NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
JUNE 30, 2023

NOTE 1—ORGANIZATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Organization and Basis of Presentation: The University of Michigan (the "University") is a state-supported institution with an enrollment of over 65,000 students on its three campuses. The consolidated financial statements include the individual schools, colleges and departments, the University of Michigan Health ("UMH"), Michigan Health Corporation (a wholly-owned corporation created for joint venture and managed care initiatives), UM Health (a wholly-owned corporation created to hold and develop the University's statewide network of hospitals, hospital joint ventures and other hospital affiliations, primarily consisting of Sparrow Health System ["Sparrow Health"] and UMH-West) and Veritas Insurance Corporation (a wholly-owned captive insurance company). The University also presents financial statements for its discretely presented component unit, PHP Holdings, LLC, a health plan providing high quality health care coverage to members across Michigan. While the University is a political subdivision of the state of Michigan, it is not a component unit of the State in accordance with Governmental Accounting Standards Board ("GASB") Statement No. 14, *The Financial Reporting Entity*. The University is classified as a state instrumentality under Internal Revenue Code Section 115 and a charitable organization under Internal Revenue Code Section 501(c)(3), and is therefore exempt from federal income taxes. Certain activities of the University may be subject to taxation as unrelated business income under Internal Revenue Code Sections 511 to 514.

Within its consolidated financial statements and its discretely presented component unit financial statements, the University reports as a special purpose government entity engaged primarily in business type activities, as defined by GASB, on the accrual basis. Business type activities are those that are financed in whole or in part by fees charged to external parties for goods or services. The University's fiduciary activities represent those resources for which the University acts as a trustee or custodian, including the Sparrow Health and UMH-West pension plan trusts which are considered fiduciary component units.

During 2023, the University adopted GASB Statement No. 100, *Accounting Changes and Error Corrections* ("GASB 100"), which enhances accounting and financial reporting requirements for accounting changes and error corrections to provide more relevant information for making decisions and assessing accountability. The adoption of GASB 100 has been reflected at the beginning of the earliest period presented in the consolidated financial statements, or July 1, 2022.

During 2023, the University also adopted GASB Statement No. 96, *Subscription-Based Information Technology Arrangements* ("GASB 96"), which establishes accounting and financial reporting requirements for subscription-based information technology arrangements ("SBITAs"). The statement requires the University to recognize right-to-use assets and related subscription liabilities for SBITAs that were previously recognized as outflows of resources. The adoption of GASB 96 has been reflected at the beginning of the earliest period presented in the consolidated financial statements, or July 1, 2022.

On April 1, 2023, the University completed an affiliation with Sparrow Health, a community health care provider in Lansing, Michigan, pursuant to which UM Health became the sole corporate member of Sparrow Health. Sparrow Health operates multiple hospitals with a combined 845 licensed beds, as well as outpatient clinics throughout Mid-Michigan. In accordance with GASB 100, this membership substitution was considered a change in reporting entity and included in the consolidated financial statements as if it occurred at the beginning of the reporting period. The University recognized, measured and combined the assets, deferred outflows, liabilities, deferred inflows and net position of Sparrow Health based upon GASB accounting principles applied at July 1, 2022. In connection with this affiliation, the University also received a majority equity interest in PHP Holdings, LLC, which is reported as a discretely presented component unit within the basic financial statements.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

NOTE 1—ORGANIZATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES, CONTINUED

The impact of the affiliation with Sparrow Health and the adoption of GASB 96 has been reflected at the beginning of the earliest period presented in the consolidated financial statements, or July 1, 2022, and is summarized as follows (in thousands):

	June 30, 2022 As Previously Reported	Sparrow Health Affiliation	GASB 96 Adoption	July 1, 2022 As Restated
Current assets	$ 6,577,801	$ 343,009		$ 6,920,810
Noncurrent assets	24,809,349	1,427,959	$ 40,488	26,277,796
Total assets	31,387,150	1,770,968	40,488	33,198,606
Deferred outflows	1,045,098	6,050		1,051,148
Current liabilities	2,827,166	266,687	10,796	3,104,649
Noncurrent liabilities	9,514,064	248,881	29,692	9,792,637
Total liabilities	12,341,230	515,568	40,488	12,897,286
Deferred inflows	792,557	2,375		794,932
Net position	$ 19,298,461	$ 1,259,075	$ -	$ 20,557,536

Net position is categorized as:

- Net investment in capital assets: Capital assets, net of accumulated depreciation, outstanding principal balances of debt, lease and subscription liabilities, unexpended bond proceeds, deferred outflows and deferred inflows associated with the acquisition, construction or improvement of those assets.
- Restricted:

  Nonexpendable – Net position subject to externally imposed stipulations that it 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.

  Expendable – Net position subject to externally imposed stipulations that can be fulfilled by actions of the University pursuant to those stipulations or that expire by the passage of time. Such 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 not subject to externally imposed stipulations. Unrestricted net position may be designated for specific purposes by action of management or the Board of Regents. Substantially all unrestricted net position is designated for various academic programs, research initiatives and capital projects.

Summary of Significant Accounting Policies: The University considers all highly liquid investments purchased with a maturity of three months or less to be cash equivalents. Cash equivalents representing assets of the University's endowment, life income and other investments are included in noncurrent investments as these funds are not used for operating purposes.

Investments are reported in four categories in the statement of net position. Investments reported as endowment, life income and other investments are those funds invested in portfolios that are considered by management to be of a long duration. Investments for student loan and capital activities are those funds that are intended to be used for these specific activities. All other investments are reported as investments for operating activities.

GASB defines fair value and establishes a framework for measuring fair value that includes a three tiered hierarchy of valuation inputs, placing a priority on those which are observable in the market. Observable inputs reflect market data obtained from sources independent of the reporting entity and unobservable inputs reflect the University's own assumptions about how market participants would value an asset or liability based on the best information available. To the extent that valuation is based on models or inputs that are less observable or unobservable in the market, the determination of fair value requires more judgment. The three levels of inputs, of which the first two are considered observable and the last unobservable, are as follows:

- Level 1 – Quoted prices for identical assets or liabilities in active markets that can be accessed at the measurement date
- Level 2 – Other significant observable inputs, either direct or indirect, such as quoted prices for similar assets or liabilities in active markets; quoted prices for identical or similar assets or liabilities in markets that are not active; inputs other than quoted prices that are observable; or market corroborated inputs
- Level 3 – Unobservable inputs

GASB allows for the use of net asset value ("NAV") as a practical expedient to determine the fair value of nonmarketable investments if the NAV is calculated in a manner consistent with the Financial Accounting Standards Board's measurement principles for investment companies. Investments that use NAV in determining fair value are disclosed separately from the valuation hierarchy as presented in Note 2.

Investments in marketable securities are carried at fair value, as established by the major securities markets. Purchases and sales of investments are accounted for on the trade date basis. Investment income is recorded on the accrual basis. Realized and unrealized gains and losses are reported in investment income.

Investments in nonmarketable limited partnerships are carried at fair value, which is generally established using the NAV provided by the management of the investment partnerships at June 30, 2023. The University may also adjust the fair value of these investments based on market conditions, specific redemption terms and restrictions, risk considerations and other factors. As these investments are not readily marketable, the estimated value is subject to uncertainty, and therefore, may differ from the value that would have been used had a ready market for the investments existed.

Investments denominated in foreign currencies are translated into U.S. dollar equivalents using year end spot foreign currency exchange rates. Purchases and sales of investments denominated in foreign currencies and related income are translated at spot exchange rates on the transaction dates.

Derivative instruments such as financial futures, forward foreign exchange contracts and interest rate swaps held in investment portfolios, are recorded on the contract date and are carried at fair value using listed price quotations or amounts that approximate fair value. To facilitate trading in financial futures, the University is required to post cash or securities to satisfy margin requirements of the exchange where such futures contracts are listed. The University monitors the required amount of cash and securities on deposit for financial futures transactions and withdraws or deposits cash or securities as necessary.

Accounts receivable are recorded net of an allowance for uncollectible accounts receivable. The allowance is based on management's judgment of potential uncollectible amounts, which includes such factors as historical experience and type of receivable.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

NOTE 1—ORGANIZATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES, CONTINUED

The University receives pledges and bequests of financial support from corporations, foundations and individuals. Revenue is recognized when a pledge representing an unconditional promise to give is received and all eligibility requirements, including time requirements, have been met. In the absence of such a promise, revenue is recognized when the gift is received. Permanent endowment pledges do not meet eligibility requirements, as defined by GASB, and are not recorded as assets until the related gift is received.

