



Financial Statements

for

**MURRAY STATE UNIVERSITY
A COMPONENT UNIT OF THE
COMMONWEALTH OF KENTUCKY**

For the Year Ended June 30, 2019
with Report of Independent Auditors

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Report of Independent Auditors

Board of Regents
Murray State University
Murray, Kentucky

Secretary of Finance and Administration
Cabinet of the Commonwealth of Kentucky

Report on the Financial Statements

We have audited the accompanying financial statements of the business-type activities and the discretely presented component unit of Murray State University (the University), a component unit of the Commonwealth of Kentucky, as of and for the years ended June 30, 2019 and 2018, 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 an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

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

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

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the business-type activities and the discretely presented component unit of Murray State University as of June 30, 2019 and 2018, and the changes in its financial position and its cash flows thereof for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matter

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis on pages 3 - 22 and the pension and OPEB information on pages 76 - 83 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 2, 2019 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 to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the University's internal control over financial reporting and compliance.

Dean Dotson Allen Ford, PLLC

October 2, 2019
Lexington, Kentucky

MURRAY STATE UNIVERSITY
A Component Unit of the Commonwealth of Kentucky

Management's Discussion and Analysis

June 30, 2019

Introduction

The following Management's Discussion and Analysis (MD&A) provides an overview of the financial position and activities of Murray State University (University) for the year ended June 30, 2019. This discussion has been prepared by management and should be read in conjunction with the financial statements and the notes thereto, which follow this section. The financial statements and related notes and this discussion and analysis are the responsibility of management.

The University is a comprehensive public institution of higher learning located in western Kentucky and primarily serves students in Kentucky, Illinois, Missouri, Tennessee and Indiana. Founded in 1922, the University has study centers in four other cities where it offers a diverse range of degree programs from associate to doctoral levels, is composed of four academic colleges and two schools. The University contributes to the region and state through related research and public service programs. The University is a charter member of the Ohio Valley Conference and a Division I member of the NCAA. The University serves as a residential, regional university offering core programs in the liberal arts, humanities, sciences and selected high-quality professional programs for approximately 9,500 students. For the 2019-20 academic year, tuition and fees increased by \$42 per semester for full time resident undergraduate students. Tuition and fees at the University continues to be less than the national average.

Murray State University consistently ranks among the nation's top public universities and has been recognized for the quality and value of its academic programs. Once again, *U.S. News & World Report's Best Colleges* has recognized the University among the top schools in the country. The University's streak of top rankings was extended to 29 consecutive years with the release of the 2020 *U.S. News Best Colleges* list. Murray State was ranked 24th in the "Best Regional Universities in the South" category and is the highest-ranked regional public university in Kentucky. Murray State also ranked 11th among peer institutions in the "Top Public Regional Universities in the South" category.

In addition to the *U.S. News & World Report's* rankings, the University is ranked a "Military Friendly School" by *Victory Media* and the 2019 *Washington Monthly* college guide and rankings listed Murray State as a best value for students seeking a college degree, and the top-ranked public university in Kentucky. *Forbes* magazine named the University as one of America's Top Colleges in 2019. This marks the 12th straight year in which Murray State has garnered this accolade.

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Management's Discussion and Analysis, continued

June 30, 2019

Financial Highlights

- The University's financial net position dramatically changed in 2015 with the implementation of GASB Statement No. 68 - *Accounting and Financial Reporting for Pensions – an amendment of GASB Statement No. 27*, and again in 2018 with the implementation of GASB Statement No. 75 – *Accounting and Financial Reporting for Postemployment Benefits other than Pensions (OPEB)*. The effects of implementing GASB Statement Nos. 68 and 75 are summarized in the following table. It is important to note that the implementation of these standards has no effect on past or current cash or cash equivalents.

	2019	2018	2017
Beginning net position, no pension/OPEB adjustment	\$ 336,973,098	\$ 332,252,009	\$ 300,800,699
Change in net position, no pension/OPEB adjustment	5,227,098	4,721,089	31,451,310
Ending net position before pension/OPEB adjustment	342,200,196	336,973,098	332,252,009
Pension beginning adjustment	(290,776,657)	(266,031,237)	(244,041,269)
Pension revenue/(expense) adjustment	13,691,790	8,816,578	(21,989,968)
OPEB prior period balance adjustment	—	(32,141,103)	—
OPEB revenue/(expense) adjustment	(839,266)	(1,420,895)	—
Total pension/OPEB adjustments	(277,924,133)	(290,776,657)	(266,031,237)
Net position after pension/OPEB adjustments	\$ 64,276,063	\$ 46,196,441	\$ 66,220,772

- In fiscal year 2019, the University had assets of \$440.3 million, deferred outflows of \$42.4 million, liabilities of \$313.6 million and deferred inflows of \$104.8 million. Net position, which represents the University's residual interest in assets and deferred outflows after liabilities and deferred inflows are deducted, was \$64.3 million or 13% of total assets and deferred outflows. Net position increased by \$18.0 million from fiscal year 2018 to 2019. This increase in net position was the result of a \$12.8 million net decrease in pension/OPEB related activity. Additionally, there is a \$4.6 million increase in liabilities other than pension/OPEB primarily due to increases in accounts payable of \$4.7 million and a decrease in long-term debt of (\$4.6 million). Deferred outflows and inflows are items previously reported as assets or liabilities respectively that are required to be reported separately from assets or liabilities by GASB Standard 65. Deferred inflows increased \$4.4 million to reflect future receipts related to a new dining operations arrangement in December 2018.
- Fiscal operations were in accordance with the annual operating budget of approximately \$159.0 million. The University continued to be a strong employer for the region and employed 3,524 individuals, including 578 faculty and 927 staff members and 2,019 students. These totals include 1,266 regular and full-time faculty and staff.

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Management's Discussion and Analysis, continued

June 30, 2019

- Total originally enacted operating state appropriations for fiscal year 2019 decreased by .5% \$229,800, decreasing to \$45.6 million, this includes general appropriations of \$43.0 million, \$2 million new funding for Breathitt Veterinary Center and performance funding pool allocations of \$557,800.
- The University invests approximately 96% of its endowment funds with the Murray State University Foundation, Inc. (Foundation). The value of these funds is as follows:

Historical Value	\$18.1 million
Market Value	\$21.7 million

These funds experienced an unrealized gain of \$138,412 in fiscal year 2019. This allowed for most program spending to remain constant during the year. The Foundation operated with a 4.0% cap on endowment spending for the fiscal year 2019.

- J. H. Richmond Residence Hall was completed and reopened for occupancy in August 2019 with 279 beds.
- The University invested in a significant number of asset preservation campus enhancement projects in 2019. Total expenditures for these projects were \$11.6 million, excluding J.H. Richmond Residence Hall renovations and repairs.
- In July 2015, significant moisture issues, air pressurization issues, and the discovery of hidden water damages were identified in the Biology Building. The University is continuing to work with construction companies, architects, design firms and consultants to identify the source of the problem. During fiscal year 2019, the University engaged an architect and engineering firm to recommend appropriate repairs and prepare bid documents. Final bid documents for repairs should be issued in Fall 2019 with work beginning between Fall 2019 and Spring 2020. Final completion date has not been determined.
- The University experienced large changes in the pension liability in fiscal year 2019, overall adjustments related to pensions/OPEB were a (\$51.2 million) reduction to liabilities and a (\$6.1 million) reduction to operating expenses. The University's portion of the reduced liability reported by the Teachers' Retirement System (TRS) of Kentucky, resulted in a (\$55.3 million) reduction to the TRS portion of the net pension liability and a (\$7.9 million) reduction to expenses. However, these results were partially offset by an increase to the Kentucky Employees Retirement System (KERS) liability, which increased the University's liability \$6.2 million and increased expenses \$2.4 million. Additionally, the University's liabilities were further reduced by the adjustments related to OPEB paid to the retirement systems. This resulted in a \$2.1 million decrease in liabilities and (\$.6 million) decrease in expenses.
- The University's dining services were outsourced to Sodexo Operations, LLC effective December 2018. The agreement is through June 2029 and encompasses all campus dining services as well as significant capital investments made by Sodexo.

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Management's Discussion and Analysis, continued

June 30, 2019

- The University experienced a 5.5% decline in enrollment in fiscal year 2019. The impact of the decrease was addressed by a planned reduction in expenditures in fiscal year 2019 and a budgeted contingency.

Performance Funding

The enacted 2017-18 Commonwealth of Kentucky budget included implementation of the performance funding model and included a performance pool. The pool was funded with 5% of the net adjusted appropriations of each of the four-year institutions and Kentucky Community and Technical College System (KCTCS), which totaled \$31 million. Murray State University contributed \$2,293,200 to the pool and received \$2,231,000 in the 2017-18 budget back from the funding pool.

The enacted 2018-19 Commonwealth of Kentucky budget included a performance funding pool of \$38.7 million for all four-year institutions and Kentucky Community and Technical College System (KCTCS). Murray State University received \$557,800 from the above performance pool.

The three basic components of the funding model include:

- Student Success: 35% of the model ties the distribution of allocable funding directly to degree production and progression toward a degree or credential;
- Course Completion: 35% of the model ties the distribution of resources to the number of credit hours awarded at each campus;
- Operational Support: 30% of the model ties the distribution of resources to campus services and infrastructure that support student learning and success.

Using the Financial Statements

The University's financial statements consist of Statements of Net Position, Statements of Revenues, Expenses and Changes in Net Position, Statements of Cash Flows and Notes to the Financial Statements. These financial statements and accompanying notes are prepared in accordance with the appropriate Governmental Accounting Standards Board (GASB) pronouncements.

These financial statements provide an entity-wide perspective and focus on the financial condition, results of operations and cash flows of the University as a whole.

Financial statements have also been included for the MSU Foundation, a component unit, in accordance with the requirements of GASB Statement No. 39, *Determining Whether Certain Organizations are Component Units*. Financial statements for this entity consist of Statements of Financial Position and Statements of Activities. These statements are prepared in accordance with the appropriate Financial Accounting Standards Board (FASB) pronouncements.

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Management's Discussion and Analysis, continued

June 30, 2019

Statements of Net Position

The Statement of Net Position presents a financial picture of the University's financial condition at the end of the 2019 and 2018 fiscal years by reporting assets (current and noncurrent), deferred outflows of resources, liabilities (current and noncurrent), deferred inflows of resources, and net position. Net position, the difference between total assets plus deferred outflows less total liabilities and deferred inflows, are an important indicator of the current financial condition, while the change in net position is an indicator of whether the overall financial position has improved or declined during the year.

Assets

Total assets at the end of the fiscal year 2019 were \$440.3 million, of which capital assets, net of depreciation, represented the largest portion. Capital assets totaled approximately \$239.7 million or 54% of total assets and were primarily comprised of University-owned land, buildings, equipment, and library holdings. Cash and cash equivalents amounted to \$156.4 million or 36% of total assets. Total assets increased by \$9.9 million during the 2019 fiscal year. This decrease in gross total assets is due primarily to the following items:

- \$6.0 million - Increase in net capital assets. Primarily due to \$12.7 million in new additions to construction-in-progress (CIP), largely related to renovation and repairs to J. H. Richmond Residence Hall combined with a \$1.6 million increase in non-building improvements offset by \$9.1 million in current year depreciation.
- \$13.2 million - Increase in cash and cash equivalents. This increase was the result of a \$2.3 million increase in operating cash explained by timing of transactions as well as an additional \$3.1 million in project funding related to the outsourcing of dining services. Investment income increased by \$2.9 million due to improved market conditions and unspent insurance proceeds increased by \$1.5 million related to the J. H. Richmond Residence Hall incident. Increases in Education & General (E&G) net position prior to the pension expense (non-cash) adjustment totaled \$1 million, and an increase in restricted net position of \$2.5 million.
- (\$9.0 million) - Decrease in accounts receivable, net. This decrease is the result of a (\$10 million) decrease in an insurance receivable related to the J. H. Richmond Residence Hall incident offset by a \$1 million increase related to the effects of outsourcing dining services.

Total assets decreased by \$3.2 million during the 2018 fiscal year due to the following:

- (\$16.6 million) - Decrease in net capital assets. Primarily due to (\$12 million) decrease in current year depreciation combined with the (\$9.5 million) decrease due to the J. H. Richmond impairment. This combined (\$21.5 million) decrease was offset by \$3.6 million increase in equipment, \$2.1 million of which was related to equipping the new Engineering and Physics building as well as \$0.3 million in land purchases, \$0.4 non-building improvements with the remaining \$0.6 increase related to the reduction in construction-in-progress and related increase in buildings for the capitalization of Breathitt Veterinary Center, H.C. Franklin Hall and the Engineering and Physics building.

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Management's Discussion and Analysis, continued

June 30, 2019

- \$3.4 million - Increase in cash and cash equivalents. This increase was the result of a \$1.7 million increase in operating cash explained by increases in E&G net position prior to the pension expense (non-cash) adjustment, and an increase of \$1.4 million in Auxiliary cash explained by an increase in Auxiliary net position prior to the pension expense (non-cash) adjustment as well as an increase in restricted net position of \$0.7 million. These increases were offset by an increase in collection expenses of \$0.4 million.
- \$10.1 million - Increase in accounts receivable, net. This increase is the result of a \$10.5 million increase in an insurance receivable related to the J. H. Richmond Residence Hall incident offset by a (\$0.4 million) decrease related to the effects of the decline in enrollment.

Deferred Outflows of Resources

A new section of the Statement of Net Position was added in 2014 in compliance with GASB Statement No. 65 - *Items Previously Reported as Assets and Liabilities*. This statement required that the deferred bond refunding loss, previously reported as part of the "Long-term debt" lines, be reported instead as a deferred outflow of resources in fiscal year 2014. GASB statement 65 also required that we restate this deferred outflow for all prior years reported within these financial statements. Deferred outflows consisted of bond refunding loss from the 2011 refunding of housing and dining bond Series M, N, O, P, and Q which totaled \$1.6 million for fiscal year 2019, \$1.7 million for fiscal year 2018 and \$1.7 million for 2017. Also included is a bond refunding loss from the refunding of 2007 general receipts bonds Series A which totaled \$0.7 million for fiscal year 2019, \$0.7 million and \$0.8 million for fiscal years 2018 and 2017 respectively. Deferred outflows also consisted of \$40.1 million for fiscal year 2019, \$51.3 and \$53.8 million for fiscal years 2018 and 2017 respectively, related to reporting requirements specified in GASB Statements No. 68 - *Accounting and Financial Reporting for Pensions — an amendment of GASB Statement No. 27* and No. 75 - *Accounting and Financial Reporting for Postemployment Benefits other than Pensions*.

Liabilities

Total liabilities at the end of the fiscal year 2019 were \$313.6 million, a decrease of (\$51.2 million). This change was due to the following:

- (\$51.2 million) – Net decrease in pension/OPEB liability. GASB Statement No. 68 - *Accounting and Financial Reporting for Pensions — an amendment of GASB Statement No. 27* required the reporting of the pension liability for the first time in fiscal year 2015. GASB Statement No. 75 – *Accounting and Financial Reports for Postemployment Benefits Other than Pensions (OPEB)* requires the reporting of the related liability for the first time in fiscal year 2019. This represents the University's proportionate share of the net pension/OPEB liability for the Kentucky state retirement plans to which the University makes contributions. The liability related to pensions decreased (\$49.1 million), while the liability related to OPEB decreased by (\$2.1 million).
- \$4.8 million – Increase in accounts payable. This increase is due to accounts payables related to renovation and construction projects including J. H. Richmond Residence Hall, Chick-fil-A, and Einstein Bros. Bagels.

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Management's Discussion and Analysis, continued

June 30, 2019

- (\$4.6 million) – Decrease in long-term debt. This decrease is the result of the 2019 principal payments on bonds and master leases.

Total liabilities at the end of the 2018 fiscal year were \$364.8 million, a decrease of (\$52.1 million). This change was due to the following:

- (\$43.8 million) – Net decrease in pension/OPEB liability. GASB Statement No. 68 - *Accounting and Financial Reporting for Pensions – an amendment of GASB Statement No. 27* required the reporting of the pension liability for the first time in fiscal year 2015. GASB Statement No. 75 – *Accounting and Financial Reports for Postemployment Benefits Other than Pensions (OPEB)* requires the reporting of the related liability for the first time in fiscal year 2018. This represents the University's proportionate share of the net pension/OPEB liability for the Kentucky state retirement plans to which the University makes contributions. The liability related to pensions decreased (\$81.6 million), while the liability related to OPEB increased by \$37.8 million.
- (\$3.2 million) - Decrease in accounts payable. This decrease is attributed to the net (\$3 million) decrease in Plant accounts payable related to the Breathitt Veterinary Center, H.C. Franklin Hall and the Engineering and Physics building, and offset by a (\$0.2 million) decrease in restricted accounts payable attributable to timing differences in routine payables.
- (\$0.4 million) – Decrease in unearned revenue. This decrease is the result of reductions in E&G (\$0.2 million) and Restricted (\$0.2 million) unearned revenues.
- (\$4.7 million) - Decrease in long-term debt. This decrease is the result of the 2018 principal payments on bonds and master leases.

Deferred Inflows of Resources

A new section of the Statement of Net Position added in 2014 in compliance with GASB Statement No. 65 – *Items Previously Reported as Assets and Liabilities*. This statement requires that certain items are no longer to be reported as a liability. This consisted of \$100.4 million in fiscal year 2019, \$73.2 million and \$7 million in fiscal years 2018 and 2017 respectively, for deferred inflows of resources related to pensions/OPEB as specified in GASB Statement Nos. 68 and 75. An additional \$4.4 million was record in fiscal year 2019 related to the outsourcing of dining services.

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Management's Discussion and Analysis, continued

June 30, 2019

Net Position

Net position, which represent total equity, of the University were divided into three major categories, defined as follows:

- Invested in capital assets, net of related debt - This category represents the institution's equity in property, buildings, equipment, library holdings and other plant assets owned by the University, less related depreciation and outstanding balances of borrowings used to finance the purchase or construction of those assets.
- Restricted - This category represents those assets which are subject to externally imposed restrictions governing their use and includes classifications of nonexpendable and expendable.
 - Restricted nonexpendable net position - Restricted nonexpendable net position consist solely of permanent endowments owned by the University. The corpus, as specified by the donor, is invested in perpetuity and may not be expended.
 - Restricted expendable net position - Restricted expendable net position consist of those assets that may be expended by the University, but must be spent for purposes as defined by the donors and/or external entities that have placed time or purpose restrictions on the use of the assets.
- Unrestricted - This category represents the net position held by the University that has no formal restrictions. Although unrestricted net position is not subject to externally imposed stipulations, substantially all of the unrestricted net position has been designated for various programs and initiatives, capital projects and working capital requirements.

