NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
JUNE 30, 2019 AND 2018

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 63,700 students on its three campuses. The financial statements include the individual schools, colleges and departments, the University of Michigan Health System ("UMHS"), 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, currently consisting of Metropolitan Health Corporation) and Veritas Insurance Corporation (a wholly-owned captive insurance company). 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.

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 financial statements of all controlled organizations are included in the University's financial statements; affiliated organizations that are not controlled by, and not dependent on the University, such as booster and alumni organizations, are not included.

Net position is categorized as:

- Net investment in capital assets: Capital assets, net of accumulated depreciation, outstanding principal balances of debt and capital lease liabilities, unexpended bond proceeds and deferred outflows 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.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

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

Summary of Significant Accounting Policies: For purposes of the statement of cash flows, 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, 2019 and 2018. 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.

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. The University does not capitalize works of art or 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. Accordingly, such collections are not recognized or capitalized for financial statement purposes.

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 plan for Metropolitan Health Corporation ("Metro Health").

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.

Deposits of affiliates and others represents cash and invested funds held by the University as a result of agency relationships with various groups. Noncurrent deposits of affiliates represents the portion of endowment and similar funds held by the University on behalf of others.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

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

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 associated with the University's obligations for postemployment benefits, Metro Health's defined benefit pension plan 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 $2,144,532,000 and $2,067,392,000 at June 30, 2019 and 2018, respectively, is recorded in restricted expendable net position. The University's endowment spending rule is further discussed in Note 2.

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 $78,370,000 and $77,259,000 in 2019 and 2018, respectively.

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

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.

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.

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 short-term insurance and other 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 a 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, private equity, real estate, natural resources and absolute return strategies.

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

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 University Endowment Fund to the entities 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 University Endowment Fund and UIP are funded by investment returns.

Cash and Cash Equivalents and Unexpended Bond Proceeds: Cash and cash equivalents, which totaled $397,279,000 and $133,365,000 at June 30, 2019 and 2018, respectively, 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 Corporation limits in the amount of $14,121,000 and $42,720,000 at June 30, 2019 and 2018, respectively. The University does not require its deposits to be collateralized or insured.

Unexpended bond proceeds, which totaled $90,813,000 and $82,797,000 at June 30, 2019 and 2018, respectively, represent short-term money market investments in mutual funds. These amounts are used solely for the reimbursement of qualifying expenditures for construction projects associated with certain outstanding general revenue bonds issued by the University.

Cash and cash equivalents and unexpended bond proceeds 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 $278,275,000 and $132,042,000 at June 30, 2019 and 2018, respectively. Level 2 securities, which primarily consist of U.S. agencies, totaled $36,000,000 and $34,100,000 at June 30, 2019 and 2018, respectively.

NOTE 2—CASH AND INVESTMENTS, CONTINUED

Investments: At June 30, 2019 and 2018, the University's investments, which are held by the University or its agents in the University's name, are summarized as follows:

(in thousands)	2019	2018
Cash equivalents, noncurrent	$ 167,876	$ 229,067
Equity securities	1,222,061	1,238,818
Fixed income securities	1,361,575	1,826,821
Commingled funds	3,295,746	3,101,671
Nonmarketable alternative investments	8,339,202	7,608,059
Other investments	(1,046)	8,845
	$ 14,385,414	$ 14,013,281

At June 30, 2019 and 2018, the fair value of the University's investments based on the inputs used to value them is summarized as follows:

2019

(in thousands)	Level 1	Level 2	Level 3	NAV	Total Fair Value
Cash equivalents, noncurrent	$ 167,876	-	-	-	$ 167,876
Equity securities:					
Domestic	314,972		$ 46,539		361,511
Foreign	859,552		998		860,550
	1,174,524	-	47,537	-	1,222,061
Fixed income securities:					
U.S. Treasury	735,365				735,365
U.S. government agency		$ 27,355			27,355
Corporate and other		586,024	12,831		598,855
	735,365	613,379	12,831	-	1,361,575
Commingled funds:					
Absolute return				$ 2,282,226	2,282,226
Domestic equities	162			423,668	423,830
Global equities	3			569,546	569,549
U.S. fixed income	3,164				3,164
Other	16,977				16,977
	20,306	-	-	3,275,440	3,295,746
Nonmarketable alternative investments:					
Venture capital				2,249,481	2,249,481
Absolute return				1,885,870	1,885,870
Private equity			267,327	1,354,169	1,621,496
Real estate			10,993	1,265,848	1,276,841
Natural resources			204,555	1,100,959	1,305,514
	-	-	482,875	7,856,327	8,339,202
Other investments	(3,145)	(7,184)	9,283	-	(1,046)
	$ 2,094,926	$ 606,195	$ 552,526	$ 11,131,767	$ 14,385,414

2018

(in thousands)	Level 1	Level 2	Level 3	NAV	Total Fair Value
Cash equivalents, noncurrent	$ 229,067	-	-	-	$ 229,067
Equity securities:					
Domestic	401,755		$ 34,971		436,726
Foreign	801,506		586		802,092
	1,203,261	-	35,557	-	1,238,818
Fixed income securities:					
U.S. Treasury	752,529				752,529
U.S. government agency		$ 116,085			116,085
Corporate and other		955,166	3,041		958,207
	752,529	1,071,251	3,041	-	1,826,821
Commingled funds:					
Absolute return				$ 2,006,037	2,006,037
Domestic equities	17,089			263,389	280,478
Global equities	9,495			758,608	768,103
U.S. fixed income	9,453			33,589	43,042
Other	4,011				4,011
	40,048	-	-	3,061,623	3,101,671
Nonmarketable alternative investments:					
Venture capital				1,771,258	1,771,258
Absolute return				1,636,355	1,636,355
Private equity			343,688	1,504,786	1,848,474
Real estate			9,225	1,104,080	1,113,305
Natural resources			224,151	1,014,516	1,238,667
	-	-	577,064	7,030,995	7,608,059
Other investments	(2,131)	966	10,010	-	8,845
	$ 2,222,774	$ 1,072,217	$ 625,672	$ 10,092,618	$ 14,013,281

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 as well as a note receivable associated with the sale of a portion of the University's nonmarketable alternative real estate investments at June 30, 2019. 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.