Unconditional promises to give that are expected to be collected in future years are recorded at the present value of the estimated future cash flows. The discounts on these amounts are computed using risk-free interest rates applicable to the years in which the promises are made, commensurate with expected future payments. An allowance for uncollectible pledges receivable is provided based on management's judgment of potential uncollectible amounts and includes such factors as prior collection history, type of gift and nature of fundraising.

Capital assets are recorded at cost or, if donated, at acquisition value at the date of donation. Depreciation of capital assets is provided on a straight-line method over the estimated useful lives of the respective assets, which generally range from three to fifty years. Right-to-use assets are recorded at the present value of payments expected to be made during the related term using discount rates which are based upon the University's incremental borrowing rates, and are depreciated over the shorter of the related term or the expected useful life of the underlying asset. The University does not capitalize works of art or historical treasures that are held for exhibition, education, research or public service, as these collections are neither disposed of for financial gain nor encumbered in any way.

Deferred outflows represent the consumption of net assets attributable to a future period and are primarily associated with the University's obligations for postemployment benefits, debt and derivative activity, and the defined benefit pension plans for Sparrow Health and UMH-West.

Unearned revenue consists primarily of cash received from grant and contract sponsors which has not yet been earned under the terms of the agreement. Unearned revenue also includes amounts received in advance of an event, such as student tuition and advance ticket sales related to future fiscal years.

The University holds life income funds for beneficiaries of the pooled income fund, charitable remainder trusts and the gift annuity program. These funds generally pay lifetime income to beneficiaries, after which the principal is made available to the University in accordance with donor intentions. All life income fund assets, including those held in trust, are recorded at fair value. The present value of estimated future payments due to life income beneficiaries is recorded as a liability.

Deferred inflows represent the acquisition of net assets attributable to a future period and are primarily associated with the University's obligations for postemployment benefits, the defined benefit pension plans for Sparrow Health and UMH-West, and irrevocable split-interest agreements.

For donor restricted endowments, the Uniform Prudent Management of Institutional Funds Act, as adopted in Michigan, permits the Board of Regents to appropriate amounts for endowment spending rule distributions as is considered prudent. The University's policy is to retain net realized and unrealized appreciation with the endowment after spending rule distributions. Net appreciation of permanent endowment funds, which totaled $3,668,054,000 at June 30, 2023, is recorded in restricted expendable net position. The University's endowment spending rule is further discussed in Note 2.

The University's policy for defining operating activities as reported on the statement of revenues, expenses and changes in net position are those 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 result from exchange transactions.

Student tuition and residence fees are presented net of scholarships and fellowships applied to student accounts, while stipends and other payments made directly to students are presented as scholarship and fellowship expenses.

Patient care revenues are reported net of contractual allowances and bad debt expenses. Contractual allowances are estimated based on agreements with third-party payers that provide payments for patient care services at amounts different from established rates. These allowances are subject to the laws and regulations governing the federal and state programs and post-payment audits, and adjusted in future periods as final settlements are determined. Patient care services are primarily provided through the University's health system, which includes University Health Service, which offers health care services to students, faculty and staff, and Dental Faculty Associates, which offers dental care services performed by faculty dentists.

Patient care services are provided to patients who meet certain criteria under the University's charity care policies without charge or at amounts less than its established rates. Accordingly, charity care is not reported as revenue in the accompanying statement of revenues, expenses and changes in net position. Charges forgone for charity care services totaled $120,139,000 in 2023.

Other auxiliary enterprise revenues primarily represent revenues generated by intercollegiate athletics, parking, student unions and student publications.

Certain significant revenue streams relied upon for operations result from nonexchange transactions and are recorded as nonoperating revenues including state appropriations, federal Pell grants, gifts and investment income.

Federal economic relief funds represent amounts received from the federal government to provide economic assistance to entities that have been negatively impacted by the COVID-19 pandemic. During 2023, the University recognized revenue primarily from the Coronavirus State and Local Fiscal Recovery Fund.

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect amounts reported in the financial statements and accompanying notes. Actual results could differ from those estimates. The most significant areas that require management estimates relate to self-insurance and benefits obligations.

NOTE 2—CASH AND INVESTMENTS

Summary: The University maintains centralized management for substantially all of its cash and investments.

Working capital of individual University units is primarily invested in the University Investment Pool ("UIP"). Together with the University's current portion of insurance and benefits reserves, the UIP is invested in the Daily and Monthly Portfolios, which are principally invested in investment-grade money market securities, U.S. government and other fixed income securities, and absolute return strategies.

The University collectively invests substantially all of the assets of its endowment funds along with the noncurrent portion of its insurance and benefits reserves, charitable remainder trusts and gift annuity program in the Long Term Portfolio. The longer investment horizon of the Long Term Portfolio allows for an equity-oriented strategy to achieve higher expected returns over time, and permits the use of less liquid alternative investments, providing for equity diversification beyond the stock markets. The Long Term Portfolio includes investments in domestic and non-U.S. stocks and bonds, commingled funds and limited partnerships consisting of venture capital, absolute return strategies, private equity, real estate and natural resources.

The University also separately invests certain endowments and charitable remainder trusts, unexpended bond proceeds and other funds outside of the Daily, Monthly and Long Term Portfolios.

The University holds invested funds as a result of agency relationships with various groups that are considered fiduciary in nature. Funds received are invested in either the UIP, or the University Endowment Fund ("UEF"), a commingled pool invested entirely in the Long Term Portfolio. The University establishes the fair value of the UIP at $1.00 per share and any participant in the pool may purchase or redeem shares at that price. The University determines the fair value of UEF shares at the end of each calendar quarter based on the fair value of the pool. Participants may purchase or redeem UEF shares at fair value at each valuation date, subject to minimum holding and notice requirements.

Given the commingled nature of the underlying pools in which the UIP and UEF invest, unitized shares are not specifically associated with individual investments. Therefore, the University's investment activities as presented within the consolidated statement of cash flows as well as this note are presented gross, with a corresponding adjustment to remove the fiduciary custodial activities that are presented within the statement of fiduciary net position and statement of changes in fiduciary net position.

Authorizations: The University's investment policies are governed and authorized by University Bylaws and the Board of Regents. The approved asset allocation policy for the Long Term Portfolio sets general targets for both equities and fixed income securities. Since diversification is a fundamental risk management strategy, the Long Term Portfolio is broadly diversified within these general categories.

The endowment spending rule provides for distributions from the UEF to the participants that benefit from the endowment fund. The annual distribution rate is 4.5 percent of the one-quarter lagged seven year moving average fair value of fund shares. To protect endowment principal in the event of a prolonged market downturn, distributions are limited to 5.3 percent of the current fair value of fund shares. Distributions are also made from the UIP based on the 90-day U.S. Treasury Bill rate. The University's costs to administer and grow the UEF and UIP are funded by investment returns.

Cash and Cash Equivalents: Cash and cash equivalents, which totaled $750,138,000 at June 30, 2023, represent cash and short-term money market investments in mutual funds, overnight collective funds managed by the University's custodian or short-term highly liquid investments registered as securities and held by the University or its agents in the University's name. Of its cash and cash equivalents, the University had actual cash balances in its bank accounts in excess of federal deposit insurance limits in the amount of $187,671,000 at June 30, 2023. The University does not require its deposits to be collateralized or insured.

Restricted cash, which totaled $30,414,000 at June 30, 2023, represents cash and cash equivalents held pursuant to a legally enforceable requirement that the amounts only be used for a specific purpose.

Cash and cash equivalents include certain securities that are subject to the leveling requirements defined by GASB. Level 1 securities, which primarily consist of money market funds and U.S. government securities, totaled $279,704,000 at June 30, 2023. Level 2 securities, which primarily consist of commercial paper and repurchase agreements, totaled $44,610,000 at June 30, 2023.

