

Tufts University

**Reports on Federal Awards in Accordance with the
OMB Uniform Guidance**

June 30, 2017

EIN #042103634

Tufts University
Reports on Federal Awards in Accordance with the OMB Uniform Guidance
Index
June 30, 2017

	Page(s)
Part I - Financial Statements and Schedule of Expenditures of Federal Awards	
Report of Independent Auditors	1–2
Consolidated Financial Statements	3–5
Notes to the Consolidated Financial Statements	6–27
Schedule of Expenditures of Federal Awards.....	28–38
Notes to the Schedule of Expenditures of Federal Awards	39–40
Part II - Reports on Internal Control and Compliance	
Report of Independent Auditors on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with <i>Government Auditing Standards</i>	41–42
Report of Independent Auditors on Compliance with Requirements that Could Have a Direct and Material Effect on Each Major Program and on Internal Control Over Compliance in Accordance with the OMB Uniform Guidance	43–44
Part III - Findings	
Schedule of Findings and Questioned Costs.....	45
Summary of Status of Prior Audit Findings	46–47

Part I
Financial Statements and
Schedule of Expenditures of Federal Awards



Report of Independent Auditors

To the Board of Trustees of
Tufts University

Report on the Consolidated Financial Statements

We have audited the accompanying consolidated financial statements of Tufts University and its subsidiaries (the "University"), which comprise the consolidated statements of financial position as of June 30, 2017 and 2016, and the related consolidated statements of activities for the year ended June 30, 2017 and of cash flows for the years ended June 30, 2017 and 2016, and the related notes to the financial statements.

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 and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. 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 University'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 University'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 consolidated financial position of the University and its subsidiaries as of June 30, 2017 and 2016, and the changes in their net assets for the year ended June 30, 2017 and their cash flows for the years ended June 30, 2017 and 2016 in accordance with accounting principles generally accepted in the United States of America.



Other Matters

We previously audited the consolidated statement of financial position as of June 30, 2016, and the related consolidated statement of activities and cash flows for the year then ended (not presented herein), and in our report dated November 4, 2016, 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, 2016 and for the year then ended is consistent, in all material respects, with the audited consolidated financial statements from which it has been derived.

Other Information

Our audit was conducted for the purpose of forming an opinion on the consolidated financial statements as a whole. The accompanying schedule of expenditures of federal awards for the year ended June 30, 2017 is presented for purposes of additional analysis as required by Title 2 U.S. *Code of Federal Regulations* Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance) and is not a required part of the consolidated financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the consolidated financial statements. The information has been subjected to the auditing procedures applied in the audit of the consolidated financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the consolidated financial statements or to the consolidated financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the schedule of expenditures of federal awards is fairly stated, in all material respects, in relation to the consolidated financial statements as a whole.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated November 3, 2017 on our consideration of the University's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts and grant agreements and other matters for the year ended June 30, 2017. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the University's internal control over financial reporting and compliance.

PricewaterhouseCoopers LLP

Boston, Massachusetts
November 3, 2017

TUFTS UNIVERSITY

CONSOLIDATED STATEMENTS OF FINANCIAL POSITION

AS OF JUNE 30, 2017 AND JUNE 30, 2016 (in thousands)

	2017	2016
ASSETS		
Cash and cash equivalents	\$ 69,494	\$ 101,889
Receivables and other assets, net	51,304	45,731
Receivables for investments purchased, net	-	5,420
Contributions receivable, net	42,415	31,720
Notes and student loans receivable, net	46,570	49,425
Investments	2,244,776	1,955,846
Land, buildings, and equipment, net	<u>1,039,672</u>	<u>963,996</u>
TOTAL ASSETS	<u>\$ 3,494,231</u>	<u>\$ 3,154,027</u>
LIABILITIES AND NET ASSETS		
LIABILITIES:		
Accounts payable and accrued expenses	\$ 153,397	\$ 170,804
Deferred revenue and deposits	59,626	81,745
Bonds and notes payable	778,596	644,896
Interest rate agreements	67,085	88,275
Government advances for student loans	<u>26,578</u>	<u>26,424</u>
Total liabilities	<u>1,085,282</u>	<u>1,012,144</u>
NET ASSETS:		
Unrestricted	1,247,635	1,105,482
Temporarily restricted	506,797	424,926
Permanently restricted	<u>654,517</u>	<u>611,475</u>
Total net assets	<u>2,408,949</u>	<u>2,141,883</u>
TOTAL LIABILITIES AND NET ASSETS	<u>\$ 3,494,231</u>	<u>\$ 3,154,027</u>

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

TUFTS UNIVERSITY

CONSOLIDATED STATEMENTS OF ACTIVITIES

FOR THE YEAR ENDED JUNE 30, 2017, WITH SUMMARIZED INFORMATION FOR THE YEAR ENDED JUNE 30, 2016 (in thousands)

	Unrestricted	Temporarily Restricted	Permanently Restricted	Total	
				2017	2016
OPERATIONS:					
REVENUE:					
Tuition and fees	\$ 525,687	\$ -	\$ -	\$ 525,687	\$ 494,604
Less scholarships and fellowships	(140,933)	-	-	(140,933)	(132,982)
Tuition and fees, net	384,754	-	-	384,754	361,622
Government grants and contracts	149,790	-	-	149,790	145,959
Clinical and other educational activities	123,007	-	-	123,007	116,067
Auxiliary enterprises	61,130	-	-	61,130	59,092
Contributions and grants	59,940	30,142	-	90,082	70,112
Investment return utilized	95,403	10,238	-	105,641	103,398
Net assets released from restrictions	23,077	(23,077)	-	-	-
Total revenue	897,101	17,303	-	914,404	856,250
EXPENSES:					
Salaries and wages	432,999	-	-	432,999	401,885
Benefits	100,025	-	-	100,025	90,088
Materials, supplies and other	126,702	-	-	126,702	123,335
Purchased services	82,531	-	-	82,531	76,181
Facility and maintenance costs	49,146	-	-	49,146	48,824
Depreciation	52,108	-	-	52,108	51,120
Interest	22,182	-	-	22,182	25,511
Travel	18,358	-	-	18,358	19,014
Total expenses	884,051	-	-	884,051	835,958
INCREASE IN NET ASSETS FROM OPERATING ACTIVITIES					
	13,050	17,303	-	30,353	20,292
NONOPERATING ACTIVITIES:					
Investment return reinvested, net of utilized	74,406	65,316	1,862	141,584	(126,813)
Contributions and grants	7,630	4,511	30,578	42,719	45,130
Contribution from SMFA acquisition	1,556	9,306	10,602	21,464	-
Net assets released from restrictions for capital and other nonoperating purposes	15,285	(15,285)	-	-	-
Net unrealized gain (loss) on interest rate agreements	21,190	-	-	21,190	(25,581)
Change in funded status of postretirement health care plan	15,761	-	-	15,761	(6,562)
Other nonoperating activities	(6,725)	720	-	(6,005)	321
INCREASE (DECREASE) IN NET ASSETS FROM NONOPERATING ACTIVITIES					
	129,103	64,568	43,042	236,713	(113,505)
INCREASE (DECREASE) IN NET ASSETS					
	142,153	81,871	43,042	267,066	(93,213)
NET ASSETS—Beginning of year					
	1,105,482	424,926	611,475	2,141,883	2,235,096
NET ASSETS—End of year					
	\$ 1,247,635	\$ 506,797	\$ 654,517	\$ 2,408,949	\$ 2,141,883

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

TUFTS UNIVERSITY

CONSOLIDATED STATEMENTS OF CASH FLOWS FOR THE YEAR ENDED JUNE 30, 2017 AND JUNE 30, 2016 (in thousands)

	2017	2016
CASH FLOWS FROM OPERATING ACTIVITIES:		
Total increase (decrease) in net assets	\$ 267,066	\$ (93,213)
Adjustments to reconcile total increase (decrease) in net assets to net cash and cash equivalents used in operating activities:		
Net realized and unrealized investment (gains) losses	(239,855)	30,695
Depreciation and amortization	52,003	50,534
Loss on disposal of fixed assets	2,995	1,356
Gifts of securities, property and equipment	(10,060)	(15,945)
Proceeds from sales of donated securities	4,800	3,493
Settlements on interest rate swap agreements	7,630	7,006
Net unrealized (gain) loss on interest rate agreements	(21,190)	25,581
Contributions restricted for long-term investment	(20,263)	(19,869)
Increase in net assets from SMFA acquisition	(21,464)	-
Changes in operating assets and liabilities:		
Receivables and other assets	(9,773)	(8,036)
Contributions receivable	(10,695)	(1,447)
Accounts payable and accrued expenses	(6,695)	6,331
Deferred revenue and deposits	(4,831)	11,812
Net cash and cash equivalents used in operating activities	<u>(10,332)</u>	<u>(1,702)</u>
CASH FLOWS FROM INVESTING ACTIVITIES:		
Notes and student loans granted	(5,598)	(6,932)
Student loans repaid	8,453	7,657
Change in funds held under bond agreement	4,200	1,509
Restricted funds from SMFA acquisition	4,176	17,288
Purchases of investments	(1,105,987)	(765,208)
Proceeds from sale of investments	1,064,031	895,809
Additions to land, buildings, and equipment	(143,917)	(124,667)
Net cash and cash equivalents (used in) provided by investing activities	<u>(174,642)</u>	<u>25,456</u>
CASH FLOWS FROM FINANCING ACTIVITIES:		
Increase (decrease) in government advances for student loans	154	(1,381)
Proceeds from issuance of bonds and notes	144,000	18,600
Cash paid on interest rate swap agreements	(7,630)	(7,006)
Repayments of bonds and notes	(8,971)	(15,963)
Proceeds from contributions restricted for long-term investment	20,263	19,869
Proceeds from sales of donated securities restricted for long-term purposes	4,763	1,772
Net cash and cash equivalents provided by financing activities	<u>152,579</u>	<u>15,891</u>
NET (DECREASE) INCREASE IN CASH AND CASH EQUIVALENTS	(32,395)	39,645
CASH AND CASH EQUIVALENTS—Beginning of year	101,889	62,244
CASH AND CASH EQUIVALENTS—End of year	\$ 69,494	\$ 101,889
SUPPLEMENTAL DATA:		
Cash paid for interest, net of amounts capitalized	<u>\$ 30,187</u>	<u>\$ 29,982</u>
Construction amounts remaining in accounts payable	<u>\$ 15,525</u>	<u>\$ 27,936</u>
Gifts of securities, property and equipment	<u>\$ 10,060</u>	<u>\$ 15,945</u>

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

TUFTS UNIVERSITY

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS AS OF AND FOR THE YEARS ENDED JUNE 30, 2017 AND 2016

1. ORGANIZATION

Tufts University (the “University”), founded in 1852, is a not-for-profit institution committed to education and research. The University is a complex independent nonsectarian university, with approximately 11,000 students and three campuses in Boston, Medford/Somerville and Grafton, Massachusetts. The University provides degree programs at both undergraduate and graduate levels in a variety of liberal arts and professional areas. The University has been granted a tax-exemption as described in Section 501(c)(3) of the Internal Revenue Code (the “Code”) and is generally exempt from income taxes pursuant to Section 501(a) of the Code.

The following organizations are included in the consolidated financial statements of the University:

Walnut Hill Properties Corporation (“Walnut Hill”)—Walnut Hill is a not-for-profit corporation established by the University to own and manage certain investment and rental properties.

Tufts Veterinary Emergency Treatment & Specialties (“Tufts VETS”)—Tufts VETS is a not-for-profit corporation organized by the University to provide emergency and specialty veterinary services in a community environment. It provides postgraduate training in its emergency and critical care training program and training to veterinary students on elective rotations.

Tufts Media LLC (“Tufts Media”)—Tufts Media is a single member limited liability company created by the University to operate its consumer publishing and media capability.

JM Holding Corporation (“JM Holdings”)—JM Holdings is a for-profit development corporation created by the University to develop 106 acres designated for commercial use at the Cummings School of Veterinary Medicine. At this time, there is no development agreement.

Omidyar–Tufts Microfinance Fund (“Microfinance Fund”)—The Microfinance Fund was organized in October 2005 as a charitable trust to support, benefit and carry out the purposes of public charity beneficiaries, including the University, by engaging in two activities: promoting the relief of the poor and distressed through microfinance investments, and promoting education through grants. The capital assets of the Microfinance Fund were contributed by a third party and, according to the donor’s stipulation, are to be invested in microfinance-related ventures. The majority of the Microfinance Fund’s trustees are appointed by the University. In 2006, a \$100 million contribution to establish the Microfinance Fund was recorded in temporarily restricted net assets. Investments associated with these funds are recorded in temporarily restricted net assets.

The assets of any of the organizations included in the consolidated financial statements may not be available to meet the obligations of the other entities.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation—The accompanying consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America on the accrual basis with net assets and revenues, expenses, gains and losses classified based on the existence or absence of donor-imposed restrictions. Accordingly, net assets of the University are classified and reported as follows:

Permanently Restricted—Net assets subject to donor-imposed stipulations that they be maintained in perpetuity by the University. Such net assets consist primarily of donor-restricted endowment funds.

Temporarily Restricted—Net assets subject to donor-imposed stipulations that may be satisfied by actions of the University that will expire with the passage of time or the occurrence of specific events.

Unrestricted—Net assets not subject to donor-imposed stipulations. Unrestricted net assets may be designated for specific purposes.

Consolidation—The consolidated financial statements include the accounts of the University and its wholly owned or controlled subsidiaries. Intercompany accounts and transactions have been eliminated.

Classifications—Expenses are reported as decreases in unrestricted net assets. Gains and losses on investments are reported as increases or decreases in unrestricted net assets unless their use is restricted by explicit donor stipulations or by law. Contributions and investment return for operating activities subject to donor-imposed stipulations not utilized in the current period are released from temporarily restricted net assets when spent and are reported as net assets released from restrictions under revenue from operating activities. Expirations of all other temporarily restricted net assets are reported in the nonoperating section of the statement of activities.

Contributions—Contributions, including unconditional promises to give, are recognized as revenue in the period received. Contributions restricted for the acquisition of land, buildings, and equipment are reported as increases in temporarily restricted net assets. These contributions are reclassified to unrestricted net assets as the funds are expended, or in the case of construction, when the related assets are placed in service. Promises to give subject to donor-imposed stipulations that the corpus be maintained in perpetuity are recognized as increases in permanently restricted net assets.

Conditional promises to give are not recognized until the conditions on which they depend are substantially met. Contributions of assets other than cash are reported at their estimated fair value at the date of gift. Pledges for contributions scheduled to be received after one year are discounted using factors that approximate the risk and the expected term of the promise to give. Amortization of the discount is recorded as additional contributions in the appropriate net asset class.

Investments—Investments are reported at fair value. Dividends, interest, gains and losses on investments are reported as increases or decreases:

- in permanently restricted net assets if the terms of the gift require that they be added to the principal of a permanent endowment or loan fund;
- in temporarily restricted net assets if the terms of the gift or relevant state law impose restrictions on the current use of the income or net gains. The University has relied on the Massachusetts Attorney General's interpretation of relevant state law that unappropriated endowment gains should generally be classified as temporarily restricted; and
- in unrestricted net assets in all other cases.

