$180,000	\$180,000
Building	1,191,858	1,232,956
Building and Improvements	282,757	319,150
Furniture and Equipment	70,323	60,406
	<b>\$1,724,938</b>	<b>\$1,792,512</b>

Capital assets decreased due to depreciation expense exceeding current year additions. For more information on capital assets, see note 4 of the notes to the basic financial statements.

**Debt**

At June 30, 2020, the Academy had \$929,970 in debt outstanding, of which \$71,614 is due within one year. Table 4 summarizes outstanding debt.

**Table 4**  
**Outstanding Debt**

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	<b>2020</b>	<b>2019</b>
Mortgage Promissory Note Payable	\$929,970	\$998,437

For more information on debt, see note 10 of the notes to the basic financial statements.

**Contacting the Academy's Financial Management**

This financial report is designed to provide a general overview of the Hamilton County Mathematics and Science Academy finances and to show the Academy's accountability for the money it receives to all vested and interested parties, as well as meeting the annual reporting requirements of the State of Ohio.

**Hamilton County Mathematics and Science Academy  
Management's Discussion and Analysis  
For the Fiscal Year Ended June 30, 2020  
(Unaudited)**

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Any questions about the information contained within this report or request for additional financial information should be directed to Hamilton County Mathematics and Science Academy, 2675 Civic Center Drive, Cincinnati, Ohio 45231.

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Hamilton County Mathematics and Science Academy  
 Statement of Net Position  
 June 30, 2020

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Assets:

Current Assets:

Equity in Pooled Cash and Cash Equivalents	\$242,232
Receivables:	
Intergovernmental	<u>107,764</u>
Total Current Assets	<u>349,996</u>

Noncurrent Assets:

Net OPEB Asset	316,866
Nondepreciable Capital Assets	180,000
Depreciable Capital Assets, Net	<u>1,544,938</u>
Total Noncurrent Assets	<u>2,041,804</u>
Total Assets	<u>2,391,800</u>

Deferred Outflows of Resources:

Pension	1,302,734
OPEB	<u>254,960</u>
Total Deferred Outflows of Resources	<u>1,557,694</u>

Liabilities:

Current Liabilities:

Accounts Payable	54,849
Accrued Wages and Benefits	406,983
Intergovernmental payable	56,989
Mortgage Payable	<u>71,614</u>
Total Current Liabilities	<u>590,435</u>

Long-Term Liabilities:

Mortgage Payable, Net of Current Portion	858,356
Net Pension Liability	5,480,042
Net OPEB Liability	<u>501,987</u>
Total Long-Term Liabilities	<u>6,840,385</u>

Total Liabilities

7,430,820

Deferred Inflows of Resources:

Pension	517,485
OPEB	<u>736,171</u>
Total Deferred Inflows of Resources	<u>1,253,656</u>

Net Position:

Net Investment in Capital Assets	794,968
Restricted	56,718
Unrestricted	<u>(5,586,668)</u>
Total Net Position	<u>(\$4,734,982)</u>

See accompanying notes to the basic financial statements.

Hamilton County Mathematics and Science Academy  
 Statement of Revenues, Expenses and Changes in Net Position  
 For the Fiscal Year Ended June 30, 2020

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Operating Revenues:	
Charges for Services	\$5,646
Foundation Payments	4,605,241
Other Operating Revenues	107,710
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Total Operating Revenues	4,718,597
Operating Expenses:	
Salaries	3,109,668
Fringe Benefits	1,389,950
Purchased Services	957,202
Materials and Supplies	241,550
Depreciation	103,794
Other	21,912
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Total Operating Expenses	5,824,076
Operating (Loss)	(1,105,479)
Non-Operating Revenues (Expenses):	
Investment Earnings	47
Interest (Expense)	(43,529)
Intergovernmental	698,570
	<hr/>
Total Non-Operating Revenues	655,088
Change in Net Position	(450,391)
Net Position - Beginning of Year	(4,284,591)
Net Position - End of Year	<u><u>(\$4,734,982)</u></u>

See accompanying notes to the basic financial statements.

Hamilton County Mathematics and Science Academy

Statement of Cash Flows

For the Fiscal Year Ended June 30, 2020

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Cash Flows from Operating Activities:

Cash Received from State Foundation	\$4,608,032
Cash Received from Charges for Services	7,154
Cash Received from Other Operating Revenue	111,577
Cash Payments to Employees for Salaries and Benefits	(3,859,315)
Cash Payments to Purchased Services	(1,039,486)
Cash Payments for Materials and Supplies	(226,882)
Cash Payments for Other Expenses	<u>(13,194)</u>

Net Cash (Used) in Operating Activities

(412,114)

Cash Flows from Noncapital Financing Activities:

Cash Received from Grants	<u>740,206</u>
Net Cash Provided by Noncapital Financing Activities	<u>740,206</u>

Cash Flows from Capital and Related Financing Activities:

Payments for Capital Acquisitions	(36,220)
Debt Principal Payments	(68,467)
Debt Interest Payments	<u>(43,529)</u>

Net Cash (Used) in Capital and Related Financing Activities

(148,216)

Cash Flows from Investing Activities:

Earnings on Investments	<u>51</u>
Net Cash Provided by Cash Flows from Investing Activities	<u>51</u>
Net Increase (Decrease) in Cash and Cash Equivalents	179,927
Cash and Cash Equivalents - Beginning of Year	<u>62,305</u>
Cash and Cash Equivalents - End of Year	<u>242,232</u>

Reconciliation of Operating (Loss) to Net Cash Gained (Used) in Operating Activities:

Operating (Loss)	(1,105,479)
<b>Adjustments:</b>	
Depreciation	103,794
Changes in Assets & Liabilities and deferred Inflows and Outflows:	
(Increase) Decrease in Receivables	5,886
(Increase) Decrease in OPEB Asset	(24,988)
(Increase) Decrease in Deferred Outflows of Resources	554,200
Increase (Decrease) in Payables	(61,813)
Increase (Decrease) in Accrued Liabilities	184,888
Increase (Decrease) in Deferred Inflows of Resources	407,318
Increase (Decrease) in Net Pension Liability	(191,166)
Increase (Decrease) in Net OPEB Liability	<u>(284,754)</u>
Net Cash (Used) in Operating Activities	<u>(\$412,114)</u>

See accompanying notes to the basic financial statements.

## **Hamilton County Mathematics and Science Academy**

### **Notes to the Basic Financial Statements**

#### **For the Fiscal Year Ended June 30, 2020**

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#### **Note 1 – Description of the Reporting Entity**

Hamilton County Mathematics and Science Academy, Hamilton County, Ohio (the Academy), is a nonprofit corporation established pursuant to Ohio Revised Code Chapters 3314 and 1702 to address the needs of students in kindergarten through grade eight. The Academy, which is part of the State's education program, is independent of any school Academy. The Academy may sue and be sued, acquire facilities as needed, and contract for any services necessary for the operation of the Academy.

The Academy was approved for operation under contract with the Ohio Department of Education (the Sponsor) for a period of five years commencing July 1, 2001. However, the Ohio State Board of Education subsequently decided to suspend its sponsorship of community schools and the Academy obtained Lucas County Educational Service Center as its sponsor for the school year beginning July 1, 2005. Lucas County Educational Service Center was replaced by Educational Resource Consultants of Ohio Inc. as the Academy's sponsor in January 2006. Educational Resource Consultants of Ohio Inc. continued as the Academy's sponsor through June 2017. Buckeye Community Hope Foundation became the new sponsor effective July 1, 2017 and continued through the fiscal year.

The Academy operates under the direction of a five-member Board of Governors (the Board). The Board is responsible for carrying out the provisions of the contract with the Sponsor, which include, but are not limited to, state-mandated provisions regarding student population, curriculum, academic goals, performance standards, admission standards, and qualifications of teachers. The Board controls the Academy's one instructional/support facility staffed by 35 full-time teaching personnel who provided services to 619 FTE students.

#### **Note 2 – Summary of Significant Accounting Policies**

The Academy's financial statements have been prepared in conformity with generally accepted accounting principles (GAAP) as applied to governmental nonprofit organizations. The Governmental Accounting Standards Board (GASB) is the accepted standard-setting body for establishing governmental accounting and financial reporting principles. The more significant of the Academy's accounting policies are described below.

#### **Basis of Presentation**

The Academy's basic financial statements consist of a statement of net position, a statement of revenues, expenses and changes in net position, and a statement of cash flows. The Academy uses enterprise accounting to maintain its financial records. Enterprise fund reporting focuses on the determination of the change in net position, financial position and cash flows.

#### **Measurement Focus and Basis of Accounting**

Enterprise accounting uses a flow of economic resources measurement focus. With this measurement focus, all assets, liabilities, and deferred inflows/outflows of resources are included on the statement of net position. The statement of revenues, expenses and changes in net position presents increases (e.g. revenues) and decreases (e.g. expenses) in total net position. The statement of cash flows reflects how the Academy finances and meets its cash flow needs.

## **Hamilton County Mathematics and Science Academy**

### **Notes to the Basic Financial Statements**

#### **For the Fiscal Year Ended June 30, 2020**

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#### **Basis of Accounting**

Basis of accounting determines when transactions are recorded in the financial records and reported on the financial statements. The Academy's financial statements are prepared using the accrual basis of accounting.

Revenue resulting from exchange transactions, in which each party gives and receives essentially equal value, is recorded on the accrual basis when the exchange takes place.

Non-exchange transactions, in which the Academy receives value without directly giving equal value in return, include grants, entitlements, and donations. Revenue from grants, entitlements, and donations is recognized in the fiscal year in which all eligibility requirements have been satisfied. Eligibility requirements include timing requirements, which specify the year when the resources are required to be used or the fiscal year when use is first permitted; matching requirements, in which the Academy must provide local resources to be used for a specified purpose; and expenditure requirements, in which the resources are provided to the Academy on a reimbursement basis.

Expenses are recognized at the time they are incurred.

#### **Budgetary Process**

Unlike other public schools located in the State of Ohio, community schools are not required to follow budgetary provisions set forth in Ohio Revised Code Chapter 5705, unless specifically provided in the contract between the Academy and its Sponsor. The contract between the Academy and its Sponsor does not prescribe a formal budgetary process for the Academy; therefore, no budgetary information is presented in the financial statements.

#### **Cash and Cash Equivalents**

All monies received by the Academy are maintained in demand deposit accounts. For internal accounting purposes, the Academy segregates its cash into separate bank accounts. Total cash is presented as "cash and cash equivalents" on the accompanying statement of net position.

#### **Capital Assets and Depreciation**

Capital assets are capitalized at cost (or estimated historical cost) and updated for additions and retirements during the year. Donated capital assets are recorded at their acquisition values as of the date received. The Academy maintains a capitalization threshold of one thousand dollars. Improvements are capitalized; the costs of normal maintenance and repairs that do not add to the value of the asset or materially extend an asset's life are not.

