

MANAGEMENT'S DISCUSSION AND ANALYSIS

(UNAUDITED)

INTRODUCTION

The following discussion and analysis provides an overview of the financial position of the University of Michigan (the "University") at June 30, 2017 and 2016 and its activities for the two fiscal years ended June 30, 2017. This discussion has been prepared by management and should be read in conjunction with the financial statements and the notes thereto, which follow this section.

The University is a comprehensive public institution of higher learning with over 61,000 students and approximately 8,000 faculty members on three campuses in southeast Michigan. The University offers a diverse range of degree programs from baccalaureate to post-doctoral levels through 19 schools and colleges, and contributes to the state and nation through related research and public service programs. The University also has a nationally renowned health system which includes the University of Michigan Hospitals, the University's Medical School, Michigan Health Corporation, a wholly-owned corporation created for joint venture and managed care initiatives, and 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. The University's health system currently includes four hospitals as well as numerous health centers and outpatient clinics.

The University consistently ranks among the nation's top universities by various measures of quality, both in general academic terms, and in terms of strength of offerings in specific academic disciplines and professional subjects. Research is central to the University's mission and a key aspect of its strong reputation among educational institutions. The University is widely recognized for the breadth and excellence of its research enterprise as well as for the exceptional level of cooperation across disciplines, which allows faculty and students to address the full complexity of real-world challenges. The University's health system also has a tradition of excellence in teaching, advancement of medical science and patient care, consistently ranking among the best health care systems in the nation.

On December 15, 2016, the University completed an affiliation with Metropolitan Health Corporation ("Metro Health"), a community health care provider in west Michigan, pursuant to which UM Health became the sole corporate member of Metro Health. In addition to its 208-bed hospital, Metro Health has neighborhood outpatient clinics and offices throughout west Michigan to serve the greater Grand Rapids area. In accordance with Governmental Accounting Standards Board ("GASB") Statement No. 62, *Codification of Accounting and Financial Reporting Guidance Contained in Pre-November 30, 1989 FASB and AICPA Pronouncements*, this combination is included in the financial statements as if it occurred at the beginning of the earliest period presented.

FINANCIAL HIGHLIGHTS

The University's financial position remains strong, with total assets and deferred outflows of \$20.8 billion and total liabilities and deferred inflows of \$7.4 billion at June 30, 2017. Net position, which represents the residual interest in the University's total assets and deferred outflows after total liabilities and deferred inflows are deducted, totaled \$13.4 billion at June 30, 2017. Changes in net position represent the University's results of operations and are summarized for the year ended June 30, 2017 as follows (in millions):

Operating revenues and educational appropriations	\$ 7,480
Private gifts for operating activities	179
Operating and net interest expenses	(7,976)
	(317)
Net investment income	1,415
Endowment, capital gifts and grants, and other	178
Increase in net position	\$ 1,276

MANAGEMENT'S DISCUSSION AND ANALYSIS

(UNAUDITED)

Net position has been restated at July 1, 2016 for the affiliation with Metro Health and the adoption of GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions* ("GASB 75"), and is summarized as follows (in millions):

Net position at June 30, 2016	\$ 13,001
Affiliation with Metro Health	80
Adoption of GASB 75	(930)
<u>Net position at July 1, 2016, as restated</u>	<u>\$ 12,151</u>

For purposes of management's discussion and analysis, comparative data for the statement of net position has been provided by combining Metro Health with the University and reflecting the adoption of GASB 75 at June 30, 2016. Certain balances as of June 30, 2016 have been reclassified to conform with current year presentations.

The results of operations reflect the University's focus on maintaining its national standards academically, in research and in health care within a competitive recruitment environment for faculty and health care professionals and a period of continued pressure on federal funding for research. At the same time, the University is addressing constrained state appropriations and rising health care, regulatory and facility costs with aggressive cost cutting and productivity gains to help preserve access to affordable higher education for Michigan families. To achieve aggressive and sustainable long-term goals for cost cutting and productivity gains, the University is also strategically utilizing resources to bridge cuts and support enterprise-wide information technology projects and other initiatives.

The University's long-term investment strategy combined with its endowment spending policy serves to insulate operations from expected volatility in the capital markets and provides for a stable and predictable level of spending distributions from the endowment. Endowment spending rate distributions to University units totaled \$318 million in 2017. The success of the University's long-term investment strategy is evidenced by strong returns over sustained periods of time and the ability to limit losses in the face of challenging markets.

The University invests its financial assets in pools with distinct risk and liquidity characteristics based on its needs, with most of its financial assets invested in two such pools. The University's working capital is primarily invested in relatively short duration, liquid assets, through its Daily and Monthly Portfolios, while the endowment is primarily invested, along with the noncurrent portion of the insurance and benefit reserves, in an equity oriented long-term strategy through its Long Term Portfolio.

USING THE FINANCIAL STATEMENTS

The University's financial report includes three financial statements: the Statement of Net Position; the Statement of Revenues, Expenses and Changes in Net Position; and the Statement of Cash Flows. These financial statements are prepared in accordance with GASB principles, which establish standards for external financial reporting for public colleges and universities.

STATEMENT OF NET POSITION

The statement of net position presents the financial position of the University at the end of the fiscal year and includes all assets, deferred outflows, liabilities and deferred inflows of the University. The difference between total assets and deferred outflows as compared to total liabilities and deferred inflows – net position – is one indicator of the current financial condition of the University, while the change in net position is an indication of whether the overall financial condition has improved or worsened during the year. The University's assets, deferred outflows, liabilities, deferred inflows and net position at June 30, 2017 and 2016 are summarized as follows:

(in millions)	2017	2016
Current assets	\$ 2,696	\$ 2,545
Noncurrent assets:		
Endowment, life income and other investments	11,323	10,109
Capital assets, net	6,045	5,948
Other	439	346
<u>Total assets</u>	<u>20,503</u>	<u>18,948</u>
Deferred outflows	349	30
<u>Total assets and deferred outflows</u>	<u>20,852</u>	<u>18,978</u>
Current liabilities	1,802	1,881
Noncurrent liabilities	5,606	4,946
<u>Total liabilities</u>	<u>7,408</u>	<u>6,827</u>
Deferred inflows	17	
<u>Net position</u>	<u>\$ 13,427</u>	<u>\$ 12,151</u>

The University continues to maintain and protect its strong financial foundation. This financial health, as reflected in the University's net position at June 30, 2017 and 2016, results from the prudent utilization of financial resources including careful cost controls, preservation of endowment funds, conservative utilization of debt and adherence to a long-range capital plan for the maintenance and replacement of the physical plant.