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Management's Discussion and Analysis, continued

June 30, 2019

Condensed Statements of Net Position

	<u>June 30, 2019</u>	<u>June 30, 2018</u>	<u>June 30, 2017</u>
Assets			
Current assets	\$ 108,932,836	\$ 116,557,371	\$ 103,706,220
Noncurrent assets	91,658,940	80,169,828	79,651,477
Capital assets	239,660,043	233,647,333	250,242,436
Total assets	<u>440,251,819</u>	<u>430,374,532</u>	<u>433,600,133</u>
Deferred Outflows	<u>42,402,028</u>	<u>53,839,367</u>	<u>56,508,116</u>
Liabilities			
Current liabilities	27,086,955	22,447,918	26,072,558
Noncurrent liabilities	286,518,165	342,364,235	390,780,206
Total liabilities	<u>313,605,120</u>	<u>364,812,153</u>	<u>416,852,764</u>
Deferred Inflows	<u>104,772,664</u>	<u>73,205,305</u>	<u>7,034,713</u>
Net Position			
Invested in capital assets, net of related debt	170,681,775	159,215,284	173,041,810
Restricted for			
Nonexpendable	22,517,317	22,285,087	21,973,233
Expendable			
Scholarships, research, instruction and other	7,183,574	6,979,462	6,271,792
Loans	3,646,465	3,469,792	4,081,721
Capital	14,567,160	17,812,615	2,667,171
Debt service	365,424	287,315	236,717
Unrestricted	<u>(154,685,652)</u>	<u>(163,853,114)</u>	<u>(142,051,672)</u>
Total net position	<u>\$ 64,276,063</u>	<u>\$ 46,196,441</u>	<u>\$ 66,220,772</u>

MURRAY STATE UNIVERSITY
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Management's Discussion and Analysis, continued

June 30, 2019

Statements of Revenues, Expenses and Changes in Net Position

The Statements of Revenues, Expenses and Changes in Net Position, which are generally referred to as the activities statement or income statement, present the revenues earned and expenses incurred and income or loss from operations for the current and prior fiscal years. Activities are reported as either operating or non-operating. Changes in total net position as presented on the Statements of Net Position are based on the activity presented in the Statements of Revenues, Expenses and Changes in Net Position.

The financial statements are prepared on the accrual basis of accounting, whereby revenues and assets are recognized when the service is provided and expenses and liabilities are recognized when others provide the service, regardless of when cash is exchanged. A public university's dependency on state appropriations will result in reported operating losses. The Governmental Accounting Standards Board requires state appropriations to be classified as non-operating revenues. The utilization of long-lived capital assets is reflected in the financial statements as depreciation, which expenses the costs of an asset over its expected useful life.

Revenues

- Total operating revenues, which exclude state appropriations, for fiscal year 2019 were \$110.3 million, including student tuition and fees, net of related discounts and allowances, of \$60.5 million, operating restricted grants and contracts revenues of \$6.9 million, sales, services and other revenues of \$16.0 million, and auxiliary services net revenues of \$26.9 million.
- During fiscal year 2019, operating revenues decreased by (\$8.8 million). This decrease from the prior year is comprised primarily of (\$7.7 million) in actual net tuition, offset by increases of \$0.2 million in grants and contracts revenue, \$3.6 million in sales, services, and other revenues and (\$4.9 million) decrease in auxiliary services, specifically housing, dining and bookstore, largely due to the outsourcing of dining in December 2018.
- The University received \$45.3 million in state appropriations for operations, including performance pool funding, for fiscal year 2019, and \$45.8 million for fiscal year 2018.

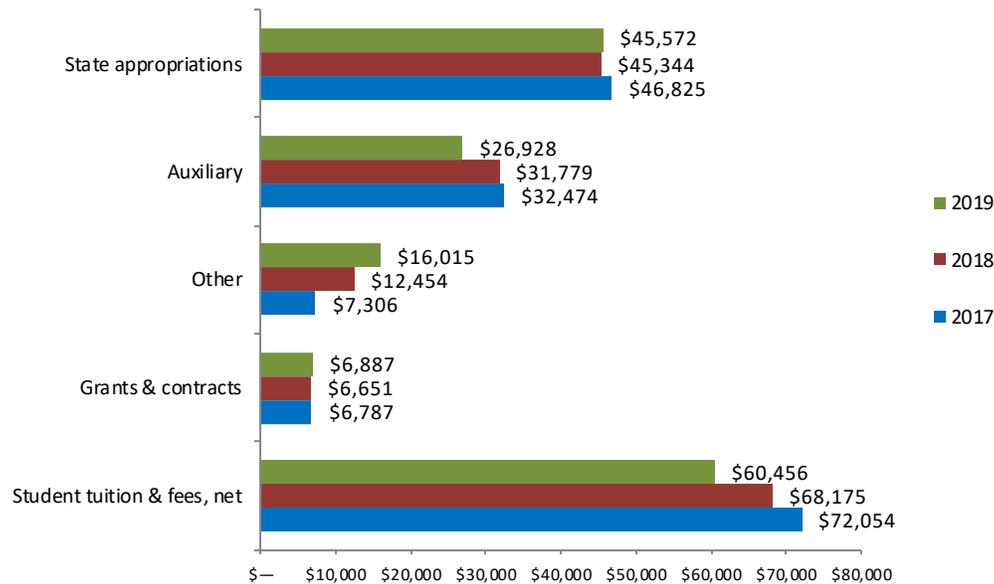
MURRAY STATE UNIVERSITY
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Management's Discussion and Analysis, continued

June 30, 2019

The comparative sources of total operating revenues and nonoperating state appropriation revenues are reflected in the following chart:

**Operating Revenues and State Appropriations
(In Thousands)**



Expenses

Total operating expenses for fiscal year 2019 were \$168.9 million. Academic Affairs, which include instruction, research, libraries and academic support, represent the largest portion of the operating expenses totaling \$73.4 million or 43%. Student Affairs, which include student services, financial aid and auxiliary services, was \$49.5 million or 29% and other expenses which include public service, institutional support, depreciation and operation and maintenance and state pension expense amounted to \$46.0 million or 28%. Depreciation and Pension expense for all areas of the University, are reported as an operating expense and was not allocated to each program group, except for auxiliary enterprises.

MURRAY STATE UNIVERSITY
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Management's Discussion and Analysis, continued

June 30, 2019

Operating expenses decreased for the year ended June 30, 2019, by (\$17.6 million). The primary reasons for the decrease in operating expenses are as follows:

- (\$5.5 million) - Decrease in overall operating expenses as the result of the University's proportionate share of expenses related to Kentucky state pension plans. The University's proportionate expenses were \$12.6 million in 2019, \$10.2 million in 2018 and \$4.6 million in 2017 for the KERS and a \$21.2 million credit to expense in 2019, \$13.2 million credit to expenses in 2018 and \$18 million charge to expenses in 2017 for the TRS.
- (\$0.5 million) – Decrease in overall operating expenses as the result of the University's proportionate share of expenses related to Kentucky state OPEB plans. The University's proportionate expenses were \$1.0 million in 2019 and \$1.2 million in 2018 KERS and \$0.3 million in 2019 and \$0.6 million in 2018 for the TRS.
- (\$3.8 million) - Decrease in operation and maintenance of plant expense as the result of the New BVC and Engineering and Physics buildings being placed in service in 2018. When this occurs, several expenses held as construction-in-progress are released as plant expenses related to the construction of the building but not capitalized as part of the building.
- (\$3.7 million) - Decrease in overall operation spending, not including operations and maintenance mentioned above. This includes a (\$3.6 million) decrease in overall salaries and benefits and a (\$0.1 million) decrease in other overall expenditures.
- (\$4.0 million) – Decrease in auxiliary enterprises primarily due to the outsourcing of dining services.

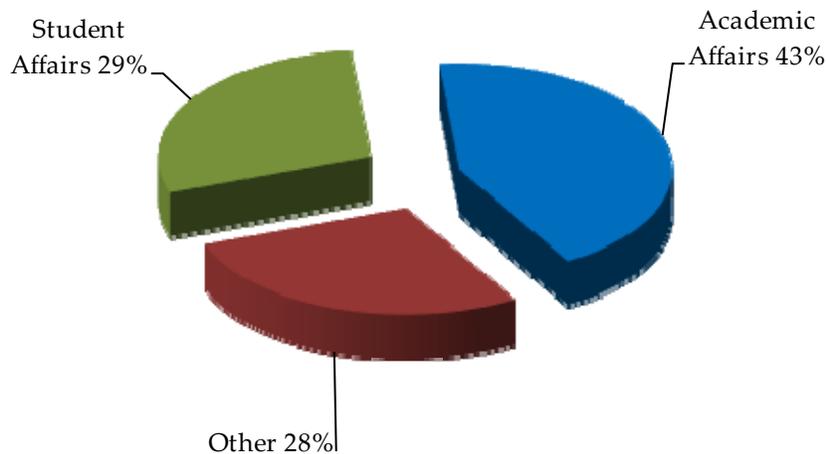
MURRAY STATE UNIVERSITY
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Management's Discussion and Analysis, continued

June 30, 2019

Operating expenses by type are reflected in the following chart:

**University Operating Expenses
Year Ended June 30, 2019**



The net loss from operations for the year ended June 30, 2019, was (\$58.7 million) including pension/OPEB adjustments. Nonoperating revenues, net of expenses, of \$73.1 million, insurance reimbursements of \$3.4 million, and capital gifts of \$0.1 million resulted in an increase in net position of \$18.1 million for the year ended June 30, 2019. This increase in net position is primarily the result of \$6.0 million related to pension/OPEB, \$4.0 million related to the outsourcing of dining services, \$3.8 million related to a decrease in operation and maintenance of plant expenses related and \$3.7 decrease in overall operation spending combined with an increase in investment income.

The net loss from operations for the year ended June 30, 2018, was (\$67.6 million) including pension/OPEB adjustments. Nonoperating revenues, net of expenses, of \$70.8 million, state capital appropriations of \$4.4 million related to the Breathitt Veterinary Center and the Engineering and Physics building projects, insurance reimbursement related to the impairment of J. H. Richmond Residence Hall and surrounding buildings which were impacted of \$3.9 million, other insurance reimbursements of \$1.1 million, and capital gifts of \$0.4 million resulted in an increase in net position of \$12.1 million for the year ended June 30, 2018.

MURRAY STATE UNIVERSITY
A Component Unit of the Commonwealth of Kentucky

Management's Discussion and Analysis, continued

June 30, 2019

Condensed Statements of Revenues, Expenses, and Changes in Net Position

	<u>2019</u>	<u>2018</u>	<u>2017</u>
Operating revenues			
Student tuition and fees, net	\$ 60,456,045	\$ 68,175,108	\$ 72,053,962
Grants and contracts	6,886,581	6,650,616	6,787,113
Other	16,015,020	12,453,726	7,306,302
Auxiliary, net	26,928,253	31,779,351	32,473,936
Total operating revenues	<u>110,285,899</u>	<u>119,058,801</u>	<u>118,621,313</u>
Operating expenses			
Instruction	61,064,980	62,572,485	62,523,230
Other educational and general	77,435,333	89,344,602	105,309,128
Depreciation	9,154,634	9,330,382	8,585,227
Auxiliary enterprises	18,599,020	22,608,719	22,570,810
Auxiliary depreciation	2,693,821	2,757,883	2,872,348
Total operating expenses	<u>168,947,788</u>	<u>186,614,071</u>	<u>201,860,743</u>
Operating loss	<u>(58,661,889)</u>	<u>(67,555,270)</u>	<u>(83,239,430)</u>
Nonoperating revenues			
State appropriations	45,572,300	45,344,100	46,824,500
Other nonoperating revenues	27,485,929	25,496,375	23,916,782
Total nonoperating revenues	<u>73,058,229</u>	<u>70,840,475</u>	<u>70,741,282</u>
Other revenues			
State capital appropriations and other	<u>3,683,282</u>	<u>8,831,567</u>	<u>21,959,490</u>
Increase in net assets	18,079,622	12,116,772	9,461,342
Net position, beginning of year	46,196,441	66,220,772	56,759,430
Restatement of 2018 beginning net position for OPEB liability	—	(32,141,103)	—
Net position, beginning of year	<u>46,196,441</u>	<u>34,079,669</u>	<u>56,759,430</u>
Net position, end of year	<u>\$ 64,276,063</u>	<u>\$ 46,196,441</u>	<u>\$ 66,220,772</u>

MURRAY STATE UNIVERSITY
A Component Unit of the Commonwealth of Kentucky

Management's Discussion and Analysis, continued

June 30, 2019

Statements of Cash Flows

The Statements of Cash Flows provide a summary of the sources and uses of cash by defined categories. The principal purposes of the Statements of Cash Flows are to provide information about the University's cash receipts and payments during the years and to help assess the University's ability to generate future net cash flows and meet obligations as they become due, as well as its need for external financing.

For the year ended June 30, 2019:

The net cash used in operating activities reflects the net cash used for general operations of the University, which increased by \$11.3 million during fiscal year 2019. This increase in cash was primarily due to increases in cash provided by sales and services of education and other revenues activities by \$13.4 million which includes state pension support and decreases in cash used by payments to suppliers totaling \$3.0 million combined with a (\$3.5 million) decrease in cash used by auxiliaries for payments for salaries, wages and fringes as well as (\$1.6 million) decrease payments to suppliers, primarily resulting from the outsourcing of dining services during fiscal year 2019.

The cash flows from noncapital financing activities increased by \$5.0 million during fiscal year 2019. This change was primarily due to an increase of \$3.9 million for deferred revenues related to the outsourcing of dining services and \$1.1 million increase in grants and contracts.

The net cash flows used in capital and related financing activities represent cash used for the acquisition, construction and renovation of capital assets, changed from (\$6.1 million) used during fiscal year 2018 to (\$17.3 million) used during fiscal year 2019, a \$11.2 million change. Part of this decrease is due to \$5.8 million more cash used in the construction costs attributable to J.H. Richmond Hall. Additionally, the Breathitt Veterinary Center, and Engineering and Physics building were completed or nearing completion in fiscal year 2018 therefore, reduced spending on these facilities occurred during fiscal year 2019. Also contributing to the decrease was a \$3 million receipt of insurance proceeds for J. H. Richmond Residence Hall received in fiscal year 2018.

The cash flows provided by investing activities represent the cash activities of investments, which increased by \$2.9 million for 2019. This increase was primarily the result of an increase in investment earnings, \$2.9 which is attributed to an increase in interest earned on cash accounts held by the Treasurer of the Commonwealth and was due to favorable market performance.

For the year ended June 30, 2018:

The net cash used in operating activities reflects the net cash used for general operations of the University, which decreased by (\$10.9 million) during fiscal 2018. This decrease in cash used was primarily due to increases in cash used by payments to suppliers and for salaries, wages and fringes, and decreases in cash from net tuition and fees, and sales and other revenues.

MURRAY STATE UNIVERSITY
A Component Unit of the Commonwealth of Kentucky

Management's Discussion and Analysis, continued

June 30, 2019

The cash flows from noncapital financing activities increased by \$323,000 during fiscal year 2018. This change was primarily due to an increase of \$1.4 million for grants and contract revenue, \$227,000 for Endowment proceeds and \$209,000 for gifts other than capital, offset by a (\$520,000) decrease in state appropriations for fiscal year 2018 and a (\$961,000) decrease in state appropriation returns of prior year deductions.

The net cash flows used in capital and related financing activities represent cash used for the acquisition, construction and renovation of capital assets, changed from (\$16.2 million) used during 2017 to (\$6.1 million) used during 2018, a \$10 million change. Part of this decrease is due to \$23.1 million less cash used in the purchase of capital assets, attributable to decreased spending on the Breathitt Veterinary Center, and Engineering and Physics building both of which were completed or nearing completion in 2018. Also contributing to the increase was a \$3 million receipt of insurance proceeds for J.H. Richmond Hall. These were offset by a (\$16.8 million) decrease in state capital appropriations for the final construction of the Breathitt Veterinary Center and the Engineering and Physics building.

The cash flows provided by investing activities represent the cash activities of investments, which increased by \$1.1 million for 2018. This increase was primarily the result of an increase in investment receipts, \$900,000 of which is attributed to an increase in interest earned on local bank accounts as well as cash accounts held in Frankfort.

Condensed Statements of Cash Flows

	2019	2018	2017
Cash provided/(used) by:			
Operating activities	\$ (50,285,029)	\$ (61,621,713)	\$ (50,689,875)
Noncapital financing activities	74,117,599	69,112,066	68,789,385
Capital and related financing activities	(15,574,361)	(6,105,745)	(16,174,554)
Investing activities	4,961,649	2,052,005	949,730
Net increase in cash	13,219,858	3,436,613	2,874,686
Cash and cash equivalents, beginning of year	143,192,525	139,755,912	136,881,226
Cash and cash equivalents, end of year	\$ 156,412,383	\$ 143,192,525	\$ 139,755,912

MURRAY STATE UNIVERSITY
A Component Unit of the Commonwealth of Kentucky

Management's Discussion and Analysis, continued

June 30, 2019

Capital Assets and Debt Administration

The University had a \$15.0 million increase in capital assets, before accumulated depreciation, during the fiscal year ended June 30, 2019. This change is primarily due to a \$12.5 million increase in construction-in-progress related to J.H. Richmond Residence Hall.

Capital assets as of June 30, 2019, and changes during the year are as follows:

	Balance June 30, 2019	Balance June 30, 2018	Net Change 2018-19
Land	\$ 10,442,742	\$ 10,176,698	\$ 266,044
Construction in progress	18,831,090	6,264,350	12,566,740
Museum and collectibles	694,737	694,737	-
Buildings	372,556,320	372,149,804	406,516
Non-building improvements	18,507,858	17,172,063	1,335,795
Equipment	35,864,174	35,280,560	583,614
Software	1,932,019	1,932,019	-
Library holdings	10,681,965	10,744,204	(62,239)
Livestock	137,749	151,749	(14,000)
Accumulated depreciation	(229,988,611)	(220,918,851)	(9,069,760)
Total	\$ 239,660,043	\$ 233,647,333	\$ 6,012,710

Debt as of June 30, 2019, and changes during the year are as follows:

	Balance June 30, 2019	Balance June 30, 2018	Net Change 2018-19
General receipts bonds	\$ 64,400,000	\$ 68,290,000	\$ (3,890,000)
Bond discount	(46,219)	(50,841)	4,622
Bond premium	1,826,529	1,947,291	(120,762)
City of Murray	6,995,000	7,390,000	(395,000)
Total	\$ 73,175,310	\$ 77,576,450	\$ (4,401,140)

MURRAY STATE UNIVERSITY
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Management's Discussion and Analysis, continued

June 30, 2019

Infrastructure Assets

Infrastructure assets are defined by GASB No. 34 as long-lived assets that are normally stationary in nature and normally can be preserved for a significantly greater number of years than most capital assets. These types of assets will typically be permanent nonbuilding additions that service the entire campus. The University has adopted the modified approach of accounting for its infrastructure assets. This approach requires that an asset management system be established and maintained. Such a system would assess and disclose that all eligible infrastructure assets are being preserved approximately at (or above) a condition level established. To date, the University has not identified any assets that should be classified as infrastructure.

Additional information for Capital Assets and Debt can be found in Notes 7 and 11, respectively, to the financial statements.

Economic Factors Affecting Future Periods

- In fiscal year 2019, Kentucky's General Fund receipts rose for the ninth consecutive year. Final 2019 General Fund revenues were \$11,392.7 million, or 5.1%, more than 2018 collections. Final General Fund revenues were \$194.5 million or 1.7% more than the official revenue estimate which had projected 3.3% growth.

The national outlook over the next three fiscal quarters calls for a return to the long-term Gross Domestic Product (GDP) growth trend and a material slowing in employment gains. Real GDP growth is expected to be 2% over the next three quarters. Additionally, interest rates are expected to remain low and the Federal Reserve has signaled a "dovish" policy for the near term. Recent gains in wealth, wages, and employment have been coupled with increased consumer confidence, supporting continued growth in consumer expenditures.