Investments: At June 30, 2023, the University's investments, which are held by the University or its agents in the University's name, are summarized as follows (in thousands):

Cash equivalents, noncurrent	$ 559,028
Equity securities	684,059
Fixed income securities	4,577,802
Commingled funds	3,118,279
Nonmarketable alternative investments	14,355,447
Other investments	3,910
	23,298,525
Less fiduciary custodial funds	274,366
	$ 23,024,159

NOTE 2—CASH AND INVESTMENTS, CONTINUED

At June 30, 2023, the fair value of the University's investments based on the inputs used to value them is summarized as follows (in thousands):

	Level 1	Level 2	Level 3	NAV	Total Fair Value
Cash equivalents, noncurrent	$ 559,028	-	-	-	$ 559,028
Equity securities:					
Domestic	229,942		$ 70,914		300,856
Foreign	381,836		1,367		383,203
	611,778	-	72,281	-	684,059
Fixed income securities:					
U.S. Treasury	1,994,614				1,994,614
U.S. government agency		$ 261,965			261,965
Corporate and other		2,313,838	7,385		2,321,223
	1,994,614	2,575,803	7,385	-	4,577,802
Commingled funds:					
Absolute return				$ 1,838,022	1,838,022
Domestic equities	162,677			384,505	547,182
Global equities	161,741			285,277	447,018
U.S. fixed income	262,862				262,862
Other	23,195				23,195
	610,475	-	-	2,507,804	3,118,279
Nonmarketable alternative investments:					
Venture capital			206,593	4,645,788	4,852,381
Absolute return				2,419,183	2,419,183
Private equity			347,600	2,438,648	2,786,248
Real estate				1,875,120	1,875,120
Natural resources			191,122	2,231,393	2,422,515
	-	-	745,315	13,610,132	14,355,447
Other investments	(4,853)	-	8,763	-	3,910
	$ 3,771,042	$ 2,575,803	$ 833,744	$ 16,117,936	23,298,525
Less fiduciary custodial funds					274,366
					$ 23,024,159

Investments categorized as Level 1 are valued using prices quoted in active markets for those securities. Equity securities categorized as Level 3 represent investments in start-up or venture companies. Fixed income securities categorized as Level 2 represent investments valued using a matrix pricing technique, which values debt securities based on their relationship to a benchmark and the relative spread to that benchmark. Fixed income securities categorized as Level 3 represent debt investments with select venture funded University faculty start-ups. Nonmarketable alternative investments categorized as Level 3 primarily represent direct investments which are valued using models that rely on inputs which are unobservable in the market.

The University's investment strategy incorporates certain financial instruments that involve, to varying degrees, elements of market risk and credit risk in excess of amounts recorded in the financial statements. Market risk is the potential for changes in the value of financial instruments due to market changes, including interest and foreign exchange rate movements and fluctuations embodied in forwards, futures and commodity or security prices. Market risk is directly impacted by the volatility and liquidity of the markets in which the underlying assets are traded. Credit risk is the possibility that a loss may occur due to the failure of a counterparty to perform according to the terms of the contract. The University's risk of loss in the event of a counterparty default is typically limited to the amounts recognized in the statement of net position and is not represented by the contract or notional amounts of the instruments.

Fixed income securities have inherent financial risks, including credit risk and interest rate risk. Credit risk for fixed income securities is the risk that the issuer will not fulfill its obligations. Nationally recognized statistical rating organizations ("NSROs"), such as S&P Global and Moody's, assign credit ratings to security issues and issuers that indicate a measure of potential credit risk to investors. Fixed income securities considered investment grade are those rated at least BBB by S&P Global and Baa by Moody's. To manage credit risk, the University specifies minimum average and minimum absolute quality NSRO ratings for securities held pursuant to its management agreements.

The University minimizes concentration of credit risk, the risk of a large loss attributed to the magnitude of the investment in a single issuer of fixed income securities, by diversifying its fixed income issues and issuers and holding U.S. Treasury securities which are considered to have minimal credit risk. The University also manages this risk at the account level by limiting each fixed income manager's holding of any non-U.S. government issuer to 5 percent of the value of the investment account.

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of fixed income securities. Effective duration, a commonly used measure of interest rate risk, incorporates a security's yield, coupon, final maturity, call features and other embedded options into one number expressed in years that indicates how price-sensitive a security or portfolio of securities is to changes in interest rates. The effective duration of a security or portfolio indicates the approximate percentage change in fair value expected for a one percent change in interest rates. The longer the duration, the more sensitive the security or portfolio is to changes in interest rates. The weighted average effective duration of the University's fixed income securities was 2.8 years at June 30, 2023. The University manages the effective duration of its fixed income securities at the account level, where fixed income managers generally may not deviate from the duration of their respective benchmarks by more than 25 percent. The Monthly Portfolio held positions in bond futures at June 30, 2023, which are used to adjust the duration of cash equivalents and the fixed income portion of the portfolios.

NOTE 2—CASH AND INVESTMENTS, CONTINUED

The composition of fixed income securities at June 30, 2023, along with credit quality and effective duration measures, is summarized as follows (in thousands):

	U.S. Government	Investment Grade	Non-Investment Grade	Not Rated	Total	Duration (in years)
U.S. Treasury	$ 1,991,104				$ 1,991,104	3.1
U.S. Treasury inflation protected	3,510				3,510	4.6
U.S. government agency	261,965				261,965	3.3
Mortgage backed		$ 63,752	$ 36	$ 7,625	71,413	2.5
Asset backed		250,317		1,149	251,466	2.3
Corporate and other		1,919,856	7,912	70,576	1,998,344	2.5
	$ 2,256,579	$ 2,233,925	$ 7,948	$ 79,350	$ 4,577,802	2.8

Of the University's fixed income securities, 98 percent were rated investment grade or better at June 30, 2023, and 62 percent of these securities consisted of either U.S. Treasury and government agencies or non-U.S. government securities rated AAA/Aaa.

Commingled (pooled) funds include Securities and Exchange Commission regulated mutual funds and externally managed funds, limited partnerships and corporate structures which are generally unrated and unregulated. Certain commingled funds may use derivatives, short positions and leverage as part of their investment strategy. These investments are structured to limit the University's risk exposure to the amount of invested capital.

Nonmarketable alternative investments consist of limited partnerships and similar vehicles involving an advance commitment of capital called by the general partner as needed and distributions of capital and return on invested capital as underlying strategies are concluded during the life of the partnership. There is not an active secondary market for these alternative investments, which are generally unrated and unregulated, and the liquidity of these investments is dependent on actions taken by the general partner. The University's limited partnerships are diversified in terms of manager selection, industry and geographic focus. At June 30, 2023, no individual partnership investment represented 5 percent or more of total investments.

Absolute return strategies in the commingled funds and nonmarketable alternative investments classifications include long/short stock programs, merger arbitrage, intra-capital structure arbitrage and distressed debt investments. The goal of absolute return strategies is to provide, in aggregate, a return that is consistently positive and uncorrelated with the overall market.

The University's investments in commingled funds and nonmarketable alternative investments are contractual agreements that may limit the ability to initiate redemptions due to notice periods, lock-ups and gates. Additional information about current redemption terms and outstanding commitments at June 30, 2023 is summarized as follows (amounts in thousands):

	Fair Value	Remaining Life	Outstanding Commitments	Redemption Terms	Redemption Notice
Commingled funds	$ 3,118,279	N/A	$ -	Daily, monthly, quarterly and annually, with varying notice periods	Lock-up provisions range from none to five years
Nonmarketable alternative investments	$ 14,355,447	1-12 years	$ 4,520,344	Ineligible for redemption	N/A

Commingled funds have liquidity (redemption) provisions, which enable the University to make full or partial withdrawals with notice, subject to restrictions on the timing and amount. Of the University's commingled funds at June 30, 2023, 75 percent are redeemable within one year, with 62 percent redeemable within 90 days under normal market conditions. The remaining amounts are redeemable beyond one year, with redemption of certain funds dependent on disposition of the underlying assets. The University's committed but unpaid obligation to nonmarketable alternative investments is further discussed in Note 14.

The University participates in non-U.S. developed and emerging markets through commingled funds invested in non-U.S./global equities and absolute return strategies. Although all of these funds are reported in U.S. dollars, price changes of the underlying securities in local markets as well as changes to the value of local currencies relative to the U.S. dollar are embedded in investment returns. In addition, a portion of the University's equity securities and nonmarketable alternative investments are denominated in foreign currencies, which must be settled in local (non-U.S.) currencies.