All reported capital assets, except land, are depreciated. Improvements are depreciated over the remaining useful lives of the related capital assets. Depreciation is computed using the straight-line method over the following useful lives:

<u>Description</u>	<u>Estimated Lives</u>
Building	40 Years
Building and Improvements	15 Years
Furniture and Equipment	5 Years

## **Hamilton County Mathematics and Science Academy**

### **Notes to the Basic Financial Statements**

#### **For the Fiscal Year Ended June 30, 2020**

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#### **Net Position**

Net position represents the difference between assets and deferred outflows of resources and liabilities and deferred inflows of resources. Net investment in capital assets consist of capital assets, net of accumulated depreciation, reduced by the outstanding balances of any borrowings used for the acquisition, construction, or improvement of those assets. Net position is reported as restricted when there are limitations imposed on its use either through the enabling legislation adopted by the Academy or through external restrictions imposed by creditors, grantors, or laws or regulations of other governments. Restricted net position represents amounts restricted for federal and state grant programs. The Academy first applies restricted resources when an expense is incurred for purposes for which both restricted and unrestricted net position is available.

#### **Operating Revenues and Expenses**

Operating revenues are those revenues that are generated directly from the primary activities of the Academy. For the Academy, these revenues are primarily foundation payments and certain charges to students recorded as tuition and fees or charges for services. Operating expenses are necessary costs incurred to provide the goods or services that occur in carrying out the primary activity of the Academy, including depreciation.

Nonoperating revenues and expenses are those that are not generated directly by the Academy's primary mission. Various intergovernmental grants, interest revenue and interest expense comprise the nonoperating revenues and expenses of the Academy.

#### **Accrued Liabilities Payable**

The Academy has recognized certain liabilities on its statement of net position relating to expenses, which are due but unpaid as of June 30, 2020, including:

*Wages Payable* – Salary payments made after fiscal year-end that were for services rendered in fiscal year 2020. Teaching personnel are paid in 24 equal installments, ending with the first pay period in August, for services rendered during the previous school year. Therefore, a liability has been recognized at June 30, 2020 for all salary payments made to teaching personnel during the months of July and beginning of August 2020.

*Intergovernmental payable* – Payments made for the employer's share of the retirement contributions (\$56,989), associated with services rendered during fiscal year 2020, but that were not paid until the subsequent fiscal year are the major expense in this category.

#### **Federal Tax Exemption Status**

The Academy is a non-profit organization that has been determined by the Internal Revenue Service to be exempt from federal income taxes as a tax-exempt organization under Section 501(c)(3) of the Internal Revenue Code.

#### **Estimates**

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect amounts reported in the financial statements and accompanying notes. Actual results may differ from those estimates.

## **Hamilton County Mathematics and Science Academy**

### **Notes to the Basic Financial Statements**

#### **For the Fiscal Year Ended June 30, 2020**

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#### **Pensions/Other Postemployment Benefits (OPEB)**

For purposes of measuring the net pension/OPEB liability, deferred outflows of resources and deferred inflows of resources related to pensions/OPEB, and pension/OPEB expense, information about the fiduciary net position of the pension/OPEB plans and additions to/deductions from their fiduciary net position have been determined on the same basis as they are reported by the pension/OPEB plan. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. The pension/OPEB plans report investments at fair value.

#### **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. Deferred outflows of resources represent a consumption of net position that applies to a future period and will not be recognized as an outflow of resources (expense/expenditure) until then. For the Academy, deferred outflows of resources includes pension and other post employment benefits. These amounts are reported on the government-wide statement of net position. The deferred outflows of resources related to pensions and OPEB plans are discussed in Notes 7 and 8.

In addition to liabilities, the statement of net position will sometimes report a separate section for deferred inflows of resources. Deferred inflows of resources represent an acquisition of net position that applies to a future period and will not be recognized as an inflow of resources (revenue) until that time. For the Academy, deferred inflows of resources include amounts related to OPEB and pensions, which will be further discussed in Notes 7 and 8.

#### **Note 3 – Deposits**

Custodial credit risk for deposits is the risk that in the event of bank failure, the Academy will not be able to recover deposits or collateral securities that are in the possession of an outside party. As of June 30, 2020, \$0 of the Academy's bank balance of \$247,100 was exposed to custodial credit risk because it was insured by the FDIC.

#### **Note 4 – Capital Assets**

Capital asset activity for the fiscal year ended June 30, 2020:

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## Hamilton County Mathematics and Science Academy

### Notes to the Basic Financial Statements

For the Fiscal Year Ended June 30, 2020

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	Beginning Balance	Additions	Deletions	Ending Balance
<b><i>Capital Assets, not being depreciated:</i></b>				
Land	\$180,000	\$0	\$0	\$180,000
<b><i>Capital Assets, being depreciated:</i></b>				
Building	1,643,937	0	0	1,643,937
Building and Improvements	545,907	0	0	545,907
Furniture and Equipment	551,307	36,220	0	587,527
Totals at Historical Cost	<u>2,921,151</u>	<u>36,220</u>	<u>0</u>	<u>2,957,371</u>
Less Accumulated Depreciation:				
Building	410,981	41,098	0	452,079
Building and Improvements	226,757	36,393	0	263,150
Furniture and Equipment	490,901	26,303	0	517,204
Total Accumulated Depreciation	<u>1,128,639</u>	<u>103,794</u>	<u>0</u>	<u>1,232,433</u>
Capital Assets, Net	<u>\$1,792,512</u>	<u>(\$67,574)</u>	<u>\$0</u>	<u>\$1,724,938</u>

### Note 5 – Receivables

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Receivables at June 30, 2020 primarily consist of intergovernmental receivables arising from grants, entitlements, and shared revenues. All receivables are considered collectible in full. A summary of the principal items of receivables follows:

Receivables	Amounts
IDEA-Part B	\$24,001
Title I-A	39,777
Title II-A	610
Due From SERS	34,664
Casino Tax	<u>8,712</u>
Total	<u>\$107,764</u>

### Note 6 – Risk Management

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#### Property and Liability

The Academy is exposed to various risks of loss related to torts; theft of, damage to and destruction of assets; errors and omissions; injuries to employees; and natural disasters. For fiscal year 2020, the Academy contracted with Philadelphia Insurance Company for general liability coverage of \$3 million, automobile liability coverage of \$1 million, and umbrella coverage of \$5 million.

There have been no significant reductions in insurance coverage from the prior fiscal year. Settled claims have not exceeded commercial coverage in any of the past four fiscal years.

#### Worker's Compensation

The Academy pays the State Worker's Compensation System a premium for employee injury coverage. The premium is calculated by multiplying the monthly total gross payroll by a factor that is calculated by the State.

## **Hamilton County Mathematics and Science Academy**

### **Notes to the Basic Financial Statements**

**For the Fiscal Year Ended June 30, 2020**

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#### **Note 7 - Defined Benefit Pension Plans**

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The Statewide retirement systems provide both pension benefits and other postemployment benefits (OPEB).

#### **Net Pension Liability/Net OPEB Liability (Asset)**

Pensions and OPEB are a component of exchange transactions between an employer and its employees of salaries and benefits for employee services. Pensions/OPEB are provided to an employee on a deferred payment basis as part of the total compensation package offered by an employer for employee services each financial period.

The net pension/OPEB liability (asset) represent the employer's proportionate share of each pension/OPEB plan's collective actuarial present value of projected benefit payments attributable to past periods of service, net of each pension/OPEB plan's fiduciary net position. The net pension/OPEB liability (asset) calculation is dependent on critical long-term variables, including estimated average life expectancies, earnings on investments, cost of living adjustments and others. While these estimates use the best information available, unknowable future events require adjusting these estimates annually.

Ohio Revised Code limits the employer's obligation for this liability to annually required payments. The employer cannot control benefit terms or the manner in which pensions/OPEB are financed; however, the employer does receive the benefit of employees' services in exchange for compensation including pension and OPEB.

GASB 68/75 assumes the liability is solely the obligation of the employer, because (1) they benefit from employee services; and (2) State statute requires funding to come from these employers. All pension contributions to date have come solely from these employers (which also includes pension costs paid in the form of withholdings from employees). The retirement systems may allocate a portion of the employer contributions to provide for these OPEB benefits. In addition, health care plan enrollees pay a portion of the health care costs in the form of a monthly premium. State statute requires the retirement systems to amortize unfunded pension liabilities within 30 years. If the pension amortization period exceeds 30 years, each retirement system's board must propose corrective action to the State legislature. Any resulting legislative change to benefits or funding could significantly affect the net pension/OPEB liability (asset). Resulting adjustments to the net pension/OPEB liability (asset) would be effective when the changes are legally enforceable. The Ohio Revised Code permits, but does not require the retirement systems to provide healthcare to eligible benefit recipients.

The remainder of this note includes the required pension disclosures. See Note 8 for the required OPEB disclosures.

#### **Plan Description - School Employees Retirement System (SERS)**

##### **Plan Description**

Non-teaching employees participate in SERS, a cost-sharing multiple-employer defined benefit pension plan administered by SERS. SERS provides retirement, disability and survivor benefits, annual cost-of-living adjustments, and death benefits to plan members and beneficiaries. Authority to establish and amend benefits is provided by Ohio Revised Code Chapter 3309. SERS issues a publicly available, stand-alone financial report that includes financial statements, required supplementary information and detailed information about SERS' fiduciary net position. That report can be obtained by visiting the SERS website at [www.ohsers.org](http://www.ohsers.org) under Employers/Audit Resources.

## **Hamilton County Mathematics and Science Academy**

### **Notes to the Basic Financial Statements**

#### **For the Fiscal Year Ended June 30, 2020**

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Age and service requirements for retirement are as follows:

	<b>Eligible to Retire on or before August 1, 2017 *</b>	<b>Eligible to Retire on or after August 1, 2017</b>
Full Benefits	Any age with 30 years of service credit	Age 67 with 10 years of service credit; or Age 57 with 30 years of service credit
Actuarially Reduced Benefits	Age 60 with 5 years of service credit Age 55 with 25 years of service credit	Age 62 with 10 years of service credit; or Age 60 with 25 years of service credit

\* Members with 25 years of service credit as of August 1, 2017, will be included in this plan.

Annual retirement benefits are calculated based on final average salary multiplied by a percentage that varies based on years of service; 2.2 percent for the first thirty years of service and 2.5 percent for years of service credit over 30. Final average salary is the average of the highest three years of salary.

An individual whose benefit effective date is before April 1, 2018, is eligible for a cost of living adjustment (COLA) on the first anniversary date of the benefit. Beginning April 1, 2018, new benefit recipients must wait until the fourth anniversary of their benefit for COLA eligibility. The COLA is added each year to the base benefit amount on the anniversary date of the benefit. A three-year COLA suspension is in effect for all benefit recipients for the years 2018, 2019, and 2020. Upon resumption of the COLA, it will be indexed to the percentage increase in the CPI-W, not to exceed 2.5 percent and with a floor of 0 percent.

#### **Funding Policy**

Plan members are required to contribute 10 percent of their annual covered salary and the employer is required to contribute 14 percent of annual covered payroll. The contribution requirements of plan members and employers are established and may be amended by the SERS' Retirement Board up to statutory maximum amounts of 10 percent for plan members and 14 percent for employers. The Retirement Board, acting with the advice of the actuary, allocates the employer contribution rate among four of the System's funds (Pension Trust Fund, Death Benefit Fund, Medicare B Fund, and Health Care Fund). For the fiscal year ended June 30, 2020, the allocation to pension, death benefits, and Medicare B was 14.0 percent. For fiscal year 2020, the Retirement Board did not allocate any employer contribution to the Health Care Fund.

