Report of the Treasurer

for the year ended

June 30, 2019

Massachusetts Institute of Technology

Report of the Treasurer

for the year ended June 30, 2019

Massachusetts
Institute of
Technology

The Corporation
2018–2019

as of June 30, 2019

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** Member of the Executive Committee*

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Report of the Treasurer

To the Members of the Corporation

During fiscal 2019, the Institute preserved its sound financial position with both solid investment performance and positive operating results. MIT closed the year with net assets of $22,769.0 million and net results of $221.1 million. Pooled investments produced a return of 8.8 percent. As a result of the immense generosity of our donors and friends, continued growth of MIT's invested assets, and careful management of operations, the Institute sustains the financial strength to successfully steward MIT's core mission while enabling strategic priorities.

On October 15, 2018, MIT announced the establishment of the MIT Stephen A. Schwarzman College of Computing, made possible with a $350.0 million foundational gift from Mr. Schwarzman. With MIT making an overall commitment of $1.0 billion, the creation of the College represents the most significant structural change to MIT since the early 1950s. The College will propel research and teaching in computer science and computing and bring the latest computational capabilities to disciplines across the Institute. A signature program on the policy and ethics of artificial intelligence will be integral in promoting positive societal impact from advances in computing. Daniel Huttenlocher SM '84, PhD '88 joined MIT as the inaugural Dean of the College this summer, and planning for the College of Computing Building to be constructed at 51 Vassar Street is now underway.

Over the past year, we began to witness the complete transformation of Kendall Square into an east campus gateway to MIT. The graduate residence and the Innovation and Entrepreneurship (I&E) Hub, both at site four (on the corner of Main Street and Hayward Street), and the commercial tower and home to the new MIT Museum at site five, 314 Main Street, are on target to open in the fall of 2020. I recognize that these developments have caused disruption to our campus and am grateful to all members of our community for their patience as we have pursued our aspirations to reinvent Kendall Square. With a focus on strengthening community interaction, open spaces in Kendall will soon be activated with year-round programming, and preparations for the MIT Welcome Center are now taking shape. Adjacent to a redesigned MBTA Kendall Station, the Center will help make the experience of coming to our campus even more vibrant and inspiring.

The area is quickly becoming an urban, mixed-use district at the heart of the surrounding innovation ecosystem. The I&E Hub will bring together many of the programs and resources supporting innovators and entrepreneurs from across campus into multi-use spaces. The new home for the MIT Innovation Initiative is expected to include space for the Deshpande Center for Technological Innovation, Legatum Center for Development and Entrepreneurship, Project Manus, the Sandbox Innovation Fund Program, and the Venture Mentoring Service. With this convergence, the power of proximity promises to enhance collaboration networks across campus and beyond and to promote even greater impact in the years to come.

Since its launch in 2016, The Engine Accelerator, Inc. has continued to gain momentum. At the end of fiscal 2019, The Engine's first investment fund had invested in 17 companies. Spanning advanced manufacturing, food and agriculture, robotics, and quantum computing, these companies are poised to make advances in solving some of the world's most important challenges. The Engine's headquarters in Central Square is already filled to capacity, and in keeping with original expansion plans, MIT seeks to make 200,000 square feet of additional space available to support The Engine's vision of creating a magnet for "tough tech" in Cambridge. MIT recently signed a lease that will provide space for a second facility for The Engine at 750 Main Street, which is expected to be operational early in 2022.

Summary of Key Financial Highlights (10-year trend)

(in millions of dollars)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Revenue	2,672	2,765	3,002	3,196	3,135	3,302	3,439	3,566	3,641	3,932
Expenses*	2,357	2,553	2,723	2,884	2,897	3,084	3,319	3,430	3,536	3,711
Net Results	315	212	279	312	237	218	120	136	105	221
Net Assets	10,324	12,106	12,495	13,858	16,028	17,507	16,929	19,125	21,517	22,769
Endowment	8,317	9,713	10,150	10,858	12,425	13,475	13,182	14,832	16,400	17,444
Net Borrowings	1,723	2,456	2,449	2,417	2,904	2,905	2,892	3,288	3,259	3,168

** Expenses include all components of net periodic benefit costs.*

While there is tremendous excitement about the positive impact that these advances promise to deliver, these innovations take place amid uncertain geopolitical and financial environments.

MIT is unwavering in its commitment to protect the Institute's financial strength for future generations. With sound planning, we have continued to build on the strong financial results realized in recent years, as depicted in the Summary of Key Financial Highlights table. We have sufficient levels of reserves to strengthen our resilience should a financial downturn diminish investment returns and are moderating campus infrastructure investment gated by fundraising capacity over the next decade. We are beginning to calibrate our budget for the impact of new federal tax laws, including the anticipated reduction in investment revenue supporting the operating budget due to the impact of the 1.4 percent excise tax on net investment income. The Institute's ability to successfully steward MIT's future is further bolstered by the Campaign for a Better World, with $5.2 billion raised at the end of fiscal 2019, or 87.0 percent of the $6.0 billion expanded goal.

The following sections provide additional details regarding MIT's fiscal 2019 financial statements: Consolidated Statements of Financial Position, Statement of Activities, and Statements of Cash Flows.

In fiscal 2019 the Institute adopted new accounting guidance for not-for-profit entities, which changed the presentation of net asset classifications in MIT's financial statements. Instead of the previous three categories—unrestricted, temporarily restricted, and permanently restricted net assets—the financial statements now show the following two categories: "net assets without donor restrictions" (what was previously shown as "unrestricted") and "net assets with donor restrictions" (a combination of what was previously shown as "temporarily restricted" and "permanently restricted"). In addition to the change in net asset classifications, the new guidance also requires enhanced disclosures in the footnotes to the financial statements. The most notable for MIT's financials are new disclosures regarding liquidity and expanded disclosure on the composition of expenses by both natural and functional classifications. While implementing the new accounting guidance, the Institute also took the opportunity to reorganize and reclassify certain Statement of Activities and Statement of Financial Position line items in order to improve reporting. Where applicable, changes to financial reporting and presentation have been applied to the prior period comparatives shown throughout MIT's financial statements.

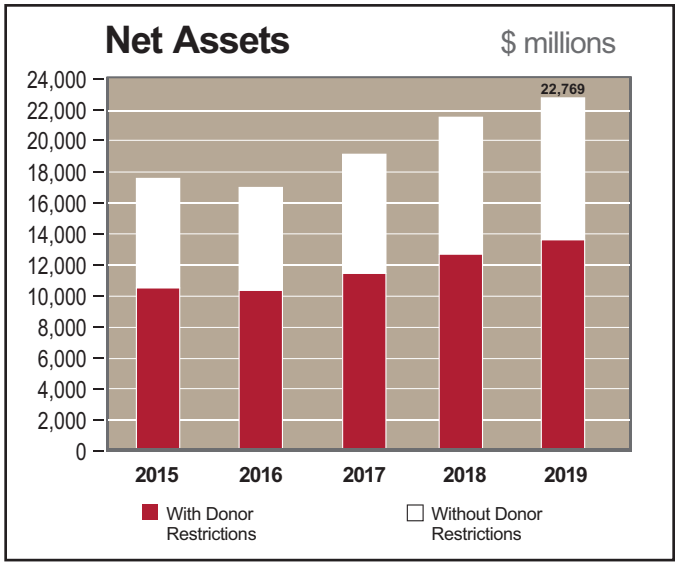
Net results, as presented in MIT's Statement of Activities, is the measure to which the Institute manages its annual budget and is used in financial reports presented to MIT's leadership, including the Executive Committee and the Corporation. It is a comprehensive measure of MIT's annual financial performance, including operating activity and all components of our annual retirement benefit costs that serve as a basis for cost recovery.

The Statement of Activities also shows results of operations, a measure of ongoing activities, which excludes the impacts of the components of net periodic retirement benefit costs other than service costs, and results of operations before depreciation and interest, which is a valuable measure for the Institute as it eliminates the impacts of financing and capital development activities.

Consolidated Statements of Financial Position

The discussion in this section highlights key elements of MIT's financial position—net assets; investments including endowment; land, buildings, and equipment; postretirement benefit plan assets and liabilities; and borrowings.

Net Assets



Total net assets increased to $22,769.0 million, an increase of 5.8 percent from fiscal 2018. Net assets are presented in two distinct categories to recognize the significant ways in which universities are different from profit-making organizations. The two categories reflect the nature of the restrictions placed on gifts by donors.

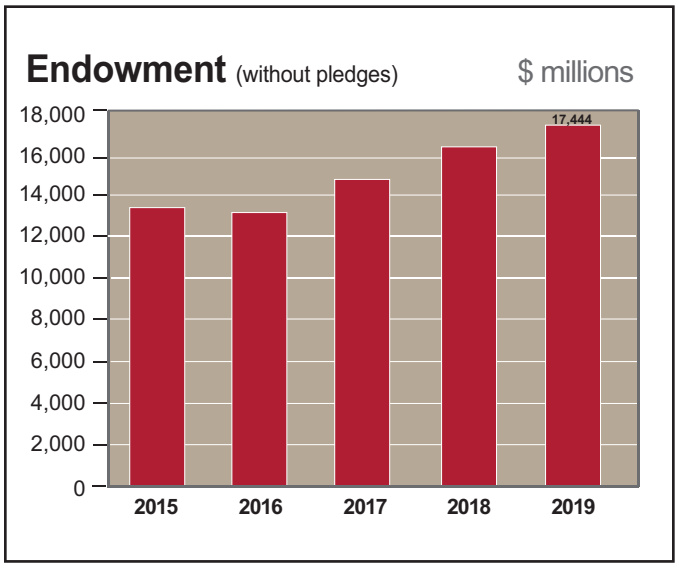
In fiscal 2019, net assets with donor restrictions increased $929.2 million, or 7.3 percent, to $13,593.1 million. The increase was primarily due to net return on donor-endowed investments, partially offset by endowment gains distributed for spending, new donor-endowed gifts and pledges, and net asset reclassifications and transfers. Net assets without donor restrictions increased $323.0 million, or 3.6 percent, to $9,175.9 million. The increase was primarily due to net return on quasi-endowed investments, partially offset by endowment gains distributed for spending and postretirement plan changes other than net periodic benefit costs.

Investments

Investments at fair value were $22,083.2 million as of fiscal year-end 2019, an increase of $1,316.6 million, or 6.3 percent. The consolidated financial statements include both realized and unrealized gains and losses on investments, as well as dividends and interest income, all net of investment expenses. These amounts yielded a net return on investment of $1,970.9 million in fiscal 2019, and $2,503.4 million in fiscal 2018. The increase in the value of investments as of fiscal year-end 2019 was substantially driven by realized and unrealized gains on pooled investments.

MIT's investment policy is based on the primary goal of generating high real rates of return without exceptional volatility. To reduce volatility, the portfolio is broadly diversified. To generate high real rates of return, MIT's investment policy favors equity investments over fixed income instruments and is heavily weighted toward less efficient markets such as private equity, real estate, and real assets. MIT primarily invests through external fund managers, thereby allowing the Institute to access the best investment talent globally. By identifying a wide variety of top-tier investment managers with specific competencies, MIT is able to construct a broadly diversified portfolio while accessing deep sector expertise. Decision authority for the selection of managers, direct investments, and asset allocation resides with MIT's Investment Management Company (MITIMCo). The Board of Directors of MITIMCo holds four regularly scheduled meetings during the fiscal year in which investment policy, performance, and asset allocation are reviewed.

Endowment



Endowment assets, the largest component of total investments, are managed to maximize total investment return relative to appropriate risk. The market value of investments in endowment funds, excluding pledges for endowed purposes, totaled $17,443.8 million as of fiscal year-end 2019, an increase of 6.4 percent compared to a total of $16,400.0 million last year.

This year, MIT's pooled investments (Pool A) produced a return of 8.8 percent. Investment income and a portion of gains are distributed for spending in a manner that preserves the long-term purchasing power of the endowment. Endowment funds invested in Pool A, MIT's primary investment pool, receive distributions based on relative ownership, which is valued monthly.

Land, Buildings, and Equipment

Land, buildings, and equipment had a net book value of $3,993.3 million as of fiscal year-end 2019, an increase of $308.9 million, or 8.4 percent. The Institute currently has a total of 131 capital projects under construction with a cumulative cost of $562.7 million. Though we have adopted a more paced level of investment in our campus gated by fundraising for the coming decade, MIT's strong financial position has enabled significant improvements in campus infrastructure and the surrounding innovation ecosystem.

Following a number of years of planning, design, and construction, MIT.nano opened in the fall of 2018. The 200,000-square-foot facility more than doubled MIT's shared fabrication and imaging capabilities. Occupying the footprint of Building 12 just steps from the Infinite Corridor at the heart of campus, the MIT.nano facility is designed to support the activities of more than 2,000 MIT faculty and researchers as they design and manipulate materials, organisms, and devices at the nanoscale.

On June 14, 2018, the Institute announced the Metropolitan Warehouse building as a potential new home for the School of Architecture and Planning (SA+P). As proposed, the renovation of the Met Warehouse would enlarge MIT's classroom and design studio space, significantly increase its exhibition capacity for arts and design programming, and feature a new maker space.

Kendall Square is evolving at a rapid pace, as construction progresses at several sites. Site one, located at 165 Main Street, will include housing, retail and office space, and the long-awaited Brothers Marketplace grocery store, expected to open in the fall of 2019. Reflecting both the history of Kendall Square and its role in the future of innovation, site three incorporates the existing structure at 238 Main Street with a 12-story addition for commercial space. At 314 Main Street (site five), the new 17-floor building will soon be the home for the MIT Museum, the MIT Press Bookstore, commercial laboratory space, and a café. As noted above, the new graduate housing tower at site four is nearing completion. Also at site four, the Innovation and Entrepreneurship (I&E) Hub will bring together I&E programs from across MIT in one place.

And while Kendall Square receives recognition as an innovation district, all that is happening along Vassar Street is just as exciting. Stretching from the Charles River to Technology Square, Vassar Street is quickly becoming the backbone of MIT, with the new Vassar Street undergraduate residence opening in the fall of 2020, the Met Warehouse and future home for the School of Architecture and Planning beginning to take shape, the refurbished Central Utilities Plant coming to fruition, and the future MIT Schwarzman College of Computing to be constructed at the current site of Building 44.

Enabling work will soon begin for the MIT Stephen A. Schwarzman College of Computing Building, which will stand in close proximity to Electrical Engineering and Computer Sciences in Building 38, the Computer Science and Artificial Intelligence Laboratory in the Ray and Maria Stata Center in Building 32, and Brain and Cognitive Sciences in Building 44 to enable enhanced collaborations. Architect selection for design of the building is now underway, and demolition of the existing structure is scheduled to begin this fall. Following the design process, full construction is targeted to commence in the spring of 2021, and completion is targeted for early 2023.

MIT continues to demonstrate its commitment to improving housing for both graduate and undergraduate students. As previously noted, MIT is now constructing a new undergraduate residence hall (W45, a 450-bed dormitory that will open in the fall of 2020 on Vassar Street) on the previous site of the West Garage parking facility. This past fall, approximately 290 students moved into the newly renovated New House. The 14-month renovation resulted in a residence with improved connectivity between houses, new amenities, enhanced accessibility, and revitalized courtyards. The new graduate student residence in Kendall Square opening in the fall of 2020 will include 454 beds for graduate student housing and an MIT childcare facility. In addition, MIT has committed to building an additional new graduate residence with at least 500 beds on west campus, and will apply for its building permit prior to the end of 2020.

