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March 31, 2016

The Honorable Orrin G. Hatch
Chairman
Committee on Finance
United States Senate
219 Dirksen Senate Office Building
Washington, DC 20510

The Honorable Peter J. Roskam
Chairman, Oversight Subcommittee
Committee on Ways and Means
1102 Longworth House Office Building
Washington, DC 20515

The Honorable Kevin P. Brady
Chairman
Committee on Ways and Means
1102 Longworth House Office Building
Washington, DC 20515

Dear Chairman Hatch, Chairman Brady, and Chairman Roskam:

On behalf of the Massachusetts Institute of Technology (MIT), I thank you for your letter on university endowments, dated February 8, 2016. We are grateful for the opportunity to participate in this discussion and pleased to clarify the role of our endowment.

The following pages offer detailed answers to your questions about our endowment's value, management and use. These financial facts only begin to express what our endowment is worth, however, because in a real sense, the value of our endowment is the value of everything the people of MIT accomplish. At MIT, our mission charges us to advance knowledge, to educate students and to bring knowledge to bear on great challenges, for the betterment of humankind. As we strive to serve the nation and the world, our endowment is crucial fuel.

As we describe in detail, our endowment is not a single account of ready cash. Instead, it consists of thousands of individual funds, usually subject to multiple restrictions from their donors. With very rare exceptions, these restrictions require that MIT hold a gift's principal forever. In many instances, donors also restrict the income on these gifts to supporting a specific purpose, such as scholarships for students or faculty salaries. A smaller fraction of the endowment consists of funds that allow greater flexibility for us to use in a manner consistent with the Institute's mission. In combination, such endowed funds from donors, and funds MIT endows itself—which comprise a much smaller portion of the endowment—give the Institute the stability to sustain our core commitments and the nimbleness to seize new opportunities.

To illustrate, I offer four examples of how MIT's endowment makes it possible for us to pursue goals central to the national interest:

- Increasing the affordability of an MIT education,
- Inventing new, low-cost pathways to make higher education accessible to all,
- Pioneering vital areas of research, and
- Supporting innovation as an economic engine for our region and the nation.

Your endowment research has emerged in the context of national concern about the cost of higher education and the burdens of student debt. At MIT, we use the power of our endowment to address

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these deep systemic problems in two ways: through an aggressive program of financial support for our own students, and by leading a revolution in open digital learning that promises to make higher education radically more accessible to all.

Increasing the Affordability of an MIT Education

As an institution built on meritocracy, MIT is committed to admitting undergraduate applicants without considering their ability to pay. Hand in hand with this need-blind admissions policy, we work closely with families who qualify for financial aid to tailor a plan to suit their unique circumstances, so that no student admitted to MIT is held back by the cost.

The cost to MIT of educating an undergraduate student for a year has risen to about twice what we charge in annual tuition. Providing the advanced technological education MIT is known for depends on attracting and retaining the best faculty, building and maintaining premier educational and research facilities, and supporting student engagement in research, pushing the “sticker price” of a college education higher. However, we have made sure that the funds available for student aid have grown even faster. For instance, last month, we announced the Institute’s 2016-17 tuition and financial aid rates. While tuition and fees will increase by 3.7%, the budget for undergraduate financial aid will grow at nearly three times that rate, by 10.4%. In total, we intend to spend \$114.2 million next year to help undergraduates cover the cost of attending MIT. To give a sense of the trend that is nearly quadruple the \$30.5 million we spent on undergraduate aid in 2000.

Cumulatively, these efforts mean that more MIT students are getting more aid and graduating with less debt. In 2014-15, 60% of MIT undergraduates received need-based financial aid. For MIT students receiving such aid, the average financial aid award from all sources was \$43,298, or about 96% of tuition. And 33% of students on aid received sufficient scholarship funding to pay no tuition at all.

Two decades ago, only 35% of seniors graduated from MIT debt free. Last year, 68% graduated with no debt. On average, 56% of families receiving a 2014-15 MIT scholarship benefited from having their actual net price reduced to \$16,556. For comparison, that is less than the average full “in-state” cost of attending a public four-year institution, which in the same year was about \$23,410 before financial aid.

Growth in our endowment also makes it possible for MIT to extend the impact of resources the federal government makes available to our students. Students receiving both Pell Grants and need-based financial aid from MIT benefit from MIT’s Pell Grant Matching Program, which helps students to graduate with little or no debt. MIT established that program in 2006 to allow our students to use their Pell Grants to defray what we expect them to contribute to their education through work and loans.

This level of support is a direct product of the growth of MIT endowment funds committed to financial aid.

For a full description of MIT’s story of affordability for undergraduate students, please visit <<http://affordable.mit.edu>>.

Inventing New, Low-cost Pathways to Make Higher Education Accessible to All

While we count on our endowment to provide financial aid for talented students of limited means, the physical limits of our campus and our faculty’s size sharply constrain the number of students we can teach in person. Each year, with regret, we are forced to turn away thousands of applicants who could

benefit from an MIT educational experience—and we know there are many thousands more across the country and around the world.

Over the past 15 years, MIT has addressed this inequity by pioneering the use of digital technologies to make high-quality educational content available to anyone who wants to learn:

- In 2001, MIT launched OpenCourseWare (OCW), a website that offers virtually all MIT course content, including videos, syllabi, simulations, lecture notes and exams, online and free of charge. To date, our faculty have posted materials from 2,260 courses and served more than 175 million learners.
- Building on the extraordinary demand revealed by OCW, in 2011 MIT announced the launch of MITx, an open source, not-for-profit digital educational tool for providing massive open online courses (MOOCs) to learners around the world, also free of charge. To date, we have used MITx to deliver MIT content to about 1.7 million unique learners—nearly 13 times the number of MIT’s living alumni.
- In May 2012, we collaborated with Harvard University to launch an online learning destination and MOOC provider called edX. As the only leading MOOC provider that is both nonprofit and open source, edX serves as a platform on which dozens of global universities host their MOOCs. To date, edX has delivered nearly 900 courses to seven million unique users, and counts among its partners more than 90 leading global universities, nonprofits and institutions — including Princeton University, the Smithsonian, Harvey Mudd College and Amnesty International.
- And last fall, we launched a pilot program in one of our professional master’s degree programs that allows learners worldwide to take a semester’s worth of courses entirely online, and then complete an MIT master’s degree by spending a single semester on campus. The combination of online courses and one residential semester opens the program to many more learners and creates a pathway to a master’s degree for relatively little cost.

Over the years, these efforts have relied on extensive foundation support — but the earliest phase of each of these ideas depended on endowment support.

Pioneering Vital Areas of Research

MIT is a community of hands-on problem solvers, grounded in the STEM fields, who seek rigorous answers to hard questions. Of the 3,439 degrees MIT awarded in 2014-15, two-thirds were in engineering or science disciplines. About 94% of our current undergraduates who have declared a major have done so in a science or engineering field. And about two-thirds of our 1,021 faculty hold appointments in the Schools of Science and Engineering. Funding from the endowment gives these problem solvers the flexibility they need to jumpstart ambitious new research before it might be considered “grant ready.” This jumpstart approach has helped us pursue new approaches in fields ranging from cancer, Alzheimer’s, autism and AIDS, to energy technology, advanced computing and engineering systems.