NOTE 2—CASH AND INVESTMENTS, CONTINUED

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 5.0 years at June 30, 2019 compared to 4.2 years at June 30, 2018. 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, 2019 and 2018, which are used to adjust the duration of cash equivalents and the fixed income portion of the portfolios.

The composition of fixed income securities at June 30, 2019 and 2018, along with credit quality and effective duration measures, is summarized as follows:

2019

(in thousands)	U.S. Government	Investment Grade	Non-Investment Grade	Not Rated	Total	Duration (in years)
U.S. Treasury	$ 724,727				$ 724,727	5.0
U.S. Treasury inflation protected	10,638				10,638	7.3
U.S. government agency	27,355				27,355	0.9
Mortgage backed		$ 13,346	$ 404	$ 6,514	20,264	0.8
Asset backed		34,271		377	34,648	0.7
Corporate and other		508,015	13,583	22,345	543,943	5.5
	$ 762,720	$ 555,632	$ 13,987	$ 29,236	$ 1,361,575	5.0

2018

(in thousands)	U.S. Government	Investment Grade	Non-Investment Grade	Not Rated	Total	Duration (in years)
U.S. Treasury	$ 527,662				$ 527,662	8.7
U.S. Treasury inflation protected	224,867				224,867	2.2
U.S. government agency	116,085				116,085	0.4
Mortgage backed		$ 82,258	$ 2,930	$ 22,634	107,822	0.6
Asset backed		68,336		2,210	70,546	0.7
Corporate and other		753,876	16,841	9,122	779,839	3.2
	$ 868,614	$ 904,470	$ 19,771	$ 33,966	$ 1,826,821	4.2

Of the University's fixed income securities, 97 percent were rated investment grade or better at both June 30, 2019 and 2018, and 63 percent and 59 percent of these securities consisted of either U.S. treasury and government agencies or non-U.S. government securities rated AAA/Aaa at June 30, 2019 and 2018, respectively.

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, 2019 and 2018, no individual partnership investment represented 5 percent or more of total investments.

NOTE 2—CASH AND INVESTMENTS, CONTINUED

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, 2019 is summarized as follows (amounts in thousands):

	Fair Value	Remaining Life	Outstanding Commitments	Redemption Terms	Redemption Notice
Commingled funds	$ 3,295,746	N/A		Daily, monthly, quarterly and annually, with varying notice periods	Lock-up provisions range from none to 3 years
Nonmarketable alternative investments	$ 8,339,202	1-12 years	$ 6,089,675	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, 2019 and 2018, approximately 75 percent and 79 percent are redeemable within one year, with 58 percent and 63 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.

The value of the University's non-U.S. dollar holdings, net of the value of the outstanding forward foreign exchange contracts, totaled $1,726,091,000 or 12 percent of total investments at June 30, 2019, and $1,766,714,000 or 13 percent of total investments at June 30, 2018, and are summarized as follows:

(in thousands)	2019	2018
Euro	$ 805,536	$ 983,971
British pound sterling	289,940	252,537
Japanese yen	232,252	233,049
Swedish krona	111,224	78,464
Canadian dollar	83,105	79,368
Swiss franc	68,733	35,564
Norwegian krone	39,071	49,760
Other	96,230	54,001
	$ 1,726,091	$ 1,766,714

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 $64,548,000 and $79,224,000 in securities loans outstanding at June 30, 2019 and 2018, respectively. 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, 2019, collateral of $67,327,000 (104 percent of securities on loan) includes invested cash of $29,485,000 and U.S. government securities of $37,842,000, while at June 30, 2018, collateral of $82,085,000 (104 percent of securities on loan) includes invested cash of $29,727,000 and U.S. government securities of $52,358,000.

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, 2019 and 2018 is summarized as follows:

(in thousands)	2019	2018
Patient care	$ 539,653	$ 507,827
Sponsored programs	172,681	164,264
State appropriations, educational and capital	67,353	67,230
Student accounts	32,715	27,457
Other	36,975	32,219
	849,377	798,997
Less allowance for uncollectible accounts receivable:		
Patient care	125,731	123,370
All other	9,025	8,816
	$ 714,621	$ 666,811

NOTE 4—NOTES AND PLEDGES RECEIVABLE

The composition of notes and pledges receivable at June 30, 2019 and 2018 is summarized as follows:

(in thousands)	2019	2018
Notes:		
Federal student loan programs	$ 74,153	$ 85,918
University student loan funds	15,691	16,664
Other	1,396	1,390
	91,240	103,972
Less allowance for uncollectible notes	3,134	3,134
Total notes receivable, net	88,106	100,838
Gift pledges:		
Capital	138,983	165,342
Operations	167,350	164,920
	306,333	330,262
Less:		
Allowance for uncollectible pledges	8,137	9,523
Unamortized discount to present value	4,840	4,942
Total pledges receivable, net	293,356	315,797
Total notes and pledges receivable, net	381,462	416,635
Less current portion	80,035	79,765
	$ 301,427	$ 336,870

The principal repayment and interest rate terms of federal and University loans vary considerably. The allowance for uncollectible notes only applies to University funded notes 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, 2019 are expected to be received in the following years ended June 30 (in thousands):

2020	$ 63,261
2021	57,970
2022	43,855
2023	35,386
2024	46,680
2025 and after	59,181
	$ 306,333

Permanent endowment pledges do not meet eligibility requirements, as defined by GASB, until the related gift is received. Accordingly, permanent endowment pledges totaling $156,957,000 and $168,926,000 at June 30, 2019 and 2018, respectively, are not recognized as assets in the accompanying 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.