Supporting MIT's overall effort to enhance student life, the design phase has begun for a state-of-the-art building for MIT's popular conservatory-level music program. The program will be relocated to MIT's west campus area with most of its activities consolidated under a single roof. The new music building will be constructed in proximity to Kresge Auditorium across from the Johnson Athletic Center and is expected to include spaces for performance, rehearsal, professional-level recording and instruction.

Work continues to refurbish the Central Utilities Plant, with completion targeted for 2020. By upgrading its cogeneration plant, MIT is creating a flexible power system that positions the Institute to explore emerging sustainability and efficiency measures. Able to adapt and evolve in response to advances in the energy field, the new plant is central to MIT's commitment to reduce greenhouse gas emissions by at least 32 percent by 2030.

Addressing deferred maintenance continues to be prioritized as an integral part of the overall capital program. Fiscal 2016 was the first year in recent decades with a reduction in deferred maintenance, and progress continued in fiscal years 2017, 2018, and 2019. For the fourth consecutive year, MIT's campus-wide facility condition index (FCI), which is the ratio of deferred maintenance to replacement value, decreased (from 0.24 in fiscal 2016 to 0.22 in fiscal 2017, 0.21 in fiscal 2018 and 0.20 in 2019). A combination of extensive renovations and system renewal projects benefiting more than 90 campus buildings contributed to this continued reduction. At the end of fiscal 2019, the total backlog of deferred maintenance was $1,479.0 million, which was equal to $118 per square foot, down from a peak of $150 per square foot in fiscal 2014 and fiscal 2015.

This continued improvement in the condition of the campus is illustrated by measuring the total amount of space in buildings that are in "good" or better condition (buildings with an FCI of 0.15 or less). Over half (6.9 million gross square feet) of the overall portfolio of Institute-owned space is within buildings considered to be in "good" or better condition, and planning is underway for significant renewals in additional buildings.

Postretirement Benefit Assets and Liabilities

The defined benefit pension plan provides a basic retirement benefit to eligible MIT employees upon their retirement as monthly income for the rest of their lives. This plan had assets of $4,058.2 million as of fiscal year-end 2019, an increase of $155.1 million from fiscal year-end 2018. The plan's projected liabilities were $4,468.3 million as of fiscal year-end 2019, up $537.1 million from a year earlier. This resulted in a $382.0 million increase in net pension liabilities, totaling $410.0 million as of fiscal year-end 2019.

MIT also maintains a retiree welfare benefit plan that covers retiree expenses associated with medical and life insurance benefits. This plan had assets of $711.2 million as of fiscal year-end 2019, an increase of $19.9 million from fiscal year-end 2018. The plan's projected liabilities were $613.4 million as of fiscal year-end 2019, up $46.8 million from a year earlier. This resulted in a net asset position of $97.7 million at fiscal year-end 2019, a decrease of $27.0 million.

The changes in asset values of both plans in 2019 were primarily a function of payments made to beneficiaries, investment performance, and contributions. The change in pension liabilities was driven by higher pension obligations due to one more year of benefits being earned by MIT's employees and decreases in the discount rates used to discount expected future cash payments to MIT retirees. The discount rates for each plan were derived by identifying a theoretical settlement portfolio of high-quality corporate bonds sufficient to provide for the plan's projected benefit obligations. The year-over-year discount rates decreased 61 and 59 basis points as of June 30 for the defined benefit pension plan and retiree welfare benefit plan, respectively, due to the prevailing interest rate environment at fiscal year-end 2019.

On an accounting basis at fiscal year-end 2019, the defined benefit pension plan had a funding level of 90.8 percent, down from 99.3 percent one year earlier. The retiree welfare benefit plan had a funding level of 115.9 percent at fiscal year-end 2019, a decrease from 122.0 percent one year earlier. There were no designated contributions to the defined benefit pension plan, and there was a $0.7 million contribution to the retiree welfare benefit plan during fiscal 2019. The investments of both plans' assets are managed by MITIMCo.

MIT also offers a 401(k) plan to its employees, which is not reflected in the Consolidated Statements of Financial Position. Assets in this plan are invested at the direction of participants in an array of investment funds. The plan's investment market value was $5,092.4 million as of fiscal year-end.

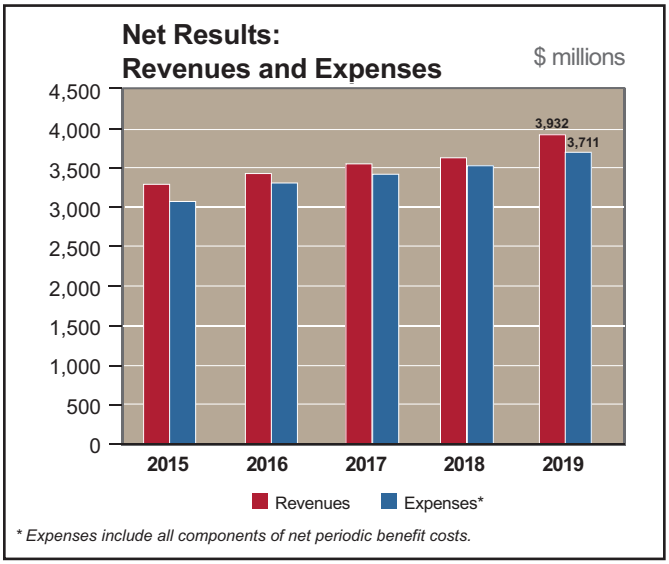
Borrowings

In fiscal year 2019, borrowings decreased $91.0 million, or 2.8 percent, to $3,168.4 million, primarily due to a bank note principal payment of $63.4 million and a Series L principal payment of $26.0 million, both made in July 2018.

MIT's financial strength is reviewed periodically by both Moody's Investors Service and S&P Global Ratings. In fiscal year 2019, we maintained our "Aaa" and "AAA" ratings, respectively.

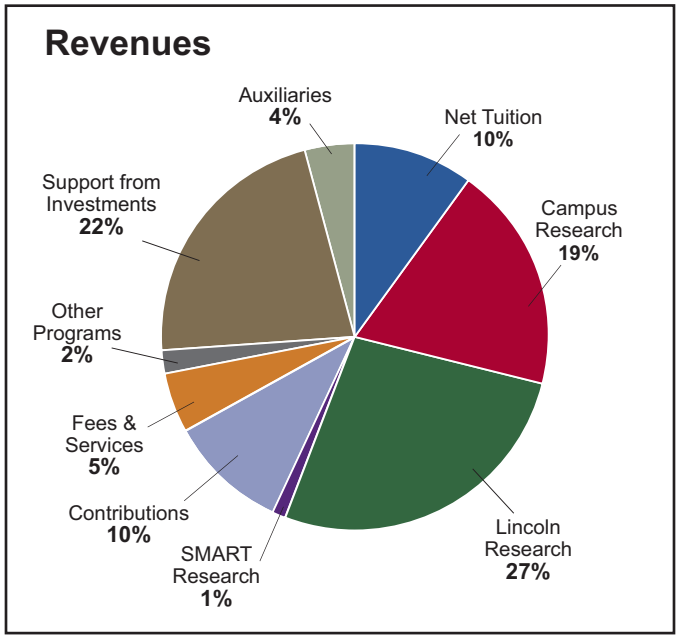
Consolidated Statement of Activities

Revenues and Expenses



MIT ended fiscal 2019 with net results of $221.1 million. This is $116.6 million, or 111.6 percent, higher than the fiscal 2018 result. Operating revenues increased $291.0 million, or 8.0 percent, to $3,931.9 million, while operating expenses together with all other components of net periodic benefit costs increased $174.4 million, or 4.9 percent, to $3,710.8 million. Year-over-year comparisons of revenues and expenses are presented on the graph above.

Revenues



MIT's operating revenues include tuition, research, contributions (expendable gifts and pledge payments), fees and services, other programs, support from investments, and auxiliary revenue.

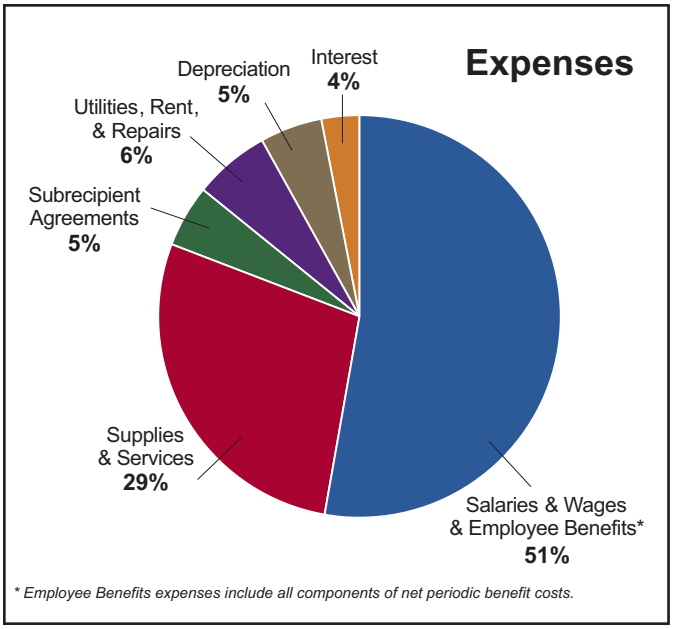
Tuition revenue for graduate and undergraduate programs, combined with tuition revenue for non-degree programs, increased by $30.0 million, or 8.5 percent, to $383.7 million. This change was driven by an increase of $17.5 million, or 27.9 percent, in non-degree program revenue, seen mostly in Executive Education at the Sloan School of Management, MIT Professional Education Programs, and MIT Open Learning. Undergraduate and graduate tuition increased $12.5 million, or 4.3 percent. Undergraduate tuition increased $4.6 million, or 4.5 percent, as tuition at published rates grew by $12.6 million, or 5.7 percent, while financial aid grew by $8.0 million, or 6.7 percent. Graduate tuition increased by $7.9 million, or 4.2 percent, as tuition at published rates grew by $18.8 million, or 4.5 percent, while financial aid grew by $10.9 million, or 4.8 percent. The increase in tuition at published rates for both undergraduates and graduates was driven by a 3.9 percent tuition rate increase and slight increases in enrollment.

Research revenues increased $137.2 million, or 8.1 percent, to $1,832.8 million in 2019, driven by increases in direct and indirect research revenue of $101.1 million and $36.1 million, respectively. Campus direct research revenue increased $28.1 million, or 5.5 percent. The principal driver of the increase in campus direct research revenue was 14.2 percent growth in non-federal direct research activity, including a 13.7 percent increase in activity supported by nonprofits and a 20.0 percent increase in industry-supported activity. Federal direct research activity also increased by 3.4 percent.

Direct research revenues for Lincoln Laboratory increased $70.0 million, or 7.4 percent, to $1,017.3 million, and direct research revenues for the Singapore-MIT Alliance for Research and Technology (SMART) increased $3.0 million, or 7.1 percent, to $45.0 million.

Support from investments increased $49.3 million, or 6.0 percent, primarily due to an increase in distribution from pooled investments in support of operations. The effective spending rate on pooled investments funds was 4.3 percent, or 4.8 percent on a three-year-average basis, in fiscal 2019. Operating contributions, which include gifts and bequests for current use and expendable pledge payments, increased $61.5 million, or 17.9 percent.

Expenses



** Employee Benefits expenses include all components of net periodic benefit costs.*

MIT's operating expenses, combined with all other components of net periodic retirement benefit costs, increased $174.4 million, or 4.9 percent. These expenses include salaries and wages, employee benefits, supplies and services, subrecipient agreements, utilities, rent and repairs, depreciation, and interest.

Overall Institute salary expenses rose 5.3 percent. Average annualized salaries and wages for campus grew by 3.0 percent, while the number of full-time-equivalent employees increased 2.3 percent. Employee benefits expenses in operating expenses, together with all other components of net periodic retirement benefit costs, decreased by 1.2 percent, driven by decreases in annual costs associated with the defined benefit pension and retiree welfare benefit plans.

During fiscal 2019, expenses related to supplies and services increased $36.3 million, or 3.5 percent, to $1,069.2 million. Utilities, rent, and repair expenses increased $12.3 million, or 5.6 percent, primarily driven by increases in rental expenses of 13.9 percent. Depreciation expense increased $19.6 million, or 11.0 percent, driven by the first year of depreciation for MIT.nano. Interest expense increased $4.7 million, or 3.9 percent.

Other Revenues, Gains and Losses Summary

Other revenues, gains and losses contributed $1,031.1 million towards MIT's fiscal 2019 increase in net assets of $1,252.2 million, or 5.8 percent. Other revenues, gains and losses include net return on investments, contributions revenue, and other changes, offset by changes in retirement plan obligations and investment spending distribution. In fiscal 2019, net return on investments less spending distribution increased net assets by $1,095.5 million. Contributions in other revenue, gains and losses, made up of pledge revenue and non-current gifts and bequests less pledge payments received and transferred to operations, increased net assets by $196.6 million, while changes in retirement plan obligations decreased net assets by $409.9 million.

Contributions

Contributions to MIT support scholarships, fellowships, professorships, research, educational programming, and student life activities, as well as construction and renovation of buildings. Gifts and pledges (contributions) for fiscal 2019 totaled $602.1 million, an increase of 25.0 percent from the fiscal 2018 total of $481.8 million. Contributions from individuals represented 35.4 percent of new gifts and pledges in fiscal 2019, down from 53.8 percent in fiscal 2018. Contributions from foundations represented 51.6 percent of new gifts and pledges in fiscal 2019, up from 31.0 percent in fiscal 2018. Contributions from corporations and other sources represented 13.1 percent of new gifts and pledges in fiscal 2019, down from 15.2 percent in fiscal 2018. New gifts and pledges for research and education were the largest categories of contributions for fiscal 2019.

Consolidated Statements of Cash Flows

The consolidated statements of cash flows divide cash inflows and outflows into three categories: operating, investing, and financing. Although this division is a requirement of generally accepted accounting principles (GAAP), when reviewing the cash flow of a nonprofit organization such as MIT, it is important to note the investing activities as presented in the cash flow are an integral part of operations, since a large portion of operating activity is funded through distributions from pooled investments. In fiscal 2019, support from investments comprised 30.5 percent of overall campus operating revenue.

Net operating activities, which result from a total increase in net assets adjusted for non-cash items (depreciation, net gain on investments, change in retirement plans' net assets, etc.), changes in certain non-cash assets and liabilities, and other reclassifications, consumed $131.7 million of cash in fiscal 2019. Net investing activities consumed $17.2 million in cash, primarily due to sales of investments to cover the Institute's endowment spending policy, partially offset by spending on capital projects. Cash from financing activities was $126.5 million in fiscal 2019, driven primarily by endowed contributions, partially offset by repayments on borrowings.

MIT's full consolidated financial statements and notes further describing our financial position, activities, and cash flows through June 30, 2019, are included on the following pages.

Closing Remarks

We begin fiscal 2020 with the financial strength to successfully steward MIT's core mission but mindful of the volatility in the global financial environment. Grounded in our core values, MIT continues to promote the importance of our global community amid an unsettled political atmosphere. Against this backdrop, we are building the financial resilience to withstand uncertainties, our foundation strengthened by the success of the Campaign for a Better World.

MIT's strong financial position has enabled the Institute to invest in key strategic priorities and to address the needs of today while securing MIT's future. With the creation of the MIT Schwarzman College of Computing, the momentum of a connected innovation and entrepreneurship community, expansion of The Engine, and transformation of Kendall Square, MIT continues to demonstrate its commitment to investing in the surrounding innovation ecosystem. Knowing that these developments have amplified pressures on housing and transportation, we are actively working to alleviate these stresses and address housing needs for our students.

