MICHIGAN STATE UNIVERSITY

2023 ANNUAL FINANCIAL REPORT

TABLE OF CONTENTS

MICHIGAN STATE UNIVERSITY
TRUSTEES, EXECUTIVE TEAM, AND FINANCE MANAGEMENT

EXECUTIVE TEAM

Teresa K. Woodruff, Ph.D.
Interim President

Thomas Jeitschko, Ph.D.
Interim Provost and Executive Vice President for Academic Affairs

Melissa Woo, Ph.D.
Executive Vice President for Administration and Chief Information Officer

Norman J. Beauchamp Jr., M.D., MHS
Executive Vice President for Health Sciences

Rebecca T. Barber, Ph.D., MBA
Vice President of Financial Planning and Analysis

Bill Beekman, J.D., MBA
Vice President of Strategic Initiatives

Jabbar R. Bennett, Ph.D.
Vice President and Chief Diversity Officer

Dan Bollman, MS
Vice President for Strategic Infrastructure Planning and Facilities

Christina Brogdon, MBA, PHR
Vice President and Chief Human Resources Officer

Michael Brown, M.D.
University Physician

Lisa A. Frace, MBA
Senior Vice President, Chief Financial Officer, and Treasurer

Douglas Gage, Ph.D.
Vice President for Research and Innovation

Vennie G. Gore, MS
Senior Vice President for Student Life & Engagement

Emily Guerrant, MA
Vice President and University Spokesperson

Alan Haller, MA
Vice President and Director of Intercollegiate Athletics

Marlon Lynch, MS
Vice President and Chief Safety Officer

Brian T. Quinn, J.D.
Vice President for Legal Affairs and General Counsel

Laura Rugless, J.D.
Vice President for Civil Rights and Title IX and Compliance

Heather C. Swain
Vice President for Marketing, Public Relations and Digital Strategy

Kim Tobin, Ph.D.
Vice President for University Advancement

Marilyn K. Tarrant, CPA, CHC
Chief Audit, Risk, and Compliance Officer

Kathleen Wilbur, Ph.D.
Senior Vice President for Government Relations

Philip Zecher, Ph.D.
Chief Investment Officer

Michael Zeig, Ph.D.
Chief of Staff and Special Assistant to the President

OFFICE OF THE SENIOR VICE PRESIDENT FOR FINANCE, CHIEF FINANCIAL OFFICER, AND TREASURER

Lisa A. Frace, MBA
Senior Vice President, Chief Financial Officer, and Treasurer

Rebecca T. Barber, Ph.D., MBA
Vice President of Financial Planning and Analysis

Gregory J. Deppong, CPA, MPA
Associate Vice President and University Controller

Matthew G. McCabe, CPCU, MBA
Executive Director of Risk Management and Insurance

Evonne Pedawi
Executive Director of Contract and Grant Administration

Jeffrey Rayis, CPA, CTP, MBA
Assistant Vice President of Treasury and Financial Management

Twila Fisher Reighley, MBA
Associate Vice President for Research and Sponsored Programs Administration

Michael L. Stokes, CPA
Assistant Vice President for Financial Planning and Budget

OFFICE OF THE CONTROLLER

Gregory J. Deppong, CPA, MPA
Associate Vice President and University Controller

Vincent Schimizzi, CPA
Associate Controller

John L. Thelen, CPA, MSA
Assistant Controller

Shea Bryant, CPA, MSA
Financial Analysis and Reporting Manager

Lee Hunter
Chief Accountant

Ethel J. Mason, CPA
Accounting Manager

Lynn Lee, MBA
Budget and Human Resources Manager

Mary H. Nelson, CPA, ISA
University Financial Services Manager

Edward Phillips, GTP
University Travel Manager

Elizabeth L. Powers
University Tax Manager

Kathryn Reasner, CPA, MSA
Receivables Manager

Laurie K. Schlenke
Student Account Services Manager

Lindy Smith, MSA
Payroll Operations Manager

Steven J. Ueberroth
Finance Business Application Support Functional Manager

Amanda Zhang, MSCS
Finance Business Application Support Technical Manager

Message from the President

Teresa K. Woodruff, Ph.D.

Interim President
MSU Research Foundation Professor

October 26, 2023

Dear Spartans,

We are pleased to present our annual financial statements. These results are the culmination of the collective efforts of faculty and staff across the institution to achieve the vision outlined in our strategic plan. When I became interim president last November, I asked each of you to “look upward” to find strength, confidence and Spartan pride. As I reflect on the past year, I feel even more confident in our upward trajectory and am inspired by our collective achievements in fostering excellence and opportunity for all.

Our excellent stewardship of institutional resources enables our high-quality teaching, research and engagement programs and propels student success at a scope and scale that is transformative to the world around us. These and so many other Spartan efforts speak to the measure of our rise as a great university.

And the world is taking notice.

Our exceptional educational experience has been recognized in national rankings. For example, U.S. News & World Report has elevated MSU to 60th in the nation among all U.S. colleges and universities—a remarkable 17-place leap and the highest ranking in our history. We also received accolades in the Wall Street Journal, Washington Monthly and Forbes, which respectively ranked MSU no. 14, no. 21 and no. 24 among public universities.

Our research excellence continues to shine and illuminate a brighter future. We reached, for example, the 48th spot in the National Academy of Inventors’ ranking of universities granted patents last year. And we reported a remarkable $49 million increase in federal research dollars funding, reaching a total of $759 million in support for our research endeavors—a historic high.

Finally, historic numbers of students are choosing MSU to continue their education, underscoring our institution’s excellence in preparing the next generation of citizens and leaders. Our strengthening persistence numbers are also worth celebrating because our time-to-degree numbers fell below four calendar years for the second year in a row.

May we continue to look upward and think well of MSU and its purpose, legacy and excellence. For the good and impactful work that Spartans ennoble through teaching, research and outreach is contributing to our rise as a great university.

My Spartan Best,

Teresa K Woodruff

Message from the CFO

Lisa Frace

Senior Vice President,
Chief Financial Officer
and Treasurer

October 26, 2023

I am pleased to present our audited financial reports for the fiscal years ending June 30, 2023, and June 30, 2022. In support of our mission, we continue to deploy diverse revenue streams, including student tuition and fees, state appropriations, federal and state-sponsored programs, private gifts and grants, and investment income. Our balance sheet remains strong, a testament to all who have come before us with that same focus on responsible stewardship.

Highlights from the financial report for the fiscal year ending June 30, 2023:

- The University's financial assets totaled $8.5 billion.
- Revenues totaled $3.1 billion while expenses totaled $3.0 billion.
- MSU's net position was $5.3 billion.

The strength of our balance sheet ensures that our credit ratings remain strong. The University issued Series 2023A bonds to refund existing debt, resulting in savings on future debt service. We continue to manage our operations within the resources available, with a strong reliance on the diverse revenue streams we have built. The institution continues to plan investments that will further expand that diversification, enhance our margins, and ensure ongoing support for excellence in academic and research programs and achievement of the aspirational goals set forth in our strategic plan.

Throughout this journey, our financial team has remained steadfast in upholding fiscal integrity. We recognize the responsibility that comes with managing our institution's financial resources, especially considering challenges posed by inflation, economic uncertainty, and the related impacts felt within the MSU community. MSU's 2030 strategic plan reaffirms our dedication to long-term financial sustainability and guides us to be prudent financial stewards of institutional resources.

The past year stands as a testament to the unwavering resilience and dedication of the entire MSU community. Together, we are not only inspiring the next generation of Spartans to greatness but also shaping a brighter and more promising tomorrow.

Go Green!

Lisa A Frace

Plante & Moran, PLLC
Suite 300
750 Trade Centre Way
Portage, MI 49002
Tel: 269.567.4500
Fax: 269.567.4501
plantemoran.com

Independent Auditor's Report

To the Board of Trustees
Michigan State University

Report on the Audits of the Financial Statements

Opinions

We have audited the financial statements of the business-type activities and discretely presented component unit of Michigan State University (the "University") as of and for the years ended June 30, 2023 and 2022 and the related notes to the financial statements, which collectively comprise the University's basic financial statements, as listed in the table of contents.

In our opinion, based on our audits and the report of other auditors, the accompanying financial statements referred to above present fairly, in all material respects, the respective financial position of the business-type activities and discretely presented component unit of the University and as of June 30, 2023 and 2022 and the respective changes in its financial position and, where applicable, its cash flows thereof for the years then ended in accordance with accounting principles generally accepted in the United States of America.

We did not audit the financial statements of the discretely presented component unit, Michigan State University Foundation (the "Foundation"), which represents all of the assets, net position, and revenue of the discretely presented component unit. Those financial statements were audited by other auditors, whose report has been furnished to us, and our opinion, insofar as it relates to the amounts included for the Foundation, is based solely on the report of the other auditors. The financial statements of the Foundation were not audited under *Government Auditing Standards*.

Basis for Opinions

We conducted our audits in accordance with auditing standards generally accepted in the United States of America (GAAS) and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audits of the Financial Statements* section of our report. We are required to be independent of the University and to meet our other ethical responsibilities in accordance with the relevant ethical requirements relating to our audits. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.The financial statements of the Foundation were not audited under

Emphasis of Matter

As described in Note 1 to the financial statements, the University adopted the provisions of GASB 93, *Replacement of Interbank Offered Rates*, and GASB 96, *Subscription-Based Information Technology Arrangements*, as of June 30, 2023. Our opinion is not modified with respect to this matter.

Responsibilities of Management for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America and for 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.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the University's ability to continue as a going concern for 12 months beyond the financial statement date, including any currently known information that may raise substantial doubt shortly thereafter.

To the Board of Trustees
Michigan State University

Auditor's Responsibilities for the Audits of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinions. Reasonable assurance is a high level of assurance but is not absolute assurance and, therefore, is not a guarantee that audits conducted in accordance with GAAS and *Government Auditing Standards* will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing audits in accordance with GAAS and *Government Auditing Standards*, we:

- Exercise professional judgment and maintain professional skepticism throughout the audits.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audits 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 University's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the University's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audits, significant audit findings, and certain internal control-related matters that we identified during the audits.

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and schedule of changes in the University's total OPEB liability and related ratios be presented to supplement the basic financial statements. Such information is the responsibility of management and, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, which considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required 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 audits 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 Supplementary Information

Management is responsible for the accompanying listing of trustees, executive team, and finance management; the message from the president; and the message from the chief financial officer, which are presented for the purpose of additional analysis and are not a required part of the basic financial statements. Our opinions on the financial statements do not cover such information, and we do not express an opinion or any form of assurance thereon.

To the Board of Trustees
Michigan State University

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated October 26, 2023 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, grant agreements, and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the University's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the University's internal control over financial reporting and compliance.

Plante & Moran, PLLC

October 26, 2023

Introduction

The following discussion provides an overview of the financial position of Michigan State University (the "University") for the fiscal years ended June 30, 2023 and 2022.

Included is an analysis of the University's Statement of Net Position, which presents the assets, deferred outflows, liabilities, deferred inflows, and net position of the University. All are measured as of the fiscal year end. The Statement of Revenues, Expenses, and Changes in Net Position reflects revenues and expenses recognized during the fiscal year. These financial statements are prepared in accordance with Governmental Accounting Standards Board (GASB) principles.

The Michigan State University Research Foundation (the "Foundation") is a legally separate entity that meets the criteria set forth for component units under GASB regulations. The Foundation provides financial support for the objectives, purposes, and programs of the University. Although the University does not control the timing, purpose, or amount of its receipts from the Foundation, the resources (and income thereon) the Foundation holds and invests are solely for the benefit of the University. Because the Foundation's resources are solely for the benefit of the University, the Foundation is considered a component unit of the University and is discretely presented in the University's financial statements. The Foundation is a private organization that reports under Financial Accounting Standards Board (FASB) standards. As such, certain revenue recognition criteria and presentation features are sometimes different from GASB. No modifications have been made to the Foundation financial information included in the University's financial report to account for these differences.

MSU Health Care, Inc. and Lysander Series of Aesir Series, LLC ("Lysander") are additional legally separate entities that meet the criteria set forth for component units under GASB regulations. MSU Health Care, Inc. is a multi-specialty medical practice that operates the University's primary care, sports medicine, diagnostics, testing, and other services. The University is the sole corporate member of MSU Health Care, Inc., which is reported as a blended component unit. Lysander is a cell captive insurance company used by the University to gain access to global reinsurers for purposes of obtaining general liability insurance and automobile liability insurance. Lysander exclusively benefits the University, and the University has full control of Lysander, which is also reported as a blended component unit.

Effective for the fiscal year ended June 30, 2023, the University adopted GASB Statements No. 93, *Replacement of Interbank Offered Rates* ("GASB 93") and No. 96, *Subscription-Based Information Technology Arrangements* ("GASB 96"). GASB 93 addresses the cessation of the London Interbank Offered Rate (LIBOR) allowing the University to maintain hedge accounting for swaps where the only change in the agreement was to replace LIBOR with an appropriate benchmark interest rate that meets certain requirements. The University's swap agreements were updated in a manner that did not require a change in accounting and thus no retroactive reporting was required. GASB 96 defines subscription-based information technology arrangements (SBITAs) and establishes new requirements for calculating and reporting the University's SBITAs activity. The University recognized SBITA assets and related SBITA payables at the present value of expected future payments for the arrangements. The impacts to the Statement of Revenues, Expenses, and Changes in Net Position include reclassifying certain SBITA payments from operating revenues and expenses to nonoperating revenues and expenses and recognizing annual amortization of SBITA assets over the term of the arrangement. The adoption of GASB 96 has been reflected as of July 1, 2020. The financial statements for the year ended June 30, 2022 and 2021 have been restated to present the impact of GASB 96. See footnote 1 for more details.

The University's financial statements, related footnote disclosures, and required supplementary information (RSI), including management's discussion and analysis, have been prepared by management. GASB required supplementary information is not audited and should be read in conjunction with the financial statements and footnotes.

Statement of Net Position

The Statement of Net Position includes all assets, deferred outflows, liabilities, and deferred inflows. It is prepared under the accrual basis of accounting, whereby revenues and assets are recognized when services are provided and expenses and liabilities are recognized when others provide the services, regardless of when cash is exchanged. Deferred outflows and deferred inflows of resources are recognized through the consumption or acquisition of resources by the University that is applicable to a future reporting period. Assets, deferred outflows, liabilities, and deferred inflows are generally measured using current values. One exception is capital assets, which are stated at historical cost less an allowance for depreciation rather than current market values.

Below is a summarized comparison of the University's assets, deferred outflows, liabilities, deferred inflows, and net position at June 30, 2023, 2022, and 2021.

	2023	2022 (as restated)	2021 (as restated)
		(in millions)	
Current assets	$ 1,233	$ 1,615	$ 1,140
Noncurrent assets:			
Endowment and other investments	4,112	3,736	3,862
Capital assets, net	3,016	2,967	2,975
Other	174	177	158
Total assets	8,535	8,495	8,135
Deferred outflows of resources	485	567	622
Current liabilities	633	693	659
Noncurrent liabilities	2,702	2,852	2,403
Total liabilities	3,335	3,545	3,062
Deferred inflows of resources	427	357	377
Net Investment in Capital Assets	1,595	1,493	1,484
Restricted:			
Nonexpendable	1,052	1,001	884
Expendable	1,481	1,411	1,523
Unrestricted	1,130	1,255	1,427
Net position	$ 5,258	$ 5,160	$ 5,318

For more detailed information see the accompanying Statements of Net Position.

Current assets:

Current assets consist of cash and cash equivalents, investments, net accounts and interest receivable, and other assets. During 2023, cash and cash equivalents decreased $64 million. The decrease is a function of the University's operating, financing, and investing activities as reported in the statement of cash flows. Investments decreased $361 million, primarily due to decreases in short-term investment reserves. Net receivables increased $28 million, primarily due to a $37 million increase in sponsored programs receivable and a $5 million increase in student receivables, offset by a $16 million decrease in State sponsored medical program related receivables.

During 2022, cash and cash equivalents increased $22 million. The increase is a function of the University's operating, financing, and investing activities as reported in the statement of cash flows. Investments increased $428 million, primarily due to increases in short-term investment reserves, which includes the proceeds from the Series 2022A taxable bonds issued during the year. Net receivables increased $23 million, primarily due to a $10 million increase in student receivables, a $4 million increase in sponsored programs receivable, and a $3 million increase in interest receivable.

Noncurrent assets:

Endowment and other investments

At June 30, 2023 and 2022, the University's endowment investments totaled $3,803 million (an increase of $334 million) and $3,469 million (a decrease of $111 million), respectively. During the years ended June 30, 2023, 2022, and 2021, the University's endowment activity was as follows:

	2023	2022	2021
		(in millions)	
Beginning balance	$ 3,469	$ 3,580	$ 2,800
College of Law merged investments	-	-	11
Gifts and University additions	49	110	51
Investment earnings net of transfers	195	(505)	803
Reallocation (to)/from operating funds	90	284	(85)
Ending balance	$ 3,803	$ 3,469	$ 3,580

Other investments consisted primarily of operating reserves related to retirement benefits and postemployment benefits, which totaled $129 million and $125 million at June 30, 2023 and 2022, respectively. Also included in other investments was the Liquidity Reserve Pool component of the University's Operating Cash Pool ($150 million and $107 million in 2023 and 2022, respectively).

Capital assets

The University continues to implement its long-range plan to modernize and renew its teaching, research, and residential life facilities in support of its mission.

At June 30, 2023, 2022, and 2021, the University's investments in capital assets were as follows:

	2023	2022 (as restated)	2021 (as restated)
		(in millions)	
Land	$ 51	$ 49	$ 49
Buildings and site improvements	4,404	4,464	4,168
Construction in progress	155	145	340
Software and other intangibles	151	150	145
Equipment and other	1,320	1,032	1,022
Museum collections	29	29	27
Right-to-use assets	109	109	61
Less: accumulated depreciation and amortization	(3,203)	(3,011)	(2,837)
	$ 3,016	$ 2,967	$ 2,975

Additions to buildings and site improvements during 2023 and 2022 included:

	2023	2022
	(in millions)	
TB Simon Power Plant - RICE and steam boiler	$ 64	$ -
4660 and 4700 Hagadorn buildings	47	-
Service Road field - artificial turf and support building	12	-
Facility for Rare Isotope Beams specialized equipment	-	254
Munn Ice Arena	-	8
Other	71	33
Total	$ 194	$ 295

Construction in progress reflects multi-year projects which, once completed and placed into service, are generally categorized as buildings and site improvements. Balances at June 30, 2023 and 2022 included:

	2023	2022
	(in millions)	
Duffy Daugherty renovation and addition	$ 48	$ -
Farm Lane bridge and road reconstruction	7	-
Health, Wellness, and Fitness Building	7	-
TB Simon Power Plant upgrades	-	57
Veterinary Medical Center - HVAC	-	8
Service Road field - artificial turf and support building	-	8
Other	93	72
Total construction in process	$ 155	$ 145

As of June 30, 2023, the University had initiated plans and incurred certain contractual commitments related to the construction and renovation of various facilities. The costs to complete the projects are estimated to be $157 million and are to be funded over multiple years from debt proceeds, capital grants, private gifts, and other University funds.