Through the endowment, we are able to build laboratories, purchase equipment and hire personnel to support research in areas that matter deeply to all of us. As one example, in June 2014, MIT began work on a major capital project to build a 200,000-square-foot center for nanoscience and nanotechnology at the heart of our campus. The project, called “MIT.nano,” will present new tools to nurture game-changing innovation in fields as diverse as health, energy, quantum science,

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manufacturing and computing. The promise of MIT.nano is profound. For instance, cloud computing already consumes 1.3% of the world's electricity. As this technology expands, its energy use is projected to grow a thousandfold over the coming decade. Hardware based on nanoscale switching elements—a new technology now being pursued by MIT researchers—could prove crucial in helping the world meet its growing energy needs.

Working side by side with our faculty on research is also vital to our students' educational experience. Nearly 50 years ago, MIT launched the Undergraduate Research Opportunities Program (UROP), a first-of-its-kind initiative that reimagined the role of research in our undergraduates' education. Today, more than 80% of MIT's undergraduate students participate in the program, working in faculty labs on frontline research. And for MIT's graduate students—who comprise 60% of our student body—research is their education. Each year, more than 2,500 graduate students at MIT hold appointments as research assistants or research trainees. We rely on our endowment to give our faculty the freedom to pursue bold new lines of ideas and to enable our students to join them in racing to the frontier.

Our researchers—faculty, staff and students alike—want to make a positive impact on serious problems, and thanks to our endowment, they do.

Supporting Innovation as an Economic Engine for our Region and the Nation

I began by observing that the truest way to value our endowment is to weigh the accomplishments of the people of MIT. One inspiring measure of that value: a new report that concludes that, as of 2014, MIT's living alumni launched more than 30,000 active companies, creating 4.6 million jobs and generating roughly \$1.9 trillion in annual revenue. Taken together, this "MIT Nation" is equivalent to the 10th-largest economy in the world.

In addition to this broad economic impact, MIT is actively using the power of its real estate holdings to develop MIT's home neighborhood, Cambridge's Kendall Square, already a world capital of biotech innovation. Last fall, an article in *WIRED* magazine referred to a Kendall corner of our campus — the intersection of Vassar Street and Main Street — as perhaps "the most innovative and productive crossroads in history," and suggested that "this one corner may generate one per cent to two per cent of the future global economy and may be a model for creating jobs, knowledge and power in other cities."

Part of this story is MIT's entrepreneurial culture: Kendall Square is already home to energy, biotech and digital start-ups, many direct spin-offs from MIT. The area has produced profound benefits to the nation. Another key element is our openness to collaboration with industry, an attitude that has brought to the region an extraordinary array of corporate research headquarters, including those of many of the largest pharmaceutical firms in the world. But going forward, our strategic development of the real estate holdings in our endowment will be crucial to realizing the full potential of Kendall to deliver growth to the national economy and meaningful solutions to the world.

Conclusion

MIT thrives in large part because our endowment provides a reliable way to attend to many of our core needs and the flexibility to reach for the future. Through careful stewardship, the endowment presents an enormous opportunity to extend MIT's mission in ways that benefit the nation and the world.

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Thank you for the work you are doing to advance this important national conversation. I hope you will let us know if you have further questions. We would welcome a visit to campus if you would be interested in taking a closer look at the work of MIT.

Sincerely,

A handwritten signature in blue ink, appearing to read "L. Rafael Reif". The signature is fluid and cursive, with the first name "L." and last name "Reif" clearly distinguishable.

L. Rafael Reif

Encl.

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Response to Questions in the Letter of February 8, 2016
from Senator Orrin Hatch of the United States Senate Committee on Finance and
Congressman Kevin Brady and Congressman Peter Roskam
of the House Committee on Ways and Means

April 1, 2016

Background

The Massachusetts Institute of Technology (MIT or “The Institute”) is an independent, coeducational, privately endowed educational institution whose mission is to advance knowledge and educate students in science, technology, and other areas of scholarship that will best serve the nation and the world.

MIT is the source of some of America’s greatest innovations. For more than 150 years, the Institute has married teaching with engineering and scientific studies producing an unending stream of advancements, many world changing. MIT encourages interdisciplinary research focusing on tackling the great challenges of society. We view our role as profoundly tied to national service – both in the achievements developed by our researchers and the remarkable talent pool we educate and graduate each year.

Science and technology has changed over the last 25 years and our education and research have changed and improved significantly over the past two decades. These significant changes have also led to dramatic increases in the costs to operate a research intensive university. The endowment plays a critical role in ensuring that the two complimentary and connected missions of education and research are fulfilled today and in the future.

MIT’s endowment has two purposes: to support current needs of its students and scholars and to provide stability and growth to support future generations of MIT scholars with the resources needed to advance knowledge, research, and innovation. As such, endowment funds are used for Institute activities including affordable education for undergraduate and graduate students, supporting new ways to make education accessible to all, supporting research in critical areas, campus renewal and other support for student experience, and supporting faculty initiatives including those in innovation and entrepreneurship.

The governing body of MIT is a board of trustees known as the Corporation, which has functioned since the Institute was incorporated in 1861. Corporation members include distinguished leaders in science, engineering, industry, education, and public service. The Executive Committee of the MIT Corporation (“Executive Committee”) is responsible for the general administration and superintendence of all matters relating to the MIT Corporation, including spending decisions regarding MIT’s endowment.

The Executive Committee delegated investment authority related to managing endowment investments to the MIT Investment Management Company (MITIMCo), which was established in 2004. MITIMCo is a department of the Institute, led by a chief investment officer who reports to the President of MIT and the Chair of the MITIMCo board, a standing committee of the MIT Corporation. In addition to managing endowment investments, MITIMCo also manages the investments of the MIT Basic Retirement Plan (defined benefit pension plan) and the MIT Welfare Benefit Plan (retiree medical plan), as well as other pools of MIT capital, such as life income funds and operating capital.

Question 1 - What categories of assets are included in your college or university's endowment? For each category, please indicate the amount of funds that are:

- (a) unrestricted;**
- (b) permanently restricted by donors;**
- (c) temporarily restricted by donors;**
- (d) permanently restricted by your college or university (quasi-endowments);**
- (e) temporarily restricted by your college or university;**
- (f) For each restricted asset, please describe the uses for which the funds are restricted and the amount of the fair market value of the endowment apportioned to each use. How and why were the restrictions put into place?**

As an initial matter, it is important to describe what MIT's endowment is and what it is not¹. MIT's endowment consists of assets that are invested to support the Institute's mission – to advance knowledge and educate students in science, technology, and other areas of scholarship that will best serve the nation and the world – in perpetuity. A misperception by many is that an endowment is a significant amount of money currently available to a charitable institution to be spent today for all purposes. This is not so. Donors can attach multiple restrictions to the gifts they make to MIT. With very rare exceptions, an endowment donor restricts the gift's principal to be held forever, and only income and gain are available for use. In addition, the donor can and usually does limit the educational purpose to which the income can be directed. Because donors designate how their gifts will serve MIT's mission, the Institute does not have unfettered flexibility in how endowed funds may be spent.