NOTE 5—CAPITAL ASSETS

Capital assets activity for the years ended June 30, 2019 and 2018 is summarized as follows:

2019

(in thousands)	Beginning Balance	Additions	Retirements	Ending Balance
Land	$ 129,376	$ 24,533	$ 599	$ 153,310
Land improvements	143,738	18,026	1,463	160,301
Infrastructure	262,207	2,550		264,757
Buildings	9,178,875	265,783	31,782	9,412,876
Construction in progress	301,434	111,773		413,207
Equipment	2,098,370	228,688	84,565	2,242,493
Library materials	646,376	28,115		674,491
	12,760,376	679,468	118,409	13,321,435
Less accumulated depreciation	6,639,379	567,857	112,770	7,094,466
	$ 6,120,997	$ 111,611	$ 5,639	$ 6,226,969

2018

(in thousands)	Beginning Balance	Additions	Retirements	Ending Balance
Land	$ 126,617	$ 2,952	$ 193	$ 129,376
Land improvements	137,981	7,275	1,518	143,738
Infrastructure	258,449	4,149	391	262,207
Buildings	8,618,377	620,725	60,227	9,178,875
Construction in progress	476,124	(174,690)		301,434
Equipment	2,050,848	163,428	115,906	2,098,370
Library materials	620,200	26,176		646,376
	12,288,596	650,015	178,235	12,760,376
Less accumulated depreciation	6,243,154	568,707	172,482	6,639,379
	$ 6,045,442	$ 81,308	$ 5,753	$ 6,120,997

The increase in construction in progress of $111,773,000 in 2019 represents the amount of capital expenditures for new projects of $559,735,000 net of assets placed in service of $447,962,000. The decrease in construction in progress of $174,690,000 in 2018 represents the amount of capital expenditures for new projects of $527,908,000 net of assets placed in service of $702,598,000.

During 2018, the University recognized $24,698,000 of additional depreciation expense in connection with the impairment of certain components of Metro Health's hospital facilities.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

NOTE 6—LONG-TERM DEBT

Long-term debt at June 30, 2019 and 2018 is summarized as follows:

(in thousands)	2019	2018
Commercial paper:		
Tax-exempt, variable rate (1.57%)*	$ 142,990	$ 155,595
Taxable, variable rate (2.30%)*	2,250	2,865
General revenue bonds:		
Series 2019A, 5.00% through 2036	148,330	
unamortized premium	26,936	
Series 2019B, taxable, 2.535% to 3.416% through 2029	16,755	
Series 2019C, 4.00% through 2049	61,725	
unamortized premium	5,949	
Series 2018A, 4.00% to 5.00% through 2048	135,130	137,510
unamortized premium	17,988	19,055
Series 2017A, 4.00% to 5.00% through 2047	447,410	456,265
unamortized premium	72,310	78,186
Series 2015, 4.00% to 5.00% through 2046	294,850	302,415
unamortized premium	44,612	47,640
Series 2014A, 4.25% to 5.00% through 2044	74,250	76,060
Series 2014B, 2.071% to 3.516% through 2024	4,820	5,730
unamortized premium	6,056	6,503
Series 2013A, 2.50% to 5.00% through 2029	43,575	44,975
unamortized premium	1,424	1,649
Series 2012A, variable rate (1.78%)* through 2036	50,000	50,000
Series 2012B, variable rate (1.86%)* through 2042	65,000	65,000
Series 2012D-1, variable rate (1.80%)* through 2025 with partial swap to fixed through 2025	56,635	60,220
Series 2012D-2, variable rate (1.80%)* through 2030 with partial swap to fixed through 2026	58,315	62,725
Series 2012E**, variable rate (2.17%)* through 2033	94,525	95,020
Series 2010A, taxable Build America Bonds, 4.926% to 5.593% through 2040	163,110	163,110
Series 2010C, 3.75% to 5.00% through 2027	38,330	50,485
unamortized premium	2,937	3,647
Series 2010D, taxable Build America Bonds, 3.356% to 5.333% through 2041	157,860	165,790
Series 2009A, 3.00% to 5.00% through 2019		4,165
unamortized premium		2,769
Series 2009B, variable rate (1.52%)* through 2039	118,710	118,710
Series 2009D, taxable Build America Bonds, 5.155% to 6.172% through 2019		89,815
Series 2008A, variable rate (1.93%)* through 2038	57,085	57,085
Series 2008B, variable rate (1.82%)* through 2028 with swap to fixed through 2026	65,070	70,845
Other	91	174
	2,475,028	2,394,008
Less:		
Commercial paper and current portion of bonds payable	232,095	237,371
Long-term bonds payable subject to remarketing, net	133,616	195,552
	$ 2,109,317	$ 1,961,085

* Denotes variable rate at June 30, 2019

** 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, variable rate bonds payable is 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 at June 30, 2019 and 2018 is summarized as follows:

(in thousands)	2019	2018
Variable rate bonds payable subject to remarketing	$ 470,815	$ 484,585
Less:		
Current principal maturities	14,365	13,770
Long-term liquidity agreements:		
Unsecured line of credit	275,263	275,263
Standby bond purchase agreements	47,571	
Long-term bonds payable subject to remarketing, net	$ 133,616	$ 195,552

The University's available lines of credit were entirely unused at both June 30, 2019 and 2018.