Deferred outflows of resources:

At June 30, 2023 and 2022, deferred outflows of resources totaled $485 million (a decrease of $82 million) and $567 million (a decrease of $55 million), respectively. In 2023, deferred amounts related to changes in assumptions used to calculate the valuation of other postemployment benefits and related contributions made subsequent to the measurement date (in accordance with GASB No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions* ("GASB 75")) decreased by $64 million. Adding to this decrease was a decrease of $17 million in the fair value of hedging derivative instruments and a $1 million decrease in deferred losses on refunding debt in 2010.

Current liabilities:

Current liabilities consist primarily of trade accounts and interest payable, accrued compensation and other personnel costs, unearned revenues, and other liabilities payable within one year or less. The net decrease in 2023 was due primarily to decreases of $33 million in accrued personnel costs, $21 million in payroll taxes and other payroll deductions, and the current portion of long-term debt and other obligations of $47 million, offset by increases in trade accounts payable of $14 million, deposits held for others of $13 million, and unearned revenues of $13 million. Accrued personnel costs decreased primarily due to an accrual at June 30, 2022, for a one-time payment made during fiscal year 2023 to faculty, academic staff, and executive management, who were currently employed, to offset some of the financial implications of lost retirement contributions incurred during the COVID-19 pandemic which totaled $26 million. No such payable existed at June 30, 2023. Payroll taxes and other payroll deductions decreased due to deferred social security taxes accumulated in accordance with the CARES Act during the COVID-19 pandemic being remitted in December 2022 as required by the program. These deferred social security taxes totaled $22 million at June 30, 2022.

The net increase in 2022 was due primarily to increases in accrued personnel costs of $28 million and unearned revenues of $8 million, offset by decreases of $22 million in payroll taxes and other payroll deductions and the current portion of long-term debt and other obligations of $7 million. Accrued personnel costs increased primarily due to an accrual for a one-time payment to be made to faculty, academic staff, and executive management, who are currently employed, to offset some of the financial implications of lost retirement contributions incurred during the COVID-19 pandemic totaling $26 million. No such payable existed at June 30, 2021. Payroll taxes and other payroll deductions decreased due to the last payroll tax payments of the year being made on June 30, 2022, while in the prior year they were made early in July and thus accrued at year-end.

Noncurrent liabilities, primarily debt and net postemployment benefit obligations:

At June 30, 2023, the University had noncurrent debt and other obligations outstanding of $2,114 million compared with $2,135 million at June 30, 2022. During the year ended June 30, 2023, the University issued Series 2023A ($307 million) bonds which were used to refund Series 2013A, Series 2007B, Series 2005, Series 2003A, and Series 2000A bonds along with certain commercial paper. The University also terminated a series of interest rate swap arrangements related to variable rate debt (Series 2007B, 2005, 2003A, 2000A) as part of the refunding. During the year ended June 30, 2022, the University issued Series 2022A ($500 million) taxable bonds which are "century bonds" with principal due in one lump payment in 2123. The proceeds may be expended at the University's discretion and will be used as a revolving fund for a variety of projects aligned with the strategic initiatives of the University. The University has outstanding General Revenue Bonds of $2,073 million and $2,097 million in 2023 and 2022, respectively (including $123 million and $105 million in 2023 and 2022, respectively, of related original issue premiums). The University periodically reviews its debt capacity and related capital asset needs to optimize the use of its long-term resources. As of June 30, 2023, the University's outstanding General Revenue debt carried an investment grade credit rating from Moody's and Standard & Poor's of Aa2 and AA, respectively.

At June 30, 2023 and 2022, the noncurrent portion of the University's net postemployment benefit obligations (OPEB) totaled $515 million (a decrease of $108 million) and $623 million (an increase of $15 million), respectively. Provisions of GASB 75 require revaluing the unfunded liability using a 20-year tax-exempt municipal rate on an annual basis. As a result, the liability estimate for financial reporting is susceptible to dramatic variation from year to year. Although the financial reporting liability will be changing, the University's approach to funding the retirement benefits continues to be on a pay-as-you-go basis. Thus, there will be no impact on the payment of the other postemployment benefits.

Deferred inflows of resources:

At June 30, 2023 and 2022, deferred inflows of resources totaled $427 million and $357 million, respectively (an increase of $70 million). In 2023, deferred inflows of resources representing deferred amounts due to changes in assumptions used to calculate the valuation of other postemployment benefits increased by $54 million. Deferred inflows of resources attributable to the University's investment value resulting from irrevocable split-interest agreements (primarily Charitable Remainder Trusts) at June 30, 2023 and 2022 totaled $22 million and $21 million (an increase of $1 million), respectively. In accordance with GASB 81, amounts are deferred until all provisions of the agreements are satisfied. Deferred inflows of resources of $4 million and $5 million were recognized in 2023 and 2022 (a decrease of $1 million), respectively, due to gains on bond refunding related to the refunding of the 2010C bonds. Deferred inflows of resources attributable to the lease agreements in which the University is the lessor at June 30, 2023 and 2022 totaled $38 million and $29 million (an increase of $9 million), respectively. During the year ended June 30, 2023, the University recognized a $7 million gain on bond refunding related to the Series 2023A bond issuance and the resulting refunding.

Net position:

Net position represents residual University assets and deferred outflows after liabilities and deferred inflows are deducted. The University's net position at June 30, 2023, 2022, and 2021 was as follows:

	2023	2022	2021
		(in millions)	
Net investment in capital assets	1,595	$ 1,493	$ 1,484
Restricted:			
Nonexpendable	1,052	1,001	884
Expendable	1,481	1,411	1,523
Total restricted	2,533	2,412	2,407
Unrestricted	1,130	1,255	1,427
Total Net Position	$ 5,258	$ 5,160	$ 5,318

Net investment in capital assets represents the University's land, buildings, software, and equipment net of accumulated depreciation and amortization and outstanding principal balances of debt attributable to the acquisition, construction, or improvement of those assets.

Restricted nonexpendable net position is subject to externally imposed stipulations that they be maintained permanently. Such net position includes the corpus portion (historical value) of gifts to the University's permanent endowment funds and certain investment earnings stipulated by the donor to be reinvested permanently.

Restricted expendable net position is subject to externally imposed restrictions governing its use. Such net position includes the net appreciation of the University's permanent endowment funds that have not been stipulated by the donor to be reinvested permanently, restricted quasi-endowments, restricted gifts, and federal and state sponsored programs. During 2023, expendable restricted net position increased by $69 million. The increase was primarily attributed to receipts of funds restricted for research projects, gifts, and term endowments exceeding funds used for those purposes during the year.

Unrestricted net position is not subject to externally imposed restrictions; however, virtually all of the University's unrestricted net position is subject to internal designation to meet various specific commitments. These commitments include funding the completion of the 2023 summer semester and the first quarter of fiscal year 2024, maintaining reserves for capital projects, sustaining working capital balances for self-supporting departmental activities, and preserving unrestricted quasi and term endowments.

Statement of Revenues, Expenses, and Changes in Net Position

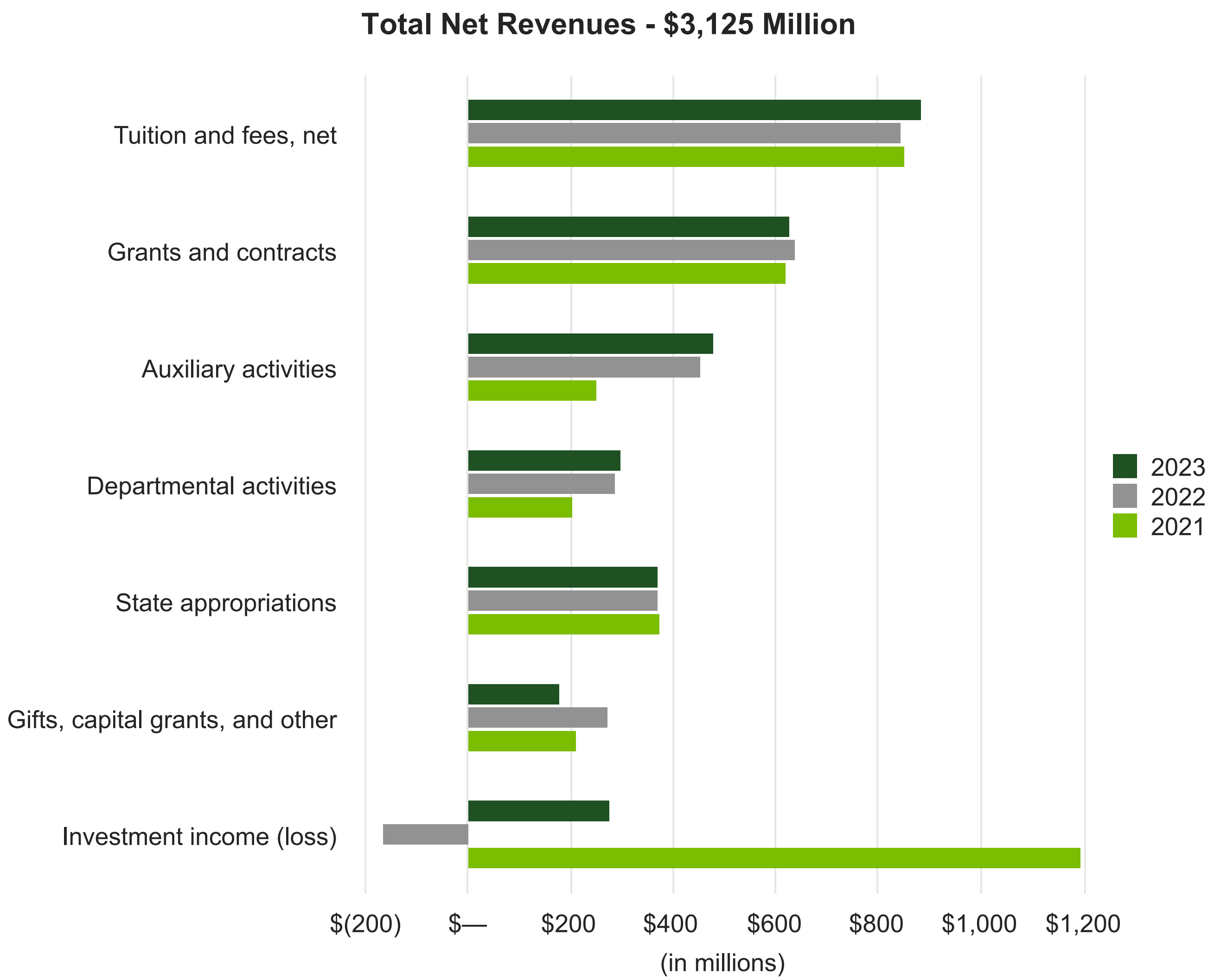
The Statement of Revenues, Expenses, and Changes in Net Position presents the operating results of the University, as well as the nonoperating revenues and expenses. Operating revenues primarily include net student tuition and fees, grants and contracts, and auxiliary activities. Given a public university's dependency on revenues such as state appropriations, gifts, and investment income, which are prescribed by GASB as nonoperating revenues, operating expenses will typically exceed operating revenues, resulting in an operating loss. Net nonoperating revenues or expenses are an integral component in determining the increase or decrease in net position.

A summarized comparison of the University's revenues, expenses, and changes in net position for the years ended June 30, 2023, 2022, and 2021 follows:

	2023	2022 (as restated)	2021 (as restated)
		(in millions)	
Operating revenues:			
Student tuition and fees, net of allowances	$ 887	$ 846	$ 853
Grants and contracts	585	509	478
Auxiliary activities	481	454	251
Other operating revenues	299	287	207
Total operating revenues	2,252	2,096	1,789
Operating expenses:			
Instruction and departmental research	792	752	684
Research	450	411	375
Public service	366	354	300
Academic support	147	124	117
Student services	63	58	57
Scholarships and fellowships	86	125	109
Institutional support	160	154	169
Operation and maintenance of plant	150	134	121
Auxiliary enterprises	438	388	264
Other postemployment benefits expense	49	63	(1,601)
Depreciation and amortization	229	223	206
Other operating expenses, net	3	4	9
Total operating expenses	2,933	2,790	810
Operating (loss) income	(681)	(694)	979
Nonoperating revenues (expenses):			
State operating appropriation	304	303	289
State AgBioResearch appropriation	37	35	35
State Extension appropriation	32	31	30
Federal Pell grant revenue	43	45	44
Coronavirus federal grants and aid	-	85	101
Gifts	79	113	119
Net investment income (loss)	278	(164)	1,196
Interest expense on indebtedness	(94)	(78)	(71)
Other nonoperating revenues, net	12	17	5
Net nonoperating revenues	691	387	1,748
Income (loss) before other	10	(307)	2,727
State capital appropriations	1	3	20
Capital grants and gifts	48	38	42
Additions to permanent endowments	39	107	46
Increase (decrease) in net position	98	(159)	2,835
Net position, beginning of year	5,160	5,318	2,464
Beginning net position adjustment	-	1	19
Net position, beginning of year, restated	5,160	5,319	2,483
Net position, end of year	$ 5,258	5,160	5,318

The University is supported by a diverse stream of revenue including student tuition and fees, state appropriations, federal and state sponsored programs, private gifts and grants, and investment income. The University continues to seek revenue from all possible sources consistent with its mission and to manage the financial resources to make quality education affordable to its students.

Total net revenues by source for the years ended June 30, 2023, 2022, and 2021, respectively, are presented in millions of dollars:



The University recognized student tuition and fees revenues (net of scholarship allowances) totaling $887 million and $846 million in 2023 and 2022, respectively. Gross tuition and fees revenue increased $62 million, due in part to increases in student enrollment and tuition rates, which was offset by an increase in scholarship allowance of $21 million. In 2022, gross tuition and fees increased by $11 million due in part to increases in tuition rates, offset with an $18 million increase in scholarship allowance.

Federal grants and contracts revenues in 2023 totaled $481 million (an increase of $64 million), including $463 million in sponsored programs. In 2022, federal grants and contracts increased by $31 million. In 2022, the University was awarded $2 million in federal funding through a Shuttered Venues Operating Grant. In 2021, the University was awarded $82 million in federal funding through the American Rescue Plan (ARP), and $7 million in federal funding through a Shuttered Venues Operating Grant (SVOG). In accordance with the grants and aid, the

University must meet certain eligibility requirements before recognizing the funding. For 2022, the University provided $39 million to students as emergency financial aid grants (ARP), utilized $39 million in institutional aid (ARP), and received reimbursement for $5 million in expenses (SVOG) which was recognized as revenue during the year. In addition, $2 million of federal CARES Act: Provider Relief Funding was recognized as an eligible health care provider. See footnote 1 for more details.

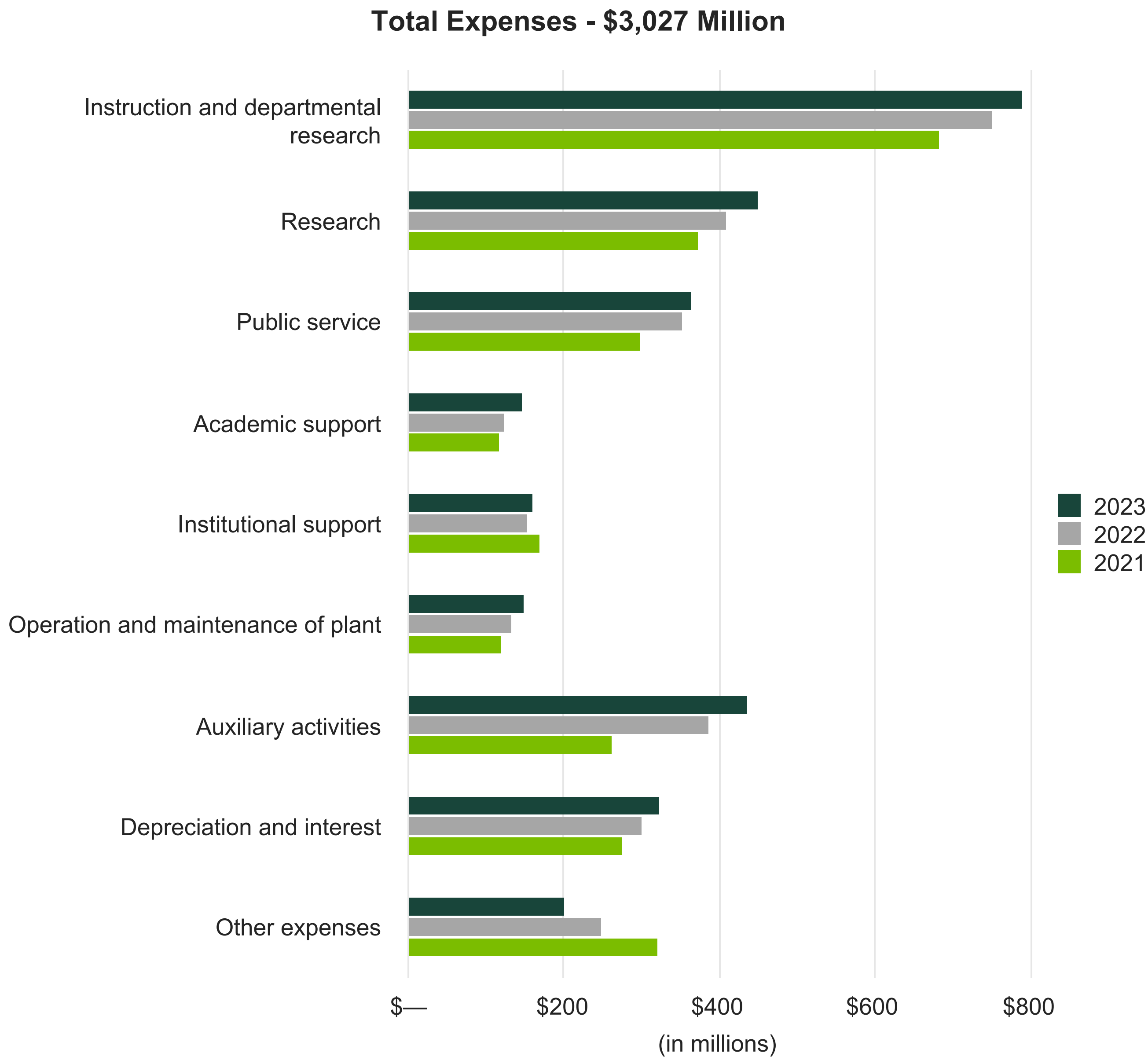
Auxiliary activities revenues (activities that provide services to students, faculty, staff, and the public) totaled $481 million (an increase of $27 million) in 2023. The increase in auxiliary activities was primarily due to an increase in students on campus during the year driven by a new student success initiative requiring most sophomores to live on campus which impacted residential housing services, dining, and other auxiliary activities. In 2022, auxiliary activities increased $203 million which was driven by the easing of COVID-19 pandemic restrictions after vaccines became widely available which allowed for more standard operations for athletics, residential housing services and dining, and other auxiliary activities.

