Miami University

Butler County
Basic Financial Report
For the Year Ended June 30, 2020

OHIO AUDITOR OF STATE
KEITH FABER

88 East Broad Street
Columbus, Ohio 43215
IPAReport@ohioauditor.gov
(800) 282-0370

Board of Trustees
Miami University
107 Roudebush Hall
Oxford, Ohio 45056

We have reviewed the *Independent Auditor's Report* of the Miami University, Butler County, prepared by RSM US LLP, 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.

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 Miami University is responsible for compliance with these laws and regulations.

Keith Faber
Auditor of State
Columbus, Ohio

February 10, 2021

This page intentionally left blank.

Contents

This page intentionally left blank.

RSM US LLP

Independent Auditor's Report

President and Board of Trustees of Miami University

Report on the Financial Statements

We have audited the accompanying financial statements of the business-type activities and the discretely presented component unit of Miami University (the University), a component unit of the State of Ohio, as of and for the years ended June 30, 2020 and 2019, and the related notes to the financial statements, which collectively comprise the University'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 opinions on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards,* issued by the Comptroller General of the United States. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free from material misstatement.

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

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

Opinions

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the business-type activities and the discretely presented component unit of Miami University, as of June 30, 2020 and 2019, and the respective changes in financial position and, where applicable, cash flows thereof for the years 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 management's discussion and analysis on pages 3-11 as well as required supplementary data for certain retirement plan data and other postemployment benefits (OPEB) data on pages 60-63 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 October 15, 2020, on our consideration of the University'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 University'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 University's internal control over financial reporting and compliance.

RSM US LLP

Cleveland, Ohio
October 15, 2020

Introduction

The following discussion and analysis provides an overview of the financial position and activities of Miami University for the year ended June 30, 2020 and 2019. This discussion should be read in conjunction with the accompanying financial statements and footnotes.

The University's annual report consists of this Management's Discussion and Analysis, the Statements of Net Position, the Statements of Revenues, Expenses, and Changes in Net Position, the Statements of Cash Flows, and the Notes to the Financial Statements. The financial statements of the University have been prepared on the accrual basis of accounting, whereby revenues are recognized when earned and expenses are recorded when the related liability has been incurred. The financial activity of the Miami University Foundation, a component unit of the University, is included through a discrete presentation as part of the University's financial statements.

The financial statements, footnotes, and this discussion have been prepared by and are the responsibility of University management.

Financial Highlights

On January 30, 2020 the World Health Organization declared the coronavirus outbreak a "Public Health Emergency of International Concern" and, on March 11, 2020, declared it to be a pandemic. Actions taken around the word to help mitigate the spread of coronavirus include restrictions on travel, quarantines in certain areas, and forced closures for certain types of public places and businesses. The coronavirus and actions taken to mitigate it have had, and are expected to continue to have, an adverse impact on the economies and financial markets of many countries. The extent to which the coronavirus impacts the University's financial condition, results of operations, and cash flows will depend on future developments, which are highly uncertain and cannot be predicted, including new information which may emerge concerning the severity of the coronavirus and actions taken to contain the coronavirus or its impact, among others.

On March 27, 2020, the Coronavirus Aid, Relief, and Economic Security (CARES) Act was signed into law. The CARES Act legislation is intended to provide relief for organizations that have been negatively impacted by the COVID-19 pandemic. During fiscal year 2020, the University received approximately $10.1 million from the CARES Provider Relief Fund.

Despite the effects of the pandemic, the University reported favorable year-end results for the eleventh consecutive year. Enrollment gains, a modest tuition increase and a continued focus on controlling operating costs have been important contributing factors to these successful results.

Overall the University's financial position improved at June 30, 2020. Total assets were flat and totaled $2.38 billion. Liabilities decreased 5.5% in fiscal year 2020 to $1.12 billion compared to $1.19 billion in fiscal year 2019. Significant financial events during fiscal year 2020 were:

- The University's fall 2019 cohort, at a confirmed size of 4,320 first-year resident undergraduate students, was the fourth enrolled cohort under the Miami Tuition Promise program. Each year of their enrollment, the incoming cohort of first-year first-time undergraduate resident students at the Oxford campus will have a guaranteed tuition amount due each year of their full-time enrollment for the four years of the guarantee. Total undergraduate enrollment increased 0.1 percent to 21,612 students for fall 2019 compared to 21,594 total undergraduate students in the fall 2018 class. Graduate enrollment for fall 2019 decreased by 4.9 percent to a total of 2,442 compared to 2,568 graduate students in the fall 2018 class.

Financial Highlights (Continued)

- The University's commitment to increase selectivity, diversity, and maintain quality with strong academic credentials in enrollment goals was evidenced by a confirmed ACT average in excess of 28.1 and a confirmed GPA average in excess of 3.78 for the fall 2019 class. The profile of the incoming class for fall 2019 consisted of 41.0 percent non-resident, and 16.3 percent students of color. The fall 2019 categories of transfer students and relocation students decreased by 52 students. The Hamilton campus incoming class size increased from 491 students from fall 2018 to 559 for fall 2019, and the Middletown campus increased from 296 students to 306 first time incoming students for the fall 2019 class.

- The investment portfolios produced slightly positive results during the fiscal year after experiencing significant volatility during the second half of the year. Operational investments earned 1.4 percent, down from the previous year's gain of 3.4 percent. The pooled investment fund, which includes the University and Foundation endowments, posted an estimated gain of 0.3 percent (pending most of the private capital results for the last quarter), down from the 3.4% realized in the previous year. After setting a new record for duration, global economies, triggered by the pandemic, plunged into recession during the second half of the fiscal year. U.S. public equities took only 16 trading days to drop 20% (the definition of a "bear" market), the fastest drop on record, eclipsing the 44 days it took in 1929. As spring came around, however, the old adage of "Don't fight the Fed" played out. The tremendous amount of stimulus provided by the U.S. Federal Reserve and other global central banks not only calmed the panicked markets, but also led to a massive rally. Despite a complete inability to predict future earnings, stock prices recovered in a massive way, with the S&P 500 up about 40% off its low on March 23, 2020. Significant volatility and uncertainty is expected to persist until the spread of the pandemic is contained and economic growth resumes.

Statements of Net Position

The Statements of Net Position presents the assets, liabilities, deferred outflows/inflows of resources, and net position of the University as of the end of the fiscal year. The difference between total assets and deferred outflows and total liabilities and deferred inflows, or net position, is one indicator of the overall strength of the institution. Also, the increase or decrease in total net position indicates whether the financial position of the institution is improving or declining. Except for capital assets, all other assets and liabilities are measured at a point in time using current values. Capital assets are recorded at historical cost less an allowance for depreciation.

The net position is classified into three major categories. The first category, net investment in capital assets, reports the institution's net equity in property, plant, and equipment. The second major category, restricted net position, reports assets that are owned by the institution, but the use or purpose of the funds is restricted by an external source or entity. This category is subdivided into two types: nonexpendable and expendable. Nonexpendable restricted net position is primarily endowment funds that may be invested for income and capital gains, but the endowed principal may not be spent. Expendable restricted net position may be spent by the institution, but only for the purpose specified by the donor, grantor, or other external entity. The third category, unrestricted net position, is separated into two types: allocated and unallocated. Allocated unrestricted net position is available to the institution, but is set aside for a specific purpose by University policy, management, or the governing board. Unallocated unrestricted net position is available to be used for any lawful purpose of the institution.

Statements of Net Position (Continued)

	(Dollars in Thousands) 2020	2019	2018
Assets:			
Current assets	$ 740,365	$ 742,064	$ 742,497
Capital assets, net	1,390,163	1,406,278	1,355,726
Long-term investments	224,219	227,443	214,570
Other assets	20,917	16,064	5,409
Total assets	2,375,664	2,391,849	2,318,202
Deferred outflows of resources	97,563	104,215	92,676
Total assets and deferred outflows of resources	$ 2,473,227	$ 2,496,064	$ 2,410,878
Liabilities:			
Current liabilities	$ 103,681	$ 121,668	$ 118,973
Noncurrent liabilities	1,019,461	1,066,770	1,072,362
Total liabilities	1,123,142	1,188,438	1,191,335
Deferred inflows of resources	86,274	49,326	43,215
Net Position:			
Net investment in capital assets	764,897	748,383	710,249
Restricted – nonexpendable	95,382	98,579	95,227
Restricted – expendable	74,825	62,283	60,503
Unrestricted – allocated	309,622	338,042	295,022
Unrestricted – unallocated	19,085	11,013	15,327
Total net position	1,263,811	1,258,300	1,176,328
Total liabilities, deferred inflows of resources and net position	$ 2,473,227	$ 2,496,064	$ 2,410,878

Total assets of the institution decreased 0.7 percent or $16.2 million in fiscal year 2020. This decrease was primarily a result of a decrease in net capital assets due to the retirement of certain equipment with a net book value of $7.7 million that occurred during the year.

Total liabilities decreased 5.5 percent or $65.3 million in fiscal year 2020. This decrease was due to net Debt principal payments of $32.0 million, plus decreases in Accounts Payable of $22.0 million, due to timing.

Total assets of the institution increased 3.2 percent or $73.6 million in fiscal year 2019. This increase was the primary result of an increase in capital assets of $50.6 million. Details of the increase in capital assets are provided in the Capital Assets and Debt Administration section of this report.

Total liabilities decreased $2.9 million in fiscal year 2019. This decrease was due to Debt principal payments of $31.7 million, nearly offset by increases in Net Pension and OPEB liabilities and several others totaling $28.8 million.

Statements of Revenues, Expenses and Changes in Net Position

The Statements of Revenues, Expenses, and Changes in Net Position presents the University’s results of operations for the fiscal year. The revenues and expenses are generally reported as either operating or non-operating. Operating revenues are generated by providing goods and services to customers and constituencies of the institution. Operating expenses are incurred when goods and services are provided by vendors and employees for the overall operations of the University. Non-operating revenues include the student instructional subsidy from the State of Ohio, while other revenues include the State’s capital appropriation. Investment losses and returns are also included in non-operating revenue. Interest on debt is the primary component of non-operating expense.

Statements of Revenues, Expenses and Changes in Net Position (Continued)

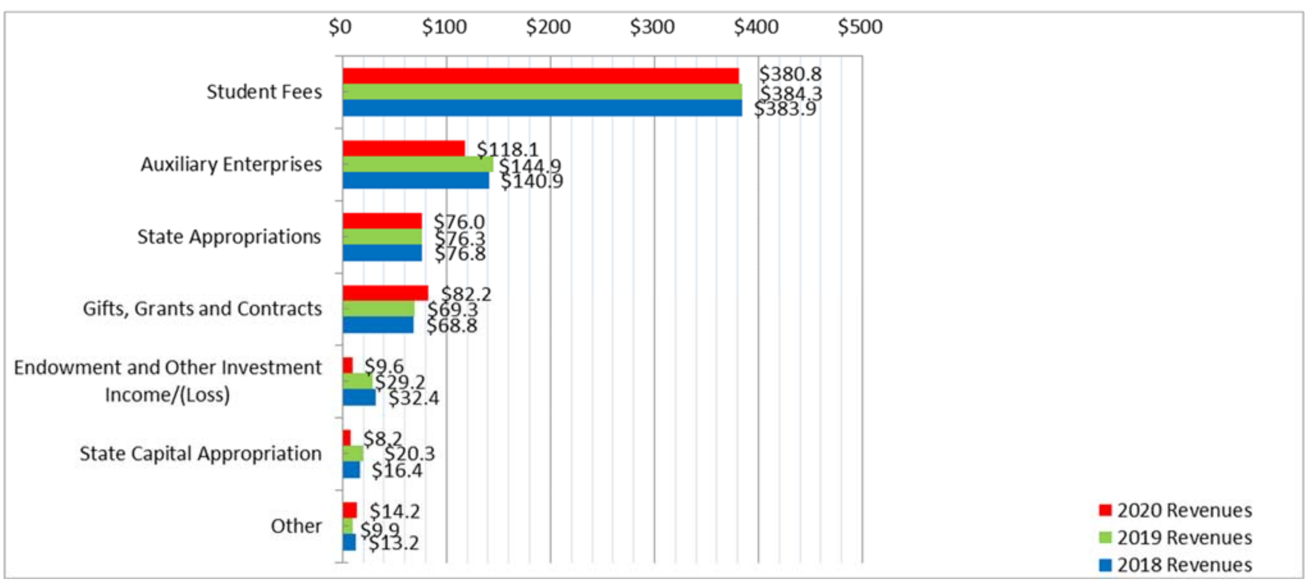
In fiscal year 2020, total revenues of the institution from all sources were approximately $689.0 million, which represents a $45.2 million or 6.2 percent decrease from the prior year. Approximately 76.8 percent of revenues were classified as operating, and 23.2 percent were classified as non-operating or other revenues.

In fiscal year 2019, total revenues of the institution from all sources were approximately $734.2 million, which represents a $1.8 million or 0.3 percent increase from the prior year. Approximately 75.9 percent of revenues were classified as operating, and 24.1 percent were classified as non-operating or other revenues.

	(Dollars in Thousands)		
	2020	2019	2018
Operating revenues	$ 529,031	$ 557,561	$ 551,696
Non-operating revenues	149,166	146,784	156,723
Other revenues	10,843	29,893	23,972
Total revenues	689,040	734,238	732,391
Operating expenses	(658,186)	(626,094)	(521,118)
Non-operating expenses	(25,343)	(26,172)	(26,725)
Total expenses	(683,529)	(652,266)	(547,843)
Change in net position	$ 5,511	$ 81,972	$ 184,548

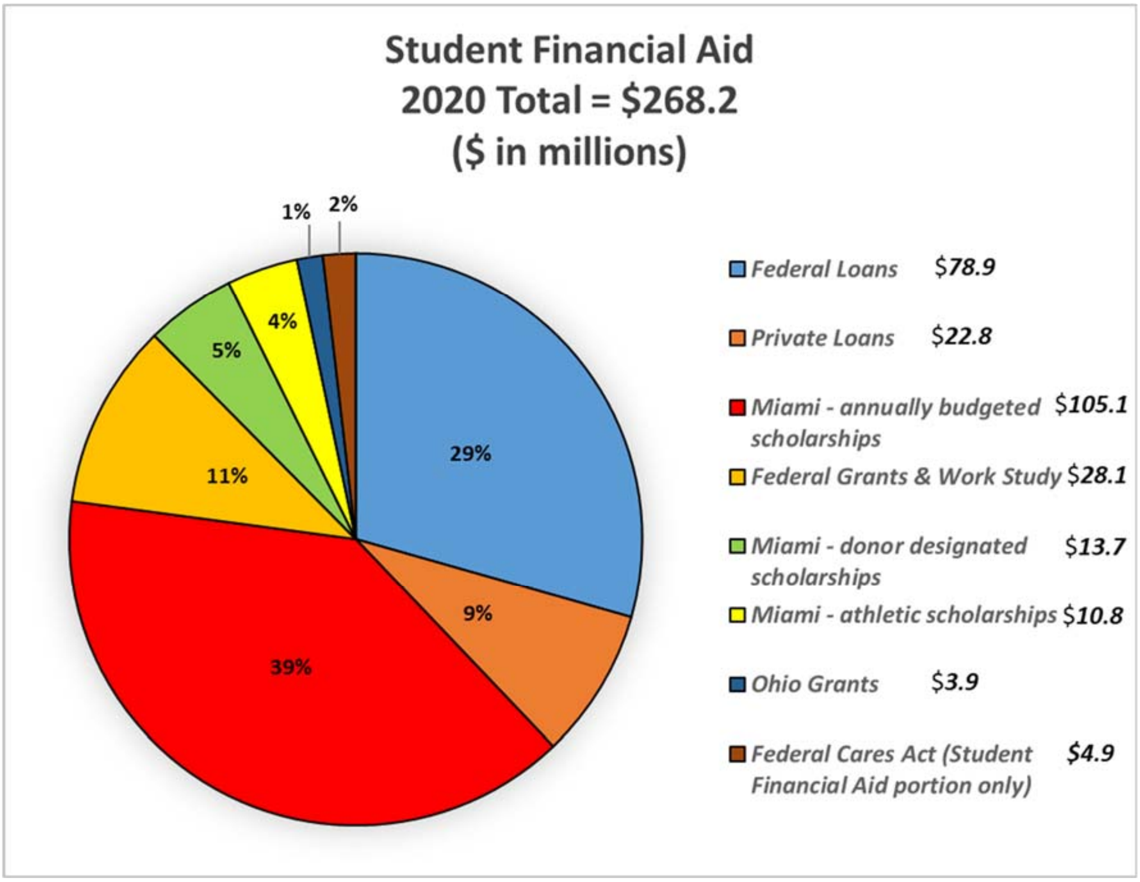
The University revenue base is shown in the accompanying chart. Student tuition and fees make up the largest percentage of revenues at slightly more than 55.3 percent, while auxiliary enterprises such as residence and dining halls, several student recreational facilities, and the bookstore account for the second highest amount at 17.1 percent. State appropriations are 11.0 percent of the total. Gifts, grants, and contracts represent 11.9 percent, and net endowment and investment income contributed 1.4 percent to the total. State capital appropriations are 1.2 percent.

Total Revenues ($ in Millions)



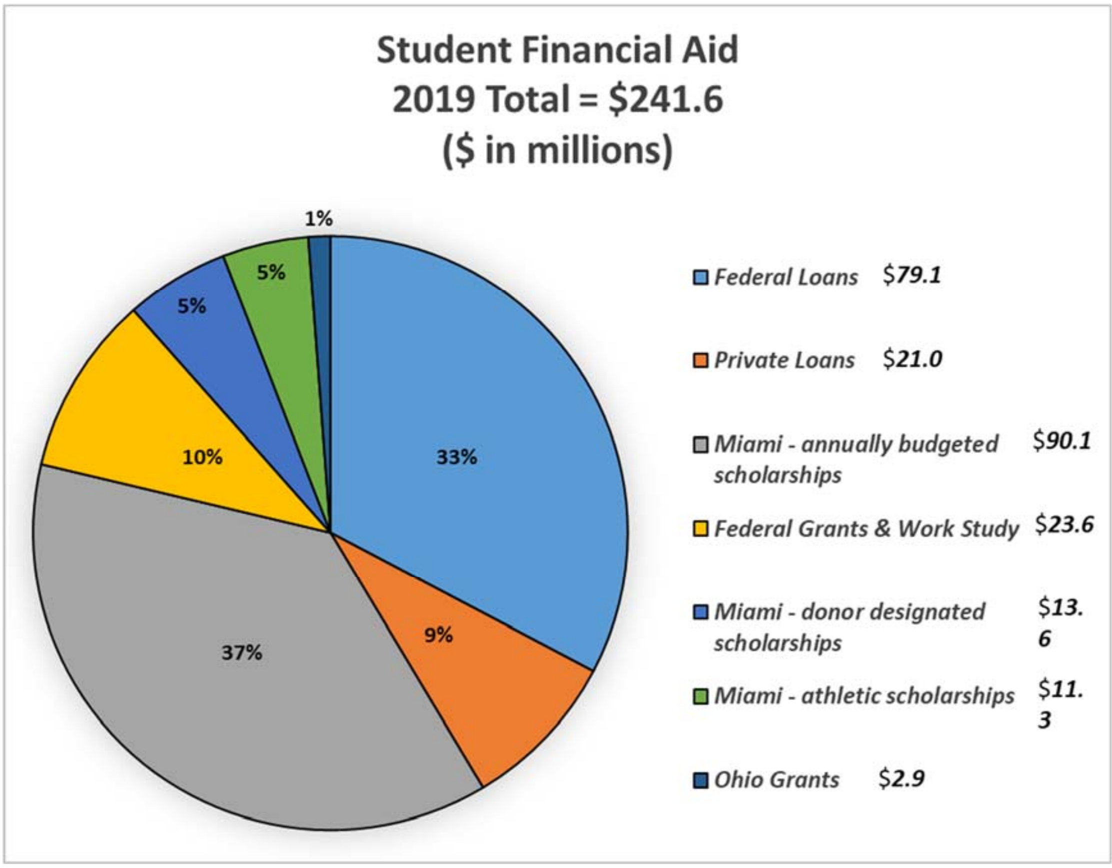
Statements of Revenues, Expenses and Changes in Net Position (Continued)

The University continues to expand the scholarship packages for in-state and out-of-state students in order to recognize student achievement and to continue making a high-quality education more affordable for parents and students. In fiscal year 2020, Miami-funded financial aid increased by $14.4 million or 12.5 percent. In total, financial aid awards were $268.2 million.



Statements of Revenues, Expenses and Changes in Net Position (Continued)

In fiscal year 2019, Miami-funded financial aid increased by $9.8 million or 4.2 percent. In total, financial aid awards were $241.6 million.



Capital Assets and Debt Administration

During fiscal year 2020, the University completed and capitalized several projects. These projects were funded by a combination of bond proceeds, state capital appropriations, gifts and local funding. Major projects capitalized in 2020 include renovation projects to MacCracken Hall, Richard Hall, Maplestreet Station, Minnich Hall, Scott Hall, Porter Hall, and Pearson Hall. Other infrastructure improvements included Central Quad Utility Improvements.

During fiscal year 2019, the University completed and capitalized several projects. These projects were funded by a combination of bond proceeds, state capital appropriations, gifts, and local funding. The bond proceeds were generated from the 2014 and 2017 Series General Receipts Revenue Bonds totaling $54.7 million combined. Major projects completed in 2019 include renovation projects to Art Education, Campus Avenue, Ecology Research Barn, Glos Center, Harrison Hall, Hoyt Hall, Upham Hall, Harris Hall, Shriver Center and Mosler Hall, located on the Hamilton Campus. The addition of two new resident halls included Withrow Hall and Presidents Hall. Other infrastructure improvements included US 27 South Corridor Enhancements.

See Note 4 for additional information concerning capital assets and accumulated depreciation.

The University's bond rating remained the same in fiscal years 2020 and 2019 with a rating of Aa3 from Moody's Investors Services and a rating of AA from Fitch Ratings.

No new debt was issued in fiscal year 2020 or 2019.

On July 16, 2020, the University issued $128,470 in General Receipts Revenue Bonds with interest rates ranging from 4.00 percent to 5.00 percent and maturities from 2021 to 2045. A part of the proceeds were used to refund the mandatory sinking fund redemption for years 2035 through 2037 for the Miami University General Receipts Bonds, Series 2012 and the mandatory sinking fund redemption for years 2035 and 2036 for the Miami University General Receipts Bonds, Series 2014. For more detailed information, see note 15.

For more detailed information on current outstanding debt, see Note 5 and 6.

Economic Factors That Will Affect the Future

Miami University's ability to successfully fulfill its mission and execute its strategic priorities is typically influenced by enrollment, legislative restrictions on tuition, changes in state support, and the cost of employee compensation, health care, technology and utilities. External factors that influence these outcomes are normally somewhat predictable enabling the University to construct financial models that assist decision makers in anticipating and adjusting to negative changes in these important elements of the University's financial performance. This is no longer the situation today as COVID-19's influence was sudden and difficult to forecast. This increased uncertainty is expected to continue throughout the pandemic and possibly beyond as the pandemic potentially alters not only the nation's economy but how students approach decisions about their education going forward.

The COVID-19 pandemic immediately impacted the economic outlook for both the state of Ohio and Miami University. Due to the Governor's closure order on March 23, 2020, students were sent home and refunds of previously paid room and board and general fees totaling $26.6 million were issued. The resulting auxiliary revenues were 18.5 percent lower in fiscal year 2020 compared to fiscal year 2019. Auxiliary revenues represent 17.1 percent of total revenues at Miami as compared to a range of 8.0 to 12.5 percent for other public universities in Ohio, increasing the negative impact of the pandemic for Miami University versus may other universities.