Foreign exchange risk is the risk that investments denominated in foreign currencies may lose value due to adverse fluctuations in the value of the U.S. dollar relative to foreign currencies. Forward foreign currency contracts are typically used to manage the risks related to fluctuations in currency exchange rates between the time of purchase or sale and the actual settlement of foreign securities. Various investment managers acting for the University use forward foreign exchange contracts in risk-based transactions to carry out their portfolio strategies and are subject to agreements that provide minimum diversification and maximum exposure limits by country and currency.

NOTE 2—CASH AND INVESTMENTS, CONTINUED

The value of the University's non-U.S. dollar holdings, net of the value of the outstanding forward foreign exchange contracts, totaled $1,618,887,000 or 7 percent of total investments at June 30, 2023, and is summarized as follows (in thousands):

Euro	$ 972,724
British pound sterling	253,746
Swedish krona	189,547
Japanese yen	121,052
Canadian dollar	39,534
Danish krone	20,237
Other	22,047
	$ 1,618,887

The Long Term Portfolio and the Monthly Portfolio participate in a short-term, fully collateralized, securities lending program administered by the University's master custodian. Together, the Portfolios had $13,505,000 in securities loans outstanding at June 30, 2023. At loan inception, an approved borrower must deliver collateral of cash, securities or letters of credit to the University's lending agent equal to 102 percent of fair value for domestic securities and 105 percent for foreign securities. Collateral positions are monitored daily to ensure that borrowed securities are never less than 100 percent collateralized. At June 30, 2023, collateral of $13,822,000 (102 percent of securities on loan) includes invested cash of $4,844,000 and U.S. government securities of $8,978,000.

Cash collateral held by the University's lending agent, along with the offsetting liability to return the collateral at loan termination, are recorded in the statement of net position. Neither the University nor its securities lending agent has the ability to pledge or sell securities received as collateral unless a borrower defaults. Securities loans may be terminated upon notice by either the University or the borrower.

NOTE 3—ACCOUNTS RECEIVABLE

The composition of accounts receivable at June 30, 2023 is summarized as follows (in thousands):

Patient care	$ 1,020,903
Sponsored programs	224,731
State appropriations, educational and capital	72,047
Student accounts	40,872
Other	76,090
	1,434,643
Less allowance for uncollectible accounts receivable:	
Patient care	179,904
All other	14,969
	$ 1,239,770

NOTE 4—NOTES AND PLEDGES RECEIVABLE

The composition of notes and pledges receivable at June 30, 2023 is summarized as follows (in thousands):

Notes:	
Federal student loan programs	$ 40,998
University student loan funds	14,349
Other	5,015
	60,362
Less allowance for uncollectible notes	3,100
Total notes receivable, net	57,262
Gift pledges:	
Capital	119,212
Operations	214,916
	334,128
Less:	
Allowance for uncollectible pledges	8,489
Unamortized discount to present value	5,434
Total pledges receivable, net	320,205
Total notes and pledges receivable, net	377,467
Less current portion	117,669
	$ 259,798

The principal repayment and interest rate terms of federal and University loans vary considerably. The allowance for uncollectible notes only applies to University funded loans and the University portion of federal student loans, as the University is not obligated to fund the federal portion of uncollected student loans. Federal loan programs are funded principally with federal advances to the University under the Perkins and various health professions loan programs.

Payments on pledges receivable at June 30, 2023 are expected to be received in the following years ended June 30 (in thousands):

2024	$ 107,709
2025	69,712
2026	66,578
2027	36,600
2028	19,178
2029 and after	34,351
	$ 334,128

Permanent endowment pledges do not meet eligibility requirements, as defined by GASB, until the related gift is received. Accordingly, permanent endowment pledges totaling $181,210,000 at June 30, 2023, are not recognized as assets in the accompanying consolidated financial statements. In addition, bequest intentions and other conditional promises are not recognized as assets until the specified conditions are met due to uncertainties with regard to their realizability and valuation.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

NOTE 5—CAPITAL ASSETS

Capital assets activity for the year ended June 30, 2023 is summarized as follows (in thousands):

	Beginning Balance	Additions	Retirements	Ending Balance
Land	$ 175,424	$ 4,764	$ 154	$ 180,034
Land improvements	183,451	4,556	502	187,505
Infrastructure	264,874	378		265,252
Buildings	11,285,552	186,253	45,465	11,426,340
Construction in progress	330,057	328,687		658,744
Equipment	2,845,444	192,585	93,779	2,944,250
Library materials	754,882	27,490		782,372
Right-to-use assets	458,542	72,168	25,132	505,578
	16,298,226	816,881	165,032	16,950,075
Less accumulated depreciation	9,334,494	685,362	158,854	9,861,002
	$ 6,963,732	$ 131,519	$ 6,178	$ 7,089,073

The increase in construction in progress of $328,687,000 in 2023 represents the amount of capital expenditures for new projects of $632,158,000 net of assets placed in service of $303,471,000.

NOTE 6—LONG-TERM DEBT

Long-term debt at June 30, 2023 is summarized as follows (in thousands):

Commercial paper:	
Tax-exempt, variable rate (3.45%)*	$ 132,415
General revenue bonds:	
Series 2022A, taxable, 3.504% to 4.454% through 2122	1,700,000
Series 2022B, taxable, 3.504% through 2052	300,000
Series 2022C, taxable, 2.734% to 3.599% through 2047	413,205
Series 2022D, 5.00% through 2033	55,325
unamortized premium	12,331
Series 2020A, 4.00% to 5.00% through 2050	138,430
unamortized premium	30,593
Series 2020B, taxable, 1.004% to 2.562% through 2050	850,025
Series 2019A, 5.00% through 2036	114,035
unamortized premium	15,134
Series 2019B, taxable, 2.783% to 3.416% through 2029	10,615
Series 2019C, 4.00% through 2049	61,725
unamortized premium	4,936
Series 2018A, 4.00% to 5.00% through 2048	124,390
unamortized premium	13,931
Series 2017A, 4.86% to 5.00% through 2035	229,535
unamortized premium	29,620
Series 2015, 4.00% to 5.00% through 2035	112,690
unamortized premium	13,589
Series 2014A, 4.25% to 5.00% through 2030	18,925
unamortized premium	1,219
Series 2014B, taxable, 3.416% to 3.516% through 2024	1,000
Series 2013A, 2.50% to 4.00% through 2029	37,830
unamortized premium	629
Series 2012A, variable rate (4.15%)* through 2036	50,000
Series 2012B, variable rate (3.85%)* through 2042	65,000
Series 2012D-1, variable rate (3.65%)* through 2025 with partial swap to fixed through 2025	30,535
Series 2012D-2, variable rate (3.90%)* through 2030 with partial swap to fixed through 2026	39,075
Series 2010A, taxable Build America Bonds, 4.926% to 5.593% through 2040	162,345
Series 2010D, taxable Build America Bonds, 3.906% to 5.333% through 2041	145,000
Series 2009B, variable rate (3.30%)* through 2039	118,710
Series 2008A, variable rate (3.60%)* through 2038	57,085
Series 2008B, variable rate (3.93%)* through 2028 with partial swap to fixed through 2026	39,250

NOTE 6—LONG-TERM DEBT, CONTINUED

Michigan Finance Authority hospital revenue bonds:	
Series 2022A, 4.00% to 5.00% through 2043	76,700
unamortized premium	10,853
Series 2022B, 4.00% to 5.00% through 2037	11,030
unamortized premium	2,161
Series 2017A, 2.87% through 2043	51,230
Series 2017B**, variable rate (5.00%)* through 2043	51,230
Series 2015, 4.00% to 5.00% through 2045	65,565
unamortized premium	5,191
Line of credit, variable rate (5.71%)* through 2024	52,000
	5,455,087
Less:	
Commercial paper and current portion of bonds payable	298,184
Long-term bonds payable subject to remarketing, net	372,335
	$ 4,784,568

* Denotes variable rate at June 30, 2023
** Denotes variable rate bonds not subject to remarketing

Certain variable rate bonds have remarketing features which allow bondholders to put debt back to the University. Accordingly, these variable rate bonds are classified as current unless supported by liquidity agreements, such as lines of credit or standby bond purchase agreements, which can refinance the debt on a long-term basis. The classification of the University's variable rate bonds payable subject to remarketing at June 30, 2023 is summarized as follows (in thousands):

Variable rate bonds payable subject to remarketing	$ 399,655
Less current principal maturities	27,320
Long-term bonds payable subject to remarketing, net	$ 372,335

The University maintains six lines of credit which totaled $2,040,000,000 and were entirely unused at June 30, 2023. In addition, the Sparrow Obligated Group, a group comprised of five Sparrow Health hospitals whose collective revenues are pledged in support of all Sparrow Health debt issuances, maintains an outstanding line of credit totaling $52,000,000, all of which was outstanding at June 30, 2023.