State appropriations revenues totaled $373 million in 2023, an increase of $4 million. In 2023, the University received $304 million in funding for general operations, compared to $303 million in 2022. Michigan State University Extension and MSU AgBioResearch appropriations totaled $69 million, an increase of $3 million from 2022. In 2023, the University also recognized $1 million in state capital appropriations, compared to $3 million in 2022.

Other significant components of revenues in 2023 included net investment income, which increased $442 million due to market conditions. In 2022, net investment income decreased $1,360 million due to market conditions. Gifts totaled $79 million in 2023, a decrease of $34 million. In 2022, gifts totaled $113 million, a decrease of $6 million.

During 2023, $1,608 million was expended for the core missions of the University: instruction and departmental research, research, and public service, an increase of $91 million (6.0%) from 2022. Instruction and departmental research and research expenses increased $79 million (6.8%), while public service expenses increased $12 million (3.3%), which reflects an increase in employee count and raises during 2023. Auxiliary enterprises totaled $438 million, an increase of $50 million, due primarily to rising costs for food and other supplies. In 2022, expenses for the core mission of the University increased $158 million and auxiliary enterprises increased $124 million due to a return to more normal operations after easing the restrictions related to the COVID-19 pandemic.

Operating expenses by source for the years ended June 30, 2023, 2022, and 2021 (net of the impact of a 2021 change in postemployment benefit plan for comparability), respectively, are presented in millions of dollars:



The University's Economic Outlook

The University remains a prudent financial steward of institutional resources as MSU emerges from the challenging environment created by the global COVID-19 pandemic. Through its longstanding focus and disciplined management of financial resources, the University provides continuity and planning certainty for students and their families, while, at the same time, providing the resources necessary for MSU to respond to numerous opportunities and challenges.

The University's fiscal year 2024 operating budget anticipates a 5% increase from 2023 and includes funding expected as part of the newly enacted Michigan Achievement Scholarship fund for Michigan residents entering MSU. Additionally, tuition rates for undergraduate students in core professional programs will increase 3%, while financial aid funding provided by the University is planned to increase by 7.5%.

In July 2023, the State legislature approved a 5% increase in 2024 state appropriation funding over 2023 base levels. This is the second consecutive year of increase in base funding. The University will also receive $30 million in funding for a new Engineering and Digital Innovation Center. The new center will house both instruction and research activity including a laboratory component. This project will provide the foundation to respond to industry needs and student demand, support economic development in Michigan, and provide research infrastructure for growth in materials research and emerging initiatives such as semiconductor research.

In August 2023, the U.S. Department of Energy Office of Science (DOE-SC) awarded $529 million to MSU to continue world-leading nuclear science research at the Facility for Rare Isotope Beams (FRIB). The new cooperative agreement will award the funding over a five-year period to operate FRIB as a DOE-SC user facility to enable unprecedented discovery opportunities envisioned by a user community of 1,800 scientists.

Ever moving forward, MSU is positioned to make investments aligned with its 2030 Strategic Plan, including advancing its research portfolio, investing in community partnerships both near and far, and attracting and retaining the foremost faculty and staff. Despite uncertainty around inflationary cost pressures, Michigan State University is committed to building on its strength and stature as one of the top 100 research universities in the world. Indeed, targeted investments continue to advance the University's reputation, as recently announced rankings attest. The University was recently ranked 14th by the Wall Street Journal, 21st by Washington Monthly, 24th by Forbes, and 28th by U.S. News and World Report amongst public institutions in the nation.

	June 30,	
ASSETS	**2023**	**2022 (as restated)**
	(in thousands)	
Current assets:		
Cash and cash equivalents	$ 330,752	$ 395,199
Investments	549,714	910,877
Accounts and interest receivable, net	278,453	250,065
Student loans and pledges receivable, net	37,170	36,243
Inventories and other assets	37,281	23,058
Total current assets	1,233,370	1,615,442
Noncurrent assets:		
Endowment investments	3,802,630	3,469,280
Other investments	308,729	266,678
Accounts and interest receivable, net	39,982	29,005
Student loans and pledges receivable, net	91,681	107,102
Investments in joint ventures and other assets	42,372	40,775
Capital assets, net	3,015,861	2,967,169
Total noncurrent assets	7,301,255	6,880,009
Total assets	**8,534,625**	**8,495,451**
DEFERRED OUTFLOWS OF RESOURCES	**484,674**	**566,992**
LIABILITIES		
Current liabilities:		
Accounts and interest payable	175,364	160,834
Accrued personnel costs	65,260	98,103
Accrued self-insurance liabilities	21,881	22,242
Payroll taxes and other payroll deductions	3,378	24,558
Deposits held for others	22,191	9,178
Unearned revenues	116,966	104,337
Current portion of net other postemployment benefit obligations	26,876	25,938
Current portion of long-term debt and other obligations	200,617	248,047
Total current liabilities	632,533	693,237
Noncurrent liabilities:		
Accrued personnel costs	40,392	38,330
Accrued self-insurance liabilities	10,547	14,520
Unearned revenues	6,600	7,333
Derivative instruments - swap liability	15,440	33,579
Net other postemployment benefit obligations	515,003	622,613
Long-term debt and other obligations	2,114,143	2,134,946
Total noncurrent liabilities	2,702,125	2,851,321
Total liabilities	**3,334,658**	**3,544,558**
DEFERRED INFLOWS OF RESOURCES	**426,922**	**357,473**
NET POSITION		
Net investment in capital assets	1,595,590	1,492,604
Restricted:		
Nonexpendable	1,051,678	1,001,402
Expendable:		
Research and gifts	1,041,521	1,007,697
Quasi and term endowments	328,695	304,486
Debt service and capital projects	97,489	86,208
Student loans	12,879	12,983
Unrestricted	1,129,867	1,255,032
TOTAL NET POSITION	**$5,257,719**	**$5,160,412**

See accompanying notes

STATEMENTS OF FINANCIAL POSITION

	June 30, 2023	June 30, 2022
	(in thousands)	
ASSETS		
Cash equivalents	18,499	$ 20,247
Interest and dividends receivable, net	758	391
Other receivables, net	1,958	3,797
Investments	446,702	434,717
Land held for investment, net	1,262	1,262
Investment in University Health Park, net	2,849	2,861
Net investments in sales-type finance lease	30,835	-
Equity in start-up organizations, net	19,513	13,390
Notes receivable, net	6,804	4,001
Prepaid expenses	255	76
Operating lease right-of-use assets	1,583	-
Property and equipment, net	11,958	31,626
Intangible assets, net	538	634
TOTAL ASSETS	$ 543,514	**$ 513,002**
LIABILITIES AND NET ASSETS		
Liabilities:		
Accrued expenses and other payables	6,270	5,394
Deferred revenue	258	10
Trusts and annuities payable	6,148	7,105
Loan payable	15,674	14,753
Operating lease liabilities	1,600	-
Capital lease obligation	6,012	6,047
Deposit held for Michigan State University	20,267	19,984
Obligations under life estate agreements	380	403
Total liabilities	56,609	**53,696**
Net assets:		
Without donor restrictions	447,942	421,948
With donor restrictions:		
Time or purpose restrictions	38,963	37,358
Perpetual restrictions	-	-
Total net assets with donor restrictions	38,963	37,358
Total net assets	486,905	**459,306**
TOTAL LIABILITIES AND NET ASSETS	**$ 543,514**	**$ 513,002**

See accompanying notes

STATEMENTS OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION

	June 30, 2023	June 30, 2022 (as restated)
	(in thousands)	
OPERATING REVENUES		
Student tuition and fees	$ 1,109,315	$ 1,047,072
Less: scholarship allowances	222,186	200,973
Net student tuition and fees	887,129	846,099
State of Michigan grants and contracts	20,547	16,816
Federal grants and contracts	480,714	416,435
Local and private sponsored programs	83,733	75,586
Interest and fees on student loans	299	384
Departmental activities (net of scholarship allowances of $1,388 in 2023 and $987 in 2022)	299,156	286,583
Auxiliary activities (net of room and board allowances of $26,184 in 2023 and $23,950 in 2022)	480,916	454,418
TOTAL OPERATING REVENUES	**2,252,494**	**2,096,321**
OPERATING EXPENSES		
Instruction and departmental research	792,166	751,697
Research	450,251	410,856
Public service	365,599	353,913
Academic support	146,543	124,106
Student services	62,498	58,190
Scholarships and fellowships	86,294	125,507
Institutional support	160,220	153,736
Operation and maintenance of plant	150,226	134,012
Auxiliary enterprises	438,208	387,759
Other postemployment benefits expense	49,339	62,971
Depreciation and amortization	228,692	222,977
Other operating expenses, net	2,803	4,572
TOTAL OPERATING EXPENSES	**2,932,839**	**2,790,296**
Operating loss	(680,345)	(693,975)
NONOPERATING REVENUES (EXPENSES)		
State operating appropriation	303,728	303,409
State AgBioResearch appropriation	36,684	35,287
State Extension appropriation	31,643	30,438
Federal Pell grant revenue	43,197	44,615
Coronavirus federal grants and aid	-	85,188
Gifts	79,096	113,375
Net investment income (loss)	277,621	(163,575)
Interest expense on indebtedness	(94,386)	(77,997)
Other nonoperating revenues, net	11,748	16,813
Net nonoperating revenues	689,331	387,553
INCOME (LOSS) BEFORE OTHER	**8,986**	**(306,422)**
State capital appropriations	543	3,273
Capital grants and gifts	48,620	37,853
Additions to permanent endowments	39,158	107,260
Increase (decrease) in net position	97,307	(158,036)
Net position, beginning of year	5,160,412	5,317,008
Cumulative effect of change in accounting principles	-	1,440
Net position, beginning of year, as adjusted	5,160,412	5,318,448
NET POSITION, END OF YEAR	**$ 5,257,719**	**$ 5,160,412**

See accompanying notes

	Year ended June 30, 2023		
	Without Donor Restrictions	With Donor Restrictions	Total
		(in thousands)	
REVENUE, GAINS AND OTHER SUPPORT:			
Contributions	$ -	$ 592	$ 592
Income from investments - net of investment fees	30,449	3,200	33,649
Royalty income	2,163	-	2,163
Rental income	2,198	-	2,198
Interest income on lease receivable	859	-	859
Grants and contracts	1,874	6,417	8,291
Adjustment to value of annuities payable	-	651	651
Other income	8,073	-	8,073
Net assets released from restrictions	9,255	(9,255)	-
TOTAL REVENUE, GAINS AND OTHER SUPPORT	54,871	1,605	56,476
EXPENSES:			
Contributions to Michigan State University	17,561	-	17,561
Grant expenses	477	-	477
Salaries, fringe benefits, and payroll taxes	4,872	-	4,872
Consultants and professional fees	1,556	-	1,556
Office expense	378	-	378
Operating expense	583	-	583
Rent and utilities	1,641	-	1,641
Depreciation and amortization	1,101	-	1,101
Interest expense	757	—	757
Provision for uncollectible receivables	(72)	-	(72)
Other expense	23	-	23
TOTAL EXPENSES	28,877	-	28,877
Change in net assets	25,994	1,605	27,599
Net assets, beginning of year	421,948	37,358	459,306
NET ASSETS, END OF YEAR	$ 447,942	$ 38,963	$ 486,905

	Year ended June 30, 2022		
	Without Donor Restrictions	With Donor Restrictions	Total
		(in thousands)	
REVENUE, GAINS AND OTHER SUPPORT:			
Contributions	$ 2	$ 1,809	$ 1,811
Income from investments - net of investment fees	(13,176)	(2,602)	(15,778)
Royalty income	631	-	631
Rental income	2,187	-	2,187
Grants and contracts	1,065	2,192	3,257
Adjustment to value of annuities payable	-	886	886
Other income	2,505	-	2,505
In-kind contributions	349	-	349
Net assets released from restrictions	6,159	(6,159)	-
TOTAL REVENUE, GAINS AND OTHER SUPPORT	(278)	(3,874)	$ (4,152)
EXPENSES:			
Contributions to Michigan State University	13,784	-	13,784
Grant expenses	2,610	-	2,610
Salaries, fringe benefits, and payroll taxes	4,023	-	4,023
Consultants and professional fees	1,136	-	1,136
Office expense	352	-	352
Operating expense	385	-	385
Rent and utilities	1,490	-	1,490
Depreciation and amortization	839	-	839
Provision for uncollectible receivables	644	-	644
Other expense	324	-	324
TOTAL EXPENSES	25,587	-	25,587
Change in net assets	(25,865)	(3,874)	(29,739)
Net assets, beginning of year	447,813	41,232	489,045
NET ASSETS, END OF YEAR	$ 421,948	$ 37,358	$ 459,306

See accompanying notes

	Year Ended June 30, 2023	Year Ended June 30, 2022 (as restated)
	(in thousands)	
Cash flows from operating activities		
Tuition and fees	$ 885,399	$ 833,197
Research grants and contracts	547,238	498,649
Auxiliary activities	485,293	456,725
Departmental activities	326,201	294,324
Interest and fees on student loans	299	384
Loans issued to students	(1,404)	(3,503)
Collection of loans from students	5,327	5,521
Scholarships and fellowships	(92,627)	(129,514)
Payments to suppliers	(738,162)	(657,103)
Payments to employees	(1,887,783)	(1,719,468)
Fiduciary activities - Scholarships and other receipts	358,728	319,985
Fiduciary activities - Scholarships and other payments	(358,728)	(319,985)
William D. Ford Direct Lending receipts	90,909	76,324
William D. Ford Direct Lending disbursements	(90,909)	(76,324)
Other payments	(31,126)	(52,759)
Net cash used by operating activities	(501,345)	(473,547)
Cash flows from noncapital financing activities		
State appropriations	369,474	368,432
Federal Pell grant revenue	43,197	44,615
Coronavirus federal grants and aid receipts	-	93,374
Gifts	104,388	94,681
Endowment gifts	39,137	107,260
Proceeds from issuance of noncapital debt	-	500,000
Principal paid on noncapital debt	(3,955)	(3,570)
Interest paid on noncapital debt	(16,211)	(16,533)
Other receipts	2,811	6,563
Net cash provided by noncapital financing activities	538,841	1,194,822
Cash flows from capital and related financing activities		
Capital appropriations	392	7,220
Capital gifts and grants	33,920	46,535
Proceeds from issuance of capital debt and other long-term obligations	373,627	23,895
Purchase of capital assets	(257,585)	(162,882)
Proceeds from sale of capital assets	1,857	2,548
Principal paid on capital debt	(424,186)	(87,239)
Interest paid on capital debt	(96,006)	(61,239)
Other receipts	2,992	2,147
Net cash used by capital and related financing activities	(364,989)	(229,015)
Cash flows from investing activities		
Investment income, net	174,478	484,167
Proceeds from sales and maturities of investments	2,771,505	2,713,875
Purchase of investments	(2,682,937)	(3,668,100)
Net cash provided (used) by investing activities	263,046	(470,058)
Net (decrease) increase in cash	(64,447)	22,202
Cash and cash equivalents, beginning of year	395,199	372,997
Cash and cash equivalents, end of year	**$ 330,752**	**$ 395,199**

See accompanying notes

Reconciliation of net operating loss to cash flows from operating activities:	Year Ended June 30, 2023	Year Ended June 30, 2022 (as restated)
	(in thousands)	
Operating loss	$ (680,345)	$ (693,975)
Adjustments to reconcile operating loss to net cash used by operating activities:		
Depreciation and amortization expense	228,692	222,977
Change in assets and liabilities:		
Accounts receivable	(21,675)	(28,430)
Student loans receivable	3,923	2,017
Inventories and other assets	(14,223)	97
Investments in joint ventures and other assets	(1,597)	(8,267)
Accounts payable	4,671	10,223
Accrued personnel costs	(30,781)	27,659
Payroll taxes and other payroll deductions	(21,180)	(44,040)
Deposits held for others	13,013	1,049
Unearned revenues	11,896	6,909
Accrued self-insurance liabilities	(4,334)	(583)
Net other postemployment benefit obligation	(106,672)	18,456
Change in deferred outflows	63,768	34,840
Change in deferred inflows	53,499	(22,479)
Net cash used by operating activities	**$ (501,345)**	**$ (473,547)**

See accompanying notes

1. Organization, basis of presentation, reporting entity, and summary of significant accounting policies

Organization:

Michigan State University (the "University") was founded in 1855 as the Agricultural College of the State of Michigan. It was the first institution of higher learning in the nation to teach scientific agriculture and in 1863 became a pioneer land grant college under the Morrill Act. The University has grown into a comprehensive research university providing undergraduate, graduate, and professional degree programs. The University is not a component unit of the State of Michigan as defined by the Governmental Accounting Standards Board ("GASB").

Basis of presentation:

The University follows all applicable GASB pronouncements. The accompanying financial statements have been prepared using the economic resource measurement focus and the accrual basis of accounting in accordance with accounting principles generally accepted in the United States of America for publicly owned colleges and universities and are presented in accordance with the reporting model prescribed in GASB Statement No. 34, B*asic Financial Statements-and Management's Discussion and Analysis-for State and Local Governments*, and GASB Statement No. 35, *Basic Financial Statements-and Management's Discussion and Analysis-for Public Colleges and Universities*, as amended by GASB Statements No. 37, No. 38, and No. 63. The University follows the "business-type" activities requirements of GASB Statement No. 34. This approach requires the following components of the University's financial statements:

- Management's Discussion and Analysis

- Basic Financial Statements: Statement of Net Position; Statement of Revenues, Expenses, and Changes in Net Position; Statement of Cash Flows; and Notes to the Financial Statements

GASB Statement No. 34, as amended, establishes standards for external financial reporting for public colleges and universities and requires that resources be classified for accounting and reporting purposes into the following four net position categories:

- Net investment in capital assets: Capital assets, net of accumulated depreciation, amortization, and outstanding principal balances of debt attributable to the acquisition, construction, or improvement of those assets.

- Restricted:
  Nonexpendable – Net position subject to externally imposed constraints that they be maintained permanently by the University. Nonexpendable net position includes the corpus portion (historical value) of gifts to the University's permanent endowment funds and certain investment earnings stipulated by the donor to be reinvested permanently.