Current assets consist primarily of cash and cash equivalents, operating and capital investments and accounts receivable and totaled \$2.7 billion and \$2.5 billion at June 30, 2017 and 2016, respectively. Cash, cash equivalents and investments for operating activities totaled \$1.4 billion at June 30, 2017, which represents approximately two months of total expenses excluding depreciation.

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, as well as, debt and derivative activity, and Metro Health's defined benefit pension plan. Deferred outflows totaled \$349 million and \$30 million at June 30, 2017 and 2016, respectively.

Current liabilities consist primarily of accounts payable, accrued compensation, unearned revenue, commercial paper, the current portion of bonds payable and net long-term bonds payable subject to remarketing. Current liabilities totaled \$1.8 billion and \$1.9 billion at June 30, 2017 and 2016, respectively.

Deferred inflows represent the acquisition of net assets attributable to a future period and are associated with Metro Health's defined benefit pension plan. Deferred inflows totaled \$17 million at June 30, 2017.

MANAGEMENT'S DISCUSSION AND ANALYSIS

(UNAUDITED)

ENDOWMENT, LIFE INCOME AND OTHER INVESTMENTS

The composition of the University's endowment, life income and other investments at June 30, 2017 and 2016 is summarized as follows:

(in millions)	2017	2016
Endowment investments	\$ 10,936	\$ 9,743
Life income investments	132	111
Noncurrent portion of insurance and benefits obligations investments	205	192
Other	50	63
	<u>\$ 11,323</u>	<u>\$ 10,109</u>

The University's endowment funds consist of both permanent endowments and funds functioning as endowment. Permanent endowments are those funds received from donors with the stipulation that the principal remain intact and be invested in perpetuity to produce income that is to be expended for the purposes specified by the donors. Funds functioning as endowment consist of amounts (restricted gifts or unrestricted funds) that have been allocated by the University for long-term investment purposes, but are not limited by donor stipulations requiring the University to preserve principal in perpetuity. Programs supported by endowment funds include scholarships, fellowships, professorships, research efforts and other important programs and activities.

The University uses its endowment funds to support operations in a way that strikes a balance between generating a predictable stream of annual support for current needs and preserving the purchasing power of the endowment funds for future periods. The major portion of the endowment is maintained in the University Endowment Fund, a unitized pool which represents a collection of approximately 10,500 separate (individual) funds, the majority of which are restricted for specific purposes. The University Endowment Fund is invested in the University's Long Term Portfolio, a single diversified investment pool.

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 University Endowment Fund shares. This spending rule is one element of an ongoing financial management strategy that has allowed the University to effectively weather challenging economic environments while avoiding measures such as faculty hiring freezes, furloughs, program cuts or halting construction.

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. Capital gains or income generated above the endowment spending rate are reinvested so that in lean times funds will be available for distribution. In addition, departments may also use withdrawals from funds functioning as endowment to support capital expenditures and operations.

Endowment spending rate distributions totaled \$325 million and withdrawals from funds functioning as endowment totaled \$7 million in 2017. Total spending rate distributions combined with withdrawals from funds functioning as endowment averaged 4.2 percent of the current year average fair value of the University Endowment Fund for 2017. Over the past ten years, total spending rate distributions combined with withdrawals from funds functioning as endowment averaged 5.0 percent.

CAPITAL AND DEBT ACTIVITIES

One of the critical factors in continuing the quality of the University's academic, research and clinical programs is the development and renewal of capital assets. The University continues to implement its long-range plan to maintain and modernize its existing infrastructure and strategically invest in new construction.

Capital asset additions totaled \$636 million in 2017. Capital asset additions primarily represent renovation and new construction of academic, research, clinical and athletic facilities, as well as significant investments in equipment, including information technology. Current year capital asset additions were primarily funded with net position and gifts designated for capital purposes of \$396 million, as well as debt proceeds of \$222 million and state capital appropriations of \$18 million. Construction in progress, which totaled \$476 million at June 30, 2017, includes important projects for research, instruction, patient care and athletics.

Projects completed in 2017 include significant renovation and new construction of academic and research buildings for business, engineering and natural sciences.

The Ross School of Business completed a comprehensive renovation of Kresge Hall, formerly the Kresge Business Administration Library, and construction of a new academic building to replace the Computer and Executive Education Building, which adds classrooms, study space, and faculty research and office space, as well as space for student life functions, financial aid, admissions and onsite recruiting. In total, this project represents 75,000 gross square feet of renovation and 104,000 gross square feet of new construction. Exterior building finishes were also added to Sam Wyly Hall, the Business Administration Executive Dormitory and the Hill Street Parking Structure to create a welcoming and unified look for the entire Ross School complex of buildings.

The George Granger Brown Memorial Laboratories building, which was originally constructed in 1958, houses the chemical, civil, materials sciences and mechanical engineering departments within the College of Engineering. Renovation of this 220,000 gross square feet building included upgrades to the building's fire detection, alarm and emergency power systems. In addition, infrastructure improvements throughout the building included heating, ventilation, air conditioning, electrical, plumbing, roof, windows and interior finishes. This project also created 25,000 gross square feet of state-of-the-art academic and instructional spaces.