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, significant terms and other information about the University's interest rate swaps is discussed in Note 7.

Long-term debt activity for the years ended June 30, 2019 and 2018 is summarized as follows:

2019				
(in thousands)	Beginning Balance	Additions	Reductions	Ending Balance
Commercial paper	$ 158,460		$ 13,220	$ 145,240
Bonds	2,235,374	$ 260,034	165,711	2,329,697
Other	174		83	91
	$ 2,394,008	$ 260,034	$ 179,014	$ 2,475,028

2018				
(in thousands)	Beginning Balance	Additions	Reductions	Ending Balance
Commercial paper	$ 161,045	$ 6,600	$ 9,185	$ 158,460
Bonds	2,154,723	156,728	76,077	2,235,374
Other	1,747		1,573	174
	$ 2,317,515	$ 163,328	$ 86,835	$ 2,394,008

The University maintains a combination of variable and fixed rate debt supported by general revenues, with effective interest rates that averaged 3.0 percent and 2.9 percent in 2019 and 2018, respectively, 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.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

NOTE 6—LONG-TERM DEBT, CONTINUED

During 2019, the University issued $226,810,000 of General Revenue Bonds with a net original issue premium of $33,224,000, which included $148,330,000 of fixed rate, tax-exempt bonds Series 2019A, $16,755,000 of fixed rate, taxable bonds Series 2019B and $61,725,000 of fixed rate, tax-exempt bonds Series 2019C. Total bond proceeds of $260,034,000 were utilized to refund existing bonds of $83,985,000 and to provide $175,245,000 for capital projects and $804,000 for debt issuance costs.

The refunded bonds represent the remaining portion of General Revenue Bonds Series 2009D, which had an average interest rate of 5.98 percent and a final maturity date of April 1, 2030. As a result of the refunding, the University reduced its aggregate debt service payments over the next 11 years by $10,769,000, resulting in an economic gain with present value savings of $9,493,000.

During 2018, the University issued $137,510,000 of fixed rate General Revenue Bonds Series 2018A with a net original issue premium of $19,218,000. Total bond proceeds of $156,728,000 were utilized to provide $156,200,000 for capital projects and $528,000 for debt issuance costs.

Deferred outflows associated with the University's refunding activity totaled $10,481,000 and $14,095,000 at June 30, 2019 and 2018, respectively, which 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 2049. 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
2020	$ 217,551	$ 86,047	$ 303,598
2021	76,250	83,700	159,950
2022	79,725	81,303	161,028
2023	81,010	78,325	159,335
2024	87,225	75,214	162,439
2025-2029	468,850	321,451	790,301
2030-2034	465,690	223,482	689,172
2035-2039	490,670	130,926	621,596
2040-2044	233,755	49,834	283,589
2045-2049	96,090	10,367	106,457
Total payments	2,296,816	$ 1,140,649	$ 3,437,465
Plus unamortized premiums	178,212		
	$ 2,475,028		

* Interest on variable rate debt is estimated based on rates in effect at June 30, 2019; amounts do not reflect federal subsidies to be received for Build America Bonds interest

If all variable rate bonds were put back to the University and existing unsecured lines of credit were not extended upon their current expiration dates, the total principal payments due in 2020 would increase to $351,167,000, total principal payments due in 2021 would increase to $259,752,000, total principal payments due in 2022 would increase to $112,582,000, total principal payments due in 2023 would increase to $93,848,000 and total principal payments due in 2024 would increase to $89,379,000. Accordingly, principal payments due in subsequent years would be reduced to $396,813,000 in 2025 through 2029, $364,240,000 in 2030 through 2034, $331,065,000 in 2035 through 2039 and $201,880,000 in 2040 through 2044. Principal payments due in 2045 through 2049 would not change. There would not be a material impact on annual interest payments due to the low variable rate of interest on these bonds.

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 net investment income (loss).

Derivative instruments held by the University at June 30, 2019 and 2018 are summarized as follows:

2019

(in thousands)	Notional Amount	Fair Value
Investment derivative instruments:		
Futures	$ 79,838	$ (3,145)
Foreign currency forwards:		
Chinese yuan	340,704	7,792
New Zealand dollar	181,678	4,568
Norwegian krone	168,849	(2,938)
Russian ruble	36,354	2,784
Euro	210,332	1,987
Japanese yen	14,948	(1,929)
All other currencies	1,079,010	(1,474)
	2,031,875	10,790
Other	1,834,929	(14,445)
	$ 3,946,642	$ (6,800)
Effective cash flow hedges:		
Floating-to-fixed interest rate swaps on debt	$ 138,900	$ (13,695)

2018

(in thousands)	Notional Amount	Fair Value
Investment derivative instruments:		
Futures	$ 183,096	$ (2,131)
Foreign currency forwards:		
Chinese yuan	332,924	10,829
Swedish krona	209,549	8,221
South African rand	58,800	(7,463)
Australian dollar	207,419	(7,647)
Turkish lire	59,214	(8,269)
Brazil real	123,133	(11,745)
All other currencies	1,573,663	20,467
	2,564,702	4,393
Other	2,939,567	(790)
	$ 5,687,365	$ 1,472
Effective cash flow hedges:		
Floating-to-fixed interest rate swaps on debt	$ 152,655	$ (12,212)

NOTE 7—DERIVATIVE INSTRUMENTS, CONTINUED

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.

At June 30, 2019 and 2018, the fair value of floating-to-fixed interest rate swaps associated with the University's variable rate debt is ($13,695,000) and ($12,212,000), respectively, and is included in the statement of net position as a component of deposits of affiliates and other. The deferred outflows for these effective cash flow hedges totaled $4,694,000 and $731,000 at June 30, 2019 and 2018, respectively.