  Expendable – Net position whose use by the University is subject to externally imposed constraints that can be fulfilled by actions of the University pursuant to those constraints or that expire by the passage of time. Expendable net position includes net appreciation of the University's permanent endowment funds that have not been stipulated by the donor to be reinvested permanently.

- Unrestricted – Net position that is not subject to externally imposed constraints. Unrestricted net position may be designated for specific purposes by action of management or the Board of Trustees (the "Board") or may otherwise be limited by contractual agreements with outside parties. Unrestricted net position is generally designated for academic, research, and outreach programs and initiatives, postemployment benefits, and capital asset renewals and replacements.

Reporting entity:

The Michigan State University Research Foundation (the "Foundation") is a legally separate, tax-exempt entity that meets the criteria set forth for component units under GASB Statement No. 39, *Determining Whether Certain Organizations are Component Units*, as amended by GASB Statement No. 61. The Foundation provides financial support for the objectives, purposes, and programs of the University. Although the University does not control the timing, purpose, or amount of its receipts from the Foundation, the resources (and income thereon) that the Foundation holds and invests are dedicated to benefit the University. Because the 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 its Statements of Financial Position and Statements of Activities and Changes in Net Assets are discretely presented in the University's financial statements. In addition, the Foundation's significant notes are summarized in note 4.

The Foundation is a private organization that reports under FASB standards. As such, certain revenue recognition criteria and presentation features are different from those under GASB. No modifications have been made to the Foundation financial information included in the University's financial report to account for these differences. Complete financial statements for the Foundation can be obtained by a written request to:

Michigan State University Research Foundation, 325 E. Grand River Avenue, Suite 275, East Lansing, MI 48823.

MSU Health Care, Inc. is a legally separate, tax-exempt entity with the University serving as its sole corporate member. MSU Health Care, Inc. is a multi-specialty medical practice that operates the University's primary care, sports medicine, diagnostics, testing, and other services. Under the requirements of GASB Statement No. 80, *Blending Requirements for Certain Component Units - an amendment of GASB Statement No. 14*, MSU Health Care, Inc. is reported as a blended component unit. MSU Health Care, Inc.'s significant notes are included in the University's footnotes and condensed financial statements are presented in note 17. Complete financial statements for MSU Health Care, Inc. can be obtained by a written request to:

MSU Health Care, Inc., 909 Fee Road, Room D130, East Lansing, MI 48824.

Lysander Series of Aesir Series, LLC ("Lysander") was formed as a legally separate entity that meets the criteria set forth for component units under GASB Statement No. 61. Lysander is a cell captive insurance company within an existing and approved captive insurance company used by the University to gain access to global reinsurers for purposes of obtaining general liability insurance and automobile liability insurance as disclosed in note 10. Lysander exclusively benefits the University and the Board is the series member of Lysander which is reported as a blended component unit. Condensed financial statements are presented in note 17.

Summary of significant accounting policies:

Cash and cash equivalents – For purposes of the Statement of Cash Flows, the University defines cash equivalents as highly liquid, short-term (90 days or less) investments that bear little or no market risk. Certain cash and cash equivalents held by investment managers in the Liquidity Reserve Pool ("LRP"), Common Investment Fund ("CIF"), and other investment funds are included in investments because the intent of these funds is long-term appreciation. Cash balances held by investment managers in these funds at the date of the financial statements are due to timing of reinvesting the proceeds within the fund.

Pledges – Financial support in the form of pledges is received from business enterprises, foundations, and individuals. Revenue from gift pledges is recorded only when there is an unconditional promise to pay and all eligibility requirements, including time requirements, have been met. Contributions to permanent and term endowments are not recognized as assets until actually received.

Inventories – Inventories are recorded using various methods, including first in, first out (FIFO).

Investments – Investments are stated at fair value, which represents the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. The University values its investments using a hierarchy of valuation inputs based on the extent to which the inputs are observable in the marketplace. Observable inputs reflect market data obtained from sources independent of the University, while unobservable inputs reflect the University's own assumptions about how market participants would value an asset or a liability based on the best information available. The University uses various industry standard valuation techniques that are appropriate under the circumstances and for which sufficient data is available to measure fair value, maximizing the use of relevant observable inputs and minimizing the use of unobservable inputs.

Capital assets – Capital assets are stated at cost or, when donated, at acquisition value at the date of the gift. Depreciation is computed using the straight-line method, with a full-year expense in the year of acquisition and none in the year of disposal. Assets are depreciated over the estimated useful lives ranging from four to forty years for the respective assets. When assets are retired or otherwise disposed of, the cost and related accumulated depreciation are removed from the accounts. The University capitalizes but does not depreciate certain works of art and historical treasures that are held for exhibition, education, research, or public service. These collections are neither disposed of for financial gain nor encumbered in any way, and are subject to organizational policy that requires the proceeds of items that are sold to be used to acquire other items for collections.

Deferred outflows of resources – This separate financial statement element represents a consumption of net position that applies to a future period and so will not be recognized as an expense until then. Deferred outflows of resources consist of accumulated changes in the fair value of hedging derivative instruments, contributions subsequent to the measurement date and changes in assumptions related to the valuation of other postemployment benefits, and deferred losses on refunding of debt.

Deferred inflows of resources – Deferred inflows of resources represent an addition to net position that applies to a future period and so will not be recognized as revenue until then. Deferred inflows of resources consist of the investment value, net of related liabilities to other beneficiaries, attributable to the University from irrevocable split-interest agreements, changes in assumptions related to the valuation of other postemployment benefits, lease agreements in which the University serves as the lessor, and deferred gains on refunding of debt.

NOTES TO THE FINANCIAL STATEMENTS (continued) (dollars in thousands)

Compensated absences – University employees earn vacation and sick leave benefits based, in part, on length of service. Vacation pay is fully vested when earned. Upon separation from service, employees are paid accumulated vacation and sick pay based upon the nature of separation (death, retirement, or termination). Certain limitations have been placed on the hours of vacation and sick leave that employees may accumulate and carry over for payment at death, retirement, or termination. Unused hours exceeding these limitations are forfeited.

Self-insurance liabilities – Self-insurance liabilities consist of accrued expenses related to the University's self-insurance programs.

Unearned revenue – Unearned revenue consists primarily of advance ticket sales for athletic events, summer school tuition not earned during the current year, and contract and sponsored program advances.

Derivative instruments – Derivative instruments consist of interest rate swap agreements and are stated at fair value based on the zero-coupon valuation method.

Operating and nonoperating revenues – Operating activities as reported in the Statements of Revenues, Expenses, and Changes in Net Position are those activities that generally result from exchange transactions, such as payments received for providing services and payments made for services or goods received. Nearly all of the University’s expenses are from exchange transactions. Certain significant revenue streams relied upon for operations are recorded as nonoperating revenues, as defined by GASB Statement No. 34, including state appropriations, federal Pell grant revenue, gifts, and investment income. Restricted and unrestricted resources are spent and tracked at the discretion of the recipient University department within the guidelines of donor restrictions, if any.

Coronavirus federal grants and aid - In December 2019, COVID-19 was first reported and subsequently emerged as a global pandemic. The world-wide response to manage the COVID-19 pandemic included many extraordinary measures designed to reduce physical human interactions, including the temporary suspension of community events and other activities, broad travel restrictions, and the temporary closing of many businesses. The year ended June 30, 2022 saw many of these restrictions lifted as vaccines became readily available, reflecting a more standard operating year. The year ended June 30, 2023 was not significantly impacted by the pandemic.

To partially offset the financial impact to students and the losses incurred by the University due to the disruption caused by COVID-19, the University received various federal grants. In accordance with each individual grant, the University was required to meet certain eligibility requirements before recognizing the funding as revenue, which included distributing certain portions to students as emergency financial aid. For the fiscal year ending June 30, 2022 federal coronavirus grants recognized were as follows:

	2022
Coronavirus Provider Relief Funds	$ 1,620
American Rescue Plan:	
Emergency student aid	39,385
Institutional aid	39,315
Shuttered Venue Operators Grant	4,868
Total coronavirus federal grants and aid	$ 85,188

These amounts are reported as nonoperating revenues in the Statement of Revenues, Expenses, and Changes in Net Position. No coronavirus federal grants and aid revenue was recognized during the year ended June 30, 2023.

MSU Health Care, Inc., a blended component unit, received payments of $1,620 as part of general distributions of CARES Act Provider Relief Fund, which were distributed in December 2021.

The University was awarded $81,754 in funding through the American Rescue Plan Act during the year ended June 30, 2021, a portion of which was utilized in prior years. During the year ended June 30, 2022, the University provided $39,385 as emergency financial aid, and utilized $39,315 as institutional aid, which reflected the remainder of the award.

The University was awarded $7,324 in funding through the Shuttered Venue Operators Grant during the year ended June 30, 2021, a portion of which was utilized in prior years. The University was awarded an additional $2,676 in funding during the year ended June 30, 2022. The University was reimbursed for $4,868 in expenses recognized during the year ended June 30, 2022, which reflected the remainder of the award.

Student tuition and fees – Student tuition and fee revenues are reported in the fiscal year in which the student instruction occurs, net of scholarship allowances in the Statements of Revenues, Expenses, and Changes in Net Position. Scholarship allowances represent the difference between the stated charge for goods and services provided by the University and the amount that is paid by the students or third parties on behalf of the students, where the University has discretion over such expenses.

NOTES TO THE FINANCIAL STATEMENTS (continued) (dollars in thousands)

Auxiliary activities – Auxiliary activities primarily represent revenues generated from University Student Life and Engagement Services, Intercollegiate Athletics, and various other departmental activities that provide services to the student body, faculty, staff, and general public.

Donor restricted endowments – Under Michigan law set forth in the Uniform Prudent Management of Institutional Funds Act, as adopted in Michigan in 2009 (“UPMIFA”), the Board acts in a fiduciary capacity as trustee of its endowment funds. UPMIFA requires that the Board exercise its fiduciary duties prudently and consider both the charitable purposes and needs of the University and the purposes of the specific endowment regarding current expenditures and preservation of the purchasing power of the funds. Under the programmatic spending policy established by the Board, 4.4% of the average market value of endowment investments for the twenty quarters of the five fiscal years prior to the beginning of the fiscal year was authorized for expenditure for fiscal year 2023. For fiscal year 2024, the rate will remain at 4.4%.

Eliminations – In preparing the financial statements, the University eliminates inter-fund assets and liabilities and transactions with blended component units that would otherwise be reflected twice in the Statements of Net Position. Similarly, revenues and expenses related to internal service activities and blended component units are also eliminated from the Statement of Revenues, Expenses, and Changes in Net Position. Student tuition and fees are presented net of scholarships and fellowships applied to student accounts where the University has discretion over such expenses, while stipends and other payments made directly to students are presented as scholarship and fellowship expenses.

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

Income taxes – The University is a part of the State of Michigan for purposes of Internal Revenue Code Section 115, and is an organization as described in Internal Revenue Code Section 501(c)(3). The University’s income generally is exempt from federal income taxes, although income from certain activities may be subject to taxation as unrelated business income.

Change in accounting policy – Effective for the fiscal year ended June 30, 2023, the University adopted GASB Statement No. 93, *Replacement of Interbank Offered Rates* ("GASB 93"). This statement addresses the cessation of the London Interbank Offered Rate (LIBOR) allowing the University to maintain hedge accounting for interest rate swaps where the only change in the agreement was to replace LIBOR with an appropriate benchmark interest rate that meets certain requirements. The University's agreements were updated in a manner that did not require a change in accounting and thus no retroactive reporting was required (see note 14).

Effective for the fiscal year ended June 30, 2023, the University adopted GASB Statement No. 96, *Subscription-Based Information Technology Arrangements* (“GASB 96”). This statement defines subscription-based information technology arrangements (SBITAs) and establishes new requirements for calculating and reporting the University’s SBITAs activity. The adoption of GASB 96 has been reflected as of July 1, 2021.

Beginning net position as of July 1, 2021 was restated for the effects of the University's adoption of GASB 96 as follows:

	June 30, 2021 as Originally Reported	GASB 96 Adoption	July 1, 2021 as Restated
Current assets	$ 1,136,967	$ 3,671	$ 1,140,638
Noncurrent assets	6,971,956	22,574	6,994,530
Total assets	8,108,923	26,245	8,135,168
Deferred outflows of resources	621,799	-	621,799
Current liabilities	650,491	8,768	659,259
Noncurrent liabilities	2,386,362	16,037	2,402,399
Total liabilities	3,036,853	24,805	3,061,658
Deferred inflows of resources	376,861	-	376,861
Net position	$ 5,317,008	$ 1,440	$ 5,318,448

NOTES TO THE FINANCIAL STATEMENTS (continued) (dollars in thousands)

The Statement of Net Position as of June 30, 2022 was restated for the effects of the University's adoption of GASB 96 as follows:

	June 30, 2022 as Originally Reported	GASB 96 Adoption	June 30, 2022 as Restated
Current assets	$ 1,615,442	$ -	$ 1,615,442
Noncurrent assets	6,854,174	25,835	6,880,009
Total assets	8,469,616	25,835	8,495,451
Deferred outflows of resources	566,992	-	566,992
Current liabilities	684,281	8,956	693,237
Noncurrent liabilities	2,836,727	14,594	2,851,321
Total liabilities	3,521,008	23,550	3,544,558
Deferred inflows of resources	357,473	-	357,473
Net position	$ 5,158,127	$ 2,285	$ 5,160,412

The Statement of Revenues, Expenses, and Changes in Net Position for the year ended June 30, 2022 was restated for the effects of the University's adoption of GASB 96 as follows:

	June 30, 2022 as Originally Reported	GASB 96 Adoption	June 30, 2022 as Restated
Operating revenues	$ 2,096,321	$ -	$ 2,096,321
Operating expenses	2,791,551	(1,255)	2,790,296
Operating income	(695,230)	1,255	(693,975)
Net nonoperating revenues	387,963	(410)	387,553
Net income before other	(307,267)	845	(306,422)
State capital appropriations	3,273	-	3,273
Capital grants and gifts	37,853	-	37,853
Additions to permanent endowments	107,260	-	107,260
Increase in net position	(158,881)	845	(158,036)
Net position, beginning of year	5,317,008	-	5,317,008
Cumulative effect of change in accounting principles	-	1,440	1,440
Net position, beginning of year, as adjusted	5,317,008	1,440	5,318,448
Net position	$ 5,158,127	$ 2,285	$ 5,160,412

NOTES TO THE FINANCIAL STATEMENTS (continued) (dollars in thousands)

The Statement of Cash Flows for the year ended June 30, 2022 was restated for the effects of the University's adoption of GASB 96 as follows:

	June 30, 2022 as Originally Reported	GASB 96 Adoption	June 30, 2022 as Restated
Net cash (used) provided by operating activities	$ (483,582)	$ 10,035	$ (473,547)
Net cash provided by noncapital financing	1,194,822	-	1,194,822
Net cash used by capital and related financing	(218,980)	(10,035)	(229,015)
Net cash used by investing activities	(470,058)	-	(470,058)
Net increase in cash	22,202	-	22,202
Cash and cash equivalents, beginning of year	372,997	-	372,997
Cash and cash equivalents, end of year	$ 395,199	$ -	$ 395,199

2. Cash and cash equivalents

The University's cash and cash equivalents as of June 30, 2023 and 2022 were as follows:

	2023	2022
Total cash and cash equivalents	$ 330,752	$ 395,199

Of its cash and cash equivalents, the University had actual cash balances in its bank accounts in excess of Federal Deposit Insurance Corporation limits of $349,337 and $526,781 at June 30, 2023 and 2022, respectively. The University does not require its deposits to be collateralized or insured.

3. Investments and fair value measurements

The University manages investments in accordance with the investment policy approved by the Board. The investment policy distinguishes guidelines for the Liquidity Pool ("LP"), Liquidity Reserve Pool ("LRP"), and Common Investment Fund ("CIF"). In addition, the University has other investments that are restricted by external agreements or by special donor limitations (Other).

As of June 30, 2023 and 2022, the University had the following investments:

	June 30, 2023				
Investment type	LP	LRP	CIF	Other	Total
Investment pools	$ -	$ -	$ 3,902,333	$ 54,820	$ 3,957,153
U.S. Government agencies	167,769	45,464	-	-	213,233
Municipal bonds	1,930	-	-	-	1,930
Corporate bonds	189,109	39,124	-	-	228,233
Asset-backed securities	133,120	63,804	-	-	196,924
Money market and mutual funds	27,996	1,241	-	-	29,237
International bonds	-	203	87	-	290
Life insurance policies	-	-	-	4,286	4,286
Commercial paper	16,272	-	-	-	16,272
Bank time deposits	13,515	-	-	-	13,515
Total	$ 549,711	$ 149,836	$ 3,902,420	$ 59,106	$ 4,661,073

NOTES TO THE FINANCIAL STATEMENTS (continued) (dollars in thousands)

	June 30, 2022				
Investment type	LP	LRP	CIF	Other	Total
Investment pools	$ 43,835	$ -	$ 3,565,777	$ 59,112	$ 3,668,724
U.S. Government agencies	495,677	1,822	-	-	497,499
Municipal bonds	185	-	-	-	185
Corporate bonds	240,161	-	-	-	240,161
Asset-backed securities	131,019	104,743	-	-	235,762
Money market and mutual funds	-	54	-	-	54
International bonds	-	-	127	-	127
Life insurance policies	-	-	-	4,323	4,323
Total	$ 910,877	$ 106,619	$ 3,565,904	$ 63,435	$ 4,646,835

Custodial Credit Risk: For an investment, custodial credit risk exists that in the event of the failure of the counterparty, the University will not be able to recover the value of its investments or collateral securities that are in the possession of an outside party. University investment policy does not limit the value of investments that may be held by an outside party. The University's investments that are held by the University's counterparty in the name of the University as of June 30, 2023 and 2022, respectively, are as follows:

Investment type	2023	2022
Investment pools	$ 38,871	$ 15,527
U.S. Government agencies	213,233	497,499
Municipal bonds	1,930	185
Corporate bonds	228,233	240,161
Asset-backed securities	196,924	235,762
International bonds	290	127
Commercial paper	16,272	-
Bank time deposits	13,515	-
Total	$ 709,268	$ 989,261

The maturities of fixed income investments as of June 30, 2023 and 2022 were as follows:

	June 30, 2023 Fixed Income Investment Maturities				
Investment type	Less than 1 year	1-5 years	6-10 years	More than 10 years	Total
U.S. Government agencies	$ 11,990	$ 186,555	$ 4,168	$ 10,520	$ 213,233
Municipal bonds	1,930	-	-	-	1,930
Corporate bonds	43,463	158,351	17,511	8,908	228,233
Asset-backed securities	1,947	52,585	45,201	97,191	196,924
International bonds	-	290	-	-	290
Comercial paper	16,272	-	-	-	16,272
Bank time deposits	13,515	-	-	-	13,515
Total	$ 89,117	$ 397,781	$ 66,880	$ 116,619	$ 670,397

	June 30, 2022 Fixed Income Investment Maturities				
Investment type	Less than 1 year	1-5 years	6-10 years	More than 10 years	Total
U.S. Government agencies	$ -	$ 495,677	$ -	$ 1,822	$ 497,499
Municipal bonds	185	-	-	-	185
Corporate bonds	16,235	223,926	-	-	240,161
Asset-backed securities	6,905	75,253	41,396	112,208	235,762
International bonds	-	127	-	-	127
Total	$ 23,325	$ 794,983	$ 41,396	$ 114,030	$ 973,734

NOTES TO THE FINANCIAL STATEMENTS (continued) (dollars in thousands)

Interest Rate Risk: As a means of managing its exposure to fair value losses arising from increasing interest rates, University investment policy limits the average duration of the LP portfolio to three years and the LRP and CIF portfolios to six years. At June 30, 2023 and 2022, the University was in compliance with its investment policy with regard to average duration. University policy does not address average duration of investments by investment type.