MIT is also limited in how it spends its funds by law. Under the requirements of the Massachusetts Uniform Prudent Management of Institutional Funds Act (UPMIFA). UPMIFA sets forth requirements concerning the investment, use and modification of funds held by operating charitable organizations, including endowment funds.

As of the end of fiscal year 2015,² MIT's endowment consisted of approximately 3,800 individual funds established for a variety of purposes and included both donor-restricted

¹ Unless otherwise stated, "endowment" as referenced in this letter excludes donor pledged contributions to the endowment for which payment has not yet been received.

² MIT's fiscal year runs from July 1st to June 30th of each year. For example, fiscal year 2015 refers to July 1, 2014 through June 30, 2015.

endowment funds and funds designated by the Executive Committee of the MIT Corporation to function as endowment funds.

Under Generally Accepted Accounting Principles (GAAP), MIT's endowment funds fall into three categories based upon the existence or absence of donor-imposed restrictions:

- **Unrestricted Endowment (also called quasi-endowed or board-designated; categories 1(a), (d) & (e)):** These are funds derived from external donors who did not specify that a gift be endowed, or from internal sources. While they are classified as unrestricted due to Generally Accepted Accounting Principles (GAAP) rules, these funds are designated for specific or general purposes by MIT.
- **Temporarily Restricted Endowment (category 1(c)):** Virtually all of the amounts included in this category (99.5% of the total) represent the cumulative net gains on *permanently* restricted gifts that have not yet been appropriated for spending. Therefore, these amounts combined with permanently restricted endowment principal represent the overall market value of endowment donor-restricted funds. Temporarily restricted endowment also includes four funds, comprising 0.5% of the total amount in this category, that are endowed at the direction of donors with restrictions on the use of principal that can be satisfied either by the passage of time or the completion of specific actions.
- **Permanently Restricted Endowment (category 1(b)):** These are the funds endowed at the direction of donors subject to permanent restrictions as to the use of such principal (so that only the return on these endowments could be used in furtherance of the endowment fund's purpose).

Table 1.1 below summarizes the value of each of these categories for the past three fiscal years based on the uses for which the funds are designated.

Table 1.1

	Value at Year-End, in millions	Unrestricted (Quasi- Endowed)	Temporarily Restricted	Permanently Restricted	Total
2015	Student Support	435.6	1,673.5	704.4	2,813.5
	Professorships	549.7	2,696.3	684.8	3,930.8
	Department & Research Support	646.2	1,153.4	645.4	2,445.0
	Other Specific Designations	1,133.9	251.2	279.3	1,664.5
	Other General Purposes	1,278.1	1,115.4	227.5	2,620.9
	TOTAL	\$ 4,043.5	\$ 6,889.8	\$ 2,541.4	\$ 13,474.7
2014	Student Support	398.6	1,495.0	660.9	2,554.4
	Professorships	508.7	2,447.0	674.3	3,630.0
	Department & Research Support	587.2	1,019.9	610.1	2,217.2
	Other Specific Designations	1,033.6	191.1	381.8	1,606.5
	Other General Purposes	1,181.5	1,016.9	218.6	2,417.0
	TOTAL	\$ 3,709.6	\$ 6,169.8	\$ 2,545.7	\$ 12,425.1
2013	Student Support	337.4	1,237.9	617.7	2,192.9
	Professorships	445.1	2,073.7	647.3	3,166.0
	Department & Research Support	509.0	833.6	552.6	1,895.2
	Other Specific Designations	891.1	156.0	426.3	1,473.4
	Other General Purposes	1,046.3	870.3	213.8	2,130.4
	TOTAL	\$ 3,228.9	\$ 5,171.5	\$ 2,457.6	\$ 10,858.0

Combined, endowed funds restricted for undergraduate and graduate student support accounted for approximately 21% of the value of the endowment, or about \$2.8 billion, at the end of fiscal year 2015. The “other general purposes” category provides additional resources that enable student support and, along with endowed resources for professorships, department and research support, and other purposes, funds key elements of the research university experience at MIT.

MIT has established a unitized investment pool to manage endowed gifts to the Institute. The overwhelming majority of endowed gifts are invested through this pool. For example, if a donor contributes stock to MIT and requires that it be used for financial aid, MIT will typically sell the stock and invest the proceeds in the unitized investment pool. However, there is an exception where the Institute receives a non-cash gift that may not or cannot be sold. For example, donors may contribute stock but require that MIT retain the stock and use the dividends for financial aid. The Institute also receives other gifts for which there is no current market to liquidate the gift. As of the end of fiscal year 2015, about 2% of MIT’s endowment was represented by such non-cash assets. The remainder of the Institute’s endowed assets (about 98% as of the end of fiscal year 2015)

is invested by means of the unitized pool. The table below shows the asset allocation for this unitized internal investment pool.

Table 1.2: Endowment Asset Allocation

Asset Class	Asset Allocation as a Percentage of the Endowment		
	2015	2014	2013
U.S. Public Equity	13.9	11.5	11.9
International Public Equity	25.9	21.7	20.8
Private Equity	20.8	20.7	21.8
Real Estate	12.3	13.1	13.8
Marketable Alternatives	11.8	11.9	15.5
Fixed Income	5.6	6.0	5.8
Real Assets	4.1	5.2	5.2
Cash	5.7	9.8	5.4

U.S. and International Public Equity: MIT’s global public equity portfolio consists of investments in select publicly traded stocks globally.

Private Equity: MIT’s private equity portfolio consists of investments in leveraged buyouts, growth equity, and venture capital.

Real Estate: MIT’s real estate portfolio consists of investments in office, retail, multifamily, land, and industrial assets in and around major global cities.

Marketable Alternatives: MIT’s marketable alternatives portfolio consists of investments in credit long-short, equity long-short, distressed, various arbitrage, and other related strategies.

Fixed Income: MIT’s fixed income portfolio consists primarily of investment in credit securities backed by the full faith and credit of the U.S. Government.

Real Assets: MIT’s real assets portfolio consists of investments in commodity-related assets located primarily in North America.

Investments in these asset classes are made both directly and through commingled vehicles.

Question 2 - Does your college or university hold any investments that are not included in the endowment? If so, what are they, and what are their fair market values and basis? How are they used to further the educational purpose of the college or university?

Yes. Non-endowment categories of investment include:

- **Pool C:** Pool C is principally for investment of current funds of MIT’s schools and departments and MIT’s operating funds, which have been generated over time through operations and are invested to support the Institute’s mission, both now through providing operating liquidity and funds for current initiatives, and in the

future to support new programs not yet supported by research or endowment funds.