The contractually required contribution to SERS was \$99,331 for fiscal year 2020. Of this amount \$0 is reported as intergovernmental payables.

#### **Plan Description - State Teachers Retirement System (STRS)**

##### **Plan Description**

Licensed teachers and other faculty members participate in STRS Ohio, a cost-sharing multiple employer public employee system administered by STRS. STRS provides retirement and disability benefits to members and death and survivor benefits to beneficiaries. STRS issues a stand-alone financial report that includes financial statements, required supplementary information, and detailed information about STRS' fiduciary net position. That report can be obtained by writing to STRS, 275 E. Broad St., Columbus, OH 43215-3771, by calling (888) 227-7877, or by visiting the STRS Web site at [www.strsoh.org](http://www.strsoh.org).

## **Hamilton County Mathematics and Science Academy**

### **Notes to the Basic Financial Statements**

#### **For the Fiscal Year Ended June 30, 2020**

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New members have a choice of three retirement plans; a Defined Benefit (DB) Plan, a Defined Contribution (DC) Plan, and a Combined Plan. Benefits are established by Ohio Revised Code Chapter 3307.

The DB plan offers an annual retirement allowance based on final average salary multiplied by a percentage that varies based on years of service. Effective August 1, 2015, the calculation is 2.2 percent of final average salary for the five highest years of earnings multiplied by all years of service. In April 2017, the Retirement Board made the decision to reduce COLA granted on or after July 1, 2017, to 0 percent to preserve the fiscal integrity of the retirement system. Benefit recipients' base benefit and past cost-of living increases are not affected by this change. Effective Aug. 1, 2017 through July 1, 2019, any member could retire with reduced benefits who had (1) five years of service credit and age 60; (2) 27 years of service credit and age 55; or (3) 30 years of service credit regardless of age. Effective Aug. 1, 2019–July 1, 2021, any member may retire with reduced benefits who has (1) five years of service credit and age 60; (2) 28 years of service credit and age 55; or (3) 30 years of service credit regardless of age. Eligibility changes will be phased in until August 1, 2026, when retirement eligibility for unreduced benefits will be five years of service credit and age 65, or 35 years of service credit and at least age 60.

Eligibility changes for DB Plan members who retire with actuarially reduced benefits will be phased in until August 1, 2023, when retirement eligibility will be five years of qualifying service credit and age 60, or 30 years of service credit at any age.

The DC Plan allows members to place all their member contributions and 9.53 percent of the 14 percent employer contributions into an investment account. The member determines how to allocate the member and employer money among various investment choices offered by STRS. The remaining 4.47 percent of the 14 percent employer rate is allocated to the defined benefit unfunded liability. A member is eligible to receive a retirement benefit at age 50 and termination of employment. The member may elect to receive a lifetime monthly annuity or a lump sum withdrawal.

The Combined Plan offers features of both the DB Plan and the DC Plan. In the Combined Plan, 12 percent of the 14 percent member rate is deposited into the member's DC account and the remaining 2 percent is applied to the DB Plan. Member contributions to the DC Plan are allocated among investment choices by the member, and contributions to the DB Plan from the employer and the member are used to fund the defined benefit payment at a reduced level from the regular DB Plan. The defined benefit portion of the Combined Plan payment is payable to a member on or after age 60 with five years of service. The defined contribution portion of the account may be taken as a lump sum payment or converted to a lifetime monthly annuity at age fifty and after termination of employment.

New members who choose the DC plan or Combined Plan will have another opportunity to reselect a permanent plan during their fifth year of membership. Members may remain in the same plan or transfer to another STRS plan. The optional annuitization of a member's defined contribution account or the defined contribution portion of a member's Combined Plan account to a lifetime benefit results in STRS bearing the risk of investment gain or loss on the account. STRS has therefore included all three plan options as one defined benefit plan for GASB 68 reporting purposes.

A DB or Combined Plan member with five or more years of credited service who is determined to be disabled may qualify for a disability benefit. New members must have at least ten years of qualifying service credit that apply for disability benefits. Members in the DC Plan who become disabled are entitled only to their account balance. Eligible survivors of members who die before service retirement may qualify for monthly benefits. If a member of the DC Plan dies before retirement benefits begin, the member's designated beneficiary is entitled to receive the member's account balance.

## Hamilton County Mathematics and Science Academy

### Notes to the Basic Financial Statements

For the Fiscal Year Ended June 30, 2020

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#### Funding Policy

Employer and member contribution rates are established by the State Teachers Retirement Board and limited by Chapter 3307 of the Ohio Revised Code. The fiscal year 2020 employer and employee contribution rate of 14 percent was equal to the statutory maximum rates. For fiscal year 2020, the full employer contribution was allocated to pension.

The contractually required contribution to STRS was \$333,934 for fiscal year 2020. Of this amount \$36,057 is reported as intergovernmental payables.

#### Net Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

The net pension liability was measured as of June 30, 2019, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of that date. The employer's proportion of the net pension liability was based on the employer's share of contributions to the pension plan relative to the contributions of all participating entities. Following is information related to the proportionate share and pension expense:

	SERS	STRS	Total
Proportionate Share of the Net Pension Liability	\$1,249,197	\$4,230,845	\$5,480,042
Proportion of the Net Pension Liability:			
Current Measurement Date	0.02087850%	0.01913163%	
Prior Measurement Date	<u>0.02928740%</u>	<u>0.01816404%</u>	
Change in Proportionate Share	-0.00840890%	0.00096759%	
Pension Expense	\$181,470	\$808,728	\$990,198

At June 30 2020, reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	SERS	STRS	Total
<u>Deferred Outflows of Resources</u>			
Differences between expected and actual experience	\$31,677	\$34,446	\$66,123
Changes of assumptions	0	496,994	496,994
Changes in employer proportionate share of net pension liability	88,528	217,824	306,352
Contributions subsequent to the measurement date	<u>99,331</u>	<u>333,934</u>	<u>433,265</u>
Total Deferred Outflows of Resources	<u>\$219,536</u>	<u>\$1,083,198</u>	<u>\$1,302,734</u>
<u>Deferred Inflows of Resources</u>			
Differences between expected and actual experience	\$0	\$18,314	\$18,314
Net difference between projected and actual earnings on pension plan investments	16,035	206,781	222,816
Changes in employer proportionate share of net pension liability	276,355	0	276,355
Total Deferred Inflows of Resources	<u>\$292,390</u>	<u>\$225,095</u>	<u>\$517,485</u>

## **Hamilton County Mathematics and Science Academy**

### **Notes to the Basic Financial Statements**

#### **For the Fiscal Year Ended June 30, 2020**

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\$433,265 reported as deferred outflows of resources related to pension resulting from contributions subsequent to the measurement date will be recognized as a reduction of the net pension liability in the year ending June 30, 2021. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pension will be recognized in pension expense as follows:

Fiscal Year			
Ending June 30:	SERS	STRS	Total
2021	(\$62,487)	\$337,687	\$275,200
2022	(117,725)	112,849	(4,876)
2023	(1,067)	11,670	10,603
2024	9,094	61,963	71,057
Total	<u>(\$172,185)</u>	<u>\$524,169</u>	<u>\$351,984</u>

#### **Actuarial Assumptions - SERS**

SERS' total pension liability was determined by their actuaries in accordance with GASB Statement No. 67, as part of their annual actuarial valuation for each defined benefit retirement plan. Actuarial valuations of an ongoing plan involve estimates of the value of reported amounts (e.g., salaries, credited service) and assumptions about the probability of occurrence of events far into the future (e.g., mortality, disabilities, retirements, employment termination). Actuarially determined amounts are subject to continual review and potential modifications, as actual results are compared with past expectations and new estimates are made about the future.

Projections of benefits for financial reporting purposes are based on the substantive plan (the plan as understood by the employers and plan members) and include the types of benefits provided at the time of each valuation and the historical pattern of sharing benefit costs between the employers and plan members to that point. The projection of benefits for financial reporting purposes does not explicitly incorporate the potential effects of legal or contractual funding limitations.

Actuarial calculations reflect a long-term perspective. For a newly hired employee, actuarial calculations will take into account the employee's entire career with the employer and also take into consideration the benefits, if any, paid to the employee after termination of employment until the death of the employee and any applicable contingent annuitant. In many cases actuarial calculations reflect several decades of service with the employer and the payment of benefits after termination.

Key methods and assumptions used in calculating the total pension liability in the latest actuarial valuation, prepared as of June 30, 2019, are presented below:

Inflation	3.00%
Future Salary Increases, including inflation	3.50% - 18.20%
COLA or Ad Hoc COLA	2.50%
Investment Rate of Return	7.50% net of investments expense, including inflation
Actuarial Cost Method	Entry Age Normal (Level Percent of Payroll)

Mortality rates were based on the RP-2014 Blue Collar Mortality Table with fully generational projection and a five year age set-back for both males and females. Mortality among service retired members, and beneficiaries were based upon the RP-2014 Blue Collar Mortality Table with fully generational projection with Scale BB, 120 percent of male rates, and 110 percent of female rates. Mortality among disabled

## **Hamilton County Mathematics and Science Academy**

### **Notes to the Basic Financial Statements**

#### **For the Fiscal Year Ended June 30, 2020**

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members were based upon the RP-2000 Disabled Mortality Table, 90 percent for male rates and 100 percent for female rates, set back five years is used for the period after disability retirement. The most recent experience study was completed for the five year period ended June 30, 2015.

The long-term return expectation for the Pension Plan Investments has been determined by using a building-block approach and assumes a time horizon, as defined in SERS' Statement of Investment Policy. A forecasted rate of inflation serves as the baseline for the return expectation. Various real return premiums over the baseline inflation rate have been established for each asset class. The long-term expected nominal rate of return has been determined by calculating an arithmetic weighted average of the expected real return premiums for each asset class, adding the projected inflation rate, and adding the expected return from rebalanced uncorrelated asset classes.

Asset Class	Target Allocation	Long-Term	
		Expected Real Rate of Return	
Cash	1.00%	0.50%	
US Equity	22.50%	4.75%	
International Equity	22.50%	7.00%	
Fixed Income	19.00%	1.50%	
Private Equity	10.00%	8.00%	
Real Assets	15.00%	5.00%	
Multi-Asset Strategies	10.00%	3.00%	
Total	<u>100.00%</u>		

#### **Discount Rate**

The total pension liability was calculated using the discount rate of 7.50 percent. The projection of cash flows used to determine the discount rate assumed the contributions from employers and from the members would be computed based on contribution requirements as stipulated by State statute. Projected inflows from investment earning were calculated using the long-term assumed investment rate of return (7.50 percent). Based on those assumptions, the plan's fiduciary net position was projected to be available to make all 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 benefits to determine the total pension liability.

#### **Sensitivity of the Proportionate Share of the Net Pension Liability to Changes in the Discount Rate**

Net pension liability is sensitive to changes in the discount rate, and to illustrate the potential impact the following table presents the net pension liability calculated using the discount rate of 7.50 percent, as well as what each plan's net pension liability would be if it were calculated using a discount rate that is one percentage point lower (6.50 percent), or one percentage point higher (8.50 percent) than the current rate.