Investments are comprised of the assets of the University's endowment and nonendowment funds. The majority of these assets are invested in the University's Total Return Pool. The Total Return Pool assets are owned by participating funds based on shares acquired by each fund when it entered the pool. The fair value of the pooled assets is determined each month and the resulting value per share is used to account for funds entering or leaving the pool. The University has established spending policies for endowment and nonendowment investments in the Total Return Pool as follows:

Endowment Spending Policy—The Board of Trustees determines the method to be used to appropriate endowment funds for expenditure. The objective of the policy is to ensure that endowment income available to support operations is stable and predictable, while at the same time increases over time to offset the effects of inflation. Endowment funds receive income distributions equal to the current spending level of all funds in the Total Return Pool. The targeted distribution is 5% of each fund's market value, but may vary with market conditions. The dollar amount is then increased each year by 3-4%. The policy provides for management to adjust the spending rate as necessary if it does not remain within a range of 4.5% to 5.5% of the pool's market value calculated as of the four-quarter average ending September 30 of the previous year. In establishing this policy, the Board considered the expected long term rate of return on its endowment.

Effective July 1, 2017, the University Endowment Spending Policy applicable to the Total Return Pool will maintain an annual spending rate in a range of 4% to 5% of the twelve-quarter moving average ended September 30 of the previous year. Beginning in fiscal year 2019, the range will be lowered .1% in each of the next five

years resulting in a long term spending range of 3.5% to 4.5% thereafter. Subject to the range limitation, the annual spending rate will increase at an annual rate of 2.5%.

Nonendowment Spending Policy—The nonendowment investments in the Total Return Pool consist of operating and capital funds. These long-term funds, while invested in a similar manner as the endowment, are not intended to be held in perpetuity. For these investments, the University has adopted a fixed annual spending rate equivalent to 6% of the market value calculated as of June 30 of the previous year.

Spending on all investments held outside the Total Return Pool represents the yield earned, unless otherwise prescribed by donor restrictions.

The Board of Trustees of the University has interpreted the “Uniform Prudent Management of Institutional Funds Act” (“UPMIFA”) as requiring the preservation of the original gift as of the gift date of the donor-restricted endowment funds absent explicit donor stipulations to the contrary. As a result of this interpretation, the University classifies as permanently restricted net assets, (a) the original value of gifts donated to the permanent endowment, (b) the original value of subsequent gifts to the permanent endowment, and (c) accumulations to the permanent endowment made in accordance with the direction of the applicable donor gift instrument at the time the accumulation is added to the fund. The remaining portion of the donor-restricted endowment fund that is not classified in permanently restricted net assets is classified as temporarily restricted net assets until those amounts are appropriated for expenditure in a manner consistent with the standard of prudence prescribed by UPMIFA.

Operations and Nonoperating Activities—The consolidated statement of activities reports changes in unrestricted, temporarily restricted, and permanently restricted net assets from operations and nonoperating activities. Operations include temporarily restricted contributions that will be released to unrestricted as used for operational purposes. Non-operating includes the release from restrictions of contributions restricted to the acquisition of buildings and equipment and other transfers between restriction categories; investment return in excess of the University’s operating needs as defined by its spending policy or amounts used in excess of investment return; endowment contributions, unrealized gains or losses on interest rate agreements; changes in the funded status of the postretirement health care plan; contribution from the SMFA acquisition; and unrestricted bequests and gifts of property.

Tuition revenue is reported in the period earned net of the discount attributable to reductions in amounts charged to students, whether as unrestricted University financial aid, distributions from endowment funds, or government aid awarded to students by the University. Revenue associated with research and other grants and contracts is recognized when related expenses are incurred. Revenue from all other sources is recognized in the period earned. Included in operating activities are revenues earned and related expenses incurred for auxiliary enterprises. Auxiliary enterprises include student housing, dining, health fees and other miscellaneous charges.

Tax Status—The University is a not-for-profit institution that is tax-exempt under Section 501(c)(3) of the Internal Revenue Code. US GAAP requires Tufts to evaluate tax positions taken by the University and recognize a tax liability (or asset) if the University has taken an uncertain position that more likely than not would not be sustained upon examination by the IRS. Tufts has analyzed the tax positions taken and has concluded that as of June 30, 2017 and 2016, there are no significant uncertain positions taken or expected to be taken that would require recognition of a liability (or asset) or disclosure in the financial statements.

Cash and Cash Equivalents—Short-term investments with maturities at the dates of purchase of three months or less are classified as cash and cash equivalents. Certain balances meeting the definition of cash equivalents have been classified as investments as a result of the University’s intent to segregate funds from cash available for current operations.

Land, Buildings, and Equipment—Land, buildings, and equipment are stated at cost at date of purchase or fair value at date of donation in the case of gifts. Depreciation is provided using the straight-line method over the assets’ estimated useful lives, which range from 15 to 60 years for land improvements, 10 to 60 years for buildings, 3 to 20 years for equipment and furnishings and technology software.

Perpetual Trusts, Life Income, and Annuity Agreements—The University has an interest in various perpetual trusts, irrevocable charitable remainder trusts, and life income and annuity agreements. Assets held in these trusts and agreements, which are administered by the University or third-party trustees, are included in investments and totaled approximately \$56,830,000 and \$50,520,000 at June 30, 2017 and 2016, respectively. Contributions are recognized

at the date the trusts or annuity agreements are established. The primary unobservable input used in the fair value measurement of the charitable remainder trust and life income and annuity assets is the discount rate. Significant fluctuation in the discount rates utilized in this calculation could result in a material change in fair value. The primary unobservable inputs used in the fair value measurement of the perpetual trust assets are the underlying securities held by the trust. Significant fluctuation in the market value of these underlying securities could result in a material change in fair value. Liabilities associated with life income and annuity agreements are recorded at the present value of the estimated future payments to be made to the donors and/or other beneficiaries by the University. The liabilities associated with life income and annuity agreements are adjusted during the term of the life income agreement or annuity for changes in the value of the assets, accretion of the discount and other changes in the estimates of future payments. The liabilities are included in accounts payable and accrued expenses and totaled approximately \$11,300,000 and \$10,700,000 at June 30, 2017 and 2016, respectively.

Use of Estimates—The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of 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 these estimates.

New Accounting Pronouncements—In April 2015, the FASB issued ASU 2015-03 - *Imputation of Interest: Simplifying the Presentation of Debt Issuance Costs*, which requires all costs incurred to issue debt to be presented in the statement of financial position as a direct deduction from the carrying value of the associated debt liability. This guidance was adopted by the University as of July 1, 2016, and as a result, approximately \$4,700,000 was reclassified from receivables and other assets to bonds and notes payable on the consolidated statement of financial position.

In May 2014, the Financial Accounting Standards Board (FASB) issued ASU 2014-09 - *Revenue from Contracts with Customers* at the conclusion of a joint effort with the International Accounting Standards Board to create common revenue recognition guidance for U.S. GAAP and international accounting standards. This framework ensures that entities appropriately reflect the consideration to which they expect to be entitled in exchange for goods and services, by allocating transaction price to identified performance obligations, and recognizing that revenue as performance obligations are satisfied. Qualitative and quantitative disclosures will be required to enable users of financial statements to understand the nature, amount, timing, and uncertainty of revenue and cash flows arising from contracts with customers. The original standard was effective for fiscal years beginning after December 15, 2016; however, in July 2015, the FASB approved a one-year deferral of this standard, with a new effective date for fiscal years beginning after December 15, 2017 or fiscal year 2019 for the University. The University is evaluating the impact this will have on the consolidated financial statements.

In February 2016, the FASB issued ASU 2016-02, *Leases*, which, for operating leases, requires a lessee to recognize a right-of-use asset and a lease liability, initially measured at the present value of the lease payments, in its statement of financial position. The standard also requires a lessee to recognize a single lease cost, calculated so that the cost of the lease is allocated over the lease term, on a generally straight-line basis. The guidance also expands the required quantitative and qualitative disclosures surrounding leases. The ASU is effective for fiscal years beginning after December 15, 2018, or fiscal year 2020 for the University. Early adoption is permitted. The University is evaluating the impact of the new guidance on the consolidated financial statements.

In January 2016, the FASB issued ASU 2016-01, *Recognition and Measurement of Financial Assets and Financial Liabilities*, which address certain aspects of recognition, measurement, presentation and disclosure of financial instruments. This guidance allows an entity to choose, investment-by-investment, to report an equity investment that neither has a readily determinable fair value, nor qualifies for the practical expedient for fair value estimation using the net asset value (“NAV”), at its cost minus impairment (if any), plus or minus changes resulting from observable price changes in orderly transactions for the identical or similar investment of the same issue. Impairment of such investments must be assessed qualitatively at each reporting period. Entities must disclose their financial assets and liabilities by measurement category and form of asset either on the face of the statement of financial position or in the accompanying notes. The ASU is effective for annual reporting periods beginning after December 15, 2018 or fiscal year 2020 for the University. The provision to eliminate the requirement to disclose the fair value of financial instruments measured at cost (such as the fair value of debt) may be early adopted and was adopted by the University in 2017.

In August 2016, the FASB issued ASU 2016-14, *Presentation of Financial Statements for Not-for-Profit Entities*, which makes targeted changes to the not-for-profit financial reporting model. The new ASU marks the completion of the first phase of a larger project aimed at improving not-for-profit financial reporting. Under the new ASU, net asset reporting will be streamlined and clarified. The existing three-category classification of net assets will be replaced with a simplified model that combines temporarily restricted and permanently restricted into a single category called “net assets with donor restrictions.” The guidance for classifying deficiencies in endowment funds and on accounting for the lapsing of restrictions on gifts to acquire property, plant, and equipment have also been simplified and clarified. New disclosures will highlight restrictions on the use of resources that make otherwise liquid assets unavailable for meeting near-term financial requirements. Not-for-profits will continue to have flexibility to decide whether to report an operating subtotal and if so, to self-define what is included or excluded. However, if the operating subtotal includes internal transfers made by the governing board, transparent disclosure must be provided. The ASU also imposes several new requirements related to reporting expenses, including providing information about expenses by their natural classification. The ASU is effective for fiscal years beginning after December 15, 2017 or fiscal year 2019 for the University and early adoption is permitted. The University is evaluating the impact of the new guidance on the consolidated financial statements.

Acquisition of the School of the Museum of Fine Arts (SMFA) - Effective July 1, 2016, the University and the Museum of Fine Arts (MFA), a Massachusetts not-for-profit corporation, completed an asset acquisition agreement. The MFA is engaged, through its School of the Museum of Fine Arts (the “SMFA”), in providing degree and certification granting educational programs, pre-college programs and non-degree educational programs for adults, such as continuing education programs. The MFA agreed to transfer and assign to the University, and the University agreed to acquire and assume from the MFA certain specified assets the MFA used in the operation of the SMFA and certain specified liabilities the MFA incurred in the operation of the SMFA based on June 30, 2016 valuations. Restricted Funds were the predominant asset in the transaction. These funds include endowed funds, accumulated endowment income, other restricted funds, gift annuities, and trusts. No consideration was given for this transaction. This transaction was accounted for using the asset acquisition method of accounting, which requires all the assets and liabilities of the SMFA to be revalued at their fair value as of the acquisition date. The SMFA’s fiscal year end is June 30th, therefore, these assets were revalued and recorded at fair values as of July 1, 2016 in the University’s consolidated statement of financial position. The acquisition date fair values have been determined using various fair value techniques including book value for property and equipment, acceptable valuation approaches for other assets, quotations from independent market sources for investments, and liabilities were deemed to approximate the June 30, 2016 cost.

In connection with the acquisition, the University’s consolidated statement of activities includes approximately \$21,500,000 in non-operating activities for the year ended June 30, 2017, reflecting the fair value of the acquired assets and liabilities of the SMFA, of which 90% were endowed funds. Operating activities related to the SMFA for the year ended June 30, 2017 are immaterial to the University’s net assets.

On June 30, 2016, in advance of the acquisition, the University received approximately \$17,300,000 in cash from the SMFA. This transfer was in accordance with the acquisition agreement that provided the University most of the restricted funds of the SMFA upon closing with the final amounts to be received after the completion of the MFA June 30, 2016 audit. The amount included 90% of the March 31, 2016 value of the SMFA endowed funds, endowment income, and other restricted funds. It also included 100% of the March 31, 2016 value of the SMFA gift annuities. The amount is included in the University’s consolidated statement of financial position in cash and deferred revenue in fiscal year 2016. The remaining 10% of SMFA’s endowed funds, endowment income, and other restricted funds of approximately \$2,200,000, and the fair value of other assets and liabilities of approximately \$2,000,000 was finalized and received in fiscal year 2017.

Reclassification—Certain June 30, 2016 balances and amounts previously reported have been reclassified to conform to the June 30, 2017 presentation.

Subsequent events—The University has evaluated the impact of subsequent events through November 3, 2017, representing the date the financial statements were issued. In August 2017, the University announced changes to the postretirement health care plan that will be effective January 1, 2018. Effective January 1, 2018, for retirees over age 65, the University will transition from its current employer-sponsored plans to a range of Medicare Advantage, Medigap, and Prescription Drug Plans which will be offered through a private health insurance exchange. These plan changes are expected to result in a reduction in the related Accumulated Postretirement Benefit Obligation (APBO) in fiscal year 2018. The University has concluded that no other material events have occurred that are not accounted for in the accompanying consolidated financial statements or disclosed in the accompanying notes.

Prior Year Summarized Information—The consolidated statement of activities includes 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 generally accepted accounting principles. Accordingly, such information should be read in conjunction with the University’s consolidated statement of activities for the year ended June 30, 2016, from which the summarized information was derived.

3. RECEIVABLES AND OTHER ASSETS

Receivables represent amounts due from students, grants and contracts, clinic billings, and other sources. Other assets include deferred charges, prepaid expenses, and inventories, as well as approximately \$300 of restricted funds held under bond agreement at June 30, 2017. The components at June 30, 2017 and 2016 are as follows (in thousands):

	2017	2016
Gross receivables	\$ 48,819	\$ 41,687
Less allowance for uncollectible amounts	<u>(2,400)</u>	<u>(2,678)</u>
Receivables, net	46,419	39,009
Other assets	<u>4,885</u>	<u>6,722</u>
Total	<u>\$ 51,304</u>	<u>\$ 45,731</u>

4. CONTRIBUTIONS RECEIVABLE

Contributions receivable at June 30, 2017 and 2016, which are recorded at fair value, consisted of the following (in thousands):

	2017	2016
Unconditional promises scheduled to be collected in:		
Less than one year	\$ 20,185	\$ 22,930
One year to five years	26,683	14,521
More than five years	<u>3,445</u>	<u>1,045</u>
Gross contributions receivable	50,313	38,496
Less allowance for uncollectible amounts	(5,446)	(5,938)
Less discount to present value	<u>(2,452)</u>	<u>(838)</u>
Total	<u>\$ 42,415</u>	<u>\$ 31,720</u>

A review of pledges is periodically made with regard to collectability. As a result, the allowance for pledges that may not be collected is adjusted, and some pledges have been cancelled and are no longer recorded in the financial statements. The University’s indicative 1- to 10-year taxable unsecured borrowing rate is used to discount pledges receivable upon receipt. The discount was calculated using rates ranging from 1.03% to 3.60% for the years ending June 30, 2017 and 2016. The University’s pledges receivable have been categorized as Level 2 assets under the fair value hierarchy.

In addition, at June 30, 2017 and 2016, the University had approximately \$39,000,000 and \$36,000,000, respectively, of conditional promises from donors that are not recognized as assets in the consolidated statements of financial position. These conditional promises consisted of pledges for endowment, construction and other purposes.