The change in fair value of derivative instruments, which includes realized gains and losses on positions closed, for the years ended June 30, 2019 and 2018 is summarized as follows:

(in thousands)	2019	2018
Investment derivative instruments:		
Investment portfolios:		
Futures	$ 22,332	$ 8,592
Foreign currency forwards	41,907	(58,308)
Other	(117,840)	1,098
	$ (53,601)	$ (48,618)
Floating-to-fixed interest rate swap on debt	$ -	$ 186
Effective cash flow hedges:		
Floating-to-fixed interest rate swaps on debt	$ (1,483)	$ 7,100

The University's interest rate swaps, along with their associated variable rate debt and significant terms, are summarized below.

The floating-to-fixed interest rate swap associated with the Series 2008B General Revenue Bonds has a notional amount of $48,355,000 and $54,130,000 at June 30, 2019 and 2018, respectively, and the notional amount decreases as principal on the underlying bonds is repaid. The University makes payments based on a fixed rate of 3.105 percent and receives variable rate payments from the swap counterparty based on 68 percent of One-Month USD LIBOR, until the swap terminates in April 2026. The University has the option to terminate the swap upon five business days written notice and payment of the fair market compensation for the value of the swap. This swap is considered an effective hedge at June 30, 2019 and 2018 and has a fair value of ($3,884,000) and ($3,076,000), respectively.

The floating-to-fixed interest rate swap associated with the Series 2012D-2 General Revenue Bonds has a notional amount of $34,030,000 and $38,430,000 at June 30, 2019 and 2018, respectively, covering a portion of the principal outstanding and the notional amount decreases as principal on the underlying bonds is repaid. The University makes payments based on a fixed rate of 3.229 percent and receives variable rate payments from the swap counterparty based on 68 percent of the One-Month USD LIBOR, until the swap terminates in December 2025. The University has the option to terminate the swap upon five business days written notice and payment of the fair market compensation for the value of the swap. This swap is considered an effective hedge at June 30, 2019 and 2018 and has a fair value of ($2,376,000) and ($2,010,000), respectively.

The first floating-to-fixed interest rate swap associated with the Series 2012D-1 General Revenue Bonds has a notional amount of $44,670,000 at both June 30, 2019 and 2018, covering a portion of the principal outstanding and the notional amount decreases as principal on the underlying bonds is repaid. The University makes payments based on a fixed rate of 4.705 percent and receives variable rate payments from the swap counterparty based on the floating Securities Industry and Financial Markets Association ("SIFMA") Municipal Index through the final maturity dates of the underlying bonds in December 2024. The counterparty has the option of terminating the swaps if for any 180-day period the average variable rate is more than 7.0 percent. This swap is considered an effective hedge at June 30, 2019 and 2018 and has a fair value of ($6,816,000) and ($6,234,000), respectively.

The second floating-to-fixed interest rate swap associated with the Series 2012D-1 General Revenue Bonds has a notional amount of $11,845,000 and $15,425,000 at June 30, 2019 and 2018, respectively, covering a portion of the principal outstanding and the notional amount decreases as principal on the underlying bonds is repaid. The University makes payments based on a fixed rate of 4.685 percent and receives variable rate payments based on the floating SIFMA Municipal Index through the final maturity dates of a portion of the underlying bonds in December 2021. The counterparty has the option of terminating the swaps if for any 180-day period the average variable rate is more than 7.0 percent. This swap is considered an effective hedge at June 30, 2019 and 2018 and has a fair value of ($619,000) and ($892,000), respectively.

Using rates in effect at June 30, 2019, 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:

	Variable Rate Bonds		Swap	Total
(in thousands)	Principal	Interest	Payments, Net	Payments
2020	$ 14,365	$ 3,144	$ 2,717	$ 20,226
2021	15,000	2,871	2,438	20,309
2022	15,645	2,599	2,157	20,401
2023	26,150	2,208	1,660	30,018
2024	27,320	1,728	1,022	30,070
2025-2029	79,405	3,209	426	83,040
2030	2,135	16		2,151
	$ 180,020	$ 15,775	$ 10,420	$ 206,215

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 LIBOR. Basis risk is the risk that changes in the relationship between SIFMA and LIBOR may impact the synthetic fixed rate of the variable rate debt. At June 30, 2019 and 2018, 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 $10,227,000 and $15,306,000 at June 30, 2019 and 2018, respectively, on deposit with its futures broker as collateral.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

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 obligations for the years ended June 30, 2019 and 2018 are summarized as follows:

(in thousands)	2019	2018
Balance, beginning of year	$ 235,162	$ 214,035
Claims incurred and changes in estimates	745,730	694,199
Claim payments	(748,980)	(673,072)
Balance, end of year	231,912	235,162
Less current portion	104,235	98,159
	$ 127,677	$ 137,003

NOTE 9—PENSION PLAN

Metro Health has a noncontributory, single employer defined benefit pension plan, which covered substantially all employees prior to being frozen as of December 31, 2007. The plan generally provides benefits based on each employee's years of service and final average earnings, as defined, and does not provide any automatic or ad-hoc cost of living adjustments. The Metro Health 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 determined using the entry age normal level percentage of pay method. Metro Health has elected to measure the net pension liability one year prior to the fiscal year end reporting date and amounts measured at June 30, 2018 and 2017 were determined based on an actuarial valuation at October 1, 2017 and 2016, respectively. There are no significant changes known which would impact the total net pension liability between the measurement date and the reporting date, other than typical plan experience.