	1% Decrease 6.50%	Current Discount Rate 7.50%	1% Increase 8.50%
Proportionate share of the net pension liability	\$1,750,572	\$1,249,197	\$828,732

#### **Actuarial Assumptions - STRS**

Key methods and assumptions used in the latest actuarial valuation, reflecting experience study results used in the July 1, 2019, actuarial valuation, are presented below:

## Hamilton County Mathematics and Science Academy

### Notes to the Basic Financial Statements

#### For the Fiscal Year Ended June 30, 2020

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Inflation	2.50%
Projected salary increases	12.50% at age 20 to 2.50% at age 65
Investment Rate of Return	7.45%, net of investment expenses, including inflation
Discount Rate of Return	7.45%
Payroll Increases	3.00%
Cost-of-Living Adjustments (COLA)	0%

Post-retirement mortality rates for healthy retirees are based on the RP-2014 Annuitant Mortality Table with 50 percent of rates through age 69, 70 percent of rates between ages 70 and 79, 90 percent of rates between ages 80 and 84, and 100 percent of rates thereafter, projected forward generationally using mortality improvement scale MP-2016. Pre-retirement mortality rates are based on RP-2014 Employee Mortality Table, projected forward generationally using mortality improvement scale MP-2016. Post-retirement disabled mortality rates are based on the RP-2014 Disabled Mortality Table with 90 percent of rates for males and 100 percent of rates for females, projected forward generationally using mortality improvement scale MP-2016.

Actuarial assumptions used in the July 1, 2019, valuation are based on the results of an actuarial experience study for the period July 1, 2011 through June 30, 2016.

STRS' investment consultant develops an estimate range for the investment return assumption based on the target allocation adopted by the Retirement Board. The target allocation and long-term expected rate of return for each major asset class are summarized as follows:

Asset Class	Target Allocation*	Long-Term Expected Rate of Return **
Domestic Equity	28.00%	7.35%
International Equity	23.00%	7.55%
Alternatives	17.00%	7.09%
Fixed Income	21.00%	3.00%
Real Estate	10.00%	6.00%
Liquidity Reserves	<u>1.00%</u>	2.25%
Total	<u>100.00%</u>	

\* Target weights will be phased in over a 24-month period concluding on July 1, 2019.

\*\*10 Year annualized geometric nominal returns, which include the real rate of return and inflation of 2.25% and does not include investment expenses. Over a 30-year period, STRS' investment consultant indicates that the above target allocations should generate a return above the actuarial rate of return, without net value added by management.

#### Discount Rate

The discount rate used to measure the total pension liability was 7.45 percent as of June 30, 2019. The projection of cash flows used to determine the discount rate assumes that member and employer contributions will be made at the statutory contribution rates in accordance with rate increases described above. For this purpose, only employer contributions that are intended to fund benefits of current plan members and their beneficiaries are included. Based on those assumptions, STRS' fiduciary net position was projected to be available to make all projected future benefit payments to current plan members as of June 30, 2019. Therefore, the long-term expected rate of return on pension plan investments of 7.45 percent was applied to all periods of projected benefit payment to determine the total pension liability as of June 30, 2019.

## **Hamilton County Mathematics and Science Academy**

### **Notes to the Basic Financial Statements**

**For the Fiscal Year Ended June 30, 2020**

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#### **Sensitivity of the Proportionate Share of the Net Pension Liability to Changes in the Discount Rate**

The following table presents the proportionate share of the net pension liability calculated using the current period discount rate assumption of 7.45 percent, 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 (6.45 percent) or one-percentage-point higher (8.45 percent) than the current rate:

	1% Decrease 6.45%	Current Discount Rate 7.45%	1% Increase 8.45%
Proportionate share of the net pension liability	\$6,182,909	\$4,230,845	\$2,578,323

#### **Note 8 - Defined Benefit OPEB Plans**

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See Note 7 for a description of the net OPEB liability (asset).

#### **Plan Description - School Employees Retirement System (SERS)**

##### **Health Care Plan Description**

The employer contributes to the SERS Health Care Fund, administered by SERS for non-certificated retirees and their beneficiaries. For GASB 75 purposes, this plan is considered a cost-sharing other postemployment benefit (OPEB) plan. SERS' Health Care Plan provides healthcare benefits to eligible individuals receiving retirement, disability, and survivor benefits, and to their eligible dependents. Members who retire after June 1, 1986, need 10 years of service credit, exclusive of most types of purchased credit, to qualify to participate in SERS' health care coverage. In addition to age and service retirees, disability benefit recipients and beneficiaries who are receiving monthly benefits due to the death of a member or retiree, are eligible for SERS' health care coverage. Most retirees and dependents choosing SERS' health care coverage are over the age of 65 and therefore enrolled in a fully insured Medicare Advantage plan; however, SERS maintains a traditional, self-insured preferred provider organization for its non-Medicare retiree population. For both groups, SERS offers a self-insured prescription drug program. Health care is a benefit that is permitted, not mandated, by statute. The financial report of the Plan is included in the SERS Comprehensive Annual Financial Report which can be obtained on SERS' website at [www.ohsers.org](http://www.ohsers.org) under Employers/Audit Resources.

Access to health care for retirees and beneficiaries is permitted in accordance with Section 3309 of the Ohio Revised Code. The Health Care Fund was established and is administered in accordance with Internal Revenue Code Section 105(e). SERS' Retirement Board reserves the right to change or discontinue any health plan or program. Active employee members do not contribute to the Health Care Plan. The SERS Retirement Board established the rules for the premiums paid by the retirees for health care coverage for themselves and their dependents or for their surviving beneficiaries. Premiums vary depending on the plan selected, qualified years of service, Medicare eligibility, and retirement status.

##### **Funding Policy**

State statute permits SERS to fund the health care benefits through employer contributions. Each year, after the allocation for statutorily required pensions and benefits, the Retirement Board may allocate the remainder of the employer contribution of 14 percent of covered payroll to the Health Care Fund in accordance with the funding policy. For fiscal year 2020, no allocation was made to health care. An additional health care surcharge on employers is collected for employees earning less than an actuarially determined minimum compensation amount, pro-rated if less than a full year of service credit was earned. For fiscal year 2020, this amount was \$19,600. Statutes provide that no employer shall pay a

## **Hamilton County Mathematics and Science Academy**

### **Notes to the Basic Financial Statements**

#### **For the Fiscal Year Ended June 30, 2020**

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health care surcharge greater than 2 percent of that employer's SERS-covered payroll; nor may SERS collect in aggregate more than 1.5 percent of the total statewide SERS-covered payroll for the health care surcharge. For fiscal year 2020, the employer's surcharge obligation was \$4,198.

The surcharge, added to any allocated portion of the 14 percent employer contribution rate is the total amount assigned to the Health Care Fund. The contractually required contribution to SERS was \$4,198 for fiscal year 2020. Of this amount \$4,198 is reported as intergovernmental payables.

#### **Plan Description - State Teachers Retirement System (STRS)**

##### **Plan Description**

The State Teachers Retirement System of Ohio (STRS) administers a cost-sharing Health Plan administered for eligible retirees who participated in the defined benefit or combined pension plans offered by STRS. Ohio law authorizes STRS to offer this plan. Benefits include hospitalization, physicians' fees, prescription drugs and partial reimbursement of monthly Medicare Part B premiums. Medicare Part B premium reimbursements will be discontinued effective January 1, 2021. The Plan is included in the report of STRS which can be obtained by visiting [www.strsoh.org](http://www.strsoh.org) or by calling (888) 227-7877.

##### **Funding Policy**

Ohio Revised Code Chapter 3307 authorizes STRS to offer the Plan and gives the Retirement Board discretionary authority over how much, if any, of the health care costs will be absorbed by STRS. Active employee members do not contribute to the Health Care Plan. All benefit recipients pay a portion of the health care costs in the form of a monthly premium. Under Ohio law, funding for post-employment health care may be deducted from employer contributions, currently 14 percent of covered payroll. For fiscal year ended June 30, 2020, STRS did not allocate any employer contributions to post-employment health care.

#### **Net OPEB Liabilities (Assets), OPEB Expense (Income), and Deferred Outflows of Resources and Deferred Inflows of Resources Related to OPEB**

The net OPEB liability (asset) was measured as of June 30, 2019, and the total OPEB liability used to calculate the net OPEB liability (asset) was determined by an actuarial valuation as of that date. The employer's proportion of the net OPEB liability (asset) was based on the employer's share of contributions to the respective retirement systems relative to the contributions of all participating entities. Following is information related to the proportionate share:

	<u>SERS</u>	<u>STRS</u>	<u>Total</u>
Proportionate Share of the Net OPEB Liability	\$501,987	\$0	\$501,987
Proportionate Share of the Net OPEB (Asset)	0	(316,866)	(316,866)
<b>Proportion of the Net OPEB Liability/Asset:</b>			
Current Measurement Date	0.01996140%	0.01913163%	
Prior Measurement Date	<u>0.02835850%</u>	<u>0.01816404%</u>	
Change in Proportionate Share	-0.00839710%	0.00096759%	
OPEB Expense	\$842	(\$92,966)	(\$92,124)

At June 30 2020, reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources:

**Hamilton County Mathematics and Science Academy**

**Notes to the Basic Financial Statements**

**For the Fiscal Year Ended June 30, 2020**

	SERS	STRS	Total
<b><u>Deferred Outflows of Resources</u></b>			
Differences between expected and actual experience	\$7,369	\$28,726	\$36,095
Changes of assumptions	36,665	6,660	43,325
Net difference between projected and actual earnings on OPEB plan investments	1,205	0	1,205
Changes in employer proportionate share of net OPEB liability	149,804	20,333	170,137
Contributions subsequent to the measurement date	4,198	0	4,198
<b>Total Deferred Outflows of Resources</b>	<b>\$199,241</b>	<b>\$55,719</b>	<b>\$254,960</b>
<b><u>Deferred Inflows of Resources</u></b>			
Differences between expected and actual experience	\$110,283	\$16,122	\$126,405
Changes of assumptions	28,130	347,406	375,536
Net difference between projected and actual earnings on OPEB plan investments	0	19,901	19,901
Changes in employer proportionate share of net OPEB liability	214,329	0	214,329
<b>Total Deferred Inflows of Resources</b>	<b>\$352,742</b>	<b>\$383,429</b>	<b>\$736,171</b>

\$4,198 reported as deferred outflows of resources related to OPEB resulting from contributions subsequent to the measurement date will be recognized as a reduction of the net OPEB liability (adjustment to net OPEB asset) in the year ending June 30, 2021. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to OPEB will be recognized in OPEB expense as follows:

Fiscal Year Ending June 30:	SERS	STRS	Total
2021	(\$36,047)	(\$71,594)	(\$107,641)
2022	(19,507)	(71,593)	(91,100)
2023	(19,153)	(63,617)	(82,770)
2024	(19,211)	(60,819)	(80,030)
2025	(38,782)	(61,927)	(100,709)
Thereafter	(24,999)	1,840	(23,159)
<b>Total</b>	<b>(\$157,699)</b>	<b>(\$327,710)</b>	<b>(\$485,409)</b>

**Actuarial Assumptions - SERS**

The total OPEB liability is determined by SERS' actuaries in accordance with GASB Statement No. 74, as part of their annual actuarial valuation for each retirement plan. Actuarial valuations of an ongoing plan involve estimates of the value of reported amounts (e.g., salaries, credited service) and assumptions about the probability of occurrence of events far into the future (e.g., mortality, disabilities, retirements, employment terminations). Actuarially determined amounts are subject to continual review and potential modifications, as actual results are compared with past expectations and new estimates are made about the future.