Economic Factors That Will Affect the Future (Continued)

The absence of a vaccine as Miami prepared to welcome students back for the fall 2020 semester led the University's administration to delay move-in to the Oxford campus' residence halls for five weeks. Students were also given the option to complete their academic coursework from home for the first semester and provided certain fee reductions in recognition of the pandemic's impact on services provided to students as part of their residential experience. All students were given a $750 reduction in their general fee. An additional reduction of $250 in the general fee and a $1,000 reduction in the nonresident fee were also provided to those students choosing to remain home and study remotely during the fall semester. Housing options for sophomores were expanded to include community housing to reduce on-campus occupancy and lower the risk of a major outbreak of the virus in campus housing. As a result of the additional housing options, occupancy in campus housing for the fall semester is down approximately 45 percent from the prior year and room and board revenues declined even further as a result of the reduced time students are living in the residence halls. The negative impact of these changes on auxiliary sales revenue for fiscal year 2021 is expected to be significant but difficult to forecast given the uncertainty surrounding the timing of a vaccine and the possibility of additional changes in response to the pandemic.

While the uncertainty surrounding the pandemic made student recruitment more difficult for fall 2020, the Oxford Campus' fall 2020 class continued a recent pattern of larger classes. As of the first day of classes, there were 3,823 new freshmen enrolled with an average ACT score of 27.6. The class is 11 percent smaller than the fall 2019 record class but still one of the largest freshman classes in the university's history. The reduced size of the class is the result of the COVID-19 outbreak as the number of students deferring their enrollment exceeded 400 or about four times the number in recent years.

The nonresident composition of the new class fell from 41 percent to 39 percent largely as a result of a decline in international enrollment. Overall the enrollment on the Oxford Campus declined from 19,397 to 18,634 students. The decline in international enrollments generally occurred across all institutions of higher education in the nation as a result of policy changes in Washington and global travel restrictions from the COVID-19 pandemic. Future international enrollment trends, especially from China, are difficult to predict given the uncertainty about the U.S. immigration and travel policies but a return to past levels in the immediate future.is unlikely.

Enrollment at Miami's regional campuses for fall 2020 decreased by 6.6 percent to 4,056. Weakening enrollment results over the last five years for these campuses reflects the national enrollment trend for open enrollment campuses. The continuation of these trends as the nation entered a recession for the first-time in more than a decade is surprising but likely due to the uncertainty surrounding the pandemic. New academic program offerings, a tuition guarantee program, and improved enrollment and retention strategies are continuing to be implemented for these campuses in response to the downward enrollment trend.

The pandemic and its near and long-term influence is not the only uncertainty Miami University is facing as it entered the 2020 decade. The higher education landscape continues to be shaped by disruptive forces resulting from technological change, the national conversation regarding affordability and efficiency, and economic and demographic issues.

Economic Factors That Will Affect the Future (Continued)

The focus of the Ohio General Assembly continues to be on improving affordability, graduation rates, and job placement and starting salaries of graduates at Ohio's public colleges and universities. Ohio's demographic trends are a barrier to both Miami's goal of maintaining its enrollment and Ohio's desire to increase the number of Ohio residents with a college degree. The number of high school graduates in Ohio continues to decline and will continue to decline throughout much of this decade. Similar declines in the number of high school graduates in the surrounding states and the northeastern United States will also negatively impact student recruitment for Miami's Oxford campus as these regions have historically contributed most of the nonresident students in Miami's incoming freshmen classes.

Ohio's demographic trends are also expected to negatively affect future state support for higher education in the state as the proportion of the state's population in the workforce declines and the aged population increases the financial burden on state programs like Medicaid. Miami's state funding for 2021 is approximately 8 percent less than what the University received in 2001 and future financial support is not expected to be better than the past trend.

As a result of these challenging trends, the University's leadership recognizes the need to adjust more quickly to a rapidly shifting environment that may experience even greater change going forward due to the lasting effects of the pandemic. Strategic planning is a critical element of this response. On June 28, 2019, Miami's Board of Trustees adopted the University's current strategic plan. The plan is designed to provide a blueprint to move Miami forward and sustain the University's long history of excellence and strong financial performance. The plan includes 30 strategic recommendations in four categories: innovate, invest, invigorate, and implement. The following is some highlights from the plan:

"We know that Miami University is living in a new era of financial accountability. As you will read throughout this report, Miami cannot afford every program or service we might wish to provide. Every decision we make must be fully informed by the financial implications. It is imperative that we manage our resources wisely, develop diversified revenue streams to reduce dependence on tuition and align every resource with the University's broader strategic initiatives. In today's world of higher education, this is the job of every Miami division, department and administrative unit.

We observe a common theme across the various recommendations in this report. Our current decision-making processes are too often decentralized and disconnected, and it will be important moving forward to rethink our strategic planning as a process that can make these connections in real time. As we seek to create a transformational experience for students, we must strengthen the connections between academic and co-curricular decision-making. A standing Strategic Planning Committee can help to make these connections while also providing strategic direction for the University.

In this context, we offer the following recommendations categorized into four groups that include cross-cutting strategies. We will innovate to position Miami to thrive in a rapidly changing environment. We will invest in proactive solutions. We will invigorate our process and culture to clear pathways for creative solutions. And we will act decisively to implement the reforms envisioned in this plan. We recognize that Miami cannot act upon all of the recommendations at once, so this plan is a living document that will require constant adaptation as higher education continues to evolve."

Some benefits of the new strategic plan are already evident as the decision to grow academic offerings in clinical health and data sciences are even more evident today given the COVID-19 outbreak. Continuing to recognize future areas of opportunity beyond those envisioned by the strategic plan will be important in determining Miami University's future and the success of the new strategic plan.

Miami University

Statements of Net Position
June 30, 2020 and 2019
(Dollars in Thousands)

	Miami University		University Foundation	
Assets	2020	2019	2020	2019
Current assets:				
Cash and cash equivalents	$ 115,130	$ 120,763	$ 19,751	$ 19,663
Investments	551,287	565,197	-	-
Accounts, pledges and notes receivable, net	66,708	46,184	7,377	7,464
Inventories	3,008	2,871	-	-
Prepaid expenses	4,232	7,049	-	-
Total current assets	740,365	742,064	27,128	27,127
Noncurrent assets:				
Restricted cash and cash equivalents	-	-	32,619	28,606
Investments	224,219	227,443	507,642	510,217
Pledges and notes receivable, net	6,449	2,830	33,667	37,991
Net pension asset	1,706	755	-	-
Net OPEB asset	12,762	12,479	-	-
Nondepreciable capital assets	66,453	190,063	-	-
Depreciable capital assets, net	1,323,710	1,216,215	-	-
Total noncurrent assets	1,635,299	1,649,785	573,928	576,814
Total assets	2,375,664	2,391,849	601,056	603,941
Deferred outflows of resources:				
Pensions	70,981	95,698	-	-
OPEB	26,582	8,517	-	-
Total deferred outflows of resources	97,563	104,215	-	-
Total assets and deferred outflows of resources	$ 2,473,227	$ 2,496,064	$ 601,056	$ 603,941
Liabilities				
Current liabilities:				
Accounts payable	$ 23,524	$ 45,588	$ 16,253	$ 16,360
Accrued salaries and wages	17,854	17,458	-	-
Accrued compensated absences	1,286	1,148	-	-
Unearned revenue	15,583	12,186	-	-
Deposits	11,336	12,567	-	-
Current portion of long-term debt	33,328	31,965	-	-
Other current liabilities	770	756	545	559
Total current liabilities	103,681	121,668	16,798	16,919
Noncurrent liabilities:				
Accrued compensated absences	16,940	16,550	-	-
Bonds payable, net	589,872	625,403	-	-
Capital leases payable	1,638	1,760	-	-
Federal Perkins loan program	1,860	3,541	-	-
Net pension liability	309,786	338,370	-	-
Net OPEB liability	99,365	81,146	-	-
Other noncurrent liabilities	-	-	228,746	232,040
Total noncurrent liabilities	1,019,461	1,066,770	228,746	232,040
Total liabilities	1,123,142	1,188,438	245,544	248,959
Deferred inflows of resources:				
Deferred gains on refunding	816	973	-	-
Beneficial interest in perpetual trust	1,946	1,946	-	-
Pensions	48,058	20,229	-	-
OPEB	35,454	26,178	-	-
Total deferred inflows of resources	86,274	49,326	-	-
Net position:				
Net investment in capital assets	764,897	748,383	-	-
Restricted:				
Nonexpendable - permanent endowments	95,382	98,579	247,138	232,186
Expendable - gift and grant programs	74,825	62,283	104,571	119,806
Unrestricted	328,707	349,055	3,803	2,990
Total net position	1,263,811	1,258,300	355,512	354,982
Total liabilities, deferred inflows and net position	$ 2,473,227	$ 2,496,064	$ 601,056	$ 603,941

See notes to financial statements.

Miami University

Statements of Revenues, Expenses, and Changes in Net Position
Years Ended June 30, 2020 and 2019
(Dollars in Thousands)

	Miami University		University Foundation	
	2020	2019	2020	2019
Operating revenues:				
Tuition, fees, and other student charges	$ 488,549	$ 488,244	$ -	$ -
Less allowance for student scholarships	(107,745)	(103,955)	-	-
Net tuition, fees, and other student charges	380,804	384,289	-	-
Sales and services of auxiliary enterprises	123,059	150,927	-	-
Less allowance for student scholarships	(5,009)	(6,004)	-	-
Net sales and services of auxiliary enterprises	118,050	144,923	-	-
Federal grants	14,587	10,600	-	-
Gifts	-	-	697	5,932
Sales and services of educational activities	1,528	2,117	-	-
Private grants	2,652	3,211	-	-
State grants	1,067	1,560	-	-
Local grants	125	116	-	-
Other	10,218	10,745	-	-
Total operating revenues	529,031	557,561	697	5,932
Operating expenses:				
Education and general:				
Instruction and departmental research	193,920	198,420	-	-
Separately budgeted research	13,066	13,391	-	-
Public service	1,979	2,758	-	-
Academic support	61,664	63,369	-	-
Student services	29,910	29,328	-	-
Institutional support	61,607	64,670	-	-
Operation and maintenance of plant	29,300	31,264	-	-
Scholarships and fellowships	45,880	28,734	-	-
Auxiliary enterprises	100,158	107,147	-	-
Depreciation	69,782	63,613	-	-
Pension and other postemployment benefit expense	32,156	9,368	-	-
Other	18,764	14,032	-	-
Total operating expenses	658,186	626,094	-	-
Net operating (loss) income	(129,155)	(68,533)	697	5,932
Non-operating revenues (expenses):				
State appropriations	75,959	76,277	-	-
Gifts, including those from the University Foundation	31,766	26,035	-	-
Federal grants	28,078	18,192	-	-
Net investment income (loss), net of investment expense of $2,257 for the University and $2,742 for the Foundation in FY 20 $2,342 for the University and $3,125 for the Foundation in FY 19	8,884	27,604	(366)	8,392
State grants	2,043	1,607	-	-
Interest on debt	(25,343)	(26,172)	-	-
Payments to Miami University	-	-	(15,559)	(23,093)
Other non-operating revenues (expenses)	2,436	(2,931)	(1,013)	(102)
Net non-operating revenues (expenses)	123,823	120,612	(16,938)	(14,803)
(Loss) income before other revenues, expenses, gains or losses	(5,332)	52,079	(16,241)	(8,871)
Other revenues, expenses, gains or losses:				
State capital appropriation	8,204	20,308	-	-
Capital grants and gifts	1,880	7,958	-	-
Additions to permanent endowments	759	1,627	16,771	11,683
Total other revenues, expenses, gains or losses	10,843	29,893	16,771	11,683
Change in net position	5,511	81,972	530	2,812
Total net position at beginning of year	1,258,300	1,176,328	354,982	352,170
Total net position at end of year	$ 1,263,811	$ 1,258,300	$ 355,512	$ 354,982

See notes to financial statements.

Miami University

Statements of Cash Flows
Years Ended June 30, 2020 and 2019
(Dollars in Thousands)

	2020	2019
Cash flows from operating activities:		
Tuition, fees, and other student charges	$ 487,766	$ 487,961
Sales and services of auxiliary enterprises	124,286	150,504
Contracts	12,400	16,417
Other operating receipts	12,006	13,039
Payments for employee compensation and benefits	(376,116)	(376,913)
Payments to vendors for services and materials	(123,182)	(139,462)
Student scholarships	(158,634)	(138,693)
Loans issued to students and employees	(1,927)	(176)
Collection of loans from students and employees	1,270	1,377
Net cash flows (used in) provided by operating activities	(22,131)	14,054
Cash flows from noncapital financing activities:		
State share of instruction funds	77,999	78,746
Grants for noncapital purposes	23,675	19,799
Gifts	32,627	27,975
Net cash flows provided by noncapital financing activities	134,301	126,520
Cash flows from capital and related financing activities:		
State capital appropriation	8,204	20,308
Grants for capital purposes	1,622	7,899
Other capital and related receipts (expenditures)	679	(5,550)
Payments to construct, renovate, or purchase capital assets	(82,175)	(118,823)
Principal paid on outstanding debt	(31,965)	(31,727)
Interest paid on outstanding debt	(28,713)	(30,576)
Net cash flows used in capital and related financing activities	(132,348)	(158,469)
Cash flows from investing activities:		
Proceeds from sale of investments	176,728	823,285
Purchases of investments	(166,693)	(773,756)
Endowment fees	(883)	(219)
Other investment income	5,393	4,284
Net cash flows provided by investing activities	14,545	53,594
Net (decrease) increase in cash and cash equivalents	(5,633)	35,699
Cash and cash equivalents:		
Beginning	120,763	85,064
Ending	$ 115,130	$ 120,763

(Continued)

Miami University

Statements of Cash Flows (Continued)
Years Ended June 30, 2020 and 2019
(Dollars in Thousands)

	2020	2019
Reconciliation of operating loss to net cash flows (used in) provided by operating activities:		
Operating loss	$ (129,155)	$ (68,533)
Adjustments to reconcile net operating loss to net cash flows (used in) provided by operating activities:		
Depreciation expense	69,782	63,613
Net loss on retirements of capital assets	7,727	6,909
Accounts receivable bad debt adjustments	179	98
Adjustments to reconcile change in net position to net cash (used in) provided by operating activities:		
Accounts receivable	(7,455)	1,757
Inventories	(137)	(767)
Prepaid expenses	2,533	(945)
Notes receivable	968	1,023
Net pension asset	(951)	177
Net OPEB asset	(283)	(12,479)
Deferred outflows of pension resources	24,717	(10,560)
Deferred outflows of OPEB resources	(18,065)	(978)
Accounts payable	(152)	1,719
Accrued salaries and wages	396	624
Accrued compensated absences	527	(525)
Unearned revenue and deposits	2,166	(495)
Federal Perkins loans	(1,667)	209
Net pension liability	(28,584)	50,867
Net OPEB liability	18,219	(21,980)
Deferred inflows of pension resources	27,828	(12,548)
Deferred inflows of OPEB resources	9,276	16,868
Net cash flows (used in) provided by operating activities	$ (22,131)	$ 14,054
Supplemental disclosures of noncash information:		
Capital assets included in accounts payable	$ 2,990	$ 24,437
Capital assets acquired by gifts in kind	$ 258	$ 59

See notes to financial statements.

Note 1. Summary of Significant Accounting Policies

Miami University (the University) is a land grant institution chartered by the State of Ohio in 1809 and governed by a Board of Trustees (the Board). The Board consists of up to 17 members, including two student members and up to six non-voting national trustees. Voting members are appointed one each year for nine-year terms by the governor with the advice and consent of the state senate. The two student non-voting members are appointed for two-year staggered terms by the governor with the advice and consent of the senate, and the national trustees are appointed by the voting members and can serve for no more than two consecutive three-year terms.

In accordance with Governmental Accounting Standards Board (GASB) Codification Section 2100: *Defining the Financial Reporting Entity*, the University's financial statements are included as a discretely presented component unit in the State of Ohio's Comprehensive Annual Financial Report.

Furthermore, in accordance with GASB Codification Section 2600: *Reporting Entity and Component Unit Presentation and Disclosure*, the Miami University Foundation (the Foundation) is included as a discretely presented component unit in a separate column in the University’s financial statements to emphasize that it is legally separate from the University. The Foundation, which is a separate not-for-profit foundation, meets this criteria set forth in the Codification Section 2600 due to the significance of its operational and financial relationship with the University. Note 10 provides additional information on the Foundation. Certain disclosures concerning the Foundation are not included because it has been audited separately and reports have been issued under separate cover. Copies of these reports may be obtained from Treasury Services, 107 Roudebush Hall, Miami University, Oxford, Ohio, 45056.

Basis for presentation: The financial statements of the University have been prepared on the accrual basis of accounting, whereby revenues are recognized when earned and expenses are recorded when the related liability has been incurred. For financial reporting purposes, the University is considered a special-purpose government engaged only in business-type activities as defined by GASB Statement Nos. 34 and 35.

Recent and pending accounting pronouncements: Effective May 2020, the University elected the application of GASB Statement No. 95, *Postponement of the Effective Dates of Certain Authoritative Guidance.* The primary objective of this Statement is to provide temporary relief to governments and other stakeholders in light of the COVID-19 pandemic. That objective is accomplished by postponing the effective dates of certain provisions in Statements and Implementation Guides that first became effective or are scheduled to become effective for periods beginning after June 15, 2018, and later.

The effective dates of certain provisions contained in the following pronouncements are postponed by one year:

- Statement No. 84, *Fiduciary Activities*
- Statement No. 89, *Accounting for Interest Cost Incurred before the End of a Construction Period*
- Statement No. 90, *Majority Equity Interests*
- Statement No. 91, *Conduit Debt Obligations*
- Statement No. 92, *Omnibus 2020*
- Statement No. 93, *Replacement of Interbank Offered Rates*
- Implementation Guide No. 2017-3, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions (and Certain Issues Related to OPEB Plan Reporting)*
- Implementation Guide No. 2018-1, *Implementation Guidance Update—2018*
- Implementation Guide No. 2019-1, *Implementation Guidance Update—2019*
- Implementation Guide No. 2019-2, *Fiduciary Activities.*

The effective dates of the following pronouncements are postponed by 18 months:

- Statement No. 87, *Leases*
- *Implementation* Guide No. 2019-3, *Leases*

Note 1. Summary of Significant Accounting Policies (Continued)

In January 2017, GASB issued Statement No. 84, *Fiduciary Activities*. The objective of this Statement is to improve guidance regarding the identification of fiduciary activities for accounting and financial reporting purposes and how those activities should be reported. The Statement establishes criteria for identifying fiduciary activities and the focus of the criteria generally is on (1) whether the government is controlling the assets of the fiduciary activity and (2) the beneficiaries with whom a fiduciary relationship exists. The requirements of this Statement were originally effective for reporting periods beginning after December 15, 2018. GASB Statement No. 95 postponed the effective date to reporting periods beginning after December 15, 2019. The University has not yet determined the impact this statement will have on the financial statements.

In June 2017, GASB issued Statement No. 87, *Leases*. The objective of this Statement is to better meet the information needs of financial statement users by improving accounting and financial reporting for leases by governments. This Statement increases the usefulness of governments' financial statements by requiring recognition of certain lease assets and liabilities for leases that previously were classified as operating leases and recognized as inflows of resources or outflows of resources based on the payment provisions of the contract. It establishes a single model for lease accounting based on the foundational principle that leases are financings of the right to use an underlying asset. Under this Statement, a lessee is required to recognize a lease liability and an intangible right-to-use lease asset, and a lessor is required to recognize a lease receivable and a deferred inflow of resources, thereby enhancing the relevance and consistency of information about governments' leasing activities. The requirements of this Statement were originally effective for reporting periods beginning after December 15, 2019. GASB Statement No. 95 postponed the effective date to reporting periods beginning after June 15, 2021. The University has not yet determined the impact this statement will have on the financial statements.

In June 2018, GASB issued Statement No. 89, *Accounting for Interest Cost Incurred Before the End of a Construction Period*. The objectives of this Statement are (1) to enhance the relevance and comparability of information about capital assets and the cost of borrowing for a reporting period and (2) to simplify accounting for interest cost incurred before the end of a construction period. This Statement requires that interest cost incurred before the end of a construction period be recognized as an expense in the period in which the cost is incurred for financial statements prepared using the economic resources measurement focus. As a result, interest cost incurred before the end of a construction period will not be included in the historical cost of a capital asset reported in a business-type activity or enterprise fund. This Statement also reiterates that in financial statements prepared using the current financial resources measurement focus, interest cost incurred before the end of a construction period should be recognized as an expenditure on a basis consistent with governmental fund accounting principles. The requirements of this Statement were originally effective for reporting periods beginning after December 15, 2019. GASB Statement No. 95 postponed the effective date to reporting periods beginning after December 15, 2020. The University has not yet determined the impact this statement will have on the financial statements.

Note 1. Summary of Significant Accounting Policies (Continued)

In August 2018, GASB issued Statement No. 90, *Majority Equity Interests – An Amendment of GASB Statements No. 14 and No. 61*. The primary objectives of this Statement are to improve the consistency and comparability of reporting a government's majority equity interest in a legally separate organization and to improve the relevance of financial statement information for certain component units. It defines a majority equity interest and specifies that a majority equity interest in a legally separate organization should be reported as an investment if a government's holding of the equity interest meets the definition of an investment. A majority equity interest that meets the definition of an investment should be measured using the equity method, unless it is held by a special-purpose government engaged only in fiduciary activities, a fiduciary fund, or an endowment (including permanent and term endowments) or permanent fund. Those governments and funds should measure the majority equity interest at fair value. For all other holdings of a majority equity interest in a legally separate organization, a government should report the legally separate organization as a component unit, and the government or fund that holds the equity interest should report an asset related to the majority equity interest using the equity method. This Statement establishes that ownership of a majority equity interest in a legally separate organization results in the government being financially accountable for the legally separate organization and, therefore, the government should report that organization as a component unit. This Statement also requires that a component unit in which a government has a 100 percent equity interest account for its assets, deferred outflows of resources, liabilities, and deferred inflows of resources at acquisition value at the date the government acquired a 100 percent equity interest in the component unit. Transactions presented in flows statements of the component unit in that circumstance should include only transactions that occurred subsequent to the acquisition. The requirements of this Statement were originally effective for reporting periods beginning after December 15, 2018. GASB Statement No. 95 postponed the effective date to reporting periods beginning after December 15, 2019. The University has not yet determined the impact this statement will have on the financial statements.

In May 2019, GASB issued Statement No. 91, *Conduit Debt Obligations*. The primary objectives of this Statement are to provide a single method of reporting conduit debt obligations by issuers and eliminate diversity in practice associated with (1) commitments extended by issuers, (2) arrangements associated with conduit debt obligations, and (3) related note disclosures. This Statement achieves those objectives by clarifying the existing definition of a conduit debt obligation; establishing that a conduit debt obligation is not a liability of the issuer; establishing standards for accounting and financial reporting of additional commitments and voluntary commitments extended by issuers and arrangements associated with conduit debt obligations; and improving required note disclosures.

This Statement requires issuers to disclose general information about their conduit debt obligations, organized by type of commitment, including the aggregate outstanding principal amount of the issuers' conduit debt obligations and a description of each type of commitment. Issuers that recognize liabilities related to supporting the debt service of conduit debt obligations also should disclose information about the amount recognized and how the liabilities changed during the reporting period. The requirements of this Statement were originally effective for reporting periods beginning after December 15, 2020. GASB Statement No. 95 postponed the effective date to reporting periods beginning after December 15, 2021. The University has not yet determined the impact this statement will have on the financial statements.

In January 2020, GASB issued Statement No. 92, *Omnibus 2020.* The objectives of this Statement is to enhance comparability in accounting and financial reporting and to improve the consistency of authoritative literature by addressing practice issues that have been identified during implementation and application of certain GASB Statements. The requirements of this Statement were originally effective for reporting periods beginning after June 15, 2020. GASB Statement No. 95 postponed the effective date to reporting periods beginning after June 15, 2021. The University has not yet determined the impact this statement will have on the financial statements.