The above was reported in the 2019 annual edition of Commonwealth of Kentucky Quarterly Economic & Revenue Report.

- The University issued general receipts bonds in July 2019 totaling \$4.3 million for the refunding of Series 2009 A general receipts bonds originally obtained for the completion of J.H. Richmond Residence Hall and various other projects under \$600,000.
- The University continues to manage ongoing asset preservation issues. These are being addressed through a combination of an annual budget allocation of university funds designated to deferred maintenance projects, one-time funding and the use of reserves as appropriate. With aging buildings and infrastructure, asset preservation will continue to be a funding priority for the University.

MURRAY STATE UNIVERSITY
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Management's Discussion and Analysis, continued

June 30, 2019

The University will be requesting bond financing authorization for up to \$11 million from the General Assembly in their 2020 session as part of the 2020-22 Budget of the Commonwealth. In addition, a request for up to \$22 million in matching funds will be requested. This \$33 million will be designated for asset preservation.

The 2020-22 biennium capital budget request will also include \$16 million bond financing authorization for a construction/renovation of Residence halls and up to \$66 million of third financing authorization for the construction/renovation of residence halls.

The University is currently developing an updated campus master plan, including residence halls and athletic facilities. These plans are expected to be completed in the winter 2020.

- The University continues to provide health insurance to employees through a self-funded program. As reflected in national trends, the costs of health claims continue to be a major expense for the University. Details of funding amounts for the plan can be found in Note 9. The University implemented a stronger utilization management package, with additional controls on specialty drugs to help manage pharmacy costs. The Segal Company (Sibson Consulting) provides guidance for all health and wellness programs.
- The Board of Regents authorized the exploration of outsourcing options and the issuance of necessary request for proposals (RFP) that may be in the best interest of the University in June 2019. An RFP was released in September 2019 related to the outsourcing of facilities management custodial, grounds and/or maintenance functions. The RFP will be followed by a review of vendor responses and campus visits and presentations, resulting in an evaluation of the facilities management outsourcing options.
- Early headcount enrollments for Fall 2019 are promising, with first-time freshmen enrollments up 7.6%, first-time transfer enrollments up 11.6%, and first-time graduate enrollment up 12.5%. Total enrollment is projected to be up 1.1%, with freshmen to sophomore retention rate for baccalaureate-degree seeking students of 79%.
- The University is working to develop a stronger online academic program presence and plans to begin a pilot project with the assistance of a third-party to assist with the marketing and management of select graduate programs. The University's faculty will continue to teach these programs and will maintain all responsibilities and oversight of course content. Enrollments are expected to grow above current levels and net revenues will assist with academic program enhancement and other institutional priorities

MURRAY STATE UNIVERSITY
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Management's Discussion and Analysis, continued

June 30, 2019

- During the 2019 Kentucky Special Legislation Session, House Bill 1 (HB1) was approved by the legislature and approved by the Governor, to be effective for fiscal year 2020. HB1 provided an employer contribution rate freeze of 49.47% ending on June 30, 2020. This rate was planned to be 83.43% on July 1, 2019. In addition, the legislation provides options for "quasi" agencies, which includes five comprehensive universities and the community college system within the state of Kentucky. These options provide for a lump sum or a 30-year financing option for each agency to pay their portion, as defined by the Kentucky Retirement System, of the KERS unfunded pension and OPEB liabilities. The legislation also allows these agencies to remain in the KERS and accept increasing employee contribution rates that currently have no defined maximum. Murray State University is in the process of analyzing which option is most sustainable for the long-range operations of the University.
- The Universities state performance funding model caps the maximum exposure of loss at 1% of appropriations for fiscal year 2019. This cap is a maximum of 2% for fiscal year 2020 and current legislation requires the elimination of a cap for fiscal years 2021 and after. The University is actively working with legislative representatives to reinstate the legislatively 2% mandated cap for fiscal years 2021 and after. This will provide a more stable allocation from the performance funding pool and allow all universities the ability to develop long-range financial plans.

MURRAY STATE UNIVERSITY
A Component Unit of the Commonwealth of Kentucky

Statements of Net Position

June 30, 2019 and 2018

	2019	2018
Assets		
Current Assets		
Cash and cash equivalents	\$ 93,721,297	\$ 92,230,046
Accounts receivable, net	9,775,707	18,727,240
Interest receivable	—	197,854
Inventories	2,742,521	3,141,909
Loans to students, net	490,043	582,137
Prepaid expenses	2,203,268	1,678,185
Total Current Assets	108,932,836	116,557,371
Noncurrent Assets		
Restricted cash and cash equivalents	62,691,086	50,962,479
Restricted investments	26,723,042	26,555,267
Loans to students, net	2,244,812	2,652,082
Capital assets	469,648,654	454,566,184
Accumulated depreciation	(229,988,611)	(220,918,851)
Total Noncurrent Assets	331,318,983	313,817,161
Total Assets	440,251,819	430,374,532
Deferred Outflows of Resources		
Bond refunding loss	2,256,251	2,491,793
Deferred outflows related to pension/OPEB contributions	40,145,777	51,347,574
Total Deferred Outflows of Resources	42,402,028	53,839,367

See accompanying notes.

MURRAY STATE UNIVERSITY
A Component Unit of the Commonwealth of Kentucky

Statements of Net Position

June 30, 2019 and 2018

	2019	2018
Liabilities		
Current Liabilities		
Accounts payable	\$ 11,431,746	\$ 6,646,037
Accrued payroll	6,277,097	6,775,768
Self-insured health liability	716,162	624,291
Interest payable	777,860	814,646
Unearned revenue	2,920,163	2,850,441
Deposits - current portion	302,787	275,595
Long-term debt - current portion	4,661,140	4,461,140
Total Current Liabilities	27,086,955	22,447,918
Noncurrent Liabilities		
Deposits	329,700	330,000
Long-term debt	68,514,170	73,115,310
Net pension/OPEB liability, state pension plans	217,674,295	268,918,925
Total Noncurrent Liabilities	286,518,165	342,364,235
Total Liabilities	313,605,120	364,812,153
Deferred Inflows of Resources		
Deferred inflows related to dining contract	4,377,049	—
Deferred inflows related to net pension/OPEB liability	100,395,615	73,205,305
Total Deferred Inflows of Resources	104,772,664	73,205,305
Net Position		
Net investment in capital assets	170,681,775	159,215,284
Restricted for:		
Nonexpendable:		
Endowment	22,517,317	22,285,087
Expendable:		
Scholarships, research, instruction and other	7,183,574	6,979,462
Loans	3,646,465	3,469,792
Capital projects	14,567,160	17,812,615
Debt service	365,424	287,315
Unrestricted	(154,685,652)	(163,853,114)
Total Net Position	\$ 64,276,063	\$ 46,196,441

See accompanying notes.

MURRAY STATE UNIVERSITY FOUNDATION, INC.

Statements of Financial Position

June 30, 2019 and 2018

Assets

	<u>2019</u>	<u>2018</u>
Cash and cash equivalents	\$ 3,091,087	\$ 1,503,097
Accounts receivable	176,764	2,765,584
Investments	124,657,562	118,849,706
Real estate held for investment	2,552,957	2,552,957
Prepaid and other assets	59,350	67,464
Contributions receivable, net	1,075,782	740,133
Property and equipment, net	6,440,741	6,563,619
Total Assets	\$ 138,054,243	\$ 133,042,560

Liabilities And Net Assets

	<u>2019</u>	<u>2018</u>
Liabilities		
Accounts payable	\$ 128,367	\$ 114,648
Due to Murray State University (MSU)	319,944	249,045
Accrued expenses	59,122	57,729
Deferred revenue	57,438	60,610
Assets held for others	27,628,298	27,501,731
Capital lease obligation	74,283	130,284
Annuities and trusts payable	5,208,773	5,378,187
Other liabilities	328,203	338,459
Total Liabilities	33,804,428	33,830,693
Net Assets		
Without donor restrictions	21,400,371	20,638,045
With donor restrictions	82,849,444	78,573,822
Total Net Assets	104,249,815	99,211,867
Total Liabilities and Net Assets	\$ 138,054,243	\$ 133,042,560

See accompanying notes.

MURRAY STATE UNIVERSITY
A Component Unit of the Commonwealth of Kentucky

Statements of Revenues, Expenses, and Changes in Net Position

Years ended June 30, 2019 and 2018

	2019	2018
Operating Revenues		
Tuition and fees	\$ 101,710,114	\$ 111,009,473
Less: Discounts and allowances	(41,254,069)	(42,834,365)
Net tuition and fees	60,456,045	68,175,108
Federal grants and contracts	5,857,082	5,358,956
State grants and contracts	640,649	924,241
Private grants and contracts	388,850	367,419
Total grants and contracts	6,886,581	6,650,616
Sales and services of educational activities	6,793,655	5,548,567
Other operating revenues	9,221,365	6,905,159
Total sales, services, and other revenues	16,015,020	12,453,726
Auxiliary enterprises	27,384,197	32,268,637
Less: Discounts and allowances	(455,944)	(489,286)
Net auxiliary revenue	26,928,253	31,779,351
Total Operating Revenues	110,285,899	119,058,801
Operating Expenses		
Instruction	61,064,980	62,572,485
Research	2,258,101	2,472,027
Public service	5,977,242	6,731,676
Libraries	3,391,475	3,527,421
Academic support	6,699,859	6,399,346
Student services	15,537,491	16,467,202
Institutional support	18,292,223	18,453,802
Operation and maintenance of plant	19,956,224	23,777,931
Student financial aid	12,649,543	12,735,820
Depreciation	9,154,634	9,330,382
State pension expense GASB 68	(8,595,091)	(3,008,564)
State pension expense-OPEB GASB 75	1,268,266	1,787,941
Auxiliary enterprises	18,599,020	22,608,719
Auxiliary depreciation	2,693,821	2,757,883
Total Operating Expenses	168,947,788	186,614,071
Operating Loss	(58,661,889)	(67,555,270)

MURRAY STATE UNIVERSITY
A Component Unit of the Commonwealth of Kentucky

Statements of Revenues, Expenses, and Changes in Net Position, continued

Years ended June 30, 2019 and 2018

	Ended June 30,	
	2019	2018
Nonoperating Revenues (Expenses)		
State appropriations	\$ 45,572,300	\$ 45,344,100
Restricted student fees (revenues are pledged as security for the City of Murray debt agreement)	595,887	620,681
Federal grants and contracts	13,719,413	12,878,368
State grants and contracts	8,958,465	8,663,326
Local and private grants and contracts	634,072	602,347
Gifts	1,382,794	1,369,510
Investment income	5,363,133	3,191,632
Interest on capital asset-related debt	(2,540,805)	(1,630,671)
Loss on deletion and disposal of capital assets	(507,629)	(79,417)
Bond amortization	(119,401)	(119,401)
Nonoperating Revenues (Expenses), Net	73,058,229	70,840,475
Income Before Other Revenues, Expenses Gains and Losses	14,396,340	3,285,205
State Capital Appropriations	131,988	4,378,656
Gain on the Insurance Proceeds from the Impairment of J.H. Richmond Residence Hall	3,057,744	2,845,855
Other Insurance Proceeds	359,653	1,194,604
Capital Gifts	127,916	403,899
Additions to Permanent Endowments	5,981	8,553
Change in Net Position	18,079,622	12,116,772
Net Position - Beginning of Year	46,196,441	66,220,772
Restatement of beginning net position for OPEB liability	—	(32,141,103)
Net Position - Beginning of Year (adjusted)	46,196,441	34,079,669
Net Position - End of Year	\$ 64,276,063	\$ 46,196,441

See accompanying notes.

MURRAY STATE UNIVERSITY FOUNDATION, INC.

Statements of Activities

Year ended June 30, 2019

	Without Donor Restrictions	With Donor Restrictions	Totals
Revenues, Gains/(Losses) And Other Support			
Contributions	\$ 3,500	\$ 3,722,551	\$ 3,726,051
Revenues from operations of the			
Frances E. Miller Memorial Golf Course	414,298	—	414,298
Fees and rental income	45,605	37,920	83,525
Investment return, net	1,588,327	3,502,129	5,090,456
Other	(31,692)	22,987	(8,705)
Change in value of annuities payable	—	31,829	31,829
Net assets released from restrictions	3,174,935	(3,174,935)	—
Total Revenues, Gains/(Losses) And Other Support	5,194,973	4,142,481	9,337,454
Expenses:			
Program services expenses:			
Support provided to MSU, including scholarships	3,191,890	—	3,191,890
Frances E. Miller Memorial Golf Course	605,142	—	605,142
Total Program Services Expense	3,797,032	—	3,797,032
Supporting services expenses:			
Management and general	466,387	—	466,387
Fundraising	36,087	—	36,087
Total Supporting Services Expense	502,474	—	502,474
Total Expenses	4,299,506	—	4,299,506
Transfers between Foundation fund groups	(133,141)	133,141	—
Change in Net Assets	762,326	4,275,622	5,037,948
Net Assets - Beginning of Year	20,638,045	78,573,822	99,211,867
Net Assets - End of Year	\$ 21,400,371	\$ 82,849,444	\$ 104,249,815

See accompanying notes.

MURRAY STATE UNIVERSITY FOUNDATION, INC.

Statements of Activities

Year ended June 30, 2018

	Without Donor Restrictions	With Donor Restrictions	Totals
Revenues, Gains/(Losses) And Other Support			
Contributions	\$ —	\$ 5,419,900	\$ 5,419,900
Revenues from operations of the			
Frances E. Miller Memorial Golf Course	420,310	—	420,310
Fees and rental income	518,666	41,258	559,924
Investment return, net	2,520,794	4,715,573	7,236,367
Other	9,082	42,536	51,618
Change in value of annuities payable	—	(164,342)	(164,342)
Net assets released from restrictions	2,879,078	(2,879,078)	—
Total Revenues, Gains/(Losses) And Other Support	6,347,930	7,175,847	13,523,777
Expenses:			
Program services expenses:			
Support provided to MSU, including scholarships	3,506,665	—	3,506,665
Frances E. Miller Memorial Golf Course	598,570	—	598,570
Total Program Services Expense	4,105,235	—	4,105,235
Supporting services expenses:			
Management and general	391,682	—	391,682
Fundraising	22,542	—	22,542
Total Supporting Services Expense	414,224	—	414,224
Total Expenses	4,519,459	—	4,519,459
Transfers between Foundation fund groups	2,168,056	(2,168,056)	—
Change in Net Assets	3,996,527	5,007,791	9,004,318
Net Assets - Beginning of Year	16,641,518	73,566,031	90,207,549
Net Assets - End of Year	\$ 20,638,045	\$ 78,573,822	\$ 99,211,867

See accompanying notes.

MURRAY STATE UNIVERSITY
A Component Unit of the Commonwealth of Kentucky
Statements of Cash Flows

Years ended June 30, 2019 and 2018

	2019	2018
Cash Flows From Operating Activities		
Tuition and fees	\$ 59,213,135	\$ 66,266,582
Grants and contracts	6,400,296	6,549,597
Payments for salaries, wages and fringes	(102,330,390)	(104,057,020)
Payments to suppliers	(32,048,633)	(35,143,546)
Payments for student financial aid	(12,649,543)	(12,735,820)
Loans issued to employees	(10,600)	(26,546)
Collections of loans to employees	23,205	11,437
Loans issued to students	(63,378)	(373,440)
Collections of loans to students	562,742	593,965
Sales and services of educational activities	18,288,760	7,880,793
Other operating revenues	3,694,436	639,481
Auxiliary revenues:		
Dining services	5,881,056	11,677,672
Housing	14,493,491	14,428,979
Bookstore	4,775,953	5,097,721
Contracted dining services	761,618	—
Other	185,699	175,357
Auxiliary payments:		
Payments for salaries, wages and fringes	(4,132,449)	(7,661,947)
Payments to suppliers	(13,330,427)	(14,944,978)
Net Cash Used in Operating Activities	(50,285,029)	(61,621,713)
Cash Flows From Noncapital Financing Activities		
State appropriations	45,572,300	45,344,100
Endowment proceeds forwarded to MSU Foundation for investment	(9,137)	390,535
Grants and contracts	23,311,950	22,144,041
Endowment income	446,681	241,888
Gifts for other than capital purposes	889,356	992,437
Agency transactions	13,400	(935)
Deferred inflows contracted dining services	3,893,049	—
Net Cash Provided by Noncapital Financing Activities	74,117,599	69,112,066
Cash Flows From Capital and Related Financing Activities		
Restricted student fees pledged for debt service	595,887	620,681
Insurance proceeds - J.H. Richmond Residence Hall	3,057,744	2,999,000
Insurance proceeds - other	359,653	91,496
State capital appropriations	132,852	4,376,453
Purchases of capital assets	(13,014,563)	(7,240,859)
Capital gifts	109,090	341,491
Principal paid on capital debt and leases	(4,285,000)	(4,581,619)
Interest paid on capital debt and leases	(2,530,024)	(2,712,388)
Net Cash Used in Capital and Related Financing Activities	(15,574,361)	(6,105,745)

See accompanying notes.

MURRAY STATE UNIVERSITY
A Component Unit of the Commonwealth of Kentucky
Statements of Cash Flows

Years ended June 30, 2019 and 2018

	2019	2018
Cash Flows From Investing Activities		
Proceeds from sales and maturities of investments	\$ (4,850)	\$ 8,512
Purchases of investments	(9,395)	(3,156)
Investment receipts	4,975,894	2,046,649
Net Cash Provided by Investing Activities	4,961,649	2,052,005
Net Increase in Cash and Cash Equivalents	13,219,858	3,436,613
Cash and Cash Equivalents - Beginning of Year	143,192,525	139,755,912
Cash and Cash Equivalents - End of Year	\$ 156,412,383	\$ 143,192,525
Reconciliation of Cash and Cash Equivalents to the Statement of Net Position		
Cash and cash equivalents	\$ 93,721,297	\$ 92,230,046
Restricted cash and cash equivalents	62,691,086	50,962,479
Total Cash and Cash Equivalents	\$ 156,412,383	\$ 143,192,525
Reconciliation of Operating Loss to Net Cash Used in Operating Activities		
Operating loss	\$ (58,661,889)	\$ (67,555,270)
Adjustments to reconcile operating loss to net cash used in operating activities:		
Depreciation expense	11,848,455	12,088,265
Bad debt expense	377,840	319,939
Net pension (gain)/expense, proportionate share	(12,852,524)	(7,395,683)
Net in-kind expenses	217,628	244,938
Changes in assets and liabilities:		
Accounts and loans receivable, net	9,450,897	625,439
Inventories	399,388	230,599
Prepaid expenses	(525,083)	192,013
Accounts payable	(215,291)	(87,969)
Self-insured health liability	91,871	49,338
Accrued payroll	(498,671)	53,947
Deposits	13,492	(74,319)
Unearned revenue	68,858	(312,950)
Net Cash Used in Operating Activities	\$ (50,285,029)	\$ (61,621,713)
Supplemental Disclosure of Cash Flow Information		
Gifts of capital assets	\$ 18,826	\$ 62,408
Accounts payable incurred for capital asset purchases	5,966,334	819,003
Changes in fair value of investments	138,412	705,241

MURRAY STATE UNIVERSITY
A Component Unit of the Commonwealth of Kentucky

Notes to the Financial Statements

1. Summary of Significant Accounting Policies

Change in Accounting Principle

Effective July 1, 2017, Murray State University (University) was required to adopt Governmental Accounting Standards Board (GASB) Statement No. 75, "Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions (OPEB)" (Statement 75). Statement 75 replaces the requirements of Statements No. 45, "Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions, as amended, and No. 57, "OPEB Measurements by Agent Employers and Agent Multiple-Employer Plans", for OPEB. GASB 75 is applicable for government agencies that provide defined benefit OPEB to recognize their long-term obligation for OPEB as a liability to more comprehensively and comparably measure the annual cost. The University participates in the Kentucky Employees Retirement System (KERS) OPEB plan administered by the Board of Trustees of the Kentucky Retirement Systems as well as the Teachers' Retirement System (TRS) of Kentucky. These are cost sharing, multiple employer defined benefit OPEB plans, which cover all eligible full-time employees and provides health insurance benefits. Cost-sharing governmental employers, such as the University, are required to report a net OPEB liability, OPEB expense and OPEB-related assets and liabilities based on their proportionate share of the collective amounts for all government agencies in the plan. For these purposes' amounts have been determined on the same basis as they are reported by KERS and TRS. The KERS and TRS financial statements are prepared using the accrual basis of accounting with benefits being recognized when due and payable in accordance with terms of the plan. Investments are reported at fair value. All governments participating in the defined benefit OPEB plan also are required to disclose various information in the footnotes to the financial statements – see Note 14.