## **Hamilton County Mathematics and Science Academy**

### **Notes to the Basic Financial Statements**

#### **For the Fiscal Year Ended June 30, 2020**

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Projections of benefits for financial reporting purposes are based on the substantive plan (the plan as understood by the employers and plan members) and include the types of benefits provided at the time of each valuation and the historical pattern of sharing benefit costs between the employers and plan members to that point. The projection of benefits for financial reporting purposes does not explicitly incorporate the potential effects of legal or contractual funding limitations.

Actuarial calculations reflect a long-term perspective. For a newly hired employee, actuarial calculations will take into account the employee's entire career with the employer and also take into consideration the benefits, if any, paid to the employee after termination of employment until the death of the employee and any applicable contingent annuitant. In many cases, actuarial calculations reflect several decades of service with the employer and the payment of benefits after termination.

Key methods and assumptions used in calculating the total OPEB liability in the latest actuarial valuation date of June 30, 2019, are presented below:

Inflation	3.00%
Future Salary Increases, including inflation	3.50% to 18.20%
Investment Rate of Return	7.50% net of investment expense, including inflation
<b>Municipal Bond Index Rate:</b>	
Measurement Date	3.13%
Prior Measurement Date	3.62%
<b>Single Equivalent Interest Rate, net of plan investment expense, including price inflation:</b>	
Measurement Date	3.22%
Prior Measurement Date	3.70%
<b>Medical Trend Assumption:</b>	
Medicare	5.25% to 4.75%
Pre-Medicare	7.00% to 4.75%

Mortality rates among active members were based on the RP-2014 Blue Collar Mortality Table with fully generational projection and Scale BB, 120 percent of male rates and 110 percent of female rates. RP-2000 Disabled Mortality Table with 90 percent for male rates and 100 percent for female rates set back five years. The most recent experience study was completed for the five year period ended June 30, 2015.

The long-term expected rate of return on plan assets is reviewed as part of the actuarial five-year experience study. The most recent study covers fiscal years 2010 through 2015, and was adopted by the Board on April 21, 2016. Several factors are considered in evaluating the long-term rate of return assumption including long-term historical data, estimates inherent in current market data, and a log-normal distribution analysis in which best-estimate ranges of expected future real rates of return were developed by the investment consultant for each major asset class. These ranges were combined to produce the long-term expected rate of return, 7.50 percent, by weighting the expected future real rates of return by the target asset allocation percentage and then adding expected inflation. The capital market assumptions developed by the investment consultant are intended for use over a 10-year horizon and may not be useful in setting the long-term rate of return for funding pension plans which covers a longer timeframe. The assumption is intended to be a long-term assumption and is not expected to change absent a significant change in the asset allocation, a change in the inflation assumption, or a fundamental change in the market that alters expected returns in future years.

## Hamilton County Mathematics and Science Academy

### Notes to the Basic Financial Statements

#### For the Fiscal Year Ended June 30, 2020

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The target asset allocation and best estimates of arithmetic real rates of return for each major asset class, as used in the June 30, 2015 five-year experience study, are summarized as follows:

Asset Class	Target Allocation	Long-Term
		Expected Real Rate of Return
Cash	1.00%	0.50%
US Equity	22.50%	4.75%
International Equity	22.50%	7.00%
Fixed Income	19.00%	1.50%
Private Equity	10.00%	8.00%
Real Assets	15.00%	5.00%
Multi-Asset Strategies	10.00%	3.00%
Total	<u>100.00%</u>	

#### Discount Rate

The discount rate used to measure the total OPEB liability at June 30, 2019 was 3.22 percent. The discount rate used to measure total OPEB liability prior to June 30, 2019, was 3.70 percent. The projection of cash flows used to determine the discount rate assumed that contributions will be made from members and the System at the state statute contribution rate of 2.00 percent of projected covered employee payroll each year, which includes a 1.50 percent payroll surcharge and 0.50 percent of contributions from the basic benefits plan. Based on these assumptions, the OPEB plan's fiduciary net position was projected to become insufficient to make future benefit payments during the fiscal year ending June 30, 2025. Therefore, the long-term expected rate of return on OPEB plan assets was used to present value the projected benefit payments through the fiscal year ending June 30, 2024 and the Fidelity General Obligation 20-year Municipal Bond Index rate of 3.13 percent, as of June 30, 2019 (i.e. municipal bond rate), was used to present value the projected benefit payments for the remaining years in the projection. The total present value of projected benefit payments from all years was then used to determine the single rate of return that was used as the discount rate. The projection of future benefit payments for all current plan members was until the benefit payments ran out.

#### Sensitivity of the Proportionate Share of the Net OPEB Liability to Changes in the Discount Rate and Changes in the Health Care Cost Trend Rates

The net OPEB liability is sensitive to changes in the discount rate and the health care cost trend rate. The following table presents the net OPEB liability of SERS, what SERS' net OPEB liability would be if it were calculated using a discount rate that is 1 percentage point lower (2.22%) and higher (4.22%) than the current discount rate (3.22%). Also shown is what SERS' net OPEB liability would be based on health care cost trend rates that are 1 percentage point lower (6.00% decreasing to 3.75%) and higher (8.00% decreasing to 5.75%) than the current rate.

	1% Decrease (2.22%)	Current Discount Rate (3.22%)	1% Increase (4.22%)
Proportionate share of the net OPEB liability	\$609,317	\$501,987	\$416,647
	1% Decrease (6.00% decreasing to 3.75%)	Current Trend Rate (7.00% decreasing to 4.75%)	1% Increase (8.00% decreasing to 5.75%)
Proportionate share of the net OPEB liability	\$402,193	\$501,987	\$634,389

## **Hamilton County Mathematics and Science Academy**

### **Notes to the Basic Financial Statements**

#### **For the Fiscal Year Ended June 30, 2020**

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#### **Assumption and Benefit Changes since the Prior Measurement Date**

Amounts reported for the fiscal year incorporate changes in key methods and assumptions used in calculating the total OPEB liability as presented below:

(1) Discount Rate:

Prior Measurement Date	3.70%
Measurement Date	3.22%

(2) Municipal Bond Index Rate:

Prior Measurement Date	3.62%
Measurement Date	3.13%

(3) Single Equivalent Interest Rate, net of plan investment expense, including price inflation:

Prior Measurement Date	3.70%
Measurement Date	3.22%

#### **Actuarial Assumptions - STRS**

Key methods and assumptions used in the latest actuarial valuation, reflecting experience study results used in the June 30, 2019, actuarial valuation are presented below:

Inflation	2.50%
Projected salary increases	12.50% at age 20 to 2.50% at age 65
Investment Rate of Return	7.45%, net of investment expenses, including inflation
Payroll Increases	3.00%
Discount Rate of Return	7.45%
Health Care Cost Trends:	
Medical	
Pre-Medicare	5.87% initial, 4% ultimate
Medicare	4.93% initial, 4% ultimate
Prescription Drug	
Pre-Medicare	7.73% initial, 4% ultimate
Medicare	9.62% initial, 4% ultimate

Projections of benefits include the historical pattern of sharing benefit costs between the employers and retired plan members.

For healthy retirees the mortality rates are based on the RP-2014 Annuitant Mortality Table with 50 percent of rates through age 69, 70 percent of rates between ages 70 and 79, 90 percent of rates between ages 80 and 84, and 100 percent of rates thereafter, projected forward generationally using mortality improvement scale MP-2016. For disabled retirees, mortality rates are based on the RP-2014 Disabled Mortality Table with 90 percent of rates for males and 100 percent of rates for females, projected forward generationally using mortality improvement scale MP-2016.

Actuarial assumptions used in the June 30, 2019, valuation are based on the results of an actuarial experience study for the period July 1, 2011 through June 30, 2016.

STRS' investment consultant develops an estimate range for the investment return assumption based on the target allocation adopted by the Retirement Board. The target allocation and long-term expected rate of return for each major asset class are summarized as follows:

## Hamilton County Mathematics and Science Academy

### Notes to the Basic Financial Statements

For the Fiscal Year Ended June 30, 2020

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Asset Class	Target Allocation*	Long-Term Expected Rate of Return**
Domestic Equity	28.00%	7.35%
International Equity	23.00%	7.55%
Alternatives	17.00%	7.09%
Fixed Income	21.00%	3.00%
Real Estate	10.00%	6.00%
Liquidity Reserves	1.00%	2.25%
<b>Total</b>	<b><u>100.00%</u></b>	

\* Target weights will be phased in over a 24-month period concluding on July 1, 2019.

\*\*10 Year annualized geometric nominal returns, which include the real rate of return and inflation of 2.25% and does not include investment expenses. Over a 30-year period, STRS' investment consultant indicates that the above target allocations should generate a return above the actuarial rate of return, without net value added by management.

#### Discount Rate

The discount rate used to measure the total OPEB liability was 7.45 percent as of June 30, 2019 and June 30, 2018. The projection of cash flows used to determine the discount rate assumed STRS continues to allocate no employer contributions to the health care fund. Based on these assumptions, the OPEB plan's fiduciary net position was projected to be available to make all projected future benefit payments to current plan members as of June 30, 2019. Therefore, the long-term expected rate of return on health care plan investments of 7.45 percent was used to measure the total OPEB liability as of June 30, 2019 and June 30, 2018.

#### Sensitivity of the Proportionate Share of the Net OPEB (Asset) to Changes in the Discount and Health Care Cost Trend Rate

The following table represents the net OPEB asset as of June 30, 2019, calculated using the current period discount rate assumption of 7.45 percent, as well as what the net OPEB asset would be if it were calculated using a discount rate that is one percentage point lower (6.45 percent) or one percentage point higher (8.45 percent) than the current assumption. Also shown is the net OPEB asset as if it were calculated using health care cost trend rates that are one percentage point lower or one percentage point higher than the current health care cost trend rates.

	1% Decrease (6.45%)	Current Discount Rate (7.45%)	1% Increase (8.45%)
Proportionate share of the net OPEB (asset)	(\$270,382)	(\$316,866)	(\$355,948)
	1% Decrease	Current Trend Rate	1% Increase
Proportionate share of the net OPEB (asset)	(\$359,311)	(\$316,866)	(\$264,880)

#### Assumption and Benefit Changes since the Prior Measurement Date

There was no change to the claims costs process. Claim curves were trended to the fiscal year ending June 30, 2020 to reflect the current price renewals. The non-Medicare subsidy percentage was increased effective January 1, 2020 from 1.944 percent to 1.984 percent per year of service. The non-Medicare

## **Hamilton County Mathematics and Science Academy**

### **Notes to the Basic Financial Statements**

#### **For the Fiscal Year Ended June 30, 2020**

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frozen subsidy base premium was increased effective January 1, 2020. The Medicare subsidy percentages were adjusted effective January 1, 2021 to 2.1 percent for the Medicare plan. The Medicare Part B monthly reimbursement elimination date was postponed to January 1, 2021.