For purposes of the June 30, 2018 and 2017 measurement dates, the number of plan participants consisted of the following:

	2018	2017
Active participants	574	612
Vested terminated participants	905	947
Retirees, beneficiaries and disabled participants	372	366
	1,851	1,925

Changes in the reported net pension liability for the years ended June 30, 2019 and 2018 are summarized as follows:

2019 (in thousands)	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability
Balance, beginning of year	$ 72,680	$ 76,503	$ (3,823)
Interest cost	4,930		4,930
Changes in assumptions	(273)		(273)
Differences between expected and actual plan experience	1,361		1,361
Benefit payments	(4,489)	(4,489)	-
Contributions from the employer		1,047	(1,047)
Net investment income:			
Expected investment earnings		5,234	(5,234)
Differences between expected and actual investment earnings		(1,168)	1,168
Balance, end of year	$ 74,209	$ 77,127	$ (2,918)

2018 (in thousands)	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability
Balance, beginning of year	$ 73,968	$ 70,532	$ 3,436
Interest cost	5,013		5,013
Changes in assumptions	(822)		(822)
Differences between expected and actual plan experience	(767)		(767)
Benefit payments	(4,712)	(4,712)	-
Contributions from the employer		2,171	(2,171)
Net investment income:			
Expected investment earnings		4,848	(4,848)
Differences between expected and actual investment earnings		3,664	(3,664)
Balance, end of year	$ 72,680	$ 76,503	$ (3,823)

The plan fiduciary net position as a percentage of the total pension liability was 104 percent and 105 percent at June 30, 2019 and 2018, respectively.

NOTE 9—PENSION PLAN, CONTINUED

Significant actuarial assumptions used at the June 30, 2018 and 2017 measurement dates are as follows:

	2018	2017
Discount rate	7.00%	7.00%
Inflation	2.00%	2.00%
Investment rate of return	7.00%	7.00%
Mortality table	RP-2014 Employee and Healthy Annuitant, Scale MP-2017	RP-2014 Employee and Healthy Annuitant, Scale MP-2016

Discount rates are based on the expected rate of return on pension plan investments. The projection of cash flows used to determine the single discount rate for each fiscal year end assumed that employer contributions will be made based on the minimum contribution projection under provisions of ERISA and the Pension Protection Act of 2006, including MAP-21, 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 of 7.00 percent at both June 30, 2018 and 2017 was determined using the expected future rates of return for the target asset allocation of the portfolio. The target allocation and best estimate geometric rates of return by asset class are summarized as follows:

	2018		2017	
	Portfolio Allocation	Long-Term Expected Return	Portfolio Allocation	Long-Term Expected Return
U.S. large cap	25.0%	6.3%	25.0%	6.8%
U.S. mid cap	10.5%	7.1%	10.5%	7.6%
U.S. small cap	6.5%	7.8%	6.5%	8.3%
International developed	14.0%	5.2%	14.0%	5.6%
Emerging market	9.0%	5.1%	9.0%	5.6%
STRIPs	7.0%	4.3%	7.0%	4.5%
Corporate 10+ year	28.0%	5.0%	28.0%	4.8%

A one-percentage point change in the discount rate would impact the reported net pension liability at June 30, 2019 and 2018 as follows:

	2019		2018	
(in thousands)	1% Decrease	1% Increase	1% Decrease	1% Increase
Net pension liability	$ 8,313	$ (6,931)	$ 8,751	$ (7,252)

The components of pension income for the years ended June 30, 2019 and 2018 are summarized as follows:

(in thousands)	2019	2018
Interest cost	$ 4,930	$ 5,013
Expected investment earnings	(5,234)	(4,848)
Amortization of deferred outflows and deferred inflows	(7,857)	(9,582)
	$ (8,161)	$ (9,417)

Deferred outflows and deferred inflows related to the reported net pension liability at June 30, 2019 and 2018 are summarized as follows:

	2019		2018	
(in thousands)	Deferred Outflows	Deferred Inflows	Deferred Outflows	Deferred Inflows
Changes in assumptions		$ 330		$ 8,047
Differences between expected and actual plan experience	$ 789	161	$ 626	464
Differences between expected and actual investment earnings	934	2,724		3,720
	1,723	3,215	626	12,231
Contributions made after measurement date	1,244		1,047	
	$ 2,967	$ 3,215	$ 1,673	$ 12,231

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 based upon the average future work life expectancy of plan participants (in thousands):

2020	$ (638)
2021	(589)
2022	(499)
2023	234
	$ (1,492)

NOTE 9—PENSION PLAN, CONTINUED

The inputs used to determine the fair value of the plan's investments reported at June 30, 2019 and 2018 are summarized as follows:

2019

(in thousands)	Level 1	Level 2	NAV	Total Fair Value
Equity securities	$ 53,515			$ 53,515
Fixed income securities		$ 22,616		22,616
Nonmarketable alternative investments			$ 996	996
	$ 53,515	$ 22,616	$ 996	$ 77,127

2018

(in thousands)	Level 1	Level 2	NAV	Total Fair Value
Equity securities	$ 54,057			$ 54,057
Fixed income securities		$ 21,297		21,297
Nonmarketable alternative investments			$ 1,149	1,149
	$ 54,057	$ 21,297	$ 1,149	$ 76,503

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.