Together, we are shaping an environment where our faculty, students, and scientists can realize transformational innovations and the next generation of world-changing technologies. I am grateful for the sustained generosity and enduring commitment of our faculty, students, staff, alumni, friends, and members of the Corporation, which enable MIT to continue to address the world's great challenges and aspire to making a better world.

Respectfully submitted,

Israel Ruiz
Executive Vice President and Treasurer
September 13, 2019

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Report of Independent Auditors

To the Members of the Corporation of the
Massachusetts Institute of Technology:

We have audited the accompanying consolidated financial statements of the Massachusetts Institute of Technology and its subsidiaries (the "Institute"), which comprise the consolidated statements of financial position as of June 30, 2019 and 2018, and the related consolidated statement of activities for the year ended June 30, 2019 and statements of cash flows for the years ended June 30, 2019 and 2018.

Management's Responsibility for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation and maintenance of internal control relevant to the preparation and fair presentation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on the consolidated financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

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

Opinion

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Massachusetts Institute of Technology and its subsidiaries as of June 30, 2019 and 2018, and the changes in their net assets for the year ended June 30, 2019 and their cash flows for the years ended June 30, 2019 and 2018 in accordance with accounting principles generally accepted in the United States of America.

Emphasis of Matter

As discussed in Note A to the consolidated financial statements, the Institute changed the manner in which it presents net assets and reports certain aspects of its consolidated financial statements as a not-for-profit entity in 2019. Our opinion is not modified with respect to this matter.

Other Matter

We previously audited the consolidated statement of financial position as of June 30, 2018, and the related consolidated statements of activities and of cash flows for the year then ended (the statement of activities is not presented herein), and in our report dated September 14, 2018, we expressed an unmodified opinion on those consolidated financial statements. In our opinion, the information set forth in the accompanying summarized financial information as of June 30, 2018 and for the year then ended is consistent, in all material respects, with the audited consolidated financial statements from which it has been derived.

PricewaterhouseCoopers LLP

September 13, 2019

PricewaterhouseCoopers LLP, 101 Seaport Boulevard, Suite 500, Boston, Massachusetts 02210 T: (617) 530 5000, F: (617) 530 5001, www.pwc.com/us

Massachusetts Institute of Technology

Consolidated Statements of Financial Position

as of June 30, 2019 and 2018

(in thousands of dollars)	2019	2018
Assets		
Cash	$ 405,678	$ 428,030
Accounts receivable, net	283,196	263,549
Pledges receivable, net, at fair value	583,383	560,142
Contracts in progress, principally US government	103,307	98,921
Deferred charges and other assets	201,131	184,767
Investments, at fair value	22,083,156	20,766,548
Net asset position - retiree welfare plan	97,716	124,686
Land, buildings, and equipment (at cost of $5,878,485 for June 2019; $5,409,653 for June 2018), net of accumulated depreciation	3,993,253	3,684,377
Total assets	**$ 27,750,820**	**$ 26,111,020**
Liabilities and Net Assets		
Liabilities:		
Accounts payable, accruals, and other liabilities	$ 596,255	$ 547,549
Deferred revenue and other credits	157,372	122,564
Advance payments	440,110	449,230
Liabilities due under life income fund agreements, at fair value	209,611	187,449
Borrowings, net of unamortized issuance costs	3,168,422	3,259,389
Net liability position - defined benefit pension plan	410,045	28,058
Total liabilities	**4,981,815**	**4,594,239**
Net Assets:		
Without donor restrictions	9,175,946	8,852,960
With donor restrictions	13,593,059	12,663,821
Total net assets	**22,769,005**	**21,516,781**
Total liabilities and net assets	**$ 27,750,820**	**$ 26,111,020**

The accompanying notes are an integral part of the consolidated financial statements.

Massachusetts Institute of Technology

Consolidated Statement of Activities

for the year ended June 30, 2019

(with summarized financial information for the year ended June 30, 2018)

(in thousands of dollars)	2019 Without Donor Restrictions	2019 With Donor Restrictions	Total 2019	Total 2018
Operating Revenues				
Tuition and similar revenues, exclusive of financial aid of $365,954 in 2019 and $347,039 in 2018	$ 383,736	$ -	$ 383,736	$ 353,721
Research revenues:				
Campus	728,153	-	728,153	672,162
Lincoln	1,059,384	-	1,059,384	981,292
SMART	45,300	-	45,300	42,183
Total research revenues	1,832,837	-	1,832,837	1,695,637
Contributions	386,433	19,105	405,538	344,008
Fees and services	216,619	-	216,619	212,666
Other programs	79,632	-	79,632	76,926
Support from investments:				
Endowment	699,333	-	699,333	663,203
Other investments	176,095	-	176,095	162,914
Total support from investments	875,428	-	875,428	826,117
Auxiliary enterprises	138,132	-	138,132	131,840
Total revenues	$ 3,912,817	$ 19,105	$ 3,931,922	$ 3,640,915
Operating Expenses				
Salaries and wages	$ 1,527,709	$ -	$ 1,527,709	$ 1,450,804
Employee benefits	516,790	-	516,790	499,216
Supplies and services	1,069,183	-	1,069,183	1,032,889
Subrecipient agreements	177,168	-	177,168	148,006
Utilities, rent, and repairs	229,755	-	229,755	217,497
Total expenses before depreciation and interest	3,520,605	-	3,520,605	3,348,412
Results of operations before depreciation and interest	392,212	19,105	411,317	292,503
Depreciation	198,242	-	198,242	178,630
Interest expense	125,492	-	125,492	120,749
Results of operations	68,478	19,105	87,583	(6,876)
Net periodic benefit (cost) income other than service cost	133,542	-	133,542	111,391
Net results	$ 202,020	$ 19,105	$ 221,125	$ 104,515
Other Revenues, Gains and Losses				
Contributions	$ -	$ 196,558	$ 196,558	$ 137,809
Net return on investments	1,058,134	912,758	1,970,892	2,503,435
Distribution of accumulated investment gains	(355,309)	(520,119)	(875,428)	(826,117)
Other changes	138,290	10,683	148,973	88,336
Postretirement plan changes other than net periodic benefit cost	(409,896)	-	(409,896)	383,745
Net asset reclassifications and transfers	(310,253)	310,253	-	-
Total other revenue, gains and losses	120,966	910,133	1,031,099	2,287,208
Increase in net assets	322,986	929,238	1,252,224	2,391,723
Net assets at the beginning of the year	8,852,960	12,663,821	21,516,781	19,125,058
Net assets at the end of the year	**$ 9,175,946**	**$ 13,593,059**	**$ 22,769,005**	**$ 21,516,781**

The accompanying notes are an integral part of the consolidated financial statements.

Massachusetts Institute of Technology

Consolidated Statements of Cash Flows

for the years ended June 30, 2019 and 2018

(in thousands of dollars)	2019	2018
Cash Flow from Operating Activities		
Increase in net assets	$ 1,252,224	$ 2,391,723
Adjustments to reconcile change in net assets to net cash used in operating activities:		
Net gain on investments	(1,776,949)	(2,376,474)
Change in retirement plan asset, net of accrued benefit liability	408,956	(365,159)
Depreciation	198,242	178,630
Net gain on life income funds	(14,960)	(23,386)
Amortization of bond premiums and discounts and other adjustments	(17,508)	3,176
Change in operating assets and liabilities:		
Pledges receivable	(23,241)	(26,915)
Accounts receivable	(23,705)	(7,420)
Contracts in progress	(4,386)	(16,587)
Deferred charges and other assets	(13,635)	(14,241)
Accounts payable, accruals, and other liabilities, excluding building and equipment accruals	51,385	17,386
Liabilities due under life income fund agreements	40,090	49,138
Deferred revenue and other credits	34,470	13,796
Advance payments	(9,120)	22,668
Reclassify donated securities	(43,286)	(10,147)
Reclassify investment income	(4,404)	(3,835)
Reclassify contributions restricted for long-term investment	(185,885)	(195,538)
Net cash used in operating activities	(131,712)	(363,185)
Cash Flow from Investing Activities		
Purchase of land, buildings, and equipment	(495,164)	(486,413)
Purchases of investments	(8,220,554)	(32,952,998)
Proceeds from sale of investments	8,693,127	33,663,989
Student notes issued	(5,038)	(5,439)
Collections from student notes	10,478	11,694
Net cash (used in) provided by investing activities	(17,151)	230,833
Cash Flow from Financing Activities		
Contributions restricted for long-term investment	185,885	195,538
Payments to beneficiaries of life income funds	(17,928)	(16,159)
Proceeds from sale of donated securities restricted for endowment	43,286	10,147
Increase in investment income for restricted purposes	4,404	3,835
Repayment of borrowings	(89,474)	(26,500)
Increase (decrease) in government advances for student loans	338	(6,304)
Net cash provided by financing activities	126,511	160,557
Net (decrease) increase in cash	(22,352)	28,205
Cash at the beginning of the year	428,030	399,825
Cash at the end of the year	**$ 405,678**	**$ 428,030**

The accompanying notes are an integral part of the consolidated financial statements.

Notes to Consolidated Financial Statements

A. Accounting Policies

Basis of Presentation

The accompanying financial statements have been prepared in accordance with generally accepted accounting principles (GAAP) in the United States of America. The consolidated financial statements (financial statements) include MIT and its wholly owned subsidiaries.

Net assets, revenues, expenses, and gains and losses are classified into two categories based on the existence or absence of donor-imposed restrictions. The categories are net assets with donor restrictions and net assets without donor restrictions.

Net assets with donor restrictions include gifts, pledges, trusts and remainder interests, and income and gains that are either required by donors to be permanently retained or for which restrictions have not yet been met. Such restrictions include purpose restrictions where donors have specified the purpose for which the net assets are to be spent, or time restrictions imposed by donors or implied by the nature of the gift (e.g., capital projects, pledges to be paid in the future, life income funds), or by interpretations of law (net gains on donor-endowed gifts, where the gains have not yet been appropriated for spending). Net assets without donor restrictions are all the remaining net assets of MIT.

Donor-restricted gifts and grants (including gifts of long-lived assets) and distributed restricted endowment income, for which the restrictions are met within the same year of gift, grant, or distribution, are reported as revenue without donor restrictions. Amounts for which the restrictions are not met within the same year of gift, grant, or distribution are reclassified to net assets with donor restrictions through the net asset reclassifications and transfers line in the Statement of Activities. These amounts are released back to net assets without donor restrictions, through the net asset reclassification and transfers line, during the years in which the restrictions are met. Gifts specified for the acquisition or construction of long-lived assets are reported as net assets with donor restrictions until the monies are expended and the long-lived assets (i.e., buildings) are put into use, at which point they are reclassified to net assets without donor restrictions, also through the net asset reclassifications and transfers line.

MIT administers its various funds, including endowments, funds functioning as endowments, school or departmental funds, and related accumulated gains, in accordance with the principles of fund accounting. Gifts are recorded in fund accounts, and investment income is distributed to funds annually. Income distributed to funds may be a combination of capital appreciation and yield pursuant to MIT's total return investment and spending policies. Each year, the Executive Committee of the Corporation approves the rates of distribution of investment return to funds from MIT's investment pools. See Note J for further information on income distributed to funds.

MIT's operating revenues include tuition, research, contributions (expendable gifts and pledge payments), fees and services, other programs, support from investments, and auxiliary revenue.

Net results, as presented in MIT's Statement of Activities, is the measure to which the Institute manages its annual budget and is used in financial reports presented to MIT's leadership, including the Executive Committee and the Corporation. It is a comprehensive measure of MIT's annual financial performance, including operating activity and all components of our annual retirement benefit costs that serve as a basis for cost recovery.

The Statement of Activities also shows results of operations, a measure of ongoing activities, which excludes the impacts of the components of net periodic retirement benefit costs other than service costs, and results of operations before depreciation and interest, which is a valuable measure for the Institute as it eliminates the impacts of financing and capital development activities.

A. Accounting Policies (continued)

Tax Status

MIT is a nonprofit organization that is tax-exempt under Section 501(c)(3) of the Internal Revenue Code, originally recognized in October 1926, with the most recent affirmation letter dated September 2017.

On December 22, 2017, the Tax Cuts and Jobs Act (the "Act") was enacted. The Act impacts the Institute in several ways, including by imposing excise taxes on certain executive compensation and net investment income, and establishing new rules for calculating unrelated business taxable income. MIT has reflected the tax assets, liabilities, and payables in the financial statements based on reasonable estimates under the currently available regulatory guidance on the Act. The Institute continues to evaluate the impact of the Act on current and future tax positions.

US GAAP requires MIT to evaluate tax positions taken by the Institute to recognize a tax liability (or asset) if the Institute has taken an uncertain tax position that, more likely than not, would not be sustained upon examination by the IRS. MIT has analyzed the tax positions taken and has concluded that as of June 30, 2019, there are no significant uncertain positions taken or expected to be taken, apart from those impacted by the Act.

Cash

Certain cash balances, totaling $70.4 million and $97.8 million as of June 30, 2019 and 2018, respectively, are restricted for use under certain sponsored research agreements or are held on behalf of a related party.

The Institute had approximately $393.5 million and $418.5 million as of June 30, 2019 and 2018, respectively, of its cash accounts with a single institution. The Institute has not experienced any losses associated with deposits at this institution.

Land, Buildings, and Equipment

Land, buildings, and equipment are shown at cost when purchased, or at fair value as of the date of a gift when received as a gift, net of accumulated depreciation. When expended, costs associated with the construction of new facilities are shown as construction in progress until such projects are completed and put into use. Depreciation is computed on a straight-line basis over the estimated useful lives of 25 to 50 years for buildings, 3 to 25 years for equipment, and 4 to 6 years for software.

Fully depreciated assets were removed from the financial statements in the amount of $49.1 million and $46.2 million during 2019 and 2018, respectively. Land, buildings, and equipment as of June 30, 2019 and 2018 are shown in Table 1 below.

Table 1. Land, Buildings, and Equipment

(in thousands of dollars)	2019	2018
Land	$ 107,557	$ 107,557
Land improvements	84,374	73,815
Educational buildings	4,682,090	4,127,736
Equipment	377,377	306,364
Software	60,408	68,328
Total	5,311,806	4,683,800
Less: accumulated depreciation	(1,885,232)	(1,725,276)
Construction in progress	562,740	723,249
Software projects in progress	3,939	2,604
Net land, buildings, and equipment	**$ 3,993,253**	**$ 3,684,377**

Depreciation expense was $198.2 million in 2019 and $178.6 million in 2018. Net interest expense of $17.9 million and $22.1 million was capitalized during 2019 and 2018, respectively, in connection with MIT's construction projects.

A. Accounting Policies (continued)

Tuition and Student Support

Tuition and similar revenues, shown in Table 2 below, include tuition and fees for degree programs as well as tuition and fees for executive and continuing education programs at MIT. Tuition revenue is recognized over the period during which the courses are taken.

Table 2. Tuition and Similar Revenues

(in thousands of dollars)	2019	2018
Undergraduate and graduate programs*	$ 303,593	$ 291,044
Executive and continuing education programs	80,143	62,677
Tuition and similar revenues	**$ 383,736**	**$ 353,721**

** Undergraduate and graduate programs at published rates totaled $669,547 and $638,083 in 2019 and 2018, respectively, and financial aid applied to undergraduate and graduate programs was $365,954 and $347,039 in 2019 and 2018, respectively.*

Tuition support shown in Table 3 below is awarded to undergraduate students by MIT based on need. Graduate students are provided with tuition support in connection with research assistance, teaching assistance, and fellowship appointments. Tuition support from MIT sources is shown as tuition financial aid.