The Science Building on the University's Dearborn campus was originally constructed in 1959. Renovation of this 80,000 gross square foot building provides updated laboratory and classroom space for the Department of Natural Sciences. This project also incorporates an addition of 20,000 gross square feet for state-of-the-art laboratory spaces, a new elevator, loading dock and mechanical penthouse. Infrastructure that is shared with the adjacent Computer Science Building was also upgraded. The renewed facility will help transform science education and facilitate closer academic-industry and student-industry collaboration as well as facilitate collaboration with the College of Engineering in the emerging nano-science area.

Construction in progress at June 30, 2017 includes significant projects for instruction, research, international studies and athletics.

A Biological Science Building of 300,000 gross square feet is being constructed to provide a teaching, research and museum facility for the biological sciences and exhibit museums. Bringing these programs together will create exciting opportunities for interdisciplinary teaching, research and collaboration, and offer a richer experience for museum visitors. The new building will house classrooms, research laboratories, associated support functions, offices and vivarium services, as well as the anthropology, natural history, paleontology and zoology museums currently housed at the Alexander G. Ruthven Museums Building. The structure will also include a connection to the adjacent Life Sciences Institute Building to increase the utilization of its loading dock and vivarium functions. This project is scheduled to be completed in summer 2018.

MANAGEMENT'S DISCUSSION AND ANALYSIS

(UNAUDITED)

An extensive renovation of Weiser Hall, formerly the Dennison Building which was originally constructed in 1963, is underway. Renovation of 106,000 gross square feet vacated by the relocation of the Department of Astronomy to West Hall and the repurposing of classrooms will create spaces that facilitate faculty collaboration and enhance opportunities for graduate and undergraduate students. This project enables the relocation of the International Institute and its associated centers for international studies from the School of Social Work Building, along with other College of Literature, Science, and the Arts centers, institutes and units that have a primary focus on international engagement. In addition, 1,500 gross square feet of space will be added by enclosing an overhang area on the ground floor, and extending windows outward on the tenth floor. This project is scheduled to be completed in summer 2017.

The Athletics South Competition and Performance Project will add 280,000 gross square feet of space for men's and women's track and field, cross country, lacrosse, soccer and women's rowing. This project includes construction of an indoor and outdoor track competition venue, a lacrosse stadium and an indoor rowing tank. The project also includes construction of a performance and team center with specialized spaces for each team and shared resources for all teams, with strength and conditioning, athletic medicine, meeting space and locker rooms. This new center enables consolidation of various team facilities now dispersed across the athletic campus. The facilities will also be available to student-athletes who already practice and compete in that area, as well as students who participate in the University's recreational sports programs. This project is scheduled to be completed in winter 2018.

The University is aware of its financial stewardship responsibility and works diligently to manage its financial resources effectively, including the prudent use of debt to finance capital projects. A strong debt rating is an important indicator of the University's success in this area. In December 2016, Moody's affirmed its highest credit rating (Aaa) for bonds backed by a broad revenue pledge based on the University's ability to translate its international brand into revenue growth, philanthropic support and ongoing superior financial flexibility from robust financial reserves. Standard & Poor's also affirmed its highest credit rating (AAA) based on the University's robust enrollment and demand, exceptional student quality, retention and graduation rates, excellent balance sheet, exceptional research presence and manageable debt burden.

Long-term debt activity for the year ended June 30, 2017 is summarized as follows (in millions):

	Beginning Balance	Additions	Reductions	Ending Balance
Commercial paper	\$ 160	\$ 23	\$ 22	\$ 161
Bonds	2,025	550	420	2,155
Other	4		2	2
	\$ 2,189	\$ 573	\$ 444	\$ 2,318

The University utilizes commercial paper, backed by a general revenue pledge, to provide interim financing for its capital improvement program. Outstanding commercial paper is converted to long-term debt financing as appropriate, within the normal course of business. Outstanding bonds are supported by the University's general revenues.

During 2017, consistent with capital and debt financing plans, the University issued \$465 million of fixed rate, tax-exempt, general revenue bonds with a net original issue premium of \$85 million. Total bond proceeds of \$550 million, together with amounts held by trustees under bond indenture of \$12 million, were utilized to convert \$12 million of commercial paper to long-term debt, refund existing bonds of \$238 million, establish an escrow to advance refund existing bonds of \$112 million and provide \$200 million for capital projects and debt issuance costs.

The composition of the University's debt at June 30, 2017 and 2016 is summarized as follows:

(in millions)	2017	2016
Variable rate:		
Commercial paper	\$ 161	\$ 160
Bonds	602	676
Fixed rate bonds	1,553	1,349
Other	2	4
	\$ 2,318	\$ 2,189

A significant portion of the University's variable rate bonds are subject to remarketing and, in accordance with GASB Interpretation No. 1, such debt is classified as current unless supported by liquidity arrangements such as lines of credit or standby bond purchase agreements, which could refinance the debt on a long-term basis. In the event that variable rate bonds are put back to the University by the debt holder, management believes that the University's strong credit rating will ensure that the bonds will be remarketed within a reasonable period of time. In addition, the University maintains five remarketing agents to achieve a wide distribution of its variable rate bonds.

While fixed rate bonds typically have a higher effective rate of interest at the date of issuance as compared to variable rate bonds, they reduce the volatility of required debt service payments and do not require liquidity support, such as lines of credit, standby bond purchase agreements or internal liquidity.

Effective interest rates averaged 2.7 percent in 2017, including the federal subsidies for interest on taxable Build America Bonds. Interest expense net of federal subsidies received for interest on taxable Build America Bonds and interest capitalized during construction totaled \$66 million in 2017.

OBLIGATIONS FOR DEFINED BENEFIT PENSION PLAN

Metro Health has a noncontributory, defined benefit pension plan, which covered substantially all of its 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. At June 30, 2017 and 2016, the net pension liability totaled \$3 million and \$29 million, respectively, with the decline in the current year driven primarily by an increase in the investment rate of return assumption due to a change in the plan's asset allocation strategy.