Statement No. 75 required retrospective application. The beginning net position for the year ended June 30, 2018 was adjusted to reflect the retrospective application. The adjustment resulted in a \$32,141,103 reduction in beginning net position for fiscal year 2018.

Nature of Operations

The University is a state-supported institution of higher education located in Murray, Kentucky, and is accredited by the Southern Association of Colleges and Schools. The University awards graduate and undergraduate degrees from five colleges and two schools and serves a student population of approximately 9,500. The University is a component unit of the Commonwealth of Kentucky and is included in the general-purpose financial statements of the Commonwealth.

Reporting Entity

In accordance with the provisions of GASB, certain organizations are to be reported as component units of a primary government based on the nature and significance of that organization's relationship to the primary government. Application of this statement results in including Murray State University Foundation, Inc. (the Foundation) as a discretely presented component unit of the University. The Foundation is a private nonprofit organization that reports under generally accepted accounting principles set forth by Financial Accounting Standards Board (FASB) standards. As such, certain revenue recognition

MURRAY STATE UNIVERSITY
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Notes to the Financial Statements

criteria and presentation features are different from GASB revenue recognition criteria and presentation features. No modifications have been made to the Foundation's financial information in the University's financial report for these differences.

Basis of Accounting and Financial Statement Presentation

The University prepares its financial statements as a business type activity in conformity with applicable pronouncements of the GASB.

For financial reporting purposes, the University is considered a special purpose government engaged only in business type activities. Accordingly, the University's financial statements have been presented using the economic resources measurement focus and the accrual basis of accounting. Under the accrual basis, revenues are recognized when earned, and expenses are recorded when an obligation has been incurred. All significant intra-agency transactions have been eliminated.

Cash and Cash Equivalents

The University considers all highly liquid investments that are immediately available to the University to be cash equivalents. Funds held by the Commonwealth of Kentucky are considered cash equivalents.

Restricted Cash, Cash Equivalents and Investments

Cash, cash equivalents and investments that are externally restricted are classified as restricted assets. These assets are used to make debt service payments, maintain sinking or reserve funds, purchase or construct capital or other noncurrent assets or for other restricted purposes.

Investments

The University accounts for its investments at fair value. Fair value is determined using quoted market prices. Changes in unrealized gain (loss) on the carrying value of investments are reported as a component of investment income in the statements of revenues, expenses, and changes in net position.

Assets held by the Foundation represent those gifts and donations made directly to the University, which are held by the Foundation for investment purposes. The net appreciation and income of donor restricted endowments are available to the University for expenditure to the extent permitted by Kentucky law and the spending policy of the Foundation. The recognition of gifts, donations and endowment pledges are accounted for by the University in accordance with GASB Statement No. 33, *Accounting and Financial Reporting for Non-exchange Transactions* (GASB No. 33) and are recognized when all applicable eligibility requirements are met.

MURRAY STATE UNIVERSITY
A Component Unit of the Commonwealth of Kentucky

Notes to the Financial Statements

Accounts Receivable

Accounts receivable consists of tuition and fee charges, other operational activities and auxiliary enterprise services and amounts due from component units. Accounts receivable also include amounts due from the federal government, state and local governments or private sources, for nonexchange type agreements defined in accordance with GASB No. 33 or in connection with reimbursement of allowable expenditures made pursuant to the University's grants and contracts. Accounts receivable are recorded net of estimated uncollectible amounts.

Inventories

Inventories are stated at the lower of cost (first-in, first-out method) or market except in the case of Facilities Management inventories which use an average cost method to determine value.

Capital Assets

All capital assets, as defined by University policy, are recorded at cost at the date of acquisition or, if donated, at fair value at the date of donation. Depreciation is computed using the straight-line method over the estimated useful life of the asset and is not allocated to functional expense categories. Assets under capital leases are amortized over the estimated useful life of the asset or the lease term, whichever is shorter. Routine repairs and maintenance are charged to operating expense in the year in which the expense was incurred.

The following estimated useful lives are being used by the University:

<u>Asset</u>	<u>Estimated Life</u>
Buildings	40 years
Nonbuilding improvements	8-20 years
Equipment	5-15 years
Library holdings	10 years
Livestock	12 years
Software	8 years

The University capitalizes interest costs as a component of construction in progress, based on interest costs of borrowing specifically for the project, net of interest earned on investments acquired with the proceeds of borrowing. Total interest capitalized was \$243 and \$1,037,348 for the years ended June 30, 2019 and 2018, respectively.

The University owns historical collections housed throughout the campus that it does not capitalize, including artifacts in Wrather Museum. These collections adhere to the University's policy to (a) maintain them for public exhibition, education or research; (b) protect, keep unencumbered, care for and preserve them and (c) require proceeds from their sale to be used to acquire other collection items. Generally accepted accounting principles permit collections maintained in this manner to be charged to operations at time of acquisition rather than capitalized.

MURRAY STATE UNIVERSITY
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Notes to the Financial Statements

Compensated Absences

For employees participating in the Teachers' Retirement System (TRS), vacation pay is accrued at year end for financial statement purposes. The liability and expense incurred are included at year end with accrued payroll, and as a component of compensation and benefit expense. Sick leave benefits are expected to be realized as paid time off or used to purchase service credits upon retirement. These are recognized as expense when the time off occurs or when service credit payments are incurred. No liability is accrued for such benefits employees have earned while participating in the TRS plan, but not yet realized. For employees participating in optional retirement plans (ORP), sick time is accrued as it is earned.

Unearned Revenue

Unearned revenue includes amounts for tuition and fees, international program fees and certain auxiliary activities, including contracted dining services, received prior to the end of the fiscal year but related to the subsequent accounting period. Unearned revenues also include amounts received from state capital appropriations and grant and contract sponsors for which eligibility requirements have not been fully satisfied or that have not yet been earned. Such amounts are recognized in the period to which the service relates or the grant/contract requirements have been met.

Deferred Outflow of Resources and Deferred Inflow of Resources

In addition to assets, financial statements may report a separate section for deferred outflows of resources. Deferred outflows of resources consist of the consumption of net position that is applicable to a future reporting period and so will not be recognized as an outflow of resources until then. Deferred outflows of resources related to refunding long-term debt and certain pension/OPEB contributions are reported in the statement of net position. The deferred bond refunding amount results from the difference in the carrying value of refunded debt and its reacquisition price, and is amortized over the shorter of the life of the refunded or refunding debt. The deferred outflow for pension/OPEB contributions represent contributions made to the plan between the measurement date, which was the end of fiscal year 2018, of the pension/OPEB obligations and the end of fiscal year 2019.

In addition to liabilities, financial statements may report a separate section for deferred inflows of resources. Deferred inflows of resources consist of the acquisition of net position that is applicable to a future reporting period and so will not be recognized as inflow of resources until then. Deferred inflows of resources include state reimbursements as well as certain changes in pension/OPEB obligations that are amortized over future periods as well as amounts related to outsourcing campus dining operations.

Net Position

The University's net position is classified as follows:

Net investment in capital assets: This represents the University's total investment in capital assets, net of outstanding debt obligations and accumulated depreciation related to those capital assets. To the extent debt has been incurred but not yet expended for capital assets, such amounts are not included as a component of net investment in capital assets.

MURRAY STATE UNIVERSITY
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Notes to the Financial Statements

Restricted net position - nonexpendable: Nonexpendable restricted net position consists of endowment and similar type funds in which donors or other outside sources have stipulated, as a condition of the gift instrument, that the principal is to be maintained inviolate and in perpetuity and invested for the purpose of producing present and future income, which may either be expended or added to principal.

Restricted net position - expendable: Restricted expendable net position includes resources in which the University is legally or contractually obligated to spend in accordance with time or purpose restrictions imposed by external third parties.

Unrestricted net position: Unrestricted net position represents resources derived from student tuition and fees, state appropriations, sales and services of educational departments, auxiliary enterprises and other sources. These resources are used for transactions relating to the educational and general operations of the University, and may be used at the discretion of the Board of Regents to meet current expenses or for any purpose. These resources also include auxiliary enterprises, which are substantially self-supporting activities that provide services for students, faculty and staff.

Release of Restricted Net Position

When an expense is incurred for which both restricted and unrestricted net position are available, the University's policy is to allow each departmental unit the flexibility to determine whether to first apply restricted or unrestricted resources based on the most advantageous application of resources in the particular circumstances.

Classification of Revenues

The University has classified its revenues as either operating or nonoperating revenues according to the following criteria:

Operating revenues: Operating revenues include activities that have the characteristics of exchange transactions, such as (1) student tuition and fees, net of discounts and allowances, (2) federal, state and local grants and contracts (excluding Pell and similarly funded federal and state grants for student financial aid) and (3) sales and services of auxiliary enterprises, net of discounts and allowances.

Nonoperating revenues: Nonoperating revenues include activities that have the characteristics of nonexchange transactions. In a nonexchange transaction, the University receives value without directly giving equal value back, such as a gift or grant for which there is no return requirement. Additionally, certain significant revenues relied upon for operations, such as state appropriations, Pell and similarly funded federal and state grants for student financial aid, investment income and endowment income, are recorded as nonoperating revenues, in accordance with GASB No. 35, *Basic Financial Statements and Management's Discussion and Analysis for Public Colleges and Universities – an Amendment of GASB Statement 34*.

MURRAY STATE UNIVERSITY
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Notes to the Financial Statements

Tuition Discounts and Allowances

Student tuition and fee revenues, and certain other revenues from students, are reported net of discounts and allowances. Discounts and allowances are the difference between the stated charge for goods and services provided by the University and the amount that is payable by students. Certain grants, including federal, state or nongovernmental programs, are recorded as either operating or nonoperating revenues, while Pell grants are recorded as nonoperating 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 discount and allowance. Financial aid expense represents payments made to students.

Income Taxes

The University is a component of the Commonwealth of Kentucky and is not subject to federal income tax as described in section 115 of the Internal Revenue Code. However, the University is subject to federal income tax on any unrelated business taxable income.

Pensions and Other Postemployment Benefits (OPEB)

For purposes of measuring the net pension/OPEB liabilities, deferred outflows of resources and deferred inflows of resources related to pension/OPEB, and pension/OPEB expense, information about the fiduciary net position of the Kentucky Employees' Retirement System (KERS) and Teachers' Retirement System (TRS) plans and additions to/deductions from the plans' fiduciary net position have been determined on the same basis as they are reported by KERS and TRS. 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.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to use estimates and assumptions. The accompanying financial statements include estimates for items such as allowances for doubtful accounts and loans receivable, self-insurance liabilities and other accrued liabilities. Actual results could differ from those estimates.

Subsequent Events

Subsequent events have been evaluated through October 2, 2019, the date the financial statements were available to be issued.

Reclassifications

Certain amounts in the 2018 financial statements have been reclassified to conform to the 2019 presentation with no impact on total assets, liabilities, net position or net income.

MURRAY STATE UNIVERSITY
A Component Unit of the Commonwealth of Kentucky

Notes to the Financial Statements

2. Accounts Receivable

Accounts receivable as of June 30 consisted of:

	2019	2018
Current accounts receivable:		
Student tuition and fees	\$ 8,026,149	\$ 7,946,542
Grants and contracts	2,123,574	1,735,708
Auxiliary fees	2,921,353	2,599,254
Auxiliary-contracted dining services	484,000	—
MSU Foundation	319,944	249,045
Employee computer loans	977	13,030
Outside sales	702,954	484,405
Capital construction receivable – Richmond incident*	—	10,465,183
Allowance for doubtful accounts	(4,803,244)	(4,765,927)
	\$ 9,775,707	\$ 18,727,240

*The University is required to recognize revenues for any known recoveries to impaired assets even if those recoveries have not yet taken place. This receivable represents the insurance recovery for the J.H. Richmond incident which will reimburse for expenses made to bring J.H. Richmond Residence Hall back to its original condition prior to the incident.

3. Inventories

Inventories as of June 30 consisted of:

	2019	2018
University bookstore - resale	\$ 1,306,380	\$ 1,411,102
Physical plant - supplies	1,387,211	1,502,698
Food services - resale and supplies	-	156,572
Art supplies	48,930	55,269
CFSB concessions	-	16,268
	\$ 2,742,521	\$ 3,141,909

4. Loans Receivable

Student loans made through the Federal Perkins Loan Program (Program) comprise substantially all of the loans receivable at June 30, 2019 and 2018. The Program provides for service cancellation of a loan at rates of 12.5% to 30% per year up to a maximum of 100% if the participant complies with certain provisions.

MURRAY STATE UNIVERSITY
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Notes to the Financial Statements

As the University determines that loans are uncollectible and not eligible for reimbursement by the federal government, the loans are written off and assigned to the U.S. Department of Education. The University has provided an allowance for uncollectible loans which, in management's opinion, is sufficient to absorb loans that will ultimately be written off. The allowance for uncollectible loans at June 30, 2019 and 2018 was \$263,810 and \$253,715, respectively.

Loans receivable as of June 30 consisted of:

	2019	2018
Current loans receivable:		
University loan programs	\$ 26,093	\$ 33,740
Federal nursing program	87,580	88,480
Federal Perkins program	376,370	459,917
Total current loans receivable, net	490,043	582,137
Noncurrent loans receivable:		
University loan programs	10,845	14,686
Federal nursing program	383,042	376,745
Federal Perkins program	1,850,925	2,260,651
Total noncurrent loans receivable, net	2,244,812	2,652,082
Total loans receivable, net	\$ 2,734,855	\$ 3,234,219

5. Deposits, Investments and Investment Income

Deposits

At June 30, 2019 and 2018, the carrying amounts of the University's bank balances and deposits were \$156,412,383 and \$143,192,525, respectively.

Currently the University maintains its deposits, outside of those held by the Commonwealth of Kentucky, in interest-bearing accounts at FDIC-insured institutions. All accounts are insured up to \$250,000. The deposits in these interest-bearing accounts are covered by an irrevocable, unconditional, and nontransferable letter of credit issued by Federal Home Loan Bank of Cincinnati.

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Notes to the Financial Statements

The University also maintains cash deposits with the Commonwealth of Kentucky, as overseen by the State Investment Commission (Commission). The Commission is charged with the oversight of the Commonwealth's investment programs pursuant to KRS 42.500. The Commonwealth's investments are categorized into two distinct classifications or "pools." The Short-Term Pool consists primarily of General Fund cash balances. The Intermediate-Term Pool and the Limited Term Pool represent Agency fund investments, state held component unit and fiduciary fund accounts held for the benefit of others by the state. Shares of each pool represent a divisible interest in the underlying securities and are not federally insured or guaranteed by the U.S. Government, Federal Deposit Insurance Corporation or any federal agency. The pools have not been approved by the Securities and Exchange Commission. The University's shares within the pools may indirectly expose it to risks associated with fixed income investments; however, specific information about any such transactions is not available to the University.

Custodial credit risk for deposits is the risk that, in the event of a bank failure, the University's deposits may not be returned to the University. The University does not have a formal deposit policy for custodial credit risk other than compliance with the provisions of state law.

Current and non-current cash and cash equivalents as of June 30 consisted of:

	2019	2018
Depository accounts:		
Local bank deposits, letter of credit in the University's name	\$ 11,459,865	\$ 8,212,336
Cash on hand	80,912	45,665
State Investment Pool - collateral required by KRS 41.240	144,871,606	134,934,524
Total deposits	\$ 156,412,383	\$ 143,192,525

Current and non-current cash and cash equivalents as presented in the statements of net position captions as of June 30 include:

	2019	2018
Cash and cash equivalents, current	\$ 93,721,297	\$ 92,230,046
Restricted cash and cash equivalents	62,691,086	50,962,479
Total deposits	\$ 156,412,383	\$ 143,192,525

MURRAY STATE UNIVERSITY
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Notes to the Financial Statements

Investments

Investments carried at fair value as of June 30 consisted of:

	2019	2018
Money market funds restricted for debt service purposes	\$ 319,317	\$ 305,072
Restricted assets held by the Foundation	26,403,725	26,250,195
Total investments	\$ 26,723,042	\$ 26,555,267

Restricted investments for debt service purposes are comprised of amounts invested for sinking fund and debt service reserves. Investments in U.S. Government securities and the collateral for repurchase agreements are registered in the name of Murray State University or held in the University's name by its agents and trustees. The University may legally invest in direct obligations of and other obligations guaranteed as to principal by the U.S. Treasury and U.S. agencies and instrumentalities and in bank repurchase agreements. It may also invest to a limited extent in equity securities.

University investments held by the MSU Foundation are comprised of private donations received directly by the University and state endowment matching funds. These consist of endowment funds, as well as expendable restricted funds. Assets held by the MSU Foundation are invested primarily in an investment pool managed by the MSU Foundation and are carried at fair value.

The assets in the MSU Foundation investment pool are invested as of June 30 as follows:

	2019	2018
Percentage of pool invested in:		
Certificates of deposit and money market mutual funds	1%	1%
Mutual funds	65%	63%
Equity securities	0%	3%
Fixed income securities	34%	32%
Other	0%	1%
Total investments	100%	100%

Interest Rate Risk. Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. The University does not, within its investment policy, formally limit investment maturities as a means of managing its exposure to fair value losses arising from increasing interest rates. The money market mutual funds are investments with a maturity of less than one year because they are redeemable in full immediately. In addition, the funds held in the State Investment Pool have a maturity of less than one year because they are redeemable in full immediately.

MURRAY STATE UNIVERSITY
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Notes to the Financial Statements

Credit Risk. Credit risk is the risk that the issuer or other counterparty to an investment will not fulfill its obligations. The University's investment policy requires investments to be in compliance with state statute. The University has no further policy that would limit its investment choices. Credit ratings for the money market mutual funds and State Investment Pool are not available and are therefore, considered unrated.