Table 3. Student Support

	2019			2018		
(in thousands of dollars)	Institute Sources	External Sponsors	Total Student Support	Institute Sources	External Sponsors	Total Student Support
Undergraduate tuition support	$ 128,365	$ 18,956	$ 147,321	$ 120,352	$ 17,584	$ 137,936
Graduate tuition support	237,589	63,437	301,026	226,687	61,747	288,434
Fellowship stipends	28,509	16,470	44,979	26,199	16,110	42,309
Student employment	48,978	83,322	132,300	46,329	79,555	125,884
Total	**$ 443,441**	**$ 182,185**	**$ 625,626**	**$ 419,567**	**$ 174,996**	**$ 594,563**

A. Accounting Policies (continued)

Research Revenues and Advance Payments

Direct and indirect categories of research revenues are shown in Table 4 below.

Table 4. Research Revenues

(in thousands of dollars)	2019	2018
Direct:		
Campus	$ 538,350	$ 510,254
Lincoln	1,017,344	947,295
SMART	44,980	41,988
Total direct	1,600,674	1,499,537
Total indirect	232,163	196,100
Total research revenues	**$ 1,832,837**	**$ 1,695,637**

Almost all of Lincoln and SMART research revenue, and a portion of campus research revenue, come from exchange contracts. Research revenue related to exchange contracts is recognized as MIT fulfills the terms of the agreements, which generally span less than five years. Almost all of campus research revenue, and a portion of Lincoln and SMART research revenue, come from non-exchange contracts. Research revenue associated with non-exchange contracts is recognized as the qualified expenditures are incurred. Research activities at Lincoln, for which the contractual performance obligations have not yet been met, totaled $757.4 million as of June 30, 2019. Research activities on campus, which are contractually authorized by the sponsor, but for which costs have not yet been incurred, totaled $249.6 million as of June 30, 2019.

Advance payments are amounts received by MIT from the US government, corporations, industrial sources, foundations, and other non-MIT sponsors under the terms of agreements that generally require the exchange of assets, rights, or privileges between MIT and the sponsor. Advance payments are made for activity that will occur in the near future, generally within the next fiscal year. The majority of these payments relate to activity at Lincoln.

The capital costs of buildings and equipment are depreciated over their estimated life cycle, and the sponsored research recovery allowance for depreciation is treated as indirect research revenue. MIT has recorded reimbursement of indirect costs relating to sponsored research at negotiated fixed billing rates.

The revenue generated by the negotiated rates is adjusted each fiscal year to reflect any variance between the negotiated fixed rates and rates based on actual cost. The actual cost rate is audited by the Defense Contract Audit Agency (DCAA), and a final fixed-rate agreement is signed by the US government and MIT. The variance between the negotiated fixed rate and the final audited rate results in a carryforward (over- or under-recovery). The carryforward is included in the calculation of negotiated fixed billing rates in future years. Any adjustment in the rate is charged or credited to net assets without donor restrictions.

Gifts and Pledges (Contributions)

Gifts and pledges (contributions) are recognized when received. Gifts of securities are recorded at their fair value at the date of contribution. Donated securities received totaled $116.9 million and $66.8 million in 2019 and 2018, respectively. Gifts of equipment received from manufacturers and other donors are put into use and recorded by MIT at fair value. Gifts of equipment totaled $0.7 million in 2019 and $2.2 million in 2018. Pledges consist of unconditional promises to contribute to MIT in the future. Pledges are reported at their estimated fair values. Pledges receivable are classified as Level 3 under the valuation hierarchy described in Note B.

Pledges, trusts, and remainder interests are reported at their estimated fair values. MIT records items of collections as gifts at nominal value. They are received for educational purposes, and most are displayed throughout MIT. In general, collections are not disposed of for financial gain or otherwise encumbered in any manner.

Fees and Services, Auxiliary Enterprises, and Other Programs

For the majority of the revenue streams included in fees and services and auxiliary enterprises, revenue is recognized over the period during which the services are provided. Other program revenue primarily consists of non-research sponsored activities. Other program revenue related to exchange contracts is recognized as MIT fulfills the terms of the agreements, which generally span less than five years, and other program revenue related to non-exchange contracts is recognized as the related costs are incurred. Non-research sponsored activities, for which the contractual performance obligations have not yet been met, totaled $81.8 million as of June 30, 2019.

A. Accounting Policies (continued)

Life Income Funds

MIT's life income fund agreements with donors consist primarily of irrevocable charitable gift annuities, pooled income funds, and charitable remainder trusts for which MIT serves as trustee. Assets are invested and payments are made to donors and other beneficiaries in accordance with the respective agreements. MIT records the assets that are associated with each life income fund at fair value and records as liabilities the present value of the estimated future payments at current interest rates to be made to the donors and beneficiaries under these agreements. Life income fund assets are included within investments on the Consolidated Statements of Financial Position. A rollforward of liabilities due under life income fund agreements is presented in Table 5 below.

Table 5. Liabilities Due Under Life Income Funds

(in thousands of dollars)	2019	2018
Balance at the beginning of the year	$ 187,449	$ 154,470
Addition for new gifts	19,785	28,768
Termination and payments to beneficiaries	(22,682)	(17,782)
Net investment and actuarial gain	25,059	21,993
Balance at end of the year	**$ 209,611**	**$ 187,449**

Recently Adopted Accounting Standards

On July 1, 2018, the Institute adopted ASU No. 2018-08 - *Not-for-Profit Entities* (Topic 958): *Clarifying the Scope and Accounting Guidance for Contributions Received and Contributions Made,* which amends the accounting guidance related to (1) evaluating whether transactions should be accounted for as contributions or exchange transactions, and (2) determining whether a contribution is conditional. The Institute has evaluated and applied the guidance on a modified prospective basis to the financial statements and added the required additional revenue disclosures. The adoption of this standard did not have a significant impact on the Institute's financial statements.

On July 1, 2018, the Institute adopted ASU No. 2014-09 - *Revenue from Contracts with Customers* (Topic 606), which outlines a single comprehensive standard for revenue recognition across all industries and supersedes most existing revenue recognition guidance. In addition, ASU 2014-09 requires new and enhanced disclosures. These changes do not have a material impact on MIT's financial statements and have been applied to the Institute's financial statements and footnotes on a modified retrospective basis.

On July 1, 2018, the Institute adopted ASU No. 2017-07 - *Compensation - Retirement Benefits* (Topic 715): *Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost.* This guidance requires the service cost component of net periodic benefit costs for pension and other postretirement benefits be presented as a component part of employee benefit expense. The other components of net periodic benefit costs, such as interest, expected return on plan assets, and amortization of net actuarial gains and losses, are required to be presented outside of operating activities. This change is reflected in the Institute's Statement of Activities and has been applied retrospectively.

On July 1, 2018, the Institute adopted ASU No. 2016-14 - *Not-for-Profit-Entities* (Topic 958): *Presentation of Financial Statements of Not-for-Profit-Entities.* This guidance is intended to improve the net asset classification requirements and the information presented in the financial statements and notes about a not-for-profit entity's liquidity, financial performance, and cash flows. Main provisions of this guidance include presentation of two classes of net assets versus the previously required three, and recognition of underwater endowment funds as a reduction in net assets with donor restrictions. The guidance also enhances disclosures for board-designated amounts, composition of net assets without donor restrictions, liquidity, and expenses by both their natural and functional classifications. These changes are reflected in the Institute's financial statement and footnotes and have been applied retrospectively, where applicable.

On July 1, 2018, the Institute adopted ASU 2018-13 - *Fair Value Measurement* (Topic 820): *Disclosure Framework - Changes to the Disclosure Requirements for Fair Value Measurement.* Following this new guidance, the Institute is no longer required to disclose the amount of and reasons for transfers between Level 1 and Level 2 of the fair value hierarchy. Additionally, the Institute has added to the disclosures in the Level 3 Valuation Techniques table to include the weighted average of the unobservable inputs presented therein. Lastly, for investments in certain entities that calculate net asset value, the requirement to disclose the estimated period of time over which the underlying assets might be liquidated is modified to only require disclosure if the investee has communicated the timing to the Institute or announced the timing publicly.

A. Accounting Policies (continued)

Non-Cash Items

Non-cash transactions excluded from the Consolidated Statements of Cash Flows include $34.9 million and $39.5 million of accrued liabilities related to plant and equipment purchases as of June 30, 2019 and 2018, respectively.

Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Reclassifications

Certain June 30, 2018, balances and amounts previously reported have been reclassified to conform to the June 30, 2019 presentation. While implementing the new accounting guidance, the Institute took the opportunity to reorganize and reclassify certain Statement of Activities and Statements of Financial Position line items in order to improve reporting. Where applicable, changes to financial reporting and presentation have been applied to the prior period comparatives shown throughout MIT's financial statements.

Subsequent Events

MIT has evaluated subsequent events through September 13, 2019, the date on which the financial statements were issued. There were no subsequent events that occurred after the balance sheet date that have a material impact on MIT's financial statements.

Summarized Information

The Consolidated Statement of Activities include certain prior year summarized comparative information in total, but not by net asset class. Such information does not include sufficient detail to constitute a presentation in conformity with accounting principles generally accepted in the United States of America. Accordingly, such information should be read in conjunction with MIT's financial statements for the year ended June 30, 2018, from which the summarized information was derived.

B. Investments

Investments are presented at fair value in accordance with GAAP. MIT performs ongoing due diligence to determine that the fair value of investments is reasonable. In particular, to ensure that the valuation techniques for investments that are categorized within the fair value hierarchy are fair, consistent, and verifiable, MIT has established a Valuation Committee ("the Committee") that oversees the valuation processes and procedures and ensures that the policies are fair and consistently applied. The Committee is responsible for conducting annual reviews of the valuation policies, evaluating the overall fairness and consistent application of the valuation policies, and performing specific reviews of certain reported valuations. The Committee performs due diligence over the external managers and, based on this review, substantiates the use of net asset value (NAV) as a practical expedient for estimates of fair value of its investments in externally managed funds. The Committee is comprised of senior personnel with members who are independent of investment functions. The Committee meets biannually, or more frequently as needed. Members of the Committee report annually to MIT's Risk and Audit Committee. The methods described in this note may produce a fair value that may not be indicative of net realizable value or reflective of future fair values. While MIT believes its valuation methods are appropriate and consistent with those of other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different estimate of fair value at the reporting date.

Exchange and over-the-counter investment transactions are accounted for on the trade date. External fund investment transactions are accounted for on the settle date. Dividend income is recorded on the ex-dividend date. Interest and real estate income are recorded on the accrual basis of accounting. Realized gains and losses are recorded by MIT using the average cost method. For external funds, the realized gains and losses are recognized subsequent to the return of all capital invested.

MIT may enter into short sales whereby it sells securities that may or may not be owned by MIT in anticipation of a decline in the price of such securities or in order to hedge portfolio positions. Cash collateral and certain securities owned by MIT may be held at counterparty brokers to collateralize these positions and are included in investments on the Consolidated Statements of Financial Position.

MIT values its investments at fair value on the Consolidated Statements of Financial Position in accordance with the principles of accounting standards that establish a hierarchy of valuation inputs based on the extent to which the inputs are observable in the marketplace. Observable inputs reflect market data obtained from sources independent of the reporting entity. Unobservable inputs reflect the entity's own assumptions about how market participants would value an asset or liability based on the best information available. Valuation techniques used to measure fair value must maximize the use of observable inputs and minimize the use of unobservable inputs. MIT follows a fair value hierarchy based on three levels of inputs, of which the first two are considered observable and the last is unobservable.

The following describes the hierarchy of inputs used to measure fair value and the primary valuation methodologies used by MIT for financial instruments measured at fair value on a recurring basis. The three levels of inputs are as follows:

• Level 1 – Valuations based upon observable inputs that reflect quoted prices in active markets for identical assets and liabilities.

• Level 2 – Valuations based upon: (i) quoted market prices for similar assets or liabilities in active markets; (ii) quoted prices for identical or similar assets or liabilities in markets that are not active; or (iii) other significant market-based inputs, which are observable, either directly or indirectly.

• Level 3 – Valuations based upon unobservable inputs that are significant to the overall fair value measurements.

Investments managed by external managers in fund structures are not readily marketable and are reported at fair value utilizing the most current information provided by the external manager, subject to assessments that the information is representative of fair value and in consideration of any factors deemed pertinent to the fair value measurement. These investments are shown in the NAV column of Table 6.

A financial instrument's categorization within the valuation hierarchy is based upon the lowest level of input that is significant to the fair value measurement. Market information is considered when determining the proper categorization of the investment's fair value measurement within the fair valuation hierarchy.

Cash and cash equivalents include cash, money market funds, repurchase agreements, and negotiable certificates of deposit, and are valued at cost, which approximates fair value. Instruments listed or traded on a securities exchange are valued at the last quoted price on the primary exchange where the securities are traded.

B. Investments (continued)

Investments in non-exchange-traded debt are primarily valued using independent pricing sources that use broker quotes or models using observable market inputs. Investments managed by external managers include investments in (i) absolute return; (ii) domestic, foreign, and private equity; (iii) real estate; and (iv) real asset commingled funds. The fair value of securities held in external investment funds that do not have readily determinable fair values are determined by the external managers based upon industry-standard valuation approaches that require varying degrees of judgment, taking into consideration, among other things, the cost of the securities, valuations, and transactions of comparable public companies, the securities' estimated future cash flow streams, and the prices of recent significant placements of securities of the same issuer. Using these valuations, most of these external managers calculate MIT's capital account or NAV in accordance with, or in a manner consistent with, GAAP's fair value principles.

As a practical expedient, MIT is permitted under GAAP to estimate the fair value of its investments with external managers using the external managers' reported NAV without further adjustment, unless MIT expects to sell the investment at a value other than NAV or the NAV is not calculated in accordance with GAAP.

Level 3 investments are valued by MIT based upon valuation information received from the relevant entity, which may include last trade information, third-party appraisals of real estate, or valuations prepared in connection with the administration of an employee stock ownership plan. MIT may also utilize industry standard valuation techniques, including discounted cash flow models. The significant unobservable inputs used in the fair value measurements of MIT's direct investments may include their cost of capital and equity and industry risk premiums. Significant increases or decreases in these inputs in isolation may result in a significantly lower or higher fair value measurement, respectively. Split-interest agreements are generally valued at the present value of the future distributions expected to be received over the term of the agreement.

Over-the-counter positions, such as interest rate and total return swaps, credit default swaps, options, exchange agreements, and interest rate cap and floor agreements, are valued using broker quotes or models using market-observable inputs. Because the swaps and other over-the-counter derivative instruments have inputs that can usually be corroborated by observable market data, they are generally classified within Level 2. Derivatives usually include exchange traded derivatives, such as futures and options, and are generally classified within Level 1.

MIT, through some of its direct and indirect subsidiaries, leverages certain real estate investments to optimize the use of invested capital in support of the Institute's mission. The liabilities associated with these financings are presented, on a net basis, with the investment balances on the associated real estate asset found in Table 6. The liabilities associated with real estate investments were $606.3 million and $768.6 million in fiscal years 2019 and 2018, respectively. MIT's subsidiaries are separate legal entities, whose assets and credit are not available to satisfy the liabilities of MIT as a stand-alone entity. Also, the liabilities of MIT's subsidiaries do not constitute obligations of MIT as a stand-alone entity.