OBLIGATIONS FOR POSTEMPLOYMENT BENEFITS

During 2017, the University adopted GASB 75, which establishes new actuarial methods and discount rate standards for the measurement and recognition of the cost of postemployment benefits during the periods when employees render their services, superseding the requirements of GASB Statement No. 45. Adoption of this statement resulted in an increase in the reported liability for postemployment benefits obligations and a decrease in unrestricted net position of \$930 million, as reflected in the comparative balances presented at June 30, 2016.

Using current actuarial assumptions, and presuming a continuation of the current level of benefits, the University's obligations for postemployment benefits totaled \$3.2 billion and \$2.8 billion at June 30, 2017 and 2016, respectively. The increase in the reported liability at June 30, 2017 was driven primarily by a decline in the discount rate used in developing the valuation, which under GASB 75, is now based on the Bond Buyer 20-year General Obligation Municipal Bond Index. Since a portion of retiree medical services will be provided by the University's health system, this liability is net of the related margin and fixed costs of providing those services which totaled \$674 million and \$616 million at June 30, 2017 and 2016, respectively.

By implementing a series of health benefit initiatives over the past 12 years, the University has favorably impacted its total liability for postemployment benefits by \$1.5 billion at June 30, 2017. These initiatives have included cost sharing changes, elimination of Medicare Part B reimbursements for certain retirees and the adjustment of retirement eligibility criteria.

MANAGEMENT'S DISCUSSION AND ANALYSIS

(UNAUDITED)

NET POSITION

Net position represents the residual interest in the University's assets and deferred outflows after liabilities and deferred inflows are deducted. The composition of the University's net position at June 30, 2017 and 2016 is summarized as follows:

(in millions)	2017	2016
Net investment in capital assets	\$ 3,735	\$ 3,715
Restricted:		
Nonexpendable:		
Permanent endowment corpus	1,967	1,816
Expendable:		
Net appreciation of permanent endowments	1,829	1,519
Funds functioning as endowment	2,126	1,942
Restricted for operations and other	699	669
Unrestricted	3,071	2,490
	<u>\$ 13,427</u>	<u>\$ 12,151</u>

Net investment in capital assets represents the University's capital assets net of accumulated depreciation, outstanding principal balances of debt and capital lease liabilities, unexpended bond proceeds and deferred outflows and inflows associated with the acquisition, construction or improvement of those assets.

Restricted nonexpendable net position represents the historical value (corpus) of gifts to the University's permanent endowment funds. Restricted expendable net position is subject to externally imposed stipulations governing their use and includes net appreciation of permanent endowments, funds functioning as endowment and net position restricted for operations, facilities and student loan programs. Restricted expendable net position totaled \$4.7 billion at June 30, 2017, as compared to \$4.1 billion at June 30, 2016, with the current year increase driven primarily by an increase in net appreciation of permanent endowments resulting from investment income.

Although unrestricted net position is not subject to externally imposed stipulations, substantially all of the University's unrestricted net position has been designated for various academic programs, research initiatives and capital projects. Unrestricted net position at June 30, 2017 totaled \$3.1 billion and included funds functioning as endowment of \$4.9 billion offset by unfunded obligations for postemployment benefits of \$2.9 billion. Unrestricted net position at June 30, 2016 totaled \$2.5 billion and included funds functioning as endowment of \$4.3 billion offset by unfunded obligations for postemployment benefits of \$2.8 billion. Unrestricted net position also includes other net resources which totaled \$1.1 billion and \$1.0 billion at June 30, 2017 and 2016, respectively.

STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET POSITION

The statement of revenues, expenses and changes in net position presents the University's results of operations. In accordance with GASB reporting principles, revenues and expenses are classified as either operating or nonoperating. The University's revenues, expenses and changes in net position for the two years ended June 30, 2017 is summarized as follows:

(in millions)	2017	2016
Operating revenues:		
Net student tuition and fees	\$ 1,240.6	\$ 1,161.7
Sponsored programs	1,180.2	1,107.1
Patient care revenues, net	4,200.1	3,587.3
Other	458.8	421.9
	<u>7,079.7</u>	<u>6,278.0</u>
Operating expenses	7,910.0	7,152.8
Operating loss	<u>(830.3)</u>	<u>(874.8)</u>
Nonoperating and other revenues (expenses):		
State educational appropriations	356.0	345.8
Federal Pell grants	43.8	43.3
Private gifts for operating activities	179.0	167.2
Net investment income (loss)	1,415.2	(129.7)
Interest expense, net	(73.1)	(55.6)
Federal subsidies for interest on Build America Bonds	7.5	7.6
State capital appropriations	18.0	47.6
Endowment and capital gifts and grants	183.0	163.0
Other	(23.2)	(9.0)
Nonoperating and other revenues, net	<u>2,106.2</u>	<u>580.2</u>
Increase (decrease) in net position	1,275.9	(294.6)
Net position, beginning of year	13,001.2	13,295.8
Affiliation with Metro Health and adoption of GASB 75	(850.0)	
Net position, beginning of year, as restated	<u>12,151.2</u>	<u>13,295.8</u>
Net position, end of year	<u>\$ 13,427.1</u>	<u>\$ 13,001.2</u>