In connection with certain issues of variable rate debt, the University has entered into floating-to-fixed interest rate swaps to convert all or a portion of the associated variable rate debt to synthetic fixed rates to protect against the potential of rising interest rates. Information about the University's interest rate swaps is discussed in Note 7.

Long-term debt activity for the year ended June 30, 2023 is summarized as follows (in thousands):

	Beginning Balance	Additions	Reductions	Ending Balance
Commercial paper	$ 141,135		$ 8,720	$ 132,415
Bonds:				
General revenues	5,064,887		68,175	4,996,712
Michigan Finance Authority hospital revenue bonds	375,089	$ 88,394	189,523	273,960
Line of credit	14,000	38,000		52,000
	$ 5,595,111	$ 126,394	$ 266,418	$ 5,455,087

The University maintains a combination of variable and fixed rate debt supported by general revenues, with effective interest rates that averaged 3.5 percent in 2023, including federal subsidies for interest on taxable Build America Bonds.

The University utilizes commercial paper to provide interim financing for its capital improvement program. The Board of Regents has authorized the issuance of up to $300,000,000 in commercial paper backed by a general revenue pledge. Outstanding commercial paper debt is converted to long-term debt financing, as appropriate, within the normal course of business.

During 2023, the Sparrow Obligated Group issued $76,700,000 of fixed rate, taxable Michigan Finance Authority Hospital Revenue Bonds Series 2022A with a net original issue premium of $11,694,000. Total bond proceeds of $88,394,000 were utilized to refund $87,577,000 of existing bonds and provide $817,000 for bond issuance costs.

Bond proceeds of $87,577,000 were used to refund Michigan Finance Authority Hospital Revenue Bonds Series 2012 which had fixed annual interest rates ranging from 4.0 to 5.0 percent and a final maturity date of November 15, 2042. As a result of the refunding, the Sparrow Obligated Group decreased its aggregate debt service payments over the next 20 years by $24,473,000, resulting in a present value economic gain of $17,411,000.

NOTE 6—LONG-TERM DEBT, CONTINUED

During 2023, the Sparrow Obligated Group also established an escrow fund using existing resources of $86,041,000 to legally defease $82,500,000 of Michigan Finance Authority Hospital Revenue Bonds Series 2015, resulting in a gain on defeasance of $4,644,000 which was recognized into interest expense.

Deferred outflows and deferred inflows associated with the University's refunding activity totaled $31,556,000 and $47,948,000, respectively, at June 30, 2023. The outstanding balance of these deferred outflows and deferred inflows will be amortized into interest expense over the remaining life of the refunded bonds.

Debt obligations are generally callable by the University and mature at various dates through fiscal 2122. Principal maturities, including interest on debt obligations, based on scheduled bond maturities for the next five years and in subsequent five-year periods are as follows (in thousands):

	Principal	Interest*	Total
2024	$ 284,550	$ 201,126	$ 485,676
2025	203,865	194,735	398,600
2026	111,300	189,262	300,562
2027	154,605	184,115	338,720
2028	121,420	177,889	299,309
2029-2033	602,130	807,936	1,410,066
2034-2038	614,735	701,576	1,316,311
2039-2043	749,715	563,576	1,313,291
2044-2048	158,685	472,451	631,136
2049-2053	1,113,895	432,746	1,546,641
2054-2118		3,474,120	3,474,120
2119-2122	1,200,000	267,240	1,467,240
Total payments	5,314,900	$ 7,666,772	$ 12,981,672
Plus unamortized premiums	140,187		
	$ 5,455,087		

* Interest on variable rate debt is estimated based on rates in effect at June 30, 2023; amounts do not reflect federal subsidies to be received for Build America Bonds interest.

The University maintains certain unsecured lines of credit and standby bond purchase agreements that, in accordance with GASB requirements, do not qualify to support the noncurrent classification of variable rate bonds payable subject to remarketing. If all of the variable rate bonds subject to remarketing were put back to the University on July 1, 2023, and these existing unsecured lines of credit and standby bond purchase agreements were not extended upon their current expiration dates, the total principal payments due in 2024 would decrease to $257,230,000, total principal payments due in 2025 would increase to $449,750,000, total principal payments due in 2026 would increase to $224,460,000, total principal payments due in 2027 would decrease to $140,635,000 and total principal payments due in 2028 would decrease to $104,880,000. Accordingly, principal payments due in subsequent years would be reduced to $524,110,000 in 2029 through 2033, $446,450,000 in 2034 through 2038 and $694,805,000 in 2039 through 2043. Principal payments due in 2044 through 2122 would not change. There would not be a material impact on annual interest payments as a result of these changes.

Condensed financial information for the Sparrow Obligated Group at and for the year ended June 30, 2023 is as follows (in thousands):

Condensed Statement of Net Position	
Assets:	
Current assets	$ 469,267
Noncurrent assets	1,168,195
Total assets	1,637,462
Deferred outflows	143,931
Liabilities:	
Current liabilities	417,516
Noncurrent liabilities	323,278
Total liabilities	740,794
Deferred inflows	6,885
Net position:	
Net investment in capital assets	312,868
Unrestricted	720,846
Total net position	$ 1,033,714
Condensed Statement of Revenues, Expenses and Changes in Net Position	
Operating revenues	$ 1,235,030
Operating expenses other than depreciation expense	(1,307,214)
Depreciation expense	(57,612)
Operating loss	(129,796)
Nonoperating expenses, net	(2,266)
Other revenues, net	46,991
Decrease in net position	(85,071)
Net position, beginning of year	1,118,785
Net position, end of year	$ 1,033,714
Condensed Statement of Cash Flows	
Net cash used in operating activities	$ (207,992)
Net cash used in noncapital financing activities	(3,321)
Net cash used in capital and related financing activities	(61,470)
Net cash provided by investing activities	261,395
Net decrease in cash and cash equivalents	(11,388)
Cash and cash equivalents, beginning of year	72,163
Cash and cash equivalents, end of year	$ 60,775

NOTE 7—DERIVATIVE INSTRUMENTS

Derivatives held by the University are recorded at fair value in the statement of net position. For hedging derivative instruments that are effective in significantly reducing an identified financial risk, the corresponding change in fair value is deferred and included in the statement of net position. For all other derivative instruments, changes in fair value are reported as investment income or loss.

Derivative instruments held by the University at June 30, 2023 are summarized as follows (in thousands):

	Notional Amount	Fair Value
Investment derivative instruments:		
Investment portfolios:		
Futures	$ 148,952	$ (2,033)
Foreign currency forwards:		
Japanese yen	96,540	3,735
Pound sterling	69,739	(1,394)
Hungarian forint	45,135	868
Mexican peso	35,918	567
Chinese yuan	21,651	532
Turkish lira	1,516	(483)
All other currencies	780,474	1,913
	1,050,973	5,738
	$ 1,199,925	$ 3,705
Floating-to-fixed interest rate swaps on debt	$ 30,475	$ (353)
Effective cash flow hedges:		
Floating-to-fixed interest rate swaps on debt	$ 37,365	$ (32)

The University utilizes bond futures in its investment portfolios to adjust the duration of cash equivalents and fixed income securities, while foreign currency forward contracts are utilized to settle securities and transactions denominated in foreign currencies and manage foreign exchange risk. Other derivative instruments in the University's investment portfolios consist primarily of interest rate swaps, credit default swaps and total return swaps used to carry out investment and portfolio strategies.

In connection with certain issues of variable rate debt, the University has entered into floating-to-fixed interest rate swaps to convert all or a portion of the associated variable rate debt to synthetic fixed rates to protect against the potential of rising interest rates. The fair value of these swaps generally represent the estimated amount that the University would pay to terminate the swap agreements at the statement of net position date, taking into account current interest rates and creditworthiness of the underlying counterparty. The valuation inputs used to determine the fair value of these instruments are considered Level 2, as they rely on observable inputs other than quoted market prices. The notional amount represents the underlying reference of the instrument and does not represent the amount of the University's settlement obligations.