Contributions receivable at June 30, 2017 and 2016 were intended for the following purposes (in thousands):

	2017	2016
Endowment for educational and general purposes	\$ 22,460	\$ 17,163
Construction and modernization of plant	3,565	3,599
Support of current operations	<u>16,390</u>	<u>10,958</u>
Total	<u>\$ 42,415</u>	<u>\$ 31,720</u>

5. NOTES AND STUDENT LOANS RECEIVABLE

Student loans receivables at June 30, 2017 and 2016 consisted of the following (in thousands):

	2017	2016
Student loans receivable	\$ 46,818	\$ 49,700
Less allowance for uncollectible amounts	<u>(598)</u>	<u>(625)</u>
Student receivables, net	\$ 46,220	\$ 49,075
Other notes receivable	<u>350</u>	<u>350</u>
Total	<u>\$ 46,570</u>	<u>\$ 49,425</u>

Loans receivable are principally amounts due from students under U.S. Government-sponsored loan programs, which are subject to significant restrictions. Generally, payment on student loans receivable commences upon graduation and can extend up to 20 years. Interest rates range from 2% to 12% for the year ending June 30, 2017, and 2% to 18% for the year ending June 30, 2016.

The University assesses the adequacy of the allowance for doubtful accounts by evaluating the loan portfolio, including such factors as the differing economic risks associated with each loan category, the financial condition of specific borrowers, the economic environment in which the borrowers operate, the level of delinquent loans, and, where applicable, the existence of any guarantees or indemnifications. In addition to these factors, the University reviews the aging of the loans receivable and the default rate in comparison to prior years. The allowance is adjusted based on these reviews. The University considers the allowance at June 30, 2017 and 2016 to be reasonable and adequate to absorb potential credit losses inherent in the loan portfolio.

6. INVESTMENTS AND FAIR VALUE MEASUREMENTS

The accounting standard for fair value measurement establishes 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 and unobservable inputs reflect the entities' 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 under the accounting standard must maximize the use of observable inputs and minimize the use of unobservable inputs. The accounting standard describes a fair value hierarchy based on three levels of inputs, of which the first two are considered observable and the last unobservable, that may be used to measure fair value.

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

- Level 1 - Quoted prices in active markets for identical assets or liabilities.
- Level 2 - Inputs other than Level 1 that are observable, either directly or indirectly, such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the same term of the assets or liabilities.

- Level 3 - Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

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.

The University invests in alternative investments, consisting of hedge funds, private equities, real estate, natural resources, nonmarketable credit and commingled public equity funds through various limited partnerships and similar vehicles. Alternative investments utilize a variety of investment strategies incorporating marketable securities and, in some cases, derivative instruments, all of which are reported at fair value or its equivalent as estimated by management using values provided by external investment managers. Hedge funds consist of limited partnership investments in stocks, bonds, commodities, currencies, derivatives and other instruments and often use non-traditional portfolio management techniques including shorting, leveraging, arbitrage and swaps. Commingled public equity funds consist of investments in commingled investment products that invest in long positions of publicly traded equity. Private equity investments consist of long-term private investment securities. Real estate consists of investments in privately held and publicly traded REITs and other privately held entities. Natural resources consist of private and public investments. Nonmarketable credit securities consist of private investments. Estimates of fair value may differ significantly from values that would have been used had a ready market for the investments existed. The University is obligated under certain limited partnership agreements and other alternative investment arrangements to advance additional funding periodically up to specified levels.

Investment fund managers may invest in derivatives, and the value of these positions is reflected in the NAV of the respective funds. Separately the University may employ derivatives to hedge its risks and to rebalance its market exposures. The University held one foreign exchange forward contract, with a notional amount of \$11,200,000 and an unrealized loss value of approximately \$218,000 at June 30, 2016. The fair value of the derivatives are reflected as a level 2 asset. The University has entered into its exchange forward contract with a single counterparty. The University did not hold any foreign exchange forward contracts at June 30, 2017.

The following tables present the financial instruments carried at fair value as of June 30, 2017, and 2016, by the fair value hierarchy defined above (in thousands):

Assets as of June 30, 2017:	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total Fair Value
Investments:				
Equity securities	\$ 130,846	\$ -	\$ 121	\$ 130,967
Fixed income securities	286,354	-	2,564	288,918
Hedge funds	-	-	4,833	4,833
Private equities	-	-	15,381	15,381
Real estate	39,653	-	-	39,653
Natural resources	10,331	-	434	10,765
Other	-	-	9,630	9,630
Total Investments	<u>\$ 467,184</u>	<u>-</u>	<u>\$ 32,963</u>	<u>\$ 500,147</u>
Other investments measured at NAV (a)	<u>-</u>	<u>-</u>	<u>-</u>	<u>1,677,707</u>
	<u>467,184</u>	<u>-</u>	<u>32,963</u>	<u>2,177,854</u>
Liabilities:				
Interest rate swaps liability	<u>\$ -</u>	<u>\$ 67,085</u>	<u>\$ -</u>	<u>\$ 67,085</u>

Assets as of June 30, 2016:	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total Fair Value
Investments:				
Equity securities	\$ 80,424	\$ -	\$ 324	\$ 80,748
Fixed income securities	199,702	-	335	200,037
Hedge funds	-	-	4,531	4,531
Private equities	-	-	57,321	57,321
Real estate	3,183	-	-	3,183
Natural resources	10,939	-	-	10,939
Other	-	-	10,636	10,636
Total Investments	<u>\$ 294,248</u>	<u>-</u>	<u>\$ 73,147</u>	<u>\$ 367,395</u>
Other investments measured at NAV (a)	<u>-</u>	<u>-</u>	<u>-</u>	<u>1,552,581</u>
	<u>294,248</u>	<u>-</u>	<u>73,147</u>	<u>1,919,976</u>
Liabilities:				
Interest rate swaps liability	<u>\$ -</u>	<u>\$ 88,275</u>	<u>\$ -</u>	<u>\$ 88,275</u>

(a) In accordance with ASU 2015-07, certain investments that are measured at fair value using the NAV per share (or its equivalent) practical expedient have not been classified in the fair value hierarchy. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the amounts presented in the statement of financial position.

Excluded from the tables above, but included in total investments at June 30, 2017 and 2016, are cash and cash equivalents amounting to approximately \$66,922,000 and \$35,870,000 respectively. There were no investments pending settlement at June 30, 2017.

The value of certain alternative investments represents the ownership interest in the NAV of the respective partnership. The fair values of the securities held by limited partnerships that do not have readily determinable fair values are determined by the general partner and are based on appraisals, or other estimates that require varying degrees of judgment. These values are agreed to by management of the University. If no public market exists for the investment securities, the fair value is determined by the general partner or management for securities held

directly, taking into consideration, among other things, the cost of the securities, prices of recent significant placements of securities of the same issuer, and subsequent developments concerning the companies to which the securities relate. The University has performed significant due diligence around these investments to ensure NAV is an appropriate measure of fair value as of June 30.

Interest rate swaps, held for investment purposes, are valued using both observable and unobservable inputs, such as quotations received from the counterparty, dealers or brokers, whenever available and considered reliable. In instances where models are used, the value of the interest rate swap depends upon the contractual terms of, and specific risks inherent in the instrument as well as the availability and reliability of observable inputs. Such inputs include market prices for reference securities, yield curves, credit curves, measures of volatility, prepayment rates, assumptions for nonperformance risk, and correlations of such inputs. The interest rate swap arrangements have inputs which can generally be corroborated by market data and are therefore classified within Level 2.

Beneficial and perpetual trusts held by third parties are valued at the present value of the future distributions expected to be received over the term of the agreement and are classified as Level 3.

The methods described above may produce a fair value calculation that may not be indicative of net realizable value or reflective of future fair values. Furthermore, while the University believes its valuation methods are appropriate and consistent with 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.

The University also invests directly in private companies that are primarily valued using industry standard methodologies, as applicable. Management strives to corroborate information from third-party sources for relevance and accuracy; these valuations are subject to significant review and consideration by management. The valuation procedures performed on these assets are based on industry standard processes for each respective asset class. The inputs utilized in any valuation model may be significant and unobservable, and require a certain degree of judgment. Management examines market data and collaborates closely with industry experts to attempt to arrive at the best estimation of fair value for each respective asset. While the inputs described below represent the range of inputs utilized as of the measurement date, these inputs may change over time, which may have a material effect on the valuation of these types of investments in the future.

The following table presents additional information about valuation techniques and inputs used for the investments that are measured at fair value and categorized within Level 3 as of June 30, 2017, and June 30, 2016 (in thousands):

Asset Type	Industry	Valuation Approach	Unobservable Inputs	Fair Value at June 30, 2017
Private equities	Investment fund	Market approach	Offer price on private holdings	\$ 1,498
	Banking	Market approach	Recent market transaction	9,302
	Financial services	Option pricing model	Valuation backsolved off the price per share from the last round of financing to arrive at implied prices per share for the other series of preferred and common shares in the capital structure	4,581
Fixed Income	Financial services	Market approach	Market price of comparable debt	2,266
Natural resources	Natural resources	Market approach	Comparable market price less 10% discount	434
				\$ 18,081

Asset Type	Industry	Valuation Approach	Unobservable Inputs	Fair Value at June 30, 2016
Private equities	Banking	Book value multiple determined using a forecasted future private market transaction	Book value multiple of 1.10	\$ 37,775
	Banking	Market approach	Recent market transaction	15,629
	Financial services	Option pricing model	A set of 16 publically traded Mexican financial service companies was utilized to draw reference points to create an option pricing model.	3,917
				\$ 57,321

The following tables present liquidity information for the investments carried at fair value at June 30, 2017, and 2016, respectively.

Redemption Terms as of June 30, 2017	Non-	Fixed	Private	Hedge	Commingled Public	Real	Natural	Total
	Marketable Credit	Income	Equities	Funds	Equity Funds	Estate	Resources	
Monthly, 2-120 days prior written notice	\$ -	\$ 37,947	\$ -	\$ 39,467	\$ 264,077	\$ -	\$ 11,655	\$353,146
Quarterly, 30-90 days prior written notice	-	-	-	291,956	30,705	-	-	322,661
Semi-Annually, Annually, 30-90 days prior written notice	-	-	-	112,539	-	-	-	112,539
1-3 Years, 45-120 days prior written notice	-	-	4,823	136,328	48,182	-	-	189,333
1-7 Years (no terms)	46,681	-	233,835	10,382	-	75,003	75,731	441,632
7+ Years (no terms)	13,427	-	167,127	-	-	24,232	25,879	230,665
Total	\$60,108	\$ 37,947	\$405,785	\$590,672	\$342,964	\$99,235	\$113,265	\$1,649,976
Level 1 securities								467,184
Other investments not subject to redemption								127,616
Total Investments								\$2,244,776

Redemption Terms as of June 30, 2016	Non-	Fixed	Private	Hedge	Commingled Public	Real	Natural	Total
	Marketable Credit	Income	Equities	Funds	Equity Funds	Estate	Resources	
Monthly, 2-120 days prior written notice	\$ -	\$ 45,095	\$ -	\$ 39,163	\$ 269,525	\$ -	\$ 11,486	\$365,269
Quarterly, 30-90 days prior written notice	-	-	-	225,520	21,337	33,174	-	280,031
Semi-Annually, Annually, 30-90 days prior written notice	-	-	-	104,404	-	-	-	104,404
1-3 Years, 45-120 days prior written notice	-	-	2,449	128,405	53,194	-	-	184,048
1-7 Years (no terms)	36,442	-	223,222	12,740	-	71,755	66,054	410,213
7+ Years (no terms)	13,822	-	125,802	-	-	24,864	17,913	182,401
Total	\$50,264	\$ 45,095	\$351,473	\$510,232	\$344,056	\$129,793	\$95,453	\$1,526,366
Level 1 securities								294,248
Other investments not subject to redemption								135,232
Total Investments								\$1,955,846

The University had unfunded commitments of approximately \$279,845,000 at June 30, 2017 which consisted of approximately \$142,141,000 in private equities, \$63,496,000 in real estate, \$27,517,000 in natural resources and \$46,691,000 in non-marketable credit, and can be called through 2024.

The following tables include roll forwards of investments classified by the University within Level 3 as of June 30, 2017 and 2016. Transfers between levels are recognized at the beginning of the reporting period. The 2017 transfers from NAV to Level 3 totaled approximately \$1,498,000, and transfers from Level 3 to Level 1 totaled approximately \$37,775,000. There were no other material transfers between levels.

	Equity Securities	Fixed Income	Hedge Funds	Private Equities	Natural Resources	Other	Total Investments
Fair value, July 1, 2016	\$ 324	\$ 335	\$ 4,531	\$ 57,321	\$ -	\$ 10,636	\$ 73,147
Transfers	-	-	-	(36,277)	-	-	(36,277)
Purchases	-	2,000	-	-	434	-	2,434
Sales	(203)	(37)	-	-	-	-	(240)
Unrealized and realized gains (losses), net	-	266	302	(5,663)	-	(1,006)	(6,101)
Fair value, June 30, 2017	\$ 121	\$ 2,564	\$ 4,833	\$ 15,381	\$ 434	\$ 9,630	\$ 32,963

	Equity Securities	Fixed Income	Hedge Funds	Private Equities	Other	Total Investments
Fair value, July 1, 2015	\$ 323	\$ 371	\$ 2,686	\$ 60,562	\$ 9,860	\$ 73,802
Transfers	-	-	-	-	-	-
Purchases	1	-	568	7,203	-	7,772
Sales	-	(36)	-	-	-	(36)
Unrealized and realized gains (losses), net	-	-	1,277	(10,444)	776	(8,391)
Fair value, June 30, 2016	\$ 324	\$ 335	\$ 4,531	\$ 57,321	\$ 10,636	\$ 73,147

The total return on investments for the years ended June 30, 2017 and 2016 is as follows (in thousands):

	2017	2016
Dividends and interest	\$ 7,370	\$ 7,280
Net realized and unrealized gains (losses)	239,855	(30,695)
Total return on investments	247,225	(23,415)
Investment return utilized	(105,641)	(103,398)
Investment return reinvested, net of utilized	\$ 141,584	\$ (126,813)

7. LAND, BUILDINGS, AND EQUIPMENT

Land, buildings, and equipment at June 30, 2017 and 2016 consisted of the following (in thousands):

	2017	2016
Land and land improvements	\$ 58,435	\$ 53,160
Buildings	1,275,231	1,266,435
Construction in progress	242,911	140,637
Equipment and furnishings	<u>222,896</u>	<u>216,603</u>
	1,799,473	1,676,835
Less accumulated depreciation	<u>(759,801)</u>	<u>(712,839)</u>
Total	<u>\$ 1,039,672</u>	<u>\$ 963,996</u>

Depreciation expense charged to operations was approximately \$52,108,000 and \$51,120,000 in 2017 and 2016, respectively. Net interest cost capitalized in fiscal 2017 and 2016 was \$6,515,000 and \$2,799,000, respectively.

Maintenance and repairs are expensed as incurred, and improvements are capitalized. When assets are retired or disposed of, the cost and accumulated depreciation thereon are removed from the accounts and gains or losses are included in other nonoperating activities on the statement of activities.