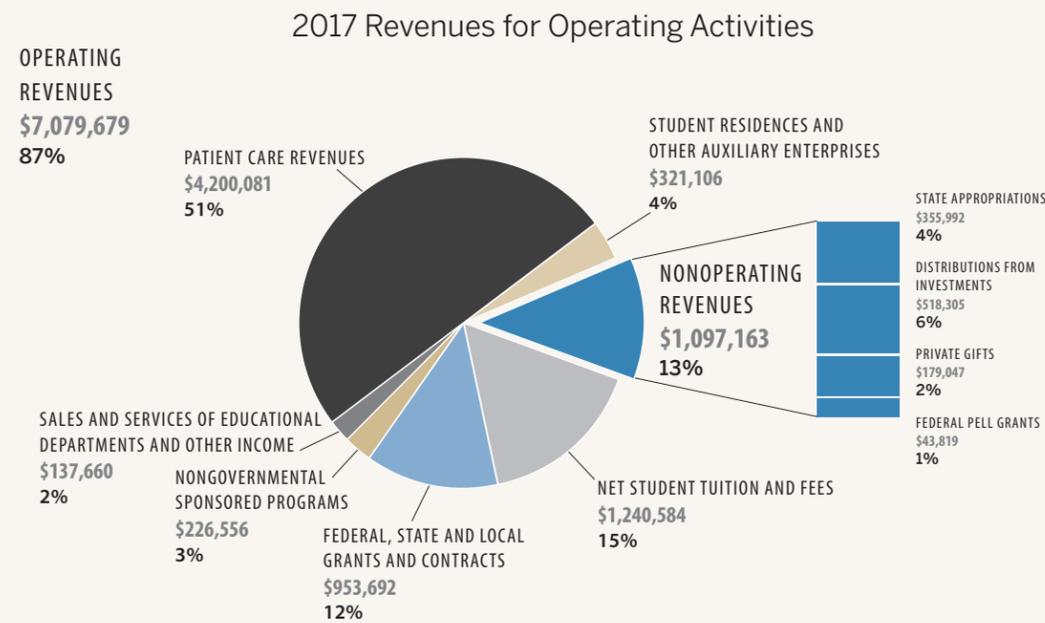
The impact of the Metro Health affiliation and the adoption of GASB 75 has been reflected as of the beginning of the earliest period presented in the financial statements, or July 1, 2016. Therefore, the statement of revenues, expenses and changes in net position presented above for the year ended June 30, 2016 does not reflect these items. During 2016, Metro Health reported total operating revenues of \$374 million and total operating expenses of \$357 million.

MANAGEMENT'S DISCUSSION AND ANALYSIS

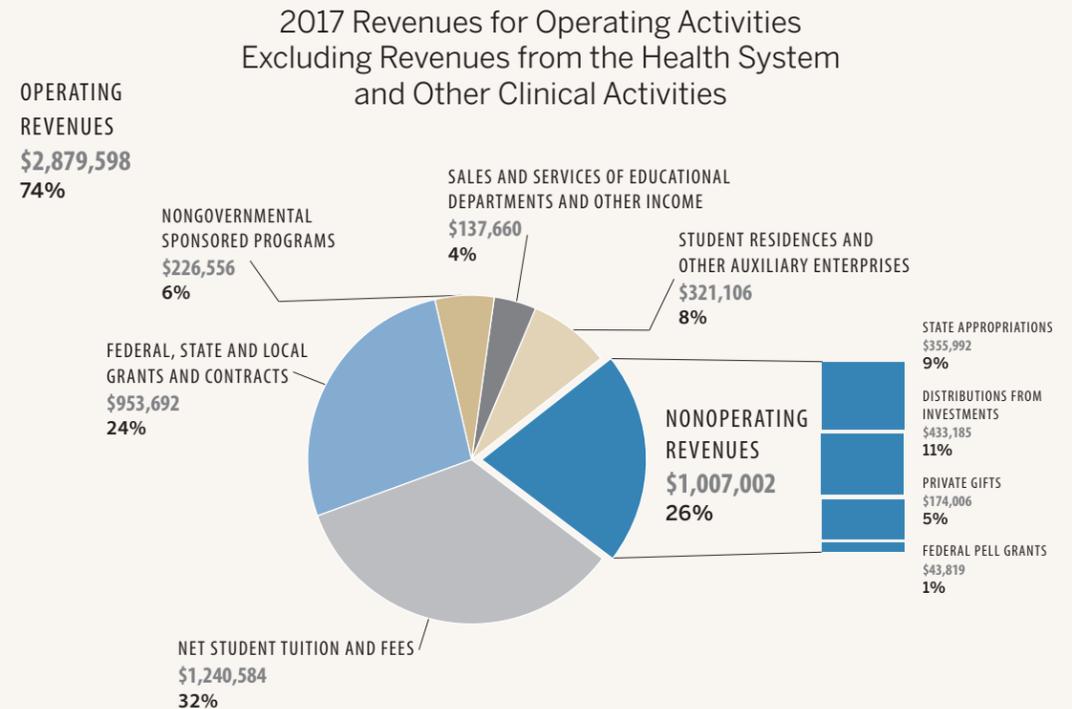
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One of the University's greatest strengths is the diverse streams of revenue that supplement its student tuition and fees, including private support from individuals, foundations and corporations, along with government and other sponsored programs, state appropriations and investment income. The University continues to aggressively seek funding from all possible sources consistent with its mission in order to supplement student tuition and prudently manage the financial resources realized from these efforts to fund its operating activities, which include instruction, patient care and research.

The following is a graphic illustration of revenues by source, both operating and nonoperating, which are used to fund the University's operating activities for the year ended June 30, 2017 (amounts are presented in thousands of dollars). Certain recurring sources of the University's revenues are considered nonoperating, as defined by GASB, such as state appropriations, distributions from investments, private gifts and federal Pell grants.



The University measures its performance both for the University as a whole and for the University without its health system and other clinical activities. The exclusion of these activities allows a clearer view of the operations of the schools and colleges, as well as central administration. The following is a graphic illustration of University revenues by source, both operating and nonoperating, which are used to fund operating activities other than the health system and other clinical activities, for the year ended June 30, 2017 (amounts are presented in thousands of dollars).



Tuition and state appropriations are the primary sources of funding for the University's academic programs. There is a relationship between the growth or reduction in state support and the University's ability to restrain tuition fee increases. Together, net student tuition and fees and state appropriations totaled \$1.6 billion in 2017.