There were changes in assumptions, which increased the total OPEB liability by approximately \$0.04 billion. The assumption changes included changes in healthcare costs and trends.

#### **Note 9 – Other Employee Benefits**

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##### **Compensated Absences**

The criteria for determining vacation and sick leave components are derived from policies and procedures approved by the Board of Governors. Administrators and classified staff earn up to ten days of vacation per year, depending upon the position, schedule hours, and length of service.

Each full-time employee receives three personal days per calendar year. Personal days not used at the end of the calendar year are lost.

Each full-time employee can earn sick leave up to a maximum of 15 days.

##### **Insurance Benefits**

The Academy provides health and life insurance to all employees through a private carrier.

#### **Note 10 - Long-Term Obligations**

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The changes in the Academy's long-term obligations during the fiscal year consist of the following:

	<u>Beginning Outstanding</u>	<u>Additions</u>	<u>Deductions</u>	<u>Ending Outstanding</u>	<u>Due In One Year</u>
Direct Borrowing:					
Promissory Note-Foundation Bank	\$998,437	\$0	\$68,467	\$929,970	\$71,614
Net Pension Liability:					
STRS	3,993,864	236,981	0	4,230,845	0
SERS	1,677,344	0	428,147	1,249,197	0
Total Net Pension Liability	5,671,208	236,981	428,147	5,480,042	0
Net OPEB Liability:					
STRS	0	0	0	0	(a) 0
SERS	786,741	0	284,754	501,987	0
Total Net OPEB Liability	786,741	0	284,754	501,987	0
Total Long-Term Obligations	<u>\$7,456,386</u>	<u>\$236,981</u>	<u>\$781,368</u>	<u>\$6,911,999</u>	<u>\$71,614</u>

(a) OPEB for STRS has a Net OPEB asset in the amount of \$316,866 as of June 30, 2020.

The Academy purchased a building (located at 2675 Civic Center Drive, Cincinnati, Ohio) in March 2010 for \$1,800,000 through PNC Bank with a \$1,440,000 mortgage, 60 month note at 6% containing a balloon payment in March 2015. The Academy received extensions on the loan until it was able to refinance it in November 2015.

## **Hamilton County Mathematics and Science Academy**

### **Notes to the Basic Financial Statements**

#### **For the Fiscal Year Ended June 30, 2020**

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On November 12, 2015, the Academy signed a promissory note with Foundation Bank to refinance existing loans and notes. The note was issued for \$1,220,000 at a fixed interest rate of 4.5%. Commencing on December 12, 2015, the Academy was required to make monthly principal and interest payments of approximately \$9,333 for 46 months with a balloon payment due on November 12, 2021. This note is secured by a mortgage on the Academy's building.

Principal and interest obligations on the promissory note are as follows:

Fiscal Year Ending June 30:	Promissory Note - Foundation Bank		
	Principal	Interest	Total
2021	\$71,614	\$40,382	\$111,996
2022	858,354	15,865	874,219
	<u>\$929,968</u>	<u>\$56,247</u>	<u>\$986,215</u>

There is no repayment schedule for the net pension liability and net OPEB liability; however, employer pension and OPEB contributions are made from the fund benefitting from their service.

#### **Note 11 – Contingencies**

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##### **Litigation**

The Academy is not currently party to litigation.

##### **Grants**

The Academy received financial assistance from federal and state agencies in the form of grants. The expenditure of funds received under these programs generally requires compliance with terms and conditions specified in the grant agreements and is subject to audit by the grantor agencies. Any disallowed claims resulting from such audits could become a liability of the Academy. However, in the opinion of management, any such disallowed claims will not have a material adverse effect on the overall financial position of the Academy at June 30, 2020.

#### **Note 12 – Purchased Services**

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For the fiscal year ended June 30, 2020, purchased services expenses were payments for services rendered by various vendors as follows:

Professional and Technical Services	\$330,993
Property Services	214,710
Communication	92,343
Utilities	74,097
Food Service	198,946
Other	<u>46,113</u>
Total Purchased Services	<u>\$957,202</u>

**Hamilton County Mathematics and Science Academy**

**Notes to the Basic Financial Statements**

**For the Fiscal Year Ended June 30, 2020**

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**Note 13 – Implementation of New Accounting Principles**

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For fiscal year 2020, the Academy has postponed implementation of Governmental Accounting Standards Board (GASB) Statement No. 84, Fiduciary Activities, GASB No. 88, Certain Disclosures Related to Debt, including Direct Borrowings and Direct Placements, and GASB No. 90, Majority Equity Interests – An Amendment of GASB Statements No. 14 and No. 61. The District did not implement these statements due to the GASB postponing the implementation by 12 months because of the COVID-19 pandemic.

**Note 14 – COVID-19**

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The United States and the State of Ohio declared a state of emergency in March 2020 due to the COVID-19 pandemic. Ohio's state of emergency ended in June 2021 while the national state of emergency ended in April 2023. The Academy will continue to spend available COVID-19 funding consistent with the applicable program guidelines.

**Note 15 – Subsequent Event**

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During November 2020, the Academy signed a promissory note with First Commonwealth Bank to refinance existing notes. The note was issued for \$906,461 at a fixed interest rate of 4.5%

# **R**EQUIRED **S**UPPLEMENTARY **I**NFORMATION

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Hamilton County Mathematics and Science Academy  
 Required Supplementary Information  
 Schedule of the Academy's Proportionate Share of the Net Pension Liability  
 School Employees Retirement System of Ohio  
Last Seven Fiscal Years (1) (2)

Year	Academy's Proportion of the Net Pension Liability	Academy's Proportionate Share of the Net Pension Liability	Academy's Covered Payroll	Academy's Proportionate Share of the Net Pension Liability as a Percentage of its Covered Payroll	Plan Fiduciary Net Position Percentage as a of the Total Pension Liability
2020	0.02087850%	\$1,249,197	\$714,170	174.92%	70.85%
2019	0.02987400%	1,677,344	728,956	230.10%	71.36%
2018	0.02151490%	1,285,468	780,843	164.63%	69.50%
2017	0.02171680%	1,589,469	707,743	224.58%	62.98%
2016	0.02144864%	1,223,880	642,003	190.63%	69.16%
2015	0.01881499%	952,216	539,827	176.39%	71.70%
2014	0.01881499%	1,118,867	585,036	191.25%	65.52%

(1) The schedule is intended to show information for the past 10 years and the additional years' information will be displayed as it becomes available. Information prior to 2014 is not available.

(2) Amounts presented as of the Academy's measurement date which is the prior fiscal year end.

See accompanying notes to the required supplementary information.

Hamilton County Mathematics and Science Academy  
 Required Supplementary Information  
 Schedule of Academy's Contributions for Net Pension Liability  
 School Employees Retirement System of Ohio  
Last Ten Fiscal Years

Year	Academy's Contractually Required Contribution	Academy's Contributions in Relation to the Contractually Required Contributions	Academy's Contribution Deficiency (Excess)	Academy's Covered Payroll	Academy's Contributions as a Percentage of Covered Payroll
2020	\$99,331	(\$99,331)	\$0	\$709,507	14.00%
2019	96,413	(96,413)	0	714,170	13.50%
2018	98,409	(98,409)	0	728,956	13.50%
2017	109,318	(109,318)	0	780,843	14.00%
2016	99,084	(99,084)	0	707,743	14.00%
2015	84,616	(84,616)	0	642,003	13.18%
2014	74,820	(74,820)	0	539,827	13.86%
2013	80,969	(80,969)	0	585,036	13.84%
2012	74,082	(74,082)	0	535,275	13.84%
2011	67,332	(67,332)	0	486,503	13.84%

See accompanying notes to the required supplementary information.

Hamilton County Mathematics and Science Academy  
 Required Supplementary Information  
 Schedule of the Academy's Proportionate Share of the Net Pension Liability  
 State Teachers Retirement System of Ohio  
Last Seven Fiscal Years (1) (2)

Year	Academy's Proportion of the Net Pension Liability	Academy's Proportionate Share of the Net Pension Liability	Academy's Covered Payroll	Academy's Proportionate Share of the Net Pension Liability as a Percentage of its Covered Payroll	Plan Fiduciary Net Position Percentage as a of the Total Pension Liability
2020	0.01913163%	\$4,230,845	\$2,179,500	194.12%	77.40%
2019	0.01816404%	3,993,864	2,218,843	180.00%	77.30%
2018	0.01804910%	4,287,602	2,008,079	213.52%	75.30%
2017	0.01767787%	5,917,316	1,946,793	303.95%	66.80%
2016	0.01743332%	4,818,060	1,876,436	256.77%	72.10%
2015	0.01483001%	3,607,172	1,556,246	231.79%	74.70%
2014	0.01483001%	4,296,840	1,644,046	261.36%	69.30%

(1) The schedule is intended to show information for the past 10 years and the additional years' information will be displayed as it becomes available. Information prior to 2014 is not available.

(2) Amounts presented as of the Academy's measurement date which is the prior fiscal year end.

See accompanying notes to the required supplementary information.

Hamilton County Mathematics and Science Academy  
 Required Supplementary Information  
 Schedule of Academy's Contributions for Net Pension Liability  
 State Teachers Retirement System of Ohio  
Last Ten Fiscal Years

Year	Academy's Contractually Required Contribution	Academy's Contributions in Relation to the Contractually Required Contributions	Academy's Contribution Deficiency (Excess)	Academy's Covered Payroll	Academy's Contributions as a Percentage of Covered Payroll
2020	\$333,934	(\$333,934)	\$0	\$2,385,243	14.00%
2019	305,130	(305,130)	0	2,179,500	14.00%
2018	310,638	(310,638)	0	2,218,843	14.00%
2017	281,131	(281,131)	0	2,008,079	14.00%
2016	272,551	(272,551)	0	1,946,793	14.00%
2015	262,701	(262,701)	0	1,876,436	14.00%
2014	202,312	(202,312)	0	1,556,246	13.00%
2013	213,726	(213,726)	0	1,644,046	13.00%
2012	204,028	(204,028)	0	1,569,446	13.00%
2011	228,408	(228,408)	0	1,756,985	13.00%

See accompanying notes to the required supplementary information.

Hamilton County Mathematics and Science Academy  
 Required Supplementary Information  
 Schedule of the Academy's Proportionate Share of the Net OPEB Liability  
 School Employees Retirement System of Ohio  
Last Four Fiscal Years (1) (2)

Year	Academy's Proportion of the Net OPEB Liability	Academy's Proportionate Share of the Net OPEB Liability	Academy's Covered Payroll	Academy's Proportionate Share of the Net OPEB Liability as a Percentage of its Covered Payroll	Plan Fiduciary Net Position Percentage as a of the Total OPEB Liability
2020	0.01996140%	\$501,987	\$714,170	70.29%	15.57%
2019	0.02835850%	786,741	728,956	107.93%	13.57%
2018	0.02096610%	562,675	780,843	72.06%	12.46%
2017	0.02140734%	610,188	707,743	86.22%	11.49%

(1) The schedule is intended to show information for the past 10 years and the additional years' information will be displayed as it becomes available. Information prior to 2017 is not available.

(2) Amounts presented as of the Academy's measurement date which is the prior fiscal year end.

See accompanying notes to the required supplementary information.