Note 1. Summary of Significant Accounting Policies (Continued)

In March 2020, GASB issued Statement No. 94, *Public-Private and Public-Public Partnerships and Availability Payment Arrangements*. The primary objective of this Statement is to improve financial reporting by addressing issues related to public-private and public-public partnership arrangements (PPPs). As used in this Statement, a PPP is an arrangement in which a government (the transferor) contracts with an operator (a governmental or nongovernmental entity) to provide public services by conveying control of the right to operate or use a nonfinancial asset, such as infrastructure or other capital asset (the underlying PPP asset), for a period of time in an exchange or exchange-like transaction. Some PPPs meet the definition of a service concession arrangement (SCA), which GASB defines in this Statement as a PPP in which (1) the operator collects and is compensated by fees from third parties; (2) the transferor determines or has the ability to modify or approve which services the operator is required to provide, to whom the operator is required to provide the services, and the prices or rates that can be charged for the services; and (3) the transferor is entitled to significant residual interest in the service utility of the underlying PPP asset at the end of the arrangement. This Statement also provides guidance for accounting and financial reporting for availability payment arrangements (APAs). As defined in this Statement, an APA is an arrangement in which a government compensates an operator for services that may include designing, constructing, financing, maintaining, or operating an underlying nonfinancial asset for a period of time in an exchange or exchange-like transaction. The requirements of this Statement are effective for fiscal years beginning after June 15, 2022, and all reporting periods thereafter. The University has not yet determined the impact this statement will have on the financial statements.

In May 2020, GASB issued Statement No. 96, *Subscription-Based Information Technology Arrangements*. This Statement provides guidance on the accounting and financial reporting for subscription-based information technology arrangements (SBITAs) for government end users (governments). This Statement (1) defines a SBITA; (2) establishes that a SBITA results in a right-to-use subscription asset—an intangible asset—and a corresponding subscription liability; (3) provides the capitalization criteria for outlays other than subscription payments, including implementation costs of a SBITA; and (4) requires note disclosures regarding a SBITA. To the extent relevant, the standards for SBITAs are based on the standards established in Statement No. 87, Leases, as amended.

A SBITA is defined as a contract that conveys control of the right to use another party's (a SBITA vendor's) information technology (IT) software, alone or in combination with tangible capital assets (the underlying IT assets), as specified in the contract for a period of time in an exchange or exchange-like transaction. The subscription term includes the period during which a government has a noncancellable right to use the underlying IT assets. The subscription term also includes periods covered by an option to extend (if it is reasonably certain that the government or SBITA vendor will exercise that option) or to terminate (if it is reasonably certain that the government or SBITA vendor will not exercise that option).

Under this Statement, a government generally should recognize a right-to-use subscription asset—an intangible asset—and a corresponding subscription liability. A government should recognize the subscription liability at the commencement of the subscription term, which is when the subscription asset is placed into service. The subscription liability should be initially measured at the present value of subscription payments expected to be made during the subscription term. Future subscription payments should be discounted using the interest rate the SBITA vendor charges the government, which may be implicit, or the government's incremental borrowing rate if the interest rate is not readily determinable. A government should recognize amortization of the discount on the subscription liability as an outflow of resources (for example, interest expense) in subsequent financial reporting periods. The requirements of this Statement are effective for fiscal years beginning after June 15, 2022, and all reporting periods thereafter. The University has not yet determined the impact this statement will have on the financial statements.

Note 1. Summary of Significant Accounting Policies (Continued)

In June 2020, GASB issued Statement No. 97, *Certain Component Unit Criteria, and Accounting and Financial Reporting for Internal Revenue Code Section 457 Deferred Compensation Plans*. The primary objectives of this Statement are to (1) increase consistency and comparability related to the reporting of fiduciary component units in circumstances in which a potential component unit does not have a governing board and the primary government performs the duties that a governing board typically would perform; (2) mitigate costs associated with the reporting of certain defined contribution pension plans, defined contribution other postemployment benefit (OPEB) plans, and employee benefit plans other than pension plans or OPEB plans (other employee benefit plans) as fiduciary component units in fiduciary fund financial statements; and (3) enhance the relevance, consistency, and comparability of the accounting and financial reporting for Internal Revenue Code (IRC) Section 457 deferred compensation plans (Section 457 plans) that meet the definition of a pension plan and for benefits provided through those plans. This Statement requires that for purposes of determining whether a primary government is financially accountable for a potential component unit, except for a potential component unit that is a defined contribution pension plan, a defined contribution OPEB plan, or an other employee benefit plan (for example, certain Section 457 plans), the absence of a governing board should be treated the same as the appointment of a voting majority of a governing board if the primary government performs the duties that a governing board typically would perform. The requirements of this Statement that are related to the accounting and financial reporting for Section 457 plans are effective for fiscal years beginning after June 15, 2021. The University has not yet determined the impact this statement will have on the financial statements.

Cash and cash equivalents: Cash consists primarily of cash in banks and money market accounts. Cash equivalents are short-term, highly liquid investments readily convertible to cash, with an original maturity of three months or less at the time of purchase.

Investments: Investments that are market traded are recorded at fair value. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The value of holdings of commingled or non-publicly traded funds is based on the funds' net asset value as supplied by the investment manager. Investments in real estate are recorded at estimated fair value.

Investment income is recorded on the accrual basis and purchases and sales of investments are recorded on a trade-date basis. Investment transactions occurring on or before June 30 that settle after such date are recorded as receivables or payables.

Accounts, pledges and notes receivable allowance: The allowance for doubtful accounts is determined based on management's judgment of potential uncollectible amounts, based on historical experience, analysis of the aging of payment schedules, type of receivable and other known facts and circumstances.

Inventories: The University reports inventories at the lower of first-in, first out cost or market.

Note 1. Summary of Significant Accounting Policies (Continued)

Capital assets: Land, buildings, and equipment are recorded at cost at the date of acquisition. In the case of gifts or other donated capital assets, they are recorded at acquisition value. Acquisition value is the price that would be paid to acquire an asset in an orderly market transaction at the acquisition date. Acquisition value is a market-based entry price. Intangible assets include patents, trademarks, land rights and computer software. Land, collections of works of art and historical treasures are capitalized but not depreciated. Any collection that is not capitalized is charged to operations at the time of purchase. Depreciation is computed using the straight-line method over the estimated useful lives of the respective assets. Estimated useful lives are 50 years for buildings; 25 years for infrastructure, land improvements, and library books and publications; 20 years for improvements to buildings; and 5 to 7 years for equipment, vehicles, and furniture. Intangible assets are depreciated based on the estimated life of each asset. The University's capitalization threshold is the lower of 5 percent of the original building cost or $100 for building renovations and $5 for other capitalized items. The capitalization threshold for intangible assets is $100 except for internally generated computer software which has a threshold of $500. Interest on construction projects is capitalized until substantial completion of the project.

Unearned revenue: Tuition and fees relating to summer sessions that are conducted in July and August are recorded in the accompanying Statements of Net Position as unearned revenue. Unearned revenue also includes the amounts received from grant and contract sponsors that have not yet been earned and amounts received from a tuition payment service for payments received for the next fiscal year. These will be recorded as revenue in the following fiscal year.

Pensions: For purposes of measuring the net pension liability or asset, deferred outflows of resources and deferred inflows of resources related to pensions, pension expense, and information about the fiduciary net position of the Ohio Public Employees Retirement System (OPERS) Traditional and Combined Plans as well as the State Teachers Retirement System of Ohio Retirement Plan (STRS Ohio) (collectively referred to as, the Pension Plans) any additions to/deductions from the Pension Plan's fiduciary net position have been determined on the same basis as they are reported by the Pension Plans. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

Postemployment benefits other than pensions (OPEB): For purposes of measuring the OPEB liability or asset, deferred outflows of resources and deferred inflows of resources related to healthcare costs, and employer OPEB expense, information about the fiduciary net position of the OPERS OPEB Plan as well as the STRS Ohio OPEB Plan (collectively referred to as, the OPEB Plans) and additions to/deductions from the Plan's fiduciary net position have been determined on the same basis as they are reported by the OPEB Plans. For this purpose, health care costs are recognized when due and payable in accordance with the health care terms. Investments are reported at fair value.

Operating and non-operating revenue: The University defines operating activities, for purposes of reporting on the Statements of Revenues, Expenses, and Changes in Net Position, as those activities that generally result from exchange transactions such as payments received for providing services and payments made for services or goods received. Substantially all of the University's expenses are from exchange transactions. Certain significant revenue streams relied upon for operations are recorded as non-operating revenues, as defined by GASB Codification 2200: *Comprehensive Annual Financial Report*, including state appropriations, gifts, and investment income.

Revenue recognition: The University recognizes tuition, fees and other student charges as goods and services are provided to customers and constituencies of the institution. State appropriations are recognized when received or made available. Restricted funds are recognized as revenue as expenditures are incurred for cost reimbursement grants and contracts when earned. Gifts are recognized when received.

Note 1. Summary of Significant Accounting Policies (Continued)

Allowance for student scholarships: Allowances for student tuition and fee revenues, and certain other revenues from students, are reported in the Statements of Revenues, Expenses, and Changes in Net Position. Scholarship allowances are the difference between the stated charge for goods and services provided by the University, and the amount that is paid by students and/or third parties making payments on the students' behalf. Certain governmental grants, such as Pell grants, and other Federal, state or nongovernmental programs, are recorded as either operating or non-operating revenues in the University's financial statements. To the extent that revenues from such programs are used to satisfy tuition and fees and other student charges, the University has recorded a scholarship allowance.

Bond premiums, discounts and issuance costs: Bond premiums and discounts costs are deferred and amortized over the life of the bonds using the effective interest method. Bond issuance costs are recognized as an expense in the period incurred.

Deferred outflows/inflows of resources: Deferred outflows of resources are a consumption of net position by the University that is applicable to a future reporting period. Deferred outflows of resources of the University consist of certain changes in the net pension liability and net OPEB liability not included in pension expense and OPEB expense, respectively. Employer contributions to the pension plan and OPEB plan subsequent to the measurement date of the net pension liability and OPEB liability, respectively, are also required to be reported as a deferred outflow of resources of the University. Deferred inflows of resources are an acquisition of net positions by the University that is applicable to a future reporting period. Deferred inflows of resources consist of deferred gains on debt refundings, the University's share of beneficial interests in perpetual trusts, and certain changes in net pension liability not included in pension expense and net OPEB liability not included in OPEB expense.

Compensated absences: Full-time unclassified staff earn vacation at rates of 18 to 22 days per year, based on the term of their employment contract, with a maximum accrual of 52 days. Classified employees earn vacation at rates up to 25 days per year, based on years of service and hours reported, with a maximum accrual equivalent to the amount earned in three years. Upon retirement, termination, or death, the employee is compensated at the final rate of pay for unused vacation up to a maximum of 40 days. Faculty accrue no vacation benefits.

Full-time faculty, unclassified staff, and classified staff earn 15 days of sick leave per year and individuals who work less than full-time earn sick leave on a pro-rata basis. There is no limit on the number of sick leave hours that can be accumulated. Upon retirement, a staff member with 10 or more years of Ohio public service is paid for one-fourth the value of earned but unused sick leave not to exceed 30 days, based on the employee's rate of pay at the time of retirement. The termination payment method is used to compute the liability for sick leave. Employees transferring to or from another State of Ohio agency may transfer any unused accumulated sick leave entitlement to/from the new agency. Persons leaving employment for reasons other than retirement are not compensated for unused sick leave.

Note 1. Summary of Significant Accounting Policies (Continued)

Net positions: Net positions are divided into three major categories. The first category, net investment in capital assets include property, plant and equipment, net of accumulated depreciation and net of capital related debt and capital related deferred inflows of resources. Capital related debt is offset by unspent bond proceeds, if any. The second major category is restricted net position. This category contains assets that are owned by the institution (offset by liabilities payable from those assets, if any), but the use or purpose of the funds is restricted by an external source or entity. The corpus of the nonexpendable restricted assets is available for investment purposes only. The expendable restricted assets may be expended by the institution, but must be spent only for the purpose as determined by a donor or external entity. The income generated from the nonexpendable restricted investments and the expendable restricted funds may be used for student loans, scholarships and fellowships, instruction, research, and other needs to support the operation of the University. The third category is unrestricted net position and is separated into two types: allocated and unallocated. Allocated unrestricted assets are available to the institution, but are allocated for a specific purpose within the institution by University policy, management, or the governing board. The allocated unrestricted net position was $309,622 and $338,042 as of June 30, 2020 and 2019, respectively, and is to be used for loans, scholarships, investments and capital projects. Unallocated unrestricted net positions are available to be used for any lawful purpose of the institution. Generally, it is the University's policy to consider restricted resources to have been spent first when an expenditure is incurred for which both restricted and unrestricted resources are available.

Tax status: The University is exempt from federal income taxes under Section 115 of the Internal Revenue Code. As such, the University is subject to federal income taxes only on unrelated business income, if any, under the provisions of Section 511 in the Internal Revenue Code.

Estimates: Management has made, where necessary, estimates and judgments that affect certain amounts reported in the financial statements. The estimates and judgments are based on current available information, and actual results could differ from those estimates.

Subsequent events: The University has evaluated subsequent events occurring between the end of our most recent fiscal year and October 15, 2020, the date the financial statements were available to be issued. See Note 15 for further discussion.

Note 2. Cash, Cash Equivalents and Investments

The University's cash and investment activities are governed by policies adopted by the Board in accordance with authority granted by the Ohio Revised Code. Such policies are implemented by the treasurer and overseen by the Board's finance and audit committee.

The University's investment strategy incorporates financial instruments that involve varying elements of risk including market risk, credit risk, interest rate risk, and custodial credit risk. The University's investment policies and procedures establish risk guidelines for each of the two primary investment pools, the non-endowment pool and endowment pool. Diversification is a fundamental risk management strategy for both pools.

Cash and cash equivalents: At year-end, the carrying amount of the University's cash and cash equivalents was approximately $115,100 and $120,800 in 2020 and 2019, respectively. Cash and cash equivalents consist primarily of cash in banks, money market accounts and the State Treasury Asset Reserve of Ohio (STAR Ohio) that include short-term, highly liquid investments readily convertible to cash, with an original maturity of three months or less. STAR Ohio is a statewide fund managed by the State Treasurer of Ohio with the carrying amount of the assets reported at amortized cost.

Note 2. Cash, Cash Equivalents and Investments (Continued)

Approximately $11,730 and $22,449 in 2020 and 2019, respectively, of cash and cash equivalents was covered by federal depository insurance; $45,394 and $49,843 in 2020 and 2019, respectively, was covered by collateral held by third-party trustees pursuant to paragraph 135.181 of the Ohio Revised Code in collateral pools securing all public funds on deposit with specific depository institutions; and the remaining $57,976 and $48,508 was not collateralized or insured for the years ending June 30, 2020 and 2019, respectively, leaving it exposed to credit risk. Credit risk is the risk that, in the event of the failure of a depository financial institution, the University may not be able to recover its deposits or collateral securities. The University maintains active relationships with multiple cash equivalent accounts to reduce its exposure to custodial credit risk at any single institution.

Investments: Investments held by the University at June 30, 2020 and 2019 are presented below, categorized by investment type and credit quality rating. Credit quality ratings provide information about the investments' credit risk, which is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. Beginning in fiscal year 2019, management of the University's investments has been delegated by the Board to an external investment firm. The external investment firm has discretion to manage the University's investments within the framework of the investment policy statement. The University's formal investment policy does not specifically address interest rate risk, credit risk, custodial credit risk, or concentration risk, though these risks are monitored and managed by the external investment firm as part of their management and due diligence process. The external investment firm has implemented a combination of internally and externally managed investment vehicles, including separate accounts, limited partnerships, and commingled funds. The University's investment management policy establishes guidelines for average credit quality ratings in the portfolios. Investments in Tier II of the policy include U.S. Treasury and government agency securities generally with an average weighted maturity of between zero and two years for the baseline allocation. Investments in Tier III of the policy include diversified global equity and fixed income securities, along with absolute return strategies. Moody's Investors Services and Fitch Ratings have assigned AAA credit ratings to U.S. Treasury obligations. On August 6, 2011, Standard & Poor's lowered its credit rating on long-term U.S. Treasury related debt obligations from AAA to AA+. For an investment, custodial credit risk is the risk that, in the event of the failure of the counterparty, the University will not be able to recover the value of its investment or collateral securities that are in the possession of an outside party. The University has credit risk associated with counterparty nonperformance. However, credit risk associated with exchange-traded contracts are typically perceived to be less because exchanges typically provide clearinghouse arrangements in which the collective credit of the managers of the exchange is pledged to support the financial integrity of the exchange. Margins, which may be subject to loss in the event of a default, are generally required in exchange trading and further mitigate credit risk. All of the future contracts held by the University at June 30, 2020 were exchange traded contracts.

(Dollars in Thousands)

Note 2. Cash, Cash Equivalents and Investments (Continued)

The credit ratings of investments in debt securities are based on Moody's investor services and are summarized as follows as of June 30:

	2020				
Investment Type	Fair Value	Not Applicable	AAA	AA, A, and BBB	Below BBB
U.S. Treasury bonds	$ 142,541	$ -	$ 142,541	$ -	$ -
U.S. Treasury strips	1,685	-	1,685	-	-
U.S. Treasury inflation protection securities	22,850	-	22,850	-	-
Common and preferred stocks	815	815	-	-	-
Exchanged traded funds	18,990	18,990	-	-	-
Commingled funds	588,275	588,275	-	-	-
Real estate and other	350	350	-	-	-
Total investments	$ 775,506	$ 608,430	$ 167,076	$ -	$ -

	2019				
Investment Type	Fair Value	Not Applicable	AAA	AA, A, and BBB	Below BBB
U.S. Treasury bonds	$ 171,564	$ -	$ 171,564	$ -	$ -
U.S. Agency bonds	1,152	-	1,152	-	-
U.S. Treasury strips	1,571	-	1,571	-	-
U.S. Treasury inflation protection securities	20,949	-	20,949	-	-
Government-backed bonds	1,010	-	1,010	-	-
Common and preferred stocks	752	752	-	-	-
Exchanged traded funds	15,808	15,808	-	-	-
Commingled funds	579,497	579,497	-	-	-
Real estate and other	337	337	-	-	-
Total investments	$ 792,640	$ 596,394	$ 196,246	$ -	$ -

The University's bond investments are exposed to interest rate risk, which is the risk that changes in interest rates will adversely affect the fair value of an investment. Interest rate risk is managed primarily by adjusting portfolio duration.

Bond investments by length of maturity as of June 30 are summarized as follows:

	2020				
Investment Type	Fair Value	Less than 1 Year	1 to 5 Years	6 to 10 Years	More than 10 Years
U.S. Treasury bonds	$ 142,541	$ 66,584	$ 59,829	$ 16,128	$ -
U.S. Treasury strips	1,685	-	1,685	-	-
U.S. Treasury inflation protection securities	22,850	-	12,574	10,276	-
Total bonds	$ 167,076	$ 66,584	$ 74,088	$ 26,404	$ -

	2019				
Investment Type	Fair Value	Less than 1 Year	1 to 5 Years	6 to 10 Years	More than 10 Years
U.S. Treasury bonds	$ 171,564	$ 65,728	$ 85,380	$ 20,456	$ -
U.S. Agency bonds	1,152	901	251	-	-
U.S. Treasury strips	1,571	-	1,571	-	-
U.S. Treasury inflation protection securities	20,949	-	14,231	6,718	-
Government-backed bonds	1,010	304	337	-	369
Total bonds	$ 196,246	$ 66,933	$ 101,770	$ 27,174	$ 369

(Dollars in Thousands)

Note 2. Cash, Cash Equivalents and Investments (Continued)

Fair value of financial instruments: Fair value is defined in the accounting standards as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Management utilizes valuation techniques that maximize the use of observable inputs (Levels 1 and 2) and minimize the use of unobservable inputs (Level 3) within the fair value hierarchy established by GASB. Assets carried at fair value are required to be classified and disclosed in one of the following three categories:

Level 1: Quoted prices in active markets for identical assets as of the report date. The quoted market prices are from those securities traded on an active exchange such as the New York Stock Exchange, NASDAQ or an active over-the-counter market.

Level 2: Significant other observable inputs including prices quoted in active markets for similar assets.

Level 3: Inputs that are unobservable including the University's own assumptions in determining the fair value of investments or liabilities. If the inputs used to measure the financial instruments fall within different levels of the hierarchy, the categorization is based on the lowest level input that is significant to the fair value measurement of the instrument.

The following table presents the investments by fair value hierarchy as of June 30:

	2020			
	Level 1	Level 2	Level 3	Total
Investment assets:				
U.S. Treasury bonds	$ -	$ 142,541	$ -	$ 142,541
U.S. Treasury strips	-	1,685	-	1,685
U.S. Treasury inflation protection securities	-	22,850	-	22,850
Common and preferred stocks	765	-	50	815
Exchanged traded funds	18,990	-	-	18,990
Real estate and other	-	-	350	350
Miami University Foundation investment pool	-	-	223,104	223,104
	$ 19,755	$ 167,076	$ 223,504	$ 410,335
Funds reported at fair value based on net asset value per share:				
Non-publicly traded funds [(a)]				
Cintrifuse Syndicate Fund II, LLC				$ 204
Harrison Street Core Property LP Fund				2,103
Morgan Stanley Prime Property Fund				4,975
Strategic Active Credit Trust				39,003
Strategic Developed Markets ex-U.S. Equity Trust				80,545
Strategic Emerging Markets Equity Trust				35,593
Strategic Global Equity Trust				38,489
Strategic SPC Alpha Segregated Portfolio				91,227
Strategic U.S. Equity Trust				67,069
PRISA LP				2,046
Hedge funds [(b)]				3,917
Total investment assets				$ 775,506

(Dollars in Thousands)

Note 2. Cash, Cash Equivalents and Investments (Continued)

	2019			
	Level 1	Level 2	Level 3	Total
Investment assets:				
U.S. Treasury bonds	$ -	$ 171,564	$ -	$ 171,564
U.S. Agency bonds	-	1,152	-	1,152
U.S. Treasury strips	-	1,571	-	1,571
U.S. Treasury inflation protection securities	-	20,949	-	20,949
Government-back bonds	-	1,010	-	1,010
Common and preferred stocks	702	-	50	752
Exchanged traded funds	15,808	-	-	15,808
Real estate and other	-	-	337	337
Miami University Foundation investment pool	-	-	226,404	226,404
	$ 16,510	$ 196,246	$ 226,791	$ 439,547
Funds reported at fair value based on net asset value per share:				
Non-publicly traded funds [(a)]				
Cintrifuse Syndicate Fund II, LLC				$ 114
Strategic SPC Alpha Segregated Portfolio				81,735
Strategic U.S. Equity Trust				61,205
Strategic Global Equity Trust				22,489
Strategic Developed Markets ex-U.S. Equity Trust				74,015
Strategic Emerging Markets Equity Trust				42,433
Strategic Active Credit Trust				36,648
PRISA LP				2,000
Hedge funds [(b)]				32,454
Total investment assets				$ 792,640

The redemption frequency, if eligible, ranges from monthly to quarterly for the various funds reported at fair value based on net asset value per share at June 30, 2020, with a redemption notice period, if applicable, ranging from 30 day to 90 days. As of June 30, 2020, the University has made commitments to limited partnerships of approximately $769 that have not yet been funded.

Certain investments that are measured at net asset value per share (or its equivalent) have not been classified in the fair value hierarchy. The fair value amounts presented in these tables are intended to permit reconciliation of the fair value hierarchy to the amounts presented in the Statements of Net Position.

(a) This class includes investments in non-publicly traded funds where the underlying holdings are primarily long-only investments in publicly traded equity and bonds on a global basis.

(b) This class includes primarily investments in hedge funds that invest in both long and short positions in publicly traded equity and debt securities on a global basis.

Note 2. Cash, Cash Equivalents and Investments (Continued)

All of the University's investments in publicly traded securities are subject to market risk. As a result, a significant downturn in the securities markets could adversely affect the market value of University assets. Investments include globally oriented strategies that include exposure to non-U.S. equity and debt securities. While providing a potential diversification benefit, such international investments are exposed to foreign currency risk. All direct investments and investment vehicles in the portfolios are denominated in U.S. dollars. The University's investments that are exposed to concentration risk consist of securities issued by the agencies or instrumentalities of the U.S. government which represent 21.5 percent and 24.8 percent of investments at June 30, 2020 and 2019, respectively. Exposure to individual diversified commingled funds does exceed five percent of investments. Commingled funds held by the University include a wide range of investments, including hedge funds. The University's objective for investing in these hedge funds is to provide stable, absolute returns that are uncorrelated to fluctuations in the stock and bond markets. Specific investments are also reviewed and aggregated, as available from each Manager, on a regular basis to ensure that the portfolio does not maintain unwarranted concentration risks with respect to any single factor or security at the Manager's level, asset class level and portfolio level.