All net realized and unrealized gains and losses relating to financial instruments held by MIT shown in Table 6 are reflected in the Consolidated Statement of Activities. Cumulative unrealized gains related to Level 3 investments totaled $1,766.6 million and $1,812.1 million as of June 30, 2019 and 2018, respectively.

Certain investments in real estate, equities, and private investments may be subject to restrictions that: (i) limit MIT's ability to withdraw capital after such investment; and (ii) may limit the amount that may be withdrawn as of a given redemption date. Most absolute return, domestic equity, and foreign equity commingled funds limit withdrawals to monthly, quarterly, or other periods, and may require notice periods. In addition, certain of these funds are able to designate a portion of the investments as illiquid in "side-pockets," and these funds may not be available for withdrawal until liquidated by the investing fund. Generally, MIT has no discretion as to withdrawal with respect to its investments in private equity and real estate funds. Distributions are made when sales of assets are made within these funds and the investment cycle for these funds can be as long as 15 to 20 years. These restrictions may limit MIT's ability to respond quickly to changes in market conditions. MIT does have various sources of liquidity at its disposal. Refer to footnote E for further details.

B. Investments (continued)

Table 6 presents MIT's investments at fair value as of June 30, 2019 and 2018, respectively, grouped by the valuation hierarchy as defined earlier in this note.

Table 6. Investments

(in thousands of dollars)	Level 1	Level 2	Level 3	NAV	Total Fair Value
Fiscal Year 2019					
Cash and cash equivalents	$ 1,346,557	$ -	$ -	$ -	$ 1,346,557
US Treasury	1,303,772	-	-	-	1,303,772
US government agency	635	119,688	-	-	120,323
Domestic bonds	17,923	363,871	108,735	-	490,529
Foreign bonds	6,016	89,831	-	-	95,847
Common equity:					
Domestic	24,055	-	234,516	-	258,571
Foreign	361,095	-	-	-	361,095
Equity:**					
Absolute return	-	-	-	2,777,992	2,777,992
Domestic	-	-	-	2,184,287	2,184,287
Foreign	-	-	-	4,423,446	4,423,446
Private	-	-	-	4,973,152	4,973,152
Real estate*	39,903	-	2,377,201	850,402	3,267,506
Real assets**	-	-	384	315,515	315,899
Split-interest agreements	-	-	159,098	-	159,098
Other	26	-	2,923	-	2,949
Derivatives	(274)	2,407	-	-	2,133
Investments, at fair value	**$ 3,099,708**	**$ 575,797**	**$ 2,882,857**	**$ 15,524,794**	**$ 22,083,156**
Fiscal Year 2018					
Cash and cash equivalents	$ 1,354,618	$ -	$ -	$ -	$ 1,354,618
US Treasury	1,159,001	-	-	-	1,159,001
US government agency	554	68,332	-	-	68,886
Domestic bonds	19,612	795,566	104,896	-	920,074
Foreign bonds	2,106	95,154	-	-	97,260
Common equity:					
Domestic	53,262	-	202,840	-	256,102
Foreign	170,023	215	-	-	170,238
Equity:**	-	-	-	-	-
Absolute return	-	-	-	1,948,154	1,948,154
Domestic	-	-	-	2,335,421	2,335,421
Foreign	-	-	-	4,426,017	4,426,017
Private	-	-	-	4,020,787	4,020,787
Real estate*	49,308	-	2,385,683	729,463	3,164,454
Real assets**	-	-	184	687,581	687,765
Split-interest agreements	-	-	156,494	-	156,494
Other	-	200	4,216	-	4,416
Derivatives	(193)	(2,946)	-	-	(3,139)
Investments, at fair value	**$ 2,808,291**	**$ 956,521**	**$ 2,854,313**	**$ 14,147,423**	**$ 20,766,548**

** Includes direct investments and investments held through commingled vehicles.*

*** Include commingled vehicles that invest in these types of investments.*

B. Investments (continued)

Table 7 below is a rollforward of the investments classified by MIT within Level 3 of the fair value hierarchy defined earlier in this note as of June 30, 2019 and 2018.

Table 7. Rollforward of Level 3 Investments

(in thousands of dollars)	Fair Value Beginning	Realized Gains (Losses)	Unrealized Gains (Losses)	Purchases	Sales	Other Changes and Transfers	Fair Value Ending
Fiscal Year 2019							
Domestic bonds	$ 104,896	$ -	$ -	$ 12,929	$ (9,090)	$ -	$ 108,735
Common equity:							
Domestic	202,840	2,366	3,273	27,131	(2,371)	1,277	234,516
Real estate	2,385,683	697,689	(23,269)	759,841	(1,442,262)	(481)	2,377,201
Real assets	184	-	-	200	-	-	384
Split-interest agreements	156,494	(160)	2,407	11	(107)	453	159,098
Other	4,216	(71)	72	-	(1)	(1,293)	2,923
Investments, at fair value	**$ 2,854,313**	**$ 699,824**	**$ (17,517)**	**$ 800,112**	**$ (1,453,831)**	**$ (44)**	**$ 2,882,857**
Fiscal Year 2018							
Domestic bonds	$ 97,554	$ -	$ -	$ 15,123	$ (7,781)	$ -	$ 104,896
Common equity:							
Domestic	199,643	7,525	3,008	6,127	(13,463)	-	202,840
Real estate	2,094,523	179,169	122,784	182,674	(193,467)	-	2,385,683
Real assets	205	-	(21)	-	-	-	184
Split-interest agreements	142,499	169	14,391	163	(728)	-	156,494
Other	3,881	-	(76)	772	(361)	-	4,216
Investments, at fair value	**$ 2,538,305**	**$ 186,863**	**$ 140,086**	**$ 204,859**	**$ (215,800)**	**$ -**	**$ 2,854,313**

Table 8 below sets forth a summary of valuation techniques and quantitative information utilized in determining the fair value of MIT's Level 3 investments as of June 30, 2019 and 2018.

Table 8. Level 3 Valuation Techniques

(in thousands of dollars)	Fair Value as of June 30, 2019	Fair Value as of June 30, 2018	Valuation Technique	Unobservable Input	2019 Rates	2019 Weighted Average	2018 Rates
Real estate	$ 2,377,201	$ 2,385,683	Discounted cash flow	Discount rate	4.75-8.5%	6.75%	5.0-8.0%
			Capitalization rate	Capitalization rate	4.25-7.0%	5.31%	4.5-7.3%
Equity securities	191,766	183,169	Discounted cash flow	Discount rate	12.5%	12.5%	12.5%
Split-interest agreements	159,098	119,260	Net present value	Discount rate	3.1%	3.1%	3.7%
Real assets	384	184	Discounted cash flow	Discount rate	25.0%	25.0%	25.0%
Other illiquid assets	2,923	650	Varies	Varies	Varies	Varies	Varies
Total assets	**$ 2,731,372**	**$ 2,688,946**					

Certain Level 3 assets totaling $151,485 and $165,367 as of June 30, 2019 and June 30, 2018, respectively, have been valued using unadjusted third party quotations or recent transactions and thus have been excluded from this table.

B. Investments (continued)

Details on the restrictions by asset class and by type of investments, unfunded commitments, and current redemption terms are provided in Table 9 below.

Table 9. Unfunded Commitments

	2019		2018			
(in thousands of dollars)	Unfunded Commitments	Fair Value	Unfunded Commitments	Fair Value	Redemption Terms	Redemption Restrictions
Equity:						
Absolute return[1]	$ 100,834	$ 2,777,992	$ 209,572	$ 1,948,154	Ranges from 45 days to 27 months[4]	30 to 365 days
Domestic[2]	23,152	2,184,287	6,173	2,335,421	Ranges from 1 month to 25 months[4]	15 to 120 days
Foreign[3]	51,675	4,423,446	20,000	4,426,017	Ranges from daily to 38 months[4]	10 to 180 days
Private	2,060,191	4,973,152	1,658,030	4,020,787	Closed-end funds not available for redemption	Not Applicable
Real estate	570,559	850,402	605,483	729,463	Closed-end funds not available for redemption	Not Applicable
Real assets	94,787	315,515	133,174	687,581	Ranges from 1 month to 8 months[4]	7 to 45 days
Total	**$ 2,901,198**	**$ 15,524,794**	**$ 2,632,432**	**$ 14,147,423**		

[1]Absolute return funds include funds that have lock-up provisions up to 24 months and ones that are not available for redemption.
[2]Domestic funds include funds that have lock-up provisions up to 5 years and two funds that are not available for redemption.
[3]Foreign funds include funds that have lock-up provisions up to 5 years.
[4]Includes funds that are not available for redemption.

C. Derivative Financial Instruments and Collateral

For its investment management, MIT uses a variety of financial instruments with off-balance sheet risk involving contractual or optional commitments for future settlement. MIT uses these instruments primarily to manage its exposure to extreme market events and fluctuations in asset classes or currencies. Instruments utilized include futures, total return and credit default swaps, and interest rate cap and swaption agreements. The futures are exchange-traded, and the swap, swaptions, and cap agreements are executed over the counter.

Total return swaps involve commitments to pay interest in exchange for a market-linked return based on notional amounts. To the extent the total return of the security or index underlying the transaction exceeds or falls short of the offsetting interest rate obligation, MIT will respectively receive a payment from or make a payment to the counterparty.

MIT's portfolio of interest rate caps and swaptions is designed for protection from significant increases in interest rates. An interest rate swaption is an option to enter into an interest rate swap agreement on pre-set terms at a future date. The purchaser and seller of the swaption agree on the expiration date, option type, exercise style, the terms of the underlying swap, and the type of settlement. As the expiration date approaches, the swaption holder can either notify the seller of its intention to exercise or let the option expire. An interest rate cap places a ceiling on a floating rate of interest on a specified notional principal amount for a specific term. The buyer of the cap uses the cap contract to limit its maximum interest rate exposure. If the buyer's floating rate rises above the cap strike, the cap contract provides for payments from the seller to the buyer of the cap for the difference between the floating rate and the cap strike. If the floating rate remains below the cap strike, no payments are required. The cap buyer is required to pay an upfront fee or premium for the cap. The cap premium charged by the seller depends upon the market's assessment of the probability that rates will move through the cap strike over the time horizon of the deal. The payoff is expected to occur in extreme market conditions that would negatively impact MIT's other assets.

Derivatives held by limited partnerships and commingled investment vehicles pose no off-balance sheet risk to MIT due to the limited liability structure of these investments. To manage the counterparty credit exposure of MIT's direct off-balance sheet financial instruments, MIT requires collateral to the maximum extent possible under normal trading practices. Collateral is moved on a daily basis as required by fluctuations in the market. The collateral is generally in the form of debt obligations issued by the US Treasury or cash. In the event of counterparty default, MIT has the right to use the collateral to offset the loss associated with the replacement of the agreements. MIT enters into arrangements only with counterparties believed to be creditworthy. On June 30, 2019, cash collateral and certain securities owned by MIT were held at counterparty brokers to collateralize these positions and are included in investments in the Consolidated Statements of Financial Position.

C. Derivative Financial Instruments and Collateral (continued)

Table 10 summarizes the notional exposure and net ending fair value relative to the financial instruments with off-balance sheet risk as of June 30, 2019 and 2018 related to MIT's investment management.

Table 10. Derivative Financial Instruments

(in thousands of dollars)	Notional Exposure Long	Notional Exposure Short	Net Ending Fair Value *	Net Gain (Loss)**
Fiscal Year 2019				
Fixed income instruments:				
Fixed income futures	$ 19,400	$ (10,400)	$ (274)	$ (1,021)
Options on interest rate exchange agreements	839,000	-	26	(1,061)
Equity options	-	-	-	-
Total fixed income instruments	858,400	(10,400)	(248)	(2,082)
Currency and index instruments:				
Equity index swaps	-	-	-	10,366
Index options	299	-	3,010	(343)
Total currency and index instruments	299	-	3,010	10,023
Credit instruments	-	(31,130)	(629)	(276)
2019 Total	**$ 858,699**	**$ (41,530)**	**$ 2,133**	**$ 7,665**
Fiscal Year 2018				
Fixed income instruments:				
Fixed income futures	$ 4,000	$ (29,200)	$ (193)	$ -
Options on interest rate exchange agreements	949,000	-	1,086	(730)
Equity options	134	-	-	(11)
Total fixed income instruments	953,134	(29,200)	893	(741)
Currency and index instruments:				
Equity index swaps	-	(194,583)	(7,293)	14,642
Index options	95,000	-	3,353	(210)
Total currency and index instruments	95,000	(194,583)	(3,940)	14,432
Credit instruments	-	(12,750)	(92)	(332)
2018 Total	**$ 1,048,134**	**$ (236,533)**	**$ (3,139)**	**$ 13,359**

** The fair value of all derivative financial instruments is reflected in investments at fair value in the Consolidated Statements of Financial Position.*

*** Net gain (loss) from the derivative financial instruments is located in the other revenue, gain and losses section as net return on investments in the Consolidated Statement of Activities.*

C. Derivative Financial Instruments and Collateral (continued)

Table 11 below provides further details related to MIT's credit instruments and summarizes the notional amounts and fair value of the purchased credit derivatives, classified by the expiration terms and the external credit ratings of the reference obligations as of June 30, 2019 and 2018.

The act of entering into a credit default swap contract is often referred to as "buying protection" or "selling protection" on an underlying reference obligation. The buyer is obligated to make premium payments to the seller over the term of the contract in return for a contingent payment upon the occurrence of a credit event with respect to the underlying obligation. The seller bears the obligation to "protect" the buyer in the event of default of the underlying issuer. Upon this event, the cash payment that the buyer receives is equal to the clearing price established by an auction of credit default swap claims, which is designed to approximate the recovery value of an unsecured claim on the issuer in default. The swap will last for a predetermined amount of time, typically five years. Upon termination of the swap, the buyer is no longer obligated to make any premium payments, and there is no other exchange of capital.

Table 11. Credit Derivative Instruments

	Purchased Protection		
(in thousands of dollars)	Purchased Notional Amounts	Purchased Fair Value*	< 5 Years to Maturity
Fiscal Year 2019			
Credit rating on underlying or index:			
A- to AAA	$ 8,018	$ (226)	$ 8,018
BBB- to BBB+	23,112	(403)	23,112
Non-rated	-	-	-
2019 Total	**$ 31,130**	**$ (629)**	**$ 31,130**
Fiscal Year 2018			
Credit rating on underlying or index:			
A- to AAA	$ 2,250	$ (49)	$ 2,250
BBB- to BBB+	5,500	(2)	5,500
Non-rated	5,000	(41)	5,000
2018 Total	**$ 12,750**	**$ (92)**	**$ 12,750**

** The fair value of all credit derivative instruments is reflected in investments, at fair value, in the Consolidated Statements of Financial Position.*

C. Derivative Financial Instruments and Collateral (continued)

Counterparty risk may be partially or completely mitigated through master netting agreements included within an International Swaps and Derivatives Association, Inc. ("ISDA") Master Agreement between MIT and each of its counterparties. The ISDA Master Agreement allows MIT to offset with the counterparty certain derivative instruments' payables and/or receivables with collateral held with/from each counterparty. To the extent amounts due from the counterparties are not fully collateralized, contractually or otherwise, there is the risk of loss from counterparty non-performance.