Hamilton County Mathematics and Science Academy  
 Required Supplementary Information  
 Schedule of Academy's Contributions for Net OPEB Liability  
 School Employees Retirement System of Ohio  
Last Five Fiscal Years (1) (2)

Year	Academy's Contractually Required Contribution (2)	Academy's Contributions in Relation to the Contractually Required Contributions	Academy's Contribution Deficiency (Excess)	Academy's Covered Payroll	Academy's Contributions as a Percentage of Covered Payroll
2020	\$4,198	(\$4,198)	\$0	\$709,507	0.59%
2019	9,030	(9,030)	0	714,170	1.26%
2018	12,954	(12,954)	0	728,956	1.78%
2017	7,419	(7,419)	0	780,843	0.95%
2016	8,257	(8,257)	0	707,743	1.17%

(1) The schedule is intended to show information for the past 10 years and the additional years' information will be displayed as it becomes available. Information prior to 2016 is not available.

(2) Includes surcharge.

See accompanying notes to the required supplementary information.

Hamilton County Mathematics and Science Academy

Required Supplementary Information

Schedule of the Academy's Proportionate Share of the Net OPEB (Asset)/Liability

State Teachers Retirement System of Ohio

Last Four Fiscal Years (1) (2)

Year	Academy's Proportion of the Net OPEB (Asset)/Liability	Academy's Proportionate Share of the Net OPEB (Asset)/Liability	Academy's Covered Payroll	Academy's Proportionate Share of the Net OPEB (Asset)/Liability as a Percentage of its Covered Payroll	Plan Fiduciary Net Position Percentage as a of the Total OPEB (Asset)/Liability
2020	0.01913163%	(\$316,866)	\$2,179,500	(14.54%)	174.74%
2019	0.01816404%	(291,878)	2,218,843	(13.15%)	176.00%
2018	0.01804910%	704,209	2,008,079	35.07%	47.10%
2017	0.01767787%	945,417	1,946,793	48.56%	37.30%

(1) The schedule is intended to show information for the past 10 years and the additional years' information will be displayed as it becomes available. Information prior to 2017 is not available.

(2) Amounts presented as of the Academy's measurement date which is the prior fiscal year end.

See accompanying notes to the required supplementary information.

Hamilton County Mathematics and Science Academy  
 Required Supplementary Information  
 Schedule of Academy's Contributions for Net OPEB (Asset)/Liability  
 State Teachers Retirement System of Ohio  
Last Five Fiscal Years (1)

Year	Academy's Contractually Required Contribution	Academy's Contributions in Relation to the Contractually Required Contributions	Academy's Contribution Deficiency (Excess)	Academy's Covered Payroll	Academy's Contributions as a Percentage of Covered Payroll
2020	\$0	\$0	\$0	\$2,385,243	0.00%
2019	0	0	0	2,179,500	0.00%
2018	0	0	0	2,218,843	0.00%
2017	0	0	0	2,008,079	0.00%
2016	0	0	0	1,946,793	0.00%

(1) The schedule is intended to show information for the past 10 years and the additional years' information will be displayed as it becomes available. Information prior to 2016 is not available.

See accompanying notes to the required supplementary information.

**Hamilton County Mathematics and Science Academy**  
**Notes to the Required Supplementary Information**  
**For the Fiscal Year Ended June, 30, 2020**

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**Note 1 - Net Pension Liability**

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**School Employees Retirement System (SERS)**

**Changes in Benefit Terms:**

2020: There were no changes in benefit terms from the amounts reported for this fiscal year.

2019: With the authority granted the Board under Senate Bill 8, the Board has enacted a three year COLA delay for future benefit recipients commencing benefits on or after April 1, 2018.

2018: SERS changed from a fixed 3% annual increase to a Cost of Living Adjustment (COLA) based on the changed in the Consumer Price Index Index (CPI-W), with a cap of 2.5% and a floor of 0%.

2014-2017: There were no changes in benefit terms from the amounts reported for these fiscal years.

**Changes in Assumptions:**

2018-2020: There were no changes in methods and assumptions used in the calculation of actuarial determined contributions for these fiscal years.

2017: The following changes of assumptions affected the total pension liability since the prior measurement date:

- (1) The assumed rate of inflation was reduced from 3.25% to 3.00%,
- (2) Payroll growth assumption was reduced from 4.00% to 3.50%,
- (3) Assumed real wage growth was reduced from 0.75% to 0.50%,
- (4) Rates of withdrawal, retirement and disability were updated to reflect recent experience,
- (5) Mortality among active members was updated to RP-2014 Blue Collar Mortality Table with fully generational projection and a five year age set-back for both males and females,
- (6) Mortality among service retired members, and beneficiaries was updated to the following RP-2014 Blue Collar Mortality Table with fully generational projection with Scale BB, 120% of male rates, and 110% of female rates,
- (7) Mortality among disabled members was updated to RP-2000 Disabled Mortality Table, 90% for male rates and 100% for female rates, set back five years is used for the period after disability retirement, and
- (8) The discount rate was reduced from 7.75% to 7.50%.

2014-2016: There were no changes in methods and assumptions used in the calculation of actuarial determined contributions for these fiscal years.

**State Teachers Retirement System (STRS)**

**Changes in Benefit Terms:**

2019-2020: There were no changes in benefit terms from the amounts reported for these fiscal years.

2018: STRS decreased the Cost of Living Adjustment (COLA) to zero.

2014-2017: There were no changes in benefit terms from the amounts reported for these fiscal years.

**Changes in Assumptions:**

2019-2020: There were no changes in methods and assumptions used in the calculation of actuarial determined contributions for these fiscal years.

**Hamilton County Mathematics and Science Academy**  
**Notes to the Required Supplementary Information**  
**For The Fiscal Year Ended June, 30, 2020**

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2018: The following changes of assumptions affected the total pension liability since the prior measurement date:

- (1) The long term expected rate of return was reduced from 7.75% to 7.45%,
- (2) The inflation assumption was lowered from 2.75% to 2.50%,
- (3) The payroll growth assumption was lowered to 3.00%,
- (4) Total salary increases rate was lowered by decreasing the merit component of the individual salary increases, in addition to a decrease of 0.25% due to lower inflation,
- (5) The healthy and disabled mortality assumptions were updated to the RP-2014 mortality tables with generational improvement scale MP-2016, and
- (6) Rates of retirement, termination and disability were modified to better reflect anticipated future experience.

2014-2017: There were no changes in methods and assumptions used in the calculation of actuarial determined contributions for these fiscal years.

**Note 2 - Net OPEB (Asset)/Liability**

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**School Employees Retirement System (SERS)**

**Changes in Benefit Terms:**

2017-2020: There were no changes in benefit terms from the amounts reported for these fiscal years.

**Changes in Assumptions:**

2020: Amounts reported for the fiscal year incorporate changes in key methods and assumptions used in calculating the total OPEB liability as presented below:

- (1) Discount Rate:

Prior Measurement Date	3.70%
Measurement Date	3.22%
- (2) Municipal Bond Index Rate:

Prior Measurement Date	3.62%
Measurement Date	3.13%
- (3) Single Equivalent Interest Rate, net of plan investment expense, including price inflation:

Prior Measurement Date	3.70%
Measurement Date	3.22%

2019: Amounts reported for the fiscal year incorporate changes in key methods and assumptions used in calculating the total OPEB liability as presented below:

- (4) Discount Rate:

Prior Measurement Date	3.63%
Measurement Date	3.70%
- (5) Municipal Bond Index Rate:

Prior Measurement Date	3.56%
Measurement Date	3.62%
- (6) Single Equivalent Interest Rate, net of plan investment expense, including price inflation:

Prior Measurement Date	3.63%
Measurement Date	3.70%

**Hamilton County Mathematics and Science Academy**  
**Notes to the Required Supplementary Information**  
**For The Fiscal Year Ended June, 30, 2020**

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2018: Amounts reported for the fiscal year incorporate changes in key methods and assumptions used in calculating the total OPEB liability as presented below:

(1) Discount Rate:

Fiscal Year 2018	3.63%
Fiscal Year 2017	2.98%

(2) Municipal Bond Index Rate:

Fiscal Year 2018	3.56%
Fiscal Year 2017	2.92%

(3) Single Equivalent Interest Rate, net of plan investment expense, including price inflation:

Fiscal Year 2018	3.63%
Fiscal Year 2017	2.98%

2017: The following changes of assumptions affected the total OPEB liability since the prior measurement date:

- (1) The assumed rate of inflation was reduced from 3.25% to 3.00%,
- (2) Payroll growth assumption was reduced from 4.00% to 3.50%,
- (3) Assumed real wage growth was reduced from 0.75% to 0.50%,
- (4) Rates of withdrawal, retirement and disability were updated to reflect recent experience,
- (5) Mortality among active members was updated to RP-2014 Blue Collar Mortality Table with fully generational projection and a five year age set-back for both males and females,
- (6) Mortality among service retired members, and beneficiaries was updated to the following RP-2014 Blue Collar Mortality Table with fully generational projection with Scale BB, 120% of male rates, and 110% of female rates, and
- (7) Mortality among disabled members was updated to RP-2000 Disabled Mortality Table, 90% for male rates and 100% for female rates, set back five years is used for the period after disability retirement.

**State Teachers Retirement System (STRS)**

**Changes in Benefit Terms:**

2020: There was no change to the claims costs process. Claim curves were trended to the fiscal year ending June 30, 2020 to reflect the current price renewals. The non-Medicare subsidy percentage was increased effective January 1, 2020 from 1.944% to 1.984% per year of service. The non-Medicare frozen subsidy base premium was increased effective January 1, 2020. The Medicare subsidy percentages were adjusted effective January 1, 2021 to 2.1% for the Medicare plan. The Medicare Part B monthly reimbursement elimination date was postponed to January 1, 2021.

2019: The subsidy multiplier for non-Medicare benefit recipients was increased from 1.900% to 1.944% per year of service effective January 1, 2019. The non-Medicare frozen subsidy base premium was increased effective January 1, 2019 and all remaining Medicare Part B premium reimbursements will be discontinued beginning January 1, 2020. The Board is extending the current Medicare Part B partial reimbursement program for one year. Under this program, benefit recipients currently enrolled in the STRS Ohio Health Care Program and Medicare Part B receive \$29.90 per month to reimburse a portion of the Medicare Part B premium. The reimbursement was set to be reduced to \$0 beginning January 1, 2020. This impacts about 85,000 benefit recipients.

2018: The subsidy multiplier for non-Medicare benefit recipients was reduced from 2.1 percent to 1.9 percent per year of service. Medicare Part B premium reimbursements were discontinued for certain

**Hamilton County Mathematics and Science Academy**  
**Notes to the Required Supplementary Information**  
**For The Fiscal Year Ended June, 30, 2020**

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survivors and beneficiaries and all remaining Medicare Part B premium reimbursements will be discontinued beginning January 1, 2019.

2017: There were no changes in benefit terms from the amounts reported for this fiscal year.

**Changes in Assumptions:**

2020: There were changes in assumptions during the measurement year, which increased the total OPEB liability by approximately \$0.04 billion. The assumption changes included changes in healthcare costs and trends.