Endowment funds: The Miami University Foundation (Foundation) manages the Foundation and University endowment and quasi-endowment funds in a single investment pool (Pooled Fund). The University investment is maintained as a separate fund in the financial system of the Foundation and receives a proportionate share of the Pooled Fund's activity. The Foundation owns the assets of the Pooled Fund; the University has an interest in the Pooled Fund. The Foundation's Pooled Fund is not registered with the Securities and Exchange Commission as an investment company. The Foundation's Board of Directors appoints an Investment Committee, which is responsible for oversight of the Pooled Fund in accordance with Foundation policies. University investments include $223,104 and $226,404 managed by the Foundation as of June 30, 2020 and 2019, respectively. The assets held on behalf of the University are included in other noncurrent liabilities on the Statements of Net Position of the Foundation. The fair value of the University's position in the Pooled Fund is based on the University's proportional share of the Pooled Fund, which is marked-to-market annually. Note 10 provides additional information on the Foundation and the Pooled Fund.

The Uniform Prudent Management of Institutional Funds Act (UPMIFA) as adopted by the State of Ohio provides statutory guidelines for prudent management, investment, and expenditure of donor-restricted endowment funds held by charitable organizations. The University's interpretation of its fiduciary responsibilities for donor-restricted endowments under UPMIFA requirements, barring the existence of any donor-specific provisions, is to preserve intergenerational equity to the extent possible and to produce maximum total return without assuming inappropriate risks. The investment policies governing these funds look beyond short-term fluctuations in economic cycles toward an investment philosophy that provides the best total return over very long time periods.

The University employs a total return policy which defines the total amount of dividends, interest and realized gains to be distributed from the endowment assets. The policy distributes four percent of the average of the previous twelve quarterly market values as of March 31st of each fiscal year. The authorized spending amount was $8,740 and $8,288 in 2020 and 2019, respectively. In accordance with donors' stipulations, a portion of the earnings was returned to endowment principal and the balance of $7,277 and $6,900 was distributed for expenditure for 2020 and 2019, respectively. Donor restricted endowments with insufficient accumulated earnings made a partial distribution.

(Dollars in Thousands)

Note 3. Accounts, Pledges and Notes Receivable, Net

The accounts, pledges and notes receivable as of June 30 are summarized as follows:

	2020	2019
Accounts receivable:		
Student receivables	$ 11,051	$ 10,326
University Foundation	16,246	16,348
Grants and contracts	11,216	3,788
Investment trade receivables	17,467	5,588
Other receivables	4,367	5,180
Total accounts receivable	60,347	41,230
Less allowances for doubtful accounts	(1,285)	(1,285)
Net accounts receivable	59,062	39,945
Pledges receivable:		
Pledges receivable	8,596	2,572
Less allowance for doubtful pledges	(606)	(576)
Net pledges receivable	7,990	1,996
Notes receivable:		
Federal loan programs	4,185	4,965
University loan programs	3,794	4,082
Total notes receivable	7,979	9,047
Less allowance for doubtful notes	(1,874)	(1,974)
Net notes receivable	6,105	7,073
Total	$ 73,157	$ 49,014

(Dollars in Thousands)

Note 4. Capital Assets

The capital assets and accumulated depreciation as of June 30 are summarized as follows:

	2020				
	Beginning Balance	Additions	Retirements	Transfers	Ending Balance
Capital assets:					
Land	$ 6,025	$ -	$ -	$ -	$ 6,025
Collections of works of art and historical treasures	10,160	277		-	10,437
Construction in progress	173,878	49,442	-	(173,329)	49,991
Total nondepreciable capital assets	190,063	49,719	-	(173,329)	66,453
Land improvements	63,098	2,410	-	1,620	67,128
Buildings	1,584,247	-	(13,670)	171,709	1,742,286
Infrastructure	179,132	1,162	-	-	180,294
Machinery and equipment	85,212	6,203	(2,671)	-	88,744
Library books and publications	72,882	1,562	-	-	74,444
Vehicles	6,735	339	(392)	-	6,682
Intangible assets	12,660	-	(599)	-	12,061
Total depreciable capital assets	2,003,966	11,676	(17,332)	173,329	2,171,639
Total capital assets	2,194,029	61,395	(17,332)	-	2,238,092
Less accumulated depreciation:					
Buildings	572,130	53,674	(5,942)	-	619,862
Infrastructure	86,883	6,507	-	-	93,390
Land improvements	24,155	2,341	-	-	26,496
Machinery and equipment	31,279	5,089	(2,671)	-	33,697
Library books and publications	54,636	1,861	-	-	56,497
Vehicles	6,148	279	(392)	-	6,035
Intangible assets	12,520	31	(599)	-	11,952
Total accumulated depreciation	787,751	69,782	(9,604)	-	847,929
Total capital assets, net	$ 1,406,278	$ (8,387)	$ (7,728)	$ -	$ 1,390,163

(Dollars in Thousands)

Note 4. Capital Assets (Continued)

	2019				
	Beginning Balance	Additions	Retirements	Transfers	Ending Balance
Capital assets:					
Land	$ 6,025	$ -	$ -	$ -	$ 6,025
Collections of works of art and historical treasures	9,888	272	-	-	10,160
Construction in progress	196,778	107,614	-	(130,514)	173,878
Total nondepreciable capital assets	212,691	107,886	-	(130,514)	190,063
Land improvements	60,942	2,156	-	-	63,098
Buildings	1,461,965	37	(3,011)	125,256	1,584,247
Infrastructure	170,047	3,827	-	5,258	179,132
Machinery and equipment	88,147	5,929	(8,864)	-	85,212
Library books and publications	71,995	887	-	-	72,882
Vehicles	6,863	197	(325)	-	6,735
Intangible assets	12,871	155	(366)	-	12,660
Total depreciable capital assets	1,872,830	13,188	(12,566)	130,514	2,003,966
Total capital assets	2,085,521	121,074	(12,566)	-	2,194,029
Less accumulated depreciation:					
Buildings	527,115	48,026	(3,011)	-	572,130
Infrastructure	80,514	6,369	-	-	86,883
Land improvements	21,926	2,229	-	-	24,155
Machinery and equipment	28,431	4,803	(1,955)	-	31,279
Library books and publications	52,710	1,926	-	-	54,636
Vehicles	6,228	245	(325)	-	6,148
Intangible assets	12,871	15	(366)	-	12,520
Total accumulated depreciation	729,795	63,613	(5,657)	-	787,751
Total capital assets, net	$ 1,355,726	$ 57,461	$ (6,909)	$ -	$ 1,406,278

Note 5. Long-Term Liabilities

The long-term liabilities as of June 30 are summarized as follows:

	2020				
	Beginning Balance	Additions	Reductions	Ending Balance	Current Portion
Bonds and leases payable:					
Bonds payable	$ 610,365	$ -	$ (31,846)	$ 578,519	$ 33,205
Capital leases payable	1,880	-	(119)	1,761	123
Premiums	46,883	-	(2,325)	44,558	-
Total bonds and leases payable	659,128	-	(34,290)	624,838	33,328
Other liabilities:					
Compensated absences	17,698	8,140	(7,612)	18,226	1,286
Federal Perkins loans	4,297	270	(1,937)	2,630	770
Total other liabilities	21,995	8,410	(9,549)	20,856	2,056
Total	$ 681,123	$ 8,410	$ (43,839)	$ 645,694	$ 35,384

(Dollars in Thousands)

Note 5. Long-Term Liabilities (Continued)

	2019				
	Beginning Balance	Additions	Reductions	Ending Balance	Current Portion
Bonds and leases payable:					
Bonds payable	$ 641,815	$ -	$ (31,450)	$ 610,365	$ 31,845
Capital leases payable	2,157	-	(277)	1,880	120
Premiums	49,207	-	(2,324)	46,883	-
Total bonds and leases payable	693,179	-	(34,051)	659,128	31,965
Other liabilities:					
Compensated absences	18,223	7,779	(8,304)	17,698	1,148
Federal Perkins loans	4,088	283	(74)	4,297	756
Total other liabilities	22,311	8,062	(8,378)	21,995	1,904
Total	$ 715,490	$ 8,062	$ (42,429)	$ 681,123	$ 33,869

Miami University's General Receipts Revenue Bonds (Series 2010A, 2011, 2012, 2014, and 2017) related to the multi-phase effort to renovate all campus student housing and dining facilities contain subjective acceleration clauses. In the event of default, the Trustee, upon the written request of the bondholders of not less than 25 percent (in aggregate) principal amount of the obligations outstanding shall, declare the principal of all obligation with accrued interest thereon, to be immediately due and payable on the announced accelerated maturity date.

Additional information regarding the bonds and capital leases is included in Note 6.

Note 6. Indebtedness

During the year ended June 30, 2017, the University issued $154,635 in General Receipts Revenue Bonds with interest rates ranging from 2.00 percent to 5.00 percent and maturities from 2017 to 2042. A part of the proceeds were used to refund a portion of the remaining Miami University General Receipts Bonds, Series 2007. The net change in cash flows related to the refunding was approximately $5,800 and the net present value savings was approximately $5,000. In 2017, the University defeased a portion of the Series 2007 bonds by placing some of the proceeds from the Series 2017 bonds into an escrow account to provide for future debt service. The outstanding balance of defeased bonds were $36,765 and $41,065 as of June 30, 2020 and 2019, respectively.

The February 14, 2017 bond refunding resulted in a difference between the net carrying amount of the old debt and the reacquisition price of $599. The unamortized difference of $429 and $489 at June 30, 2020 and 2019, respectively, is reported in the accompanying financial statements as a deferred inflow of resources and is being amortized through the year 2028.

During the year ended June 30, 2015, the University issued $52,335 in General Receipts Revenue Bonds with a 1.88 percent coupon and maturities from 2016 to 2025. The proceeds were used to retire existing debt obligations.

During the year ended June 30, 2014, the University issued $135,035 in General Receipts Revenue Bonds with interest rates ranging from 3.00 percent to 5.00 percent and maturities from 2015 to 2040.

During the year ended June 30, 2013, the University issued $116,065 in General Receipts Revenue Bonds with interest rates ranging from 3.00 percent to 5.00 percent and maturities from 2014 to 2038.

Note 6. Indebtedness (Continued)

During the year ended June 30, 2012, the University issued $148,775 in General Receipts Revenue Bonds with interest rates ranging from 2.00 percent to 5.00 percent and maturities from 2012 to 2037. A part of the proceeds were used to refund a portion of the remaining Miami University General Receipts Bonds, Series 2003. The net change in cash flows related to the refunding was approximately $2,100 and the net present value savings was approximately $1,600. In fiscal year 2012, the University defeased a portion of the Series 2003 bonds by placing some of the proceeds from the Series 2011 bonds into an escrow account to provide for all future debt service. The outstanding balance of defeased bonds were $14,400 and $17,575 as of June 30, 2020 and 2019, respectively.

The December 21, 2011 bond refunding resulted in a difference between the net carrying amount of the old debt and the reacquisition price of $1,209. The unamortized difference of $387 and $484 at June 30, 2020 and 2019, respectively, is reported in the accompanying financial statements as a deferred inflow of resources and is being amortized through the year 2024.

During the year ended June 30, 2011, the University issued $125,000 in General Receipts Revenue Bonds consisting of $105,445 Series 2010A (Federally Taxable Build America Bonds – Direct Payment) and $19,555 Series 2010B (Tax-Exempt Bonds). Interest rates range from 4.81 percent to 6.77 percent for the Series 2010A bonds and 5.00 percent for the Series 2010B bonds. Maturities range from 2017 to 2036 for the Series 2010A bonds with a final payment in 2017 for the Series 2010B bonds. The Series 2010 bond proceeds were used to provide funding for the first phase of planned improvements to student housing and dining facilities and the first phase of construction of the Armstrong Student Center.

The proceeds from the 2017, 2014, 2013, and 2012 issuances have been and will continue to be used to fund the multi-phase effort to renovate all campus student housing and dining facilities as well as to retire outstanding indebtedness of the University for more favorable borrowing terms as described in the proceeding paragraphs. The 2015 issuance was to refinance the 2005 issuance that was used to fund the campus student housing and dining facilities as well as the Farmer School of Business and infrastructure projects. The 2011 issuance refunded the 2003 issuance as well as fund campus student housing and dining facilities. The 2010A issuance was used to fund the Armstrong Student Center as well as campus student housing and dining facilities.

The University incurred total interest costs of $25,343 and $26,172 as of June 30, 2020 and 2019, respectively. The interest costs that were capitalized were $409 and $1,051 as of June 30, 2020 and 2019, respectively.

(Dollars in Thousands)

Note 6. Indebtedness (Continued)

The maturity dates, interest rates, and outstanding principal balances as of June 30, 2020 are as follows:

	Maturity Dates	Interest Rates	Outstanding Debt
Bonds payable:			
Series 2017 general receipts	2021 - 2042	4.00% - 5.00%	$ 139,260
Series 2015 general receipts	2021 - 2025	1.88% - 1.88%	27,020
Series 2014 general receipts	2021 - 2040	3.50% - 5.00%	116,895
Series 2012 general receipts	2021 - 2038	3.00% - 5.00%	93,844
Series 2011 general receipts	2021 - 2037	4.00% - 5.00%	107,820
Series 2010A general receipts	2021 - 2036	5.56% - 6.77%	93,680
Total bonds payable			578,519
Bond premiums			44,558
Total bonds payable, net			$ 623,077

The maturity dates, interest rates, and outstanding principal balances as of June 30, 2019 are as follows:

	Maturity Dates	Interest Rates	Outstanding Debt
Bonds payable:			
Series 2017 general receipts	2020 - 2042	4.00% - 5.00%	$ 146,065
Series 2015 general receipts	2020 - 2025	1.88% - 1.88%	32,130
Series 2014 general receipts	2020 - 2040	3.50% - 5.00%	121,300
Series 2012 general receipts	2020 - 2038	3.00% - 5.00%	98,735
Series 2011 general receipts	2020 - 2037	4.00% - 5.00%	114,400
Series 2010A general receipts	202 - 2036	5.56% - 6.77%	97,735
Total bonds payable			610,365
Bond premiums			46,883
Total bonds payable, net			$ 657,248

The principal and interest payments for the bonds in future years are as follows:

	Principal	Interest	Total
2021	$ 33,205	$ 26,732	$ 59,937
2022	34,690	25,143	59,833
2023	36,190	23,499	59,689
2024	37,755	21,826	59,581
2025	33,055	20,284	53,339
2026 - 2030	133,540	80,087	213,627
2031 - 2035	145,190	54,265	199,455
2036 - 2040	110,365	11,679	122,044
2041 - 2042	14,529	493	15,022
Total	$ 578,519	$ 264,008	$ 842,527

(Dollars in Thousands)

Note 6. Indebtedness (Continued)

The University has $1,761 in capitalized lease obligations that have varying maturity dates through 2032 and carry implicit interest rates ranging from 2.65 percent to 6.38 percent. The scheduled maturities of these leases as of June 30, 2020 are:

2021	$	180
2022		180
2023		178
2024		179
2025		180
2026 - 2030		889
2031 - 2032		354
Total minimum lease payments		2,140
Less amount representing interest		(379)
Net minimum lease payments	$	1,761

Certain buildings are financed with capital leases. The carrying amount of the buildings related to these capital leases as of June 30, 2020 and 2019 is $2,138 and $2,191, respectively.

Note 7. Net Pension Liability / Asset

Substantially all non-student employees are covered by one of three retirement plans. The University faculty is covered by the State Teachers Retirement System of Ohio (STRS Ohio). Non-faculty employees are covered by the Ohio Public Employees Retirement System of Ohio (OPERS). Employees may opt out of STRS Ohio and OPERS and participate in the Alternative Retirement Plan (ARP).

OPERS offers three separate retirement plans: the defined benefit plan (traditional plan), the defined contribution plan, and a combined plan. The defined contribution plan is excluded as it is not material to the financial statements for reporting purposes.

Defined benefit plans: Both STRS Ohio and OPERS (traditional and combined plans) are cost-sharing multiple-employer statewide retirement systems. Both plans provide retirement, disability, postretirement health care coverage, and death benefits to plan members and beneficiaries. Authority to establish and amend benefits is provided by state statute.

STRS Ohio and OPERS issue stand-alone financial reports. Copies of these reports may be obtained by visiting the STRS website at www.strsoh.org, or visiting the OPERS website at www.opers.org.

Benefits provided: STRS Ohio plan benefits are established under Chapter 3307 of the Ohio Revised Code (ORC), as amended by Substitute Senate Bill 342 in 2012, which gives the Retirement Board the authority to make future adjustments to the member contribution rate, retirement age and service requirements, and the cost-of-living adjustment as the need or opportunity arises, depending on the retirement system's funding progress.

Any member in the STRS Ohio plan may retire who has (1) five years of service credit and attained age 60; (2) 26 years of service credit and attained age 55; or (3) 31 years of service credit regardless of age. Beginning August 1, 2015, eligibility requirements for an unreduced benefit changed. The maximum annual retirement allowance, payable for life, considers years of credited service, final average salary (3-5 years) and multiplying by a factor ranging from 2.2 percent to 2.6 percent with 0.1 percent incremental increases for years greater than 30-31, depending on retirement age. Additionally, there are no cost-of-living adjustments.

Note 7. Net Pension Liability / Asset (Continued)

A plan member with five or more years of credited service who is determined to be disabled (illness or injury preventing individual's ability to perform regular job duties for at least 12 months) may receive a disability benefit. Additionally, eligible survivors of members who die before service retirement may qualify for monthly benefits. New members on or after July 1, 2013, must have at least 10 years of qualifying service credit to apply for disability benefits.

A death benefit of $1,000 is payable to the beneficiary of each deceased retired member who participated in the plan. Death benefit coverage up to $2,000 can be purchased by participants in all three of the plans. Various other benefits are available to members' beneficiaries.

OPERS plan benefits are established under Chapter 145 of the Ohio Revised Code, as amended by Substitute Senate Bill 343 in 2012. The requirements to retire depend on years of service (15 to 30 years) and from attaining the age of 48 to 62, depending on when the employee became a member. Members retiring before age 65 with less than 30 years of service credit receive a percentage reduction in benefit. Member retirement benefits are calculated on a formula that considers years of service (15-30 years), age (48-62 years) and final average salary, using a factor ranging from 1.0 percent to 2.5 percent.

A plan member who becomes disabled before age 60 or at any age, depending on when the member entered the plan, and has completed 60 contributing months is eligible for a disability benefit.

A death benefit of $500 - $2,500 is determined by the number of years of service credit of the retiree. Benefits may transfer to a beneficiary upon death with 1.5 years of service credits with the plan obtained within the last 2.5 years, except for law enforcement and public safety personnel, who are eligible immediately upon employment.

Benefit terms provide for annual cost-of-living adjustments to each employee's retirement allowance subsequent to the employee's retirement date. The annual adjustment, if applicable, is 3 percent.

Contribution requirements: Employer and member contribution rates are established by the State Teachers Retirement Board and limited by Chapter 3307 of the Ohio Revised Code. The statutory employer rate and member contribution rate for fiscal year 2019 and subsequent years is 14 percent of covered payroll (for both pension and OPEB and the Plan determines how much to allocate to OPEB each year). For STRS Ohio, the University contributed $10,736 and $10,654 for the years ended June 30, 2020 and 2019, respectively.

OPERS plan contributions are established under Chapter 145 of the Ohio Revised Code, as amended by Substitute Senate Bill 343 in 2012. During calendar years 2019 and 2018 and forward, employees covered by the OPERS system were required by state statute to contribute 10.0 percent of their salary to the plan. The University was required to contribute 14.0 percent of covered payroll, and the Plans determine how much to allocate to OPEB each year. Law enforcement employees who are a part of the OPERS law enforcement division contribute 13.0 percent of their salary to the plan for the calendar years 2019 and 2018. For these employees, the University was required to contribute 18.1 percent of covered payroll for the same years. The member contribution rate for all other employees and the University's contribution rate remained unchanged. The University contributed $14,261 and $14,046 for the years ended June 30, 2020 and 2019, respectively. Effective January 1, 2018 the portion of employer contributions to OPERS allocated to health care (OPEB) for members in the Traditional Plan was decreased to 0.0 percent.

The payroll for employees covered by STRS Ohio for the years ended June 30, 2020 and 2019 was approximately $76,683 and $76,102, respectively. The payroll for employees covered by OPERS for the years ended June 30, 2020 and 2019 was approximately $101,097 and $99,651, respectively.

Note 7. Net Pension Liability / Asset (Continued)

Pension liabilities and assets, pension expense, and deferred outflows of resources and deferred inflows of resources related to pensions: At June 30, 2020, the University reported a liability of $309,786 for its proportionate share of the net pension liability for the OPERS Traditional plan and the STRS Ohio plan, in the amounts of $139,294 and $170,492, respectively. The net pension liability was measured as of December 31, 2019 for the OPERS traditional plan and June 30, 2019 for the STRS Ohio plan. The total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of the same date for each plan. The amount used to allocate the net pension liability, deferred inflows/outflows and pension expense was based on the contributions during the measurement period which was determined by the OPERS Traditional plan and STRS Ohio plan to be a reliable approximation of long term contribution effort to the two plans. At the measurement date, the University's proportion was .704723 percent for OPERS Traditional, which was an increase of .00093 from its proportion measured as of December 31, 2018 and .770956 percent for STRS Ohio, which was a decrease of .00006 from its proportion measured as of June 30, 2018.

At June 30, 2019, the University reported a liability of $338,370 for its proportionate share of the net pension liability for the OPERS Traditional plan and the STRS Ohio plan, in the amounts of $167,611 and $170,759, respectively. The net pension liability was measured as of December 31, 2018 for the OPERS traditional plan and June 30, 2018 for the STRS Ohio plan. The total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of the same date for each plan. The amount used to allocate the net pension liability, deferred inflows/outflows and pension expense was based on the contributions during the measurement period which was determined by the OPERS Traditional plan and STRS Ohio plan to be a reliable approximation of long term contribution effort to the two plans. At the measurement date, the University's proportion was .611989 percent for OPERS Traditional, which was a decrease of .00052 from its proportion measured as of December 31, 2017 and .776608 percent for STRS Ohio, which was an increase of .00004 from its proportion measured as of June 30, 2017.

At June 30, 2020, the University reported an asset of $1,706 for its proportionate share of the net pension asset for the OPERS Combined plan. The net pension asset was measured as of December 31, 2019. The method used to calculate the net pension asset was determined by an actuarial valuation as of that date. The amount used to allocate the net pension asset, deferred inflows/outflows and pension expense was based on the contributions during the measurement period which was determined by the OPERS Combined plan and to be a reliable approximation of long term contribution effort to the plan. At the measurement date, the University's proportion was .818105 percent for OPERS Combined plan, which was an increase of .00144 from its proportion measured as of December 31, 2018.

At June 30, 2019, the University reported an asset of $755 for its proportionate share of the net pension asset for the OPERS Combined plan. The net pension asset was measured as of December 31, 2018. The method used to calculate the net pension asset was determined by an actuarial valuation as of that date. The amount used to allocate the net pension asset, deferred inflows/outflows and pension expense was based on the contributions during the measurement period which was determined by the OPERS Combined plan and to be a reliable approximation of long term contribution effort to the plan. At the measurement date, the University's proportion was .674437 percent for OPERS Combined plan, which was a decrease of .00010 from its proportion measured as of December 31, 2017.

For the year ended June 30, 2020, the University recognized pension expense of approximately $50,680 consisting of pension expense of approximately $23,871 for the OPERS Traditional plan, approximately $26,703 for the STRS Ohio plan and an expense of $106 for the OPERS Combined plan.

For the year ended June 30, 2019, the University recognized pension expense of approximately $51,933 consisting of pension expense of approximately $35,259 for the OPERS Traditional plan, approximately $16,454 for the STRS Ohio plan and an expense of $220 for the OPERS Combined plan.