The University has been able to avoid the severe cuts and double digit tuition increases experienced elsewhere in the country due to a prudent long-term plan which anticipated the realities of the state's challenging economy. The University's plan includes an ongoing commitment to cost containment and reallocating resources to the highest priorities to provide support for innovative new initiatives to maintain academic excellence and help students keep pace with the evolving needs of society. In 2017, the University's state educational appropriations totaled \$356 million.

For the year ended June 30, 2017, net student tuition and fees revenue consisted of the following components (in millions):

Student tuition and fees	\$ 1,616.6
Less scholarship allowances	376.0
	\$ 1,240.6

MANAGEMENT'S DISCUSSION AND ANALYSIS

(UNAUDITED)

Tuition rate increases in 2017 were 3.9 percent for resident undergraduate students, 4.4 percent for nonresident undergraduate students and 3.9 percent for most graduate students on the Ann Arbor campus, with a 4.1 percent tuition rate increase for most undergraduate students on both the Dearborn and Flint campuses. During 2017, the University experienced moderate growth in the number of students, as well as a shift in mix from resident to non-resident students.

The University's tuition rate increases have consistently been among the lowest in the state, even in years of significant reductions in state appropriations, which reflects a commitment to affordable higher education for Michigan families. At the same time, the University has also increased scholarship and fellowship expenses and related allowances to benefit students in financial need.

While tuition and state appropriations fund a large percentage of University costs, private support is also essential to the University's academic distinction. Private gifts for other than capital and endowment purposes totaled \$179 million in 2017.

The University receives revenues for sponsored programs from various government agencies and private sources, which normally provide for both direct and indirect costs to perform these sponsored activities, with a significant portion related to federal research. Revenues for sponsored programs totaled \$1.2 billion in 2017.

Patient care revenues are principally generated within the University's hospitals and ambulatory care facilities under contractual arrangements with governmental payers (Medicare and Medicaid) and private insurers. The distribution of gross charge activity by primary payer source for the year ended June 30, 2017 is summarized as follows:

Medicare	37%
Medicaid	17%
Blue Cross	29%
Other	17%

Patient care revenues totaled \$4.2 billion in 2017 and reflect growth in patient volume, as well as an increase in revenue per patient case.

Net investment income totaled \$1.4 billion in 2017. The investment environment in 2017 was favorable and all asset classes were positive for the year. The continued low interest rate environment and improving global economic activity helped lift expectations for corporate earnings growth across developed and emerging markets. Equity securities performance was particularly strong in the current year returning 25 percent, while private equity and natural resources led the alternative asset classes with returns of 17 percent. Other alternative investment classes include real estate and venture capital where returns ranged from 6 to 10 percent.

State capital appropriations are also helping the University improve its academic buildings. Current capital outlays are supporting renovations of the George Granger Brown Memorial Laboratories on the Ann Arbor campus, the Science Building and Computer Information Science Building on the Dearborn campus and the William R. Murchie Science Building on the Flint campus. Revenue is recognized as qualified capital expenditures are incurred and totaled \$18 million in 2017.

Gifts and grants for endowment and capital purposes continue to be a significant part of sustaining the University's excellence. In 2017, private gifts for permanent endowment purposes totaled \$139 million and capital gifts and grants totaled \$44 million. In recent years, major gifts have been received in support of the University's wide-ranging capital initiatives which include graduate student housing, the health system, Law School, Ross School of Business, College of Engineering and Intercollegiate Athletics.

In addition to revenue diversification, the University continues to make cost containment an ongoing priority. This is necessary as the University continues to face significant financial pressures, particularly in the areas of compensation and benefits, which represent 63 percent of total expenses, as well as in the areas of energy, technology and ongoing maintenance of facilities and infrastructure.

The University's expenses for the year ended June 30, 2017 are summarized as follows (amounts in millions):

Operating:		
Compensation and benefits	\$ 5,064.4	63%
Supplies and services	2,164.0	27
Depreciation	537.7	7
Scholarships and fellowships	143.9	2
	<u>7,910.0</u>	<u>99</u>
Nonoperating:		
Interest, net	65.6	1
	<u>\$ 7,975.6</u>	<u>100%</u>

The University is committed to recruiting and retaining outstanding faculty and staff and the compensation package is one way to successfully compete with peer institutions and nonacademic employers. Compensation and benefits totaled \$5.1 billion in 2017, which included compensation of \$3.9 billion and employee benefits of \$1.2 billion. During 2017, nursing and other health professionals were added to support higher patient volume levels.

The University faces external and industry realities that put significant pressure on its ability to reduce compensation costs while remaining competitive. To help address this risk, the University continues to review components of its existing benefits program to find opportunities for potential savings without compromising the ability to offer competitive benefits to all faculty and staff.

Health care benefits are one of the most significant employee benefits. Over the past several years, the University has implemented initiatives to better control its rate of cost increase, encourage employees to choose the lowest cost health care plan that meets their needs and share a larger portion of health care cost increases with employees. These initiatives reflect the reality of the national landscape, while remaining true to the commitment we make to our employees for a robust benefits package.

Compared to most employers, the University is in a unique position to utilize internal experts to advise and guide its health care and drug plans. For example, the Pharmacy Benefits Advisory Committee, which consists of internal experts including health system physicians, School of Pharmacy faculty and on-staff pharmacists, monitors the safety and effectiveness of covered medications and guides appropriate prescribing, dispensing and cost effective use of prescription drugs. In addition, the University utilizes its nationally recognized health policy experts to guide future health plan strategies.

During 2013, the University began to implement changes to eligibility requirements and the University contribution to retiree health benefits that were announced in 2011. These changes were recommended by a committee that evaluated ways to maintain competitive retiree health benefits while helping address the acceleration of future costs, and are being phased in over eight years in order to assist current employees with the transition.