8. BONDS AND NOTES PAYABLE

Bonds and notes payable at June 30, 2017 and 2016 consisted of the following (in thousands):

	2017	2016
Massachusetts Health and Educational Facilities Authority ("MHEFA"):		
Series G, variable rate bonds, 5.35% average rate for 2017, due 2024-2026	\$ 24,300	\$ 24,400
Series J, fixed rate bonds at 5.50%, due 2017-2018	11,055	16,135
Series M, fixed rate bonds at 5.00-5.50%, due 2018-2028	56,950	57,250
Series N-1, variable rate bonds, 3.99% average rate for 2017, due 2029-2040	84,200	84,200
Series N-2, variable rate bonds, 3.919% average rate for 2017, due 2022-2034	54,200	54,200
Series O, fixed rate bonds at 5.00%, due 2017-2018	3,985	5,975
Massachusetts Development Finance Agency ("MDFA"):		
Series P, multi-mode bond, 5.77% average rate for 2017, due 2036	49,835	49,835
Series Q, fixed rate bonds at 3.75%-5% due 2045	69,575	69,575
JP (through MDFA) tax exempt LOC Floating Rate through 04/17, fixed 2.65% 04/17-04/26	27,305	14,000
Tufts Issue 2012A, taxable fixed rate bond at 5.017%, due 2112	250,000	250,000
Tufts Issue 2017A, taxable fixed rate bond at 4.005%, due 2058	130,000	-
Cummings Property, LLC at 4% until maturity in 2026	1,244	1,362
Bank of America note fixed rate 2.54% until maturity in 2026	10,200	10,200
Note, rate fixed at 7.19% until maturity in 2016	-	2
Capital Leases—various imputed interest rates, due through 2019	11	23
	<u>772,860</u>	<u>637,157</u>
Net unamortized bond premium	10,976	12,475
Net unamortized debt issuance costs	(5,240)	(4,736)
Total bonds and notes payable	<u>\$ 778,596</u>	<u>\$ 644,896</u>

The average rates reflected above for the variable rate bonds are computed based on the variable interest, fees and related swap interest payments. Series P is a long term multi-mode bond (final maturity 2036), the first mode of which was a 5-year put bond with a 3% coupon which was due on February 16, 2016. The second mode is a 15-year bank purchase mode with a variable bank purchase rate which is due February 17, 2031. The average rate for the fiscal 2017 and 2016 was 5.77% and 6.01% respectively.

The University issued \$130,000,000 Tufts University, Taxable Bonds, Series 2017A in June 2017. The University issued the bond at par, due August 15, 2057.

The University had available \$28,000,000 from March 2015 to April 2017 through a tax-exempt line of credit with a financial institution. The line of credit was not renewed after April 2017. The outstanding balance is approximately \$27,300,000 at June 30, 2017, which is expected to be paid by 2026.

Scheduled aggregate principal repayments on bonds and notes payable at June 30, 2017 are as follows (in thousands):

Fiscal Year Ending	Scheduled Principal Maturities
2018	\$38,777
2019	39,284
2020	40,142
2021	12,495
2022	13,325
Thereafter	628,837
Total	\$ 772,860

Included in the University's debt is \$162,700,000 of variable rate demand bonds ("VRDBs"). The University has entered into standby bond purchase agreements with a diverse group of financial institutions to secure bond repayment and interest obligations associated with its VRDBs. In fiscal year 2012, the University replaced the three standby bond purchase agreements with substantially similar agreements with other financial institutions. These agreements expire in October 2017 and March 2018. In the event a bond cannot be remarketed, the bond may be "put" to the standby bond purchase agreements providers, resulting in a loan to fund redemption of the bond. If it is assumed that outstanding bonds are put during fiscal year 2017, the maximum aggregate scheduled principal repayments under the VRDBs would be as follows: \$54,233,000 in 2018, \$54,233,000 in 2019 and \$54,234,000 in 2020.

In October 2017, the University renewed two of the standby bond purchase agreements through October 2020. The University intends to renew the third agreement, due to expire in March 2018, but not before the issuance date of these financial statements. As a result, approximately \$28,000,000 is included in the above table for each fiscal year ending 2018, 2019 and 2020. Since the third agreement is in place until March 2018, the bonds would only become due if the bonds were not remarketed or if the agreement was not renewed.

In March 2016, the University obtained a promissory note from Cummings Properties, LLC, in the amount of \$1,400,000. In May 2016 the University's subsidiary, Walnut Hill Properties Corporation, refinanced a \$9,000,000 Citizens Bank loan into a \$10,200,000 Bank of America loan.

Interest Rate Agreements— The University has entered into derivative transactions for the purpose of reducing the impact of fluctuations in interest rates and reducing interest expense. The University has entered into fixed-to-floating and floating-to-fixed interest rate swaps and basis swaps. The following summarizes the terms for each of the interest rate swap agreements as of June 30, 2017 and 2016 (in thousands).

Swap Agreements as of June 30, 2017

Swaps	Interest Rate Swap	Interest Rate Swap	Interest Rate Swap	Interest Rate Swap	Interest Rate Swap	Total
Debt Hedged	(Series P)	(Series G & N-1)	(Series N-1)	(Series N-1)	(Series N-2)	
Notional Amount	\$50,500	\$39,900	\$40,000	\$34,000	\$54,000	
Termination Date	February 15, 2036	August 15, 2033	August 15, 2040	August 15, 2036	August 15, 2034	
Fair Value June 30, 2017	(\$21,749)	(\$9,694)	(\$10,230)	(\$11,812)	(\$13,600)	(\$67,085)

Swap Agreements as of June 30, 2016

Swaps	Interest Rate Swap	Interest Rate Swap	Interest Rate Swap	Interest Rate Swap	Interest Rate Swap	Interest Rate Reverse Swap	Total
Debt Hedged	(Series P)	(Series G & N-1)	(Series N-1)	(Series N-1)	(Series N-2)	(Series P)	
Notional Amount	\$50,500	\$39,900	\$40,000	\$34,000	\$54,000	\$50,500	
Termination Date	February 15, 2036	August 15, 2033	August 15, 2040	August 15, 2036	August 15, 2034	February 16, 2016	
Fair Value June 30, 2016	(\$27,604)	(\$13,163)	(\$14,089)	(\$15,280)	(\$18,139)	\$0	(\$88,275)

The University reported the fair value of its interest rate swap agreements in the statement of financial position as a liability of \$67,085,000 and \$88,275,000 at June 30, 2017 and 2016, respectively. The change in fair market value of approximately \$21,190,000 and (\$25,581,000) for the years ended June 30, 2017 and 2016, respectively, is included in the statement of activities as net unrealized gain (loss) on interest rate agreements.

The interest rate swap on Series N-1 for \$40,000,000 was amended in November 2009 to change the rate paid by the counterparty to 69% of one month of LIBOR for three years. In November 2012, the rate reverted back to 64.4% of the five-year USD-ISDA swap rate.

The estimated market value of the interest rate exchange agreements at June 30, 2017 and June 30, 2016, was computed using the net present value of fixed and floating future cash flows, with floating future cash flows estimated through the use of forward interest rate yield curves adjusted for non-performance risk. These financial instruments necessarily involve counterparty credit exposure. The counterparties for these interest rate exchange transactions are a diversified group of major financial institutions that meet the University's criteria for financial stability and credit worthiness.

9. NET ASSETS

Net assets at June 30, 2017 and 2016 consisted of the following (in thousands):

	Unrestricted	Temporarily Restricted	Permanently Restricted	2017 Total	2016 Total
Endowment	\$ 704,737	\$ 436,779	\$ 633,063	\$ 1,774,579	\$ 1,593,242
Invested in physical plant	384,192	-	-	384,192	375,965
Operating	97,800	60,330	3	158,133	80,868
Building projects	39,964	9,638	-	49,602	50,185
Student loans	20,942	50	21,451	42,443	41,623
Total	<u>\$ 1,247,635</u>	<u>\$ 506,797</u>	<u>\$ 654,517</u>	<u>\$ 2,408,949</u>	<u>\$ 2,141,883</u>

Endowment consists of resources that have been restricted by the donor, trust, split interest agreement, or designated by the Board of Trustees for investment to provide future resources to support the University's activities. Temporarily restricted endowment includes unappropriated gains of approximately \$268,313,000 and \$190,741,000 in 2017 and 2016, respectively. Unrestricted operating includes funds that have been internally designated for use by various schools, departments, and programs throughout the University.

The University's endowment consists of individual donor restricted endowment funds and board-designated endowment funds for a variety of purposes plus the following where the assets have been designated for endowment: pledges receivables, split interest agreements, and other net assets. The net assets associated with endowment funds, including funds designated by the Board of Trustees to function as endowments, are classified and reported based on the existence or absence of donor imposed restrictions. Board-designated endowment funds at June 30, 2017 total the unrestricted endowment amount in the above table.

Changes in endowment net assets for the years ended June 30, 2017 and June 30, 2016 are as follows (in thousands):

	Unrestricted	Temporarily Restricted	Permanently Restricted	2017 Total	2016 Total
Endowment net assets, beginning of year	\$ 641,158	\$ 361,615	\$ 590,469	\$ 1,593,242	\$ 1,622,017
Investment return:					
Investment income	2,387	2,783	-	5,170	4,648
Realized and unrealized gains (losses)	104,369	114,027	816	219,212	(23,124)
Total investment return	106,756	116,810	816	224,382	(18,476)
Contributions	1,938	9,193	40,866	51,997	26,019
Appropriation of endowment assets for expenditure	(37,269)	(56,720)	-	(93,989)	(84,820)
Other changes, net	(7,846)	5,881	912	(1,053)	48,502
Endowment net assets, end of year	<u>\$ 704,737</u>	<u>\$ 436,779</u>	<u>\$ 633,063</u>	<u>\$ 1,774,579</u>	<u>\$ 1,593,242</u>

Other changes include additions or deductions to the endowment from net transfers resulting from changes in donor restrictions or University designations.

The temporarily restricted endowment funds consist of the following components (in thousands):

	<u>2017</u>	<u>2016</u>
Subject to time restriction	\$103,270	\$103,677
Restricted for program support	<u>333,509</u>	<u>257,938</u>
Total endowment assets classified as temporarily restricted net assets	<u>\$436,779</u>	<u>\$361,615</u>

The portion of perpetual endowment funds that is required to be retained (in thousands):

	<u>2017</u>	<u>2016</u>
Restricted for scholarship support	\$307,642	\$279,678
Restricted for faculty support	137,684	135,060
Restricted for program support	<u>187,737</u>	<u>175,911</u>
Total endowment assets classified as permanently restricted net assets	<u>\$633,063</u>	<u>\$590,649</u>

Endowment Funds with Deficits

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. When donor endowment deficits exist, they are classified as a reduction of unrestricted net assets. Deficits of this nature reported in unrestricted net assets were approximately \$35,000 and \$3,656,000 as of June 30, 2017 and 2016, respectively. These deficits resulted from market losses.

10. FUNCTIONAL CLASSIFICATION OF EXPENSES

The University reports operating expenses in its consolidated statement of activities by natural classification. Operating expenses by functional category for the years ended June 30, 2017 and 2016 consisted of the following (in thousands):

	2017	2016
Instruction	\$ 262,679	\$ 253,254
Sponsored programs	168,632	162,192
Clinical and other educational activities	155,843	143,833
Academic and student services	106,536	98,464
Auxiliary enterprises	64,408	61,899
Institutional support	125,953	116,316
Total expenses	<u>\$ 884,051</u>	<u>\$ 835,958</u>

Interest, depreciation, operations, and maintenance expenses have been allocated to functional expense classifications based on square footage utilized.

11. BENEFIT PLANS

Defined Contribution Plan—The University sponsors a defined contribution retirement plan under Section 401(a) of the Code, which is available to eligible faculty and administrative staff. All retirement benefits are funded by the University and are subject to a vesting schedule. The University’s contributions to the plan amounted to approximately \$30,761,000 and \$29,766,000 in 2017 and 2016, respectively.

The University also offers a supplemental retirement plan under Section 403(b) of the Code, which is fully funded by voluntary employee contributions.

Deferred Compensation Plans—The University maintains two separate plans under Section 457(b) of the Code for eligible officers, faculty and administrative staff. The University funded the Officers’ Plan with approximately \$127,000 and \$115,355 in 2017 and 2016, respectively. Under the terms of the Faculty and Administrative Staff Plan, no contributions are made by the University but are fully funded by voluntary employee contributions. The assets and related liabilities of these plans are recorded in investments and accrued liabilities in the consolidated financial statements and total approximately \$18,246,000 and \$15,482,000 in 2017 and 2016, respectively. The University also maintains a plan under Section 457(b) of the Code for eligible faculty and administrative staff that was closed to future participants in 1989. The University funded this plan with approximately \$4,000 in 2017 and 2016, respectively. The investment assets and related liabilities of these plans, which total approximately \$5,822,000 and \$5,132,000 in 2017 and 2016, respectively, are recorded in investments and accrued liabilities in the consolidated statements of financial position.

Health and Welfare Benefit Plan—The University provides postretirement health care benefits to eligible retired employees and their eligible spouses. Retirees share in the cost of their health care benefits through co-payments and deductibles related to years of service and date of retirement. Employees who were hired after December 31, 1993, must pay for the entire cost of their benefit when they retire. The University established a trust to fund the postretirement health care benefits for most of the eligible employees. The trust qualifies as a “voluntary employees beneficiary association” (“VEBA”) under the provisions of Section 501(c)(9) of the Code in order that the trust be exempt from certain taxes.

Changes in the University's postretirement health care benefit obligation for the years ended June 30, 2017 and 2016 are as follows (in thousands):

	2017	2016
Change in Accumulated Postretirement Benefit Obligation (APBO):		
APBO at prior fiscal year end	\$ 44,443	\$ 39,565
Employer service cost	671	538
Interest cost	1,295	1,438
Actuarial (gain) loss	(12,970)	4,585
Plan participants' contributions	2,791	2,587
Benefits paid from plan assets ¹	(4,654)	(4,270)
Medicare Part D subsidy	352	-
APBO at current fiscal year end	<u>\$ 31,928</u>	<u>\$ 44,443</u>

¹Net of retiree contributions

²Net of administrative expenses

The funded status of the University's postretirement health care plan and the amounts recognized in the consolidated statements of financial position at June 30, 2017 and 2016 are as follows (in thousands):

	2017	2016
Change in Plan Assets:		
Fair value of assets at prior fiscal year end	\$ 31,642	\$ 33,412
Actual return on assets ²	3,814	(115)
Employer contributions for key employees	1	28
Plan participants' contributions	2,791	2,587
Benefits paid ¹	(4,654)	(4,270)
Fair value of assets at current fiscal year end	<u>\$ 33,594</u>	<u>\$ 31,642</u>
Funded Status	<u>\$ 1,665</u>	<u>\$ (12,801)</u>

¹Net of retiree contributions

²Net of administrative expenses

Amounts recognized in the Statement of Financial Position (in thousands):

	2017	2016
Receivables and other assets, net	\$ 1,665	-
Accounts payable and accrued expenses	-	(12,801)
Net amount recognized in the statement of financial position	<u>\$ 1,665</u>	<u>\$ (12,801)</u>

Amounts not yet reflected in net periodic benefit cost and included in unrestricted net assets (in thousands)

	2017	2016
Unamortized actuarial (gain) loss	(630)	16,743
Change to unrestricted net assets	<u>\$ (630)</u>	<u>\$ 16,743</u>

In fiscal year 2015, the University updated the actuarial assumption related to participant mortality from the RP-2000 to the RP-2014 mortality table.