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 benefits expense 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, 2018 and 2017 were determined based on an actuarial valuation at January 1, 2018 and 2017, respectively. 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, 2018 and 2017 measurement dates, the number of plan participants consisted of the following:

2018

	Retiree Health and Welfare	Long-term Disability
Active employees	42,559	36,331
Retirees receiving benefits	10,092	
Surviving spouses	871	
Participants receiving disability benefits		578
	53,522	36,909

2017

	Retiree Health and Welfare	Long-term Disability
Active employees	40,757	35,020
Retirees receiving benefits	9,694	
Surviving spouses	862	
Participants receiving disability benefits		619
	51,313	35,639

NOTE 10—POSTEMPLOYMENT BENEFITS, CONTINUED

Changes in the reported total liability for postemployment benefits obligations for the years ended June 30, 2019 and 2018 are summarized as follows:

2019 (in thousands)	Retiree Health and Welfare	Long-term Disability	Total
Balance, beginning of year	$ 3,002,304	$ 301,436	$ 3,303,740
Service cost	112,698	29,235	141,933
Interest cost	110,559	11,241	121,800
Changes in assumptions	(379,778)	(3,537)	(383,315)
Differences between expected and actual plan experience	23,232	(5,697)	17,535
Benefit payments	(53,974)	(33,664)	(87,638)
Balance, end of year	2,815,041	299,014	3,114,055
Less current portion	56,815	30,897	87,712
	$ 2,758,226	$ 268,117	$ 3,026,343

2018 (in thousands)	Retiree Health and Welfare	Long-term Disability	Total
Balance, beginning of year	$ 2,930,656	$ 267,671	$ 3,198,327
Service cost	115,686	28,101	143,787
Interest cost	86,129	8,024	94,153
Changes in assumptions	(124,729)	16,855	(107,874)
Differences between expected and actual plan experience	43,472	9,249	52,721
Benefit payments	(48,910)	(28,464)	(77,374)
Balance, end of year	3,002,304	301,436	3,303,740
Less current portion	53,974	33,664	87,638
	$ 2,948,330	$ 267,772	$ 3,216,102

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 $579,735,000 and $611,361,000 at June 30, 2019 and 2018, respectively.

The University's liability for postemployment benefits obligations at June 30, 2019 is not reduced by the anticipated Medicare Retiree Drug Subsidy for future periods. This subsidy would reduce the total postemployment benefits liability by approximately $295,000,000.

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, 2019 and 2018 as a percentage of covered payroll of $4,013,983,000 and $3,792,553,000 was 78 percent and 87 percent, respectively.

Significant actuarial assumptions used at the June 30, 2018 and 2017 measurement dates are as follows:

	2018	2017
Discount rate*	3.87%	3.58%
Inflation rate	2.00%	2.00%
Immediate/ultimate administrative trend rate	0.0%/3.0%	0.0%/3.0%
Immediate/ultimate medical trend rate	6.5%/4.5%	6.5%/4.5%
Immediate/ultimate Rx trend rate	9.0%/4.5%	9.5%/4.5%
Increase in compensation rate	4.00%	4.00%
Mortality table**	RP-2014 White Collar Head Count Table, Scale MP-2017	RP-2014 White Collar Head Count Table, Scale MP-2016
Average future work life expectancy (years):		
Retiree health and welfare	9.14	9.17
Long-term disability	11.47	11.43

* 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 2010-2014

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, 2019 and 2018 as follows:

2019 (in thousands)	1% Decrease	1% Increase
Discount rate:		
Retiree health and welfare	$ 604,507	$ (467,375)
Long-term disability	$ 11,362	$ (11,012)
Health care trend rates:		
Retiree health and welfare	$ (511,949)	$ 688,288
Long-term disability	$ (12,311)	$ 12,540

2018 (in thousands)	1% Decrease	1% Increase
Discount rate:		
Retiree health and welfare	$ 677,895	$ (520,431)
Long-term disability	$ 11,211	$ (11,260)
Health care trend rates:		
Retiree health and welfare	$ (563,305)	$ 768,219
Long-term disability	$ (11,907)	$ 12,196

NOTE 10—POSTEMPLOYMENT BENEFITS, CONTINUED

The components of postemployment benefits expense for the years ended June 30, 2019 and 2018 are summarized as follows:

2019			
(in thousands)	Retiree Health and Welfare	Long-term Disability	Total
Service cost	$ 112,698	$ 29,235	$ 141,933
Interest cost	110,559	11,241	121,800
Amortization of deferred outflows and deferred inflows	(21,731)	3,135	(18,596)
	$ 201,526	$ 43,611	$ 245,137

2018			
(in thousands)	Retiree Health and Welfare	Long-term Disability	Total
Service cost	$ 115,686	$ 28,101	$ 143,787
Interest cost	86,129	8,024	94,153
Amortization of deferred outflows and deferred inflows	17,278	3,940	21,218
	$ 219,093	$ 40,065	$ 259,158

Deferred outflows and deferred inflows related to the reported total liability for postemployment benefits obligations at June 30, 2019 and 2018 are summarized as follows:

	2019		2018	
(in thousands)	Deferred Outflows	Deferred Inflows	Deferred Outflows	Deferred Inflows
Changes in assumptions	$ 189,425	$ 438,981	$ 217,407	$ 111,127
Differences between expected and actual plan experience	72,475	5,200	58,623	
	261,900	444,181	276,030	111,127
Benefit payments made after measurement date	87,712		87,638	
	$ 349,612	$ 444,181	$ 363,668	$ 111,127

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 based upon the average future work life expectancy of plan participants (in thousands):

2020	$ (18,596)
2021	(18,596)
2022	(18,596)
2023	(18,596)
2024	(18,596)
2025 and beyond	(89,301)
	$ (182,281)

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, while certain employees generally contribute 4.5 percent of their pay, with the University contributing 9 percent of those 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 plans within specified limits that are not matched by University contributions. Contributions and covered payroll under the plan (excluding participants' additional contributions) for the years ended June 30, 2019 and 2018 are summarized as follows:

(in thousands)	2019	2018
University contributions	$ 304,344	$ 286,376
Employee contributions	$ 158,856	$ 150,488
Payroll covered under plan	$ 4,013,983	$ 3,792,553
Total payroll	$ 4,182,021	$ 3,947,501