The University invests in asset-backed securities such as mortgage pass-through securities issued by U.S. Government agencies. These securities are based on cash flows from interest payments on underlying mortgages. Therefore, they are sensitive to prepayments by mortgagees, which may result from a decline in interest rates.

The Standard & Poor's credit ratings for fixed income investments at June 30, 2023 and 2022 were as follows:

	June 30, 2023							
	Rating							
Investment type	AAA	AA	A	BBB	BB	Below BB	Not rated	Total
U.S. Government agencies	$ -	$ 212,559	$ -	$ 674	$ -	$ -	$ -	$ 213,233
Municipal bonds	-	-	1,930	-	-	-	-	1,930
Corporate bonds	1,341	10,176	96,452	113,647	-	-	6,617	228,233
Asset-backed securities	85,025	60,221	4,364	6,679	-	-	40,635	196,924
International bonds	-	-	-	-	-	-	290	290
Commercial paper	-	-	-	-	-	-	16,272	16,272
Bank time deposits	-	-	-	-	-	-	13,515	13,515
Total	$ 86,366	$ 282,956	$ 102,746	$ 121,000	$ -	$ -	$ 77,329	$ 670,397

	June 30, 2022							
	Rating							
Investment type	AAA	AA	A	BBB	BB	Below BB	Not rated	Total
U.S. Government agencies	$ 3,218	$ 492,459	$ -	$ 1,822	$ -	$ -	$ -	$ 497,499
Municipal bonds	-	-	-	-	-	-	185	185
Corporate bonds	-	14,276	108,536	109,903	-	-	7,446	240,161
Asset-backed securities	70,653	27,233	4,431	15,980	-	-	117,465	235,762
International bonds	-	-	-	-	-	-	127	127
Total	$ 73,871	$ 533,968	$ 112,967	$ 127,705	$ -	$ -	$ 125,223	$ 973,734

Credit Risk: While certain holdings are not individually rated, U.S. Treasury bonds and U.S. Government agencies securities are backed by the full faith and credit of the U.S. government, which has an AA+ rating by Standard & Poor's. University policy does not address credit risk by investment type. As a means of managing credit risk on its fixed income investments, University investment policy limits portfolio average investment quality of all separately managed funds to AA and limits investments at time of purchase to the following minimum ratings issued by nationally recognized statistical rating organizations by portfolio type as follows:

- LP portfolio - Short-term A1/P1, long-term BBB
- LRP portfolio - Short-term A2/P2, long-term B
- CIF portfolio - Short-term A2/P2, long-term BB

Concentration of Credit Risk: As a means of managing the concentration of credit risk, University investment policy limits the concentration of investments as follows:

- LP portfolio – No more than 15% of the portfolio's market value may be invested in dollar denominated foreign securities of developed countries (i.e., no emerging markets). No more than 10% of the portfolio's market value will be invested in securities of any single issuer, except those which are obligations of, or fully guaranteed as to both principal and interest by, the U.S. Government or its agencies.

- LRP portfolio – No more than 10% of the portfolio's market value may be invested in securities below BBB. No more than 10% of the portfolio's market value may be invested in securities of any single issuer, except those which are obligations of, or fully guaranteed as to both principal and interest by, the U.S. Government or its agencies.

- CIF portfolio – Investments are managed in accordance with asset allocation guidelines and manager guidelines established at the time of manager appointment and consist of equities, real assets, limited partnerships, absolute return funds, and fixed income assets.

NOTES TO THE FINANCIAL STATEMENTS (continued) (dollars in thousands)

As of June 30, 2023 and 2022, not more than 5% of the University's total investments were invested in any one issuer except those which are obligations of, or fully guaranteed as to both principal and interest by, the U.S. Government or its agencies.

Foreign Currency Risk: University investment policy limits foreign currency risk on its LRP portfolio to 30% of the portfolio's market value, but does not address foreign risks for the LP or CIF portfolios. The University's exposure to foreign currency risk consisted of $6,899 in investments denominated in British pounds sterling and $4,016 in investments denominated in euros at June 30, 2023. The University's exposure to foreign currency risk consisted of $7,881 in investments denominated in British pounds sterling and $2,967 in investments denominated in euros at June 30, 2022.

The University categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The following describes this hierarchy and the primary valuation methodologies used by the University for financial instruments measured at fair value on a recurring basis:

Level 1: Quoted prices in active markets for identical assets or liabilities. Market-price data are generally obtained from relevant exchanges or dealer markets.

Level 2: Inputs other than Level 1 that are observable either directly or indirectly, such as quoted prices in markets that are not active, or other inputs that are observable or can be corroborated by observable market data for similar assets or liabilities. Inputs are obtained from various sources, including market participants, dealers, and brokers.

Level 3: Unobservable inputs that are supported by little or no market activity and are significant to the fair value of the assets or liabilities.

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

The University's estimated fair value of investments at June 30, 2023 and 2022, grouped by the valuation hierarchy outlined above were as follows:

	Fair value measurement at June 30, 2023 using:				
	Quoted prices in active markets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	Net asset value (NAV)	Balance at June 30, 2023
Investments by fair value level:					
Equity securities:					
U.S. equities	$ 375,670	$ -	$ -	$ 1,014,904	$ 1,390,574
International equities	2,736	-	-	50,685	53,421
Debt securities:					
U.S Government agencies	-	213,233	-	-	213,233
Corporate bonds	-	228,233	-	-	228,233
International bonds	-	290	-	-	290
Municipal bonds	-	1,930	-	-	1,930
Asset-backed securities	-	196,923	-	-	196,923
Other fixed income	195	-	-	-	195
Hedge funds	-	-	-	921,867	921,867
Private investments	-	-	1,049	1,328,127	1,329,176
Real assets/Real estate	-	-	22,645	165,463	188,108
Money market and mutual funds	32,522	4,675	-	-	37,197
Funds held at MSU Foundation	-	-	19,826	-	19,826
Other investments	-	-	21,232	-	21,232
Total investments by fair value level	$ 411,123	$ 645,284	$ 64,752	$ 3,481,046	$ 4,602,205

NOTES TO THE FINANCIAL STATEMENTS (continued) (dollars in thousands)

	Fair value measurement at June 30, 2022 using:				
	Quoted prices in active markets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	Net asset value (NAV)	Balance at June 30, 2022
Investments by fair value level:					
Equity securities:					
U.S. equities	$ 303,794	$ -	$ -	$ 858,478	$ 1,162,272
International equities	3,323	-	-	46,862	50,185
Debt securities:					
U.S Government agencies	-	497,499	-	-	497,499
Corporate bonds	-	240,161	-	-	240,161
International bonds	-	127	-	-	127
Municipal bonds	-	185	-	-	185
Asset-backed securities	-	235,762	-	-	235,762
Hedge funds	-	-	-	726,434	726,434
Private investments	-	-	-	1,373,765	1,373,765
Real assets/Real estate	-	-	26,332	173,847	200,179
Money market and mutual funds	112,185	-	-	-	112,185
Funds held at MSU Foundation	-	-	20,546	-	20,546
Other investments	-	-	21,205	-	21,205
Total investments by fair value level	$ 419,302	$ 973,734	$ 68,083	$ 3,179,386	$ 4,640,505

As prescribed by GASB Statement No. 72, *Fair Value Measurement and Application*, certain investments held by the University are to be valued using methods other than fair value. For the fiscal years ending June 30, 2023 and 2022, the University did not hold any U.S. Treasury bond investments with original maturities of less than one year. During the year ended June 30, 2023, the University acquired a majority equity interest in 411 Piquette Holdings, LLC, via 100% owned MI 411P Holdings, LLC, which purchased a 75% equity interest in the entity. That investment is valued using the equity method, in accordance with GASB Statement No. 90, *Majority Equity Interests*, and was valued at $6,115 as of June 30, 2023. During the year ended June 30, 2023, the University acquired a majority equity interest in Fisher Acquisitions, LLC, via 100% owned MI Fisher Holdings, LLC, which purchased a 79% equity interest in the entity. That investment is valued using the equity method, in accordance with GASB Statement No. 90, *Majority Equity Interests*, and was valued at $21,035 as of June 30, 2023. The University also holds a 61.7% equity interest in BXHCP ES II, LLC. That investment is also valued using the equity method and was valued at $1,930 as of June 30, 2023 and 2022, respectively. For the fiscal year ending June 30, 2023 the University held commercial paper and bank time deposits with original maturities of less than one year at amortized cost that totaled $29,788. In addition, certain funds held by interest rate swap counterparties totaled $4,400 at June 30, 2022, which reflected cash balances on deposit in accordance with counterparty collateral posting provisions. No such funds were held by interest rate swap counterparties at June 30, 2023.

Investments classified in Level 1 at June 30, 2023 and 2022 are valued using prices quoted in active markets for those securities.

The fair value of various equity and debt securities held at June 30, 2023 and 2022 was determined primarily on Level 2 inputs. The University estimates the fair value of these investments using other inputs such as interest rates and yield curves that are observable at commonly quoted intervals.

Investments classified in Level 3 at June 30, 2023 and 2022 are valued using the University's own estimates using pricing models, discounted cash flow methodologies, or similar techniques taking into account the characteristics of the asset. Life insurance policies are valued at their cash surrender value.

NOTES TO THE FINANCIAL STATEMENTS (continued) (dollars in thousands)

Derivative instruments classified in Level 2 of the fair value hierarchy are valued using a market approach that considers benchmark interest rates. The University's estimated fair value of derivatives at June 30, 2023 and 2022 were as follows:

	Fair value measurement at June 30, 2023 using:			
	Quoted prices in active markets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	Balance at June 30, 2023
Derivative instruments by fair value:				
Cash flow hedging derivatives - swap liability	$ -	$ (467)	$ -	$ (467)
Investment derivatives - swap liability	-	(14,973)	-	(14,973)
Total derivative instruments by fair value	$ -	$ (15,440)	$ -	$ (15,440)

	Fair value measurement at June 30, 2022 using:			
	Quoted prices in active markets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	Balance at June 30, 2022
Derivative instruments by fair value:				
Cash flow hedging derivatives - swap liability	$ -	$ (18,329)	$ -	$ (18,329)
Investment derivatives - swap liability	-	(15,250)	-	(15,250)
Total derivative instruments by fair value	$ -	$ (33,579)	$ -	$ (33,579)

The University holds shares or interests in investment companies where the fair value of the investments are measured on a recurring basis using net asset value (or its equivalent) of the investment companies as a practical expedient. For the year ended June 30, 2023 and 2022, the fair value, unfunded commitments, and redemption rules of those investments were as follows:

			As of June 30, 2023		
	June 30, 2023	June 30, 2022	Unfunded Commitments	Redemption Frequency	Redemption Notice Period
U.S. equities (a)	$ 1,014,904	$ 858,478	$ -	Daily	1 day
International equities (b)	50,685	46,862	-	Various	10-30 days
Hedge funds (c)	921,867	726,434	15,703	Various	31-120 days
Private investments (d)	1,328,127	1,373,765	670,827	Not applicable	Not applicable
Real assets/Real estate (e)	165,463	173,847	31,524	Not applicable	Not applicable
Total	$ 3,481,046	$ 3,179,386	$ 718,054		

[a] *U.S. equities.* This category includes U.S. equities that are marketable equity securities of primarily U.S.-based companies. Several sub-categories of this asset class include: large capitalization companies, small capitalization companies, value-style investing, and growth-style investing.

[b] *International equities.* This category includes international equities that are marketable equity securities in developed and emerging countries outside the U.S. The investment is intended to provide long-term performance similar to or in excess of U.S. equities and provide diversification.

[c] *Hedge funds.* The University invests in hedge funds seeking equity-like returns while reducing volatility. The University will consider funds with a diversifier mandate (lower expected volatility and lower correlation to broad market trends), as well as funds with a growth-oriented mandate (higher expected volatility and higher correlation to broad market trends). Managers with either type of mandate will employ risk management techniques intended to reduce downside potential to a degree considered appropriate for their respective strategy. A de minimis amount of the hedge funds have restrictions that do not allow for redemption in the first 12 to 60 months after acquisition. The longer remaining restriction period for these investments ranged from 10 to 22 months at June 30, 2023. Generally, longer redemption restrictions are offered with a lower fee structure.

NOTES TO THE FINANCIAL STATEMENTS (continued) (dollars in thousands)

[d] *Private investments.* This category includes distressed, private equity, and venture capital investments. These investments are illiquid and higher risk/return assets than marketable securities. Risk will be controlled by diversifying across a number of fund managers and by geographic focus, industry emphasis, financing stage, and vintage year. This core private investments portfolio may be supplemented with less diversified specialty funds or direct investments. The investments in the private investments class (limited partnerships) are committed to funds for extended periods of time, often multiple years. The pacing of investment returns is determined by market activity and the discretion of the general partner. Secondary markets exist into which limited partners can sell their interest in funds, but often at a steep discount to the fair value of the investment. Distributions from each fund will be received only as the underlying investments of the funds are liquidated. It is estimated that the underlying assets of the fund will be liquidated over the next 1 to 10 years.

[e] *Real assets/Real estate.* This category includes both public and private real assets. Risks related to the investments will be minimized by diversifying through use of investment pools or partnerships that are varied as to property type, location, investment life cycle, and investment manager. This core real asset portfolio may be supplemented with less diversified specialty funds or direct investments.

4. Foundation investments

The Foundation records investments at fair value. It utilizes valuation techniques that maximize the use of observable inputs and minimizes the use of unobservable inputs. Based on the observability of the inputs used in the valuation techniques the Foundation is required to provide the following information according to the fair value hierarchy. The fair value hierarchy ranks the quality and reliability of the information used to determine fair values. Financial assets carried at fair value will be classified and disclosed in one of the following three categories:

Level 1: Quoted prices for identical assets or liabilities in active markets that the Foundation has the ability to access as of the measurement date.

Level 2: Significant other observable inputs other than Level 1 prices such as quoted prices for similar assets and liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data.

Level 3: Significant unobservable inputs that reflect a company's own assumptions about the assumptions that market participants would use in pricing an asset or liability.

The Foundation's estimated fair values of investments measured on a recurring basis as of June 30, 2023 and 2022 were as follows:

	Fair value measurement at June 30, 2023 using:				
	Quoted prices in active markets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	Net asset value (NAV)	Balance at June 30, 2023
Marketable securities:					
Short-term investments	$ 99	$ -	$ -	$ -	$ 99
Domestic equities	85,032	-	-	-	85,032
Foreign equities	229	-	-	-	229
Mutual funds - equities	91,658	-	-	-	91,658
Mutual funds - fixed income	26,147	-	-	-	26,147
Alternative investments:					
Foreign equities	-	-	-	-	-
Hedge funds	-	-	-	99,971	99,971
Private equity	-	-	-	143,566	143,566
Total investments by fair value level	$ 203,165	$ -	$ -	$ 243,537	$ 446,702

NOTES TO THE FINANCIAL STATEMENTS (continued) (dollars in thousands)

	Fair value measurement at June 30, 2022 using:				
	Quoted prices in active markets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	Net asset value (NAV)	Balance at June 30, 2022
Marketable securities:					
Short-term investments	$ 394	$ -	$ -	$ -	$ 394
Domestic equities	70,918	-	-	-	70,918
Foreign equities	351	-	-	-	351
Mutual funds - equities	64,820	-	-	-	64,820
Mutual funds - fixed income	6,796	-	-	-	6,796
Alternative investments:					
Foreign equities	-	-	-	15,627	15,627
Hedge funds	-	-	-	129,723	129,723
Private equity	-	-	-	146,088	146,088
Total investments by fair value level	$ 143,279	$ -	$ -	$ 291,438	$ 434,717

The fair value for marketable debt and equity securities are based on quoted market prices. Securities traded on the national securities exchange are valued at the reported sales price on the last business day of the year. Investments traded over the counter on the over-the-counter market and listed securities for which no sale was reported on that date are valued at the average of the last reported bid and ask price. In accordance with applicable accounting standards, certain investments that are measured at fair value using the NAV per share (or its equivalent) practical expedient have not been classified in the fair value hierarchy.

Private equity investments are illiquid based upon partnership dissolution. Management, external consultants, and the Board of Directors evaluate these investments for impairment on a quarterly basis. As of June 30, 2023, the Foundation has outstanding commitments to fund limited partnerships and venture capital investments in the amount of $54,135.

5. Accounts and interest receivable

The composition of accounts and interest receivable at June 30, 2023 and 2022 is summarized as follows:

	2023	2022
State appropriations	$ 67,646	$ 65,066
Research and sponsored programs	114,014	73,503
Departmental activities	54,937	79,508
Lease receivables	39,491	29,418
Interest receivable	6,362	5,127
Other	48,419	40,799
	330,869	293,421
Less: allowance for doubtful accounts	12,434	14,351
Total accounts and interest receivable, net	318,435	279,070
Less: current portion	278,453	250,065
Noncurrent portion	$ 39,982	$ 29,005

NOTES TO THE FINANCIAL STATEMENTS (continued) (dollars in thousands)

6. Student loans and pledges receivable

The composition of student loans and pledges receivable at June 30, 2023 and 2022 is summarized as follows:

	2023	2022
Student loans receivable:		
Perkins Federal Loan Program	$ 6,569	$ 8,790
Health Professions Student Loan Programs	12,431	14,262
Other	1,692	1,930
	20,692	24,982
Less: allowance for doubtful accounts	1,500	1,867
Total student loans receivable, net	19,192	23,115
Pledges receivable:		
Capital	63,664	47,362
Operations	58,628	86,692
	122,292	134,054
Less: allowance for doubtful accounts	12,633	13,824
Total pledges receivable, net	109,659	120,230
Total student loans and pledges receivable, net	128,851	143,345
Less: current portion - student loans	5,726	6,509
Less: current portion - pledges	31,444	29,734
Noncurrent portion	$ 91,681	$ 107,102

Principal repayment and interest rate terms of federal and University student loans vary considerably. Campus-based federal loan programs are funded principally with federal and institutional contributions to the University under the Perkins and various health professions loan programs.