A portion of Pool C is held in real estate assets near campus that will provide room for mission-based future expansion as well as support strategic initiatives in innovation, housing and other areas. A portion is also held in long-term investments that generate returns that help to balance MIT's operating budget. The rest is held in more liquid investments with the goals of principal preservation and liquidity with appropriate rates of return. The cost basis (book value) of MIT's Pool C investments as of June 30, 2015 was \$1,799.8 million.

- Taxable Bond Proceeds:** Taxable bond proceeds held by MIT are borrowings made in advance of construction and are related to a specific portfolio of capital projects, which are to support the development and renewal of the Institute's physical campus over the next three years. Funds were borrowed in advance of the financed capital projects at relatively low historical interest rates to reduce MIT's overall cost of capital. The Institute has borrowed these funds to supplement donor gifts for campus construction to meet campus capital needs. Planned investments include projects to address the Institute's \$2 billion deferred maintenance backlog and to construct new buildings where existing infrastructure is not adequate to support our education and research mission. The cost basis (book value) of MIT's investments of taxable bond proceeds as of June 30, 2015 was \$1,097.9 million.
- 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. The cost basis (book value) of MIT's life income fund investments as of June 30, 2015 was \$218.0 million.

The year-end market values for the endowment and non-endowment categories of MIT's investments for fiscal years 2013 through 2015 are indicated in the table below:

Table: 2.1

Value at Year-End, in millions	Fiscal Year 2015	Fiscal Year 2014	Fiscal Year 2013
Endowment	13,474.7	12,425.1	10,858.0
Pool C	2,554.9	2,144.3	1,950.2
Bond Proceeds	1,215.3	1,397.5	785.4
Life Income Funds	288.9	261.9	236.5
Total Investments	\$17,533.8	\$16,228.8	\$13,830.1

Question 3 - What is your endowment size, as measured by total fair market value of its assets? What has been the net growth and net investment return on your endowment each year?

As of the end of fiscal year 2015, MIT’s endowment funds totaled \$13.5 billion.

The size of the MIT endowment at the end of each year is equal to (1) the size of the endowment at the end of the preceding year, plus (2) endowment investment gains/losses and net income over the year, plus (3) gifts made or funds allocated to the endowment over the course of the year, minus (4) endowment spending – *i.e.*, distribution to MIT’s operating budget – over the course of the year.

The table below indicates net endowment value and net endowment growth at the end of the fiscal year from fiscal year 2008 through fiscal year 2015. The table also lists net investment returns for MIT’s internal unitized investment pool (defined in response to Question 1).

Table 3.1

Fiscal Year	Net Endowment Value at Year End (in millions)	Net Endowment Growth (%)	Net Investment Return (%)
2015	\$13,474.7	8.4%	13.2%
2014	\$12,425.1	14.4%	19.2%
2013	\$10,858.0	7.0%	11.1%
2012	\$10,149.6	4.5%	8.0%
2011	\$9,712.6	16.8%	17.9%
2010	\$8,317.3	5.5%	10.2%
2009	\$7,880.3	-20.8%	-17.1%
2008	\$9,947.6	0.05%	3.2%

Question 4 - How much has your college or university spent each year to manage the endowment, and how many staff and contractors are employed to manage the endowment? For any fees paid to nonemployees for investment advice, asset management, or otherwise, please provide detail on the amounts paid, to whom, and the fee arrangement.

As previously noted, MITIMCo, a department of MIT, manages MIT’s endowment. MITIMCo’s core mission is to provide real rates of return over inflation with prudent levels of risk in order to provide annual distributions to support MIT’s operating budget, protect the endowment’s purchasing power from the effects of inflation, and grow financial resources to sustain the Institute long into the future.

MITIMCo had 51 employees in 2013, 52 in 2014 and 53 in 2015. In addition to the endowment, MITIMCo also manages the MIT Basic Retirement Plan and the MIT Welfare Benefit Plan for MIT employees, as well as other pools of capital for the

Institute, such as life income funds and operating capital.

The table below shows the internal cost of managing MIT's endowment's investments and operations (in both dollars and as a percentage of endowment value at year-end) each year for the last three fiscal years.

Table 4.1: Internal Cost of Endowment Management

Fiscal Year	Cost of Endowment Management (in dollars)	Cost as a % of Endowment
2015	18,176,852	0.13
2014	14,093,385	0.11
2013	13,132,497	0.12

The expense figures reflected above represent the portion of MITIMCo's expenses that are allocable to its management of the MIT endowment, pro rata based upon the aggregate value of all of the assets that MITIMCo manages.

The internal management expenses for MIT's endowment reflected above include the compensation paid to MITIMCo employees, as well as MITIMCo general operating costs, rent, and professional fees, including audit, tax return and legal expenses. Not included in the above figures are MIT's custodial expenses, which amounted to \$2,103,464 in 2015, \$2,035,856 in 2014 and \$1,902,259 in 2013.

MIT also pays asset-based management fees directly out of the endowment to external separate account managers. Separate accounts are investment arrangements whereby MIT hires a manager to directly invest the Institute's money, and the investments, such as publicly traded securities, are held directly in MIT's name. The asset-based fees paid to separate account managers amounted to \$10,717,003 in 2015, \$8,142,296 in 2014 and \$19,066,296 in 2013. MIT has no uniform fee arrangement with its separate account managers. While fee arrangements generally vary with each manager and can include asset-based fees and performance allocations, the asset-based management fees typically range from 1%-2% of the assets under management with the manager.

In addition to separate accounts, the endowment is also invested in many pooled investment funds. Such funds, and not MIT, are directly responsible for paying the management fees and any performance allocations.

Question 5 - If your endowment is required to file a Form 990 separately from your college or university's Form 990, please provide the endowment entity name(s) and Employment Identification Number.

Not applicable.

Question 6 - How does your college or university determine what percentage of the endowment will be paid out each year? If any, what has been the target endowment payout as a percentage of the endowment's beginning balance each year? If that answer differs from the percentage paid out, please explain why. Please attach any payout policies or guidance.

MIT does not have a target endowment payout. Based on a recommendation by the MIT administration, the Executive Committee votes on an annual basis to distribute funds for operational support from general investments. In executing this responsibility, it considers the following UPMIFA factors: (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 appreciation of investments; (vi) other resources of MIT; and (vii) the investment policies of MIT. In addition, the Executive Committee is guided by endowment investment and spending policies designed to provide a predictable stream of funding to programs supported by the endowment, even as market performance may fluctuate, while maintaining the purchasing power of endowment assets to meet the long-term needs of a world-class academic and research enterprise. Protecting the long-term purchasing power of our endowment is particularly critical considering that the costs of high-quality advanced science and engineering equipment, facilities, research, and related education are increasing at rates exceeding the consumer price index.