Maximum risk of loss from counterparty credit risk on over-the-counter derivatives is generally the aggregate unrealized appreciation in excess of any collateral pledged by the counterparty. ISDA Master Agreements allow MIT or the counterparties to an over-the-counter derivative to terminate the contract prior to maturity in the event either party fails to meet the terms in the ISDA Master Agreements. This would cause an accelerated payment of net liability, if owed to the counterparty.

Tables 12 and 13 below summarize the effect that the offsetting of recognized assets and liabilities could have in the Consolidated Statements of Financial Position.

Table 12. Offsetting of Financial and Derivative Assets and Liabilities

	2019			2018		
(in thousands of dollars)	Gross Amount	Cash/Treasury Collateral Posted/ (Received)	Net Amount	Gross Amount	Cash/Treasury Collateral Posted/ (Received)	Net Amount
Assets						
Derivatives	$ 3,089	$ (3,344)	$ (255)	$ 3,744	$ (2,716)	$ 1,028
Repurchase Agreements	201,176	(206,468)	(5,292)	135,369	(139,165)	(3,796)
Total assets	204,265	(209,812)	(5,547)	139,113	(141,881)	(2,768)
Liabilities						
Derivatives	(682)	420	(262)	(6,690)	956	(5,734)
Total liabilities	(682)	420	(262)	(6,690)	956	(5,734)
Total assets and liabilities, net	**$ 203,583**	**$ (209,392)**	**$ (5,809)**	**$ 132,423**	**$ (140,925)**	**$ (8,502)**

Table 13 below reconciles the net recognized assets and liabilities, as shown in Table 12, to derivative financial instruments as shown in Table 6.

Table 13. Reconciliation of Financial and Derivative Assets and Liabilities

(in thousands of dollars)	2019	2018
Derivatives from Table 6	$ 2,133	$ (3,139)
Repurchase agreements	201,176	135,369
Fixed income futures	274	193
Total	**$ 203,583**	**$ 132,423**

D. Pledges Receivable

Table 14 below shows the time periods in which pledges receivable as of June 30, 2019 and 2018 are expected to be realized.

Table 14. Pledges Receivable

(in thousands of dollars)	2019	2018
In one year or less	$ 304,760	$ 276,883
Between one year and five years	259,400	264,333
More than five years	83,790	80,931
Less: allowance for unfulfilled pledges	(64,567)	(62,005)
Pledges receivable, net	**$ 583,383**	**$ 560,142**

A review of pledges is periodically made with regard to collectability. As a result, the allowance for unfulfilled pledges is adjusted, and some pledges have been cancelled and are no longer recorded in the financial statements.

Pledges are discounted in the amount of $60.3 million and $80.7 million in 2019 and 2018, respectively. The pledge discount rate ranges from fiscal year 2020 at 2.1 percent to fiscal year 2045 at 3.2 percent. MIT has gross conditional pledges, not recorded, for the promotion of education and research of $390.8 million and $86.2 million in 2019 and 2018, respectively. Conditional pledges are categorized as follows: fundraising challenge, building construction progress, foundation grants, and other. As of June 30, 2019, conditional pledge amounts are broken out as follows: fundraising challenge of $207.0 million, building construction progress of $141.1 million, foundation grants of $32.5 million, and other of $10.2 million. As of June 30, 2018, conditional pledge amounts are broken out as follows: fundraising challenge of $7.3 million, building construction progress of $41.5 million, foundation grants of $37.2 million, and other of $0.2 million.

Table 15 below is a rollforward of the pledges receivable as of June 30, 2019 and 2018.

Table 15. Rollforward of Pledges Receivable

(in thousands of dollars)	2019	2018
Balance at beginning of the year	$ 560,142	$ 533,227
New pledges	192,342	206,146
Pledge payments received	(186,960)	(160,213)
Change in pledge discount	20,420	(16,023)
Change in reserve for unfulfilled pledges	(2,561)	(2,995)
Balance at the end of the year	**$ 583,383**	**$ 560,142**

E. Liquidity

Table 16 below details the Institute's financial assets and resources available to meet cash needs for general expenditures within one year of the date of the Consolidated Statements of Financial Position.

Table 16. Liquidity and Availability of Resources

(in thousands of dollars)		2019
Financial assets:		
Cash and liquid operating investments	$	1,369,292
Accounts and notes receivable		256,773
Contributions receivable		196,310
Investments appropriated for spending in following year		804,041
Total liquidity resources available within one year	**$**	**2,626,416**

As part of MIT's liquidity management strategy, financial assets are structured to be available as its general expenditures, liabilities, and other obligations come due. MIT invests its operating liquidity, which is comprised of cash and capital project funds in excess of daily requirements, in various investment vehicles. To help manage unanticipated liquidity needs, MIT also maintains a bank line of credit for $500.0 million, of which $387.0 million was undrawn as of June 30, 2019.

F. Net Borrowings

MIT's outstanding borrowings as of June 30, 2019 and 2018, are shown in Table 17 below.

Table 17. Net Borrowings

(in thousands of dollars / due dates are calendar based / par values as of 2019)	2019	2018
Educational plant		
Massachusetts Development Finance Agency (MassDevelopment)		
Series I, 5.20%, due 2028, par value $30,000	$ 30,490	$ 30,548
Series J-1, variable rate, due 2031, par value $125,000	125,000	125,000
Series J-2 variable rate, due 2031, par value $125,000	125,000	125,000
Series K, 5.5%, due 2022-2032, par value $177,000	183,905	184,512
Series L, 5.0%-5.25%, due 2023-2033, par value $115,670	121,686	148,200
Series M, 5.25%, due 2019-2030, par value $102,325	107,181	108,041
Total MassDevelopment	693,262	721,301
Medium Term Notes Series A, 7.125% due 2026, par value $17,415	17,386	17,382
Medium Term Notes Series A, 7.25%, due 2096, par value $45,604	45,468	45,463
Taxable Bonds, Series B, 5.60%, due 2111, par value $750,000*	747,145	747,113
Taxable Bonds, Series C, 4.678%, due 2114, par value $550,000*	550,000	550,000
Taxable Bonds, Series D, 2.051-3.959%, due 2019-2038, par value $522,410	522,410	522,410
Taxable Bonds, Series E, 3.885%, due 2116, par value $500,000*	500,000	500,000
Notes payable to bank, variable rate, due 2020	113,034	113,034
Total Taxable	2,495,443	2,495,402
Total educational plant	3,188,705	3,216,703
Other		
Notes payable to bank, variable rate, due 2020	-	63,476
Total borrowings	3,188,705	3,280,179
Unamortized bond issuance costs	(20,283)	(20,790)
Total borrowings net of unamortized debt issuance cost	**$ 3,168,422**	**$ 3,259,389**

** The proceeds of Taxable Bonds, Series B, C, and E were in the process of being invested in physical assets in 2018 and 2019 with unused balances held as investments.*

F. Net Borrowings (continued)

The aggregate amounts of debt payments and sinking fund requirements for each of the next five fiscal years are shown in Table 18 below.

Table 18. Debt Principal Obligations

(in thousands of dollars)

2020	$ 77,030
2021	11,180
2022	11,765
2023	55,500
2024	51,455

MIT maintains a line of credit with a major financial institution for an aggregate commitment of $500.0 million. As of June 30, 2019, $387.0 million was available under this line of credit (see "Notes payable" on Table 17). The line of credit expires on March 31, 2020.

Cash paid for interest on long-term debt in 2019 and 2018 was $147.8 million and $146.8 million, respectively.

Variable interest rates as of June 30, 2019, are shown in Table 19 below.

Table 19. Variable Interest Rates

(in thousands of dollars)	Amount	Rate
MassDevelopment Series J-1	$ 125,000	1.85%
MassDevelopment Series J-2	125,000	1.70%
Notes payable to bank	113,034	2.90%

In the event that MIT receives notice of any optional tender on its Series J-1 and Series J-2 variable-rate bonds, or if these bonds become subject to mandatory tender, the purchase price of the bonds will be paid from the remarketing of such bonds. However, if the remarketing proceeds are insufficient, MIT will be obligated to purchase the bonds tendered at 100.0 percent of par on the tender date.

MIT maintains an interest rate swap agreement to manage the interest cost and risk associated with a portion of the variable rate debt included in Table 19 above. Under the agreement, MIT pays a fixed rate of 4.91 percent and receives a payment indexed to the Securities Industry and Financial Market Association (SIFMA) index on a notional amount of $125.0 million. As of June 30, 2019, the swap agreement had a fair value of ($48.8) million and as of June 30, 2018, had a fair value of ($38.0) million. This swap had a total net loss for 2019 of $10.8 million and a total net gain of $9.1 million for 2018. The notional amount of this derivative is not recorded on MIT's Consolidated Statements of Financial Position.

G. Commitments and Contingencies

Federal Government Funding

MIT receives funding or reimbursement from federal agencies for sponsored research under government grants and contracts. These grants and contracts provide for reimbursement of indirect costs based on rates negotiated with the Office of Naval Research (ONR), MIT's cognizant federal agency. MIT's indirect cost reimbursements are based on fixed rates with carryforward of under- or over-recoveries. As of June 30, 2019 and 2018, MIT recorded a net over-recovery of $41.2 million for both years.

The DCAA is responsible for auditing indirect charges to grants and contracts in support of ONR's negotiating responsibility. The Institute has had its rates audited by DCAA through 2015, but we have not negotiated final rates for any years after 2012. MIT's 2019 research revenues of $1,832.8 million include reimbursement of indirect costs of $232.2 million. In 2018, research revenues were $1,695.6 million, which included reimbursement of indirect costs of $196.1 million. Both years include adjustments for the variance between the indirect cost income determined by the fixed rates and actual costs.

Leases

As of June 30, 2019, there were no capital lease obligations. MIT has commitments under certain operating (rental) leases. Rent expense incurred under operating lease obligations was $43.9 million and $47.5 million in 2019 and 2018, respectively. Future minimum payments under operating leases are shown in Table 20 below.

Table 20. Lease Obligations

(in thousands of dollars)

2020	$ 42,155
2021	42,507
2022	39,414
2023	40,090
2024	37,251

Investments

As of June 30, 2019, $12.0 million of investments were pledged as collateral to various suppliers and government agencies.

Future Construction

As of June 30, 2019, MIT had contractual obligations of approximately $368.5 million in connection with educational plant construction projects. It is expected that the resources to satisfy these commitments will be provided from unexpended plant funds, anticipated gifts, bond proceeds, and funds without donor restrictions.

MIT has also made commitments related to the development of its commercial real estate holdings in Kendall Square and to the enhancement of its east campus gateway. As of June 30, 2019, these commitments included approximately $301.6 million of contractual obligations related to the Kendall Square Initiative. In addition, MIT and the federal government have entered into an agreement whereby MIT will construct a new transportation center on four of the 14 acres of federally owned land located at the John Volpe National Transportation Systems Center site in Kendall Square in exchange for the fee interest to and the right to redevelop the adjacent ten acres of land. The exchange will be executed upon completion of the construction of the new facility. MIT is committed to investing $750.0 million in the exchange phase of the project.

Related Entities

MIT has entered into agreements, including collaborations with third-party not-for-profit and for-profit entities, for education, research, and technology transfers. Some of these agreements involve funding from foreign governments. These agreements subject MIT to greater financial risk than do its normal operations. In the opinion of management, the likelihood of realization of increased financial risks by MIT under these agreements is remote.

General

MIT is subject to certain other legal proceedings and claims that arise in the normal course of operations. In the opinion of management, the ultimate outcome of these actions will not have a material effect on MIT's financial position.

H. Functional Expense Classification

MIT's expenditures on a functional basis are shown in Table 21 below.

Table 21. Expenditures by Functional Classification

(in thousands of dollars)	General and administrative	Instruction and unsponsored research	Sponsored research	Total
Fiscal Year 2019				
Compensation	$ 472,471	$ 569,190	$ 869,296	$ 1,910,957
Other operating	137,741	447,433	661,177	1,246,351
Space related	158,830	191,753	202,906	553,489
Total expenses	**$ 769,042**	**$ 1,208,376**	**$ 1,733,379**	**$ 3,710,797**
Fiscal Year 2018				
Total expenses	**$ 983,807**	**$ 1,029,050**	**$ 1,523,543**	**$ 3,536,400**

Expenses are presented by functional classification in alignment with the overall mission of the Institute. Each functional classification displays all expenses related to the underlying operation by natural classification. Natural expenses attributable to more than one functional expense category are allocated using reasonable cost allocation techniques. Depreciation and utilities, rent, and repair expenses are allocated directly and/or based on square footage. Interest expense on indebtedness is allocated to the functional categories that have benefited from the proceeds of the associated debt.

I. Retirement Benefits

MIT offers a defined benefit pension plan and a defined contribution plan to its employees. The plans cover substantially all MIT employees.

MIT also offers a retiree welfare benefit plan (certain healthcare and life insurance benefits) for retired employees. Substantially all MIT employees may become eligible for those benefits if they reach a qualifying retirement age while working for MIT. The healthcare component of the welfare plan is paid for in part by retirees, their covered dependents, and beneficiaries. Benefits are provided through various insurance companies whose charges are based either on the claims and administrative expenses paid during the year or annual insured premiums. The life insurance component of the welfare plan includes basic life insurance and supplemental life insurance. The basic life insurance plan is non-contributory and covers the retiree only. The supplemental life insurance plan is paid for by the retiree. MIT maintains a trust to pay for the retiree welfare benefit plan.

MIT contributes to the defined benefit pension plan amounts that are actuarially determined to provide the retirement plan with sufficient assets to meet future benefit requirements. There were no designated contributions to the defined benefit pension plan for 2019 and 2018. MIT designated contributions of $0.7 million and $6.5 million to the retiree welfare benefit plan in 2019 and 2018, respectively.

For the defined contribution plan, the amount contributed and expenses recognized during 2019 and 2018 were $64.0 million and $60.7 million, respectively.

For purposes of calculating net periodic benefit cost, plan amendments for the defined benefit pension plan are amortized on a straight-line basis over the average future service of active participants at the date of the amendment. Plan amendments to the retiree welfare benefit plan are amortized on a straight-line basis over the average future service to full eligibility of active participants at the date of amendment.

Cumulative gains and losses (including changes in assumptions) in excess of 10 percent of the greater of the projected benefit obligation or the market-related value of assets for both the defined benefit pension plan and the retiree welfare benefit plan are amortized over the average future service of active participants. The annual amortization shall not be less than the total amount of unrecognized gains and losses up to $1.0 million.

Components of Net Periodic Benefit Cost

Table 22 below summarizes the components of net periodic benefit cost recognized in net results and other amounts recognized in other revenues, gains and losses in net assets without donor restrictions for the years ended June 30, 2019 and 2018.

Table 22. Components of Net Periodic Benefit Cost

	Defined Benefit Pension Plan		Retiree Welfare Benefit Plan	
(in thousands of dollars)	2019	2018	2019	2018
Components of net periodic benefit cost recognized in net results:				
Service cost	$ 106,779	$ 109,366	$ 26,491	$ 27,153
Interest cost	173,331	162,917	25,761	24,205
Expected return on plan assets	(285,552)	(277,597)	(47,783)	(41,010)
Amortization of net actuarial loss (gain)	4,237	23,610	(1,000)	(1,000)
Amortization of prior service cost (credit)	265	285	(2,801)	(2,801)
Net periodic benefit cost recognized in net results	(940)	18,581	668	6,547
Other amounts recognized in other revenues, gains and losses:				
Current year actuarial loss (gain)	387,429	(288,146)	23,168	(75,505)
Amortization of actuarial (loss) gain	(4,237)	(23,610)	1,000	1,000
Amortization of prior service (cost) credit	(265)	(285)	2,801	2,801
Total other amounts recognized in other revenues, gains and losses	382,927	(312,041)	26,969	(71,704)
Total recognized	**$ 381,987**	**$ (293,460)**	**$ 27,637**	**$ (65,157)**

I. Retirement Benefits (continued)

The estimated net actuarial loss and prior service cost for the defined benefit pension plan that will be amortized from net assets without donor restrictions into net periodic benefit cost during the next fiscal year are $30.3 million and $0.3 million, respectively. The estimated net actuarial gain and prior service credit for the retiree welfare benefit plan that will be amortized from net assets without donor restrictions into net periodic benefit cost during the next fiscal year are $1.0 million and $2.2 million, respectively.