The Perkins loan program expired on September 30, 2017, which ended the issuance of new loans under this program, and disallowed any new disbursements after June 30, 2018. The University continues to service outstanding loans in accordance with program specifications as permitted by the Federal government.

For the year ended June 30, 2023 and 2022, the University distributed $358,728 and $319,985, respectively, for student loans through the U.S. Department of Education William D. Ford Direct Loan Program. These distributions and related funding sources are not included as expenses and revenues in the accompanying financial statements.

As discussed in note 1, pledges for permanent endowments do not meet eligibility requirements, as defined by GASB Statement No. 33, until the related gift is received. Accordingly, pledges for permanent endowments totaling $27,885 and $25,999 at June 30, 2023 and 2022, respectively, are not recognized as assets in the accompanying financial statements, but are expected to be received in future years.

Payments on pledges receivable at June 30, 2023, expected to be received in the following fiscal years ended June 30, are summarized below. The allowance for uncollectible pledges receivable is made based on prior collection experience and management judgment. Gift pledges expected to be collected in the future years are reported at the net present value of the related cash flows discounted at 4.0%.

2024	$ 35,102
2025	26,622
2026	17,396
2027	12,741
2028	7,656
2029 and beyond	22,775
Total discounted pledges receivable	122,292
Less: allowance for uncollectible pledges	12,633
Total pledges receivable, net	$ 109,659

NOTES TO THE FINANCIAL STATEMENTS (continued) (dollars in thousands)

7. Investments in joint ventures and other assets

The composition of investment in joint ventures and other assets at June 30, 2023 and 2022 is summarized as follows:

	2023	2022
Investment in joint ventures	$ 18,155	$ 9,366
Other assets	24,217	31,409
Total investment in joint ventures and other assets	$ 42,372	$ 40,775

The University is a member of two separate incorporated nonprofit joint ventures which are accounted for under the equity method. University Rehabilitation Alliance, Inc. (URA) has the University and Peckham Vocational Industries of Lansing as members and is an enterprise for the treatment of persons with brain injury. Henry Ford Health System - Michigan State University Health Sciences (HF+MSU) has the University and Henry Ford Health System as members and is an enterprise that supports a broader affiliation agreement between the two members (see note 16). As of June 30, 2023 and 2022, respectively, the University had a 50% equity interest in URA. As of June 30, 2023 and 2022, the University had a 57% and 75% equity interest, respectively, in HF+MSU based on contributions made to the joint venture to date. The University holds 50% of the board appointment and voting rights in HF+MSU. Copies of financial statements for these entities can be obtained by a written request to: Office of the Controller, Michigan State University, 426 Auditorium Rd., John A. Hannah Administration Building Room 305, East Lansing, Michigan 48824.

At June 30, 2023 and 2022, the University had a note receivable balance of $1,588 and $1,672, respectively. This receivable is due in equal monthly installments by March 2036 at a rate of 5.5% and is secured by the land, property, and equipment of URA.

MSU Health Care, Inc., a blended component unit, is a member of an incorporated nonprofit joint venture which is accounted for under the equity method. Spartan Radiology, LLC, whose members are MSU Health Care, Inc. and Advanced Radiology Services, PC, is an enterprise providing professional medical diagnostic imaging, therapeutic and radiology services, and related professional services. MSU Health Care, Inc., and thus the University, is a 50% member of the nonprofit corporation. Copies of financial statements for these entities can be obtained by a written request to: Office of the Controller, Michigan State University, 426 Auditorium Rd., John A. Hannah Administration Building Room 305, East Lansing, Michigan 48824.

MSU Health Care, Inc. has provided two promissory notes to Spartan Radiology, LLC in the amount of $375 and $350, respectively, each at a rate of 6%, which are secured by all tangible and intangible property of Spartan Radiology, LLC. Principal and accrued interest payments are due quarterly at a rate of 50% of the entity's cash balance to the extent it exceeds $250, with any remaining outstanding amounts due in 2025. The notes have a balance of $637 at June 30, 2023, including accrued interest.

MSU Health Care, Inc., is also a member of Spartan Imaging, Inc, an incorporated nonprofit joint venture with McLaren Greater Lansing. Spartan Imaging, Inc., is an enterprise engaged in the development, management, and operation of certain outpatient radiology services, consisting of a women's imaging center and outpatient radiology center to serve residents in Lansing, Michigan and the surrounding communities. MSU Health Care, Inc., and thus the University, is a 50% member of the nonprofit corporation.

In connection with Spartan Imaging, Inc., MSU Health Care, Inc. entered into a Capitalization Agreement. The Capitalization Agreement provides certain financial commitments to be made to Spartan Imaging, Inc. by the members of the joint venture. MSU Health Care, Inc.'s commitment totals approximately $10,900. As of June 30, 2023, MSU Health Care, Inc. has contributed the full amount.

Other assets includes a $22,561 deposit made related to a facilities agreement with Consumers Energy and $1,059 of assets originally granted to the University under the Morrill Act as a pioneer land-grant college. The Consumers agreement called for the University to fund an initial deposit of $23,000 to Consumers Energy that was used for the construction of a 138kV electrical substation to provide energy to the University. The facility is owned and operated by Consumers Energy. The University is entitled to an annual utility expense rebate from Consumers Energy, based in part on annual energy consumption for a period of up to 25 years, up to an accumulated rebate total of $23,000. Any portion of the deposit not applied to future energy expenses through the annual rebate amount by March 2042 will be forfeited.

NOTES TO THE FINANCIAL STATEMENTS (continued) (dollars in thousands)

8. Capital assets and collections

Capital asset and collection activity for the years ended June 30, 2023 and 2022 follows:

	2022 (as restated)	Additions	Disposals	Transfers	2023
Non-depreciated capital assets:					
Land	$ 49,241	$ 1,569	$ -	$ -	$ 50,810
Construction in progress	144,640	140,515	-	(129,896)	155,259
Museum collections	28,795	626	(22)	5	29,404
Total non-depreciated capital assets	222,676	142,710	(22)	(129,891)	235,473
Depreciated and amortized capital assets:					
Buildings and site improvements	4,463,892	47,136	(50)	(106,753)	4,404,225
Software and other intangibles	149,832	997	(757)	42	150,114
Equipment and other	1,032,457	80,270	(29,452)	236,602	1,319,877
Right-to-use assets	109,091	8,947	(9,014)	-	109,024
Less: accumulated depreciation and amortization					
Buildings and site improvements	(2,014,951)	(132,537)	16	12,929	(2,134,543)
Software and other intangibles	(127,190)	(6,956)	-	(245)	(134,391)
Equipment and other	(837,346)	(69,937)	28,756	(12,684)	(891,211)
Right-to-use assets	(31,292)	(19,262)	7,847	-	(42,707)
Total depreciated and amortized capital assets	2,744,493	(91,342)	(2,654)	129,891	2,780,388
Total capital assets	$ 2,967,169	$ 51,368	$ (2,676)	$ -	$ 3,015,861

	2021 (as restated)	Additions	Disposals	Transfers	2022 (as restated)
Non-depreciated capital assets:					
Land	$ 48,575	$ 696	$ (30)	$ -	$ 49,241
Construction in progress	340,553	102,535	-	(298,448)	144,640
Museum collections	27,101	1,694	-	-	28,795
Total non-depreciated capital assets	416,229	104,925	(30)	(298,448)	222,676
Depreciated and amortized capital assets:					
Buildings and site improvements	4,168,577	2,938	-	292,377	4,463,892
Software and other intangibles	144,739	-	(978)	6,071	149,832
Equipment and other	1,021,884	62,469	(51,896)	-	1,032,457
Right-to-use assets	60,918	49,161	(988)	-	109,091
Less: accumulated depreciation and amortization					
Buildings and site improvements	(1,875,621)	(139,330)	-	-	(2,014,951)
Software and other intangibles	(120,010)	(7,180)	-	-	(127,190)
Equipment and other	(828,519)	(57,362)	48,535	-	(837,346)
Right-to-use assets	(13,175)	(19,105)	988	-	(31,292)
Total depreciated and amortized capital assets	2,558,793	(108,409)	(4,339)	298,448	2,744,493
Total capital assets	$ 2,975,022	$ (3,484)	$ (4,369)	$ -	$ 2,967,169

NOTES TO THE FINANCIAL STATEMENTS (continued) (dollars in thousands)

The University leases land, office space, office equipment, and medical equipment from external parties. In accordance with GASB 87, the University records right-to-use assets and lease liabilities (see note 13) based on the present value of expected payments over the term of the respective leases. The expected payments are discounted using the interest rate charged on the lease, if available, and are otherwise discounted using the University's incremental borrowing rate. Variable payments are excluded from the valuations unless they are fixed in substance. For leases featuring payments tied to an index or market rate, the valuation is based on the initial index or market rate. The University does not have any leases subject to a residual value guarantee. The right-to-use assets are amortized over the shorter of the lease term or the underlying asset useful life.

The University has entered into various Subscription-Based Information Technology Arrangements (SBITAs) to allow access to external software for set terms. In accordance with GASB 96, the University records right-to-use assets and subscription liabilities (see note 13) based on the present value of expected payments over the term of the respective agreements. The above tables have been restated to reflect the implementation of GASB 96 as of July 1, 2021. The expected payments are discounted using the interest rate charged in the arrangement, if available, and are otherwise discounted using the University's incremental borrowing rate. Variable payments are excluded from the valuations unless they are fixed in substance. The University recognized $1,082 and $1,229 of expenses for the years ended June 30, 2023 and 2022, respectively, for variable SBITAs payments not included in the measurement of the subscription liability. For agreements featuring payments tied to an index or market rate, the valuation is based on the initial index or market rate. The University had $10,847 and $6,994 in commitments under SBITAs before the commencement of the subscription term at June 30, 2023 and 2022, respectively, which are recorded as prepaid expenses.

The amount of lease assets and SBITAs by major classes of underlying assets at June 30, 2023 and 2022, respectively, are as follows:

	Right-to-Use Assets			
	June 30, 2023		June 30, 2022	
Asset Class	Cost	Accumulated amortization	Cost	Accumulated amortization
Land	$ 178	$ 127	$ 204	$ 112
Buildings	48,690	12,792	50,941	10,236
Equipment and other	5,720	4,653	11,235	4,523
SBITAs	54,436	25,135	46,711	16,421
	$ 109,024	$ 42,707	$ 109,091	$ 31,292

The University leases space on buildings to cellular companies, cellular towers, office space, and land to external parties. In accordance with GASB 87, the University records lease receivables and deferred inflows of resources based on the present value of expected receipts over the term of the respective leases. The expected receipts are discounted using the interest rate charged on the lease. Variable payments are excluded from the valuations unless they are fixed in substance. During the years ended June 30, 2023 and 2022, the University recognized revenues related to these lease agreements totaling $3,205 and $3,230, respectively.

9. Deferred outflows and inflows of resources

The composition of deferred outflows of resources at June 30, 2023 and 2022 is summarized as follows:

	2023	2022
Accumulated changes in fair value of hedging derivative instruments	$ 467	$ 18,329
Other postemployment benefits (see note 12)	479,472	543,240
Loss on refunding of debt at June 30, 2010	4,735	5,423
Total deferred outflows of resources	$ 484,674	$ 566,992

The composition of deferred inflows of resources at June 30, 2023 and 2022 is summarized as follows:

	2023	2022
Irrevocable split-interest agreements (net of related liabilities)	$ 22,373	$ 21,447
Other postemployment benefits (see note 12)	356,342	302,843
Lease agreements - University lessor	37,507	28,625
Gain on refunding of debt at June 30, 2020	3,676	4,558
Gain on refunding of debt at June 30, 2023	7,024	-
Total deferred inflows of resources	$ 426,922	$ 357,473

NOTES TO THE FINANCIAL STATEMENTS (continued) (dollars in thousands)

10. Contingencies and risk management

The University is exposed to various risks of loss related to torts; theft of, damage to, and destruction of assets; errors and omissions; and natural disasters. The University complies with the requirements of GASB Statement No. 10, *Accounting and Financial Reporting for Risk Financing and Related Insurance Issues*, and related guidance, and records liabilities for legal proceedings and other contingent losses in those instances where the liability is deemed probable and the University can reasonably estimate the amount of the loss (or a range of the loss can be estimated). Once established, accruals are adjusted from time to time, as appropriate, to reflect (1) the facts and circumstances known at the time, including information regarding negotiations, settlements, rulings and other relevant events and developments, (2) the advice and analyses of counsel and (3) the assumptions and judgment of management. To manage these risks, the University uses various lines of commercial insurance purchased directly by the University or through Lysander (cell captive insurance company) on an annual basis (including, but not limited to, general liability insurance, educators legal liability insurance, excess medical professional liability insurance, and property insurance) with differing self-insured retentions. The University evaluates self-insured retention amounts annually, and establishes retention amounts based on various factors, including historical claims experience.

The University's liability for various medical professional liability claims is funded based on actuarial valuations. The liability is reported at its present value of $4,625 and $8,981 as of June 30, 2023 and 2022, respectively. The discount rate used was 3.0% and 2.0% at June 30, 2023 and 2022, respectively, which is based in part on the University's short-term internal cost of capital and industry standards.

The University is also self-insured for various employee benefits that include health care and dental insurance, workers compensation, and unemployment compensation. Claims expenditures and liabilities are reported when it is probable that a loss has occurred and the amount of the loss can be reasonably estimated. Those losses include an estimate of claims that have been incurred but not reported. The workers compensation liability, which will be settled by fixed payments over an extended period of time, is reported at its present value of $3,235 and $4,361 as of June 30, 2023 and 2022, respectively. The discount rate used was 4.0% and 3.5% as of June 30, 2023 and 2022, respectively, which is based in part on the University's medium-term internal cost of capital and industry standards.

Changes in the total reported general, professional, and self-insured employee benefit liabilities during 2023, 2022, and 2021 were as follows:

	2023	2022	2021
Balance, beginning of year	$ 36,762	$ 37,345	$ 33,167
Claims incurred and changes in estimates	193,683	189,692	200,319
Claim payments	(198,017)	(190,275)	(196,141)
Balance, end of year	32,428	36,762	37,345
Less: current portion	21,881	22,242	24,194
Noncurrent portion	$ 10,547	$ 14,520	$ 13,151

For those risks that the University has purchased commercial insurance, settled claims have not exceeded the commercial coverage in any of the past four years.

In the normal course of its activities, the University has been a party in various legal actions. After taking into consideration legal counsel's evaluation of pending actions, the University is of the opinion that the outcome thereof, will not have a material effect on the financial statements.

11. Retirement benefits

The University has a defined contribution base retirement program administered through TIAA and Fidelity Investments for all qualified employees. All regular employees are eligible to participate based on the service requirements specific to their employee group. Participants maintain individual accounts with the base retirement vendors and are fully vested.

Participating employees contribute 5% of their base salary or wages and the University contributed 10% of the employee's base salary or wages, subject to applicable University guidelines and Internal Revenue Service limits. Effective July 1, 2020, the University reduced the matching contribution to 5% for executive management and non-unionized faculty and academic staff. This matching contribution was restored to 10% effective January 1, 2022. Effective January 1, 2022, the University reduced the matching contribution to 5% for most support staff. This matching contribution was restored to 10% effective July 1, 2022 for most support staff. In addition, for certain employees hired after June 30, 2010, and who are not eligible to receive postemployment benefits upon retirement, the University contributes an additional 0.5% or 0.75% (depending on total years of service) of the employee's base salary or wages, subject to applicable limits. Participants may elect to contribute additional amounts to a supplemental program and/or a deferred compensation plan, within specified limits, which are not matched by University contributions. Plan provisions and contribution requirements of plan members and the University are established and may be amended in accordance with University policies, union contracts, or plan provisions. Contributions under the base program, excluding the participants' supplemental contributions, for the years ended June 30, 2023 and 2022 were as follows:

NOTES TO THE FINANCIAL STATEMENTS (continued) (dollars in thousands)

	2023	2022
University contributions	$ 103,694	$ 72,917
Employee contributions	51,559	47,203

In addition, the University has a single-employer, defined benefit plan covering 136 employees hired prior to January 1, 1973. The plan is closed to new entrants and monies have been internally reserved by the University to fully fund program costs. The plan is not funded through a pension trust. The University has recorded a liability of $1,670 and $2,127 representing the total remaining pension obligation based on an actuarial valuation as of January 1, 2023 and 2022, respectively. The benefits are based on the employee's compensation during the last three years of employment and/or years of service.

12. Net other postemployment benefit (OPEB) obligations

The University provides retiree health and dental care benefits, including prescription drug coverage, to eligible retired employees and qualified spouses/beneficiaries. This is a closed single employer defined benefit plan administered by the University effective for employees hired prior to July 1, 2010. Employees hired on or after July 1, 2010 are eligible to purchase insurance at the average cost of the defined benefit plan. Benefits are provided to eligible faculty, academic staff and support staff who meet normal retirement requirements while still working for the University. Currently, the plan has approximately 21,500 members. The plan does not issue a separate stand-alone financial statement. Terms of benefit plans are generally determined as part of collective bargaining agreements or set by the University for employees who are not represented. The Provost and Executive Vice President for Academic Affairs and the Executive Vice President for Administration are authorized to enter into collective bargaining agreements. In addition, the President and Senior Vice President, Chief Financial Officer, and Treasurer are authorized to approve benefit plan changes.

The University's retiree medical plan is a Medicare advantage and prescription drug plan for those retirees eligible for Medicare. Medicare advantage and prescription drug plans are offered by private companies approved by Medicare to provide bundled Medicare benefits. The University pays a premium for each eligible retiree, spouse, and covered dependent to enroll in the plan and the actual claims are paid by the provider. Retirees are responsible for various co-payments. The University does not maintain a separate legal trust to hold assets used to fund postemployment benefits, has no obligation to make contributions in advance of when insurance premiums or claims are due for payment, and currently pays for postemployment benefits on a pay-as-you-go basis.

The University's annual postemployment benefits expense is actuarially determined in accordance with GASB Statement No. 75 ("GASB 75"). Projections of benefits for financial reporting purposes are based on the substantive plan (the plan as understood by the employer and the plan members) and include the types of benefits provided at the time of each valuation and the historical pattern of sharing of benefit costs between the employer and plan members to that point.