Specifically, MIT relies on a Tobin spending rule methodology to guide these annual decisions on operational support from general investments. This methodology is named after the Nobel Prize-winning economist who developed it, and it is used by many university endowments. The Tobin spending rule sets the annual distribution in advance of a particular fiscal year through a quantitative formula that has a “stability” term – the prior year’s distribution rate adjusted for inflation – and a “market” term – a long-term sustainable rate of distribution multiplied by an assumed market value for the endowment for the beginning of that year. The formula more heavily weights the stability term, in effect allowing changes in endowment value to filter into changes in spending only gradually.

The Tobin formula balances the need for relative stability in support for operations with the desire to achieve a long-term sustainable rate of distribution. Unlike the Tobin formula, a fixed and inflexible payout rate, based solely on a percentage of an endowment’s beginning balance each year that can fluctuate greatly with the markets, would subject MIT’s operating budget to significant volatility. Distributions from the endowment help fund labor-intensive activities in teaching and research. Approximately half of MIT’s expenses support salaries and benefits for thousands of faculty, staff and students engaged in the Institute’s mission. Tying distribution rates to short-term market fluctuations would result in unstable distributions forcing significant programmatic disruptions and causing major harm to the quality of students’ educational experiences and our contributions to knowledge and advancement through research.

Question 7 - Does your college or university have policies regarding spending the endowment principal? Has your college or university ever spent endowment principal? If so, under what circumstances?

As previously indicated, MIT sets its spending policy consistent with the needs of the Institute's charitable, educational mission and the fiduciary obligations established by Massachusetts law.

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 endowment funds). When underwater endowment funds exist, the underwater portion of the funds is shown as a reduction of unrestricted endowment net assets with an offsetting addition to temporarily restricted endowment net assets. In subsequent years, these amounts are released back to unrestricted endowment net assets as the market values recover. MIT reported no underwater endowment funds at the end of fiscal year 2015.

Funds designated by MIT's Executive Committee to function as endowment can be spent; however, these funds are established with intended designations and with the expectation that they will provide long-term distributions to support the long-term expenditures associated with these designations. Expenditures of such funds would need to be evaluated on a case-by-case basis and effectuated by a vote of the Executive Committee.

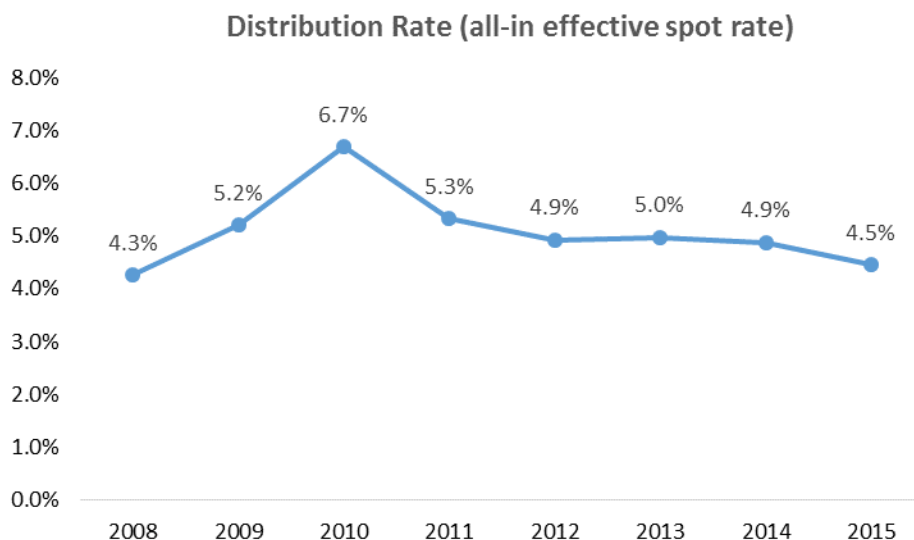
Question 8 - How much and what percentage of the endowment's beginning balance has your college or university spent each year? How much and what percentage of the endowment's return on investment has your college or university spent each year?

In fiscal years 2015, 2014 and 2013, MIT distributed \$545.9 million, \$515.4 million and \$499.3 million, respectively, from its endowment for use in its operations.

Distributions stated as a percentage of the beginning balance of the endowment vary each year. The endowment distribution for each fiscal year is set in the fall of the previous year, so that the operating units across the Institute have an established budget for planning the upcoming year. Because the distribution amount is set before actual returns are known, a planning assumption for endowment returns is utilized, and the implied payout rate is then estimated.

In any year when returns are significantly higher than expected, the actual payout rate for the following year will tend to be lower than estimated. Similarly, lower-than-expected, including negative, returns can drive payout percentages significantly higher than anticipated.

Figure 8.1



Note: displays the internal unitized investment pool spending distribution rate

As described above, the Executive Committee votes to distribute funds for operational support from the endowment for a given year based on a Tobin spending methodology designed to provide a predictable stream of funding to programs supported by the endowment while maintaining the purchasing power of endowment assets. Distribution is not tied to investment performance in that year. In accordance with this spending policy, these distributions are funded from investment income, and to the extent required, cumulative net gains.

The table below reflects changes in endowment value over time and demonstrates the volatility of the investment return versus the relative stability in distributions. The table, however, does not reflect the impacts of inflation. Over the displayed eight-year time period, adjusted by the higher education price index, MIT's endowment grew at the annualized rate of only 2.4% per year, enabling the Institute to modestly increase the endowment's purchasing power.

Table 8.2

Endowment Roll-Forward								
\$ millions								
	2015	2014	2013	2012	2011	2010	2009	2008
<i>Endowment including pledges, beginning</i>	\$12,590	\$11,006	\$10,308	\$9,854	\$8,463	\$8,050	\$10,113	\$9,995
Total investment return	1,477	1,907	1,060	742	1,432	768	(1,691)	383
Contributions	88	117	68	116	314	59	113	121
Distributions	(546)	(515)	(499)	(469)	(445)	(527)	(518)	(393)
Net Asset Reclass reclassifications & transfers	78	75	69	65	89	113	34	6
<i>Endowment including pledges, ending</i>	\$13,688	\$12,590	\$11,006	\$10,308	\$9,854	\$8,463	\$8,050	\$10,113
Less pledges receivable	(213)	(165)	(148)	(158)	(141)	(146)	(170)	(166)
Total Endowment	\$13,475	\$12,425	\$10,858	\$10,150	\$9,713	\$8,317	\$7,880	\$9,948

Question 9 - What percentage of your endowment does your college or university devote to financial aid for student tuition? How much for other forms of student financial aid? Please specify the types of non-tuition financial aid provided.