There are no amounts expected to be recognized in the net periodic cost in the following year as there were no events creating any prior service cost and there is no unrecognized actuarial (gain) loss over the 10% corridor this year.

The components of net periodic benefit cost (in thousands):

	2017	2016
Employer service cost	\$ 671	\$ 538
Interest cost	1,295	1,438
Expected return on assets	<u>(2,126)</u>	<u>(2,578)</u>
Subtotal	(160)	(602)
Net loss amortization	<u>1,455</u>	<u>716</u>
Net periodic postretirement benefit cost	<u>1,295</u>	<u>114</u>
Total changes recognized in unrestricted net assets	<u>\$ (15,761)</u>	<u>\$ 6,562</u>
Total changes recognized in net periodic cost and in nonoperating activities	<u>\$ (14,466)</u>	<u>\$ 6,676</u>

The weighted-average assumptions to determine obligations are as follows:

	2017	2016
Discount rate at end of year	3.82%	3.00%

The weighted-average assumptions to determine net periodic benefit cost are as follows:

	2017	2016
Assumptions Used to Determine Benefit Cost¹		
Discount rate	3.00%	3.75%
Long-term rate of return on assets	7.00%	8.00%
Current health care cost trend rate	7.50%	
Ultimate health care cost trend rate	4.50%	
Year of ultimate trend rate	2019	
Effect of 1% Increase in Health Care Cost Trend Rates		
Employer service cost	724,000	
Interest cost	1,446,000	
Total	2,170,000	
Change	204,000	228,000
Percentage change	10.376%	11.538%
Effect of 1% Decrease in Health Care Cost Trend Rates		
Employer service cost	624,000	
Interest cost	1,167,000	
Total	1,791,000	
Change	(175,000)	(194,000)
Percentage change	(8.901%)	(9.572%)

¹These assumptions were used to calculate Net Periodic Postretirement Benefit Cost (Income) as of the beginning of the year. Rates are expressed on an annual basis where applicable.

The expected future benefit payments net of employee contributions (in thousands):

Expected Future Benefit Payments and Medicare Part D Subsidies

During fiscal year ending 06/30/2018	1,961
During fiscal year ending 06/30/2019	2,053
During fiscal year ending 06/30/2020	2,098
During fiscal year ending 06/30/2021	2,113
During fiscal year ending 06/30/2022	2,125
During fiscal years ending 06/30/2023 through 06/30/2027	10,914

The estimated University cash contribution for fiscal year 2018 is \$0.

VEBA Trust Asset Allocation and Investment Strategy— The weighted-average investment allocation of plan assets by category is as follows:

	2017	2016	Target Allocation
Equity securities	59%	57%	58%
Debt securities	28%	30%	29%
Real estate securities	13%	13%	13%
Total	100%	100%	100%

The Health and Welfare Benefit Plan fiduciaries set the investment policy and strategy for investment of plan assets, including selecting investment managers and setting long-term risk and return objectives. The asset allocations are broadly diversified among asset category and within each category, which lowers the expected volatility of the portfolio's return and may protect against negative market environments.

To determine the expected long-term rate of return on plan assets, the University considers the target asset allocations, and the expected return on assets by category.

Equity securities primarily include mutual fund investments in large-cap and small-cap companies primarily located in the United States. Debt securities include high quality, investment grade and international bond funds. Real estate securities consist of mutual fund investments in domestic and international real estate investment trusts. The fair values of the University's post-retirement health care plan assets at June 30, 2017 and 2016 by asset category (in thousands):

VEBA Trust Investments at June 30, 2017	Level 1	Level 2	Level 3	Total
Equity securities	\$ 19,434	\$ -	\$ -	\$ 19,434
Debt securities	9,407	-	-	9,407
Real estate securities	4,314	-	-	4,314
	\$ 33,155	\$ -	\$ -	\$ 33,155

VEBA Trust Investments at June 30, 2016	Level 1	Level 2	Level 3	Total
Equity securities	\$ 17,955	\$ -	\$ -	\$ 17,955
Debt securities	9,190	-	-	9,190
Real estate securities	4,044	-	-	4,044
	<u>\$ 31,189</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 31,189</u>

At June 30, 2017 and 2016, the plan also held cash and cash equivalents amounting to approximately \$439,000 and \$452,000.

12. RELATED ORGANIZATIONS

Tufts Shared Services, Inc. (“TSS”)—The University and Tufts Medical Center, Inc. (“Medical Center”) jointly formed TSS, a not-for-profit service corporation, to provide the organization and facilities for coordinating certain education and health services activities. The administrative board of TSS includes equal representation from the University and the Medical Center. The cost of services provided by TSS to the University for the years ended June 30, 2017 and 2016 were approximately \$5,420,000 and \$5,198,000, respectively. The University’s 50% ownership investment in TSS has been recorded at approximately \$9,630,000 and \$10,636,000 at June 30, 2017 and 2016 using the equity method of accounting. The accounts of TSS are included in the accompanying consolidated financial statements of the University using the equity method of accounting, in investments and non-operating revenues.

13. CONTINGENCIES AND COMMITMENTS

Outstanding commitments on construction contracts amounted to approximately \$29,137,000 at June 30, 2017.

There are currently several legal cases pending involving labor relations and other matters related to the normal operation of the University. The University believes that the outcome of these cases will have no significant effect on the financial position or results of operations of the University.

Operating Leases—The University has several noncancelable operating lease commitments at June 30, 2017, with terms in excess of one year for office space. Expenses associated with operating leases totaled approximately \$8,237,000 and \$7,121,000 for the years ended June 30, 2017 and 2016, respectively.

Future minimum lease payments under operating leases are as follows (in thousands):

Fiscal Year 2018	\$ 8,157
Fiscal Year 2019	7,731
Fiscal Year 2020	6,765
Fiscal Year 2021	5,869
Fiscal Year 2022	4,162
Thereafter	<u>7,056</u>
Total	<u>\$ 39,740</u>

Tufts University

Schedule of Expenditures of Federal Awards

June 30, 2017

Federal Program	CFDA	Direct	Pass-Through	Pass-Through Entity	Pass-Through Entity Sponsor Number	Total Expenditures	Passed to Sub-Recipients
Research and Development Cluster							
Department of Agriculture							
Agricultural Research Service							
Agricultural Research Basic and Applied Research	10.001	\$ 12,912,415	\$ -			\$ 12,912,415	\$ -
Agricultural Research Basic and Applied Research	10.001		5,612	Agricultural Research Service	59-8050-7-001	5,612	
Agricultural Research Basic and Applied Research	10.001		3,787	Agricultural Research Service	59-8050-6-001	3,787	
National Institute of Food and Agriculture							
Agricultural Experiment Stations	10.203		2,737	West Virginia University	101359	2,737	
Animal Health and Disease Research	10.207	51,425				51,425	
Graduate Fellowships Grant Program	10.210	6,561				6,561	
Sustainable Agriculture Research and Education	10.215		9,817	Community Teamwork, Inc.	CTI/SARE 2014	9,817	
Sustainable Agriculture Research and Education	10.215		33,924	Community Teamwork, Inc.	CTI CFP TRAINING	33,924	
Food Assistance and Nutrition Research Programs (FANRP)	10.253	84,676				84,676	6,261
Agriculture and Food Research Initiative (AFRI)	10.310	907,114				907,114	14,162
Agriculture and Food Research Initiative (AFRI)	10.310		11,631	Pennsylvania State University	4396-TU-USDA-0057	11,631	
Agriculture and Food Research Initiative (AFRI)	10.310		15,716	University of Massachusetts Amherst	GAID # 8077	15,716	
Beginning Farmer and Rancher Development Program	10.311	53,218				53,218	
Cooperative Extension Service	10.500		30,307	University of Delaware	42695	30,307	
Cooperative Extension Service	10.500		26,800	University of Delaware	39134	26,800	
Foreign Agricultural Service							
Technical Agricultural Assistance	10.960		92,869	Rutgers University	566303	92,869	
Natural Resources Conservation Service							
USDA Special Projects	10.RD	1,101,412				1,101,412	
Review of WIC Food Packages	10.RD		6,422	National Academy of Sciences	2000006449	6,422	
		<u>15,116,821</u>	<u>239,622</u>			<u>15,356,443</u>	<u>20,423</u>
Department of Commerce							
National Oceanic and Atmospheric Administration							
Sea Level in Boston	11.417		18,810	Massachusetts Institute of Technology	5710003961	18,810	
Marsh Migrations	11.417		15,770	Yale University	C15S12206	15,770	
National Institute of Standards and Technology (NIST)							
Arrangements for Interdisciplinary Research Infrastructure	11.619		2,836	University of Massachusetts Lowell	S51700000029488	2,836	
		<u>-</u>	<u>37,416</u>			<u>37,416</u>	<u>-</u>
Department of Defense							
Department of the Navy, Office of the Chief of Naval Research							
Basic and Applied Scientific Research	12.300	3,341,821				3,341,821	801,777
Basic and Applied Scientific Research	12.300		130,572	Northeastern University	SUB503329POIP1703982	130,572	
Basic and Applied Scientific Research	12.300		32,063	The Trustees of Princeton Univ	FA8750-17-2-0028	32,063	
Basic and Applied Scientific Research	12.300		72,608	University of Washington	UWSC7586 BPO10248-V2	72,608	
Basic Scientific Research - Combating Weapons of Mass Destruction	12.351	83,294				83,294	
Department of Army Research and Material Command							
Military Medical Research and Development	12.420	2,328,398				2,328,398	101,041
Military Medical Research and Development	12.420		27,714	University of Pittsburgh	0042752 (409774-1)	27,714	
Military Medical Research and Development	12.420		82,020	Wake Forest University Health	WFUHS 441074B CF-04	82,020	
Military Medical Research and Development	12.420		(127,911)	University of Colorado	FY14.512.001	(127,911)	

The accompanying notes are an integral part of this schedule.

Tufts University

Schedule of Expenditures of Federal Awards

June 30, 2017

Federal Program	CFDA	Direct	Pass-Through	Pass-Through Entity	Pass-Through Entity Sponsor Number	Total Expenditures	Passed to Sub-Recipients
Research and Development Cluster (cont.)							
Army Material Command							
Basic Scientific Research	12.431	1,690,661				1,690,661	24,665
Basic Scientific Research	12.431		20,009	Massachusetts Institute of Technology	5710003692	20,009	
Basic Scientific Research	12.431		14,651	Tulane Educational Fund	TUL684-13/14	14,651	
Basic Scientific Research	12.431		16,899	Wyss Institute	WYSS_167831-01	16,899	
Basic Scientific Research	12.431		173,804	Smart Information Flow Technol	CLIC-ECI-TUFTS-01	173,804	
Basic Scientific Research	12.431		17,825	Wyss Institute	WYSS_167831-01	17,825	
Basic Scientific Research	12.431		25,990	Smart Information Flow Technol	CLIC-TUFTS-01	25,990	
Basic Scientific Research	12.431		281,407	Wyss Institute	167936-5095581	281,407	
Department of Air Force							
Air Force Defense Research Sciences Program	12.800	380,808				380,808	
Air Force Defense Research Sciences Program	12.800		221,255	Stanford University	60805793-114411	221,255	
Air Force Defense Research Sciences Program	12.800		38,192	Brown University	00000917	38,192	
Air Force Defense Research Sciences Program	12.800		113,088	University of California, San Diego	70303838	113,088	
Air Force Defense Research Sciences Program	12.800		6,236	Galois, Inc.	2016-006	6,236	
Defense Advanced Research Projects Agency							
Research and Technology Development	12.910		46,251	Ceres Nanosciences Inc	W911NF-16-C-0060	46,251	
Research and Technology Development	12.910		114,915	University of Pittsburgh	0046185(410918-1)	114,915	
Research and Technology Development	12.910		250,221	University of Wisconsin	597K752	250,221	
Research and Technology Development	12.910		462,914	Whitehead Institute	10-1798-9902	462,914	
Research and Technology Development	12.910		787,586	Univ of NC Chapel Hill	5-55065	787,586	
Natick Labs	12.RD	1,429,405				1,429,405	150,544
Identification and evolution	12.RD		38,585	Physical Sciences, Inc.	SC58958-1792-001	38,585	
Neuromuscular Control in Fish	12.RD		33,092	MIT Lincoln Laboratory	7000380221	33,092	
Endangered Butterflies	12.RD		45,185	Akita innovations, LLC	AKITA	45,185	
Effective-Adaptable Locomotion	12.RD		50,379	Battelle	PO# US001-0000534702	50,379	
In Situ Biormidiation Dsgn&Perf	12.RD		73,630	Nanoscience Solutions, LLC	A006698	73,630	
Contextualized Soldier	12.RD		1,479	Triton Systems, Inc.	TSI-2456-15-104221	1,479	
PSC - BAA	12.RD		100,678	Technology Holding, LLC	FA8650-16-C-5020	100,678	
Decision Support Framework for	12.RD		20,000	Triton Systems, Inc.	TSI-2469-16-104743	20,000	
In Situ Remediation	12.RD		927	Triton Systems, Inc.	TSI-2466-16-104487	927	
PPAML-Probabilistic Programmin	12.RD		95,581	University of Minnesota	P003653901	95,581	
3D Reconstruction Methods	12.RD		(150)	MIT Lincoln Laboratory	PO# 7000292876	(150)	
Plant & Butterflies Homestead	12.RD		58,515	University of Montana	PG16-24864-01	58,515	
Adaptive, Reinforced, Interact	12.RD		236,549	American Science & Engineering	PO 100478	236,549	
		<u>9,254,387</u>	<u>3,562,759</u>			<u>12,817,146</u>	<u>1,078,027</u>

The accompanying notes are an integral part of this schedule.