The change in fair value of derivative instruments, which includes realized gains and losses on positions closed, for the year ended June 30, 2023 is summarized as follows (in thousands):

Investment Derivative Instruments:	
Investment portfolios:	
Futures	$ (4,171)
Foreign currency forwards	15,406
Other	802
	$ 12,037
Floating-to-fixed interest rate swap on debt	$ 1,337
Effective cash flow hedges:	
Floating-to-fixed interest rate swaps on debt	$ 1,312

NOTE 7—DERIVATIVE INSTRUMENTS, CONTINUED

Using rates in effect at June 30, 2023, the projected cash flows for the floating-to-fixed interest rate swaps deemed effective cash flow hedges, along with the debt service requirements of the associated variable rate debt, are summarized as follows (in thousands):

	Variable Rate Bonds		Swap	Total
	Principal	Interest	Payments, Net	Payments
2024	$ 12,410	$ 2,883	$ (92)	$ 15,201
2025	12,940	2,382	(53)	15,269
2026	12,045	1,903	(15)	13,933
2027	13,970	1,391		15,361
2028	16,540	792		17,332
2029-2030	10,420	254		10,674
	$ 78,325	$ 9,605	$ (160)	$ 87,770

By using derivative financial instruments to hedge exposures to changes in interest rates, the University is exposed to termination risk and basis risk. There is termination risk with floating-to-fixed interest rate swaps as the University or swap counterparty may terminate a swap if the other party fails to perform under the terms of the contract or its credit rating falls below investment grade. Termination risk is the risk that the associated variable rate debt no longer carries a synthetic fixed rate and if at the time of termination a swap has a negative fair value, the University is liable to the counterparty for payment equal to the swap's fair value. The University is also exposed to basis risk as a portion of the variable payments paid to the University by the counterparties are based on a percentage of the Secured Overnight Financing Rate ("SOFR"). Basis risk is the risk that changes in the relationship between the floating Securities Industry and Financial Markets Association Municipal Index and SOFR may impact the synthetic fixed rate of the variable rate debt. At June 30, 2023, the University is not exposed to credit risk as the swaps have negative fair values.

The University is subject to collateral requirements with its counterparties on certain derivative instrument positions. To meet trading margin requirements for bond futures, the University had cash and U.S. government securities with a fair value of $4,096,000 at June 30, 2023 on deposit with its futures broker as collateral.

NOTE 8—SELF-INSURANCE

The University is self-insured for medical malpractice, workers' compensation, directors' and officers' liability, property damage, auto liability and general liability through Veritas Insurance Corporation. The University is also self-insured for various employee benefits through internally maintained funds.

Claims and expenses 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 and the future costs of handling claims. These liabilities are generally based on actuarial valuations and are reported at present value, discounted at a rate of 5 percent.

Changes in the total reported liability for insurance and benefits reserves for the year ended June 30, 2023 are summarized as follows (in thousands):

Balance, beginning of year	$ 864,602
Claims incurred and changes in estimates	1,128,310
Claim payments	(1,527,136)
Balance, end of year	465,776
Less current portion	253,398
	$ 212,378

On September 16, 2022, a settlement agreement between the University and claimants who alleged abuse by the late University physician Robert Anderson was approved by all parties and finalized. On October 12, 2022, the University transferred $490,750,000 into accounts designated per the terms of the agreement to facilitate settlement with the claimants.

NOTE 9—PENSION PLANS

Sparrow Health: Sparrow Health has two noncontributory, single-employer defined benefit pension plans, both of which are closed to new participants. Plan A1 includes employees who continue to accrue benefits and Plan A2 includes employees who are not accruing additional benefits. The plans generally provide benefits based upon years of service and employee earnings. The Sparrow Health Board of Directors has the authority to establish and amend benefit provisions of the plans.

The annual pension expense and net pension liability is actuarially calculated using the entry age normal level percent of pay method. Sparrow Health has elected to measure its net pension liability six months prior to the fiscal year end reporting date and amounts measured at December 31, 2022 were determined based on an actuarial valuation at January 1, 2022. There are no significant changes known which would impact the net pension liability between the measurement date and the reporting date, other than typical plan experience.

For purposes of the December 31, 2022 measurement date, the number of plan participants consisted of the following:

	Plan A1	Plan A2
Active participants	1,205	870
Vested terminated participants	209	1,376
Retirees, beneficiaries and disabled participants	1,168	1,614
	2,582	3,860

Changes in the reported net pension liability for the year ended June 30, 2023 are summarized as follows (in thousands):

	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability
Balance, beginning of year	$ 665,557	$ 826,432	$ (160,875)
Service cost	4,429		4,429
Interest cost	44,648		44,648
Changes in assumptions	14,896		14,896
Differences between expected and actual plan experience	2,143		2,143
Benefit payments	(40,456)	(40,456)	-
Contributions from the employer		10,674	(10,674)
Administrative expenses		(8,743)	8,743
Net investment income:			
Expected investment earnings		55,935	(55,935)
Differences between expected and actual investment earnings		(168,265)	168,265
Balance, end of year	$ 691,217	$ 675,577	$ 15,640

The plan fiduciary net position as a percentage of the total pension liability was 98 percent at June 30, 2023.

Significant actuarial assumptions used at the December 31, 2022 measurement date are as follows:

	Plan A1	Plan A2
Discount rate	7.25%	6.02%
Increase in compensation rate (including inflation)	4.00%	N/A
Investment rate of return	7.25%	6.02%
Mortality table	Pri-2012, Scale MSS-2022	Pri-2012, Scale MSS-2022

Discount rates are based on the expected rate of return on pension plan investments. The projection of cash flows used to determine the discount rate assumed that employer contributions will be made based on the minimum contribution projection under provisions of ERISA and the Pension Protection Act of 2006, for future years. Based on the stated assumptions, the pension plan's fiduciary net position and future contributions were sufficient to finance the future benefit payments of the current plan members for all projection years. As a result, the long-term expected rate of return on pension plan investments was applied to all periods of the projected benefit payments to determine the total pension liability.

The long-term expected rate of return on pension plan investments was determined using the expected future rates of return for the target asset allocation of the portfolio. The target allocation and best estimate rates of return by asset class are summarized as follows:

	Plan A1		Plan A2	
	Portfolio Allocation	Long-Term Expected Return	Portfolio Allocation	Long-Term Expected Return
U.S. Large Cap	22.0%	8.6%	10.0%	8.0%
U.S. Small/Mid Cap	8.0%	9.0%	3.0%	8.0%
International Developed	20.0%	9.3%	8.0%	9.3%
Corporate 10+ Year	20.0%	6.7%	45.5%	6.6%
STRIPs			19.5%	5.3%
High Yield	5.0%	7.8%	2.0%	7.8%
Emerging Markets Debt	5.0%	8.8%	2.0%	8.8%
Private Real Estate	8.0%	7.3%	10.0%	7.3%
Private Equity	7.0%	11.7%		
Structured Credit	5.0%	10.5%		

A one-percentage point change in the discount rate would impact the reported net pension liability at June 30, 2023 as follows (in thousands):

	1% Decrease	1% Increase
Net pension liability	$ 73,092	$ (62,364)

NOTE 9—PENSION PLANS, CONTINUED

The components of pension expense for the year ended June 30, 2023 are summarized as follows (in thousands):

Service cost	$ 4,429
Interest cost	44,648
Expected investment earnings	(55,935)
Administrative expenses	8,743
Amortization of deferred outflows and deferred inflows	41,938
	$ 43,823

Deferred outflows and deferred inflows related to the reported net pension liability at June 30, 2023 are summarized as follows (in thousands):

	Deferred Outflows	Deferred Inflows
Changes in assumptions	$ 7,006	
Difference between expected and actual plan experience	1,969	$ 221
Difference between expected and actual investment earnings	134,613	
	$ 143,588	$ 221

Deferred outflows and deferred inflows related to changes in assumptions and differences between expected and actual experience will be recognized into expense in the following years ended June 30 (in thousands):

2024	$ 40,834
2025	34,433
2026	34,433
2027	33,667
	$ 143,367

The inputs used to determine the fair value of the plan's investments reported at June 30, 2023 are summarized as follows (in thousands):

	Level 1	NAV	Total Fair Value
Cash and cash equivalents	$ 3,957		$ 3,957
Fixed income securities	56,818		56,818
Commingled funds	470,012	$ 144,790	614,802
	$ 530,787	$ 144,790	$ 675,577

UMH-West: UMH-West has a noncontributory, single-employer defined benefit pension plan, which is closed to new participants. The plan generally provides benefits based on years of service and employee earnings. The UMH-West Board of Directors has the authority to establish and amend benefit provisions of the plan.