Concentration of Credit Risk. Concentration of credit risk is the risk of loss attributed to the magnitude of a government's investment in a single user. The University places no limit on the amount that may be invested in any one issuer. The University does not hold more than 5% of its investments with a single issuer.

Investment Income

Investment income for the years ended June 30 consisted of:

	2019	2018
Assets held by the University:		
Interest income	\$ 4,539,706	\$ 1,771,714
Assets held by MSU Foundation:		
Investment income endowment funds	688,822	718,653
Net increase in fair value of endowment investments	134,605	701,265
Total investment income	\$ 5,363,133	\$ 3,191,632

6. Endowments

Changes in endowment assets for the years ended June 30 are as follows:

	2019	2018
Endowment assets, beginning of year	\$ 22,285,087	\$ 21,973,233
Investment return		
Net appreciation	138,412	705,241
Endowment restrictions released	—	(588,597)
Contributions increase	93,818	195,210
Endowment assets, end of year	\$ 22,517,317	\$ 22,285,087

MURRAY STATE UNIVERSITY
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Notes to the Financial Statements

7. Capital Assets

Capital asset activity for the year ended June 30, 2019 was as follows:

	Balance June 30, 2018	Additions	Transfers	Deletions/ Retirements	Balance June 30, 2019
Land	\$ 10,176,698	\$ 266,044	\$ —	\$ —	\$ 10,442,742
Construction in progress	6,264,350	17,024,208	(4,077,985)	(379,483)	18,831,090
Museum and collectibles	694,737	—	—	—	694,737
Total capital assets not being depreciated	17,135,785	17,290,252	(4,077,985)	(379,483)	29,968,569
Buildings	372,149,804	—	2,742,190	(2,335,674)	372,556,320
Nonbuilding improvements	17,172,063	—	1,335,795	—	18,507,858
Equipment	35,280,560	2,079,499	—	(1,495,885)	35,864,174
Library holdings	10,744,204	47,171	—	(109,410)	10,681,965
Livestock	151,749	10,000	—	(24,000)	137,749
Software	1,932,019	—	—	—	1,932,019
Total other capital assets	437,430,399	2,136,670	4,077,985	(3,964,969)	439,680,085
Total capital assets before depreciation	454,566,184	19,426,922	—	(4,344,452)	469,648,654
Less accumulated depreciation:					
Buildings	173,787,964	9,027,513	—	(1,933,893)	180,881,584
Improvements other than buildings	11,780,123	549,491	—	—	12,329,614
Equipment	25,318,351	1,927,361	—	(728,863)	26,516,849
Library holdings	8,005,229	333,798	—	(103,939)	8,235,088
Livestock	95,166	10,292	—	(12,000)	93,458
Software	1,932,018	—	—	—	1,932,018
Total accumulated depreciation	220,918,851	11,848,455	—	(2,778,695)	229,988,611
Capital assets, net	\$ 233,647,333				\$ 239,660,043

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Notes to the Financial Statements

Capital asset activity for the year ended June 30, 2018 was as follows:

	Balance June 30, 2017	Additions	Transfers	Deletions/ Retirements	Balance June 30, 2018
Land	\$ 9,920,222	\$ 256,476	\$ —	\$ —	\$ 10,176,698
Construction in progress	36,057,601	8,200,446	(30,965,499)	(7,028,198)	6,264,350
Museum and collectibles	692,546	2,191	—	—	694,737
Total capital assets not being depreciated	46,670,369	8,459,113	(30,965,499)	(7,028,198)	17,135,785
Buildings	341,536,804	—	30,613,000	—	372,149,804
Nonbuilding improvements	16,819,564	—	352,499	—	17,172,063
Equipment	32,329,496	3,605,156	—	(654,092)	35,280,560
Library holdings	11,221,448	51,728	—	(528,972)	10,744,204
Livestock	151,749	—	—	—	151,749
Software	1,932,019	—	—	—	1,932,019
Total other capital assets	403,991,080	3,656,884	30,965,499	(1,183,064)	437,430,399
Total capital assets before depreciation	450,661,449	12,115,997	—	(8,211,262)	454,566,184
Less accumulated depreciation:					
Buildings*	155,165,472	18,622,492	—	—	173,787,964
Improvements other than buildings	11,206,563	573,560	—	—	11,780,123
Equipment	23,922,959	1,996,516	—	(601,124)	25,318,351
Library holdings	8,108,293	399,459	—	(502,523)	8,005,229
Livestock	83,708	11,458	—	—	95,166
Software	1,932,018	—	—	—	1,932,018
Total accumulated depreciation	200,419,013	21,603,485	—	(1,103,647)	220,918,851
Capital assets, net	\$ 250,242,436				\$ 233,647,333

*Accumulated depreciation for buildings includes a \$9,515,220 adjustment for the impairment of J.H. Richmond Residence Hall. This adjustment was based on the historic value of the restoration cost.

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8. Accounts Payable

Accounts payable at June 30 consisted of:

	2019	2018
Current accounts payable:		
Vendors	\$ 8,883,532	\$ 3,977,873
Payroll benefits and withholdings	2,478,824	2,597,152
MSU Foundation	43,396	65,489
Loans	25,994	5,523
Total current accounts payable	\$ 11,431,746	\$ 6,646,037

9. University Health Self-Insurance Program

The University maintains a self-insurance program for employees' health insurance. For the fiscal year ended June 30, 2019, the University paid approximately 80% of total plan expenses for permanent full-time employees and their families. The University's contribution to cover claims paid under the plan for years ended June 30, 2019 and 2018 totaled \$10,334,544 and \$9,869,157, respectively. Stop loss and administrative fees are disclosed in the chart below. The University's stop-loss insurance limits its exposure for claims to \$225,000 per individual for the fiscal year.

The University self-insured program operates on a calendar year (January – December) basis and a true picture of the total plan years is not presented in this note.

Changes in the liability for self-insurance for the years ended June 30 are as follows:

	2019	2018
Liability, beginning of year	\$ 624,291	\$ 574,953
Accruals for current year claims and changes in estimate (includes employee and employer contributions)	13,741,202	12,977,937
Administrative and stop-loss fees	(989,641)	(1,104,067)
Claims paid	(12,659,690)	(11,824,532)
Liability, end of year	\$ 716,162	\$ 624,291

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10. Unearned Revenue

Unearned revenue as of June 30 consisted of:

	2019	2018
Current unearned revenue:		
Prepaid tuition and fees	\$ 2,594,061	\$ 2,415,902
Grants and contracts	321,920	420,029
Auxiliary enterprises	4,182	14,510
Total current unearned revenue	\$ 2,920,163	\$ 2,850,441

11. Revenue Bonds, Notes Payable and Capital Leases

The following is a summary of long-term obligation transactions for the University for the year ended June 30, 2019:

	Beginning Balance	Additions	Deductions	Ending Balance	Amounts Due Within One Year	Long-Term Portion
Bonds payable	\$ 68,290,000	\$ —	\$ (3,890,000)	\$ 64,400,000	\$ 4,130,000	\$ 60,270,000
Less bond discounts	(50,841)	—	4,622	(46,219)	(4,622)	(41,597)
Plus bond premiums	1,947,291	—	(120,762)	1,826,529	120,762	1,705,767
Bonds payable, net of discounts premiums	70,186,450	—	(4,006,140)	66,180,310	4,246,140	61,934,170
City of Murray payable	7,390,000	—	(395,000)	6,995,000	415,000	6,580,000
Total bonds, notes and capital leases	\$ 77,576,450	\$ —	\$ (4,401,140)	\$ 73,175,310	\$ 4,661,140	\$ 68,514,170

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The following is a summary of long-term obligation transactions for the University for the year ended June 30, 2018:

	Beginning Balance	Additions	Deductions	Ending Balance	Amounts Due Within One Year	Long-Term Portion
Bonds payable	\$ 72,150,000	\$ —	\$ (3,860,000)	\$ 68,290,000	\$ 3,950,000	\$ 64,340,000
Less bond discounts	(55,463)	—	4,622	(50,841)	(4,622)	(46,219)
Plus bond premiums	2,068,053	—	(120,762)	1,947,291	120,762	1,826,529
Bonds payable, net of discounts premiums	74,162,590	—	(3,976,140)	70,186,450	4,066,140	66,120,310
City of Murray payable	7,764,999	—	(374,999)	7,390,000	395,000	6,995,000
Master lease notes payable	346,620	—	(346,620)	—	—	—
Total bonds, notes and capital leases	<u>\$ 82,274,209</u>	<u>\$ —</u>	<u>\$ (4,697,759)</u>	<u>\$ 77,576,450</u>	<u>\$ 4,461,140</u>	<u>\$ 73,115,310</u>

Maturity Information

A schedule of the mandatory principal and interest payments (excluding bond discounts) is presented below:

Years Ending June 30	Bonds	Notes	Total Principal	Interest	Total Payments
2020	\$ 4,130,000	\$ 415,000	\$ 4,545,000	\$ 2,464,706	\$ 7,009,706
2021	3,905,000	435,000	4,340,000	2,338,784	6,678,784
2022	4,105,000	440,000	4,545,000	2,206,984	6,751,984
2023	4,210,000	450,000	4,660,000	2,092,736	6,752,736
2024-2028	23,980,000	2,445,000	26,425,000	7,714,995	34,139,995
2029-2033	17,470,000	2,810,000	20,280,000	3,482,613	23,762,613
2034-2036	6,600,000	—	6,600,000	330,400	6,930,400
Total	<u>\$ 64,400,000</u>	<u>\$ 6,995,000</u>	<u>\$ 71,395,000</u>	<u>\$ 20,631,218</u>	<u>\$ 92,026,218</u>

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Long-term liability activity for the year ended June 30, 2019 was as follows:

	Original Issue	Balance Due June 30, 2019	Interest Expense, Current Year	Bonds/Notes/ Leases Maturing 2019-2020
General Receipts Bonds Payable				
Series A 2009 bonds dated April 22, 2009, with an interest rate of 2.50% to 4.20%; final principal payment date September 1, 2028; completion of Richmond Hall and various projects under \$600,000	\$ 7,665,000	\$ 4,665,000	\$ 188,401	\$ 390,000
Series A 2011 bonds dated July 12, 2011, with an interest rate of 2.00% to 4.50%; final principal payment date September 1, 2031; renovation of Elizabeth Hall	7,645,000	5,525,000	225,191	335,000
Series B 2011 refunding bonds dated July 26, 2011, with an interest rate of 2.00% to 3.75%; final principal payment date September 1, 2021; refunding of Housing and Dining bonds series M, N, & O	4,670,000	705,000	26,428	495,000
Series C 2011 refunding bonds dated July 12, 2011, with an interest rate of 2.00% to 4.00%; final principal payment date September 1, 2027; refunding of Housing and Dining bonds series P & Q	15,620,000	8,840,000	339,221	920,000
Series A 2013 bonds dated May 29, 2013, with an interest rate of 2.00% to 4.00%; final principal payment date September 1, 2033; renovation of Hester Hall, College Courts sprinklers, and various projects under \$600,000	15,635,000	12,420,000	377,381	680,000
Series A 2015 bonds dated March 31, 2015, with an interest rate of 3.00% to 5.00%; final principal payment date March 31, 2035; Construct H. C. Franklin Hall	26,000,000	24,830,000	1,021,634	550,000
Series A 2016 bonds dated March 31, 2016, with an interest rate of 1.00% to 3.00%; final principal payment date September 1, 2027; Refunding of Series A 2007 bonds	8,310,000	7,415,000	168,534	760,000
Total general receipts bonds payable	85,545,000	64,400,000	2,346,790	4,130,000
Bonds payable before discount	85,545,000	64,400,000	2,346,790	4,130,000
Less bond discount	—	(46,219)	—	(4,622)
Plus bond premium	—	1,826,529	—	120,762
Total bonds payable	85,545,000	66,180,310	2,346,790	4,246,140

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	Original Issue	Balance Due June 30, 2019	Interest Expense, Current Year	Bonds/Notes/ Leases Maturing 2019-2020
City of Murray Payable				
Agreement dated April 17, 2012, with interest of 1.00% to 3.50%; final principal payment due June 1, 2033; Wellness Center refunding of the December 30, 2002 issue.	9,250,000	6,995,000	202,562	415,000
Less: Capitalized Interest	—	—	(243)	—
Total All Bond Issues, Notes Payable and Capital Leases	<u>\$ 94,795,000</u>	<u>\$ 73,175,310</u>	<u>\$ 2,549,109</u>	<u>\$ 4,661,140</u>

The revenue bond indentures require the University to maintain a reserve balance as a percentage of outstanding balances. As of June 30, 2019 and 2018, the sinking fund and reserve fund requirements have been funded as required.

12. Deposits

The deposits held as of June 30 consisted of:

	<u>2019</u>	<u>2018</u>
Current:		
Horse stall rentals	\$ 13,969	\$ 18,285
Racer card declining balances	13,244	15,922
Housing deposits	167,909	147,123
Agency account balances	107,665	94,265
Total current deposits	<u>302,787</u>	<u>275,595</u>
Noncurrent:		
Housing deposits	<u>329,700</u>	<u>330,000</u>
Total deposits	<u>\$ 632,487</u>	<u>\$ 605,595</u>

Noncurrent housing deposit additions were \$113,400 and \$88,950 for the years ended June 30, 2019 and 2018, respectively. Noncurrent housing deposit deductions were \$113,700 and \$125,400 for the years ended June 30, 2019 and 2018, respectively.

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13. Service Concession Arrangement

The University contracted with a third-party to manage campus dining services during fiscal year 2019. The term of the arrangement is ten years and five and a half months, commencing on December 15, 2018, and continuing through June 30, 2029. The arrangement provides the third-party the exclusive right to manage and operate dining services for the University's students, faculty, staff, employees, visitors and guests. The contract also includes Investment 1 - \$3 million in fiscal year 2019, Investment 2 - \$3.5 million in fiscal year 2020 and Investment 3 - \$1 million in fiscal year 2021. These investments are to be used for dining venue service renovations and will be amortized over the life of the contract. As of June 30, 2019, the University has received \$2.5 million for Investment 1 and recorded a receivable of \$.5 million. Deferred Inflows, revenues which will be recognized in a future period, related to the contract are \$2.9 million as of June 30, 2019. The University receives 20% of total meal plan sales, 10% of retail, catering and camp sales and 40% of concession sales.

14. Unrestricted Net Position

The University's designations of unrestricted net position at June 30 consisted of:

	2019	2018
Unrestricted net position		
Allocated for:		
Departmental operations	\$ 25,372,859	\$ 26,686,695
Encumbrances	183,737	326,867
Board designated projects	6,721,402	12,957,700
Capital projects	5,288,590	2,115,672
Renovation and maintenance	12,043,080	11,034,770
Plant reserves	10,493,001	11,115,771
Working capital	12,668,811	11,247,321
Revenue contingency	2,278,615	2,290,105
General contingency	47,472,224	48,524,351
Self-insurance	716,162	624,291
Total unrestricted net position before pension/OPEB adjustments	123,238,481	126,923,543
Pension/OPEB current year adjustments, KERS non-hazardous	(126,400,049)	(95,925,318)
Pension/OPEB current year adjustments, KERS hazardous	(1,312,963)	(1,364,618)
Pension/OPEB current year adjustments, TRS	(150,211,121)	(161,345,618)
OPEB prior year adjustments, KERS non-hazardous	—	(17,030,754)
OPEB prior year adjustments, KERS hazardous	—	224,399
OPEB prior year adjustments, TRS	—	(15,334,748)
Total unrestricted net position	\$ (154,685,652)	\$ (163,853,114)

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15. **Pension Plans and Other Postemployment Benefits (OPEB)**

a) General Information about the Pension/OPEB Plans

Plan Descriptions

Kentucky Retirement Systems. Under the provisions of Kentucky Revised Statute Section 61.645, the Board of Trustees (the Board) of Kentucky Retirement Systems (KRS) administers the Kentucky Employees Retirement System (KERS, listed herein as KERS-nh for “non-hazardous and KERS-h for “hazardous”), County Employees Retirement System (CERS), and State Police Retirement System (SPRS). Although the assets of the systems are invested as a whole, each system’s assets are used only for the payment of benefits to the members of that plan, and a pro rata share of administrative costs, in accordance with the provisions of Kentucky Revised Statute Sections 16.555, 61.570, and 78.630. KERS-nh and KERS-h are cost-sharing multiple-employer defined benefit pension plans that cover all regular full-time members employed in non-hazardous and hazardous duty positions of any state department, board, agency, county, city, school board, and any additional eligible local agencies electing to participate. KRS issues a publicly available financial report that can be obtained at: <https://kyret.ky.gov/Pages/index.aspx>

Teachers’ Retirement System. Under the provisions of Kentucky Revised Statute Section 161.250, the Board of Trustees (the Board) of Teachers’ Retirement Systems (TRS) administers the Teachers’ Retirement System (TRS). All employees required to hold a degree and occupying full-time positions, defined as seven-tenths (7/10) of normal full-time service on a daily or weekly basis, are required by state law to participate in the TRS or an optional retirement plan, as allowed by KRS 161.567. TRS, is a cost sharing, multiple-employer, public employee retirement system. TRS issues a publicly available financial report that can be obtained at <https://TRS.ky.gov/financial-reports-information/>

Benefits Provided

KERS-nh , members before 9/1/2008. Benefits are available with completion of 27 years of service or attainment of age 65 and four years of service. Reduced benefits are available at 6.5% per year for the first five years, and 4.5% for the next five years before age 65 or 27 years of service with the attainment of age 55 and five years of service or any age with 25 years of service.

The annual retirement allowance is equal to 1.97% of the average of the five highest years of compensation multiplied by service for members that do not have 13 months credit for 1/1/1998-1/1/1999. The allowance is equal to 2.0% of final compensation multiplied by service for members that have 13 months credit from 1/1/1998-1/1/1999. The allowance is equal to 2.2% of final compensation multiplied by service for members that have 20 or more years of service, including 13 months from 1/1/1998-1/1/1999 and retired by 1/1/2009.

KERS-nh , members on and after 9/1/2008 but before 1/1/2014. Benefits are available with attainment of age 65 and five years of service, or attainment of age 57 and age plus years of service are greater than or equal to 87. Reduced benefits are available at 6.5% per year for the first five years, and 4.5% for the next five years before age 65 or age plus years of service are greater than or equal to 87 with the attainment of age 60 and 10 years of service.

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KERS-nh, members on and after 1/1/2014. Benefits are available with attainment of age 65 and five years of service, or attainment of age 57 and age plus years of service are greater than or equal to 87. Reduced benefits are not available.

The annual retirement allowance is equal to the average of the last complete five years of service multiplied by an increasing percent based on service at retirement plus 2.0% for each year of service over 30. The increasing percent based on service at retirement is 1.10% for 10 years of service or less, 1.3% for 10 to 20 years of service, 1.5% for 20 to 26 years of service, and 1.75% for 26 to 30 years of service.

KERS-nh, Other benefits. If the member is receiving a monthly benefit based on at least four (4) years of creditable service, the retirement system will pay a \$5,000 death benefit payment to the beneficiary named by the member specifically for this benefit. Disability benefits are also provided at various levels depending on participation dates and circumstances.