MIT's endowment provides financial assistance to students by:

- funding the financial need of students with grants
- funding stipends/scholarships/grants for non-tuition related expenses of students
- underwriting the cost of providing an education to all MIT students

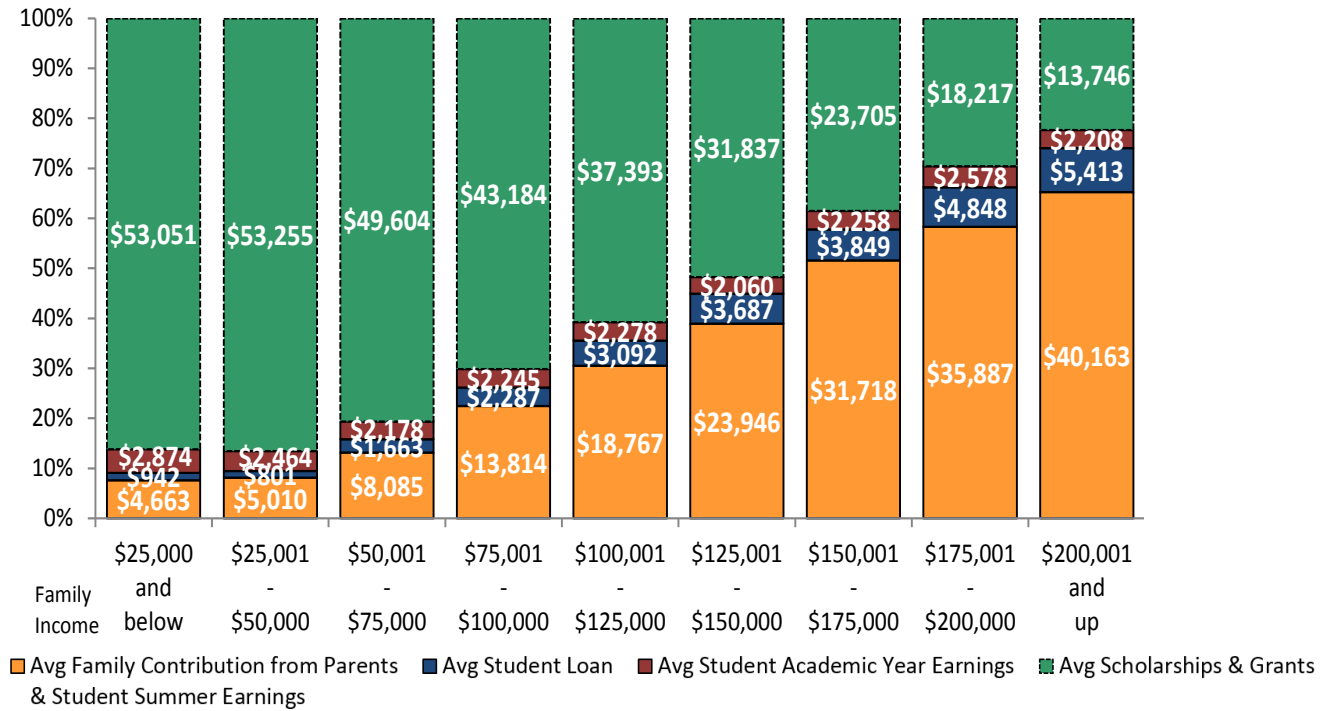
MIT is one of the few universities in the country that is fully need-blind in its undergraduate admission policies. This policy ensures that an MIT education is accessible to all qualified candidates regardless of financial resources. MIT works closely with all families who qualify for financial aid to develop an individual affordability plan tailored to their financial circumstances.

In 2014-15, the average undergraduate financial aid award for need-based-aid recipients from all sources was \$43,298. 60% of MIT undergraduates received need-based financial aid, and 33% received aid sufficient to cover the total cost of tuition. While the Institute's financial aid program primarily supports students from lower- and middle-income families, even families earning more than \$200,000 may qualify for need-based financial aid based on their family circumstances, such as if two or more children are in college at the same time.

The chart below reflects, on average, how the undergraduate families receiving an MIT need-based scholarship in 2014-15 financed the full price of attendance (i.e., \$61,530³, of which \$45,016 was tuition and fees):

³ Includes tuition, fees, housing, meals, books and supplies, personal expenses and travel.

Figure 9.1⁴



Nationally, in 2014, only three in ten college seniors were able to graduate debt-free. Last year, 68% of MIT seniors graduated with no debt. The 32% of Institute undergraduates who incurred loans graduated with an average debt of \$23,537 – 19% less than the national average of \$28,950.

MIT does not require any undergraduate who qualifies for need-based aid to take out a loan, but does require students, as the direct beneficiaries of their education, to pay for some portion of the cost. Most students opt to do paid work throughout the academic year. At MIT, this work often provides them not only a way to help pay for college but also world-class research experience. Through the Institute's Undergraduate Research Opportunities Program, 88% of MIT undergraduates work on paid research projects before they graduate.

As of fiscal year 2015, endowed funds restricted for undergraduate student support accounted for approximately 13% of the value of the endowment. These funds are important to funding financial aid for our undergraduates but are not the only source. During the last ten years, designated funds covered an average of 77% of MIT's undergraduate financial aid expenditures. The remaining 23% was met by using resources in MIT's General Institute Budget, which are supported in part by general purpose endowed funds. Endowed funds restricted for graduate student support account

⁴ Individual financial aid awards vary significantly, even within these income ranges, based on a number of factors including family assets and number of family members.

for an additional 8% of the value of the endowment. Combined, endowed funds restricted for undergraduate and graduate student support account for approximately 21% of the value of the endowment. This is MIT's second largest endowment category behind professorships.

As illustrated below, total direct support to students from Institute sources has increased nearly 50% from fiscal year 2008 through fiscal year 2015:

Table 9.2

MIT Student Support from Institute Sources (\$ in millions, except tuition and fees rate)

Fiscal Year	Tuition and Fees Rate	Financial Aid			Stipends	Student Salaries	Total Support From Institute Sources
		Graduate Student	Under-graduate	Total Financial Aid			
2015	\$45,016	\$187.8	\$92.5	\$280.3	\$21.5	\$35.4	\$337.2
2014	43,498	182.7	88.6	271.3	20.9	31.9	324.2
2013	42,050	171.0	87.7	258.7	19.8	29.7	308.2
2012	40,732	163.7	88.0	251.7	18.2	26.7	296.6
2011	39,212	154.4	85.9	240.3	17.7	26.1	284.0
2010	37,782	146.6	83.7	230.3	15.9	25.8	271.9
2009	36,390	140.8	73.6	214.4	15.6	27.4	257.3
2008	34,986	126.7	65.4	192.1	13.4	26.4	232.0

MIT currently has 6,804 graduate students (60% of the student population) and 4,527 undergraduate students enrolled in its programs. Undergraduate financial aid is directed solely based on need to make an MIT education accessible to all qualified candidates regardless of financial resources. Graduate financial aid is based on a combination of need and merit. The majority of MIT's graduate students are enrolled in PhD programs which are typically fully funded to ensure that the brightest minds are employed in essential research.