The University utilizes a point system to determine retirement eligibility, where points represent the combination of age and years of service for full-time employees. The points needed to retire with health benefits will gradually be increased from 76 in 2013 to 80 in 2021. Over the same period, the University's contribution towards health care benefits will gradually decrease from 87.5 percent for the retiree and 65 percent for any dependents for employees who retire in 2013 to a maximum of 80 percent for the retiree and 50 percent for any dependents for employees who retire in 2021. Employees who retire after December 31, 2020, will need a minimum of 20 years of service to receive the maximum contribution upon retirement. New employees hired after December 31, 2012 will receive a maximum contribution of 68 percent for the retiree and 26 percent for any dependents. These adjustments will keep the University's retiree benefits competitive with peer institutions while producing an estimated \$9 million reduction in annual cash outlay by 2020 and an estimated \$165 million reduction in annual cash outlay by 2040.

MANAGEMENT'S DISCUSSION AND ANALYSIS

(UNAUDITED)

The University continues to monitor and evaluate the cost of employee and retiree health benefits, following key benchmarks to ensure competitiveness with local and national higher education and health care markets. As the national health care debate continues, the University is closely tracking cost and coverage implications. Careful stewardship of our health benefit plans helps maintain our competitive position while preserving funding for the University's core mission.

In 2017, the University continued to make progress toward improving the health and well-being of faculty and staff, with over 25,000 employees participating in MHealthy programs and services. These initiatives not only help to decrease health risks for faculty and staff, but also improve the overall workplace culture at the University. The impact of these initiatives can also be measured in an overall increase in employee satisfaction, as according to a University-wide random sample survey, 64 percent of faculty and staff agreed that the University's health and well-being initiatives contribute to it being a great place to work.

Supplies and services expenses totaled \$2.2 billion in 2017 and reflect the growth in patient care related expenses including higher costs of prescription drugs and infusion treatments, as well as costs associated with significant capital projects.

Depreciation expense totaled \$538 million in 2017 and reflects the completion of current year capital projects, as well as the impact of a full year of depreciation for the capital projects completed during the prior year. Capital assets placed in service during 2017 include the renovation and an addition to the Ross School of Business, as well as the renovation of the Dearborn Science and Computer Information Science buildings and the George Granger Brown Memorial Laboratories.

In addition to their natural (object) classification, it is also informative to review operating expenses by function. The University's expenses by functional classification for the year ended June 30, 2017 are summarized as follows (amounts in millions):

Operating:		
Instruction	\$ 1,099.8	14%
Research	803.5	10
Public service	187.8	2
Institutional and academic support	646.7	8
Auxiliary enterprises:		
Patient care	3,976.1	50
Other	198.1	2
Operations and maintenance of plant	316.4	4
Depreciation	537.7	7
Scholarships and fellowships	143.9	2
	<u>7,910.0</u>	<u>99</u>
Nonoperating:		
Interest, net	65.6	1
	<u>\$ 7,975.6</u>	<u>100%</u>

Instruction expenses totaled \$1.1 billion in 2017 and reflect the modest level of growth in the related revenue sources offset by cost containment efforts.

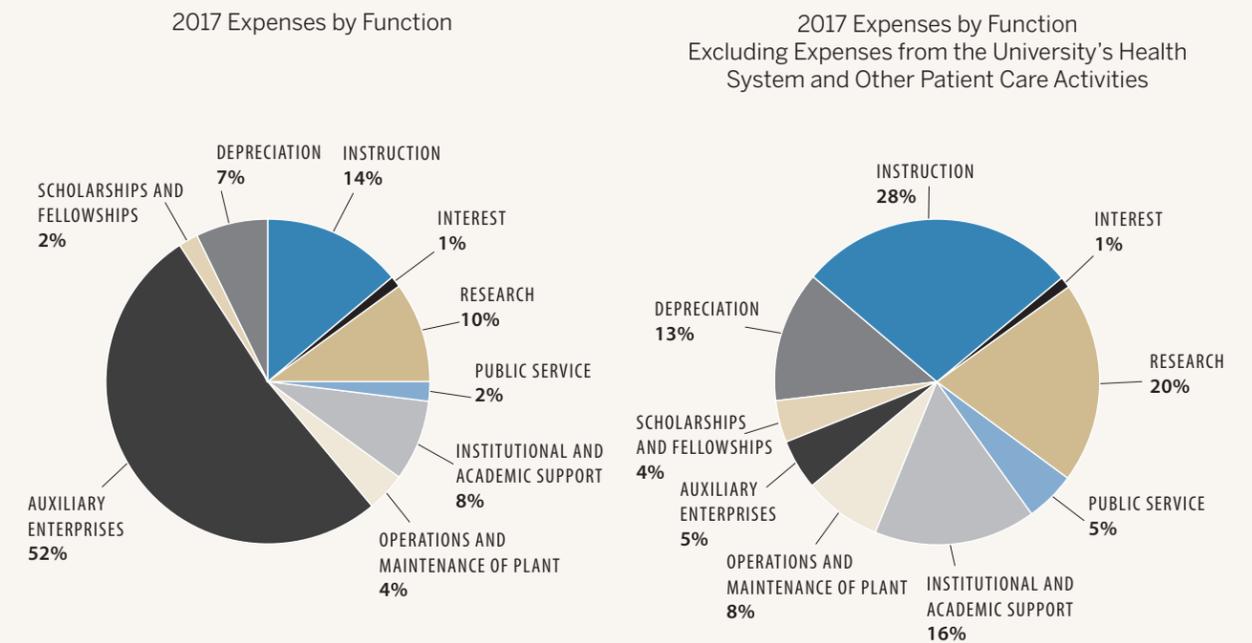
Research expenses totaled \$804 million in 2017, driven by the strength of the University's research enterprise, in spite of continued pressure on federal funding and intense competition for research dollars. To measure its total volume of research expenditures, the University considers research expenses included in the above table, as well as research related facilities and administrative expenses, research initiative and start-up expenses and research equipment purchases. These amounts totaled \$1.5 billion in 2017.

Patient care expenses totaled \$4.0 billion in 2017 and reflect the impact of additional patient care volume, including costs of staffing, medical supplies and pharmaceuticals.