Insurance benefits are available for members participating prior to July 1, 2003, KRS pays a percentage of the monthly premium for single coverage based upon the service credit accrued at retirement. Members participating on or after July 1, 2003 and before September 1, 2008 are required to earn at least 10 years of service credit in order to be eligible for insurance benefits at retirement. Members participating on or after September 1, 2008 are required to earn at least 15 years of service credit in order to be eligible for insurance benefits at retirement. The monthly health insurance contribution will be \$10 for each year of earned service increased by the CPI prior to July 1, 2009, and by 1.5% annually from July 1, 2009.

Upon termination of employment, a refund of member contributions and accumulated interest is available to the member.

For employees participating prior to September 1, 2008, the interest paid is set by the Board of Trustees and will not be less than 2.0%, for employees participating on or after September 1, 2008 but before January 1, 2014, interest will be credited at a rate of 2.5%. For employees participating on or after January 1, 2014, interest will be credited at a minimum rate of 4.0%.

KERS-h, members before 9/1/2008. Benefits are available with completion of 20 years of service or attainment of age 55 and five years of service. Reduced benefits are available at 6.5% per year for the first five years, and 4.5% for the next five years before age 55 or 20 years of service with the attainment of age 50 and 15 years of service.

The annual retirement allowance is equal to 2.49% of the average of the three highest years of compensation multiplied by years of service.

KERS-h, members on and after 9/1/2008 but before 1/1/2014. Benefits are available with completion of 25 years of service or attainment of age 60 and 5 years of service. Reduced benefits are available at 6.5% per year for the first five years, and 4.5% for the next five years before age 60 or 25 years of service with the attainment of age 50 and 15 years of service.

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KERS-h, members on and after 1/1/2014. Benefits are available with completion of 25 years of service or attainment of age 60 and 5 years of service. Reduced benefits are not available.

The annual retirement allowance is equal to an increasing percent, based on service at retirement, of the average of the three highest years of compensation multiplied by years of service for members participating prior to 1/1/2014. The increasing percent is as follows: 1.3% for 10 years or less, 1.5% for 10 to 20 years, 2.25% for 20 to 25 years, and 2.5% for 25 years or more.

For members participating on or after 1/1/2014: Each year that a member is an active contributing member to KRS, the member and the member's employer will contribute 8.0% and 7.5% of creditable compensation respectively into an account. This account will earn interest annually on both the member's and employer's contribution at a minimum rate of 4%. If KRS's geometric average net investment return for the previous five years exceeds 4%, then the account will be credited with an additional amount of interest equal to 75% of the amount of the return which exceeds 4%. All interest credits will be applied to the account balance on June 30 based on the account balance as of June 30 of the previous year. Upon retirement the hypothetical account which includes member contributions, employer contributions and interest credits can be withdrawn from KRS as a lump sum or annuitized into a single life annuity option.

KERS-h, Other benefits. If the member is receiving a monthly benefit based on at least four (4) years of creditable service, the retirement system will pay a \$5,000 death benefit payment to the beneficiary named by the member specifically for this benefit. Disability benefits are also provided at various levels depending on participation dates and circumstances.

For both KERS-nh and KERS-h, monthly retirement allowances are increased July 1 each year by one and one-half percent (1.5%). The Kentucky General Assembly has the authority to increase, suspend or reduce Cost of Living Adjustments (COLA). HB 265 of 2012 eliminated the July 1, 2012 and July 1, 2013 COLAs for all retirees. SB2 of 2013 eliminated all future COLAs unless the State Legislature so authorizes on a biennial basis and either (i) the system is over 100% funded or (ii) the Legislature appropriates sufficient funds to pay the increased liability for the COLA.

For members participating prior to July 1, 2003, KRS pays a percentage of the monthly premium for single coverage based upon the service credit accrued at retirement. Hazardous duty members are also eligible for an additional contribution for dependents based upon hazardous service only. Members participating on or after July 1, 2003 and before September 1, 2008 are required to earn at least 10 years of service credit in order to be eligible for insurance benefits at retirement. Members participating on or after September 1, 2008 are required to earn at least 15 years of service credit in order to be eligible for insurance benefits at retirement. The monthly health insurance contribution will be \$15 for each year of earned service increased by the CPI prior to July 1, 2009, and by 1.5% annually from July 1, 2009.

Upon termination of employment, a refund of member contributions and accumulated interest is available to the member.

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Active member accounts have been credited with interest on July 1 of each year at 3% compounded annually through June 30, 1981; 6% thereafter through June 30, 1986; 4% thereafter through June 30, 2003, and 2.5% thereafter. For employees hired prior to September 1, 2008, the interest paid is set by the Board of Trustees and will not be less than 2%, for employees hired on or after September 1, 2008, interest will be credited at a rate of 2.5%.

TRS, members before 7/1/2008. Benefits are available with completion of 27 years of service or attainment of age 55 and five years of service. The annual retirement allowance for non-university members is equal to 2% of final average salary multiplied by service before July 1, 1983, plus 2.5% of final average salary multiplied by service after July 1, 1983. For individuals who become members of TRS on or after July 1, 2002 and have less than 10 years of service at retirement, the retirement allowance is 2% of final average salary multiplied by service. If, however, they have 10 or more years, they receive a benefit percentage of 2.5% for all years of service up to 30 years. For members retiring on or after July 1, 2004, the retirement allowance formula is 3.0% of final average salary for each year of service credit earned in excess of 30 years.

The annual retirement allowance for university members is equal to 2% of final average salary multiplied by all years of service. For all members, the annual allowance is reduced by 5% per year from the earlier of age 60 or the date the member would have completed 27 years of service. The minimum annual service allowance for all members is \$440 multiplied by credited service.

TRS, members on and after 7/1/2008. Benefits are available with completion of 27 years of service, attainment of age 60 and five years of service or attainment of age 55 and 10 years of service. The annual retirement allowance for non-university members is equal to 1.7% of final average salary if service is 10 years or less, 2% of final average salary if service is greater than 10 years and no more than 20 years, 2.3% of final average salary if service is greater than 20 years but no more than 26 years, 2.5% of final average salary if service is greater than 26 years but no more than 30 years, 3% of final average salary for years of service greater than 30 years.

The annual retirement allowance for university members is equal to 1.5% of final average salary if service is 10 years or less, 1.7% of final average salary if service is greater than 10 years and no more than 20 years, 1.85% of final average salary if service is greater than 20 years but less than 27 years, 2% of final average salary if service is greater than or equal to 27 years.

For all members, the annual allowance is reduced by 6% per year from the earlier of age 60 or the date the member would have completed 27 years of service.

TRS, Other benefits. Disability benefits are provided for employees totally and permanently incapable of being employed as a teacher and under age 60 but after completing 5 years of service. The disability allowance is equal to the greater of the service retirement allowance or 60% of the member's final average salary. The disability allowance is payable over an entitlement period equal to 25% of the service credited to the member at the date of disability or five years, whichever is longer. After the disability entitlement period has expired and if the member remains disabled, he will be retired under service retirement. The service retirement allowance will be computed with service credit given for the period of disability retirement. The allowance will not be less than \$6,000 per year. The service retirement allowance will not be reduced for commencement of the allowance before age 60 or the completion of 27 years of service.

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To be eligible for medical benefits, the member must have retired either for service or disability. The TRS medical plan offers coverage to members under the age of 65 through the Kentucky Employees Health Plan (KEHP) administered by the Kentucky Department of Employee Insurance. TRS retired members are given a supplement to be used for payment of their health insurance premium. The amount of the member's supplement is based on a contribution supplement table approved by the TRS Board of Trustees. The retired member pays premiums in excess of the monthly supplement.

Any member who ceases to be in service is entitled to receive his contributions with allowable interest. A member who has completed five years of creditable service and leaves his contributions with the System may be continued in the membership of the System after separation from service, and file application for service retirement after the attainment of age 60.

A separate Life Insurance fund has been created as of June 30, 2000 to pay benefits on behalf of deceased TRS active and retired members.

A surviving spouse of an active member with less than 10 years of service may elect to receive an annual allowance of \$2,880 except that if income from other sources exceeds \$6,600 per year the annual allowance will be \$2,160. A surviving spouse of an active member with 10 or more years of service may elect to receive an allowance which is the actuarial equivalent of the allowance the deceased member would have received upon retirement. The allowance will commence on the date the deceased member would have been eligible for service retirement and will be payable during the life of the spouse. If the deceased member is survived by unmarried children under age 18 the following schedule of annual allowances applies:

<u>Number of Children</u>	<u>Annual Allowance</u>
1	\$2,400
2	4,080
3	4,800
4+	5,280

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The allowances are payable until a child attains age 18, or age 23 if a full-time student. If the member has no eligible survivor, a refund of his accumulated contributions is payable to his estate.

The retirement allowance of each retired member and of each beneficiary shall be increased by 1.50% each July 1.

Contributions

KERS-nh. Per KRS 61.565 and KRS 61.752, contribution requirements of the active employees and the participating employers are established and may be amended by the KRS Board. Employees are required to contribute 5% of their annual pay. The participating employers' contractually required contribution rate for the year ended June 30, 2018, was 49.47% of annual payroll, actuarially determined as an amount that, when combined with employee contributions, is expected to finance the costs of benefits earned by employees during the year, with an additional amount to finance any unfunded accrued liability. Contributions to the pension plan from the University were \$5,175,756 and \$5,640,951 for the years ended June 30, 2019 and 2018, respectively.

KERS-h. Per KRS 61.565 and KRS 61.752, contribution requirements of the active employees and the participating employers are established and may be amended by the KRS Board. Employees are required to contribute 8% of their annual pay. The participating employers' contractually required contribution rate for the year ended June 30, 2019, was 36.85% of annual payroll, actuarially determined as an amount that, when combined with employee contributions, is expected to finance the costs of benefits earned by employees during the year, with an additional amount to finance any unfunded accrued liability. Contributions to the pension plan from the University were \$278,279 and \$171,214 for the years ended June 30, 2019 and 2018, respectively.

The University's overall contributions, which include pension, medical, and life insurance contributions, to KERS for the years ended June 30, 2019 and 2018 were \$6,534,025 and \$6,985,604, respectively, and were equal to the required contributions.

TRS. Per KRS 161.250, contribution requirements of the active employees and the participating employers are established and may be amended by the TRS Board. Employees are required to contribute 8.185% of their annual pay. The participating employers' contractually required contribution rate for the year ended June 30, 2019, was 15.865% of annual payroll, actuarially determined as an amount that, when combined with employee contributions, is expected to finance the costs of benefits earned by employees during the year, with an additional amount to finance any unfunded accrued liability. Contributions to the pension plan from the University were \$4,040,309 and \$5,481,388 for the years ended June 30, 2019 and 2018, respectively.

The University's overall contributions, which include pension, medical, and life insurance contributions, to TRS for the fiscal years ended June 30, 2019 and 2018 were \$4,748,102 and \$6,101,239, respectively.

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b) Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

The University reported a liability of \$181,969,231 and \$231,097,640 for the years ended June 30, 2019 and 2018, respectively, for its proportionate shares of the net pension liability in the plans. The net pension liability for TRS and KERS plans were measured as of June 30, 2018 and June 30, 2017 and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of that date for all plans. The University's proportions of the net pension liabilities were based on projections of the University's long-term share of contributions to the pension plan relative to the projected contributions of all participating school districts, actuarially determined. At June 30, 2018, the University's proportion was 0.42899966% for TRS, 0.889474% for KERS-nh, and 0.411530% for KERS-h, and at June 30, 2017, the University's proportion was 0.40417645% for TRS, 0.858544% for KERS-nh, and 0.38949% for KERS-h.

For the years ended June 30, 2019 and 2018, the University recognized the pension (benefit) expense of (\$8,595,091) and (\$3,008,564), respectively. At June 30, 2019 and 2018, the University reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	<u>June 30, 2019</u>		<u>June 30, 2018</u>	
	<u>Deferred Outflows of Resources</u>	<u>Deferred Inflows of Resources</u>	<u>Deferred Outflows of Resources</u>	<u>Deferred Inflows of Resources</u>
Differences between expected and actual experience	\$ 1,446,165	\$ 6,272,837	\$ 752,202	\$ 3,155,792
Change in assumptions	15,512,893	46,989,857	29,080,563	7,929,103
Net difference between projected and actual earnings on investments	1,004,497	2,370,667	1,588,363	1,894,762
Change in proportionate share	7,675,911	41,054,088	3,651,094	59,503,138
Contributions subsequent to the measurement date	9,494,344	—	11,293,553	—
Total	\$ 35,133,810	\$ 96,687,449	\$ 46,365,775	\$ 72,482,795

In the years ended June 30, 2019 and 2018 deferred outflows of resources of \$9,494,344 and \$11,293,553, respectively, related to pensions resulting from the University contributions subsequent to the measurement date will be recognized as a reduction of the net pension liability in the years ended June 30, 2019 and 2018, respectively. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions at June 30, 2019 will be recognized in pension expense as follows:

<u>Year ended June 30:</u>	<u>Deferred Outflows of Resources</u>	<u>Deferred Inflows of Resources</u>
2020	\$ 16,161,900	\$ 40,186,696
2021	6,142,720	39,060,679
2022	3,216,103	17,159,400
2023	118,743	280,674
	\$ 25,639,466	\$ 96,687,449

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Actuarial assumptions. The total pension liability in the June 30, 2018 and 2017 actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement:

	June 30, 2018		June 30, 2017	
	KERS	TRS	KERS	TRS
Inflation	2.30%	3.0%	2.3%	3.0%
Salary increases	3.05%	3.5% to 7.3%, including inflation	0.00%	3.5% to 7.3%, including inflation
Investment rate of return	5.25% - nh 6.25% - h	7.50%	5.25%	7.50%

As of June 30, 2018, and 2017, mortality rates for KERS were based on the RP-2000 Combined Mortality Table projected with scale BB to 2013 for all active and healthy retired members and the RP-2000 Combined Disabled Mortality Table projected with Scale BB to 2013 for disabled members.

As of June 30, 2018, and 2017, mortality rates for TRS were based on the RP-2000 Combined Mortality Table for Males or Females, as appropriate, with adjustments for mortality improvements based on a projection of Scale BB to 2025 with a setback of 1 year for females.

The actuarial assumptions used in the June 30, 2018 and 2017 valuations were based on the results of actuarial experience study for the period July 1, 2008 – June 30, 2013 for KERS and July 1, 2010 – June 30, 2015 for TRS. As a result of the actuarial experience studies, the expectation of life after disability was adjusted in the July 30, 2015 actuarial valuations to more closely reflect actual experience.

For KERS the long-term expected return on plan assets is reviewed as part of the regular experience studies prepared every five years for KRS. The most recent analysis, performed for the period covering fiscal years 2008 through 2013, is outlined in a report dated April 30, 2014. Several factors are considered in evaluating the long-term rate of return assumption including long term historical data, estimates inherent in current market data, and a log-normal distribution analysis in which best-estimate ranges of expected future real rates of return (expected return, net of investment expense, and inflation) were developed by the investment consultant for each major asset class. These ranges were combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and then adding expected inflation. The capital market assumptions developed by the investment consultant are intended for use over a 10-year horizon and may not be useful in setting the long-term rate of return for funding pension plans which covers a longer timeframe. The assumption is intended to be a long-term assumption and is not expected to change absent a significant change in the asset allocation, a change in the inflation assumption, or a fundamental change in the market that alters expected returns in future years. The target asset allocation and best estimates of arithmetic real rates of return for each major asset class, as provided by KERS's investment consultant, are summarized in the following tables:

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KERS-nh	June 30, 2018		KERS-h	June 30, 2018	
Asset Class	Target Allocation	Long-Term Expected Real Rate of Return	Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
U.S. Equity	17.5%		U.S. Equity	17.5%	
U.S. Large Cap	8.5%	4.50%	U.S. Large Cap	5.0%	4.50%
U.S. Mid Cap	5.0%	4.50%	U.S. Mid Cap	6.0%	4.50%
U.S. Small Cap	4.0%	5.50%	U.S. Small Cap	6.5%	5.50%
International Equity	17.5%		International Equity	17.5%	
International Developed	12.5%	6.50%	International Developed	12.5%	6.50%
Emerging Markets	5.0%	7.25%	Emerging Markets	5.0%	7.25%
Global Bonds	10.0%	3.00%	Global Bonds	4.0%	3.00%
Global Credit	17.0%		Global Credit	24.0%	
Global IG Credit	10.0%	3.75%	Global IG Credit	2.0%	3.75%
High Yield	3.0%	5.50%	High Yield	7.0%	5.50%
EMD	4.0%	6.00%	EMD	5.0%	6.00%
Real Estate	5.0%	7.00%	Illiquid Private	10.0%	8.50%
Absolute Return	10.0%	5.00%	Real Estate	5.0%	9.00%
Real Return	10.0%	5.00%	Absolute Return	10.0%	5.00%
Private Equity	10.0%	6.50%	Real Return	10.0%	7.00%
Cash Equivalent	3.0%	1.50%	Private Equity	10.0%	6.50%
Total	<u>100%</u>		Cash Equivalent	2.0%	1.50%
			Total	<u>100%</u>	

KERS-nh	June 30, 2017		KERS-h	June 30, 2017	
Asset Class	Target Allocation	Long-Term Expected Real Rate of Return	Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
U.S. Equity	17.5%	5.75%	U.S. Equity	17.5%	5.75%
International Equity	17.5%	7.38%	International Equity	17.5%	7.38%
Global Bonds	10.0%	2.63%	Global Bonds	10.0%	2.63%
Global Credit	17.0%	3.63%	Global Credit	17.0%	3.63%
Real Estate	5.0%	6.63%	Real Estate	5.0%	6.63%
Absolute Return	10.0%	5.63%	Absolute Return	10.0%	5.63%
Real Return	10.0%	5.13%	Real Return	10.0%	5.13%
Private Equity	10.0%	8.25%	Private Equity	10.0%	8.25%
Cash Equivalent	3.0%	1.88%	Cash Equivalent	3.0%	1.88%
Total	<u>100%</u>		Total	<u>100%</u>	

For TRS the long-term expected rate of return on pension plan investments was determined using a log-normal distribution analysis in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

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TRS:	June 30, 2018		June 30, 2017	
	Target Allocation	Long-Term Expected Real Rate of Return	Target Allocation	Long-Term Expected Real Rate of Return
U.S. Equity	40%	4.20%	42%	4.40%
Non U.S. Equity	22%	5.20%	20%	5.30%
Fixed Income	15%	1.20%	16%	1.50%
Additional Categories	8%	3.30%	9%	3.60%
Real Estate	6%	3.80%	5%	4.40%
Private Equity	7%	6.30%	6%	6.70%
Cash	2%	0.90%	2%	0.80%
Total	100%		100%	

Discount rate. For KERS the discount rates used to measure the total pension liability as of the Measurement Date (June 30, 2018) and Prior Measurement Date (June 30, 2017) were 5.25% and 5.25%, respectively, for nonhazardous and 6.25% and 6.25%, respectively, for hazardous. The projection of cash flows used to determine the discount rate assumed that contributions from plan members and employers will be made at statutory contribution rates. Projected inflows from investment earnings were calculated using the long-term assumed investment return of 5.13% for the year ending June 30, 2018 and 5.25% for the year ending June 30, 2017. The long-term assumed investment rate of return was applied to all periods of projected benefit payments to determine the total pension liability.