Tufts University

Schedule of Expenditures of Federal Awards

June 30, 2017

Federal Program	CFDA	Direct	Pass-Through	Pass-Through Entity	Pass-Through Entity Sponsor Number	Total Expenditures	Passed to Sub-Recipients
Research and Development Cluster (cont.)							
Department of Education							
Institute of Education Sciences							
Education Research, Development and Dissemination	84.305	378,704				378,704	94,071
Education Research, Development and Dissemination	84.305		66,489	University of Texas At Austin	UTA15-000642	66,489	
Social Participation and Navigation	84.RD					347,863	
		<u>347,863</u>	<u>66,489</u>			<u>347,863</u>	<u>94,071</u>
		<u>726,567</u>	<u>66,489</u>			<u>793,056</u>	<u>94,071</u>
Department of Energy							
Office of Science Financial Assistance Program	81.049	924,402				924,402	
Office of Science Financial Assistance Program	81.049		276,423	Harvard University	130298-5079796	276,423	
Office of Science Financial Assistance Program	81.049		170,255	University of Wisconsin	153405569	170,255	
Office of Science Financial Assistance Program	81.049		109,609	Harvard University	130298-51011035	109,609	
Renewable Energy Research and Development	81.087		95,029	3M	DE-EE0007650	95,029	
Renewable Energy Research and Development	81.087		(996)	Fraunhofer USA, Inc.	DE-EE0006035-TUFTS	(996)	
Advanced Research Projects Agency-Energy	81.135		74,125	Massachusetts Institute of Technology	5710003640	74,125	
Mech. Behavior of REBCO	81.RD		28,290	Lawrence Berkeley National Lab	7323038	28,290	
Novel Polymer Electrolyte	81.RD		39,422	Ionic Materials Inc.	IONICMATERIALS	39,422	
	81.RD	<u>14,542</u>				<u>14,542</u>	
		<u>938,944</u>	<u>792,157</u>			<u>1,731,101</u>	<u>-</u>
Department of Environmental Protection							
Office of Research and Development							
Science To Achieve Results	66.509		18,958	Northeastern University	505110-78050	18,958	
		<u>-</u>	<u>18,958</u>			<u>18,958</u>	<u>-</u>
Department of Health and Human Services							
National Institutes of Health							
Special Programs for the Aging_Title IV_and Title II_Discretionary Projects	93.048	86,838				86,838	
National Resource Center for HIV Prevention Among Adolescents	93.057		6,507	Tufts Medical Center, Inc.	5U2GGH001181	6,507	
Training in General, Pediatric, and Public Health Dentistry.	93.059	42,368				42,368	
Advancing System Improvements for Key Issues in Women's Health	93.088		10,000	Futures Without Violence	2305	10,000	
Food and Drug Administration Research	93.103		41,842	CTTI/Duke University	2038315	41,842	
Food and Drug Administration Research	93.103		6,981	CTTI/Duke University	203-8965	6,981	
Maternal and Child Health Federal Consolidated Programs	93.110		75,054	University of Massachusetts Worcester	WA00470205OSP2017043	75,054	
Maternal and Child Health Federal Consolidated Programs	93.110		2,437	University of Massachusetts Worcester	WA00374019/RFS201504	2,437	
Environmental Health	93.113	497,533				497,533	60,354
Environmental Health	93.113		78,571	Northeastern University	500486-78050	78,571	
Environmental Health	93.113		3,060	Icahn School of Medicine at Mt	0255-5543-4609	3,060	
Environmental Health	93.113		18,216	University of California Irvin	2016-3343	18,216	
Environmental Health	93.113		155,261	University of California Irvin	2016-3343	155,261	
Environmental Health	93.113		(18,629)	University of California	E251GSA57000	(18,629)	
Oral Diseases and Disorders Research	93.121	1,965,893				1,965,893	181,609
Oral Diseases and Disorders Research	93.121		306,298	The Forsyth Institute	TUFTS024308-2476	306,298	
Community Programs to Improve Minority Health Grant Program	93.137		176,109	Lupus Foundation of America	00-8130-200-2507-5	176,109	
NIEHS Hazardous Waste Worker Health and Safety Training	93.142		14,712	Tony Mazzocchi Center	2U44ES006175	14,712	
NIEHS Hazardous Waste Worker Health and Safety Training	93.142		37,894	Tony Mazzocchi Center	2U44ES009761	37,894	
NIEHS Hazardous Waste Worker Health and Safety Training	93.142		2,182	Tony Mazzocchi Center	2U44ES006175	2,182	
NIEHS Hazardous Waste Worker Health and Safety Training	93.142		4,925	Tony Mazzocchi Center	2U44ES009761	4,925	
Research Related to Deafness and Communication Disorders	93.173	1,245,581				1,245,581	188,527
Research Related to Deafness and Communication Disorders	93.173		121,002	University of Florida	UFDSP00010198	121,002	
Research and Training in Complementary and Integrative Health	93.213		114,115	Massachusetts General Hospital	227956	114,115	
Research and Training in Complementary and Integrative Health	93.213		26,551	Massachusetts General Hospital	227956	26,551	
Mental Health Research Grants	93.242	2,692,166				2,692,166	
Mental Health Research Grants	93.242		32,572	Massachusetts General Hospital	216844	32,572	
Mental Health Research Grants	93.242		13,200	University of Pennsylvania	564904/10044768/1052	13,200	
Mental Health Research Grants	93.242		126,522	Boston Children's Hospital	RSTFD0000708343	126,522	
Alcohol Research Programs	93.273	687,237				687,237	

The accompanying notes are an integral part of this schedule.

Tufts University

Schedule of Expenditures of Federal Awards

June 30, 2017

Federal Program	CFDA	Direct	Pass-Through	Pass-Through Entity	Pass-Through Entity Sponsor Number	Total Expenditures	Passed to Sub-Recipients
Research and Development Cluster (cont.)							
Department of Health and Human Services (cont.)							
National Institutes of Health (cont.)							
Drug Abuse and Addiction Research Programs	93.279	714,709				714,709	
Drug Abuse and Addiction Research Programs	93.279		122,669	Icahn School of Medicine at Mount Sinai	0255-7341-4609	122,669	
Drug Abuse and Addiction Research Programs	93.279		14,023	Miriam Hospital	710-9993	14,023	
Drug Abuse and Addiction Research Programs	93.279		12,375	Yale University	M17A12534(A10716)	12,375	
Improve Human Health	93.286	3,908,538				3,908,538	1,782,079
Minority Health and Health Disparities Research	93.307	313,598				313,598	54,343
Trans- NIH Research Support	93.310	540,097				540,097	26,330
Trans- NIH Research Support	93.310		81,636	Massachusetts General Hospital	229595	81,636	
Trans- NIH Research Support	93.310		84,979	Massachusetts General Hospital	229595	84,979	
National Center for Advancing Translational Services	93.350	1,661,483				1,661,483	1,187,106
National Center for Advancing Translational Services	93.350		(189)	Johns Hopkins University	2002882973	(189)	
National Center for Advancing Translational Services	93.350		32,426	Ohio State University	PO# RF01462200	32,426	
Research Infrastructure Programs	93.351	1,796,615				1,796,615	19,169
Research Infrastructure Programs	93.351		12,199	Michigan State University	RC102764TU	12,199	
Research Infrastructure Programs	93.351		8,921	Broad Institute, Inc.	5000003-5500000971	8,921	
Research Infrastructure Programs	93.351		173,270	The Broad Institute, Inc.	5000002-5500000854	173,270	
Research Infrastructure Programs	93.351		(124)	The Broad Institute, Inc.	5000001-5500000794	(124)	
Nursing Research	93.361	352,904				352,904	29,800
Cancer Cause and Prevention Research	93.393	1,331,256				1,331,256	608,446
Cancer Cause and Prevention Research	93.393		11,029	Vaxess Technologies, Inc.	SBIRVAXESS	11,029	
Cancer Cause and Prevention Research	93.393		31,064	Vaxess Technologies, Inc.	SBIRVAXESS	31,064	
Cancer Cause and Prevention Research	93.393		51,895	Harvard University	111082-5058693	51,895	
Cancer Cause and Prevention Research	93.393		101,519	Research Institute of Fox Chase	15075-02	101,519	
Cancer Cause and Prevention Research	93.393		(11,178)	Research Institute of Fox Chase	15075-01	(11,178)	
Cancer Cause and Prevention Research	93.393		53,788	Columbia University	1(GG011708-01)	53,788	
Cancer Cause and Prevention Research	93.393		1,545	Columbia University	1 GG008303	1,545	
Cancer Detection and Diagnosis Research	93.394		38,287	Brigham and Women's Hospital	109296/114166	38,287	
Cancer Treatment Research	93.395	455,331				455,331	90,454
Cancer Treatment Research	93.395		41,104	Adecto Pharmaceuticals Inc	STTR.1T	41,104	
Cancer Treatment Research	93.395		25,344	Boston University	4500002162	25,344	
Cancer Treatment Research	93.395		2,696	Boston University	4500001974	2,696	
Cancer Treatment Research	93.395		18,166	Tufts Medical Center, Inc.	5014477-SERV	18,166	
Cancer Treatment Research	93.395		3,748	Privo Technologies	PRIVO TECH.	3,748	
Cancer Treatment Research	93.395		72,190	Massachusetts General Hospital	226691	72,190	
Cancer Treatment Research	93.395		38,506	Arisaph Pharmaceuticals, Inc.	5R42CA156930-03	38,506	
Cancer Biology Research	93.396	1,764,539				1,764,539	184,499
Cancer Biology Research	93.396		9,485	Connecticut College	141581-B	9,485	
Cancer Centers Support Grants	93.397	(12,978)				(12,978)	
Cancer Centers Support Grants	93.397		22,393	Dana Farber Cancer Institute	1003053	22,393	
Cancer Centers Support Grants	93.397		19,778	Dana Farber Cancer Institute	TUFTS-51	19,778	
Cancer Research Manpower	93.398	239,935				239,935	
ACL National Institute on Disability, Independent Living, and Rehabilitation Research	93.433		18,250	Childrens Hospital Med Center	136999	18,250	
Maternal, Infant and Early Childhood Home Program	93.505		4,986	Johns Hopkins University	PO#2002898348	4,986	
Head Start	93.600	714				714	

The accompanying notes are an integral part of this schedule.

Tufts University
Schedule of Expenditures of Federal Awards
June 30, 2017

Federal Program	CFDA	Direct	Pass-Through	Pass-Through Entity	Pass-Through Entity Sponsor Number	Total Expenditures	Passed to Sub-Recipients
Research and Development Cluster (cont.)							
Department of Health and Human Services (cont.)							
National Institutes of Health (cont.)							
Cardiovascular Disease Research	93.837	4,091,657				4,091,657	641,773
Cardiovascular Disease Research	93.837		(742)	University of Massachusetts Lowell	FF1110000029374	(742)	
Cardiovascular Disease Research	93.837		27,250	University of Massachusetts Lowell	FF1110000029374	27,250	
Cardiovascular Disease Research	93.837		76,501	University of Massachusetts Lowell	FF1110000029374	76,501	
Cardiovascular Disease Research	93.837		(1,031)	Tufts Medical Center	5012318-SERV	(1,031)	
Cardiovascular Disease Research	93.837		89,567	Brigham & Women's Hospital	111147	89,567	
Cardiovascular Disease Research	93.837		23,851	University of South Florida	6143-1130-00-A	23,851	
Cardiovascular Disease Research	93.837		29,146	University of South Florida	6143-1130-00-B	29,146	
Cardiovascular Disease Research	93.837		36,467	Tufts Medical Center	5012361-SERV	36,467	
Cardiovascular Disease Research	93.837		11,687	Cornell University	69020-10250	11,687	
Cardiovascular Disease Research	93.837		354,315	Harvard Pilgrim Health Care	AH000485	354,315	689
Lung Disease Research	93.838		219,591	Brigham and Women's Hospital	113280	219,591	
Blood Diseases and Resources Research	93.839	27,778				27,778	
Blood Diseases and Resources Research	93.839		10,307	Brigham & Women's Hospital	116380	10,307	
Blood Diseases and Resources Research	93.839		(5,789)	KIYATEC, Inc.	KIYATECFIXEDPRICESUB	(5,789)	
Translation and Implementation Science Research for Heart, Lung, Blood Diseases, and Sleep Disorders	93.840		97,359	Immunetics, Inc.	HL127698	97,359	
Translation and Implementation Science Research for Heart, Lung, Blood Diseases, and Sleep Disorders	93.840		9,094	Immunetics, Inc.	HL127698	9,094	
Arthritis, Musculoskeletal and Skin Diseases Research	93.846	1,814,370				1,814,370	541,047
Arthritis, Musculoskeletal and Skin Diseases Research	93.846		18,867	The Washington University	2928758C	18,867	
Arthritis, Musculoskeletal and Skin Diseases Research	93.846		20,700	BIDMC	5R01AR066621	20,700	
Diabetes, Endocrinology and Metabolism Research	93.847	1,000,201				1,000,201	152,808
Diabetes, Endocrinology and Metabolism Research	93.847		7,820	Boston Medical Center	0475501	7,820	
Diabetes, Endocrinology and Metabolism Research	93.847		(12,640)	University of Alabama	000439208-005	(12,640)	
Diabetes, Endocrinology and Metabolism Research	93.847		(1,431)	University of Alabama at Birm	000508172-SP006-002	(1,431)	
Diabetes, Endocrinology and Metabolism Research	93.847		12,837	Boston Medical Center	P30DK046200	12,837	
Diabetes, Endocrinology and Metabolism Research	93.847		40,937	Boston Medical Center	P30DK046200	40,937	
Diabetes, Endocrinology and Metabolism Research	93.847		6,802	Boston Medical Center	0186713	6,802	
Diabetes, Endocrinology and Metabolism Research	93.847		21,318	Boston Medical Center	0186713	21,318	
Diabetes, Endocrinology and Metabolism Research	93.847		274,385	Maine Medical Center	AXBURGH R24-01	274,385	
Diabetes, Endocrinology and Metabolism Research	93.847		11,216	Boston Medical Center	P30DK046200	11,216	
Diabetes, Endocrinology and Metabolism Research	93.847		5,617	Boston Medical Center	P30DK046200	5,617	
Diabetes, Endocrinology and Metabolism Research	93.847		12,720	University of Iowa	W000942864	12,720	
Diabetes, Endocrinology and Metabolism Research	93.847		192,827	BIDMC	01028521	192,827	
Diabetes, Endocrinology and Metabolism Research	93.847		4,950	Boston Medical Center	0475501	4,950	
Diabetes, Endocrinology and Metabolism Research	93.847		3,372	Boston Medical Center	046200G	3,372	
Diabetes, Endocrinology and Metabolism Research	93.847		8,676	Tufts Medical Center	5007811-SERV	8,676	
Diabetes, Endocrinology and Metabolism Research	93.847		61,658	BIDMC	01028521	61,658	
Diabetes, Endocrinology and Metabolism Research	93.847		6,284	Boston Medical Center	0475501	6,284	
Diabetes, Endocrinology and Metabolism Research	93.847		1,978	Boston Medical Center	5138	1,978	
Neurological Disorders	93.853	4,920,982				4,920,982	204,568

The accompanying notes are an integral part of this schedule.