(Dollars in Thousands)

Note 7. Net Pension Liability / Asset (Continued)

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

	2020		
	STRS Ohio	OPERS	Total
Deferred outflows of resources:			
Differences between expected and actual actuarial experience	$ 1,381	$ -	$ 1,381
Changes in assumptions	20,059	6,605	26,664
Changes in proportion and differences between University contributions and proportionate share of contributions	3,115	22,350	25,465
University contributions subsequent to the measurement date	10,736	6,735	17,471
Total	$ 35,291	$ 35,690	$ 70,981
Deferred inflows of resources:			
Differences between expected and actual actuarial experience	$ 739	$ 2,011	$ 2,750
Net difference between projected and actual earnings on pension plan investments	8,483	31,659	40,142
Changes in proportion and differences between University contributions and proportionate share of contributions	994	4,172	5,166
Total	$ 10,216	$ 37,842	$ 48,058

	2019		
	STRS Ohio	OPERS	Total
Deferred outflows of resources:			
Differences between expected and actual actuarial experience	$ 3,843	$ 8	$ 3,851
Net difference between projected and actual earnings on pension plan investments		21,122	21,122
Changes in assumptions	30,088	14,837	44,925
Changes in proportion and differences between University contributions and proportionate share of contributions	5,969	2,548	8,517
University contributions subsequent to the measurement date	10,655	6,628	17,283
Total	$ 50,555	$ 45,143	$ 95,698
Deferred inflows of resources:			
Differences between expected and actual actuarial experience	$ 1,109	$ 2,580	$ 3,689
Net difference between projected and actual earnings on pension plan investments	10,607	-	10,607
Changes in proportion and differences between University contributions and proportionate share of contributions	-	5,933	5,933
Total	$ 11,716	$ 8,513	$ 20,229

(Dollars in Thousands)

Note 7. Net Pension Liability / Asset (Continued)

Deferred inflows and outflows of resources related to the net difference between projected and actual earnings on pension plan investments are amortized over five years. The remaining deferred inflows and outflows of resources are amortized over the average remaining service lives of the active and inactive participants in the plan. Deferred outflows of resources includes $17,471 and $17,283, for the years ended June 30, 2020 and 2019, respectively, for University contributions subsequent to the measurement dates of the Plans and will be recognized as a reduction of the net pension liability in the subsequent fiscal year. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense (benefit) as follows:

	STRS Ohio	OPERS	Total
Year ended June 30:			
2021	$ 11,878	$ 4,159	$ 16,037
2022	2,748	(1,218)	1,530
2023	(1,081)	(523)	(1,604)
2024	794	(11,170)	(10,376)
2025	-	(39)	(39)
Thereafter	-	(96)	(96)
	$ 14,339	$ (8,887)	$ 5,452

Actuarial assumptions used for the year-ended June 30, 2020

For STRS Ohio, the total pension liability in the June 30, 2019 actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement:

STRS Ohio	
Inflation	2.50 percent
Projected salary increases	12.50 percent at age 20 to 2.50 percent at age 65
Investment rate of return	7.45 percent, net of investment expenses, including inflation
Discount rate of return	7.45 percent
Cost-of-living adjustments (COLA)	0.00 percent

For OPERS, the total pension liability/asset in the December 31, 2019 actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement:

OPERS	Traditional Pension Plan	Combined Plan
Wage Inflation	3.25 percent	3.25 percent
Projected salary increases	3.25 percent to 10.75 percent (includes wage inflation at 3.25 percent)	3.25 percent to 8.25 percent (includes wage inflation at 3.25 percent)
Investment rate of return and discount rate	7.20 percent	7.20 percent
Cost-of-living adjustments (COLA)	Pre January 7, 2013 retirees: 3.00 percent simple Post January 7, 2013 retirees: 1.40 percent simple through 2020, then 2.15 percent simple	Pre January 7, 2013 retirees: 3.00 percent simple Post January 7, 2013 retirees: 1.40 percent simple through 2020, then 2.15 percent simple

(Dollars in Thousands)

Note 7. Net Pension Liability / Asset (Continued)

Mortality rates: STRS Ohio post-retirement mortality rates are based on the RP-2014 Annuitant Mortality Table with 50% of rates through age 69, 70% of rates between ages 70 and 79, 90% of rates between ages 80 and 84, and 100% of rates thereafter, projected forward generationally using mortality improvement scale MP-2016. Pre-retirement mortality rates are based on RP-2014 Employee Mortality Tables, 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% of rates for males and 100% of rates for females, projected forward generationally using mortality improvement scale MP-2016.

OPERS pre-retirement mortality rates are based on RP-2014 Employees mortality table for males and females, adjusted for mortality improvement back to the observation period base year of 2006. The base year for males and females was then established to be 2015 and 2010, respectively. Post-retirement mortality rates are based on the RP-2014 Healthy Annuitant mortality tables for males and females, adjusted for mortality improvement back to the observation period base year of 2006. The base year for males and females was then established to be 2015 and 2010, respectively. Post-retirement mortality rates for disabled retirees are based on the RP-2014 Disabled mortality table for males and females, adjusted for mortality improvement back to the observation period base year of 2006. The base year for males and females was then established to be 2015 and 2010, respectively. Mortality rates for a particular calendar year are determined by applying the MP-2015 mortality improvement scale to all of the above described tables.

Experience studies: STRS actuarial assumption 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. OPERS actuarial assumptions used in the December 31, 2019 valuation are based on the results of an actual experience study for the period January 1, 2011 through December 31, 2015.

Investment return assumptions: STRS Ohio utilizes investment consultants to develop an estimated range for the investment return assumption based on the target allocation adopted by the respective Retirement Board of STRS Ohio.

The long-term expected rate of return on OPERS defined benefit investment assets was determined using a building-block method in which best-estimate ranges of expected future real rates of return were developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target allocation percentage, adjusted for inflation.

The target allocation and best estimates of arithmetic real rates of return for each major asset class are summarized in the following table:

	STRS Ohio		OPERS	
Asset Class	Target Allocation	Long-Term Expected Real Rate of Return	Target Allocation	Long-Term Expected Real Rate of Return
Domestic equities	28.00 %	7.35 %	19.00 %	5.75 %
International equities	23.00	7.55	21.00	7.66
Alternative investments	17.00	7.09	12.00	10.70
Fixed income	21.00	3.00	25.00	1.83
Real estate	10.00	6.00	10.00	5.20
Other	1.00	2.25	13.00	4.98
Total	100.00 %		100.00 %	

(Dollars in Thousands)

Note 7. Net Pension Liability / Asset (Continued)

Discount rate: The discount rate used to measure the total pension liability was 7.45 percent for STRS Ohio as of the measurement date (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 statutorily required rates and that all of the contributions would be made to the pension plan, with none of the future contributions paid to the OPEB plan. Based on those assumptions, the STRS Ohio's fiduciary net position was projected to be available to make all projected future benefit payments to current plan members. Therefore, the long-term expected rate of return on pension plan investments of 7.45 percent was applied to all periods of projected benefit payments to determine the total pension liability.

The discount rate used to measure the total pension liability (asset) was 7.20 percent for OPERS as of the measurement date (December 31, 2019). The projection of cash flows used to determine the discount rate assumed that contributions from plan members and employer contributions will be made at the contractually required rates, as actuarially determined. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments to current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability (asset).

Sensitivity of net pension liability (asset) to changes in discount rate: The following presents the University's proportionate share of the STRS Ohio and OPERS net pension liability (asset) calculated using a discount rate 1 percent higher and 1 percent lower than the plans' current rate.

	2020		
	1% Decrease (6.45%)	Current Discount Rate (7.45%)	1% Increase (8.45%)
STRS Ohio	$ 249,156	$ 170,492	$ 103,900
	1% Decrease (6.20%)	Current Discount Rate (7.20%)	1% Increase (8.20%)
OPERS - Traditional Plan	$ 229,740	$ 139,294	$ 57,985
OPERS - Combined Plan	(1,031)	(1,706)	(2,192)

<u>Actuarial assumptions used for the year-ended June 30, 2019</u>

For STRS Ohio, the total pension liability in the June 30, 2018 actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement:

STRS Ohio	
Inflation	2.50 percent
Projected salary increases	12.50 percent at age 20 to 2.50 percent at age 65
Investment rate of return	7.45 percent, net of investment expenses, including inflation
Discount rate of return	7.45 percent
Cost-of-living adjustments (COLA)	0.00 percent

(Dollars in Thousands)

Note 7. Net Pension Liability / Asset (Continued)

For OPERS, the total pension liability/asset in the December 31, 2018 actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement:

OPERS	Traditional Pension Plan	Combined Plan
Wage Inflation	3.25 percent	3.25 percent
Projected salary increases	3.25 percent to 10.75 percent (includes wage inflation at 3.25 percent)	3.25 percent to 8.25 percent (includes wage inflation at 3.25 percent)
Investment rate of return and discount rate	7.20 percent	7.20 percent
Cost-of-living adjustments (COLA)	Pre January 7, 2013 retirees: 3.00 percent simple Post January 7, 2013 retirees: 3.00 percent simple through 2018, then 2.15 percent simple	Pre January 7, 2013 retirees: 3.00 percent simple Post January 7, 2013 retirees: 3.00 percent simple through 2018, then 2.15 percent simple

Mortality rates: STRS Ohio post-retirement mortality rates for healthy retirees are based on the RP-2014 Annuitant Mortality Table with 50% of rates through age 69, 70% of rates between ages 70 and 79, 90% of rates between ages 80 and 84, and 100% 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% of rates for males and 100% of rates for females, projected forward generationally using mortality improvement scale MP-2016.

OPERS pre-retirement mortality rates are based on RP-2014 Employees mortality table for males and females, adjusted for mortality improvement back to the observation period base year of 2006. The base year for males and females was then established to be 2015 and 2010, respectively. Post-retirement mortality rates are based on the RP-2014 Healthy Annuitant mortality tables for males and females, adjusted for mortality improvement back to the observation period base year of 2006. The base year for males and females was then established to be 2015 and 2010, respectively. Post-retirement mortality rates for disabled retirees are based on the RP-2014 Disabled mortality table for males and females, adjusted for mortality improvement back to the observation period base year of 2006. The base year for males and females was then established to be 2015 and 2010, respectively. Mortality rates for a particular calendar year are determined by applying the MP-2015 mortality improvement scale to all of the above described tables.

Experience studies: STRS actuarial assumption used in the July 1, 2018 valuation are based on the results of an actuarial experience study for the period July 1, 2011 through June 30, 2016. OPERS actuarial assumptions used in the December 31, 2018 valuation are based on the results of an actual experience study for the period January 1, 2011 through December 31, 2015.

Investment return assumptions: STRS Ohio utilizes investment consultants to develop an estimated range for the investment return assumption based on the target allocation adopted by the respective Retirement Board of STRS Ohio.

The long-term expected rate of return on OPERS defined benefit investment assets was determined using a building-block method in which best-estimate ranges of expected future real rates of return were developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target allocation percentage, adjusted for inflation.

(Dollars in Thousands)

Note 7. Net Pension Liability / Asset (Continued)

The target allocation and best estimates of arithmetic real rates of return for each major asset class are summarized in the following table:

	STRS Ohio		OPERS	
Asset Class	Target Allocation	Long-Term Expected Real Rate of Return	Target Allocation	Long-Term Expected Real Rate of Return
Domestic equities	28.00 %	7.35 %	19.00 %	6.21 %
International equities	23.00	7.55	20.00	7.83
Alternative investments	17.00	7.09	10.00	10.81
Fixed income	21.00	3.00	23.00	2.79
Real estate	10.00	6.00	10.00	4.90
Other	1.00	2.25	18.00	5.50
Total	100.00 %		100.00 %	

Discount rate: The discount rate used to measure the total pension liability was 7.45 percent for STRS Ohio as of the measurement date (June 30, 2018). The projection of cash flows used to determine the discount rate assumes that member and employer contributions will be made at the statutorily required rates. Based on those assumptions, the STRS Ohio's fiduciary net position was projected to be available to make all projected future benefit payments to current plan members. Therefore, the long-term expected rate of return on pension plan investments of 7.45% was applied to all periods of projected benefit payments to determine the total pension liability.

The discount rate used to measure the total pension liability (asset) was 7.20 percent for OPERS as of the measurement date (December 31, 2018). This is a decrease of .30 percent from the discount rate used in the December 31, 2017 actuarial valuation. The projection of cash flows used to determine the discount rate assumed that contributions from plan members and employer contributions will be made at the contractually required rates, as actuarially determined. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments to current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability (asset).

Sensitivity of net pension liability (asset) to changes in discount rate: The following presents the University's proportionate share of the STRS Ohio and OPERS net pension liability (asset) calculated using a discount rate 1 percent higher and 1 percent lower than the plans' current rate.

	2019		
	1% Decrease (6.45%)	Current Discount Rate (7.45%)	1% Increase (8.45%)
STRS Ohio	$ 249,370	$ 170,759	$ 104,224
	1% Decrease (6.20%)	Current Discount Rate (7.20%)	1% Increase (8.20%)
OPERS - Traditional Plan	$ 247,611	$ 167,611	$ 101,131
OPERS - Combined Plan	(250)	(755)	(1,120)

Note 8. Defined Contribution Retirement Plans

Full-time faculty and unclassified employees are eligible to participate in the Alternative Retirement Plan (ARP) offered by STRS Ohio and OPERS. Full-time faculty and unclassified employees are eligible to choose a provider, in lieu of STRS Ohio or OPERS, from the list of six providers currently approved by the Ohio Department of Insurance and who hold agreements with the University. The University's Board of Trustees has established the employer and employee contributions requirements, which are noted below.

Eligible employees have 120 days from their date of hire to make an irrevocable election to participate in the ARP. Under this plan, employees who would have otherwise been required to be in STRS Ohio or OPERS, and who elect to participate in the ARP, must contribute the employee's share of retirement contributions to one of seven private providers approved by the Ohio Department of Insurance. The legislation mandates that the employer must contribute an amount to the state retirement system to which the employee would have otherwise belonged, based on an independent actuarial study commissioned by the Ohio Retirement Study Council and submitted to the Ohio Board of Regents. The required contribution was 4.47 percent for STRS Ohio and 2.44 percent for OPERS of covered payroll for the years ended June 30, 2020 and 2019. The employer also contributes what would have been the employer's contribution under STRS Ohio or OPERS, less the aforementioned percentages, to the private provider selected by the employee. The University plan provides these employees with vesting after one year. The pension expense for the ARP was $7,976 and $7,763 for the years ended June 30, 2020 and 2019, respectively.

ARP does not provide disability benefits, annual cost-of-living adjustments, postretirement health care benefits, or death benefits to plan members and beneficiaries. Benefits consist of the sum of contributions and investment returns earned by each participant's choice of investment options.

The payroll for employees electing the alternative retirement program for the years ended June 30, 2020 and 2019 was approximately $78,891 and $77,049, respectively.

Note 9. Postemployment Benefits Other Than Pensions (OPEB)

OPEB plans: STRS Ohio is a cost-sharing multiple employer statewide retirement plan. STRS Ohio provides access to health care coverage for eligible retirees who participated in the Defined Benefit or Combined Plans and their eligible dependents. Coverage under the current program includes hospitalization, physicians' fees and prescription drugs and reimbursement of a portion of the monthly Medicare Part B premiums. Medicare Part B premium reimbursements will be discontinued effective January 1, 2021. Pursuant to the ORC, the State Teachers Retirement Board has discretionary authority over how much, if any, of the associated health care costs will be absorbed by the plan. All benefit recipients pay a portion of the health care costs in the form of a monthly premium. Benefit recipients contributed $312.8 million or 64% and $329.3 million or 64% of the total health care costs in fiscal 2019 and 2018, respectively (excluding deductibles, coinsurance and copayments).

Medicare Part D is a federal program to help cover the costs of prescription drugs for Medicare beneficiaries. This program allows STRS Ohio to recover part of the cost for providing prescription coverage since all eligible STRS Ohio health care plans include creditable prescription drug coverage. For the year ended June 30, 2019, STRS Ohio received $84.8 million in Medicare Part D reimbursements.

Note 9. Postemployment Benefits Other Than Pensions (OPEB) (Continued)

The ORC permits, but does not require, OPERS to offer post-employment health care coverage. Authority to establish and amend health care coverage is provided in Chapter 145 of the ORC. The ORC allows a portion of the employers' contributions to be used to fund health care coverage. The health care portion of the employer contribution rate for the Traditional Pension Plan and Combined Plan is comparable, as the same coverage options are provided to participants in both plans. Beginning January 1, 2015, the service eligibility criteria for health care coverage increased from 10 years to 20 years with a minimum age of 60, or 30 years of qualifying service at any age. Beginning with January 2016 premiums, Medicare-eligible retirees could select supplemental coverage, and may be eligible for monthly allowances deposited to an HRA to be used for reimbursement of eligible health care expenses. Coverage for non-Medicare retirees includes hospitalization, medical expenses and prescription drugs. The System determines the amount, if any, of the associated health care costs that will be absorbed by the System and attempts to control costs by using managed care, case management, and other programs. Additional details on health care coverage can be found in the Plan Statement in the OPERS 2019 CAFR.

The OPERS funding policy provides for periodic member and employer contributions at rates established by the Board, subject to limits set in statute. With assistance of the System's actuary and Board approval, a portion of each employer contribution to OPERS may be set aside for the funding of post-employment health care coverage. All contribution rates were within the limits authorized by the ORC. The portion of Traditional Pension Plan and Combined Plan employer contributions allocated to health care was zero for 2019.

STRS Ohio and OPERS issue stand-alone financial reports. Copies of these reports may be obtained by visiting the STRS website at www.strsoh.org, or visiting the OPERS website at www.opers.org.

The payroll for employees covered by STRS Ohio for the years ended June 30, 2020 and 2019 was approximately $76,683 and $76,102, respectively. The payroll for employees covered by OPERS for the years ended June 30, 2020 and 2019 was approximately $101,097 and $99,651, respectively. There were no employer contributions made to fund post-employment benefits for the years ended June 30, 2020 and 2019.

OPEB asset, OPEB liabilities, OPEB expense, and deferred outflows of resources and deferred inflows of resources related to OPEB: At June 30, 2020, the University reported a liability of $99,365 for its proportionate share of the net OPEB liability for the OPERS plan. The net OPEB liability was determined by an actuarial valuation as of December 31, 2018, rolled forward to the measurement date of December 31, 2019. The amount used to allocate the net OPEB liability, deferred inflows/outflows and OPEB expense was based on the total employer (pension and OPEB) contributions during the measurement period which was determined by the OPERS plan to be a reliable approximation of long term contribution effort to the plan. At the measurement date, the University's proportion was .719379 percent for OPERS, which was an increase of .00097 from its proportion measured as of December 31, 2018.

At June 30, 2019, the University reported a liability of $81,146 for its proportionate share of the net OPEB liability for the OPERS plan. The net OPEB liability was determined by an actuarial valuation as of December 31, 2017, rolled forward to the measurement date of December 31, 2018. The amount used to allocate the net OPEB liability, deferred inflows/outflows and OPEB expense was based on the total employer (pension and OPEB) contributions during the measurement period which was determined by the OPERS plan to be a reliable approximation of long term contribution effort to the plan. At the measurement date, the University's proportion was .622401 percent for OPERS, which was a decrease of .00049 from its proportion measured as of December 31, 2017.

Note 9. Postemployment Benefits Other Than Pensions (OPEB) (Continued)

At June 30, 2020, the University reported an asset of $12,762 for its proportionate share of the net OPEB asset for the STRS Ohio plan. The net OPEB asset was measured as of June 30, 2019 for the STRS Ohio plan. The total OPEB asset used to calculate the net OPEB asset was determined by an actuarial valuation as of that date for the plan. The amount used to allocate the net OPEB asset, deferred inflows/outflows and OPEB expense was based on the total employer (pension and OPEB) contributions during the measurement period which was determined by the STRS Ohio plan to be a reliable approximation of long term contribution effort to the plan. At the measurement date, the University's proportion was .770956 percent for STRS Ohio, which was a decrease of .00006 from its proportion measured as of June 30, 2018.

At June 30, 2019, the University reported an asset of $12,479 for its proportionate share of the net OPEB asset for the STRS Ohio plan. The net OPEB asset was measured as of June 30, 2018 for the STRS Ohio plan. The total OPEB asset used to calculate the net OPEB asset was determined by an actuarial valuation as of that date for the plan. The amount used to allocate the net OPEB asset, deferred inflows/outflows and OPEB expense was based on the total employer (pension and OPEB) contributions during the measurement period which was determined by the STRS Ohio plan to be a reliable approximation of long term contribution effort to the plan. At the measurement date, the University's proportion was .776608 percent for STRS Ohio, which was an increase of .00004 from its proportion measured as of June 30, 2017.

For the year ended June 30, 2020, the University recognized OPEB expense of approximately $13,057 consisting of OPEB expense (income) of approximately $13,057 for the OPERS plan and $0 for the STRS Ohio plan.

For the year ended June 30, 2019, the University recognized OPEB (income) of approximately $(18,569) consisting of OPEB expenses (income) of approximately $8,391 for the OPERS plan and $(26,960) for the STRS Ohio plan.

(Dollars in Thousands)

Note 9. Postemployment Benefits Other Than Pensions (OPEB) (Continued)

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

	2020		
	STRS Ohio	OPERS	Total
Deferred outflows of resources:			
Differences between expected and actual actuarial experience	$ 1,160	$ 2	$ 1,162
Changes in assumptions	260	15,708	15,968
Changes in proportion and differences between University contributions and proportionate share of contributions	579	8,873	9,452
Total	$ 1,999	$ 24,583	$ 26,582
Deferred inflows of resources:			
Differences between expected and actual actuarial experience	$ 653	$ 9,070	$ 9,723
Net difference between projected and actual earnings on OPEB plan investments	804	5,745	6,549
Changes in assumptions	14,093	-	14,093
Changes in proportion and differences between University contributions and proportionate share of contributions	15	5,074	5,089
Total	$ 15,565	$ 19,889	$ 35,454

	2019		
	STRS Ohio	OPERS	Total
Deferred outflows of resources:			
Differences between expected and actual actuarial experience	$ 1,449	$ 30	$ 1,479
Net difference between projected and actual earnings on OPEB plan investments	-	3,418	3,418
Changes in assumptions	-	2,822	2,822
Changes in proportion and differences between University contributions and proportionate share of contributions	496	302	798
Total	$ 1,945	$ 6,572	$ 8,517
Deferred inflows of resources:			
Differences between expected and actual actuarial experience	$ 727	$ 220	$ 947
Net difference between projected and actual earnings on OPEB plan investments	1,420	-	1,420
Changes in assumptions	16,993	-	16,993
Changes in proportion and differences between University contributions and proportionate share of contributions	-	6,818	6,818
Total	$ 19,140	$ 7,038	$ 26,178

(Dollars in Thousands)

Note 9. Postemployment Benefits Other Than Pensions (OPEB) (Continued)

Deferred inflows and outflows of resources related to the net difference between projected and actual earnings on OPEB plan investments is amortized over five years. The remaining deferred inflows and outflows of resources are amortized over the average remaining service lives of the active and inactive participants in the plan. Amounts reported as deferred outflows of resources and deferred inflows of resources related to OPEB will be recognized in OPEB expense (benefit) as follows:

	STRS Ohio	OPERS	Total
Year ended June 30:			
2021	$ (2,965)	$ 5,538	$ 2,573
2022	(2,965)	2,811	(154)
2023	(2,643)	(1,664)	(4,307)
2024	(2,528)	(1,991)	(4,519)
2025	(2,529)	-	(2,529)
Thereafter	64	-	64
	$ (13,566)	$ 4,694	$ (8,872)

<u>Actuarial assumptions used for the year-ended June 30, 2020</u>

For STRS Ohio, the total OPEB liability in the June 30, 2019 actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement:

STRS Ohio	
Projected salary increases	12.50 percent at age 20 to 2.50 percent at age 65
Projected payroll increases	3.00 percent
Investment rate of return	7.45 percent, net of investment expenses, including inflation
Discount rate	7.45 percent
Health care cost trends	
Medical	
Pre-Medicare	5.87 percent initial, 4.00 percent ultimate
Medicare	4.93 percent initial, 4.00 percent ultimate
Prescription Drug	
Pre-Medicare	7.73 percent initial, 4.00 percent ultimate
Medicare	9.62 percent initial, 4.00 percent ultimate

For OPERS, the total OPEB liability at the December 31, 2019 measurement date was determined using the following actuarial assumptions, applied to all periods included in the measurement:

OPERS	
Single discount rate	3.16 percent
Investment rate of return	6.00 percent
Municipal bond rate	2.75 percent
Inflation	3.25 percent
Projected salary increases	3.25 percent to 10.75 percent (includes wage inflation)
Health care cost trends	10.5 percent initial, 3.50 percent ultimate in 2030

(Dollars in Thousands)

Note 9. Postemployment Benefits Other Than Pensions (OPEB) (Continued)

Mortality rates: For STRS Ohio 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.