For TRS the discount rates used to measure the TPL as of the Measurement Date and Prior Measurement Date were 7.5% and 4.49%, respectively. The projection of cash flows used to determine the discount rate was performed in accordance with GASB 67. It was assumed that Plan member contributions will be made at the current contribution rates and that Employer contributions will be made at statutorily required rates. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members until the 2040 plan year and, as a result, the Municipal Bond Index Rate was used in the determination of the SEIR. There was a change in the Municipal Bond Index Rate from the Prior Measurement Date to the Measurement Date, so as required under GASB 68, the SEIR at the Measurement Date of 4.49% was calculated using the Municipal Bond Index Rate as of the Measurement Date (3.56%). This change in the discount rate is considered a change in actuarial assumptions or other inputs under GASB 68.

Sensitivity of Murray State University's proportionate share of the net pension liability to changes in the discount rate. The following presents the University's proportionate share of the net pension liability calculated using the discount rates as of the Measurement Date and the Prior Measurement Date:

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	June 30, 2018		
	1% Decrease	Discount Rate	1% Increase
University's proportionate share - KERS-nh	\$ 137,845,527 4.25%	\$ 121,002,043 5.25%	\$ 106,965,806 6.25%
University's proportionate share - KERS-h	2,659,747 5.25%	2,078,739 6.25%	1,596,264 7.25%
University's proportionate share - TRS	75,483,214 6.50%	58,888,449 7.50%	44,925,998 8.50%
	June 30, 2017		
	1% Decrease	Discount Rate	1% Increase
University's proportionate share - KERS-nh	\$ 131,243,928 4.25%	\$ 114,944,761 5.25%	\$ 101,392,774 6.25%
University's proportionate share - KERS-h	2,462,793 5.25%	1,936,158 6.25%	1,499,167 7.25%
University's proportionate share - TRS	141,583,047 3.49%	114,216,721 4.49%	91,761,714 5.49%

Pension plan fiduciary net position. Detailed information about the pension plans' fiduciary net position is available in the separately issued KERS and TRS financial reports.

c) OPEB Liabilities, OPEB Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to OPEB

The University reported a liability of \$35,705,064 and \$37,821,285 years ended June 30, 2019 and 2018, respectively, for its proportionate shares of the net OPEB liability in the plans. The net OPEB liability for TRS and KERS plans were measured as of June 30, 2018 and June 30, 2017 and the total OPEB liability used to calculate the net OPEB liability was determined by an actuarial valuation as of that date for all plans. The University's proportions of the net OPEB liabilities were based on projections of the University's long-term share of contributions to the OPEB plan relative to the projected contributions of all participating school districts, actuarially determined. At June 30, 2018, the University's proportion was 0.417902% for TRS-medical, 0.948638% for TRS-life, 0.888860% for KERS-nh, and 0.411632% for KERS-h.

For the years ended June 30, 2019 and 2018, the University recognized OPEB expense of \$1,268,266 and \$1,789,947, respectively. At June 30, 2019 and 2018, the University reported deferred outflows of resources and deferred inflows of resources related to OPEBs from the following sources:

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	<u>June 30, 2019</u>		<u>June 30, 2018</u>	
	<u>Deferred Outflows of Resources</u>	<u>Deferred Inflows of Resources</u>	<u>Deferred Outflows of Resources</u>	<u>Deferred Inflows of Resources</u>
Differences between expected and actual experience	\$ —	\$ 2,236,244	\$ —	\$ 30,314
Change in assumptions	2,665,320	81,661	3,143,508	—
Net difference between projected and actual earnings on investments	73,000	476,478	45,000	528,923
Change in proportionate share Contributions subsequent to the measurement date	485,839	913,783	—	163,273
	<u>1,787,808</u>	<u>—</u>	<u>1,793,291</u>	<u>—</u>
Total	<u>\$ 5,011,967</u>	<u>\$ 3,708,166</u>	<u>\$ 4,981,799</u>	<u>\$ 722,510</u>

In the year ended June 30, 2019 deferred outflows of resources of \$1,787,808 related to OPEBs resulting from the University contributions subsequent to the measurement date will be recognized as a reduction of the net OPEB liability in the years ended June 30, 2019. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to OPEB at June 30, 2019 will be recognized in OPEB expense as follows:

<u>Year ended June 30:</u>	<u>Deferred Outflows of Resources</u>	<u>Deferred Inflows of Resources</u>
2020	\$ 976,233	\$ 894,666
2021	976,233	894,666
2022	976,233	894,666
2023	252,318	715,754
Thereafter	43,142	308,414
	<u>\$ 3,224,159</u>	<u>\$ 3,708,166</u>

Actuarial assumptions. The total OPEB liability in the June 30, 2018 and 2017 actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement:

	<u>June 30, 2018</u>		<u>June 30, 2017</u>	
	<u>KERS</u>	<u>TRS</u>	<u>KERS</u>	<u>TRS</u>
Inflation	3.25%	3.0%	2.30%	3.00%
Salary increases	4.00%	3.5% to 7.2%, including inflation	4.00%	3.5% to 7.2%, including inflation
Investment rate of return	7.50%	8.00%(Med) 7.50%(Life)	6.25%	8.00%(Med) 7.50%(Life)

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As of June 30, 2018, and 2017, mortality rates for KERS were based on the RP-2000 Combined Mortality Table projected with scale BB to 2013 for all active and healthy retired members and the RP-2000 Combined Disabled Mortality Table projected with Scale BB to 2013 for disabled members.

As of June 30, 2018, and 2017, mortality rates for TRS were based on the RP-2000 Combined Mortality Table for Males or Females, as appropriate, with adjustments for mortality improvements based on a projection of Scale BB to 2025 with a setback of 1 year for females.

The actuarial assumptions used in the June 30, 2018 and 2017 valuations were based on the results of actuarial experience study for the period July 1, 2008 – June 30, 2013 for KERS and July 1, 2010 – June 30, 2015 for TRS. As a result of the actuarial experience studies, the expectation of life after disability was adjusted in the July 30, 2015 actuarial valuations to more closely reflect actual experience.

For KERS the long-term expected return on plan assets is reviewed as part of the regular experience studies prepared every five years for KRS. The most recent analysis, performed for the period covering fiscal years 2008 through 2013, is outlined in a report dated April 30, 2014. Several factors are considered in evaluating the long-term rate of return assumption including long term historical data, estimates inherent in current market data, and a log-normal distribution analysis in which best-estimate ranges of expected future real rates of return (expected return, net of investment expense, and inflation) were developed by the investment consultant for each major asset class. These ranges were combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and then adding expected inflation. The capital market assumptions developed by the investment consultant are intended for use over a 10-year horizon and may not be useful in setting the long-term rate of return for funding pension plans which covers a longer timeframe. The assumption is intended to be a long-term assumption and is not expected to change absent a significant change in the asset allocation, a change in the inflation assumption, or a fundamental change in the market that alters expected returns in future years. The target asset allocation and best estimates of arithmetic real rates of return for each major asset class, as provided by KERS's investment consultant, are summarized in the following tables:

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KERS	June 30, 2018	
Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
U.S. Equity	17.5%	
U.S. Large Cap	5.0%	4.50%
U.S. Mid Cap	6.0%	4.50%
U.S. Small Cap	6.5%	5.50%
International Equity	17.5%	
Developed	12.5%	6.50%
Emerging	5.0%	7.25%
Global Bonds	4.0%	2.63%
Global Credit	2.0%	3.63%
High Yield	7.0%	5.75%
Emerging Market Debt	5.0%	5.50%
Private Credit	10.0%	8.75%
Real Estate	5.0%	7.63%
Absolute Return	10.0%	5.63%
Real Return	10.0%	6.13%
Private Equity	10.0%	8.25%
Cash Equivalent	2.0%	1.88%
Total	<u>100%</u>	

For TRS the long-term expected rate of return on OPEB plan investments was determined using a log-normal distribution analysis in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

TRS-Med	June 30, 2018	
Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Global Equity	58.0%	4.60%
Fixed Income	9.0%	1.20%
Real Estate	5.5%	3.80%
Private Equity	6.5%	6.30%
Other Additional Categories	20.0%	3.30%
Cash (LIBOR)	1.0%	0.90%
Total	<u>100%</u>	

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TRS-Life Asset Class	June 30, 2018	
	Target Allocation	Long-Term Expected Real Rate of Return
U.S. Equity	40.0%	4.20%
International Equity	23.0%	5.20%
Fixed Income	18.0%	1.20%
Real Estate	6.0%	3.80%
Private Equity	5.0%	6.30%
Other Additional Categories	6.0%	3.30%
Cash (LIBOR)	2.0%	0.90%
Total	100%	

Discount rate. For KERS the discount rates used to measure the total OPEB liability as of the Measurement Date (June 30, 2018) was 5.86% for nonhazardous and 5.88% for hazardous. The projection of cash flows used to determine the discount rate assumed that contributions from plan members and employers will be made at statutory contribution rates. Projected inflows from investment earnings were calculated using the long-term assumed investment return of 6.25%. The long-term assumed investment rate of return was applied to all periods of projected benefit payments to determine the total OPEB liability.

For TRS the discount rates used to measure the total OPEB liability as of the Measurement Date was 8.0% for medical and 7.5% for life. The projection of cash flows used to determine the discount rate was performed in accordance with GASB 74. It was assumed that Plan member contributions will be made at the current contribution rates and that Employer contributions will be made at statutorily required rates.

Sensitivity of Murray State University's proportionate share of the net OPEB liability to changes in the discount rate. The following presents the University's proportionate share of the net OPEB liability calculated using the discount rates as of the Measurement Date:

	June 30, 2018		
	1% Decrease	Discount Rate	1% Increase
University's proportionate share - KERS-nh	\$ 24,726,227 4.86%	\$ 21,074,088 5.86%	\$ 18,035,205 6.86%
University's proportionate share - KERS-h	137,404 4.88%	(136,530) 5.88%	(356,166) 6.88%
University's proportionate share - TRS-medical	17,002,709 7.00%	14,500,008 8.00%	12,414,907 9.00%
University's proportionate share - TRS-life	407,239 6.50%	267,498 7.50%	152,875 8.50%

OPEB plan fiduciary net position. Detailed information about the OPEB plans' fiduciary net position is available in the separately issued KERS and TRS financial reports.

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16. Component Units

Murray State University Foundation, Inc.

Murray State University Foundation, Inc. (Foundation) is a Kentucky nonprofit corporation formed to receive, invest and expend funds for the enhancement and improvement of the University. It is a legally separate, tax-exempt component unit of the University that manages certain endowments and investments on behalf of the University. The Foundation has a Board of Trustees separate from that of the University. Although the University does not control the timing or amount of receipts from the Foundation, the majority of resources or income thereon that the Foundation holds and invests is restricted to the activities of the University by the donors. Because these restricted resources held by the Foundation can only be used by, or 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 statement package.

During the years ended June 30, 2019 and 2018, the Foundation made payments of \$3,174,935 and \$2,827,770, respectively, on behalf of the University from restricted sources. Accounts receivable at June 30, 2019 and 2018, from the Foundation were \$319,944 and \$249,045, respectively. Accounts payable to the Foundation as of June 30, 2019 and 2018 were not significant. Complete financial statements for the Foundation can be obtained from the MSU Foundation Office, 100 Nash House, Murray, Kentucky 42071.

Significant notes to the Foundation's financial statements are as follows:

a) *Investments and Investment Return*

Investments at June 30 consisted of:

	2019	2018
Money market mutual funds	\$ 1,693,111	\$ 1,738,348
Equity securities	818,400	781,200
Cash value of life insurance policies	266,987	246,916
Mutual funds	75,470,251	72,588,053
Asset-backed bonds	1,343,314	401,871
Mortgage-backed bonds	1,566,292	1,871,468
Government bonds	27,858,234	27,377,023
Municipal bonds	369,691	461,928
Corporate bonds	7,270,684	6,481,095
Other	255,203	—
Beneficial interests in trusts	7,745,395	6,901,804
	\$ 124,657,562	\$ 118,849,706

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Total investment return is comprised of the following:

	2019	2018
Interest and dividend income	\$ 1,532,760	\$ 1,184,057
Realized gains on investments	1,728,547	2,366,282
Unrealized losses on investments	1,278,222	3,148,312
Management fees	550,927	537,716
	\$ 5,090,456	\$ 7,236,367

b) *Assets Held for Others*

Assets held for others represent resources in the possession of, but not under the control of, the Foundation. Assets held for others as of June 30 were as follows:

	2019	2018
Murray State University	\$ 26,403,726	\$ 26,250,195
Murray State University Alumni Association	1,180,268	1,207,232
Others	44,304	44,304
	\$ 27,628,298	\$ 27,501,731

c) *Annuities and Trusts Payable*

The Foundation has been the recipient of several gift annuities which require future payments to the donor or their named beneficiaries. The assets received from donors are recorded at fair value on the date of the gift. The Foundation has recorded a liability as of June 30, 2019 and 2018, \$1,207,310 and \$1,131,067, respectively, which represents the present value of the future gift annuity obligations. The liability has been determined using discount rates ranging from 1.2% to 7.0%. As of June 30, 2019, and 2018, cash, cash equivalents, and investments relative to split interest agreements and other liabilities discussed in the Foundation's Note 12 total \$8,689,131 and \$8,076,000, respectively.

The Foundation administers several charitable remainder unitrusts and annuity trusts. A charitable remainder trust provides for the payment of distributions to the grantor or other designated beneficiaries over the trust's term (usually the designated beneficiary's lifetime), either in the form of a percentage of the fair value of the trust's assets (unitrust) or in the form of a specified dollar amount (annuity trust). At the end of the trust's term, the remaining assets are available for the Foundation's use. The portion of the trust attributable to the future interest of the Foundation is recorded in the statements of activities as contributions with donor restriction in the period the trust is established. Assets (investments) held in the charitable remainder trusts are recorded at fair value in the Foundation's statements of financial position. The present value of the estimated future payments is \$4,001,463 and \$4,247,120 as of June 30, 2019 and 2018, respectively, which was calculated using discount rates ranging from 1.8% to 8.0%, and applicable mortality tables.

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d) Net Assets with Donor Restrictions

Net assets with donor restrictions as of June 30, 2019 and 2018 are restricted for the following purposes:

	2019	2018
Subject to expenditure for specified purpose:		
Scholarships	\$ 5,130,197	\$ 4,890,231
Instruction and institutional support	8,739,118	8,274,306
Chairs, professorships, academic stipends and seminars	604,192	525,020
Operations of the golf course	83,932	36,385
Promise to give, the proceeds from which have been restricted by donors for:		
Scholarships	—	—
Institutional support	511,313	80,764
	245,139	207,396
	15,313,891	14,014,102
Subject to passage of time:		
Assets held under split-interest agreements	763,186	603,425
Subject to appropriation and expenditure when a specific event occurs:		
Scholarships	1,175,090	3,547,647
Instruction and institutional support	1,633,630	1,296,733
Promise to give, the proceeds from which have been restricted by donors for:		
Scholarships	258,943	285,843
Institutional support	60,387	47,381
Chairs and professorships	—	118,750
	3,128,050	5,296,354
Subject to endowment spending policy and appropriation:		
Scholarships	44,058,146	39,841,195
Instruction and institutional support	14,158,481	13,543,809
Chairs and professorships	3,344,347	3,205,053
Operations of the golf course	1,595,771	1,589,435
Any activity of the Foundation	487,572	480,449
	63,644,317	58,659,941
Total net assets with donor restrictions	\$ 82,849,444	\$ 78,573,822

MURRAY STATE UNIVERSITY
A Component Unit of the Commonwealth of Kentucky

Notes to the Financial Statements

Net Assets Released from Restriction

	2019	2018
Satisfaction of purpose restrictions:		
Scholarships	\$ 1,765,478	\$ 1,656,831
Instruction and institutional support	1,026,674	1,219,588
Chairs and professorships	175,308	182,718
Operations of the Golf Course	—	45,768
Bad debt expense	100,000	—
Distributions (proceeds are not restricted by donors):		
Net changes in annuities and split-interest agreement	107,475	(225,827)
	\$ 3,174,935	\$ 2,879,078

17. Risk Management

The University is exposed to various risks of loss related to torts; theft of, damage to and destruction of assets; error and omission; employee injuries and illnesses; natural disasters and employee health and accident benefits. Commercial insurance coverage is purchased for claims arising from such matters other than those related to workers' compensation, natural disasters and employee health benefits. Settled claims have not exceeded this commercial coverage in any of the three preceding years. Effective June 30, 2018, Murray State withdrew from the Kentucky Personnel Cabinet's Workers' Compensation Program and entered into a full insurance contract with BrickStreet Insurance Company on July 1, 2018. This change has provided a higher level of institutional support for the safety and loss control management service.

Claims and Litigation

The University is a defendant in various lawsuits. It is the opinion of management and its legal counsel, based in part on the doctrine of sovereign immunity and other statutory provisions, that the ultimate outcome of litigation will not have a material effect on the future operations or financial position of the University.

Commitments

The University has outstanding commitments under construction contracts of \$8,809,347 and \$2,166,099 as of June 30, 2019 and 2018, respectively.

Government Grants

The University is currently participating in numerous grants from various departments and agencies of the federal and state governments. The expenditures of grant proceeds must be for allowable and eligible purposes. Single Audits and audits by the granting department or agency may result in requests for reimbursement of unused grant proceeds or disallowed expenditures. Upon notification of final approval by the granting department or agency, the grants are considered closed.

MURRAY STATE UNIVERSITY
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Notes to the Financial Statements

18. Fair Value Measurement

The University categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles (GAAP). The hierarchy is based on the valuation inputs (sources of information for calculating fair value) used to measure the fair value of the asset. Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are significant other observable inputs; Level 3 inputs are significant unobservable inputs.

The University has the following recurring fair value measurements as of June 30, 2019:

- Cash equivalents with a value of \$144,871,606 held by the Commonwealth of Kentucky in an intermediate investment pool; fair value hierarchy level 2.
- Restricted investments for debt reserves with a value of \$319,317 held by US Bank in money market accounts; fair value hierarchy level 1.
- Restricted quasi-endowment and endowment investments with a value of \$26,403,725 held by the MSU Foundation in an investment pool; fair value hierarchy levels 1, 2, or 3.