Tufts University

Schedule of Expenditures of Federal Awards

June 30, 2017

Federal Program	CFDA	Direct	Pass-Through	Pass-Through Entity	Pass-Through Entity Sponsor Number	Total Expenditures	Passed to Sub-Recipients
Research and Development Cluster (cont.)							
Department of Health and Human Services (cont.)							
National Institutes of Health (cont.)							
Allergy, Immunology and Transplantation Research	93.855	17,597,849				17,597,849	4,676,017
Allergy, Immunology and Transplantation Research	93.855		124,170	Miriam Hospital	710-9159	124,170	
Allergy, Immunology and Transplantation Research	93.855		1,671	Miriam Hospital	7109156	1,671	
Allergy, Immunology and Transplantation Research	93.855		750	Miriam Hospital	710-9911-8985	750	
Allergy, Immunology and Transplantation Research	93.855		108,130	University of California Merce	F105GRA085	108,130	
Allergy, Immunology and Transplantation Research	93.855		83,217	Microbiotix Inc.	R41AI122433	83,217	
Allergy, Immunology and Transplantation Research	93.855		161,164	Northeastern University	500490-78050	161,164	
Allergy, Immunology and Transplantation Research	93.855		33,780	Boston Medical Center	0515001	33,780	
Allergy, Immunology and Transplantation Research	93.855		14,289	University of Pennsylvania	R21AI25924	14,289	
Allergy, Immunology and Transplantation Research	93.855		26,340	Brigham & Women's Hospital	115242	26,340	
Allergy, Immunology and Transplantation Research	93.855		7,428	Miriam Hospital	4P30AI042853-19	7,428	
Allergy, Immunology and Transplantation Research	93.855		(171)	Miriam Hospital	710-9911-8985 ADMIN	(171)	
Allergy, Immunology and Transplantation Research	93.855		106,230	University of Maryland	SR00004691	106,230	
Allergy, Immunology and Transplantation Research	93.855		148,731	University of Maryland	SR00004692	148,731	
Allergy, Immunology and Transplantation Research	93.855		633,233	University of Maryland	SR00004694	633,233	
Allergy, Immunology and Transplantation Research	93.855		123,056	Microbiotix Inc.	5R01AI099269	123,056	
Allergy, Immunology and Transplantation Research	93.855		127	Medical College of Wisconsin	PO1574678	127	
Allergy, Immunology and Transplantation Research	93.855		43	Miriam Hospital	710-9912-STOPKA	43	
Allergy, Immunology and Transplantation Research	93.855		92,900	University of Oklahoma	RS20161502	92,900	
Allergy, Immunology and Transplantation Research	93.855		3,869	The Forsyth Institute	TUFTS111823-2510	3,869	
Allergy, Immunology and Transplantation Research	93.855		57,544	Brigham & Women's Hospital	115113	57,544	
Allergy, Immunology and Transplantation Research	93.855		290,754	Boston College	5103181-2	290,754	
Allergy, Immunology and Transplantation Research	93.855		120,315	The Washington University	WU-17-387	120,315	
Allergy, Immunology and Transplantation Research	93.855		9,459	Miriam Hospital	710-9516-WALT	9,459	
Allergy, Immunology and Transplantation Research	93.855		217,212	The Washington University	WU-16-321	217,212	
Allergy, Immunology and Transplantation Research	93.855		1,540	Miriam Hospital	710-9912-8985	1,540	
Allergy, Immunology and Transplantation Research	93.855		794	Miriam Hospital	710-9119	794	
Allergy, Immunology and Transplantation Research	93.855		61,122	FoodSource Lure Corporation	FOODSOURCE LURE	61,122	
Allergy, Immunology and Transplantation Research	93.855		6,727	Miriam Hospital	710-9165	6,727	
Allergy, Immunology and Transplantation Research	93.855		5,978	Miriam Hospital	710-9156	5,978	
Allergy, Immunology and Transplantation Research	93.855		17,836	Miriam Hospital	710-9163	17,836	
Allergy, Immunology and Transplantation Research	93.855		268,240	University of Pittsburgh	9012710 (127648-1)	268,240	
Allergy, Immunology and Transplantation Research	93.855		4,101	Miriam Hospital	710-9156	4,101	
Allergy, Immunology and Transplantation Research	93.855		826	Miriam Hospital	710-9912	826	
Allergy, Immunology and Transplantation Research	93.855		42,092	Miriam Hospital	710-9159	42,092	
Allergy, Immunology and Transplantation Research	93.855		11,529	Miriam Hospital	710-9156	11,529	
Allergy, Immunology and Transplantation Research	93.855		210,909	Medical College of Wisconsin	R01AI118799	210,909	
Allergy, Immunology and Transplantation Research	93.855		136,410	Medical College of Wisconsin	1624288	136,410	
Allergy, Immunology and Transplantation Research	93.855		116,316	Univ of Texas at Houston	0011036A	116,316	
Allergy, Immunology and Transplantation Research	93.855		82,521	University of South Florida	6144-1147-00-A	82,521	
Allergy, Immunology and Transplantation Research	93.855		112,636	Boston University	4500001973	112,636	
Allergy, Immunology and Transplantation Research	93.855		53,699	Northwestern University	60039166TU	53,699	
Allergy, Immunology and Transplantation Research	93.855		3,341	Johns Hopkins University	2002238397	3,341	
Allergy, Immunology and Transplantation Research	93.855		77,834	North Dakota State Univ.	FAR0026616	77,834	
Allergy, Immunology and Transplantation Research	93.855		126,826	University of California Irvin	2016-3336	126,826	
Allergy, Immunology and Transplantation Research	93.855		9,955	University of Maryland	SR00004693	9,955	
Allergy, Immunology and Transplantation Research	93.855		18,178	The Geneva Foundation	S-10360-01	18,178	
Biomedical Research and Research Training	93.859	4,710,628				4,710,628	322,187
Biomedical Research and Research Training	93.859		110,634	University of Pittsburgh	0029564	110,634	
Biomedical Research and Research Training	93.859		27,026	Brandeis University	402375	27,026	
Biomedical Research and Research Training	93.859		426,944	Brandeis University	402372	426,944	
Biomedical Research and Research Training	93.859		364,463	Brandeis University	402374	364,463	
Biomedical Research and Research Training	93.859		279,613	Brandeis University	402373	279,613	
Biomedical Research and Research Training	93.859		7,192	University of Pittsburgh	0029564 (126332-8)	7,192	
Biomedical Research and Research Training	93.859		35,642	Yale University	M16A12276(A10363)	35,642	
Biomedical Research and Research Training	93.859		1,589	Harvard Medical School	152297.5078083.0310	1,589	

The accompanying notes are an integral part of this schedule.

Tufts University
Schedule of Expenditures of Federal Awards
June 30, 2017

Federal Program	CFDA	Direct	Pass-Through	Pass-Through Entity	Pass-Through Entity Sponsor Number	Total Expenditures	Passed to Sub-Recipients
Research and Development Cluster (cont.)							
Department of Health and Human Services (cont.)							
National Institutes of Health (cont.)							
Biomedical Research and Research Training	93.859		18,041	Harvard Medical School	152297.5078083.0310	18,041	
Child Health and Human Development Extramural Research	93.865	1,738,482				1,738,482	38,665
Child Health and Human Development Extramural Research	93.865		1,801	University of Alabama	000388010-045	1,801	
Child Health and Human Development Extramural Research	93.865		31,212	Johns Hopkins University	2003145744	31,212	
Child Health and Human Development Extramural Research	93.865		153,847	Massachusetts General Hospital	226712	153,847	
Child Health and Human Development Extramural Research	93.865		13,813	University of Alabama	000388010-045	13,813	
Child Health and Human Development Extramural Research	93.865		2,649	Harvard University	114205-1262-5096814	2,649	
Child Health and Human Development Extramural Research	93.865		963	Harvard University	114205-1162-5096814	963	
Child Health and Human Development Extramural Research	93.865		23,271	University of Massachusetts Boston	S2013000024042	23,271	
Aging Research	93.866	1,023,568				1,023,568	3,730
Aging Research	93.866		51,574	Hebrew Rehabilitation Center	90075	51,574	
Aging Research	93.866		16,448	University of Colorado	1551883	16,448	
Aging Research	93.866		81,681	University of Florida	UFDSP00010688	81,681	
Aging Research	93.866		20,460	Brigham & women's Hospital	115907	20,460	
Aging Research	93.866		6,692	Brigham & women's Hospital	115900	6,692	
Aging Research	93.866		10,093	Brigham & women's Hospital	115898	10,093	
Aging Research	93.866		46,500	Brigham & women's Hospital	2P30AG031679-06A1	46,500	
Aging Research	93.866		303,328	Brigham & women's Hospital	UFDSP00011302	303,328	
Aging Research	93.866		(8,785)	University of Florida	UAG050499A	(8,785)	
Aging Research	93.866		23,707	University of Florida	115640	23,707	2,605
Aging Research	93.866		8,971	Brigham & women's Hospital	65066758	8,971	
Aging Research	93.866		11,033	Mayo Clinic	MSC08 4640	11,033	
Aging Research	93.866		145,464	Pinnacle Technology, Inc	PIN 2015-169TUFTS	145,464	
Aging Research	93.866		54,379	University of Southern Califor	65348999	54,379	
Vision Research	93.867	1,587,794				1,587,794	274,902
Vision Research	93.867		98,293	SBMRI	59258-12696-TU	98,293	
Vision Research	93.867		4,222	University of Virginia	GC12164-140990	4,222	
Vision Research	93.867		14,503	MediBeacon, Inc.	27207-SUB	14,503	
Medical Library Assistance	93.879	13,812				13,812	
Medical Library Assistance	93.879		26,507	Brigham & Women's Hospital	111366	26,507	
Medical Library Assistance	93.879		48,750	University of Massachusetts Worcester	OSP2017113	48,750	
Medical Library Assistance	93.879		20,911	University of Massachusetts Boston	27457	20,911	
Based Dental Partnership Grants	93.924	14,913				14,913	
Acquired Immunodeficiency Syndrome Research Loan Repayment Program	93.936		237	Family Health International 360	PO# 5524	237	
International Research and Research Training	93.989	587,460				587,460	80,401
International Research and Research Training	93.989		76,732	Brown University	00000444	76,732	
Health Resources and Services Administration							
Basic Mechanisms of Human Calc	93.RD	96,394				96,394	
Basic Mechanisms of Human Calc	93.RD		4,843	Tufts Medical Center	5007633-SERV	4,843	
CD147 and Corneal Wound Repair	93.RD		14,802	Schepens Eye Research Institut	ARGUESO:4300076	14,802	
CAT	93.RD		38,677	Boston University	ARGUESO:4300076	38,677	
Post Dev Testing of Battery	93.RD		23,848	Boston University	4500001816	23,848	
NCI Contract	93.RD		203,642	Leidos Biomedical Research Inc	4500002233	203,642	
A522 CT Re-Analysis	93.RD		5,544	University of California	13XS110	5,544	
TO4 Effects of Dietary Sodium	93.RD		63,067	RAND Corporation	1568 P TA053	63,067	
B Cell Epitope Discovery & Mec	93.RD		27,549	Health Research, Inc.	9920170016	27,549	
Improving Global Health Litera	93.RD		(122)	APTR	4888-02	(122)	
Effects of Omega-3 Fatty Acids	93.RD		(1,137)	RAND Corporation	ATPHP120007-03-00	(1,137)	
		<u>59,510,245</u>	<u>10,803,392</u>			<u>70,313,637</u>	<u>11,352,108</u>
Department of Homeland Security							
Disaster Grants-Public Assistance	97.036		100,735	Harvard School of Public Health	112163-5094639	100,735	
Centers for Homeland Security	97.061		72,734	Northeastern University	505035-78057/78053	72,734	
LaserExposureMeasurementDevice	97.RD		(9,515)	OPTRA, Inc.	PO NO. 16148	(9,515)	
		<u>-</u>	<u>163,954</u>			<u>163,954</u>	<u>-</u>

The accompanying notes are an integral part of this schedule.

Tufts University

Schedule of Expenditures of Federal Awards

June 30, 2017

Federal Program	CFDA	Direct	Pass-Through	Pass-Through Entity	Pass-Through Entity Sponsor Number	Total Expenditures	Passed to Sub-Recipients
Research and Development Cluster (cont.)							
Department of the Interior							
Fish and Wildlife Service							
Research Grants (Generic)	15.650	9,385				9,385	
U.S. Geological Survey							
Earthquake Hazards Reduction Program	15.807	56,937				56,937	
FBI							
Array x Array: Screening & Ultrasensitive Detection of Epi-Proteomic Modifications	16.RD	(31,208)				(31,208)	
Graphics-based Learning Approach Integrated with Vision Elements (GLAIVE)	16.RD		76,217	University of Southern California	57124821	76,217	
		<u>35,114</u>	<u>76,217</u>			<u>111,331</u>	<u>-</u>
National Aeronautics and Space Administration (NASA)							
Science	43.001	194,042				194,042	
Science	43.001		36,434	Cornell University	77810-10705	36,434	
Science	43.001		50,229	Grizli: The Grism reshift&Line	HST-AR_14553.002-A	50,229	
Space Operations	43.007	308,240				308,240	40,647
Space Operations	43.007		68	Jet Propulsion Laboratory CALTech	1520564	68	
NASA Education Opportunities	43.008		9,284	The National Inst. of Aero Associates	C17-2D00-TU	9,284	
NASA Education Opportunities	43.008		33,967	The National Inst. of Aero Associates	C17-2D00-TU	33,967	
Space Technology	43.012	59,892				59,892	
NASA Research Announcements/Research Opportunities in Space and Earth Sciences	43.RD		482	National Institute of Aerospace	C14-2A00-TU	482	
NASA Research Announcements/Research Opportunities in Space and Earth Sciences	43.RD		121,088	Space Telescope Science Instit	HST-AR-14302.001-A	121,088	
NASA Research Announcements/Research Opportunities in Space and Earth Sciences	43.RD		3,959	Space Telescope Science Instit	HST-GO-12990.01-A	3,959	
		<u>562,174</u>	<u>255,511</u>			<u>817,685</u>	<u>40,647</u>
National Science Foundation							
Engineering Grants	47.041	2,356,888				2,356,888	186,278
Engineering Grants	47.041		17,706	Boston University	4500000149	17,706	
Engineering Grants	47.041		99,668	Brigham & Women's Hospital	108305	99,668	
Engineering Grants	47.041		77,577	Northeastern University	502225-78050	77,577	
Engineering Grants	47.041		105,942	Massachusetts Institute of Technology	5710003972	105,942	
Engineering Grants	47.041		(872)	University of Massachusetts Amherst	PO A271373 14-007251	(872)	
Engineering Grants	47.041		108,922	University of Tennessee	A12-0044-S004-A03	108,922	
Engineering Grants	47.041		10,722	University of Illinois	2012-02178-01	10,722	
Engineering Grants	47.041		1,009	North Carolina State University	2008-1015-14	1,009	
Mathematical and Physical Science	47.049	2,130,387				2,130,387	33,189
Geosciences	47.050	651,795				651,795	191,989
Geosciences	47.050		4,435	Rutgers University	PO S1942454	4,435	
Geosciences	47.050		7,686	University of Southern California	44264942	7,686	
Computer and Information Science and Engineering	47.070	1,371,616				1,371,616	
Computer and Information Science and Engineering	47.070		10,990	Indiana University	BL-4812525-TU	10,990	
Biological Sciences	47.074	1,012,290				1,012,290	
Social, Behavioral, and Economic Sciences	47.075	363,467				363,467	108,222
Education and Human Resources	47.076	4,867,338				4,867,338	458,094
Education and Human Resources	47.076		520	University of Connecticut	137511	520	
Education and Human Resources	47.076		66,469	TERC	2915	66,469	
Education and Human Resources	47.076		20,998	University of California Davis	201400026-01	20,998	
Education and Human Resources	47.076		22,184	University of Minnesota	A004521703	22,184	
Education and Human Resources	47.076		37,579	TERC	44054	37,579	
Education and Human Resources	47.076		21,607	University of California Santa Monica	KK1512	21,607	
Education and Human Resources	47.076		30,621	TERC	4074	30,621	
Office of Cyberinfrastructure	47.080		57,957	Utah State University	12008203	57,957	
		<u>12,753,781</u>	<u>701,720</u>			<u>13,455,501</u>	<u>977,772</u>

The accompanying notes are an integral part of this schedule.