In addition to the student support funded directly through Institute sources, MIT also attracts, facilitates and administers student support from external parties. Through this support, external sponsors are investing in one of the most important elements of MIT – the students who choose the Institute to develop innovative solutions to many of the world's great challenges. The table below shows the total support for MIT's students from internal and external sources:

Table 9.3

MIT Student Support from All Sources (\$ in millions)

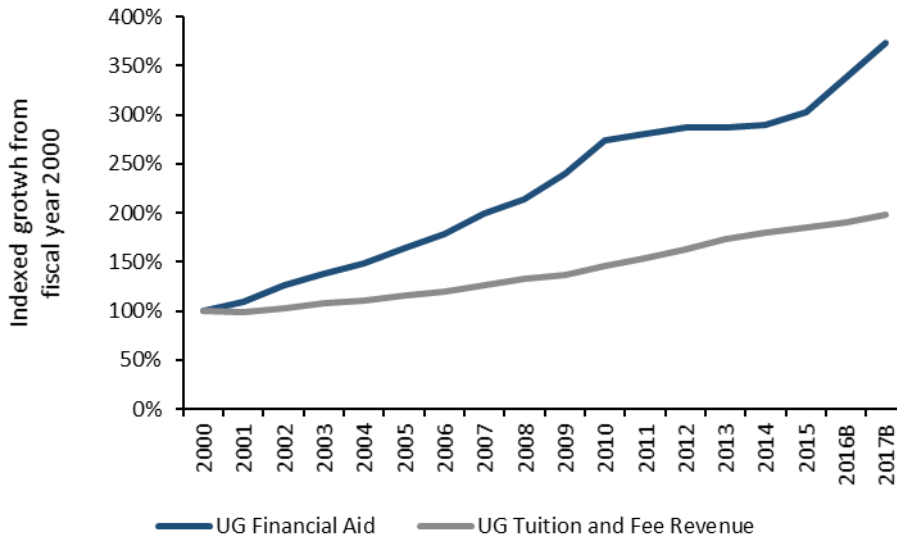
Fiscal Year	MIT Internal Sources	External Sources	Total Student Support
2015	\$337.2	\$161.4	\$498.5
2014	324.2	157.6	481.8
2013	308.2	152.4	460.6
2012	296.6	144.5	441.2
2011	284.0	125.8	409.8
2010	271.9	125.5	397.4
2009	257.3	118.7	376.1
2008	232.0	117.6	349.5

External sources in the table above include, among other sources, need-based grants to low-income students awarded through Federal Pell Grants. MIT enhances the impact of Federal Pell Grants by allowing these funds to reduce student self-help and student contribution requirements before any reduction to their Institute-funded scholarships. This is an important distinction maximizing the impact of the program and demonstrating MIT's belief that need-based student aid, especially in the form of scholarships, is vital to developing the talents of the country's young people to the fullest.

MIT recently announced a substantial increase in financial aid support for the 2016-17 school year. This includes a 10.4% increase in the Institute's undergraduate financial aid budget relative to 2015-16 budgeted levels, resulting in more generous MIT scholarships for nearly all undergraduate students who receive financial aid. The 10.4% increase in the undergraduate financial aid budget offsets an increase of 3.7% in undergraduate tuition and student activity, housing and dining fees.

MIT's \$114.2 million budget for undergraduate financial aid for next year is a dramatic increase from the \$30.5 million allocated in fiscal year 2000. As illustrated below, this is a sustained rate of growth that far exceeds tuition and fee increases during the same period (indexed growth from fiscal year 2000):

Figure 9.4



With these changes, the average MIT scholarship for undergraduate students receiving financial aid will rise to an estimated \$44,591, and the number of undergraduate students receiving financial aid sufficient to allow them to attend MIT tuition-free is expected to increase.

Beyond funding the financial aid budget itself, the endowment plays a vital role in underpinning access to an MIT education for students of all income levels. The actual annual cost of educating an undergraduate student is about twice the annual tuition. These additional costs result from the Institute’s need to attract and retain the best faculty, provide premier educational facilities including laboratories, and allocate funds to support student engagement in research with leading faculty in each field.

MIT’s research university model is not fully supported through tuition and research grants alone. MIT’s endowment and other investments have played an increasing role in supporting the educational and research experience for all students. Support from all investments has increased from comprising 9% of the Institute’s campus operating revenues in 1981 to 28% in fiscal year 2015.

Question 10 - Does your college or university have policies regarding whether it is allowed to accept funds restricted to a specific purpose? Has your college or university ever declined a donation because it was restricted to a certain purpose? If so, please describe those specific scenarios in which your school rejected a donation.

MIT uses guidelines, not a specific rule or policy, in deciding to accept gifts, including adhering to principles such as: gifts need to support mission-based educational purposes and gifts cannot impose an undue financial or administrative burden on MIT’s resources. A search of relevant records did not provide specific information that MIT has declined a donation because it was restricted to a certain purpose.

Question 11 - How much and what percentage of our college or university’s endowment is invested in real property (not including REITS or other publicly-traded securities)? Please list and describe your college or university’s real estate holdings, including real estate held by the college or university, the endowment, and all related entities. If the college or university has made any Payments in Lieu of Taxes, please provide the date and amount of the payment.

The table below shows the value of the real property investments in MIT’s endowment (in both dollars and as a percentage of endowment value at year-end) each year for the last three fiscal years. These figures (i) include the endowment’s direct real estate holdings as well as the endowment’s real property interests in real estate private investment funds and (ii) are net of any borrowings on the properties.

Table 11.1: Endowment Real Property Investments

Fiscal Year	Value (in millions)	Percentage of Endowment
2015	\$1,748.4	12.98%
2014	\$1,706.8	13.74%
2013	\$1,552.5	14.30%

Slightly more than 50% of the endowment’s real property investments, and nearly all of MIT’s direct real estate holdings, are in Cambridge, Massachusetts. In 2016, MIT is celebrating its 100th year in the City of Cambridge. MIT and Cambridge have a long history of working collaboratively to ensure that Cambridge excels as a leader in innovation and sustainability, as a financially robust municipality, and as a caring community. These shared values and passions have allowed MIT and Cambridge to realize significant accomplishments in the past century.

MIT’s core mission of advancing science and technology in order to address global challenges has served as a catalyst in making Kendall Square and Cambridge one of the world’s preeminent innovation centers. A magazine focused on emerging technology recently called a street intersection in Kendall Square “the most innovative and productive crossroads in history.” Through extensive capital investment and pioneering development, MIT has helped this innovation hub develop an undeniable gravitational pull, attracting industry leaders in life-science, pharmaceutical and technology-related companies while still maintaining an inclusive innovative culture for start-up and mid-size companies.

Table 11.2 below shows MIT’s Cambridge, Massachusetts real estate holdings, which include the Institute’s academic holdings as well as its commercial real estate property in and around Kendall Square.

Table 11.2: Cambridge, Massachusetts Real Estate Holdings

	2015	2014	2013
Acres			
Tax Exempt	163	163	161
Taxable	95	93	93
Academic Buildings			
Number	108	111	109
Dormitories			
Number	28	28	28
Size of Buildings (gross floor area)			
Institutional/Academic	6,927,275	6,811,817	6,808,234
Student Activities/Athletic/Service	2,195,897	2,366,093	2,418,825
Dormitory/Nontaxable Residential	2,922,128	2,921,880	2,921,880
Commercial ¹	5,356,423	5,344,990	4,962,958
Taxable Residential ²	164	164	164

1. MIT’s commercial properties are measured by rentable square feet.
2. MIT’s taxable residential properties are measured by rental units.