OPERS pre-retirement mortality rates are based on RP-2014 Employees mortality table for males and females, adjusted for mortality improvement back to the observation period base of 2006. The base year for males and females was then established to be 2015 and 2010, respectively. Post-retirement mortality rates are based on the RP-2014 Healthy Annuitant mortality tables for males and females, adjusted for mortality improvement back to the observation period base year of 2006. The base year for males and females was then established to be 2015 and 2010, respectively. Post-retirement mortality rates for disabled retirees are based on the RP-2014 Disabled mortality table for males and females, adjusted for mortality improvement back to the observation period base year of 2006. The base year for males and females was then established to be 2015 and 2010, respectively. Mortality rates for a particular calendar year are determined by applying the MP-2015 mortality improvement scale to all of the above described tables.

Experience Studies: STRS actuarial assumption 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. OPERS actuarial assumption used in the December 31, 2019 valuation are based on the results of an actuarial experience study for the period January 1, 2011 through December 31, 2015.

Investment return assumptions: STRS Ohio utilizes investment consultants to develop an estimated range for the investment return assumption based on the target allocation determined by the respective Retirement Board of STRS Ohio.

The long-term expected rate of return on OPERS health care investment assets was determined using a building-block method in which best-estimate ranges of expected future real rates of return were developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target allocation percentage, adjusted for inflation. The target allocation and best estimates of arithmetic real rates of return for each major asset class are summarized in the following table:

	STRS Ohio		OPERS	
Asset Class	Target Allocation	Long-Term Expected Real Rate of Return	Target Allocation	Long-Term Expected Real Rate of Return
Domestic equities	28.00 %	7.35 %	21.00 %	5.75 %
International equities	23.00	7.55	23.00	7.66
Alternative investments	17.00	7.09	-	-
Fixed income	21.00	3.00	36.00	1.53
Real estate	10.00	6.00	-	-
REITs	-	-	6.00	5.69
Other	1.00	2.25	14.00	4.90
Total	100.00 %		100.00 %	

(Dollars in Thousands)

Note 9. Postemployment Benefits Other Than Pensions (OPEB) (Continued)

Discount rate: For STRS Ohio, the discount rate used to measure the total OPEB liability was 7.45 percent as of the measurement date, June 30, 2019. The projection of cash flows used to determine the discount rate assumes STRS Ohio continues to allocate no employer contributions to the health care fund. Based on those assumptions, the STRS Ohio'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, 2020.

For OPERS, a single discount rate of 3.16 percent was used to measure the OPEB liability on the measurement date of December 31, 2019, which is a decrease of .0080 percent since the prior measurement date. This single discount rate was based on an expected rate of return of the health care investment portfolio of 6.00 percent and a municipal bond rate of 2.75 percent based on an index of 20-year general obligation bonds with an average AA credit rating. The projection of cash flows used to determine this single discount rate assumed that employer contributions will be made at rates equal to the actuarially determined contribution rate. Based on those assumptions, the OPERS health care fiduciary net position and future contributions were sufficient to finance health care costs through 2034. As a result, the long-term expected rate of return on health care investments was applied to projected costs through the year 2034, and the municipal bond rate was applied to all health care costs after that date.

The following presents the University's proportionate share of the STRS Ohio and OPERS net OPEB (asset) liability calculated using a discount rate 1 percent higher and 1 percent lower than the plans' current rate:

	2020		
	1% Decrease (6.45%)	Current Discount Rate (7.45%)	1% Increase (8.45%)
STRS Ohio	$ (10,890)	$ (12,762)	$ (14,336)
	1% Decrease (2.16%)	Current Discount Rate (3.16%)	1% Increase (4.16%)
OPERS	$ 130,035	$ 99,365	$ 74,808

Sensitivity of net OPEB (asset) liability to changes in healthcare cost trend rates: The following presents the University's proportionate share of the STRS Ohio and OPERS net OPEB (asset) liability calculated using healthcare cost trend rates 1 percent higher and 1 percent lower than the plans' current rate:

	2020		
	1% Decrease	Current Health Care Cost Trend Rate	1% Increase
STRS Ohio	$ (14,472)	$ (12,762)	$ (10,668)
OPERS	$ 96,433	$ 99,365	$ 102,260

(Dollars in Thousands)

Note 9. Postemployment Benefits Other Than Pensions (OPEB) (Continued)

OPEB plan fiduciary net position: Detailed information about the OPEB plans' fiduciary net position is available in the separately issued STRS Ohio and OPERS financial report.

Actuarial assumptions used for the year-ended June 30, 2019

For STRS Ohio the total OPEB liability in the June 30, 2018 actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement:

STRS Ohio	
Projected salary increases	12.50 percent at age 20 to 2.50 percent at age 65
Projected payroll increases	3.00 percent
Investment rate of return	7.45 percent, net of investment expenses, including inflation
Discount rate	7.45 percent
Health care cost trends	
Medical	
Pre-Medicare	6.00 percent initial, 4.00 percent ultimate
Medicare	5.00 percent initial, 4.00 percent ultimate
Prescription Drug	
Pre-Medicare	8.00 percent initial, 4.00 percent ultimate
Medicare	(5.23) percent initial, 4.00 percent ultimate

For OPERS the total OPEB liability in the December 31, 2018 actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement:

OPERS	
Single discount rate	3.96 percent
Investment rate of return	6.00 percent
Municipal bond rate	3.71 percent
Inflation	3.25 percent
Projected salary increases	3.25 percent to 10.75 percent (includes wage inflation)
Health care cost trends	10.0 percent initial, 3.25 percent ultimate in 2029

Mortality rates: For STRS Ohio 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.

OPERS pre-retirement mortality rates are based on RP-2014 Employees mortality table for males and females, adjusted for mortality improvement back to the observation period base of 2006. The base year for males and females was then established to be 2015 and 2010, respectively. Post-retirement mortality rates are based on the RP-2014 Healthy Annuitant mortality tables for males and females, adjusted for mortality improvement back to the observation period base year of 2006. The base year for males and females was then established to be 2015 and 2010, respectively. Post-retirement mortality rates for disabled retirees are based on the RP-2014 Disabled mortality table for males and females, adjusted for mortality improvement back to the observation period base year of 2006. The base year for males and females was then established to be 2015 and 2010, respectively. Mortality rates for a particular calendar year are determined by applying the MP-2015 mortality improvement scale to all of the above described tables.

(Dollars in Thousands)

Note 9. Postemployment Benefits Other Than Pensions (OPEB) (Continued)

Experience Studies: STRS actuarial assumption used in the July 1, 2018 valuation are based on the results of an actuarial experience study for the period July 1, 2011 through June 30, 2016. OPERS actuarial assumption used in the December 31, 2018 valuation are based on the results of an actuarial experience study for the period January 1, 2011 through December 31, 2015.

Investment return assumptions: STRS Ohio utilizes investment consultants to develop an estimated range for the investment return assumption based on the target allocation determined by the respective Retirement Board of STRS Ohio.

The long-term expected rate of return on OPERS health care investment assets was determined using a building-block method in which best-estimate ranges of expected future real rates of return were developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target allocation percentage, adjusted for inflation. The target allocation and best estimates of arithmetic real rates of return for each major asset class are summarized in the following table:

	STRS Ohio		OPERS	
Asset Class	Target Allocation	Long-Term Expected Real Rate of Return	Target Allocation	Long-Term Expected Real Rate of Return
Domestic equities	28.00 %	7.35 %	21.00 %	6.21 %
International equities	23.00	7.55	22.00	7.83
Alternative investments	17.00	7.09	-	-
Fixed income	21.00	3.00	34.00	2.42
Real estate	10.00	6.00	-	-
REITs	-	-	6.00	5.98
Other	1.00	2.25	17.00	5.57
Total	100.00 %		100.00 %	

Discount rate: For STRS Ohio, the discount rate used to measure the total OPEB liability was 7.45 percent as of the measurement date, June 30, 2018. The projection of cash flows used to determine the discount rate assumes STRS Ohio continues to allocate no employer contributions to the health care fund. Based on those assumptions, the STRS Ohio's fiduciary net position was projected to be available to make all projected future benefit payments to current plan members. 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.

For OPERS, a single discount rate of 3.96 percent was used to measure the OPEB liability on the measurement date of December 31, 2018, which is an increase of .11 percent since the prior measurement date. This single discount rate was based on an expected rate of return of the health care investment portfolio of 6.00 percent and a municipal bond rate of 3.71 percent based on an index of 20-year general obligation bonds with an average AA credit rating. The projection of cash flows used to determine this single discount rate assumed that employer contributions will be made at rates equal to the actuarially determined contribution rate. Based on those assumptions, the OPERS health care fiduciary net position and future contributions were sufficient to finance health care costs through 2031. As a result, the long-term expected rate of return on health care investments was applied to projected costs through the year 2031, and the municipal bond rate was applied to all health care costs after that date.

(Dollars in Thousands)

Note 9. Postemployment Benefits Other Than Pensions (OPEB) (Continued)

The following presents the University's proportionate share of the STRS Ohio and OPERS net OPEB liability calculated using a discount rate 1 percent higher and 1 percent lower than the plans' current rate:

	2019		
	1% Decrease (6.45%)	Current Discount Rate (7.45%)	1% Increase (8.45%)
STRS Ohio	$ (10,966)	$ (12,479)	$ (13,978)
	1% Decrease (2.96%)	Current Discount Rate (3.96%)	1% Increase (4.96%)
OPERS	$ 103,816	$ 81,146	$ 63,118

Sensitivity of net OPEB liability to changes in healthcare cost trend rates: The following presents the University's proportionate share of the STRS Ohio and OPERS net OPEB liability calculated using healthcare cost trend rates 1 percent higher and 1 percent lower than the plans' current rate:

	2019		
	1% Decrease	Current Health Care Cost Trend Rate	1% Increase
STRS Ohio	$ (13,894)	$ (12,479)	$ (11,043)
OPERS	$ 77,999	$ 81,146	$ 84,771

OPEB plan fiduciary net position: Detailed information about the OPEB plans' fiduciary net position is available in the separately issued STRS Ohio and OPERS financial report.

Note 10. Discretely Presented Component Unit

The Miami University Foundation (the Foundation) is a separate not-for-profit entity organized for the purpose of promoting educational and research activities of the University. Since the resources held by the Foundation can be used only by and for the benefit of the University, the Foundation is considered a component unit of the University and is discretely presented in the University's financial statements.

The Foundation board (Board) is comprised of at least fifteen directors that are elected by the Board and eight directors that are appointed by Miami University. At least two-thirds of the elected directors are required to be alumni or former students of Miami University. The Foundation issues reports using standards issued by the Financial Accounting Standards Board.

Amounts received by the University from the Foundation are restricted and are included in gifts in the accompanying financial statements. The Foundation values its investments at fair value.

(Dollars in Thousands)

Note 10. Discretely Presented Component Unit (Continued)

Summary financial information for the Foundation as of June 30, the date of its most recent audited financial report, is as follows:

	2020		
	Without Donor Restrictions	With Donor Restrictions	Total
Net assets at end of year	$ 3,803	$ 351,709	$ 355,512
Change in net assets for the year	813	(283)	530
Distributions to Miami University	15,559	-	15,559

	2019		
	Without Donor Restrictions	With Donor Restrictions	Total
Net assets at end of year	$ 2,990	$ 351,992	$ 354,982
Change in net assets for the year	2,366	446	2,812
Distributions to Miami University	23,093	-	23,093

Cash and cash equivalents: Cash and cash equivalents consists primarily of cash in banks, money market accounts, and the State Treasury Asset Reserve of Ohio (STAR Ohio and STAR Plus) that include short-term, highly liquid investments readily convertible to cash, with an original maturity of three months or less. The Foundation maintains active relationships with multiple cash equivalent accounts to reduce its exposure to custodial credit risk at any single institution. The carrying amounts of these items are a reasonable estimate of their fair value.

Investments: Investments that are market traded are recorded at fair value based primarily on quoted market prices, as established by the major securities markets.

The value of holdings of non-publicly traded funds that do not have a readily determined market value is based on the funds' estimated net asset value as supplied by the investment manager. The values are reviewed and evaluated by Foundation management. Market prices are not available for certain investments. These investments are carried at estimated fair value provided by the funds' management. Some valuations are determined as of June 30, while the remaining valuations are determined based on March 31 information when June 30 information is not yet available and adjusted by cash receipts, cash disbursements, and securities distributions through June 30. The Foundation believes that the carrying amounts are reasonable estimates of fair value as of year-end. Because these investments are not readily marketable, the estimated value is subject to uncertainty and, therefore, may differ from the value that would have been used had a ready market for the investments existed. Such differences could be material. The amount of gain or loss associated with these investments is reflected in the accompanying financial statements using the equity method of accounting.

The issuing insurance companies determine the cash surrender value of the life insurance policies annually. Investments in real estate are recorded at appraised value at the date of donation.

All donor-restricted endowment investments and board-designated endowments are managed in a unitized investment pool (Pooled Funds), unless donor-restricted endowment gift agreements require that they be held separately. For the Pooled Funds, the fair value of the investments is determined at the end of each month and the incremental fair value increase or decrease is allocated to the individual fund accounts based on the number of shares the fund owns at the beginning of the month.

(Dollars in Thousands)

Note 10. Discretely Presented Component Unit (Continued)

Investment income is recorded on the accrual basis and purchases and sales of investments are recorded on a trade-date basis. Investment transactions occurring on or before June 30, which settle after such date, are recorded as receivables or payables. Net dividend and interest income as well as gains/losses are allocated based on the number of shares owned.

Long-term investments: Investments held by the Foundation as of June 30 were:

	Fair Value 2020	Fair Value 2019
Investment description:		
Pooled Investment Fund (PIF):		
Strategic Investment Management, LLC funds	$ 355,868	$ 319,519
Government bonds	25,120	41,920
Hedge funds	2,154	27,939
Various private capital investments	102,863	101,681
Exchange traded funds	6,702	3,486
Other	2,649	2,592
Split-interest funds:		
Charitable remainder trusts	9,817	10,215
Charitable gift annuities	1,903	2,281
Pooled income funds	566	584
Total	$ 507,642	$ 510,217

The Foundation maintains a diversified investment portfolio for the Pooled Investment Fund (PIF) intended to reduce market risk, credit risk, and interest rate risk with a strategy designed to take advantage of market inefficiencies. Beginning in fiscal year 2019, management of the PIF has been delegated by the Board to an external investment firm, Strategic Investment Management, LLC. The external investment firm has discretion to manage the PIF within the framework of the investment policy statement. Additionally, the external investment firm has implemented a combination of internally and externally managed investment vehicles, including separate accounts, limited partnerships, and commingled funds. The Foundation's investment portfolio also includes publicly traded securities and the underlying holdings for certain non-publicly traded funds includes publicly traded securities. As a result, a significant downturn in the securities markets could adversely affect the market value of Foundation assets. As of June 30, 2020, the Foundation has made commitments to limited partnerships of approximately $107,000 that have not yet been funded, some of which management expects may not be called by the partnerships due to the life-cycle of the respective partnerships.

For the years ending June 30, 2020 and 2019 dividend and interest income of $1,930 and $2,838, respectively, is net of fees from external investment managers totaling $15 and $197 for June 30, 2020 and 2019, respectively.

Fair value measurements: The Foundation uses fair value measurements to record fair value adjustments to certain assets and liabilities and to determine fair value disclosures. Subsequent changes in fair value are recorded as an adjustment to earnings.

Note 10. Discretely Presented Component Unit (Continued)

Pledges receivable: As of June 30, 2020 and 2019, contributors to the Foundation have made unconditional pledges totaling $28,884 and $32,199, respectively, with one pledge accounting for over 42 percent of that total. Net pledges receivable have been discounted using rates commensurate with the risks involved to a net present value of $27,271 and $30,113 at June 30, 2020 and 2019, respectively. Discount rates ranged from 1.20 percent to 3.40 percent. Management has set up an allowance for uncollectible pledges of $1,118 and $1,295 at June 30, 2020 and 2019, respectively. All pledges have been classified as restricted expendable net positions since they will either expire or be fulfilled within a specified time or donor imposed stipulations.

The Foundation had also been notified of revocable pledges, bequests, and other indications of intentions to give. These potential contributions are not permitted to be recorded as they are deemed intentions to give and not promises to give.

Split-interest agreements: The Foundation's split-interest agreements with donors consist primarily of charitable gift annuities, pooled income funds and irrevocable charitable remainder trusts for which the Foundation serves as trustee. Assets are invested and payments are made to donors and/or other beneficiaries in accordance with the respective agreements. Assets held for these agreements are included in investments.

Endowment: UPMIFA provides statutory guidelines for prudent management, investment, and expenditure of donor-restricted endowment funds held by charitable organizations.

The Foundation's interpretation of its fiduciary responsibilities for donor-restricted endowments under UPMIFA requirements, barring the existence of any donor-specific provisions, is to preserve intergenerational equity to the extent possible and to produce maximum total return without assuming inappropriate risks. The investment policies governing these funds look beyond short-term fluctuations in economic cycles toward an investment philosophy that provides the best total return over very long time periods.

UPMIFA specifies that unless stated otherwise in the gift agreement, donor-restricted assets in an endowment fund are restricted assets until appropriated for expenditure by the institution. Barring the existence of specific donor instruction, the Foundation's policy is to classify as net assets with donor restrictions the historical value of donor-restricted endowment funds, which includes (a) the original value of gifts donated to the endowment, (b) the original value of subsequent gifts to the endowment, and (c) changes to the endowment made in accordance with the direction of the applicable donor gift instrument. Also included in net assets with donor restrictions is accumulated appreciation on donor restricted endowment funds which are available for expenditure in a manner consistent with the standard of prudence prescribed by UPMIFA, and deficiencies associated with funds where the value of the fund has fallen below the original value of the gift.

From time to time, the fair value of assets associated with donor-restricted endowment funds may fall below the level that the donor or UPMIFA requires the Foundation to retain as a fund of perpetual duration. In accordance with GAAP, deficiencies of this nature are reported in restricted - expendable net positions. As of June 30, 2020, funds with original gift values of $2,858, fair values of $2,812, and deficiencies of $46 were reported in restricted - expendable net positions

(Dollars in Thousands)

Note 10. Discretely Presented Component Unit (Continued)

Net position classification: Resources of the Foundation are classified for reporting purposes into net positions based on the existence or absence of donor-imposed restrictions and state law. Net positions unrestricted represent the portion of funds over which the Foundation has discretionary control as there are no donor-imposed purposes or time restrictions on how the funds may be spent. Restricted expendable net positions include gifts and grants for which donor imposed restrictions have not been met (primarily future capital projects or gifts for educational purposes), earnings from long term investments which are donor restricted, and time restricted trust activity. Restricted nonexpendable net positions include gifts which generally require, by donor restriction, that the corpus be invested in perpetuity. The donors generally permit the use of a portion of the income earned to be utilized for specific purposes based on their restrictions.

Note 11. Commitments

At June 30, the University is committed to future contractual obligations for capital expenditures of approximately $35,300 and $67,200, respectively. These commitments are being funded from the following sources:

	2020	2019
Contractual obligations:		
Approved state appropriations not expended	$ 220	$ 7,480
University funds and bond proceeds	34,887	59,725
Total	$ 35,107	$ 67,205

Note 12. Risk Management

The University's employee health insurance program is a self-insured plan. Administration of the plan was provided by United Medical Resources, a United Healthcare company, through December 31, 2019. Effective January 1, 2020, administration of the plan is provided by Community Insurance Company, doing business as Anthem Blue Cross and Blue Shield (Anthem). Employees are offered two plan options, a Traditional PPO Plan or a High Deductible Health Plan with a Health Savings Account.

Health insurance claims are accrued based upon estimates of the claims liabilities. These estimates are based on past experience, current claims outstanding, and medical inflation trends. As a result, the actual claims experience may differ from the estimate. An estimate of claims incurred but not reported in the amount of $3,094 and $2,908 is included in the accrued salaries and wages as of June 30, 2020 and 2019, respectively. The change in the total liability for actual and estimated claims is summarized below at June 30:

	2020	2019	2018
Liability at beginning of year	$ 2,908	$ 2,970	$ 2,369
Claims incurred	40,042	42,197	38,441
Claims paid	(39,768)	(42,316)	(38,352)
Change in estimated claims incurred but not reported	(88)	57	512
Liability at end of year	$ 3,094	$ 2,908	$ 2,970

Note 12. Risk Management (Continued)

To reduce potential loss exposure, the University has established a reserve for health insurance stabilization of $20,000.

The University participates in a consortium with all other Ohio state-assisted universities (excluding The Ohio State University) for the acquisition of commercial property and liability insurance. The name of the consortium is the IUC-Risk Management & Insurance Consortium. The commercial property program's loss limit is $1,500,000, the general/auto liability loss limit is $30,000 and the educator's legal liability loss limit is $40,000. The University has a dedicated policy for the first $10,000 of any property, general/auto liability or educator's legal liability claim with the remainder of the coverage shared by the consortium.

The commercial property insurance program has been in place for 25 years during which time Miami University has had two material losses above the self-insured retention of $350 per claim with a $700 aggregate. The property pool deductible for individual universities is $100. The liability program has been in place for 20 years during which time Miami University has had three losses above the insurance policy retention. The current self-insured retention for the liability program is $1,000 per claim. The University also participates with the other consortium universities for the purchase of commercial insurance for other risks including cyber liability, terrorism, fine arts, medical malpractice, crime, and social engineering.

The State of Ohio self-insures worker's compensation benefits for all state employees, including University employees. Under the direction of the Ohio Bureau of Worker's Compensation and the University, Careworks and Sheakley UniComp, Inc. assist in the administration and disposition of worker's compensation claims.

Note 13. Contingencies

The University receives grants and contracts from certain federal, state, and local agencies to fund research and other activities. The costs, both direct and indirect, that have been charged to the grants or contracts are subject to examination and approval by the granting agency. It is the opinion of the University's administration that any disallowance or adjustment of such costs would not have a material effect on the financial statements.

The University is presently involved as a defendant or codefendant in various matters of litigation. The University's administration believes that the ultimate disposition of any of these matters would not have a material adverse effect upon the financial condition of the University.

Note 14. Pandemic

On January 30, 2020 the World Health Organization declared the coronavirus outbreak a "Public Health Emergency of International Concern" and, on March 11, 2020, declared it to be a pandemic. Actions taken around the word to help mitigate the spread of coronavirus include restrictions on travel, quarantines in certain areas, and forced closures for certain types of public places and businesses. The coronavirus and actions taken to mitigate it have had, and are expected to continue to have, an adverse impact on the economies and financial markets of many countries. The extent to which the coronavirus impacts the University's financial condition, results of operations, and cash flows will depend on future developments, which are highly uncertain and cannot be predicted, including new information which may emerge concerning the severity of the coronavirus and actions taken to contain the coronavirus or its impact, among others.

On March 27, 2020, the Coronavirus Aid, Relief, and Economic Security (CARES) Act was signed into law. The CARES Act legislation is intended to provide relief for organizations that have been negatively impacted by the COVID-19 pandemic. During fiscal year 2020, the University received approximately $10.1 million from the CARES Provider Relief Fund.