For the year ended June 30, 2023, the University's reported liability for providing retiree health and dental care benefits is estimated based on an actuarial valuation date of January 1, 2022 and measurement date of December 31, 2022 in accordance with GASB 75. The University's liability is calculated using the entry age normal level percent of pay method. The actuarial assumptions are as follows:

Discount rate	3.72%, based on the Bond Buyer 20-year General Obligation Municipal Bond Index
Salary increases	5.0%
Healthcare cost trend rates	6.50%/8.31% for 2023, decreasing 0.25% per year, to an ultimate rate of 5% for 2029 and later years. Trend rates shown are for pre-65 rates/post-65 rates, respectively. As of July 1, 2010, internal policy caps healthcare cost increases at a maximum of 5% per year.

NOTES TO THE FINANCIAL STATEMENTS (continued) (dollars in thousands)

For the year ended June 30, 2022, the University's reported liability for providing retiree health and dental care benefits is estimated based on an actuarial valuation date of January 1, 2022 and measurement date of December 31, 2021 in accordance with GASB 75. The University's liability is calculated using the entry age normal level percent of pay method. The actuarial assumptions are as follows:

Discount rate	2.06%, based on the Bond Buyer 20-year General Obligation Municipal Bond Index
Salary increases	5.0%
Healthcare cost trend rates	6.25%/9.03% for 2022, decreasing 0.31% per year, to an ultimate rate of 5% for 2026 and later years. Trend rates shown are for pre-65 rates/post-65 rates, respectively. As of July 1, 2010, internal policy caps healthcare cost increases at a maximum of 5% per year.

For the December 31, 2022 measurement date, the University utilized separate mortality assumptions for faculty and non-faculty staff. Faculty mortality is based on the Pub T.H-2010.H (A) Public Retirement Plans Mortality Tables with MP-2021 improvement scale. Non-faculty staff mortality is based on the RP-2014 Generational Healthy Mortality Tables, with mixed collar adjustments, projected back to 2006 using scale MP-2014 and then projected forward using MP-2021. For the December 31, 2021 measurement date, the University utilized separate mortality assumptions for faculty and non-faculty staff. Faculty mortality was based on the Pub T.H-2010.H (A) Public Retirement Plans Mortality Tables with MP-2021 improvement scale. Non-faculty staff mortality was based on the RP-2014 Generational Healthy Mortality Tables, with mixed collar adjustments, projected back to 2006 using scale MP-2014 and then projected forward using MP-2021. Additional assumptions utilized include employee withdrawal rates up to 1.5% at age 65 for certain employee groups, a retirement age up to 69.0 for certain employee groups, 90% of males and 60% of females having covered spouses, and a retiree opt-out rate of 8%. These additional assumptions are based on an experience study performed in 2019. Changes in the total reported liability for postemployment benefits obligations for the year ended June 30, 2023 and 2022, are summarized as follows:

	2023	2022
Balance, beginning of year	$ 648,551	$ 630,095
Service cost	16,526	19,691
Interest cost	13,313	13,480
Changes in assumptions	(110,693)	(23,184)
Difference between expected and actual plan experience	11,817	36,300
Benefits payments	(37,635)	(27,831)
Balance, end of year	541,879	648,551
Less: current portion	26,876	25,938
Noncurrent portion	$ 515,003	$ 622,613

Changes in assumptions reflect a change in the discount rate at both the measurement dates of December 31, 2022 and 2021, respectively.

Under the Medicare advantage plan, the Medicare Retiree Drug Subsidy is paid directly to the plan provider, and thus has the effect of reducing the University's postemployment benefits obligations at June 30, 2023 and 2022, respectively.

For both the December 31, 2022 and 2021 measurement dates, amounts are based on the valuation date of January 1, 2022. Therefore, census data, including the number of plan participants, consisted of the following:

	2023 and 2022
Active employees - Hired before July 1, 2010	4,824
Active employees - Hired after July 1, 2010	7,739
Retirees receiving benefits	5,692
Dependents	3,261
Total plan participants	21,516

Actuarial valuations of an ongoing plan involve estimates of the value of reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality, and the health care cost trend.

NOTES TO THE FINANCIAL STATEMENTS (continued) (dollars in thousands)

A one-percentage point change in the discount rate and assumed health care cost trend rates would have the following impact on the liability for postemployment benefits obligations at June 30, 2023:

	1% Decrease	Current Rates	1% Increase
Discount rate:			
Net OPEB obligations	$ 622,313	$ 541,879	$ 475,174
Increase (decrease)	80,434	-	(66,705)
Health care trend rate:			
Net OPEB obligations	$ 432,302	$ 541,879	$ 553,398
Increase (decrease)	(109,577)	-	11,519

A one-percentage point change in the discount rate and assumed health care cost trend rates would have the following impact on the liability for postemployment benefits obligations at June 30, 2022:

	1% Decrease	Current Rates	1% Increase
Discount rate:			
Net OPEB obligations	$ 740,734	$ 648,551	$ 572,506
Increase (decrease)	92,183	-	(76,045)
Health care trend rate:			
Net OPEB obligations	$ 558,795	$ 648,551	$ 673,456
Increase (decrease)	(89,756)	-	24,905

The components of postemployment benefits expense for the year ended June 30, 2023 and 2022 are summarized as follows:

	2023	2022
Service cost	$ 16,526	$ 19,691
Interest cost	13,313	13,480
Amortization of differences between expected and actual experience	7,094	5,863
Amortization of changes in assumptions	12,406	23,937
Total expense	$ 49,339	$ 62,971

Deferred outflows and inflows of resources related to postemployment benefits obligations at June 30, 2023 are summarized as follows:

	Deferred Outflows of Resources	Deferred Inflows of Resources	Net deferred impact to OPEB
Changes in assumptions	$ 406,213	$ 351,811	$ 54,402
Differences between expected and actual experience	55,702	4,531	51,171
Benefit payments made after measurement date	17,557	-	17,557
Total	$ 479,472	$ 356,342	$ 123,130

Deferred outflows and inflows of resources related to postemployment benefits obligations at June 30, 2022 are summarized as follows:

	Deferred Outflows of Resources	Deferred Inflows of Resources	Net deferred impact to OPEB
Changes in assumptions	$ 475,165	$ 297,664	$ 177,501
Differences between expected and actual experience	51,627	5,179	46,448
Benefit payments made after measurement date	16,448	-	16,448
Total	$ 543,240	$ 302,843	$ 240,397

NOTES TO THE FINANCIAL STATEMENTS (continued) (dollars in thousands)

Of the total amount reported as deferred outflows of resources related to OPEB at June 30, 2023, $17,557 resulting from University contributions subsequent to the measurement date and before the end of the fiscal year will be included as a reduction in the net OPEB liability in the year ended June 30, 2024. Deferred outflows and inflows related to changes in assumptions and the difference between expected and actual plan experience will be amortized into expense in the following years ended June 30 based upon the average future work life expectancy of plan participants.

2024	$	19,500
2025		19,500
2026		19,500
2027		18,330
2028		7,836
2029 and beyond		20,907
Total	$	105,573

NOTES TO THE FINANCIAL STATEMENTS (continued) (dollars in thousands)

13. Long-term debt and other obligations

Long-term debt and other obligations for the years ended June 30, 2023 and 2022 are summarized as follows:

	2022 (as restated)	Borrowed	Retired	2023	Current Portion
General Revenue Bonds:					
Series 2023A	$ -	$ 307,255	$ -	$ 307,255	$ 9,125
Series 2022A	500,000	-	-	500,000	-
Series 2020A	87,790	-	3,955	83,835	4,380
Series 2019C	128,280	-	8,930	119,350	3,700
Series 2019A	321,695	-	720	320,975	740
Series 2019B	281,445	-	5,735	275,710	6,020
Series 2015A	142,350	-	4,250	138,100	4,465
Series 2013A	141,585	-	141,585	-	-
Series 2010A	205,000	-	-	205,000	-
Series 2007B	18,805	-	18,805	-	-
Series 2005	47,920	-	47,920	-	-
Series 2003A	42,350	-	42,350	-	-
Series 2000A	74,545	-	74,545	-	-
	1,991,765	307,255	348,795	1,950,225	28,430
General Revenue Commercial Paper:					
Series B taxable	110,000	10,735	12,038	108,697	108,697
Series G tax-exempt	75,875	16,285	46,214	45,946	45,946
	185,875	27,020	58,252	154,643	154,643
Unamortized bond premiums	105,449	39,351	21,633	123,167	2,707
Student loan deposits	25,727	-	2,616	23,111	1,882
Lease obligations	49,320	3,754	13,040	40,034	4,723
SBITA obligations	23,316	9,703	10,172	22,847	7,735
Installment purchases and others	1,541	76	884	733	497
Total long-term debt and other obligations	$ 2,382,993	$ 387,159	$ 455,392	$ 2,314,760	$ 200,617

	2021 (as restated)	Borrowed	Retired	2022 (as restated)	Current Portion
General Revenue Bonds:					
Series 2022A	$ -	$ 500,000	$ -	$ 500,000	$ -
Series 2020A	91,360	-	3,570	87,790	3,955
Series 2019C	136,915	-	8,635	128,280	8,930
Series 2019A	322,395	-	700	321,695	720
Series 2019B	286,905	-	5,460	281,445	5,735
Series 2015A	146,395	-	4,045	142,350	4,250
Series 2013A	145,870	-	4,285	141,585	4,505
Series 2010A	205,000	-	-	205,000	-
Series 2007B	20,945	-	2,140	18,805	2,225
Series 2005	51,090	-	3,170	47,920	3,295
Series 2003A	45,340	-	2,990	42,350	3,135
Series 2000A	77,125	-	2,580	74,545	2,705
	1,529,340	500,000	37,575	1,991,765	39,455
General Revenue Commercial Paper:					
Series B taxable	113,375	7,000	10,375	110,000	110,000
Series G tax-exempt	83,405	15,920	23,450	75,875	75,875
	196,780	22,920	33,825	185,875	185,875
Unamortized bond premiums	109,152	-	3,703	105,449	4,289
Student loan deposits	29,136	-	3,409	25,727	2,471
Lease obligations	22,341	32,275	5,296	49,320	6,389
SBITA obligations	24,562	8,566	9,812	23,316	8,722
Installment purchases and others	1,457	975	891	1,541	846
Total long-term debt and other obligations	$ 1,912,768	$ 564,736	$ 94,511	$ 2,382,993	$ 248,047

All General Revenue bonds are secured by General Revenues.

During the year ended June 30, 2023, the University issued Series 2023A tax-exempt general revenue bonds in the amount of $307,225 with a net original issue premium/discount of $39,352. Bond proceeds were used to refund $63,705 of Series 2000A bonds, $39,215 of Series 2003A bonds, $44,625 of Series 2005 bonds, $16,580 of Series 2007B bonds, $132,340 of Series 2013A bonds, $8,763 of taxable commercial paper Series B, and $30,916 of tax-exempt commercial paper Series G, plus related issuance costs and swap termination costs. The Series 2000A, 2003A, 2005, and 2007B bonds were variable rate, so a change in undiscounted cash flow to service the new debt and economic gain was not determined. For the portion that refunded part of the Series 2013A bonds, undiscounted cash flow to service the new debt decreased by $17,668 and the economic gain resulting from this transaction amounted to $13,490. The Series 2023A bonds bear interest at a fixed rate of 5% and have serial maturities or mandatory redemption from fiscal 2024 through 2048.

The Series 2022A taxable bonds bear interest at a fixed rate of 4.165% and are subject to mandatory redemption in fiscal 2123.

The Series 2020A bonds bear interest at fixed rates from 3% to 5% and mature either serially through fiscal 2032 or are subject to mandatory redemption from fiscal 2042 through 2046.

The Series 2019C bonds bear interest at fixed rates from 4% to 5% and mature either serially through fiscal 2039 or are subject to mandatory redemption from fiscal 2042 through 2046.

The Series 2019B bonds bear interest at fixed rates from 3% to 5% and mature either serially from fiscal 2022 through 2039 or are subject to mandatory redemption from fiscal 2040 through 2048.

The Series 2019A bonds bear interest at fixed rates from 3.066% to 4.496% and subject to mandatory redemption from fiscal 2022 through 2049.

The Series 2015A bonds bear interest at fixed rates from 3% to 5% and mature either serially through fiscal 2036 or are subject to mandatory redemption from fiscal 2037 through 2046.

The Series 2010A bonds bear interest at 6.173% and are subject to mandatory redemption from fiscal 2044 through 2050. Prior to March 1, 2013, in accordance with the Build America Bonds program, the University received semi-annual federal credit payments equal to 35% of actual interest expense incurred on the outstanding principal balance of the bonds. Pursuant to the requirements of the Balanced Budget and Emergency Deficit Control Act of 1985, as amended, certain automatic reductions took place on March 1, 2013. These required reductions included a reduction to refundable credits applicable to certain qualified bonds, including Series 2010A. The sequestration reduction rate was 5.7% from October 1, 2020 to September 30, 2030. The sequestration reduction rate will be applied unless and until a law is enacted that cancels or otherwise impacts the sequester, at which time the sequestration rate is subject to change.

The University utilizes variable-rate commercial paper to provide interim financing. The Board has authorized the issuance of up to $250,000 in commercial paper secured by General Revenues and allows for tax-exempt and taxable issuances. Outstanding commercial paper debt is converted to long-term financing, as appropriate, within the normal course of business. Outstanding tax-exempt balances as of June 30, 2023 bear interest at rates from 3.10% to 3.70% and taxable balances bear interest at rates from 5.15% to 5.25%, with principal and accrued interest payments due within a maximum of 270 days from the date of issuance.

NOTES TO THE FINANCIAL STATEMENTS (continued) (dollars in thousands)

Hedging derivative instrument payments and hedged debt: Using rates as of June 30, 2023, scheduled fiscal year maturities of bonds payable and related interest expense are as follows. These amounts assume that the current reference rates of hedging derivative instruments will remain the same for their term. As these rates vary, net receipts/payments on the hedging derivative instruments will vary. See note 14 for information on derivative instruments.

Fiscal Year Ending June 30,	Fixed-Rate Bonds Principal	Fixed-Rate Bonds Interest	Hedging Derivatives, Net	Total
2024	$ 28,430	$ 90,642	$ 8	$ 119,080
2025	41,095	88,757	8	129,860
2026	43,015	86,647	7	129,669
2027	42,135	84,529	6	126,670
2028	44,340	82,416	5	126,761
2029-2033	220,890	379,477	13	600,380
2034-2038	231,750	328,592	-	560,342
2039-2043	312,400	264,883	-	577,283
2044-2048	389,455	182,593	-	572,048
2049-2053	96,715	109,197	-	205,912
2054-2058	-	104,125	-	104,125
2059-2063	-	104,125	-	104,125
2064-2068	-	104,125	-	104,125
2069-2073	-	104,125	-	104,125
2074-2078	-	104,125	-	104,125
2079-2083	-	104,125	-	104,125
2084-2088	-	104,125	-	104,125
2089-2093	-	104,125	-	104,125
2094-2098	-	104,125	-	104,125
2099-2103	-	104,125	-	104,125
2104-2108	-	104,125	-	104,125
2109-2113	-	104,125	-	104,125
2114-2118	-	104,125	-	104,125
2119-2123	500,000	85,903	-	585,903
Total	$ 1,950,225	$ 3,137,261	$ 47	$ 5,087,533

Interest expense was $94,386 and $77,997 for 2023 and 2022, respectively. Unamortized bond premiums totaled $123,167 ($2,707 current) and $105,449 ($4,289 current) at June 30, 2023 and 2022, respectively. Bond premium amounts are amortized over the applicable bond issue life.

As of June 30, 2023, the scheduled fiscal year maturities of lease liabilities and related interest expense are as follows:

Fiscal Year Ending June 30,	Principal	Interest	Total
2024	$ 4,723	$ 1,161	$ 5,884
2025	4,661	1,002	5,663
2026	4,695	842	5,537
2027	4,682	689	5,371
2028	4,796	538	5,334
2029-2033	16,279	987	17,266
2034-2038	198	2	200
	$ 40,034	$ 5,221	$ 45,255

NOTES TO THE FINANCIAL STATEMENTS (continued) (dollars in thousands)

As of June 30, 2023, the scheduled fiscal year maturities of SBITAs liabilities and related interest expense are as follows:

Fiscal Year Ending June 30,	Principal	Interest	Total
2024	$ 7,735	$ 634	$ 8,369
2025	5,707	467	6,174
2026	3,226	304	3,530
2027	2,379	214	2,593
2028	1,046	134	1,180
2029-2033	2,754	231	2,985
	$ 22,847	$ 1,984	$ 24,831

Student loan deposits represent funds from the federal government and other private entities related to various student loan programs.

As of June 30, 2023 and 2022, the University held $75,000 in revolving lines of credit that are available for maintaining the required operating cash reserves of the University and providing necessary funds to meet extraordinary cash flow needs, if necessary. For the years ending June 30, 2023 and 2022, no amounts were drawn on these lines of credit.

Installment purchases and other is comprised lease-purchase obligations of $455 ($384 current) and obligations for installment purchases of $278 ($113 current).

Accrued personnel costs include vacation and sick leave days earned but unused, including the University's share of payroll taxes, valued at the current rate of pay. Changes in the balances of accrued personnel costs during 2023 and 2022 were as follows:

	2023	2022
Balance, beginning of year	$ 136,433	$ 108,774
Additions	9,812	35,175
Reductions	(40,593)	(7,516)
Balance, end of year	105,652	136,433
Less: current portion	65,260	98,103
Noncurrent portion	$ 40,392	$ 38,330

14. Derivative instruments

At June 30, 2023, the University was party to two separate pay-fixed, receive-variable interest rate swaps and three separate pay-variable, receive-variable interest rate swaps. At June 30, 2022, the University was party to seven separate pay-fixed, receive-variable interest rate swaps and five separate pay-variable, receive-variable interest rate swaps. During the year ended June 30, 2023, one interest rate swap matured and six interest rate swaps were terminated. After considering any netting arrangements or other rights of offsets that may exist with each counterparty, interest rate swaps are reported at the net fair value as of the balance sheet date as either a noncurrent asset or noncurrent liability in the Statement of Net Position.