The annual pension expense and net pension liability is actuarially calculated using the entry age normal level percent of pay method. UMH-West has elected to measure the net pension liability nine months prior to the fiscal year end reporting date and amounts measured at September 30, 2022 were determined based on an actuarial valuation at October 1, 2021. There are no significant changes known which would impact the net pension liability between the measurement date and the reporting date, other than typical plan experience.

For purposes of the September 30, 2022 measurement date, the number of plan participants consisted of the following:

Active participants	369
Vested terminated participants	791
Retirees, beneficiaries and disabled participants	553
	1,713

Changes in the reported net pension liability for the year ended June 30, 2023 are summarized as follows (in thousands):

	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability
Balance, beginning of year	$ 67,758	$ 90,433	$ (22,675)
Interest cost	4,569		4,569
Changes in assumptions	165		165
Differences between expected and actual plan experience	1,394		1,394
Benefit payments	(7,374)	(7,374)	-
Contributions from the employer		1,781	(1,781)
Administrative expenses		(147)	147
Net investment income:			
Expected investment earnings		5,314	(5,314)
Differences between expected and actual investment earnings		(23,044)	23,044
Balance, end of year	$ 66,512	$ 66,963	$ (451)

The plan fiduciary net position as a percentage of the total pension liability was 101 percent at June 30, 2023.

NOTE 9—PENSION PLANS, CONTINUED

Significant actuarial assumptions used at the September 30, 2022 measurement date are as follows:

Discount rate	7.0%
Inflation	2.0%
Investment rate of return	7.0%
Mortality table	Pri-2012, Scale MP-2021

Discount rates are based on the expected rate of return on pension plan investments. The projection of cash flows used to determine the discount rate assumed that employer contributions will be made based on the minimum contribution projection under provisions of ERISA and the Pension Protection Act of 2006, for future years. Based on the stated assumptions, the pension plan's fiduciary net position and future contributions were sufficient to finance the future benefit payments of the current plan members for all projection years. As a result, the long-term expected rate of return on pension plan investments was applied to all periods of the projected benefit payments to determine the total pension liability.

The long-term expected rate of return on pension plan investments was determined using the expected future rates of return for the target asset allocation of the portfolio. The target allocation and best estimate rates of return by asset class are summarized as follows:

	Portfolio Allocation	Long-Term Expected Return
U.S. large cap	25.0%	7.9%
U.S. mid cap	10.5%	8.7%
U.S. small cap	6.5%	9.3%
International developed	14.0%	6.0%
Emerging market	9.0%	5.6%
STRIPs	7.0%	3.9%
Corporate 10+ year	28.0%	4.5%

A one-percentage point change in the discount rate would impact the reported net pension liability at June 30, 2023 as follows (in thousands):

	1% Decrease	1% Increase
Net pension liability	$ 6,790	$ (5,798)

The components of pension expense for the year ended June 30, 2023 are summarized as follows (in thousands):

Interest cost	$ 4,569
Expected investment earnings	(5,314)
Administrative expenses	147
Amortization of deferred outflows and deferred inflows	2,497
	$ 1,899

Deferred outflows and deferred inflows related to the reported net pension liability at June 30, 2023 are summarized as follows (in thousands):

	Deferred Outflows	Deferred Inflows
Changes in assumptions	$ 63	
Difference between expected and actual plan experience	534	
Difference between expected and actual investment earnings	18,890	$ 9,783
	$ 19,487	$ 9,783

Deferred outflows and deferred inflows related to changes in assumptions and differences between expected and actual experience will be recognized into expense in the following years ended June 30 (in thousands):

2024	$ 2,115
2025	1,604
2026	1,376
2027	4,609
	$ 9,704

The inputs used to determine the fair value of the plan's investments reported at June 30, 2023 are summarized as follows (in thousands):

	Level 1	Level 2	NAV	Total Fair Value
Equity securities	$ 42,590			$ 42,590
Fixed income securities		$ 16,490		16,490
Nonmarketable alternative investments			$ 7,883	7,883
	$ 42,590	$ 16,490	$ 7,833	$ 66,963

NOTE 10—POSTEMPLOYMENT BENEFITS

The University provides retiree health and welfare benefits, primarily medical, prescription drug, dental and life insurance coverage, to eligible retirees and their eligible dependents. Substantially all full-time regular University employees may become eligible for these benefits if they reach retirement age while working for the University. For employees retiring on or after January 1, 1987, contributions toward health and welfare benefits are shared between the University and the retiree and can vary based on date of hire, date of retirement, age and coverage elections.

The University also provides income replacement benefits, retirement savings contributions, and health and life insurance benefits to substantially all regular University employees that are enrolled in a University sponsored long-term disability plan and qualify, based on disability status while working for the University, to receive basic or expanded long-term disability benefits. Contributions toward the expanded long-term disability plan are shared between the University and employees and vary based on years of service, annual base salary and coverage elections. Contributions toward the basic long-term disability plan are paid entirely by the University.

NOTE 10—POSTEMPLOYMENT BENEFITS, CONTINUED

These postemployment benefits are provided through single-employer plans administered by the University. The Executive Vice Presidents of the University have the authority to establish and amend benefit provisions of the plans.

Actuarial projections of postemployment benefits are based on the substantive plan (the plan as understood by the employer and the plan members) and include the types of benefits provided and announced future changes at the time of each valuation and the historical pattern of sharing benefit costs between the employer and plan members to that point.

The University's reported liability for postemployment benefits obligations is calculated using the entry age normal level percent of pay method. The University has elected to measure the total postemployment liability one year prior to the fiscal year end reporting date and amounts measured at June 30, 2022 were determined based on an actuarial valuation at January 1, 2022. There are no significant changes known which would impact the total postemployment liability between the measurement date and the reporting date, other than typical plan experience.

For purposes of the June 30, 2022 measurement date, the number of plan participants consisted of the following:

	Retiree Health and Welfare	Long-term Disability
Active employees	44,196	38,612
Retirees receiving benefits	12,243	
Surviving spouses	922	
Participants receiving disability benefits		544
	57,361	39,156

Changes in the reported total liability for postemployment benefits obligations for the year ended June 30, 2023 are summarized as follows (in thousands):

	Retiree Health and Welfare	Long-term Disability	Total
Balance, beginning of year	$ 3,982,200	$ 315,459	$ 4,297,659
Service cost	165,821	32,124	197,945
Interest cost	88,911	7,148	96,059
Changes in assumptions	(775,254)	(15,101)	(790,355)
Differences between expected and actual plan experience	2,073	10,348	12,421
Benefit payments	(63,891)	(33,463)	(97,354)
Balance, end of year	3,399,860	316,515	3,716,375
Less current portion	68,697	36,564	105,261
	$ 3,331,163	$ 279,951	$ 3,611,114

Since a portion of retiree medical services will be provided by the University's health system, the reported liability for postemployment benefits obligations is net of the related margin and fixed costs associated with providing those services which totaled $619,599,000 at June 30, 2023.

The University's liability for postemployment benefits obligations is not reduced by the anticipated Medicare Retiree Drug Subsidy for future periods. This subsidy would reduce the reported total postemployment benefits liability by approximately $365,000,000 at June 30, 2023.

Assets used to fund postemployment benefits are not maintained in a separate legal trust. The University 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 reported postemployment benefits obligations at June 30, 2023 as a percentage of covered payroll of $4,889,673,000 were 76 percent.