Cumulative amounts recognized in net assets without donor restrictions are summarized in Table 23 below for the years ended June 30, 2019 and 2018.

Table 23. Cumulative Amounts Recognized in Net Assets Without Donor Restriction

	Defined Benefit Pension Plan		Retiree Welfare Benefit Plan	
(in thousands of dollars)	2019	2018	2019	2018
Amounts recognized in net assets without donor restrictions consist of:				
Net actuarial loss (gain)	$ 682,445	$ 299,253	$ (95,102)	$ (119,271)
Prior service cost (credit)	2,583	2,848	(2,212)	(5,012)
Total cumulative amounts recognized in net assets without donor restrictions	**$ 685,028**	**$ 302,101**	**$ (97,314)**	**$ (124,283)**

I. Retirement Benefits (continued)

Benefit Obligations and Fair Value of Assets

Table 24 below summarizes the benefit obligations, plan assets, and amounts recognized in the Consolidated Statements of Financial Position for MIT's retirement benefit plans. MIT uses a June 30 measurement date for its defined benefit pension plan and retiree welfare benefit plan.

The projected benefit obligation for the defined benefit pension plan, as shown in Table 24, was $4,468.3 million as of 2019, up $537.1 million from a year earlier. Another measure of the plan's liabilities is the accumulated benefit obligation. While the projected benefit obligation factors in future salary increases, the accumulated benefit obligation does not. The accumulated benefit obligation of MIT's defined benefit pension plan was $4,268.3 million and $3,766.6 million as of June 30, 2019 and 2018, respectively.

MIT provides retiree drug coverage through an Employer Group Waiver Plan (EGWP). Under EGWP, the cost of drug coverage is offset through direct federal subsidies, brand-name drug discounts, and reinsurance reimbursements.

Table 24. Projected Benefit Obligations and Fair Value of Assets

	Defined Benefit Pension Plan		Retiree Welfare Benefit Plan	
(in thousands of dollars)	2019	2018	2019	2018
Change in projected benefit obligations:				
Projected benefit obligations at beginning of year	$ 3,931,212	$ 3,921,738	$ 566,642	$ 570,512
Service cost	106,779	109,366	26,491	27,153
Interest cost	173,332	162,917	25,762	24,205
Retiree contributions	-	-	7,443	6,858
Net benefit payments, transfers, and other expenses	(153,584)	(150,456)	(36,127)	(31,223)
Employer Group Waiver Plan (EGWP) reimbursement	-	-	5,057	6,094
Assumption changes and actuarial net loss (gain)	410,524	(112,353)	18,173	(36,957)
Projected benefit obligations at end of the year	4,468,263	3,931,212	613,441	566,642
Change in plan assets:				
Fair value of plan assets at beginning of the year	3,903,154	3,600,221	691,328	623,498
Actual return on plan assets	308,648	453,389	42,788	79,558
Employer contributions	-	-	668	6,543
Employer Group Waiver Plan (EGWP) reimbursement	-	-	5,057	6,094
Retiree contributions	-	-	7,443	6,858
Net benefit payments, transfers, and other expenses	(153,584)	(150,456)	(36,127)	(31,223)
Fair value of plan assets at end of the year	4,058,218	3,903,154	711,157	691,328
(Unfunded) funded status at end of the year	**(410,045)**	**(28,058)**	**97,716**	**124,686**
Amounts recognized in the Consolidated Statements of Financial Position consist of:				
Net (liabilities) assets	**$ (410,045)**	**$ (28,058)**	**$ 97,716**	**$ 124,686**

I. Retirement Benefits (continued)

Assumptions for Financial Parameters and Healthcare Trend Rates

Table 25 below summarizes assumptions and healthcare trend rates. The expected long-term rate of return assumption represents the expected average rate of earnings on the funds invested or to be invested to provide for the benefits included in the benefit obligation. The long-term rate of return assumption is determined based on a number of factors, including historical market index returns, the anticipated long-term asset allocation of the plans, historical plan return data, plan expenses, and the potential to outperform market index returns.

Table 25. Assumptions

	Defined Benefit Pension Plan		Retiree Welfare Benefit Plan	
(in thousands of dollars)	2019	2018	2019	2018
Assumptions used to determine benefit obligation as of June 30:				
Discount rate	3.77%	4.38%	3.85%	4.44%
Rate of compensation increase*	4.00%	4.00%		
Assumptions used to determine net periodic benefit cost for the year ended June 30:				
Discount rate	4.38%	4.12%	4.44%	4.14%
Expected long-term return on plan assets	7.75%	8.00%	7.50%	7.00%
Rate of compensation increase*	4.00%	4.00%		
Assumed health care cost trend rates:				
Healthcare cost trend rate assumed for next year			5.00%	5.00%
Rate to which the cost trend rate is assumed to decline (the ultimate trend rate)			4.75%	4.75%
Year the rate reaches the ultimate trend rate			2021	2021

** The average rate of salary increase is assumed to be 4.00% for 2020, and thereafter.*

As an indicator of sensitivity, a one percentage point change in the assumed healthcare cost trend rate would affect 2019's retiree welfare plan as shown in Table 26 below.

Table 26. Healthcare Cost Trend Rate Sensitivity

(in thousands of dollars)	1% Point Increase	1% Point Decrease
Effect on 2019 postretirement service and interest cost	$ 9,547	$ (7,563)
Effect on postretirement benefit obligation as of June 30, 2019	92,561	(75,682)

Plan Investments

The investment objectives for the assets of the plans are to minimize expected funding contributions and to meet or exceed the rate of return assumed for plan funding purposes over the long term. The nature and duration of benefit obligations, along with assumptions concerning asset class returns and return correlations, are considered when determining an appropriate asset allocation to achieve the investment objectives.

Investment policies and strategies governing the assets of the plans are designed to achieve investment objectives within prudent risk parameters. Risk management practices include the use of external investment managers, the maintenance of a portfolio diversified by asset class, investment approach, security holdings, and the maintenance of sufficient liquidity to meet benefit obligations as they come due.

I. Retirement Benefits (continued)

Tables 27A and 27B present investments at fair value of MIT's defined benefit pension plan and retiree welfare benefit plan, which are included in plan net assets/(liabilities) as of June 30, 2019 and 2018, grouped by the valuation hierarchy detailed in Note B. The investment values in these tables exclude certain items included in the assets and liabilities shown in Table 24.

Table 27A. Defined Benefit Pension Plan Investments

(in thousands of dollars)	Level 1	Level 2	Level 3	NAV	Total Fair Value
Fiscal Year 2019					
Cash and cash equivalents	$ 93,000	$ -	$ -	$ -	$ 93,000
US Treasury	329,996	-	-	-	329,996
US government agency	-	40,136	-	-	40,136
Domestic bonds	-	-	-	-	-
Common equity:					
Domestic	11,188	-	74	-	11,262
Foreign	62,546	-	-	-	62,546
Equity:*					
Absolute return	-	-	-	582,438	582,438
Domestic	-	-	-	447,243	447,243
Foreign	-	-	-	1,087,958	1,087,958
Private	-	-	-	1,093,149	1,093,149
Real estate*	12,957	-	-	220,185	233,142
Real assets*	-	-	-	70,126	70,126
Other	-	-	419	-	419
Derivatives	(101)	955	-	-	854
Total plan investments	**$ 509,586**	**$ 41,091**	**$ 493**	**$ 3,501,099**	**$ 4,052,269**
Fiscal Year 2018					
Cash and cash equivalents	$ 164,469	$ -	$ -	$ -	$ 164,469
US Treasury	356,637	-	-	-	356,637
US government agency	-	4,777	-	-	4,777
Domestic bonds	-	45,059	-	-	45,059
Common equity:					
Domestic	842	-	74	-	916
Foreign	18,374	-	-	-	18,374
Equity:*					
Absolute return	-	-	-	417,100	417,100
Domestic	-	-	-	562,843	562,843
Foreign	-	-	-	1,113,636	1,113,636
Private	-	-	-	885,679	885,679
Real estate*	16,016	-	-	213,012	229,028
Real assets*	-	-	-	95,182	95,182
Other	-	-	433	-	433
Derivatives	(90)	817	-	-	727
Total plan investments	**$ 556,248**	**$ 50,653**	**$ 507**	**$ 3,287,452**	**$ 3,894,860**

** Equity, real estate, and real assets categories include commingled vehicles that invest in these types of investments.*

I. Retirement Benefits (continued)

Table 27B. Retiree Welfare Benefit Plan Investments

(in thousands of dollars)	Level 1	Level 2	Level 3	NAV	Total Fair Value
Fiscal Year 2019					
Cash and cash equivalents	$ 22,770	$ -	$ -	$ -	$ 22,770
US Treasury	75,768	-	-	-	75,768
US government agency	-	9,753	-	-	9,753
Domestic bonds	-	-	-	-	-
Common equity:					
Domestic	1,882	-	-	-	1,882
Foreign	10,507	-	-	-	10,507
Equity:*					
Absolute return	-	-	-	98,857	98,857
Domestic	-	-	-	89,602	89,602
Foreign	-	-	-	225,405	225,405
Private	-	-	-	139,971	139,971
Real estate*	1,306	-	-	26,881	28,187
Real assets*	-	-	-	7,778	7,778
Derivatives	(25)	161	-	-	136
Total plan investments	**$ 112,208**	**$ 9,914**	**$ -**	**$ 588,494**	**$ 710,616**
Fiscal Year 2018					
Cash and cash equivalents	$ 47,225	$ -	$ -	$ -	$ 47,225
Domestic bonds	-	76,615	-	-	76,615
Common equity:					
Domestic	142	-	-	-	142
Foreign	3,017	-	-	-	3,017
Equity:*					
Absolute return	-	-	-	61,430	61,430
Domestic	-	-	-	103,724	103,724
Foreign	-	-	-	255,605	255,605
Private	-	-	-	104,799	104,799
Real estate*	1,615	-	-	23,377	24,992
Real assets*	-	-	-	9,635	9,635
Derivatives	-	206	-	-	206
Total plan investments	**$ 51,999**	**$ 76,821**	**$ -**	**$ 558,570**	**$ 687,390**

** Equity, real estate, and real assets categories include commingled vehicles that invest in these types of investments.*

I. Retirement Benefits (continued)

The plans have made investments in various long-lived partnerships, and in other cases have entered into contractual arrangements that may limit their ability to initiate redemptions due to notice periods, lock-ups, and gates. Details on estimated remaining term and current redemption terms and restrictions by asset class and type of investment for both the defined benefit pension plan and retiree welfare benefit plan are provided in Table 28 below as of June 30, 2019 and 2018.

Table 28. Unfunded Commitments

	2019		2018			
(in thousands of dollars)	Unfunded Commitments	Fair Value	Unfunded Commitments	Fair Value	Redemption Terms	Redemption Restrictions
Defined Benefit Pension Plan						
Equity:						
Absolute return[1]	$ 29,770	$ 582,438	$ 47,844	$ 417,100	Ranges from 4 months to 27 months[4]	45 to 365 days
Domestic[2]	398	447,243	403	562,843	Ranges from 4 months to 26 months[4]	30 to 90 days
Foreign[3]	37,612	1,087,958	41,705	1,113,636	Ranges from 2 months to 5 years	10 to 91 days
Private	382,755	1,093,149	323,032	885,679	Closed-end funds not available for redemption	Not Applicable
Real estate	142,042	220,185	158,085	213,012	Closed-end funds not available for redemption	Not Applicable
Real assets	22,196	70,126	31,118	95,182	8 months[4]	45 days
Total	**$ 614,773**	**$ 3,501,099**	**$ 602,187**	**$ 3,287,452**		
Retiree Welfare Benefit Plan						
Equity:						
Absolute return[1]	$ 3,962	$ 98,857	$ 6,052	$ 61,430	Ranges from 4 months to 27 months[4]	45 to 365 days
Domestic[2]	44	89,602	45	103,724	Ranges from 4 months to 26 months[4]	30 to 90 days
Foreign[3]	5,688	225,405	6,295	255,605	Ranges from 2 months to 5 years	10 to 91 days
Private	63,518	139,971	50,681	104,799	Closed-end funds not available for redemption	Not Applicable
Real estate	20,345	26,881	22,747	23,377	Closed-end funds not available for redemption	Not Applicable
Real assets	3,667	7,778	5,131	9,635	Closed-end funds not available for redemption	Not Applicable
Total	**$ 97,224**	**$ 588,494**	**$ 90,951**	**$ 558,570**		

[1]Absolute return funds include funds that have lock-up provisions up to 24 months and ones that are not available for redemption.
[2]Domestic funds include funds that have lock-up provisions up to five years and two funds that are not available for redemption.
[3]Foreign funds include funds that have lock-up provisions up to 38 months.
[4]Includes funds that are not available for redemption.

I. Retirement Benefits (continued)

Target allocations and weighted-average asset allocations of the investment portfolios for MIT's defined benefit pension plan and retiree welfare benefit plan as of June 30, 2019 and 2018 are shown in Table 29 below.

Table 29. Plan Investment Allocation

	Defined Benefit Pension Plan			Retiree Welfare Benefit Plan		
	2019 Target Allocation	2019	2018	2019 Target Allocation	2019	2018
Cash and cash equivalents	0-15%	2%	4%	0-15%	3%	7%
Fixed income	3-13%	9%	11%	10-20%	12%	11%
Equities	36-86%	67%	66%	37-87%	66%	68%
Marketable alternatives	7.5-17.5%	14%	11%	9.5-19.5%	14%	9%
Real assets	1-11%	2%	2%	0-5.5%	1%	1%
Real estate	2.5-12.5%	6%	6%	0-8%	4%	4%
Total		**100%**	**100%**		**100%**	**100%**

Expected Future Benefit Payments

In fiscal 2020, MIT expects to contribute $24.7 million to its defined benefit pension plan and $1.5 million to the retiree welfare benefit plan. These contributions assume a 7.75 percent and 7.50 percent expected return on assets for the defined benefit pension plan and retiree welfare benefit plan, respectively. MIT has elected to adopt mortality tables recently issued by the Society of Actuaries (SOA). Specifically, MIT has selected the employee and retiree Pri-2012 mortality tables outlined in the SOA's May 2019 Exposure Draft report. Mortality rates are projected generationally from the base year of 2012 using Scale MP-2018.

Table 30 below reflects the total expected benefit payments for the defined benefit pension plan and retiree welfare benefit plan over the next 10 years. These payments have been estimated based on the same assumptions used to measure MIT's benefit obligations as of June 30, 2019.