MURRAY STATE UNIVERSITY
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Notes to the Financial Statements

19. Natural Expense Classifications with Functional Classifications

The University's operating expenses by functional classification for the years ended June 30 were as follows:

Fund Classification	Year Ended June 30, 2019					
	Natural Classification					
	Compensation and Benefits	Operations	Utilities	Noncapitalized Equipment	Scholarships	Total
Instruction	\$ 53,346,041	\$ 7,310,718	\$ 268	\$ 407,953	\$ —	\$ 61,064,980
Research	1,386,830	793,881	243	77,147	—	2,258,101
Public service	4,185,736	1,358,514	358,049	74,943	—	5,977,242
Libraries	1,766,640	1,610,502	—	14,333	—	3,391,475
Academic support	4,187,473	2,220,942	76,221	215,223	—	6,699,859
Student services	9,761,944	5,711,500	10,114	146,208	(92,275)	15,537,491
Institutional support	18,618,324	(506,834)	89,529	91,204	—	18,292,223
Operations and maintenance of plant	7,416,132	6,322,728	6,210,115	7,249	—	19,956,224
Student financial aid	—	—	—	—	12,649,543	12,649,543
Depreciation	—	9,154,634	—	—	—	9,154,634
State pension expense GASB 68	(8,595,091)	—	—	—	—	(8,595,091)
State pension expense-OPEB GASB 75	1,268,266	—	—	—	—	1,268,266
Auxiliary enterprises	5,268,592	10,309,669	2,844,822	68,352	107,585	18,599,020
Auxiliary depreciation	—	2,693,821	—	—	—	2,693,821
Total expenses	\$ 98,610,887	\$ 46,980,075	\$ 9,589,361	\$ 1,102,612	\$ 12,664,853	\$ 168,947,788

MURRAY STATE UNIVERSITY
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Notes to the Financial Statements

Fund Classification	Year Ended June 30, 2018					
	Natural Classification					
	Compensation and Benefits	Operations	Utilities	Noncapitalized Equipment	Scholarships	Total
Instruction	\$ 55,175,427	\$ 6,899,102	\$ 4,158	\$ 493,798	\$ —	\$ 62,572,485
Research	1,349,591	1,067,699	—	54,737	—	2,472,027
Public service	5,027,949	1,280,651	388,359	34,717	—	6,731,676
Libraries	1,773,201	1,672,064	60	82,096	—	3,527,421
Academic support	4,384,363	1,876,034	57,366	81,583	—	6,399,346
Student services	10,234,942	5,436,611	12,385	122,232	661,032	16,467,202
Institutional support	18,893,825	(956,656)	429,183	87,450	—	18,453,802
Operations and maintenance of plant	7,469,780	10,058,930	6,233,870	15,351	—	23,777,931
Student financial aid	—	—	—	—	12,735,820	12,735,820
Depreciation	—	9,330,382	—	—	—	9,330,382
State pension expense GASB 68	(3,008,564)	—	—	—	—	(3,008,564)
State pension expense-OPEB GASB 75	1,787,941	—	—	—	—	1,787,941
Auxiliary enterprises	7,663,741	12,044,366	2,834,209	66,403	—	22,608,719
Auxiliary depreciation	—	2,757,883	—	—	—	2,757,883
Total expenses	<u>\$ 110,752,196</u>	<u>\$ 51,467,066</u>	<u>\$ 9,959,590</u>	<u>\$ 1,038,367</u>	<u>\$ 13,396,852</u>	<u>\$ 186,614,071</u>

20. Segment Information

A segment is an identifiable activity reported as a stand-alone entity for which one or more revenue bonds are outstanding. A segment has a specifically identifiable revenue stream pledged in support of revenue bonds and has related expenses, gains and losses and assets and liabilities that are required by an external party to be accounted for separately. The Susan E. Bauernfeind Student Recreation and Wellness Center is the University's only reportable segment.

Susan E. Bauernfeind Student Recreation and Wellness Center

The University entered into an agreement with the City of Murray, Kentucky on December 30, 2002, to finance the construction of a student recreation/wellness center. The University established a \$3.00 per credit hour student fee, effective for the Fall 2002 semester, to be designated as the Wellness Center Fee. A portion of the revenues from this fee will be used to fund all debt and debt related expenses according to the terms and provisions of the Memorandum of Agreement between the University and the City of Murray.

The City of Murray refinanced the original bonds in the Spring of 2012 to take advantage of an overall decrease in net interest costs. The terms of original agreement between the University and the City of Murray remained unchanged, with the exception of changes in the amount of debt and interest payments.

Condensed financial information as of and for the years ended June 30 of the University's Wellness Center segment is as follows:

MURRAY STATE UNIVERSITY
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Notes to the Financial Statements

Wellness Center - Condensed Statements of Net Position

	2019	2018
Assets		
Current assets	\$ 901,156	\$ 899,978
Noncurrent assets	1,709,881	1,786,542
Capital assets, net of accumulated depreciation	6,706,507	6,975,221
Total assets	9,317,544	9,661,741
Deferred outflows of resources		
Bond refunding loss	235,541	285,268
Total deferred outflows of resources	235,541	285,268
Liabilities		
Current liabilities	29,587	29,347
Noncurrent liabilities	6,994,999	7,389,999
Total liabilities	7,024,586	7,419,346
Net position		
Invested in capital assets, net of related debt and accumulated depreciation	(52,952)	(129,510)
Restricted		
Expendable capital	893,048	995,348
Expendable debt service	787,247	762,996
Unrestricted	901,156	898,829
Total net position	\$ 2,528,499	\$ 2,527,663

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Notes to the Financial Statements

*Wellness Center - Condensed Statements of Revenues, Expenses
and Changes in Net Position*

	2019	2018
Operating revenues	\$ 93,813	\$ 91,197
Operating expenses	(556,216)	(495,515)
Depreciation expense	(268,715)	(268,715)
Operating loss	(731,118)	(673,033)
 Nonoperating revenues	 731,954	 776,783
 Change in net position	 836	 103,750
Net position, beginning of year	2,527,663	2,423,913
 Net position, end of year	 \$ 2,528,499	 \$ 2,527,663

Wellness Center - Condensed Statements of Cash Flows

	2019	2018
Cash flows from		
Operating activities	\$ (562,853)	\$ (505,218)
Noncapital financing activities	461,271	495,584
Capital and related financing activities	2,466	15,166
Investing activities	24,783	7,262
Net increase in cash	(74,333)	12,794
Cash, beginning of year	2,685,370	2,672,576
 Cash, end of year	 \$ 2,611,037	 \$ 2,685,370

21. Risk and Uncertainties

The University invests in various investment securities. Investment securities are exposed to various risks such as interest rate, market and credit risks. Due to the level of risk associated with certain investment securities, it is at least reasonably possible that changes in values of investment securities will occur in the near term and that such change could materially affect the investment amounts reported in the statements of net position.

MURRAY STATE UNIVERSITY
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Notes to the Financial Statements

22. Contingency

As of this date, June 30, 2019, J.H. Richmond Residence Hall is fully restored to the condition it was in prior to the event and was open for occupancy in August 2019.

Other claims related to personal property damage and bodily injury are on file with the Kentucky Claims Commission. The maximum amount/total award for all claims filed with the Kentucky Claims Commission is \$400,000 which is within the limits of general liability insurance in effect at the time of the event.

23. Current Economic Conditions (unaudited)

The current economic environment presents the University with unprecedented circumstances and challenges which, in some cases, have resulted in declines in contributions, governmental support and grant revenue. The financial statements have been prepared using values and information currently available to the University.

24. Subsequent Events

The University issued general receipts bonds in July 2019 totaling \$4.3 million for the refunding of 2009 Series A general receipts bonds originally obtained for the completion of J. H. Richmond Residence Hall and various other projects under \$600,000.

MURRAY STATE UNIVERSITY
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Schedules of Required Supplementary Information

Years ended June 30, 2018, 2017, 2016, 2015, and 2014

Proportionate Share Of The Net Pension and OPEB Liabilities

KERS-Non-Hazardous Pension Plan

	2018	2017	2016	2015	2014
University's proportion of the net pension liability	0.889474%	0.858544%	0.836194%	0.854037%	0.882259%
University's proportionate share of the net pension liability	\$ 121,002,044	\$ 114,944,760	\$ 95,321,852	\$ 85,676,061	\$ 79,154,689
University's covered-employee payroll	\$ 13,430,657	\$ 13,757,275	\$ 12,787,487	\$ 13,188,333	\$ 13,917,604
University's proportionate share of the net pension liability as a percentage of its covered-employee payroll	900.94%	835.52%	745.43%	649.64%	568.74%
Plan fiduciary net position as a percentage of the total pension liability	12.84%	13.00%	14.80%	18.83%	22.32%

KERS-Hazardous Pension Plan

	2018	2017	2016	2015	2014
University's proportion of the net pension liability	0.411530%	0.389490%	0.396922%	0.388584%	0.405301%
University's proportionate share of the net pension liability	\$ 2,078,740	\$ 1,936,158	\$ 1,554,497	\$ 1,332,707	\$ 1,035,001
University's covered-employee payroll	\$ 629,378	\$ 695,282	\$ 585,712	\$ 492,259	\$ 523,146
University's proportionate share of the net pension liability as a percentage of its covered-employee payroll	330.28%	278.47%	265.40%	270.73%	197.84%
Plan fiduciary net position as a percentage of the total pension liability	56.10%	55.00%	57.41%	61.70%	68.74%

See Report of Independent Auditors

MURRAY STATE UNIVERSITY
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Schedules of Required Supplementary Information

Years ended June 30, 2018, 2017, 2016, 2015, and 2014

Proportionate Share Of The Net Pension and OPEB Liabilities (Continued)

KERS-Non-Hazardous OPEB Plan	<u>2018</u>	<u>2017</u>
University's proportion of the net OPEB liability	0.888860%	0.858544%
University's proportionate share of the net OPEB liability	\$ 21,074,087	\$ 21,772,351
University's covered-employee payroll	\$ 13,989,750	\$ 13,677,439
University's proportionate share of the net OPEB liability as a percentage of its covered-employee payroll	150.64%	159.18%
Plan fiduciary net position as a percentage of the total OPEB liability	27.32%	24.40%
 KERS-Hazardous OPEB Plan		
	<u>2018</u>	<u>2017</u>
University's proportion of the net OPEB liability	0.411632%	0.389490%
University's proportionate share of the net OPEB liability	\$ (136,532)	\$ 23,490
University's covered-employee payroll	\$ 783,406	\$ 666,367
University's proportionate share of the net OPEB liability as a percentage of its covered-employee payroll	-17.43%	3.53%
Plan fiduciary net position as a percentage of the total OPEB liability	106.83%	98.80%

MURRAY STATE UNIVERSITY
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Schedules of Required Supplementary Information

Years ended June 30, 2018, 2017, 2016, 2015, and 2014

Proportionate Share Of The Net Pension and OPEB Liability (Continued)

TRS Pension Plan	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>
University's proportion of the net pension liability	0.429000%	0.404176%	0.698165%	0.722622%	0.710400%
University's proportionate share of the net pension liability	\$ 58,888,449	\$ 114,216,721	\$ 215,900,958	\$ 176,518,973	\$ 153,391,029
University's covered-employee payroll	\$ 14,824,781	\$ 13,804,356	\$ 23,671,557	\$ 24,966,648	\$ 24,460,052
University's proportionate share of the net pension liability as a percentage of its covered-employee payroll	397.23%	827.40%	912.07%	707.02%	627.11%
Plan fiduciary net position as a percentage of the total pension liability	59.28%	39.83%	35.22%	42.49%	45.59%
TRS OPEB - Medical	<u>2018</u>	<u>2017</u>			
University's proportion of the net OPEB liability	0.417902%	0.443448%			
University's proportionate share of the net OPEB liability	\$ 14,500,008	\$ 15,812,389			
University's covered-employee payroll	\$ 14,441,272	\$ 15,145,665			
University's proportionate share of the net OPEB liability as a percentage of its covered-employee payroll	100.41%	104.40%			
Plan fiduciary net position as a percentage of the total OPEB liability	25.54%	21.18%			

See Report of Independent Auditors

MURRAY STATE UNIVERSITY
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Schedules of Required Supplementary Information

Years ended June 30, 2018, 2017, 2016, 2015, and 2014

Proportionate Share Of The Net Pension and OPEB Liability (Continued)

TRS OPEB - Life	2018	2017
University's proportion of the net OPEB liability	0.948638%	0.970240%
University's proportionate share of the net OPEB liability	\$ 267,497	\$ 213,055
University's covered-employee payroll	\$ 32,781,704	\$ 33,137,887
University's proportionate share of the net OPEB liability as a percentage of its covered-employee payroll	0.82%	0.64%
Plan fiduciary net position as a percentage of the total OPEB liability	74.97%	79.99%

These schedules will ultimately present ten years of data when available.

MURRAY STATE UNIVERSITY
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Schedules of Required Supplementary Information

Years ended June 30, 2018, 2017, 2016, 2015, and 2014

Schedules of Murray State University Contributions

KERS-Non-Hazardous Pension Plan

	2018		2017		2016		2015		2014	
Contractually required contribution	\$	5,577,805	\$	5,341,635	\$	4,290,378	\$	4,420,027	\$	3,912,372
Contributions in relation to the contractually required contribution		(5,577,805)		(5,341,635)		(4,290,378)		(4,420,027)		(3,912,372)
Contribution deficiency	\$	-	\$	-	\$	-	\$	-	\$	-
University's covered-employee payroll	\$	13,430,657	\$	13,757,275	\$	12,787,487	\$	13,188,333	\$	13,917,604
Contributions as a percentage of covered-employee payroll		41.53%		38.83%		33.55%		33.51%		28.11%

KERS-Hazardous Pension Plan

	2018		2017		2016		2015		2014	
Contractually required contribution	\$	146,694	\$	136,435	\$	94,306	\$	115,000	\$	183,317
Contributions in relation to the contractually required contribution		(146,694)		(136,435)		(94,306)		(115,000)		(183,317)
Contribution deficiency	\$	-	\$	-	\$	-	\$	-	\$	-
University's covered-employee payroll	\$	629,378	\$	695,282	\$	585,712	\$	492,259	\$	523,146
Contributions as a percentage of covered-employee payroll		23.31%		19.62%		16.10%		23.36%		35.04%

MURRAY STATE UNIVERSITY
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Schedules of Required Supplementary Information

Years ended June 30, 2018, 2017, 2016, 2015, and 2014

Schedules of Murray State University Contributions (Continued)

KERS-Non-Hazardous OPEB Plan	<u>2018</u>		<u>2017</u>	
Contractually required contribution	\$	1,142,681	\$	1,108,416
Contributions in relation to the contractually required contribution		<u>(1,142,681)</u>		<u>(1,108,416)</u>
Contribution deficiency	<u>\$</u>	<u>-</u>	<u>\$</u>	<u>-</u>
University's covered-employee payroll	\$	13,989,750	\$	13,677,439
Contributions as a percentage of covered-employee payroll		8.17%		8.10%
KERS-Hazardous OPEB Plan	<u>2018</u>		<u>2017</u>	
Contractually required contribution	\$	15,463	\$	17,734
Contributions in relation to the contractually required contribution		<u>(15,463)</u>		<u>(17,734)</u>
Contribution deficiency	<u>\$</u>	<u>-</u>	<u>\$</u>	<u>-</u>
University's covered-employee payroll	\$	783,406	\$	666,367
Contributions as a percentage of covered-employee payroll		1.97%		2.66%

MURRAY STATE UNIVERSITY
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Schedules of Required Supplementary Information

Years ended June 30, 2018, 2017, 2016, 2015, and 2014

Schedules of Murray State University Contributions (Continued)

TRS Pension Plan	<u>2018</u>		<u>2017</u>		<u>2016</u>		<u>2015</u>		<u>2014</u>	
Contractually required contribution	\$	5,349,835	\$	5,326,832	\$	5,555,229	\$	5,684,344	\$	5,519,075
Contributions in relation to the contractually required contribution		<u>(5,349,835)</u>		<u>(5,326,832)</u>		<u>(5,555,229)</u>		<u>(5,684,344)</u>		<u>(5,519,075)</u>
Contribution deficiency	<u>\$</u>	<u>-</u>								
University's covered-employee payroll	\$	14,824,781	\$	13,804,356	\$	23,671,557	\$	24,966,648	\$	24,460,052
Contributions as a percentage of covered-employee payroll		36.09%		38.59%		23.47%		22.77%		22.56%

TRS-Medical OPEB Plan	<u>2018</u>		<u>2017</u>	
Contractually required contribution	\$	744,415	\$	759,751
Contributions in relation to the contractually required contribution		<u>(744,415)</u>		<u>(759,751)</u>
Contribution deficiency	<u>\$</u>	<u>-</u>	<u>\$</u>	<u>-</u>
University's covered-employee payroll	\$	14,441,272	\$	15,145,665
Contributions as a percentage of covered-employee payroll		5.15%		5.02%

See Report of Independent Auditors

MURRAY STATE UNIVERSITY
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Schedules of Required Supplementary Information

Years ended June 30, 2018, 2017, 2016, 2015, and 2014

Schedules of Murray State University Contributions (Continued)

TRS-Life OPEB Plan	2018	2017
Contractually required contribution	\$ 9,288	\$ 9,362
Contributions in relation to the contractually required contribution	(9,288)	(9,362)
Contribution deficiency	\$ -	\$ -
University's covered-employee payroll	\$ 32,781,704	\$ 33,137,887
Contributions as a percentage of covered-employee payroll	0.03%	0.03%

There were no changes to benefit terms for the plans' year ended June 30, 2018. Changes in assumptions did occur for the KERS and TRS plans as the result of a change in the discount rates, which changed from 5.25% and 4.49%, respectively, in plan year 2017 to 5.25% and 7.50%, respectively, in plan year 2018.

These schedules will ultimately present ten years of data when available.

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*

Report of Independent Auditors

Board of Regents
Murray State University
Murray, Kentucky

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 Murray State University (the University), as of and for the years ended June 30, 2019 and 2018, and the related notes to the financial statements which collectively comprise the University's basic financial statements, and have issued our report thereon dated October 2, 2019.

Internal Control Over Financial Reporting

In planning and performing our audits 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 opinion 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. We did identify a certain deficiency in internal control, described in the accompanying schedule of findings and responses as item 2019-001, which we consider to be a significant deficiency.

Compliance and Other Matters

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

The University's Response to Finding

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

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the 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.

Dean Dotson Allen Ford, PLLC

Lexington, Kentucky
October 2, 2019

MURRAY STATE UNIVERSITY

Schedule of Findings and Responses

Year ended June 30, 2019

Section I - Summary of Auditors' Results:

Financial Statements:

a. The type of auditors' report issued on the financial statements: **Unmodified opinion**

b. Internal control over financial reporting:

Material weaknesses identified: **No**

Significant deficiency identified: **Yes**

c. Noncompliance material to the financial statements noted: **No**

Section II – Financial Statement Finding:

Findings Relating to the Financial Statements Reported in Accordance with Government Accounting Standards:

Finding 2019-001:

Condition, effect, and recommendation:

During 2019, the University and Murray State University Foundation, Inc. (the Foundation), fell victim to a sophisticated and relatively new business email compromise scheme. The University had contracted with a vendor to purchase equipment for the Wellness Center for approximately \$33,000. The Foundation was providing funds for the purchase. In May of 2019, the University received an invoice and payment request via a compromised look-a-like email account. The provided invoice flowed through the disbursement process and was approved by appropriate parties. In order to provide payment via ACH as requested by the vendor, the University provided the vendor a direct deposit form. The direct deposit form was returned with the fraudulent banking information from the compromised email account. The payment was remitted to the fraudulent bank account on May 16, 2019. The University discovered the error in June 2019, when the vendor inquired of the University accounting department about the unpaid invoice. The University's control structure did not prevent the fraudulent payment. Based upon all communication with the vendor being email, we recommend that the University implement a policy that requires independent confirmation of any change in banking information directly with the vendor.

MURRAY STATE UNIVERSITY

Schedule of Findings and Responses, continued

Year ended June 30, 2019

Finding 2019-001, continued:

Management response and planned corrective action:

The University has implemented a new procedure to independently confirm vendor banking information. Additionally, two-factor authentication was made mandatory for faculty, staff and students on October 1, 2019. The University strives to continuously identify methods to improve internal controls and increase security.

The Foundation recovered this loss, with the exception of a small deductible, through insurance proceeds.