In addition to the above Cambridge real estate holdings, MIT owns three buildings in Boston, Massachusetts for student housing and several additional properties in the greater Boston area for academic purposes, including the Haystack Observatory in the Massachusetts towns of Groton, Tyngsborough and Westford.

MIT is Cambridge’s largest taxpayer. As Table 11.3 below shows, MIT has averaged more than \$54 million a year in payments in lieu of taxes (“PILOT”) and other payments to the City of Cambridge over the past three years. In FY 2015, MIT’s real estate tax payments represented more than 13% of Cambridge’s total tax revenue stream.

Table 11.3: PILOT, Tax and Other Payments to Cambridge

	FY 15	FY 14	FY 13
Real Estate Taxes Paid ¹	\$44,900,590	\$41,878,455	\$38,656,349
Payment in Lieu of Taxes (PILOT) ²	\$2,019,677	\$2,208,979	\$2,210,567
Water & Sewer Fees Paid	\$6,999,916	\$5,993,315	\$5,658,543
Other Fees & Permits Paid	\$3,765,563	\$6,042,590	\$2,003,749
Total Payments	\$57,685,746	\$56,123,339	\$48,529,208

1. Includes real estate taxes paid by MIT, taxes paid on MIT-owned property through ground leases, and real estate taxes generated by Independent Living Groups.
2. The amount of MIT's PILOT payment is governed by the 2004 agreement between MIT and the City of Cambridge.

MIT's Cambridge First Purchasing Program resulted in the additional investment of over \$69.1 million in Cambridge businesses in fiscal year 2015. This program, together with PILOT and municipal fees, brought MIT's 2015 direct economic contribution to Cambridge to more than \$125 million. This figure does not include MIT's indirect investment in Cambridge such as student spending and the salaries of nearly 2,400 Cambridge residents employed by the Institute (MIT is Cambridge's second largest employer).

MIT also made voluntary PILOT contributions to the towns in the greater Boston area where the Institute owns property for academic purposes. The aggregate non-Cambridge PILOT amounts for the last three fiscal years are \$148,530 in 2015, \$142,980 in 2014 and \$139,500 in 2013. For the three residential buildings in the City of Boston, MIT paid real estate taxes equal to \$83,600 in 2015, \$84,753 in 2014 and \$87,436 in 2013.

Question 12 - Does your college or university grant naming rights to donors based on certain donation levels? If so, please describe the naming rights program, including how much and what percentage of any naming rights donations your college or university has used for tuition assistance.

Naming opportunities vary widely at MIT. MIT acknowledges donors by naming financial aid as scholarships, fellowships, endowed chairs, prizes/awards, as well as programs and labs, buildings and other spaces.

While there is no formal naming rights program, MIT has set certain contribution level ranges for some categories of naming opportunities:

For undergraduate student financial aid/scholarships: \$100,000 - \$2 million

For graduate student financial aid/fellowships: \$100,000 - \$1.5 million

For professorships: \$2.5 million - \$4 million

MIT has 1,068 named endowed scholarship funds and 490 named fellowship and graduate student support funds. In addition, there are other funds supporting tuition and other undergraduate and graduate student support in which a donor does not request naming rights.

Question 13 - What conflict of interest policies does your college or university have in place to address financial interest in endowment investments (including potential conflicts of interest among and between governing boards, trustees, executives, internal employees tasked with overseeing the endowment, and external asset managers of endowment assets)? How do you vet board members' potential conflicts of interest? What are your policies if a conflict arises with a member of the board of trustees?

MIT has an Institute-wide conflict of interest policy that requires all of its members to avoid ethical, legal, financial, or other conflicts of interest and to ensure their activities and interests do not conflict with their obligations to MIT or its welfare. The policy requires covered individuals annually acknowledge in writing that they are aware of the policy and that they identify any relationships or responsibilities that have potential conflicts of interest. There is a process of review for such disclosures and management of any conflicts.

In addition to the Institute's general conflict of interest policy, there are two additional conflict of interest policies specific to the management of MIT's endowment: (1) a policy for MITIMCo employees (the "MITIMCO Policy"); and (2) a policy statement that covers all individuals serving on MITIMCo's Board.

The MITIMCo Policy emphasizes that all MITIMCo decisions with respect to MIT are to be made solely on the basis of a desire to promote the best interests of MIT, to promote MIT's charitable purposes and to comply at all times with all applicable laws and regulations. MITIMCo employees must disclose to MITIMCo's chief compliance officer any situation in which an employee's direct or indirect personal, family, financial or business interests are, or may be viewed as being, inconsistent with or interfere in any way with the best interests of MIT.

The MITIMCo Policy requires each member to annually review the policy and disclose any possible relationships or investments that could give rise to a conflict. Conflicts are resolved by the President of MITIMCo and the Chair of the MITIMCo Board. Any conflict resolutions are presented to the entire MITIMCo Board on an annual basis.

MITIMCo Board members are also subject to multiple layers of conflict of interest policies. Pursuant to the MITIMCo Bylaws, all Board members have fiduciary duties to act in the best interests of MIT. The Bylaws also require Board members to disclose to the entire Board any material financial interest in any MITIMCo transaction, and the conflicted Board member must be recused from any vote on such transaction. The Executive Committee has a policy statement concerning the avoidance of conflicts of interest, requiring MITIMCo Board members to annually disclose outside responsibilities and financial interests to the Chair of the Executive Committee. To further prevent actual or apparent conflicts of interest between MIT's investment activity and MITIMCo Board members, in 2011, the Executive Committee resolved to: (i) not appoint or reappoint to the Board any person who at the time of the appointment or reappointment, directly or indirectly, manages or controls an investment fund in which MIT is invested; and (ii) forbid MIT from making any new investment in an investment fund that any MITIMCo Board member, directly or indirectly, manages or controls.

In addition, to prevent MITIMCo employees from profiting on investments to MIT's detriment, each personal trade must be pre-cleared against a restricted list and the employee must attest that the trade is: (i) subordinate to and not adverse to the interests of MIT; (ii) is not "front-running" MIT or any of the Institute's investment managers; and (iii) will not diminish the investment opportunity for MIT or any of the Institute's investment managers.

Finally, it is MITIMCo's practice to conduct an "excess benefit transaction" analysis pursuant to Section 4958 of the Internal Revenue Code. In general, if MIT proposes to make an investment in which any person "in a position to exercise substantial influence over the affairs" of MIT could receive an economic benefit (or if any of their extended family members could receive such a benefit), MIT conducts an analysis to make sure that the economic benefit does not exceed the value of the services provided. This analysis is conducted by a person or group of individuals who are not conflicted in the transaction and is typically assessed by reviewing market comparable data.