2019: The discount rate was increased from the blended rate of 4.13% to the long-term expected rate of return of 7.45% based on the methodology defined under GASB Statement No. 74, Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans (OPEB). Valuation year per capita health care costs were updated.

2018: The discount rate was increased from 3.26 percent to 4.13 percent based on the methodology defined under GASB Statement No. 74, Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans (OPEB) and the long term expected rate of return was reduced from 7.75 percent to 7.45 percent. Valuation year per capita health care costs were updated, and the salary scale was modified. The percentage of future retirees electing each option was updated based on current data and the percentage of future disabled retirees and terminated vested participants electing health coverage were decreased. The assumed mortality, disability, retirement, withdrawal and future health care cost trend rates were modified along with the portion of rebated prescription drug costs.

2017: There were no changes in methods and assumptions used in the calculation of actuarial determined contributions for this fiscal year.

**Independent Auditor's 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***

Hamilton County Mathematics and Science Academy  
Hamilton County  
2675 Civic Center Drive  
Cincinnati, Ohio 45231

To the Governing Board:

We have audited, in accordance with the 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 Hamilton County Mathematics and Science Academy, Hamilton County, Ohio, as of and for the fiscal year ended June 30, 2020, and the related notes to the financial statements, which collectively comprise the Hamilton County Mathematics and Science Academy's basic financial statements, and have issued our report thereon dated July 31, 2024, wherein we qualified our opinion over salary and possible related fringe benefit expenses due to insufficient appropriate audit evident to support certain supplemental contracts and additional payments/stipends to several employees.

***Internal Control over Financial Reporting***

In planning and performing our audit of the financial statements, we considered the Hamilton County Mathematics and Science Academy's internal control over financial reporting (internal control) as a basis for designing audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Hamilton County Mathematics and Science Academy's internal control. Accordingly, we do not express an opinion on the effectiveness of the Hamilton County Mathematics and Science Academy'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 Hamilton County Mathematics and Science Academy'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 have not been identified. We did identify a certain deficiency in internal control, described in the accompanying schedule of findings and responses as item 2020-001 that we consider to be a material weakness.

Hamilton County Mathematics and Science Academy  
Hamilton County  
Independent Auditor's 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*

***Compliance and Other Matters***

As part of obtaining reasonable assurance about whether the Hamilton County Mathematics and Science Academy'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 financial statements. 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*.

***Hamilton County Mathematics and Science Academy's Response to Finding***

The Hamilton County Mathematics and Science Academy's response to the finding identified in our audit is described in the accompanying schedule of findings and responses. The Hamilton County Mathematics and Science Academy'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.

***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 Hamilton County Mathematics and Science Academy'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 Hamilton County Mathematics and Science Academy's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.



Julian & Grube, Inc.  
July 31, 2024

**HAMILTON COUNTY MATHEMATICS AND SCIENCE ACADEMY  
HAMILTON COUNTY, OHIO**

**SCHEDULE OF FINDINGS AND RESPONSES  
JUNE 30, 2020**

**FINDINGS RELATED TO THE BASIC FINANCIAL STATEMENTS  
REQUIRED TO BE REPORTED IN ACCORDANCE WITH GAGAS**

Finding Number	2020-001
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Material Weakness – Payroll Controls

Proper internal controls over the payroll process help ensure that payroll contains no errors, whether due to fraud or error. Proper internal controls require proper segregation of duties as well as timely, detailed, and sufficient approvals by an appropriate level of management and/or governance.

The Academy's payroll approval process consists primarily of the Superintendent and/or the Human Resources Director's approval with limited approvals of the Board as evidenced in Board minutes, with only the Human Resources Director's signature on the supplemental contract. During the fiscal year, these individuals approved supplemental contracts (amounts to be paid in addition to initially determined salary) for a variety of services. Additionally, there were payments made to several employees in which sufficient appropriate audit evidence was unable to be obtained to support the amounts paid. The total estimated amount of the supplemental contracts and additional payments was \$256,022 or approximately 8% of total salary expenses related to and paid throughout the fiscal year. Furthermore, there is a possible related effect on fringe benefit expenses. For certain supplemental contracts, we were unable to adequately ascertain from the documents provided that each of the additional duties in the supplemental contracts did not overlap with duties in the initial annual contract.

Internal controls over payroll such as governing authority approval and oversight is an important function as well as a transparent one. Many of the supplemental contracts were approved by the Human Resources Director only, and subsequent to the beginning of the year. While the Human Resources Director's approval on the supplemental contracts appears to align with Board policy and budgeted amounts, an additional internal control of formalizing the governing authority or signature of the Board President could prove beneficial to the Academy. The Board President did sign the supplemental contracts subsequently and imprecisely (i.e. no formal line was on the original supplement contract for their signature, nor was the signature in place prior to fiscal year end). Additionally, detailed and comprehensive job responsibilities should be listed in each employment contract and total compensation for that position and its responsibilities should be established and approved prior to or at the beginning of the fiscal year. For instances in which additional payment(s) may be made to employees, detailed evidence/supporting documentation should be maintained and included in the related bi-monthly payroll folders and/or the employees personnel file.

Without proper internal controls over the entire payroll process, including supplemental contracts and additional payments to employees, the Academy risks paying employees for work that is not performed or evidenced as completed satisfactory to the Academy's expectations.

We recommend the Academy evaluate their current policies and procedures regarding payroll controls and require multiple approvals to ensure segregation of duties. The Ohio Auditor of State has various suggestions for pertinent internal payroll controls on their website for consideration. We further recommend the Academy develop more detailed position contracts documenting responsibilities and develop a salary for those responsibilities at the beginning of the fiscal year. Additionally, detailed evidence/supporting documentation should be maintained for any additional payments made to employees. We additionally recommend the Academy develop a process for evaluating these responsibilities and that they were performed in accordance with the Board intent and expectations.

**HAMILTON COUNTY MATHEMATICS AND SCIENCE ACADEMY  
HAMILTON COUNTY, OHIO**

**SCHEDULE OF FINDINGS AND RESPONSES  
JUNE 30, 2020**

**FINDINGS RELATED TO THE BASIC FINANCIAL STATEMENTS  
REQUIRED TO BE REPORTED IN ACCORDANCE WITH GAGAS – (Continued)**

Finding Number	2020-001 – (Continued)
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*Client Response:* The School has implemented procedures for the approval of supplemental contracts consistent with guidance from state agencies, legal counsel, and Ohio law. For the supplemental contracts at issue in this matter, the School asserts that: (i) all contracted amounts, including with regard to any amounts associated with supplemental contracts, are included within the parameters of the yearly school budget approved by the Governing Authority in accordance with R.C. 3314.032(C), (ii) for supplemental contracts, the Human Resources Director first recognizes that additional duties are required that are separate and apart from the duties set forth in the annual employment contracts (e.g., coaching, summer school, etc.) in accordance with the School's policy, (iii) the Human Resources Director or Superintendent approves and signs all supplemental contracts, with the supplemental contracts that concern family members of administrators only being signed by the Human Resources Director, (iv) for all supplemental contracts, the Human Resources Director issues a salary notice that is approved by the Governing Authority in accordance with the School's policy, (v) the Board President also reviews and signs all supplemental contracts that concern family members of administrators, (vi) subsequently, the Human Resources Director confirms and verifies that all supplemental duties have actually been performed by the employee seeking compensation pursuant to a supplemental contract in accordance with the School's policy, and (vii) the Governing Authority reviews and approves the Treasurer's Report on a monthly basis at board meetings, which includes but is not limited to any amounts paid pursuant to the supplemental contract. The School understands that portions of this Finding are still subject to pending external review, and the School will continue to cooperate fully with that process to resolve any expressed concerns. The School appreciates the input provided on this issue, and will strive to continually approve its processes given the limitations present due to the size of its organization.

**HAMILTON COUNTY MATHEMATICS AND SCIENCE ACADEMY  
HAMILTON COUNTY, OHIO**

**SUMMARY SCHEDULE OF PRIOR AUDIT FINDINGS  
JUNE 30, 2020**

Finding Number	Fiscal Year Initially Occurred	Finding Summary	Status	Additional Information
2019-001	2019	<u>Material Weakness – Payroll Controls</u> – Proper payroll controls include at a minimum proper segregation of duties as well as timely, detailed, and sufficient approvals by an appropriate level of management and/or governance. The Academy's payroll approval process consisted primarily of the Superintendent and/or the Human Resources Director's signature on the supplemental contract. These individuals authorized numerous supplemental contract additions and increases to overall pay throughout the fiscal year without Governing Board approval as well as a lack in supporting documentation and/or supporting documentation that often did not accurately support amounts actually paid to certain employees.	No	Repeated as Finding 2020-001, as the Academy did not have proper internal controls over the entire payroll process.
N/A	2019	<u>Finding for Recovery – Bank Overdraft Fees</u> – The Academy paid bank overdraft fees nine times during fiscal year 2019 for a total of \$1,110, which is not a proper public purpose. Finding for recovery issued against Dan Mpagi, former Treasurer, and his bonding company, Merchants Bonding Company and Dwan Moore, Principal, in the amount of \$1,110, in favor of the Academy's General Fund. The Board of Directors are jointly and severally liable for the full amount.	Corrected/ Repaid	Corrected/Repaid as of 3/17/2023
N/A	2019	<u>Finding for Recovery – Sales Tax</u> – The Academy paid sales tax on purchases of goods using debit cards during fiscal year 2019, in the amount of \$2,264. Finding for recovery issued against Dwan Moore, Principal, in the amount of \$2,264, in favor of the Academy's General Fund. The Board of Directors and Dan Mpagi, former Treasurer, and his bonding company, Merchants Bonding Company are jointly and severally liable for the full amount.	Corrected/ Repaid	Corrected/Repaid as of 3/17/2023

**HAMILTON COUNTY MATHEMATICS AND SCIENCE ACADEMY  
HAMILTON COUNTY, OHIO**

**SUMMARY SCHEDULE OF PRIOR AUDIT FINDINGS  
JUNE 30, 2020**

Finding Number	Fiscal Year Initially Occurred	Finding Summary	Status	Additional Information
N/A	2019	<u>Finding for Recovery – Unsupported Expenditures</u> – The Academy purchased various goods during fiscal year 2019, in the amount of \$625. Supporting documentation was not provided for the expenditures and these purchases could not be determined to serve a proper public purpose. Finding for recovery issued against Dwan Moore, Principal, in the amount of \$2,264, in favor of the Academy's General Fund. The Board of Directors and Dan Mpagi, former Treasurer, and his bonding company, Merchants Bonding Company are jointly and severally liable for the full amount.	Corrected/ Repaid	Corrected/Repaid as of 3/17/2023

# OHIO AUDITOR OF STATE KEITH FABER



HAMILTON COUNTY MATHEMATICS AND SCIENCE ACADEMY

HAMILTON COUNTY

AUDITOR OF STATE OF OHIO CERTIFICATION

This is a true and correct copy of the report, which is required to be filed pursuant to Section 117.26, Revised Code, and which is filed in the Office of the Ohio Auditor of State in Columbus, Ohio.



Certified for Release 1/27/2026

65 East State Street, Columbus, Ohio 43215  
Phone: 614-466-4514 or 800-282-0370

This report is a matter of public record and is available online at  
[www.ohioauditor.gov](http://www.ohioauditor.gov)