Note 15. Subsequent Events

As of July 16, 2020 the University issued $128,470 in General Receipts Revenue Bonds with interest rates ranging from 4.00 percent to 5.00 percent and maturities from 2021 to 2045. A part of the proceeds were used to refund the mandatory sinking fund redemption for years 2035 through 2037 for the Miami University General Receipts Bonds, Series 2012 and the mandatory sinking fund redemption for years 2035 and 2036 for the Miami University General Receipts Bonds, Series 2014. The net change in cash flows related to the 2012 Series refund was approximately $4,500 the net present value savings was approximately $2,500. The net change in cash flows related to the 2014 Series refund was approximately $2,400 the net present value savings was approximately $1,500. In 2020, the University defeased a portion of the Series 2014 bonds by placing some to proceed for the Series 2020A bonds into an escrow account to provide for future debt service.

Required Supplementary Information

Miami University

Retirement Plan Data
Years Ended June 30, 2020, 2019, 2018, 2017, 2016 and 2015
(In Thousands)

	STRS Ohio	OPERS Traditional	OPERS Combined
For the Year Ended June 30, 2020			
University's proportion of the net pension liability (asset)	0.770956%	0.704723%	0.818105%
University's proportionate share of the net pension liability (asset)	$ 170,492	$ 139,294	$ (1,706)
University's covered payroll	76,683	101,097	3,201
University's proportionate share of the net pension liability (asset) as a percentage of its covered payroll	222.33%	137.78%	-53.30%
Plan fiduciary net position as a percentage of the total pension liability	77.40%	82.17%	145.28%
For the Year Ended June 30, 2019			
University's proportion of the net pension liability (asset)	0.776608%	0.611989%	0.674437%
University's proportionate share of the net pension liability (asset)	$ 170,759	$ 167,611	$ (755)
University's covered payroll	76,102	91,506	3,155
University's proportionate share of the net pension liability (asset) as a percentage of its covered payroll	224.38%	183.17%	-23.93%
Plan fiduciary net position as a percentage of the total pension liability	77.30%	74.70%	126.64%
For the Year Ended June 30, 2018			
University's proportion of the net pension liability (asset)	0.772173%	0.663383%	0.684872%
University's proportionate share of the net pension liability (asset)	$ 183,431	$ 104,072	$ (932)
University's covered payroll	74,262	89,066	2,774
University's proportionate share of the net pension liability (asset) as a percentage of its covered payroll	247.01%	116.85%	-33.60%
Plan fiduciary net position as a percentage of the total pension liability	75.30%	84.66%	137.28%
For the Year Ended June 30, 2017			
University's proportion of the net pension liability (asset)	0.762848%	0.664940%	0.665441%
University's proportionate share of the net pension liability (asset)	$ 255,348	$ 150,997	$ (370)
University's covered payroll	71,889	86,004	2,679
University's proportionate share of the net pension liability (asset) as a percentage of its covered payroll	355.20%	175.57%	-13.81%
Plan fiduciary net position as a percentage of the total pension liability	66.80%	77.25%	116.55%
For the Year Ended June 30, 2016			
University's proportion of the net pension liability (asset)	0.750872%	0.651198%	0.664254%
University's proportionate share of the net pension liability (asset)	$ 207,519	$ 112,796	$ (323)
University's covered payroll	67,969	83,037	2,475
University's proportionate share of the net pension liability (asset) as a percentage of its covered payroll	305.31%	135.84%	-13.05%
Plan fiduciary net position as a percentage of the total pension liability	72.10%	81.08%	116.90%
For the Year Ended June 30, 2015			
University's proportion of the net pension liability (asset)	0.718940%	0.662272%	0.650661%
University's proportionate share of the net pension liability (asset)	$ 174,871	$ 79,877	$ (251)
University's covered payroll	67,064	80,131	2,327
University's proportionate share of the net pension liability (asset) as a percentage of its covered payroll	260.75%	99.68%	-10.79%
Plan fiduciary net position as a percentage of the total pension liability	74.70%	86.45%	114.83%

Note: The University has presented as many years as information is available.

(Continued)

Miami University

Retirement Plan Data (Continued)
Last Ten Fiscal Years Ended June 30, 2020
(In Thousands)

	STRS Ohio				
	Contractually Required Contribution	Contributions in Relation to the Contractually Required Contribution	Contribution Deficiency (Excess)	University's Covered Payroll	Contributions as a Percentage of Covered Payroll
2011	$ 8,415	$ 8,415	$ -	$ 64,727	13.0%
2012	8,195	8,195	-	63,038	13.0%
2013	8,095	8,095	-	62,272	13.0%
2014	8,218	8,218	-	63,215	13.0%
2015	8,718	8,718	-	67,064	13.0%
2016	9,516	9,516	-	67,969	14.0%
2017	10,064	10,064	-	71,889	14.0%
2018	10,397	10,397	-	74,262	14.0%
2019	10,654	10,654	-	76,102	14.0%
2020	10,736	10,736	-	76,683	14.0%

	OPERS Traditional, Combined and Member-Directed				
	Contractually Required Contribution	Contributions in Relation to the Contractually Required Contribution	Contribution Deficiency (Excess)	University's Covered Payroll	Contributions as a Percentage of Covered Payroll
2011	$ 8,035	$ 8,035	$ -	$ 84,585	9.5%
2012	8,492	8,492	-	84,266	10.1%
2013	9,853	9,853	-	85,101	11.6%
2014	11,458	11,458	-	87,598	13.1%
2015	10,925	10,925	-	86,845	12.6%
2016	10,877	10,877	-	90,034	12.1%
2017	11,778	11,778	-	93,543	12.6%
2018	13,180	13,180	-	96,874	13.6%
2019	14,046	14,046	-	99,651	14.1%
2020	14,261	14,261	-	101,097	14.1%

Miami University

OPEB Plan Data
Years Ended June 30, 2020, 2019 and 2018
(In Thousands)

For the year ended June 30, 2020	STRS Ohio	OPERS
University's proportion of the net OPEB (asset) liability	0.770956%	0.719379%
University's proportionate share of the net OPEB (asset) liability	$ (12,762)	$ 99,365
University's covered payroll	76,683	101,097
University's proportionate share of the net OPEB (asset) liability as a percentage of its covered payroll	-16.64%	98.29%
Plan fiduciary net position as a percentage of the total OPEB (assets) liability	174.70%	47.80%
For the year ended June 30, 2019		
University's proportion of the net OPEB (asset) liability	0.776608%	0.622400%
University's proportionate share of the net OPEB (asset) liability	$ (12,479)	$ 81,146
University's covered payroll	76,102	99,651
University's proportionate share of the net OPEB (asset) liability as a percentage of its covered payroll	-16.40%	81.43%
Plan fiduciary net position as a percentage of the total OPEB (assets) liability	176.00%	46.33%
For the year ended June 30, 2018		
University's proportion of the net OPEB liability	0.772173%	0.672220%
University's proportionate share of the net OPEB liability	$ 30,127	$ 72,999
University's covered payroll	74,262	96,874
University's proportionate share of the net OPEB liability as a percentage of its covered payroll	40.57%	75.35%
Plan fiduciary net position as a percentage of the total OPEB liability	47.10%	54.14%

Note: The University has presented as many years as information is available.

	STRS Ohio				
	Contractually Required Contribution	Contributions in Relation to the Contractually Required Contribution	Contribution Deficiency (Excess)	University's Covered Payroll	Contributions as a Percentage of Covered Payroll
2011	$ 647	$ 647	$ -	$ 64,727	1.0%
2012	630	630	-	63,038	1.0%
2013	623	623	-	62,272	1.0%
2014	632	632	-	63,215	1.0%
2015	671	671	-	67,064	1.0%
2016	-	-	-	67,969	0.0%
2017	-	-	-	71,889	0.0%
2018	-	-	-	74,262	0.0%
2019	-	-	-	76,102	0.0%
2020	-	-	-	76,683	0.0%

	OPERS Traditional, Combined and Member-Directed				
	Contractually Required Contribution	Contributions in Relation to the Contractually Required Contribution	Contribution Deficiency (Excess)	University's Covered Payroll	Contributions as a Percentage of Covered Payroll
2011	$ 3,807	$ 3,807	$ -	$ 84,585	4.5%
2012	3,371	3,371	-	84,266	4.0%
2013	2,129	2,129	-	85,101	2.5%
2014	876	876	-	87,598	1.0%
2015	1,302	1,302	-	86,845	1.5%
2016	1,801	1,801	-	90,034	2.0%
2017	1,403	1,403	-	93,543	1.5%
2018	474	474	-	96,874	0.5%
2019	-	-	-	99,651	0.0%
2020	-	-	-	99,365	0.0%

For the year ended June 30, 2020

Changes in assumptions (Pension): The Retirement Boards of OPERS and STRS Ohio made no changes in assumptions as compared to the prior year.

Changes in assumptions (OPEB): The Retirement Board of OPERS approved one change to the actuarial assumptions in 2019. The discount rate was reduced from 3.96 percent to 3.16 percent. There were no other changes in assumptions compared to the prior year for OPERS. The Retirement Board of STRS Ohio made no changes in assumptions in 2019 compared to the prior year.

Changes to benefit terms (Pension): The Retirement Board of OPERS and the Retirement Board of STRS Ohio made no changes to retirement benefits compared to the prior year.

Changes to benefit terms (OPEB): For STRS Ohio, 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.

On January 15, 2020, the Board of OPERS approved several changes to the health care plan offered to Medicare and pre-Medicare retirees in efforts to decrease costs and increase the solvency of the health care plan. These changes are effective January 1, 2022, and include changes to base allowances and eligibility for Medicare retirees, as well as replacing OPERS-sponsored medical plans for pre-Medicare retirees with monthly allowances, similar to the program for Medicare retirees. These changes are not reflected in the current year financial statements but are expected to decrease the associated OPEB liability.

For the year ended June 30, 2019

Changes of assumptions (Pension): The Retirement Board of OPERS approved one change to the actuarial assumptions in 2018. The long term expected rate of return was reduced from 7.50 percent to 7.20 percent. There were no other changes in assumptions compared to the prior year. The Retirement Board of STRS Ohio made no changes in assumptions in 2018 compared to the prior year.

Changes in assumptions (OPEB): The Retirement Board of OPERS approved one change to the actuarial assumptions in 2018. The long term expected rate of return was reduced from 6.50 percent to 6.00 percent. There were no other changes in assumptions compared to the prior year for OPERS. The Retirement Board of STRS increased the discount rate from the blended rate of 4.13 percent to the long-term expected rate of return of 7.45 percent.

Miami University

Uniform Guidance Requirements

Miami University

Schedule of Expenditures of Federal Awards
For the Year Ended June 30, 2020

Federal Grantor/Pass-Through Grantor/Program or Cluster Title	Federal CFDA Number	Pass-Through Entity Identifying Number	Provided to Subrecipients	Total Federal Expenditures
Student Financial Assistance Cluster				
U.S. Department of Education:				
Supplemental Educational Opportunities Grant Program	84.007	N/A	$ -	$ 1,137,680
College Work Study Program Federal Funds	84.033	N/A	-	861,229
Federal Perkins Loan Program:				
Loans outstanding at the beginning of the year	84.038	N/A	-	4,959,367
Federal PELL Grant Program	84.063	N/A	-	15,130,325
Federal Direct Student Loan Program	84.268	N/A	-	78,881,994
TEACH Grant Program	84.379	N/A	-	1,067,698
Total Student Financial Assistance Cluster			-	102,038,293
Higher Education Emergency Relief Fund - Institutional Portion - COVID 19	84.425F	N/A	-	6,446,999
Higher Education Emergency Relief Fund - Student Aid Portion - COVID 19	84.425E	N/A	-	4,932,300
			-	11,379,299
Total U.S. Department of Education			-	113,417,592
Research and Development Cluster				
U.S. Department of Agriculture:				
Educating from the Ground Up: Promoting Integrated and Experiential Learning for Resilient Food Systems at Miami University	10.326	N/A	-	19,648
Evaluation of Educating from the Ground Up: Promoting Integrated and Experiential Learning for Resilient Food Systems at Miami University	10.326	N/A	-	1,994
Total U.S. Department of Agriculture Direct Programs			-	21,642
Pass-Through Programs From:				
University of Buffalo: Regulatory Element Discovery in Sequenced Insect Species	10.310	R1177604		32,038
Total U.S. Department of Agriculture			-	53,680
U.S. Department of Commerce:				
Pass-Through Programs From:				
George Washington University: Coverage, Capacity, and Resilience Enhancement in Limited Public Safety Networks	11.609	17-S17	-	966
U.S. Department of Defense:				
Imaging Urothelial Integrity with Contrast-Sensitive Optical Coherence Tomography for Diagnosis of Interstitial Cystitis	12.420	N/A	-	115,631
Protein-Polymer Bioconjugate Structures Measured by Magnetic Resonance	12.431	N/A	-	55,051
A Multistage Stochastic Optimization Approach for Identifying Stable and Influential Clusters in Randomly Changing Networks	12.910	N/A	-	6,969
Complete Reductive Defluorination of Poly- and Perfluoroalkyl Substances (PFASs) by Hydrated Electrons Generated From 3-Indole-Acetic-Acid in Chitosan-Modified Montmorillonite	12.U01	N/A	31,727	94,844
Total U.S. Department of Defense Direct Programs			31,727	272,495
Pass-Through Programs From:				
DAGSI: Goal-Driven Cognitive Algorithmic Pocessing for EW	12.300	RY23-MU-19-4-AFRL2	-	26,387
DAGSI: Prognostic Health Management Systems for More Electric Aircraft Applications	12.300	RQ16-MU-19-6-AFRL2	-	24,376
DAGSI: Optimal Design of Control Surface Actuators Towards Active Aeroservoelastic Control	12.300	RQ4-MU-18-8-AFRL2	-	19,803
In-Depth Eng: Automated Curvilinear Mineline Detection Femiani	12.300	MU_MINELINE-001-19-SCA	-	41,250
Florida State University: Reconnecting: Improving Interoception To Reduce Suicidal Ideation And Behavior	12.420	R02106	244,585	386,583
Florida State University: Characterizing The Dynamics Of Acute Suicidal Affective Distrubance: A BetweenSubjects ANd Intra-Individual Network	12.420	R02111	37,468	180,756
Denver Research Institute: Interoceptive Deficits and Suicidality	12.420	MSRC-FY17-02	-	(87)
DAGSI: Performance Analysis of a Dual-Use Secure RadarComm System in NLOS Environments	12.630	RY-MU-18-10-AFRL2	-	21,696
UTC: Research and Development of Advanced Propulsion-Driven Technologies: Windmill Prevention and Thrust Vectoring	12.800	142411-16F2639-19-48-C2	-	3,600
The Wright Brothers Institute Inc.:Miami University Air Force Research Laboratory Technology Commercialization Accelerator	12.800	WBSRA-20-010-MIAMI	-	75,000
Look Dynamics: Reservoir Algorithm Implementation Using a Sensay Device	12.910	G03267	-	270,267
Sonalysts: A Software Toolkit For Predicting The Neural Signatures Of Cognitive States(Phase I)	12.U02	201900014-S	-	58,158
Sonalysts: A Software Toolkit For Predicting The Neural Signatures Of Cognitive States (Phase II)	12.U03	20200004-S	-	29,887
Total U.S. Department of Defense Pass-Through Programs			282,053	1,137,676
Total U.S. Department of Defense			313,780	1,410,171

(Continued)

Miami University

Schedule of Expenditures of Federal Awards (Continued)
For the Year Ended June 30, 2020

Federal Grantor/Pass-Through Grantor/Program or Cluster Title	Federal CFDA Number	Pass-Through Entity Identifying Number	Provided to Subrecipients	Total Federal Expenditures
U.S. Department of the Interior:				
Investigating Relationships Between Hydraulic Fracture Injection Parameters and Induced Seisimicity	15.807	N/A	$ -	$ (3,291)
Acid Precipitation Monitoring Site OH 99	15.808	N/A	-	5,627
Total U.S. Department of the Interior Direct Programs			-	2,336
Pass-Through Programs From:				
ASGFC: Conservation Genomics of Lampsilis Rafinesqueana (Fresh Water Mussel) (Arkansas)	15.615	G60404	-	9,027
KDWPT: Conservation Genomics of Lampsilis Rafinesqueana (Fresh Water Mussel) (KANSAS)	15.615	E-32-R-1	-	13,639
Missouri Department of Conservation: Genomics of Lampsilis Rafinesqueana (Fresh Water Mussel) (Missouri)	15.615	NO. 419	-	26,301
NMDGF: Conservation Biology of New Mexico Aquatic Invertebrates	15.615	G60392	-	58,049
ODWC: Conservation Genomics of Lampsilis Rafinesqueana (Fresh Water Mussel) (OKLAHOMA)	15.615	F18AP00228	-	22,823
Texas A & M:Thermal Tolerance of Popenaias Popeii (Texas Hornshell) From the Rio Grande, Texas	15.615	M1803673	-	6,924
Total U.S. Department of the Interior Pass-Through Programs			-	136,763
Total U.S. Department of the Interior			-	139,099
U.S. Department of Justice:				
Pass-Through Programs From:				
NIJ: Development of a Novel Human Materials Hyperspectral Remote Sensing Tool for Forensic Investigations and Operations for US Law Enforcement	16.560	2015-DN-BX-K011	-	4,980
BCMHARS: Research Partner for Comprehensive Opioid Abuse Site-Based Program (COAP)	16.754	G03135	-	28,531
Fairfield County: Evaluation Partner Fairfield County COAP	16.838	G03273	-	19,368
Total U.S. Department of Justice			-	52,879
U.S. Department of State:				
Pass-Through Programs From:				
University of Nebraska: Extending The Christ-Miami Partnership: Training In Social Innovation TO Address Global Health And Economic Disparities	19.040	45-2402-1031-302	-	42,753
National Aeronautics & Space Administration:				
Land-cover/Land-use Change in Southern Vietnam Through the Lenses of Conflict, Religion, and Politics, 1980s to Present	43.001	N/A	87,523	132,672
Pass-Through Programs From:				
National Institute of Aerospace: FIRE Chem: Fueled from Below: Linking Fire, Fuels and Weather of the Atmosphere	43.001	X18-7205-MU	-	27,786
Ohio Space Grant Consortium: Electrical Discharge Machining Induced Microstructural Changes and its Effect on Fracture and Fatigue Properties if Ti-6AI-4V for Space Shuttle Applications	43.008	G03046	-	1,067
Total National Aeronautics & Space Administration Pass-Through Programs			-	28,853
Total National Aeronautics & Space Administration			87,523	161,525

(Continued)

Federal Grantor/Pass-Through Grantor/Program or Cluster Title	Federal CFDA Number	Pass-Through Entity Identifying Number	Provided to Subrecipients	Total Federal Expenditures
National Endowment for Humanities:				
Aacimwahkionkonci 'A Land of Stories' A Web-Based GIS Learning Tool for Myaamia Geospatial Data	45.149	N/A	$ -	$ 95,893
Breath of Life 2.0: Creating a "Second Breath" for Indigenous Language Revitalization	45.169	N/A	33,587	108,000
Evaluation of Breath of Life 2.0: Creating a 'Second Breath' for Indigenous Language Revitalization	45.169	N/A	-	12,320
Total National Endowment for Humanities			33,587	216,213
National Science Foundation:				
A Preliminary Investigation of a Social Cognitive Intervention in Early Courses	47.041	N/A	-	72,263
Time-Resolved Spectroscopic Study of Diatomic Molecular Sodium	47.049	N/A	-	37,523
Probing Substrate/Inhibitor to Metalloenzymes Using EPR	47.049	N/A	-	68,596
REU Site - Reserch Experience for Undergraduates in Chemistry and Biochemistry at Miami University	47.049	N/A	-	30,763
REU Site - Summer Undergraduate Research in Chemistry and Biochemistry at Miami University	47.049	N/A	-	(4,686)
Fall 2019 Mathematics Conference: Differential Equations and Dynamical Systems and Applications	47.049	N/A	-	11,489
MRI - Acquisition of a 400 MHz NMR Spectrometer at Miami University	47.049	N/A	-	295,750
Ortho-Phenylenes in Complex Foldamer Architectures	47.049	N/A	-	63,960
Dynamic Control and Self-Assembly of Ortho-Phenylene Foldames	47.049	N/A	-	151,449
REU Site - Physics at Miami University	47.049	N/A	-	61,904
Extremal Problems For Graphs And Hypergraphs	47.049	N/A	-	46,170
CAREER - Dynamic Polymer Materials with Advanced Polymer Architecture and Carbon Nanotube Reinforcements	47.049	N/A	-	100,323
Chemistry Early Career Investigator Workshop	47.049	N/A	-	10,104
RAPID - Viral Particle Disrupting And Sequestering Polymer Materials Applied To Coronavirus	47.049	N/A	-	16,559
Large Cardinals and Absoluteness	47.049	N/A	-	72,388
Investigating Membrane Proteins With Magnetic Resonance Spectroscopy	47.049	N/A	-	137,426
Spectral Stability and Oscillations of Dynamical Systems	47.049	N/A	-	9,435
Does Proximity of Hydraulic Fracturing and Wastewater Disposal to Basement Increase the Likelihood of Induced Seismicity in the Central and Eastern US?	47.050	N/A	-	84,382
Collaborative Research - The Role of Phyllosilicate Minerals in mediating the Temperature Sensitivity of Soil Organic Matter Decomposition	47.050	N/A	-	12,072
Collaborative Research - Bioavailability Of Mineral Associated Molybdenum As A Cofactor Of Nif Nitrogenase For N2 Fixation	47.050	N/A	-	10,684
GP-EXTRA - Advancing Undergraduate Geosciences Through Integrated Training Experiences (AUGITE)	47.050	N/A	-	56,206
CAREER - Identifying Ecosystem Properties Promoting Stability And Resistance: Modeling Lae Ordovician Paleocommunity Dynamics And Functioning Across The Richmondian Invasion	47.050	N/A	-	30,826
Origin & Eruptive History of Quaternary Volcanism in Nosy Be and Itasy-Askaratra, Madagascar	47.050	N/A	-	1,916
Collaborative Research - Testin Source vs. Crustal Processing in High-Mg Arc Magmas by Os-O-He-Olivine Systematics	47.050	N/A	-	8,020
From Cones to Clusters - Evolution of a Monogenetic Volcanic Field	47.050	N/A	-	28,369
MRI - Acquisition of a Multi-Collector ICP-MS with Laser Ablatin for Geochemical and Ceochronological Applications	47.050	N/A	-	477,053
Incoherent Scatter Radar Study of the F1 Region Composition, Coupling, Dynamics and Energetics	47.050	N/A	-	57,340
CRII;SHF - Towards a Cognizant Virtual Software Modeling Assistant Using Model Clones	47.070	N/A	-	54,849
Multi-mutualist Effects on Populations, Communities, and Ecosystems Across Ecological Gradients	47.074	N/A	-	259
REU Site - Ecology in Human-Dominated Landscapes	47.074	N/A	-	32,932
Neuromodulatory Control of switching between SIngle and Dual Oscillatory Network States	47.074	N/A	-	102,263
Ammonia Oxidizers and Their Heterotrophic Friends	47.074	N/A	-	56,908
RUI - Methanogenesis from Quaternary Amines	47.074	N/A	-	56,386
MRI - Acquisition of a Fluorescence Activated Cell Sorting System to Expand Synergistic Research and educational Opportunities	47.074	N/A	-	43
Lobes or Gills, Exploring the Origin of Insect Wings	47.074	N/A	-	62,683
LTREB Renewal - Response of a Reservoir Ecosystem to Declining Subsides of Nutrients and Detritus	47.074	N/A	-	18,539
LTREB - Response of a Resevoir Ecosystem to Changing Subsidies of Nutrients and Dtritus	47.074	N/A	-	52,585
OPUS - CRS Synthesis To Add Dissolved Organic Matter To The Trophic Paradigm: The Importance Of Water Transparency In Structuring Pelagic	47.074	N/A	-	8,995
Collaborative Research - LTREB - Will Increases in Dissolved Organic Matter Accelerate a Shift in Trophic Status Through Anoxia-Driven Positive Feedbacks	47.074	N/A	-	16,222
NSF Williamson/Fisher/Zhang Supplem	47.074	N/A	-	1,284
Evaluation of Breath of Life Archival Institute for Indigenous Languages	47.075	N/A	-	58
Miami University Robert Noyce Scholars Program	47.076	N/A	-	78,806
Developing Assessments for Core Chemistry Concepts: Measuring Student Understanding of Multiple External Representations through Cluster Analysis	47.076	N/A	-	234,916
Collaborative Research - Engaged Student Learning - Design and Development Level II: Using a Cyberlegarning Environment to Improve Student Learning and Engagement in Software Courses	47.076	N/A	-	19,614
Electronics and Computing Service Scholars	47.076	N/A	-	100,528
Synthesis - Impact of integrating innovative technologies in STEM classrooms on K-12 students' STEM career outcomes	47.076	N/A	-	23,825
Graduate Research Fellowship Program (GRFP)	47.076	N/A	-	242,232
IGE - Professional and Identity Development in Graduate School: Bringing Transformative Practices in PD to Doctoral Students in Chemistry & Psychology	47.076	N/A	22,586	84,996
Evaluation of Electronics and Computing Service Scholars	47.076	N/A	-	3,585
Evaluation of Miami University Robert Noyce Scholars Program	47.076	N/A	-	14,513
Design Research on the Teaching and Learning of Conceptual Understanding in High School Chemistry Through the Use of Dynamic Visualizations of Physical and Chemical Changes	47.076	N/A	-	64,393
Collaborative Research - Further Development and Testing of the Target Inquiry Model for Middle and High School Science Teacher Professional Development	47.076	N/A	-	7,979
Total National Science Foundation Direct Programs			22,586	3,287,677