Table 30. Expected Future Benefit Payments

(in thousands of dollars)	Pension Benefits	Other Benefits*
2020	$ 165,809	$ 25,541
2021	178,334	28,605
2022	184,600	30,361
2023	190,991	31,836
2024	197,827	33,260
2025-2029	1,095,507	188,669

** Other Benefits reflects the total net benefits expected to be paid from the plans (e.g., gross benefit reimbursement offset by retiree contributions).*

J. Components of Net Assets and Endowment

Tables 31A and 31B present the composition of net assets as of June 30, 2019 and June 30, 2018, respectively. The amounts listed in the without donor restriction category under endowment funds are those gifts and other funds received over the years that MIT designated as funds functioning as endowment and invested with the endowment funds. A large component of net assets with donor restriction in other invested funds is pledges, the majority of which will be reclassified to net assets without donor restrictions when cash is received.

Table 31A. 2019 Total Net Asset Composition

(in thousands of dollars)	Without Donor Restriction	With Donor Restriction	Total
Endowment Funds			
General purpose	$ 1,080,333	$ 1,659,769	$ 2,740,102
Departments and research	887,685	2,399,708	3,287,393
Library	14,348	59,746	74,094
Salaries and wages	677,594	4,170,306	4,847,900
Graduate general	106,312	286,439	392,751
Graduate departments	204,562	875,364	1,079,926
Undergraduate	283,109	1,861,021	2,144,130
Prizes	10,388	64,775	75,163
Miscellaneous	1,330,006	1,024,265	2,354,271
Investment income held for distribution	448,020	-	448,020
Endowment funds before pledges	5,042,357	12,401,393	17,443,750
Pledges	-	125,578	125,578
Total endowment funds	5,042,357	12,526,971	17,569,328
Other Invested Funds			
Student loan funds	19,018	18,650	37,668
Building funds	201,860	80,530	282,390
Designated purposes:			
Departments and research	423,830	-	423,830
Other purposes	217,280	18,064	235,344
Life income funds and donor advised funds	22,764	185,135	207,899
Pledges	-	457,805	457,805
Other funds available for current expenses	2,539,706	305,904	2,845,610
Funds expended for educational plant	709,131	-	709,131
Total other invested funds	4,133,589	1,066,088	5,199,677
Total net assets	**$ 9,175,946**	**$ 13,593,059**	**$ 22,769,005**

J. Components of Net Assets and Endowment (continued)

Table 31B. 2018 Total Net Asset Composition

(in thousands of dollars)	Without Donor Restriction	With Donor Restriction	Total
Endowment Funds			
General purpose	$ 1,060,947	$ 1,587,512	$ 2,648,459
Departments and research	733,963	2,245,993	2,979,956
Library	13,767	56,759	70,526
Salaries and wages	638,694	3,968,477	4,607,171
Graduate general	102,010	273,574	375,584
Graduate departments	181,410	808,932	990,342
Undergraduate	262,909	1,766,067	2,028,976
Prizes	9,963	61,043	71,006
Miscellaneous	1,372,794	825,321	2,198,115
Investment income held for distribution	429,892	-	429,892
Endowment funds before pledges	4,806,349	11,593,678	16,400,027
Pledges	-	129,405	129,405
Total endowment funds	4,806,349	11,723,083	16,529,432
Other Invested Funds			
Student loan funds	19,403	18,940	38,343
Building funds	80,564	58,934	139,498
Designated purposes:			
Departments and research	401,794	-	401,794
Other purposes	353,171	13,953	367,124
Life income funds and donor advised funds	9,919	172,893	182,812
Pledges	-	430,737	430,737
Other funds available for current expenses	2,427,578	245,281	2,672,859
Funds expended for educational plant	754,182	-	754,182
Total other invested funds	4,046,611	940,738	4,987,349
Total net assets	**$ 8,852,960**	**$ 12,663,821**	**$ 21,516,781**

MIT's endowment consists of approximately 4,200 individual funds established for a variety of purposes and includes both donor-restricted endowment funds and funds that function as endowments. As required by GAAP, net assets associated with endowment funds, including funds designated to function as endowments, are classified and reported based on the existence or absence of donor-imposed restrictions.

The Executive Committee has interpreted the Massachusetts-enacted version of the Uniform Prudent Management of Institutional Funds Act (UPMIFA) as allowing MIT to appropriate for expenditure or accumulate so much of an endowment fund as MIT determines is prudent for the uses, benefits, purposes, and duration for which the endowment fund is established, subject to the intent of the donor as expressed in the gift instrument. Unless stated otherwise in the gift instrument, the assets in an endowment fund shall be donor-restricted assets until appropriated for expenditure by the Executive Committee. In accordance with UPMIFA, the Executive Committee considers the following factors in making a determination to appropriate or accumulate endowment funds:

i. the duration and preservation of the fund
ii. the purposes of MIT and the endowment fund
iii. general economic conditions
iv. the possible effects of inflation and deflation
v. the expected total return from income and the appreciation of investments
vi. other resources of MIT
vii. the investment policies of MIT

J. Components of Net Assets and Endowment (continued)

Table 32 below reflects changes in net assets without and with donor restrictions as of June 30, 2019 and 2018, respectively.

Table 32. Changes in Endowment Net Assets

(in thousands of dollars)	Without Donor Restriction	With Donor Restriction	Total
Fiscal Year 2019			
Endowment net assets, July 1, 2018	$ 4,806,349	$ 11,723,083	$ 16,529,432
Investment return:			
Investment income	47,543	117,736	165,279
Net appreciation (realized and unrealized)	376,590	876,100	1,252,690
Total investment return	424,133	993,836	1,417,969
Contributions	-	177,015	177,015
Appropriation of endowment assets for expenditure	(208,439)	(490,894)	(699,333)
Other changes:			
Net asset reclassifications and transfers to create board-designated endowment funds	20,314	123,931	144,245
Endowment net assets, June 30, 2019	**$ 5,042,357**	**$ 12,526,971**	**$ 17,569,328**
Fiscal Year 2018			
Endowment net assets, July 1, 2017	$ 4,355,449	$ 10,612,534	$ 14,967,983
Investment return:			
Investment income	18,829	53,815	72,644
Net appreciation (realized and unrealized)	599,861	1,414,589	2,014,450
Total investment return	618,690	1,468,404	2,087,094
Contributions	-	120,410	120,410
Appropriation of endowment assets for expenditure	(196,908)	(466,295)	(663,203)
Other changes:			
Net asset reclassifications and transfers to create board-designated endowment funds	29,118	(11,970)	17,148
Endowment net assets, June 30, 2018	**$ 4,806,349**	**$ 11,723,083**	**$ 16,529,432**

Underwater Endowment Funds

From time to time, the fair value of assets associated with individual donor-restricted endowment funds may fall below the value of the initial and subsequent donor gift amounts (underwater). When underwater endowment funds exist, they are classified as a reduction of net assets with donor restrictions. There were no underwater endowment funds reported in with donor restriction net assets as of June 30, 2019, and June 30, 2018.

J. Components of Net Assets and Endowment (continued)

Endowment Investment and Spending Policies

MIT's investment policy is based on the primary goal of maximizing return relative to appropriate risk such that performance exceeds appropriate benchmark returns at the total pool, asset class, and individual manager levels. To achieve its long-term rate-of-return objectives, MIT relies on a total return strategy in which investment returns are realized through both capital appreciation (realized and unrealized gains) and current yield (interest and dividends). MIT targets a diversified asset allocation that places greater emphasis on equity-based investments to achieve its long-term objectives within prudent risk constraints.

The Institute's primary investment pool, Pool A, is principally for endowment and funds functioning as endowment. The effective spending rate on pooled endowed funds was 4.3 percent, or 4.8 percent on a three-year-average basis, and 4.5 percent, or 4.9 percent on a three-year-average basis, for 2019 and 2018, respectively. Pool A operates as a mutual fund with units purchased and redeemed based on the previous month's unit market value. Certain endowed assets are also maintained in separately invested funds.

MIT has adopted spending policies designed to provide a predictable stream of funding to programs supported by its investments while maintaining the purchasing power of assets. For pooled investments, the Executive Committee of the Corporation votes to distribute funds for operational support from general investments. In accordance with MIT's spending policy, these distributions are funded from both investment income and market appreciation. The distribution rates were $77.90 and $74.88 per Pool A unit as of June 30, 2019 and 2018, respectively. For separately invested endowment funds, only the annual investment income generated is distributed for spending. For any underwater endowment funds, the distribution of funds for operational support is at the discretion of the Executive Committee.

Massachusetts Institute of Technology

Five-Year Trend Analysis (Unaudited) – Financial Highlights

(in thousands of dollars)	2019	2018	2017	2016	2015
Financial Position					
Investments, at fair value	$ 22,083,156	$ 20,766,548	$ 19,077,677	$ 17,037,298	$ 17,566,427
Land, buildings, and equipment, at cost less accumulated depreciation	3,993,253	3,684,377	3,397,070	3,092,429	2,822,312
Borrowings, net of unamortized issuance costs	3,168,422	3,259,389	3,287,545	2,892,093	2,904,559
Total assets	27,750,820	26,111,020	23,976,315	21,662,308	21,700,849
Total liabilities	4,981,815	4,594,239	4,851,257	4,733,227	4,194,276
Net assets without donor restrictions	9,175,946	8,852,960	7,701,195	6,653,607	7,079,082
Net assets with donor restrictions	13,593,059	12,663,821	11,423,863	10,275,474	10,427,491
Total net assets	22,769,005	21,516,781	19,125,058	16,929,081	17,506,573
Total endowment funds before pledges	17,443,750	16,400,027	14,832,483	13,181,515	13,474,743
Principal Sources of Revenues					
Tuition and similar revenues, exclusive of financial aid	$ 383,736	$ 353,721	$ 361,476	$ 340,005	$ 331,819
Research revenues:					
Campus direct	538,350	510,254	496,877	516,283	476,030
Campus indirect	189,803	161,908	191,669	180,581	179,713
Lincoln Laboratory direct	1,017,344	947,295	929,348	921,377	848,443
Lincoln Laboratory indirect	42,040	33,997	39,909	34,617	30,884
SMART direct	44,980	41,988	32,981	32,415	31,620
SMART indirect	320	195	303	402	117
Contributions	602,096	481,817	594,471	474,959	505,671
Net return on investments	1,970,892	2,503,435	2,285,260	392,917	1,831,430
Distribution of investment returns	875,428	826,117	782,857	729,614	670,225
Principal Purposes of Expenditures					
Expenses*	$ 3,710,797	$ 3,536,400	$ 3,429,751	$ 3,318,536	$ 3,083,684
Compensation	1,910,957	1,838,629	1,729,760	1,628,286	1,546,711
Other operating	1,246,351	1,180,895	1,192,437	1,217,862	1,090,642
Space related	553,489	516,876	507,554	472,388	446,331

** Expenses include total operating expenses and other components of net periodic benefit costs.*

Massachusetts Institute of Technology

Five-Year Trend Analysis (Unaudited) – Financial Highlights (continued)

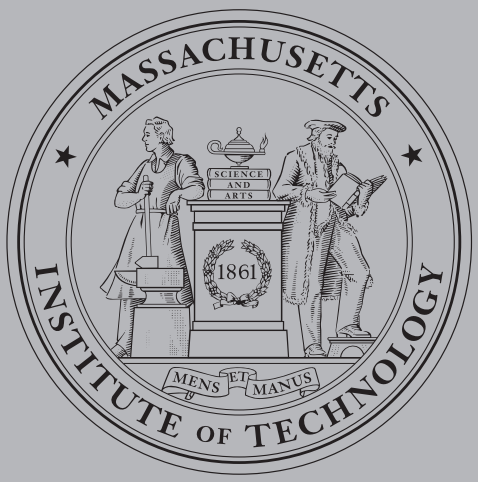
(in thousands of dollars)	2019	2018	2017	2016	2015
Research Revenues					
Campus					
Federal government sponsored:					
Health and Human Services	$ 134,773	$ 130,668	$ 111,835	$ 113,522	$ 116,469
Department of Defense	136,743	123,513	130,372	131,624	125,854
Department of Energy	66,975	72,828	82,157	84,419	81,528
National Science Foundation	79,617	81,563	80,410	82,161	78,953
National Aeronautics and Space Administration	32,430	33,024	39,809	49,664	41,740
Other federal	14,180	12,902	17,043	15,738	15,435
Total federal	464,718	454,498	461,626	477,128	459,979
Non-federally sponsored:					
State/local/foreign governments	21,052	24,471	25,686	28,495	27,951
Nonprofits	104,471	94,322	86,753	84,015	78,667
Industry	169,606	144,126	132,915	128,309	119,238
Total non-federal	295,129	262,919	245,354	240,819	225,856
Total federal and non-federal	759,847	717,417	706,980	717,947	685,835
F&A and other adjustments	(31,694)	(45,255)	(18,434)	(21,083)	(30,092)
Total campus	728,153	672,162	688,546	696,864	655,743
Lincoln Laboratory					
Federal government sponsored	1,048,801	966,179	965,830	920,271	886,637
Non-federally sponsored	17,467	7,240	5,436	6,355	3,609
F&A and other adjustments	(6,884)	7,873	(2,009)	29,368	(10,919)
Total Lincoln Laboratory	1,059,384	981,292	969,257	955,994	879,327
SMART [(A)]					
Non-federally sponsored	45,300	42,183	33,284	32,817	31,737
Total SMART	45,300	42,183	33,284	32,817	31,737
Total research revenues	**$ 1,832,837**	**$ 1,695,637**	**$ 1,691,087**	**$ 1,685,675**	**$ 1,566,807**

[(A)] *The amounts represent research that has predominantly taken place in Singapore.*

Massachusetts Institute of Technology

Five-Year Trend Analysis (Unaudited) – Financial Highlights (continued)

	2019	2018	2017	2016	2015
Students					
Undergraduate:					
Full-time	4,557	4,510	4,476	4,492	4,476
Part-time	45	37	48	35	36
Undergraduate applications:					
Applicants	21,706	20,247	19,020	18,306	18,356
Accepted	1,464	1,452	1,511	1,519	1,447
Acceptance rate	7%	7%	8%	8%	8%
Enrolled	1,114	1,097	1,110	1,106	1,043
Yield	76%	76%	73%	73%	72%
Freshmen ranking in the top 10% of their class	97%	98%	97%	98%	97%
Average SAT Scores (math and verbal)	1,528	1,528	1,505	1,493	1,500
Graduate:					
Full-time	6,845	6,671	6,707	6,689	6,630
Part-time	127	248	145	115	177
Graduate applications:					
Applicants	28,826	27,634	26,463	23,750	24,468
Accepted	3,516	3,383	3,480	3,307	3,718
Acceptance rate	12%	12%	13%	14%	15%
Enrolled	2,321	2,208	2,277	2,165	2,441
Yield	66%	65%	65%	65%	66%
Tuition *(in dollars)*					
Tuition and fees	$ 51,832	$ 49,892	$ 48,452	$ 46,704	$ 45,016
Average room and board	15,510	14,720	14,210	13,730	13,224
Student Support *(in thousands of dollars)*					
Undergraduate tuition support	$ 147,321	$ 137,936	$ 126,932	$ 112,902	$ 107,148
Graduate tuition support	301,026	288,434	270,289	258,444	247,361
Fellowship stipends	44,979	42,309	39,518	38,731	38,759
Student employment	132,300	125,884	118,528	110,392	105,261
Total student support	**$ 625,626**	**$ 594,563**	**$ 555,267**	**$ 520,469**	**$ 498,529**
Faculty and Staff *(including unpaid appointments)*					
Faculty	1,056	1,047	1,040	1,036	1,021
Staff and fellows	15,366	15,212	15,077	14,732	14,307



Report of the Treasurer

for the year ended
June 30, 2019

Massachusetts Institute of Technology

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