The fair value and notional amounts of derivative instruments outstanding at June 30, 2023 and 2022 were as follows:

	June 30, 2023		June 30, 2022	
	Notional Amount	Fair Value	Notional Amount	Fair Value
Derivative instruments - swap liability:				
Cash flow hedging derivatives				
Pay-fixed interest rate swaps	$ 5,690	$ (467)	$ 181,100	$ (18,329)
Investment derivatives:				
Pay-variable interest rate swaps	260,240	(8,032)	303,045	(3,006)
Pay-fixed interest rate swaps	66,685	(6,941)	71,685	(12,244)
Total Derivative instruments - swap liability	$ 332,615	$ (15,440)	$ 555,830	$ (33,579)

NOTES TO THE FINANCIAL STATEMENTS (continued) (dollars in thousands)

In accordance with GASB Statement No. 53, as amended by GASB Statement No. 93, an interest rate swap is considered an effective cash flow hedge if the swap payment received substantially offsets the payment made on the associated debt and changes in fair value are deferred as either a deferred outflow or a deferred inflow of resources. An interest rate swap that is not considered an effective cash flow hedge, in accordance with the provisions of the Statements, is deemed to be an investment derivative instrument and changes in fair value are recorded as net investment income (loss). For the fiscal year ending June 30, 2023 and 2022, the fair value of hedging derivative instruments increased $17,862 and $18,832, respectively, while the fair value of investment derivative instruments increased $277 and $2,105, respectively.

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

Objective: The University is party to two separate derivative instruments which are pay-fixed, receive-variable interest rate swaps that hedge the changes in cash flows on various variable-rate debt series. In order to protect against the potential of rising interest rates, the University entered into these derivative instruments at a cost less than what the University would have paid to issue fixed-rate debt. In order to benefit from expected changes in the relationship of short and long-term interest rates, the University is party to three separate investment derivative instruments which are pay-variable, receive-variable interest rate swaps which relate to various debt series.

Terms, Fair Values, and Credit Risk: During the year ended June 30, 2023, the University adhered to the ISDA 2020 IBOR Fallbacks Protocols as published by the International Swaps and Derivative Association, Inc. This had the effect of replacing USD-LIBOR with USD-SOFR Fallback Rates in certain swaps. The University also adhered to the ISDA 2021 Fallbacks Protocol June 2022 Benchmark Module in 2023 and this had the effect of replacing the USD-ISDA Swap Rate with the USD-SOFR ICE Swap Rate in certain interest rate swaps. The following two tables show the rates in effect after adherence to the protocols for interest rate swaps that were not terminated during the year ended June 30, 2023.

The following table displays the terms and fair values of the University's hedging derivative instruments outstanding at June 30, 2023 and 2022, along with the notional amounts and credit rating of the associated counterparty as of June 30, 2023.

Type	Cah Flow Hedge for Debt Series	2023 Notional Amount	Effective Date	Termination Date	Rate Period	Rate Received	Counterparty/ Counterparty Credit Rating	2023 Fair Value	2022 Fair Value
Pay-fixed interest rate swap	2000A	n/a	11/3/2008	5/9/2023	4.074%	67% USD-LIBOR-BBA one month	Deutsche Bank AG / Baa1/A-	n/a	$ (6,526)
Pay-fixed interest rate swap	Taxable CP	n/a	10/17/2002	8/15/2022	5.280%	USD-LIBOR-BBA one month	Deutsche Bank AG / Baa1/A-	n/a	(12)
Pay-fixed interest rate swap	2003A	n/a	11/3/2008	5/9/2023	3.618%	67% USD-LIBOR-BBA one month	Barclays Bank PLC / A1/A+	n/a	(4,645)
Pay-fixed interest rate swap	Taxable CP	5,690	11/3/2008	2/15/2033	5.330%	USD-SOFR Fallback Rate one month	Barclays Bank PLC / A1/A+	(467)	(923)
Pay-fixed interest rate swap	2005	n/a	11/3/2008	5/9/2023	3.647%	67% USD-LIBOR-BBA one month	Barclays Bank PLC / A1/A+	n/a	(5,314)
Pay-fixed interest rate swap	2007B & Tax-exempt CP	n/a	5/17/2007	5/9/2023	4.139%	67% USD-LIBOR-BBA three month plus 0.58%	JP Morgan Chase Bank / Aa2/A+	n/a	(909)
		$ 5,690						$ (467)	$ (18,329)

NOTES TO THE FINANCIAL STATEMENTS (continued) (dollars in thousands)

The following table displays the terms and fair values of the University's investment derivative instruments outstanding at June 30, 2023 and 2022, along with the notional amounts and credit rating of the associated counterparty as of June 30, 2023:

Type	Associated Debt Series	2023 Notional Amount	Effective Date	Termination Date	Rate Period	Rate Received	Counterparty/ Counterparty Credit Rating	2023 Fair Value	2022 Fair Value
Pay-variable interest rate swap	2019C and 2023A	$ 170,125	8/15/2009	2/15/2034	67% 1-month USD-SOFR Fallback Rate	67% 10-year USD-SOFR ICE Swap Rate less 0.407%	Deutsche Bank AG / Baa1/A-	$ (4,727)	$ (534)
Pay-variable interest rate swap	Taxable CP	5,690	5/26/2006	2/15/2033	1-month USD- SOFR Fallback Rate	10-year USD-SOFR ICE Swap Rate less 0.575%	Deutsche Bank AG / Baa1/A-	(236)	(12)
Pay-variable interest rate swap	2019C	n/a	5/17/2010	5/11/2023	SIFMA Municipal Swap Index	67% USD-LIBOR-BBA one month plus 0.44%	Deutsche Bank AG / Baa1/A-	n/a	(49)
Pay-variable interest rate swap	2019C	n/a	5/17/2010	4/20/2023	SIFMA Municipal Swap Index	67% USD-LIBOR-BBA one month plus 0.44%	Bank of New York Mellon / Aa2/AA-	n/a	(72)
Pay-variable interest rate swap	2019C and 2023A	84,425	5/17/2007	2/15/2037	SIFMA Municipal Swap Index	67% 10-year USD-SOFR ICE Swap Rate plus 0.0063%	JP Morgan Chase Bank / Aa2/A+	(3,069)	(2,339)
Pay-fixed interest rate swap	Taxable and Tax-exempt CP	66,685	5/17/2007	2/15/2037	4.226%	67% 3-month USD-SOFR Fallback Rate plus 0.63%	JP Morgan Chase Bank / Aa2/A+	(6,941)	(12,244)
		$ 326,925						$ (14,973)	$ (15,250)

Credit Risk: The University is exposed to credit risk on derivative instruments that are in asset positions. The aggregate fair value of derivative instruments in asset positions at June 30, 2023 and 2022 was zero and the University was not exposed to credit risk on these interest rate swaps. To minimize its exposure to loss related to credit risk, it is the University's policy to require counterparty collateral posting provisions. The University has never failed to access collateral when required.

The following table demonstrates the thresholds and minimum transfers for collateralization with counterparties that have interest rate swaps in effect at June 30, 2023:

	Deutsche Bank AG		JP Morgan Chase Bank N.A.		Barclays Bank PLC	
Credit Rating	Threshold	Minimum Transfer	Threshold	Minimum Transfer	Threshold	Minimum Transfer
Aaa/AAA	40,000	1,000	40,000	1,000	40,000	1,000
Aa3/AA- to Aa1/AA+	6,000*	1,000	20,000	1,000	6,000	1,000
A3/A- to A1/A+	1,500	500	5,000	500	1,500	500
Baa1/BBB+	500	250	500	250	500	250
Below Baa1/BBB+	-	250	-	250	-	-

* Threshold for the University is $20,000

Interest Rate Risk: The University is not exposed to interest rate risk on its derivative instruments.

Basis Risk: The University is exposed to basis risk on its pay-fixed, receive-variable interest rate swaps because the variable-rate payments received by the University on these derivative instruments are based on USD-SOFR Fallback Rates and the University pays a variable-rate set by a dealer on the hedged commercial paper.

Termination Risk: The University or any of the involved counterparties may terminate a derivative instrument if the other party fails to perform under the terms of the contract. If at the time of termination, a derivative instrument is in a liability position, the University would be liable to the appropriate counterparty for a payment equal to the liability, subject to any netting arrangement.

Rollover Risk: The University is not exposed to rollover risk on its derivative instruments.

Contingencies: All of the University's derivative instruments include provisions that require the University to post collateral at certain thresholds depending on the University's credit rating. See the table under "Credit Risk" for thresholds and minimum transfers for collateralization. As of June 30, 2023, the University's credit ratings were Aa2 as assigned by Moody's and AA as assigned by Standard & Poor's. The aggregate fair value of all derivative instruments with these collateral posting provisions as of June 30, 2023 was ($15,440). The related collateral postings totaled $0 posted by the University to its counterparties and $0 held by the University posted by its counterparties.

15. Grants and contracts

The University receives grants and contracts from certain federal, state, and local agencies to fund research and other activities. Revenues from grants and contracts are recognized when all eligibility requirements have been met. The University records indirect costs related to such grants and contracts at predetermined rates that are negotiated with the University's federal cognizant agency. Both direct and indirect costs charged to the grants or contracts are subject to audit and approval by the granting agencies. University management believes adjustments of costs, if any, resulting from such examination by the granting agency would not be material.

16. Commitments

At June 30, 2023, the University has initiated plans and incurred certain contractual commitments related to the construction or capital improvement of various facilities. The costs to complete the projects are estimated to be $156,680 and are to be funded from debt proceeds, capital grants, private gifts, and other University funds. Certain University facilities have been, or are scheduled to be, financed in whole or in part by SBA bond issues secured by a pledge of rentals to be received from the State of Michigan pursuant to agreements among the SBA, the State of Michigan, and the University. During the lease terms, the SBA will hold title to the respective facilities, although the University has capitalized the facilities and pays all operating and maintenance costs. Once the SBA bonds are fully paid, the SBA will transfer title of the facilities to the University.

At June 30, 2023, the University had entered into various limited partnerships with investment managers of hedge, real assets, real estate, venture capital, private equity, and restructuring funds. As of June 30, 2023, $718,054 of the initial $2,340,920 investment commitment remains outstanding.

The University is party to an electric power purchase and site access agreement for renewable solar energy. Under the terms of the contract, the University has granted a third party access to construct, operate, and maintain solar arrays on the University's property. The University is committed to purchase, at a fixed rate, all of the electric power generated from the solar arrays. The University has the option to purchase the solar array infrastructure at specific dates throughout the term of the contract.

The University is party to an affiliation agreement with Henry Ford Health System to form the Health Sciences Center. The overall goals of the Health Sciences Center include developing a jointly branded and nationally recognized research program, developing a new research building in Detroit, creating a National Cancer Institute designated cancer center, an expanded educational agenda, and establishing a regional campus and training sites in Detroit. In connection with the agreement, the University has committed to investing $3,750 per year in Health Sciences Center research and education programming. The University has also committed to participate in fundraising and other initiatives to assist in funding the overall goals of the Health Sciences Center as mutually agreed to by both parties.

NOTES TO THE FINANCIAL STATEMENTS (continued) (dollars in thousands)

17. Blended component units

As indicated in note 1, the University consolidates MSU Health Care, Inc. and Lysander in a blended presentation. Condensed combining financial information for the years ended June 30, 2023 and 2022, respectively, are presented below:

Condensed Statement of Net Position:	MSU Health Care, Inc. 2023	MSU Health Care, Inc. 2022	Lysander 2023	Lysander 2022
Current assets	$ 22,273	$ 29,520	$ 3,900	$ 3,050
Capital assets, net	8,461	8,083	-	-
Amounts receivable from the University	878	425	-	-
Other assets	12,207	3,645	-	-
Total assets	43,819	41,673	3,900	3,050
Deferred outflows of resources	-	-	-	-
Current liabilities	3,262	3,882	2,181	1,838
Noncurrent liabilities	7,993	4,400	-	-
Amounts payable to the University	10,964	8,571	-	-
Total liabilities	22,219	16,853	2,181	1,838
Deferred inflows of resources	-	-	-	-
Net investment in capital assets	1,572	1,464	-	-
Restricted:				
Nonexpendable	-	-	-	-
Expendable	-	-	-	-
Unrestricted	20,028	23,356	1,719	1,212
Total net position	$ 21,600	$ 24,820	$ 1,719	$ 1,212

Condensed Statement of Revenues, Expenses, and Changes in Net Position:	MSU Health Care, Inc. 2023	MSU Health Care, Inc. 2022	Lysander 2023	Lysander 2022
Operating revenues	$ 94,855	$ 98,928	$ -	$ -
Revenues from the University	2,242	2,086	1,241	1,092
Total operating revenues	97,097	101,014	1,241	1,092
Operating expenses, external	24,408	28,812	734	907
Operating expenses, University	44,963	39,912	-	-
Depreciation expense	3,218	2,977	-	-
Total operating expenses	72,589	71,701	734	907
Net operating income (loss)	24,508	29,313	507	185
Gifts and contributions	1,179	341	-	-
Investment income	-	-	-	-
Coronavirus federal grants and aid	-	1,620	-	-
Other nonoperating revenues, net	401	1,952	-	-
Contributions from the University	2,142	1,783	-	-
Net non-operating revenue (expense)	3,722	5,696	-	-
Gain on transfer of operations	-	-	-	-
Transfers from (to) the University	(31,450)	(39,228)	-	-
Change in net position	(3,220)	(4,219)	507	185
Beginning net position	24,820	29,039	1,212	1,027
Ending net position	$ 21,600	$ 24,820	$ 1,719	$ 1,212

NOTES TO THE FINANCIAL STATEMENTS (continued) (dollars in thousands)

Condensed Statement of Cash Flows:	MSU Health Care, Inc.		Lysander	
	2023	2022	2023	2022
Net cash provided (used) by operating activities	$ 26,867	$ 30,322	$ 815	$ 315
Net cash provided (used) by noncapital financing activities	(32,650)	(30,765)	-	-
Net cash provided (used) by capital and related financing activities	(4,166)	(3,154)	-	-
Net cash provided (used) by investing activities	1,421	(3,236)	-	-
Beginning cash and cash equivalents	17,028	23,861	1,585	1,270
Ending cash and cash equivalents	$ 8,500	$ 17,028	$ 2,400	$ 1,585

During the year ended June 30, 2023, the University issued a note receivable to MSU Health Care, Inc. with a balance of $8,000 at June 30, 2023. This receivable bears interest at a rate of 5% and is due in monthly installments maturing in June 2033.

18. New accounting pronouncements

The University will be required to implement the provisions of GASB Statement No. 101, *Compensated Absences*, effective for the fiscal year ending June 30, 2025. This GASB Statement updates the recognition and measurement guidance for compensated absences. The University is in the process of determining the full impact of this standard on its financial statements.

Financial report prepared under the direction of Lisa A. Frace, Senior Vice President, Chief Financial Officer, and Treasurer;
Gregory J. Deppong, Associate Vice President and University Controller; John L. Thelen, Assistant Controller;
and Shea Bryant, Manager of Financial Reporting

REQUIRED SUPPLEMENTARY INFORMATION (dollars in thousands)

Schedule of changes in the University's total OPEB liability and related ratios

The historical reconciliation of the total reported liability for postemployment benefits obligations for the year ended June 30, 2023, 2022, 2021, 2020, 2019, and 2018 is summarized as follows:

	2023	2022	2021	2020	2019	2018
Service cost	$ 16,526	$ 19,691	$ 57,333	$ 41,383	$ 48,202	$ 41,211
Interest cost	13,313	13,480	59,410	66,476	70,323	69,928
Changes in assumptions	(110,693)	(23,184)	170,012	402,866	(447,295)	115,470
Differences between expected and actual plan experience	11,817	36,300	(6,475)	27,297	—	—
Benefit payments	(37,635)	(27,831)	(44,938)	(44,017)	(39,943)	(38,599)
Change in benefit terms	—	—	(1,746,587)	—	—	—
Net changes	$ (106,672)	$ 18,456	$ (1,511,245)	$ 494,005	$ (368,713)	$ 188,010
Total liability, beginning of year	$ 648,551	$ 630,095	$ 2,141,340	$ 1,647,335	$ 2,016,048	$ 1,828,038
Total liability, ending of year	$ 541,879	$ 648,551	$ 630,095	$ 2,141,340	$ 1,647,335	$ 2,016,048
Covered payroll	$ 1,059,267	$ 1,023,446	$ 1,041,405	$ 1,006,188	$ 993,122	$ 959,538
Total liability as a percentage of covered payroll	51.2%	63.4%	60.5%	212.8%	165.9%	210.1%

Notes to Schedule:

No assets are accumulated in a trust to pay related other postemployment benefits.

Discount rates used in determining the total reported liability for postemployment benefits obligations were 3.72%, 2.06%, 2.12%, 2.73%, 4.09%, 3.44%, and 3.78% at the measurement dates of December 31, 2022, 2021, 2020, 2019, 2018, 2017, and 2016, respectively.

In 2021, the change in benefit terms includes a transition to a Medicare advantage and prescription drug plan.

In 2020, changes in assumption include the repeal of the Affordable Care Act high cost plan excise tax and a reduction in the current health care cost trend rate from 7.50% to 6.88%.

In 2019, as a result of an experience study, assumptions related to mortality, employee withdrawal rates, retirement age, salary increases, marital status, and retiree opt-out rates were adjusted to more closely reflect actual experience. The changes were as follows:

- Mortality – The University changed from using the RP-2014 Generational Healthy Mortality Tables, with white collar adjustments for all employees to Pub T.H-2010.H (A) Public Retirement Plans Mortality Tables for faculty and MP-2014 Generational Healthy Mortality Tables, with mixed collar adjustments for non-faculty.

- Employee withdrawal rate – The University changed from 0% at age 55 to up to 1.5% at age 65 for certain employee groups.

- Retirement age – The University increased the retirement age from 62.4 for all employees to up to 69.0 for certain employee groups.

- Salary increase – The University increased the salary increase level from 4% to 5%.

- Marital status – The University increased the number of covered spouses from 80% for males and 50% for females to 90% for males and 60% for females.

- Retiree opt-out rate – The University increased the retiree opt-out rate from 0% to 8%

Plante & Moran, PLLC
Suite 300
750 Trade Centre Way
Portage, MI 49002
Tel: 269.567.4500
Fax: 269.567.4501
plantemoran.com

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

Independent Auditor's Report

To Management and the Board of Trustees
Michigan State University

We have audited, in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the business-type activities and discretely presented component unit of Michigan State University (the "University") as of and for the year ended June 30, 2023 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 26, 2023. Our report includes a reference to other auditors who audited the financial statements of Michigan State University Foundation (the "Foundation"), as described in our report on Michigan State University's financial statements. The financial statements of the Foundation were not audited in accordance with *Government Auditing Standards*, and, accordingly, this report does not include reporting on internal control over financial reporting or compliance and other matters associated with the Foundation or that are reported on separately by those auditors who audited the financial statements of the Foundation.

Report on Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered the University's internal control over financial reporting (internal control) as a basis for designing audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the University's internal control. Accordingly, we do not express an opinion on the effectiveness of the University's internal control.

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

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

Report on Compliance and Other Matters

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

To Management and the Board of Trustees
Michigan State University

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.

Plante & Moran, PLLC

October 26, 2023

plante moran