Significant actuarial assumptions used at the June 30, 2022 measurement date are as follows:

Discount rate*	3.54%
Inflation rate	2.00%
Immediate/ultimate administrative trend rate	0.0%/3.0%
Immediate/ultimate medical trend rate	6.0%/4.5%
Immediate/ultimate Rx trend rate	7.5%/4.5%
Increase in compensation rate faculty/staff/union	4.50%/4.75%/3.75%
Mortality table**	PUB-2010 Teachers Head Count Table, Scale MP-2021
Average future work life expectancy (years):	
Retiree health and welfare	9.33
Long-term disability	12.00

* Bond Buyer 20-year General Obligation Municipal Bond Index as of the last publication of the measurement period
** Based on the University's study of mortality experience from 2015-2019

A one-percentage point change in the discount rate and assumed health care cost trend rates would impact the reported total liability for postemployment benefits obligations at June 30, 2023 as follows (in thousands):

	1% Decrease	1% Increase
Discount rate:		
Retiree health and welfare	$ 702,617	$ (552,156)
Long-term disability	$ 10,955	$ (16,739)
Health care cost trend rates:		
Retiree health and welfare	$ (613,511)	$ 816,955
Long-term disability	$ (10,044)	$ 10,817

NOTE 10—POSTEMPLOYMENT BENEFITS, CONTINUED

The components of postemployment benefits expense for the year ended June 30, 2023 are summarized as follows (in thousands):

	Retiree Health and Welfare	Long-term Disability	Total
Service cost	$ 165,821	$ 32,124	$ 197,945
Interest cost	88,911	7,148	96,059
Amortization of deferred outflows and deferred inflows	(35,240)	498	(34,742)
	$ 219,492	$ 39,770	$ 259,262

Deferred outflows and deferred inflows related to the reported total liability for postemployment benefits obligations at June 30, 2023 are summarized as follows (in thousands):

	Deferred Outflows	Deferred Inflows
Changes in assumptions	$ 654,212	$ 1,209,737
Difference between expected and actual plan experience	118,394	15,595
	772,606	1,225,332
Difference between expected and actual investment earnings	105,261	
	$ 877,867	$ 1,225,332

Deferred outflows and deferred inflows related to changes in assumptions and the differences between expected and actual plan experience will be recognized into expense in the following years ended June 30 (in thousands):

2024	$ 34,742
2025	34,742
2026	46,764
2027	53,528
2028	18,647
2029 and beyond	264,303
	$ 452,726

NOTE 11—RETIREMENT PLAN

The University has a defined contribution retirement plan for all qualified employees through TIAA and Fidelity Management Trust Company ("FMTC") mutual funds. All regular and supplemental instructional and primary staff are eligible to participate in the plan based upon age and service requirements. Participants maintain individual contracts with TIAA, or accounts with FMTC, and are fully vested.

For payroll covered under the plan, eligible employees generally contribute 5 percent of their pay and the University generally contributes 10 percent of employees' pay to the plan. The University contribution commences after an employee has completed one year of employment. Participants may elect to contribute additional amounts to the plan within specified limits that are not matched by University contributions. Contributions and covered payroll under the plan (excluding participants' additional contributions) for the year ended June 30, 2023 are summarized as follows (in thousands):

University contributions	$ 372,331
Employee contributions	$ 197,125
Payroll covered under plan	$ 4,889,673
Total payroll	$ 5,058,307

NOTE 12—NET POSITION

The composition of net position at June 30, 2023 is summarized as follows (in thousands):

Net investment in capital assets	$ 3,964,182
Restricted:	
Nonexpendable:	
Permanent endowment corpus	2,959,142
Expendable:	
Net appreciation of permanent endowments	3,668,054
Funds functioning as endowment	3,385,536
Restricted for operations and other	799,478
Unrestricted	5,937,369
	$ 20,713,761

Unrestricted net position is not subject to externally imposed stipulations; however, it is subject to internal restrictions. For example, unrestricted net position may be designated for specific purposes by action of management or the Board of Regents. At June 30, 2023, substantially all of the unrestricted net position has been designated for various academic programs, research initiatives and capital projects.

NOTE 13—FEDERAL DIRECT LENDING PROGRAM

The University distributed $303,478,000 during the year ended June 30, 2023 for student loans through the U.S. Department of Education ("DoED") Federal Direct Lending Program. These distributions and related funding sources are not included as expenses and revenues in the accompanying consolidated financial statements. The statement of net position includes a receivable of $1,226,000 at June 30, 2023, for DoED funding received subsequent to distribution.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

NOTE 14—COMMITMENTS AND CONTINGENCIES

Authorized expenditures for construction and other projects unexpended at June 30, 2023 were $1,845,447,000. Of these expenditures, the University expects that $1,845,447,000 will be funded by internal sources, gifts, grants and proceeds from borrowings and $30,000,000 by the State Building Authority.

Under the terms of various limited partnership agreements approved by the Board of Regents or University officers, the University is obligated to make periodic payments for advance commitments to venture capital, private equity, real estate, natural resources and absolute return strategies. At June 30, 2023, the University had committed, but not paid, a total of $4,520,344,000 in funding for these alternative investments. Based on historical capital calls and discussions with those managing the limited partnerships, outstanding commitments for such investments are anticipated to be paid in the following years ended June 30 (in thousands):

2024	$ 1,535,092
2025	1,078,708
2026	761,728
2027	452,496
2028	249,652
2029 and beyond	442,668
	$ 4,520,344

These commitments are generally able to be called prior to an agreed commitment expiration date and therefore may occur earlier or later than estimated.

The University has entered into leases for certain space and equipment, as well as SBITAs, which expire at various dates through 2043. Future payments, including both principal and interest on these commitments for the next five years and in subsequent five-year periods are as follows (in thousands):

	Principal	Interest	Total
2024	$ 67,709	$ 10,537	$ 78,246
2025	60,145	8,999	69,144
2026	44,472	7,660	52,132
2027	32,204	6,606	38,810
2028	23,916	5,844	29,760
2029-2033	77,288	19,667	96,955
2034-2038	40,404	4,823	45,227
2039-2043	6,271	157	6,428
	$ 352,409	$ 64,293	$ 416,702

Substantial amounts are received and expended by the University under federal and state programs and are subject to audit by cognizant governmental agencies. This funding relates to research, student aid, patient care and other programs. The University believes that any liabilities arising from such audits will not have a material effect on its financial position.

The University is a party to various pending legal actions and other claims in the normal course of business, and is of the opinion that the outcome of these proceedings will not have a material adverse effect on its financial position.

NOTE 15—OPERATING EXPENSES BY FUNCTION

Operating expenses by functional classification for the year ended June 30, 2023 are summarized as follows (in thousands):

	Compensation and Benefits	Supplies and Services	Depreciation	Scholarships and Fellowships	Total
Instruction	$ 1,171,937	$ 158,866			$ 1,330,803
Research	675,755	296,123			971,878
Public service	182,356	121,021			303,377
Academic support	351,126	77,526			428,652
Student services	121,608	45,954			167,562
Institutional support	223,685	263,632			487,317
Operations and maintenance of plant	103,073	266,925			369,998
Auxiliary enterprises	4,978,886	2,578,962			7,557,848
Depreciation			$ 685,362		685,362
Scholarships and fellowships				$ 200,439	200,439
	$ 7,808,426	$ 3,809,009	$ 685,362	$ 200,439	$ 12,503,236

NOTE 16—UM HEALTH

Condensed financial information for UM Health, a blended component unit, before the elimination of certain intra-University transactions, at and for the year ended June 30, 2023 is as follows (in thousands):

Condensed Statement of Net Position	
Assets:	
Current assets	$ 446,069
Noncurrent assets	1,638,665
Total assets	2,084,734
Deferred outflows	163,418
Liabilities:	
Current liabilities	358,034
Noncurrent liabilities	621,547
Total liabilities	979,581
Deferred inflows	19,238
Net position:	
Net investment in capital assets	427,642
Restricted:	
Nonexpendable	10,429
Expendable	49,531
Unrestricted	761,731
Total net position	$ 1,249,333

Condensed Statement of Revenues, Expenses and Changes in Net Position	
Operating revenues	$ 1,794,435
Operating expenses other than depreciation expense	(1,871,017)
Depreciation expense	(107,118)
Operating loss	(183,700)
Nonoperating revenues, net	52,216
Other expenses, net	(10,228)
Loss before transfers	(141,712)
Transfers from other University units	3,875
Decrease in net position	(137,837)
Net position, beginning of year	121,983
Affiliation with Sparrow Health	1,265,187
Net position, beginning of year, as restated	1,387,170
Net position, end of year	$ 1,249,333

Condensed Statement of Cash Flows	
Net cash used in operating activities	$ (67,203)
Net cash provided by noncapital financing activities	51,374
Net cash used in capital and related financing activities	(192,668)
Net cash provided by investing activities	184,905
Net decrease in cash and cash equivalents	(23,592)
Cash and cash equivalents, beginning of year	21,947
Affiliation with Sparrow Health	88,002
Cash and cash equivalents, beginning of year, as restated	109,949
Cash and cash equivalents, end of year	$ 86,357