NOTE 12—NET POSITION

The composition of net position at June 30, 2019 and 2018 is summarized as follows:

(in thousands)	2019	2018
Net investment in capital assets	$ 3,742,630	$ 3,722,086
Restricted:		
Nonexpendable:		
Permanent endowment corpus	2,328,667	2,146,358
Expendable:		
Net appreciation of permanent endowments	2,144,532	2,067,392
Funds functioning as endowment	2,382,037	2,308,185
Restricted for operations and other	685,988	631,747
Unrestricted	3,520,054	3,405,277
	$ 14,803,908	$ 14,281,045

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, 2019 and 2018, 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 $279,638,000 and $301,194,000 during the years ended June 30, 2019 and 2018, respectively, 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 financial statements. The statement of net position includes a receivable of $2,514,000 and $3,183,000 at June 30, 2019 and 2018, respectively, for DoED funding received subsequent to distribution.

NOTE 14—COMMITMENTS AND CONTINGENCIES

Authorized expenditures for construction and other projects unexpended at June 30, 2019 were $905,719,000. Of these expenditures, the University expects that $725,656,000 will be funded by internal sources, gifts, grants and future borrowings; $89,250,000 by the State Building Authority and the remaining $90,813,000 will be funded using unexpended bond proceeds.

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, 2019, the University had committed, but not paid, a total of $6,089,675,000 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):

2020	$ 2,028,944
2021	1,413,306
2022	1,017,833
2023	631,414
2024	393,723
2025 and beyond	604,455
	$ 6,089,675

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 capital and operating leases for certain space and equipment, which expire at various dates through 2039. Outstanding commitments for these leases are expected to be paid in the following years ended June 30:

(in thousands)	Capital	Operating
2020	$ 10,589	$ 47,369
2021	10,053	42,360
2022	10,211	38,335
2023	10,327	33,058
2024	8,815	29,771
2025-2029	45,738	78,248
2030-2034	48,351	16,526
2035-2039	18,821	2,135
	162,905	$ 287,802
Less amount representing interest	72,894	
Present value of minimum lease payments	$ 90,011	

Operating lease expenses totaled $47,572,000 and $49,058,000 in 2019 and 2018, respectively.

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 years ended June 30, 2019 and 2018 are summarized as follows:

2019 (in thousands)	Compensation and Benefits	Supplies and Services	Depreciation	Scholarships and Fellowships	Total
Instruction	$ 1,031,768	$ 163,400			$ 1,195,168
Research	583,018	274,560			857,578
Public service	132,685	76,032			208,717
Academic support	278,109	87,967			366,076
Student services	100,220	28,743			128,963
Institutional support	196,839	75,132			271,971
Operations and maintenance of plant	92,387	259,190			351,577
Auxiliary enterprises	3,353,925	1,558,780			4,912,705
Depreciation			$ 567,857		567,857
Scholarships and fellowships				$ 164,428	164,428
	$ 5,768,951	$ 2,523,804	$ 567,857	$ 164,428	$ 9,025,040

2018 (in thousands)	Compensation and Benefits	Supplies and Services	Depreciation	Scholarships and Fellowships	Total
Instruction	$ 1,000,388	$ 152,833			$ 1,153,221
Research	555,853	267,734			823,587
Public service	129,675	81,769			211,444
Academic support	255,641	61,604			317,245
Student services	89,762	27,516			117,278
Institutional support	185,801	60,702			246,503
Operations and maintenance of plant	53,337	297,558			350,895
Auxiliary enterprises	3,160,935	1,452,876			4,613,811
Depreciation			$ 568,707		568,707
Scholarships and fellowships				$ 156,738	156,738
	$ 5,431,392	$ 2,402,592	$ 568,707	$ 156,738	$ 8,559,429

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 years ended June 30, 2019 and 2018 is as follows:

(in thousands)	2019	2018
Condensed Statement of Net Position		
Assets:		
Current assets	$ 78,296	$ 121,110
Noncurrent assets	258,841	242,561
Total assets	337,137	363,671
Deferred outflows	5,479	5,094
Total assets and deferred outflows	$ 342,616	$ 368,765
Liabilities:		
Current liabilities	$ 49,389	$ 60,717
Noncurrent liabilities	208,875	214,465
Total liabilities	258,264	275,182
Deferred inflows	5,860	15,042
Net position:		
Net investment in capital assets	19,765	(2,536)
Restricted:		
Nonexpendable	3,881	3,247
Expendable	13,567	13,310
Unrestricted	41,279	64,520
Total net position	78,492	78,541
Total liabilities, deferred inflows and net position	$ 342,616	$ 368,765
Condensed Statement of Revenues, Expenses and Changes in Net Position		
Operating revenues	$ 472,905	$ 434,611
Operating expenses other than depreciation expense	438,974	401,607
Depreciation expense	22,028	46,268
Operating gain (loss)	11,903	(13,264)
Nonoperating expenses, net	(6,966)	(7,408)
Other expenses, net	(4,986)	(3,268)
Decrease in net position	(49)	(23,940)
Net position, beginning of year	78,541	102,481
Net position, end of year	$ 78,492	$ 78,541
Condensed Statement of Cash Flows		
Net cash provided by operating activities	$ 15,865	$ 10,509
Net cash used in noncapital financing activities	(1,033)	(1,187)
Net cash used in capital and related financing activities	(53,924)	(32,866)
Net cash provided by investing activities	23,942	148
Net decrease in cash and cash equivalents	(15,150)	(23,396)
Cash and cash equivalents, beginning of year	21,327	44,723
Cash and cash equivalents, end of year	$ 6,177	$ 21,327