Scholarships and fellowships provided to students totaled \$543 million in 2017. Tuition, housing and fees revenues are reported net of aid applied to students' accounts, while amounts paid directly to students are reported as scholarship and fellowship expenses. Scholarships and fellowships for the year ended June 30, 2017 are summarized as follows (in millions):

Paid directly to students	\$ 143.9
Applied to tuition and fees	376.0
Applied to University Housing	22.7
	<u>\$ 542.6</u>

The following graphic illustrations present total expenses by function, with and without the University's health system and other patient care activities:



MANAGEMENT'S DISCUSSION AND ANALYSIS

(UNAUDITED)

STATEMENT OF CASH FLOWS

The statement of cash flows provides additional information about the University's financial results by reporting the major sources and uses of cash. The University's cash flows for the years ended June 30, 2017 and 2016 are summarized as follows:

(in millions)	2017	2016
Cash received from operations	\$ 7,103.6	\$ 6,330.7
Cash expended for operations	(7,277.3)	(6,496.5)
Net cash used in operating activities	(173.7)	(165.8)
Net cash provided by noncapital financing activities	715.5	679.0
Net cash used in capital and related financing activities	(497.9)	(449.3)
Net cash (used in) provided by investing activities	(278.4)	116.4
Net (decrease) increase in cash and cash equivalents	(234.5)	180.3
Cash and cash equivalents, beginning of year	285.8	105.5
Affiliation with Metro Health	53.8	
Cash and cash equivalents, beginning of year, as restated	339.6	105.5
Cash and cash equivalents, end of year	\$ 105.1	\$ 285.8

The impact of the Metro Health affiliation is reflected as of the beginning of the earliest period presented in the financial statements, or July 1, 2016. Therefore, the statement of cash flows presented above for the year ended June 30, 2016 does not reflect the impact of this affiliation.

Cash received from operations primarily consists of student tuition, sponsored program grants and contracts, and patient care revenues. Significant sources of cash provided by noncapital financing activities, as defined by GASB, include state appropriations, federal Pell grants and private gifts used to fund operating activities.

ECONOMIC FACTORS THAT MAY AFFECT THE FUTURE

The University continues to face significant financial challenges to its academic programs, stemming from the State's difficult economic environment. Given these circumstances, it is noteworthy that the University maintains the highest credit ratings of Moody's (Aaa) and Standard & Poor's (AAA). Achieving and maintaining the highest credit ratings provides the University with significant flexibility in securing capital funds on the most competitive terms. This flexibility, along with ongoing efforts toward revenue diversification and cost containment, will enable the University to provide the necessary resources to support a consistent level of excellence in service to students, patients, the research community, the state and the nation.

A crucial element to the University's future continues to be a strong relationship with the state of Michigan. Historically, there has been a connection between the growth, or reduction, of state support and the University's ability to control tuition increases. Over the past several years, the University has successfully addressed the realities of the state's difficult economy and, pursuant to a long-range plan, continues to work relentlessly to cut and mitigate operational costs in order to remain affordable and preserve access, while protecting the academic enterprise.

The University's budget for 2018 anticipates a 1.9 percent increase in state educational appropriations, a 2.9 percent tuition rate increase for Ann Arbor campus resident undergraduates and a 9.5 percent increase in centrally awarded financial aid. Nonresident undergraduate tuition rates will increase 4.5 percent, while most graduate and professional rates will increase 4.1 percent. Resident undergraduate tuition rates on the Dearborn and Flint campuses will increase 3.7 percent and 4.1 percent, respectively.

While tuition and state appropriations fund a large percentage of academic costs, private support is also essential to the University's academic distinction. In November 2013, the University launched the public phase of a major fundraising campaign with the announcement of an ambitious goal of \$4 billion. The campaign, titled "Victors for Michigan", is focused on raising funds for three priority areas of student support, engaged learning and bold ideas, in order to better prepare tomorrow's leaders and address the complex problems facing the world. The campaign will continue through 2018.

The University continues to execute its long-range plan to maintain, modernize and expand its complement of older facilities while adding key new facilities for instruction, research, patient care, athletics and residential life. This strategy addresses the University's growth and the continuing effects of technology on teaching, research and clinical activities. Authorized costs to complete construction and other projects totaled \$901 million at June 30, 2017. Funding for these projects is anticipated to include \$797 million from internal sources, gifts, grants and future borrowings, \$6 million from the State Building Authority and \$98 million from the utilization of unexpended bond proceeds.

In addition to strategic capital and technological investments, the University's health system is also focusing on clinical affiliation arrangements to enhance patient care, clinical research, physician recruitment and support services. While the University's health system is well positioned to maintain a strong financial position in the near term, ongoing constraints on revenue are expected due to fiscal pressures from employers and federal and state governments. Management believes that much of the payment pressure can be offset by growth in patient volume and continued efforts to contain certain costs.

The University will continue to employ its long-term investment strategy to maximize total returns, at an appropriate level of risk, while utilizing a spending rate policy to preserve endowment capital and insulate the University's operations from temporary market volatility.

As a labor-intensive organization, the University faces competitive pressures related to attracting and retaining faculty and staff. Moreover, consistent with the national landscape, the University also faces rising costs of health benefits for its employees and retirees. The University has successfully taken and will continue to take proactive steps to respond to these challenges while protecting the quality of the overall benefits package.

U.S. health care reform will also continue to influence benefits planning. Since the Affordable Care Act was signed into law in March 2010 and subsequently affirmed by the Supreme Court, new regulatory requirements continue to affect health plans, providers and employers alike. Beginning in 2011, the University has implemented several initiatives in response to this law including required cost-sharing, eligibility and communications changes. University experts are continuing to assess additional health care reform impacts, including health insurance exchanges for large employers in 2017 and the excise tax on high-cost plans in 2020. The University is working to develop clear strategies and options for the future that will ensure compliance over the coming years of regulatory change.

While it is not possible to predict the ultimate results, management believes that the University's financial position will remain strong.