(Continued)

Schedule of Expenditures of Federal Awards (Continued)
For the Year Ended June 30, 2020

Federal Grantor/Pass-Through Grantor/Program or Cluster Title	Federal CFDA Number	Pass-Through Entity Identifying Number	Provided to Subrecipients	Total Federal Expenditures
Pass-Through Programs From:				
WSU:I/UCRC Center for Surveillance Research - Phase II	47.041	669871-1	$ -	$ 7,783
Cornell University: Evaluation of the Center for Bright Beams	47.049	75548-10842	-	14,287
University of Georgia: Collaborative Research: Probing the Metabolic and Electrical Interactions of Cable Bacteria in Anoxic Sediments	47.050	SUB00001748	-	54,514
Cary Institute of Ecosystem Studies:LTER: Long-Term Ecological Research at the Hubbard Brook Experimental Forest	47.074	3340/200201865	-	18,422
Colorado State University: Unlocking Microbial Condensed Tannin Resistance Mechanisms: Scaling from Enzymes to Biomes	47.074	G-92775-02	-	71,383
University at Buffalo: Evaluation of Biology with X-Ray Lasers	47.074	R01092122	-	105,958
University of Colorado Boulder: LTER: Ecosystem Response to Amplified Lnadscape Connectivity in the McMurdo Dry Valleys, Antarctica	47.074	1000861768	-	44,408
University of Illinois: Genomic Mechanisms of Domesticating a Y Chromosome in Papaya	47.074	15997	-	10,721
University of MI: Digitization TCN: Collaborative Research: The Pteridological Collections Consortium: An Integrative Approach to Pteridophyte Diversity Over the Last 420 Million Years	47.074	SUBK00008286	-	2,493
Ashland University: Evaluation of Science Scholars Program: Opening the Science Career Pipeline Through Enhanced Engagement and Support	47.076	1643489	-	2,576
ONU: Ohio Northern University NOYCE Scholars Program	47.076	2GF038	-	6,652
Ohio State University: Ohio LSAMP Consortium	47.076	60057047-MU	-	605
Ohio State University: NSF-LSAMP Ohio Alliance - 2018-23-Kiper	47.076	60067275	-	(14,622)
Ohio State University: NSF-LSAMP Ohio Alliance - 2018-23-Kiper	47.076	60067275	-	49,344
Ohio University: Evaluation of Ohio University NOYCE Scholars Program	47.076	OU 31738	-	6,395
Purdue University: Building and Broadening Understanding of Engineering Practices Among Elementary Presevice Teachers	47.076	4101-77096	-	45,568
University of Cincinnati: NSF ITEST Strategies: Trans-disciplinary Education in Biology and Engineering Technology	47.076	ITEST	-	17,286
UC: Evaluation of STEM in the Playscape: Building Knowledge for Educational Practice	47.076	010137-003	-	16,251
University at Buffalo: Evaluation of Geotechnology Experiences for Students and Teachers (GTEST)	47.076	1614976	-	33,353
University of Georgia: Collective Argumentation Learning and Coding (CALC)	47.076	1741910	-	39,085
Total National Science Foundation Pass-Through Programs			-	532,462
Total National Science Foundation			22,586	3,820,139
U.S. Environmental Protection Agency:				
UV-LED Photocatalytic Process for Fuel Vapor Emissions Control	66.516	N/A	-	8,480
Synthesis and Characterization of Fluorinated Hydrocarbon Anion Exchange Resins for the Extraction of Perfluorinated Chemicals	66.516	N/A	-	5,386
Total U.S. Environmental Protection Agency Direct Programs			-	13,866
Pass-Through Programs From:				
Amec Foster Wheeler: Operation of the US EPA Dry Deposition Network Station at Miami University	66.U01	C012506260	-	3,635
Total U.S. Environmental Protection Agency			-	17,501
U.S. Department of Energy:				
Thylakoid Assembly and Folded Protein Transport by the Chloroplast Twin Arginine Translocation (cpTat)Pathway	81.049	N/A	-	14,209
Dissipative Assembly of Carboxylic Acid Anhydrides for Nonequilibrium Systems Chemistry	81.049	N/A	-	218,280
Regulation of Sustained Cyclic Electron Flow (CEF) in the Photopsychrophile Chlamydomonas sp. UW0241	81.049	N/A	-	67,746
Total U.S. Department of Energy Direct Programs			-	300,235
Pass-Through Programs From:				
NCSU: Wide Bandgap Based Low Voltage/High Current DC/DC Converter for Electrified Transit Buses	81.086	2014-0654-81	-	30,319
Total U.S. Department of Energy			-	330,554

(Continued)

Miami University

Schedule of Expenditures of Federal Awards (Continued)
For the Year Ended June 30, 2020

Federal Grantor/Pass-Through Grantor/Program or Cluster Title	Federal CFDA Number	Pass-Through Entity Identifying Number	Provided to Subrecipients	Total Federal Expenditures
U.S. Department of Education:				
Miami University Regional Campuses Student Support Services Program	84.042	N/A	$ -	$ 267,271
Miami University Regional Campuses Student Support Services Program	84.042	N/A	-	(317)
A Mixed-Methods Study of Middle-Aged and Older Adults: Lifelong Learning, Skill Proficiencies, and Employment in the U.S. and Selected OECD Countries	84.305	N/A	163,617	361,903
Mapping Barriers to Community College Completion Among Older Learners: Identifying Malleable Factors to Improve Student Outcomes	84.305	N/A	8,118	85,801
Total U.S. Department of Education Direct Programs			171,735	714,658
Pass-Through Programs From:				
UC: Miami Inclusive Licensure Partnership	84.027	012122-003	-	2,036
Ohio Department of Education: Positive Transformations for Ohio Schools: Building Statewide Positive Supports	84.184	G02503	-	44,007
ODE: Evaluation of the School Climate Transformation Grant, Phase II	84.184	EDU202000053	-	19,616
ODE-MT HLTH: Evaluation of Mt. Healthy High School's School Quality Improvement Grant (SQIG) Project	84.377	SQIG	-	16,415
Total U.S. Department of Education Pass Through Programs			-	82,074
Total U.S. Department of Education			171,735	796,732
U.S. Department of Health & Human Services:				
Strategies to Accommodate Reading in Aphasia: Using Assistive Technology to Support Reading by eople with Aphasia	93.173	N/A	105,794	153,003
Parenting, Physiological Reactivity, and Neural Markers of Anxiety in Kindergarteners	93.242	N/A	-	1,089
Youth Aid Ohio: Mental Health, Trainings, Resources, REferrals	93.243	N/A	-	10,056
Evaluation of You Aid Ohio: ental Health Trainings, Resources, Referrals	93.243	N/A	-	2,215
Text Message Support to Prevent Smoking Relapse in Community Treatment Settings	93.279	N/A	10,401	142,467
Fighting with Food: Battling Chemical Toxicity with Good Nutrition	93.389	N/A	-	1,450
Nuclear Organization During Adenovirus Infection	93.393	N/A	-	1,236
Biological/Synthetic Scaffolds for Bone Tissue Engineering	93.846	N/A	-	(134)
Central Action of Brain-Derived Neurotrophic Factor in Male and Female Rats	93.847	N/A	-	5,486
Oligodendrocyte Lineage Cell Plasticity in the Spinal Cord Following Peripheral Injury	93.853	N/A	-	53,336
Regulation of Type-I Interferon by SLAMF9	93.855	N/A	-	90,132
Acinetobacter Baumannii Gene Regulation in Response to Illumination	93.859	N/A	-	134,689
Determining the Mechanism of Inhibition of Metallo-b-lactamase Inhibitors	93.859	N/A	-	104,113
EPR Spectroscopic Studies of Membrane Proteins	93.859	N/A	-	384,689
Triage Mechanisms for Directing Protein Refolding and Degradation	93.859	N/A	-	364,915
Genetic And Epigenetic Effects Of Transposable Elements On Meiotic Recombination	93.859	N/A	-	29,680
Transactional Neurobiological Influences on Parent-Child Kindergarten Adjustment	93.865	N/A	-	106,860
Influence of Aerobic Training and Weight Loss on Skeletal Muscle Inflammatory Markers and Muscle Protein Balance in Older Adults	93.866	N/A	-	118,864
On Determinants of Lens Regeneration	93.867	N/A	-	253,323
Exploiting Animal Models of RPE Plasticity to Unlock Human Retina Regeneration from RPE	93.867	N/A	-	308,110
Investigating The Role Of NKX6-1 In Secondary Lens Fiber Cell Differentiation	93.867	N/A	-	71,932
The Role of FGF Receptors in Lens Development	93.867	N/A	-	48,275
Suicide Simulation at the Data Analytics Branch of the Center for Injury Prevention and Control	93.U01	N/A	-	12,614
Occupational Risk Assessment Research, Analysis and Review	93.U02	N/A	-	37,384
Total U.S. Department of Health & Human Services Direct Programs			116,195	2,435,784
Pass-Through Programs From:				
n4a: Information and Planning: Understanding the Capacity of the Aging Network	93.048	G03136	-	47,016
University of Cincinnati: UC Psychiatry Pediatric Bipolar Research Traineeship (Green, 2018-19)	93.242	G03049	-	192
BCFCFC-BCESC: Epidemiologist/Evaluator for Butler County's Strategic Prevention Framework - Partnerships for Success SamHSA Grant	93.243	G03299	-	11,306
Butler County: SAMHSA-Butler County Commissioners Meehan/Robinson	93.243	G03143	-	64,588
ODE: Evaluation of Making Ohio AWARE: Building Statewide Mental Health First Aid Capacity	93.243	062984	-	54,505
University of Minnesota: Multi-Level Approach to Improve Quality of Life for Minority Nursing Home Residents	93.307	POO5333353	-	45,238
MemoryLane: Creating a Dementia-Capable Community in Northwest Ohio through the Expansion of Supports and Services	93.470	G03213	-	69,800
ODM-ODA: Person-Centered Staff Engagement Project	93.636	AGE01-0000003250	-	2,539
OSU: Evaluation of Ohio's MyCare Demonstration	93.778	G03343	-	79,348
UTHSCH: Telomere Length Dynamics in Relation to Changes in Adiposity and Metabolic Risk	93.847	0012700D	-	236,588
The Ohio State University: Alternative Routes of Gut Microbial Methylamine Metabolism That May Limit Trimethylamine N=Oxide, A Trigger for	93.847	R01KD109345	-	49,771
Cincinnati Childrens Hosp Medical Center: WE ENGAGE	93.859	304842	-	103,919
Developing Metallo-Beta-Lactamase Inhibitors	93.859	UTA15-000329	-	77,116
Cincinnati Children's Hospital Medical Center: Human Animal Interaction To Promote Recovery Following Pediatric Brain Injury	93.865	306521	-	7,001
UMBC: Aging at Home Alone with Alzheimer's and Related Dementia	93.866	HHS00025-01	-	57,497
Ohio State University: Structure and Genesis of Tau Aggregates	93.866	60060509	-	18,727
University of North Carolina at Chapel Hill: Protein Quality Control In Age-Related Diseases	93.866	5116940	-	889
Total U.S. Department of Health & Human Services Pass-Through Programs			-	926,040
Total U.S. Department of Health & Human Services			116,195	3,361,824

(Continued)

Miami University

Schedule of Expenditures of Federal Awards (Continued)
For the Year Ended June 30, 2020

Federal Grantor/Pass-Through Grantor/Program or Cluster Title	Federal CFDA Number	Pass-Through Entity Identifying Number	Provided to Subrecipients	Total Federal Expenditures
U.S. Department of Homeland Security:				
Foresight- Predicting & Preventing Emergent Epidemics in Humans & Livestock	97.108	N/A	$ -	$ 22,457
Total Research and Development Cluster			745,406	10,426,493
INSTRUCTIONAL				
U.S. Department of Defense:				
Advanced Manufacturing Readiness Training	12.U04	N/A	-	24,200
Manufacturing Process Concepts Training	12.U05	N/A	-	48,650
Total U.S. Department of Defense			-	72,850
National Endowment for Humanities:				
Miami University Humanities Center NEH Challenge Grant Application	45.130	N/A	-	125,010
From Warzone to Home: A Humanities Dialogue	45.162	N/A	-	1,440
Total National Endowment for Humanities			-	126,450
Institute of Musium and Library Services:				
SLO: Digital Storytelling for Social Change Facilitator Workshop	45.310	N/A	-	4,920
U.S. Department of Education:				
Miami University Regionals - Upward Bound Program	84.047	N/A	-	241,977
Miami University: CCAMPIS Subsidies for Low-Income Student-Parents on Three Campuses	84.335	N/A	-	73,488
Total U.S. Department of Education Direct Programs			-	315,465
Pass-Through Programs From:				
ODHE-UC: Miami Inclusive Licensure Partnership	84.027	0121122-003	-	27,544
NWP Salary Support for Beth Rimer 2018-2019	84.367	BRIMER-2018	-	20,941
2018-2019 Year 2 i3 Scale-Up C3WP Advanced Institute for Upper Elementary	84.411	92-OH-01-2018I3C3WP	-	1,416
2018-19 i3 C3WP High-Need School PD	84.411	92-OH01-2018I3C3WP	-	20,145
NWP:2019-20 Year 3 i3 Scale-up C3WP Grant	84.411	92-OH01-2019I3C3WP	-	81,401
Total U.S. Department of Education Pass-Through Programs			-	151,447
Total U.S. Department of Education			-	466,912
Total Instructional			-	671,132
PUBLIC SERVICE				
U.S. Department of Justice:				
OVW Reducing Campus SIV	16.525	N/A	29,054	90,677
U.S. Department of State:				
Pass-Through From:				
Institute for Training and Development: USDOS-ITD Albarran	19.009	G03179	-	172,875
U.S. Department of Transportation:				
Pass-Through From:				
OVI Countywide Task Force	20.U01	G03117	-	1,979
National Endowment for the Arts:				
Pass-Through From:				
Arts Midwest: 2019-20 Arts Midwest Touring Fund	45.025	00024704	-	3,040
U.S. Small Business Administration				
Pass-Through From:				
Butler County SBDC at Miami	59.037	OSBDC-19-B-0002	-	63,741
U.S. Department of Health & Human Services:				
Pass-Through From:				
Cincinnati Children's Hospital Medical Center: Children's Hospital (DHHS) LEND Traineeship 2018-19	93.110	G03054	-	(6,127)
Cincinnati Children's Hospital Medical Center: LEND Traineeship CCHMC-Green 19-20	93.110	G03188	-	10,307
Ohio Department of Education:Making Ohio AWARE: Building Statewide Mental Health First Aid Capacity	93.243	G02502	-	129,169
Total U.S. Department of Health & Human Services			-	133,349
Total Public Service			29,054	465,661
Total Expenditures of Federal Awards			$ 774,460	$ 124,980,878

See notes to the schedule of expenditures of federal awards

Note 1. Basis of Presentation

The accompanying schedule of expenditures of federal awards (the Schedule) includes the federal award activity of Miami University (the University) under programs of the federal government for the year ended June 30, 2020. The information in this Schedule is presented in accordance with the requirements of Title 2 U.S. *Code of Federal Regulations* Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance). Because the Schedule presents only a selected portion of the operations of the University, it is not intended to and does not present the financial position, changes in net position, or cash flows of the University.

Note 2. Summary of Significant Accounting Policies

Expenditures reported on the Schedule are reported on the accrual basis of accounting. Such expenditures are recognized following the cost principles contained in the Uniform Guidance, wherein certain types of expenditures are not allowable or are limited as to reimbursement. Negative amounts shown on the Schedule represent adjustments or credits made in the normal course of business to amounts reported as expenditures in prior years.

Note 3. Indirect Cost Rate

The University has elected not to exercise its option to use the 10-percent de minimis indirect cost rate due to the fact that the University has an existing approved indirect cost rate.

Note 4. Federal Perkins Loan Program

The Federal Perkins Loan Program is administered directly by the University and balances and transaction relating to this program are included in the University's financial statements. There were no loans made during the current year. The balances of loans outstanding at June 30, 2020 consist of:

Program Name	Outstanding Balance at July 1, 2019	New Loans Issued	Repayments of Student Loans	Outstanding Balance at June 30, 2020
Federal Perkins Loan Program	$ 4,959,367	$ -	$ (765,462)	$ 4,193,906

Note 5. Federal Direct Student Loans

The University also participates in the Federal Direct Student Loan Program, which includes subsidized and unsubsidized Federal Stafford Loans "Stafford" and Federal PLUS Loans "PLUS". New loans processed for students during the year ended June 30, 2020, were as follows:

Federal Direct Student Loan Program	
Stafford:	
Subsidized	$ 19,802,459
Unsubsidized	32,902,543
GLPS	439,447
PLUS	25,737,545

The value of the loans issued for the Federal Direct Student Loan Program is based on disbursed amounts. The University is responsible only for the performance of certain administrative duties with respect to the Federally Guaranteed Student Loan Programs and, accordingly, balances and transactions relating to the loan programs are not included in the University's basic financial statements. Therefore, it is not practical to determine the balance of loans outstanding to students and former students of Miami University at June 30, 2020.

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

Independent Auditor's Report

President and Board of Trustees of Miami University

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 business-type activities and the discretely presented component unit of Miami University (the University), as of and for the year ended June 30, 2020, and the related notes to the financial statements, which collectively comprise the University's basic financial statements and the related notes to the financial statements, and have issued our report thereon dated October 15, 2020.

This report does not extend to the Miami University Foundation due to the Foundation issuing a separate report on Internal Control over Financial Reporting and on Compliance and Others Matters Based on an Audit of Financial Statements Performed in Accordance with *Government Auditing Standards* dated October 13, 2020.

Internal Control over Financial Reporting

In planning and performing our audit of the financial statements, we considered the University's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the University's internal control. Accordingly, we do not express an opinion on the effectiveness of the University'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 entity'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. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

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

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 University'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 University's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

RSM US LLP

Cleveland, Ohio
October 15, 2020

Report On Compliance For Each Major Federal Program; Report On Internal Control Over Compliance; and Report on the Schedule of Expenditures of Federal Awards Required By The Uniform Guidance

Independent Auditor's Report

President and Board of Trustees of Miami University

Report on Compliance for Each Major Federal Program
We have audited Miami University's (the University) compliance with the types of compliance requirements described in the *OMB Compliance Supplement* that could have a direct and material effect on each of the University's major federal programs for the year ended June 30, 2020. The University's major federal programs are identified in the summary of auditor's results section of the accompanying Schedule of Findings and Questioned Costs.

Management's Responsibility
Management is responsible for compliance with federal statutes, regulations, and the terms and conditions of its federal awards applicable to its federal programs.

Auditor's Responsibility
Our responsibility is to express an opinion on compliance for each of the University's major federal programs based on our audit of the types of compliance requirements referred to above. We conducted our audit of compliance in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and the audit requirements of Title 2 U.S. *Code of Federal Regulations* Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance). Those standards and the Uniform Guidance require that we plan and perform the audit to obtain reasonable assurance about whether noncompliance with the types of compliance requirements referred to above that could have a direct and material effect on a major federal program occurred. An audit includes examining, on a test basis, evidence about the University's compliance with those requirements and performing such other procedures as we considered necessary in the circumstances.

We believe that our audit provides a reasonable basis for our opinion on compliance for each major federal program. However, our audit does not provide a legal determination of the University's compliance.

Opinion on Each Major Federal Program
In our opinion, Miami University complied, in all material respects, with the types of compliance requirements referred to above that could have a direct and material effect on each of its major federal programs for the year ended June 30, 2020.

Report on Internal Control over Compliance
Management of the University is responsible for establishing and maintaining effective internal control over compliance with the types of compliance requirements referred to above. In planning and performing our audit of compliance, we considered the University's internal control over compliance with the types of requirements that could have a direct and material effect on each major federal program to determine the auditing procedures that are appropriate in the circumstances for the purpose of expressing an opinion on compliance for each major federal program and to test and report on internal control over compliance in accordance with the Uniform Guidance, but not for the purpose of expressing an opinion on the effectiveness of internal control over compliance. Accordingly, we do not express an opinion on the effectiveness of the University's internal control over compliance.

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

Our consideration of internal control over compliance was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control over compliance that might be material weaknesses or significant deficiencies. We did not identify any deficiencies in internal control over compliance that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

The purpose of this report on internal control over compliance is solely to describe the scope of our testing of internal control over compliance and the results of that testing based on the requirements of the Uniform Guidance. Accordingly, this report is not suitable for any other purpose.

Report on Schedule of Expenditures of Federal Awards Required by the Uniform Guidance
We have audited the financial statements of the business-type activities and the discretely presented component unit of Miami University (the University) as of and for the year ended June 30, 2020, and the related notes to the financial statements, which collectively comprise the University's basic financial statements. We issued our report thereon dated October 15, 2020, which contained unmodified opinions on those financial statements. Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the basic financial statements. The accompanying schedule of expenditures of federal awards is presented for purposes of additional analysis as required by the Uniform Guidance and is not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the schedule of expenditures of federal awards is fairly stated in all material respects in relation to the basic financial statements as a whole.

RSM US LLP

Cleveland, Ohio
February 5, 2021

Miami University

Schedule of Findings and Questioned Costs
For the Year Ended June 30, 2020

Section I - Summary of Auditor's Results

Financial Statements

Type of report the auditor issued on whether the financial statements audited were prepared in accordance with GAAP:	Unmodified			
Internal control over financial reporting:				
• Material weakness(es) identified?		Yes	X	No
• Significant deficiency(ies) identified?		Yes	X	None reported
Noncompliance material to financial statements noted?		Yes	X	No

Federal Awards

Internal control over major programs:				
• Material weakness(es) identified?		Yes	X	No
• Significant deficiency(ies) identified?		Yes	X	None reported
Type of auditor's report issued on compliance for major federal programs:	Unmodified			
Any audit findings disclosed that are required to be reported in accordance with 2 CFR 200.516(a)?		Yes	X	No

Identification of major programs:

CFDA Number(s)	Name of Federal Program or Cluster
84.007, 84.033, 84.038, 84.063, 84.268 and 84.379	Student Financial Aid Cluster
84.425F	Higher Education Emergency Relief Fund - Institutional Portion
84.425E	Higher Education Emergency Relief Fund - Student Aid Portion

Dollar threshold used to distinguish between Type A and Type B programs:	$ 750,000			
Auditee qualified as a low risk auditee?	X	Yes		No

II. Financial Statement Findings

No matters were reported

III. Findings and Questioned Costs for Federal Awards

No matters were reported

Schedule of Prior Year Findings and Questioned Costs
Year Ended June 30, 2020

No matters were reported.

OHIO AUDITOR OF STATE
KEITH FABER

MIAMI UNIVERSITY

BUTLER 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 2/23/2021

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