Tufts University

Schedule of Expenditures of Federal Awards

June 30, 2017

Federal Program	CFDA	Direct	Pass-Through	Pass-Through Entity	Pass-Through Entity Sponsor Number	Total Expenditures	Passed to Sub-Recipients
Research and Development Cluster (cont.)							
Department of Labor							
Department of Labor Chief Evaluation Office	17.791	14,415				14,415	
		<u>14,415</u>	<u>-</u>			<u>14,415</u>	<u>-</u>
Department of State							
Bureau of International Security and Nonproliferation							
Global Threat Reduction	19.033	155,525				155,525	133,029
		<u>155,525</u>	<u>-</u>			<u>155,525</u>	<u>133,029</u>
Department of Transportation							
Federal Highway Administration							
Highway Research and Development Program	20.200		37,304	Research Foundation of CUNY	49204-A	37,304	
Federal Aviation Administration							
Characterizing Performance of the Ground Based Augmentation System	20.RD	134,765				134,765	
		<u>134,765</u>	<u>37,304</u>			<u>172,069</u>	<u>-</u>
Agency for International Development							
USAID Foreign Assistance for Programs Overseas	98.001	5,345,991				5,345,991	3,564,159
USAID Foreign Assistance for Programs Overseas	98.001		89,106	Save the Children US	84010473D	89,106	
USAID Foreign Assistance for Programs Overseas	98.001		668,180	Save the Children US	84010473D	668,180	
USAID Foreign Assistance for Programs Overseas	98.001		163,913	Save the Children	84004093	163,913	
USAID Foreign Assistance for Programs Overseas	98.001		2,629	Catholic Relief Services	MW.16.SRV.V1886-658.	2,629	
USAID Foreign Assistance for Programs Overseas	98.001		3,552	Catholic Relief Services	MW.16.SRV.V1886-658	3,552	
USAID Foreign Assistance for Programs Overseas	98.001		(38)	ACDI VOCA	J069711	(38)	
USAID Foreign Assistance for Programs Overseas	98.001		19,821	FHI360	100210.001.003.234	19,821	
USAID Foreign Assistance for Programs Overseas	98.001		20,157	FHI360	G000093	20,157	
USAID Foreign Assistance for Programs Overseas	98.001		11,858	FHI360	G000063	11,858	
USAID Foreign Assistance for Programs Overseas	98.001		7	ACDI VOCA	J069711	7	
USAID Foreign Assistance for Programs Overseas	98.001		31,038	University of Florida	UFDSP00011695	31,038	
USAID Foreign Assistance for Programs Overseas	98.001		22,970	Johns Hopkins University	2002944953	22,970	
USAID Foreign Assistance for Programs Overseas	98.001		10,083	FHI360	PO15000264	10,083	
USAID Foreign Assistance for Programs Overseas	98.001		18,282	Texas A&M AgriLife Research	06-S160677	18,282	
USAID Foreign Assistance for Programs Overseas	98.001		212,663	MercyCorps	PAHAL.32589S003	212,663	
USAID Foreign Assistance for Programs Overseas	98.001		132,715	Catholic Relief Services	MW.16.SRV.V1886-658.	132,715	
USAID Foreign Assistance for Programs Overseas	98.001		54,867	Catholic Relief Services	MW.16.SRV.V1886-658	54,867	
Disaster Risk Reduction	98.RD	7,565,434				7,565,434	1,931,482
Disaster Risk Reduction	98.RD		78,338	University of Minnesota	P004721401	78,338	
Disaster Risk Reduction	98.RD		1,870,250	University of Minnesota	P004721401	1,870,250	
		<u>12,911,425</u>	<u>3,410,391</u>			<u>16,321,816</u>	<u>5,495,641</u>
Total Research and Development Cluster		<u>112,114,163</u>	<u>20,165,890</u>			<u>132,280,053</u>	<u>19,191,718</u>

The accompanying notes are an integral part of this schedule.

Tufts University

Schedule of Expenditures of Federal Awards

June 30, 2017

Federal Program	CFDA	Direct	Pass-Through	Pass-Through Entity	Pass-Through Entity Sponsor Number	Total Expenditures	Passed to Sub-Recipients
Other Sponsored Programs							
Corporation For National and Community Service 2015 National Service & Civil Engagement	94.026	<u>176,727</u>	<u>-</u>			<u>176,727</u>	<u>1,197</u>
		<u>176,727</u>	<u>-</u>			<u>176,727</u>	<u>1,197</u>
Department of Defense							
Department of Education Graduate Assistance in Areas of National Need	84.200	<u>8,304</u>	<u>-</u>			<u>8,304</u>	<u>-</u>
		<u>8,304</u>	<u>-</u>			<u>8,304</u>	<u>-</u>
Department of the Interior							
Fish and Wildlife Service FWS Wildlife Disease & Health	15.U01	<u>4,592</u>	<u>-</u>			<u>4,592</u>	<u>-</u>
		<u>4,592</u>	<u>-</u>			<u>4,592</u>	<u>-</u>
Department of Health and Human Services							
National Institute of Health Grants for Primary Care Training and Enhancement	93.884	<u>1,191,720</u>	<u>-</u>			<u>1,191,720</u>	<u>-</u>
		<u>1,191,720</u>	<u>-</u>			<u>1,191,720</u>	<u>-</u>
National Endowment for the Humanities Promotion of the Humanities Fellowships and Stipends	45.160	<u>43,190</u>	<u>-</u>			<u>43,190</u>	<u>-</u>
		<u>43,190</u>	<u>-</u>			<u>43,190</u>	<u>-</u>
Institute of Museum and Library Services National Leadership Grants	45.312	<u>15,419</u>	<u>-</u>			<u>15,419</u>	<u>4,832</u>
		<u>15,419</u>	<u>-</u>			<u>15,419</u>	<u>4,832</u>
Library of Congress Books for the Blind and Physically Handicapped	42.001		<u>8,343</u>	Muzzy Lane Software	GA16C0010-CC	<u>8,343</u>	<u>-</u>
		<u>-</u>	<u>8,343</u>			<u>8,343</u>	<u>-</u>
Total Other Sponsored Programs		<u>1,439,952</u>	<u>8,343</u>			<u>1,448,295</u>	<u>6,029</u>
Foreign Food Aid Donation Cluster							
Agency for International Development Food for Peace Development Assistance Program(DAP)	98.007		<u>139,837</u>	MercyCorps	FIC MYAP 32208S002	<u>139,837</u>	<u>-</u>
Total Foreign Food Aid Donation Cluster		<u>-</u>	<u>139,837</u>			<u>139,837</u>	<u>-</u>

The accompanying notes are an integral part of this schedule.

Tufts University
Schedule of Expenditures of Federal Awards
June 30, 2017

Federal Program	CFDA	Direct	Pass-Through	Pass-Through Entity	Pass-Through Entity Sponsor Number	Total Expenditures	Passed to Sub-Recipients
Student Financial Assistance Cluster							
Department of Education							
Federal Supplemental Educational Opportunity Grants	84.007	583,470				583,470	
Federal Work Study Program	84.033	1,564,359				1,564,359	
Federal Family Education Loan	84.032L						
Outstanding Loans @ July 1, 2016		5,150,212				5,150,212	
New Loans issued during 2017		-				-	
Administrative Cost Allowance		-				-	
Federal Perkins Loan	84.038						
Outstanding Loans @ July 1, 2016		15,808,762				15,808,762	
New Loans issued during 2017		1,439,452				1,439,452	
Administrative Cost Allowance		200,000				200,000	
Federal Pell Grant Program	84.063	2,743,427				2,743,427	
Federal Direct Student Loan	84.268	146,136,388				146,136,388	
Health Professions Student Loans, Including Primary Care Loans and Loans for Disadvantaged Students (HPSL/PCL/LDS)	94.342						
Outstanding Loans @ July 1, 2016		8,506,574				8,506,574	
New Loans issued during 2017		1,328,816				1,328,816	
Administrative Cost Allowance		-				-	
Total Student Financial Assistance Cluster		<u>183,461,460</u>	<u>-</u>			<u>183,461,460</u>	<u>-</u>
Total Federal Award Expenditures		<u>\$ 297,015,575</u>	<u>\$ 20,314,070</u>			<u>\$ 317,329,645</u>	<u>\$ 19,197,747</u>

The accompanying notes are an integral part of this schedule.

Tufts University
Notes to the Schedule of Expenditures of Federal Awards
June 30, 2017

1. Basis of Presentation

The accompanying schedule of expenditures of federal awards (the "Schedule") is presented on the accrual basis of accounting. The purpose of this schedule is to present a summary of those activities of Tufts University and its subsidiaries (the "University") for the year ended June 30, 2017 which have been financed by the United States government ("federal awards"). For purposes of this Schedule, federal awards include all federal assistance entered into directly between the University and the federal government and subawards from nonfederal organizations made under federally sponsored agreements. The information in this Schedule is presented in accordance with the requirements of Title 2, *U.S. Code of Federal Regulations Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards (Uniform Guidance)*. Pass-through entity identification numbers and CFDA numbers have been provided where available. The University applies its predetermined approved facilities and administrative rate when charging indirect costs to federal awards rather than the 10% de minimis cost rate as described in Section 200.414 of the Uniform Guidance and negative amounts reflect adjustments made to amounts reported in prior years in the normal course of business.

2. Student Loan Programs

The federal student loan programs listed below are administered directly by the University and balances and transactions relating to these programs are included in the University's basic financial statements. Loans made by the University to eligible students under federal student loan programs during the year ended June 30, 2017 are summarized as follows:

Title	CFDA No.	Amount Issued FY17
Perkins	84.038	\$ 1,439,452
Primary Care - Medical	93.342	-
LDS - Medical	93.342	135,000
LDS - Dental	93.342	75,000
HPSL - Dental	93.342	988,500
LDS - Veterinary	93.342	-
HPSL - Veterinary	93.342	130,316
Total 93.342		1,328,816
Total Loans Issued		\$ 2,768,268

Tufts University
Notes to the Schedule of Expenditures of Federal Awards
June 30, 2017

The balance of loans outstanding at June 30, 2017 consists of:

Title	CFDA No.	Amount Outstanding at June 30, 2017
Perkins	84.038	\$ 14,186,130
Primary Care - Medical	93.342	998,369
LDS - Medical	93.342	706,332
HPSL - Medical	93.342	63,654
LDS - Dental	93.342	385,662
HPSL - Dental	93.342	5,521,669
LDS - Veterinary	93.342	81,262
HPSL - Veterinary	93.342	662,016
Total 93.342		<u>8,418,968</u>
Total Loan Balances Outstanding		<u>\$ 22,605,098</u>

The University recovered an administrative cost allowance from the Perkins program of \$200,000 for the year ending June 30, 2017.

Federal Direct Student Loans

The University is responsible for the performance of certain administrative duties with respect to the Federal Direct Student Loan Programs listed below. Loans disbursed to students of the University during the year ended June 30, 2017 are summarized as follows:

Title	CFDA No.	Amount Issued
Federal Stafford Loan Program	84.268	\$ 85,969,286
Federal Parent Loan for Undergraduate Students (PLUS)	84.268	4,917,465
Federal Loan for Graduate Students (GRAD)	84.268	<u>55,249,637</u>
Total Federal Direct Student Loans		<u>\$ 146,136,388</u>

Administrative cost allowances are not charged to these programs.

Tufts University participated in the School as Lender program (CFDA# 84.032L) beginning in fiscal year 2004 until the program terminated on July 1, 2008. There were no new loans distributed to students in connection with this program during the year ended June 30, 2017. At June 30, 2017, the University held \$4,323,358 in outstanding loans.

Part II
Reports on Internal Control and Compliance



**Report of Independent Auditors on Internal Control Over Financial Reporting and on
Compliance and Other Matters Based on an Audit of Financial Statements Performed in
Accordance with *Government Auditing Standards***

To the Board of Trustees of
Tufts University

We have audited, in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the consolidated financial statements of Tufts University and its subsidiaries (the "University"), which comprise the consolidated statement of financial position as of June 30, 2017 and the related statement of activities and cash flows for the year then ended, and the related notes to the financial statements, and have issued our report thereon dated November 3, 2017.

Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered the University's internal control over financial reporting ("internal control") to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the University's internal control. Accordingly, we do not express an opinion on the effectiveness of the University's internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control such that there is a reasonable possibility that a material misstatement of the University's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.



Compliance and Other Matters

As part of obtaining reasonable assurance about whether the University's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the University's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the University's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

PricewaterhouseCoopers LLP

Boston, Massachusetts

November 3, 2017



**Report of the Independent Auditors on Compliance with Requirements
That Could Have a Direct and Material Effect on Each Major Program and on Internal
Control Over Compliance in Accordance with the Uniform Guidance**

To the Board of Trustees of
Tufts University

Report on Compliance for Each Major Federal Program

We have audited Tufts University's (the "University") compliance with the types of compliance requirements described in the *OMB Compliance Supplement* that could have a direct and material effect on each of the University's major federal programs for the year ended June 30, 2017. The University's major federal programs are identified in the summary of auditor's results section of the accompanying schedule of findings and questioned costs.

Management's Responsibility

Management is responsible for compliance with federal statutes, regulations and the terms and conditions of its federal awards applicable to its federal programs.

Auditors' Responsibility

Our responsibility is to express an opinion on compliance for each of the University's major federal programs based on our audit of the types of compliance requirements referred to above. We conducted our audit of compliance in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and the audit requirements of Title 2 U.S. *Code of Federal Regulations* Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance). Those standards and the Uniform Guidance require that we plan and perform the audit to obtain reasonable assurance about whether noncompliance with the types of compliance requirements referred to above that could have a direct and material effect on a major federal program occurred. An audit includes examining, on a test basis, evidence about the University's compliance with those requirements and performing such other procedures as we considered necessary in the circumstances.

We believe that our audit provides a reasonable basis for our opinion on compliance for each major federal program. However, our audit does not provide a legal determination of the University's compliance.

Opinion on Each Major Federal Program

In our opinion, Tufts University complied, in all material respects, with the types of compliance requirements referred to above that could have a direct and material effect on each of its major federal programs for the year ended June 30, 2017.



Report on Internal Control Over Compliance

Management of the University is responsible for establishing and maintaining effective internal control over compliance with the types of compliance requirements referred to above. In planning and performing our audit of compliance, we considered the University's internal control over compliance with the types of requirements that could have a direct and material effect on each major federal program to determine the auditing procedures that are appropriate in the circumstances for the purpose of expressing an opinion on compliance for each major federal program and to test and report on internal control over compliance in accordance with the Uniform Guidance, but not for the purpose of expressing an opinion on the effectiveness of internal control over compliance. Accordingly, we do not express an opinion on the effectiveness of the University's internal control over compliance.

A deficiency in internal control over compliance exists when the design or operation of a control over compliance does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, noncompliance with a type of compliance requirement of a federal program on a timely basis. *A material weakness in internal control over compliance* is a deficiency, or combination of deficiencies, in internal control over compliance, such that there is a reasonable possibility that material noncompliance with a type of compliance requirement of a federal program will not be prevented, or detected and corrected, on a timely basis. *A significant deficiency in internal control over compliance* is a deficiency, or a combination of deficiencies, in internal control over compliance with a type of compliance requirement of a federal program that is less severe than a material weakness in internal control over compliance, yet important enough to merit attention by those charged with governance.

Our consideration of internal control over compliance was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control over compliance that might be material weaknesses or significant deficiencies. We did not identify any deficiencies in internal control over compliance that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

The purpose of this report on internal control over compliance is solely to describe the scope of our testing of internal control over compliance and the results of that testing based on the requirements of the Uniform Guidance. Accordingly, this report is not suitable for any other purpose.

PricewaterhouseCoopers LLP

Boston, Massachusetts
November 3, 2017

Part III
Findings

Tufts University
Schedule of Findings and Questioned Costs
Year Ended June 30, 2017

I. Summary of Auditor's Results

Financial Statements

Type of auditor's report issued		Unmodified
Internal control over financial reporting		
Material weakness(es) identified?	<input type="checkbox"/> yes	<input checked="" type="checkbox"/> no
Significant deficiency(ies) identified that are not considered to be material weaknesses?	<input type="checkbox"/> yes	<input checked="" type="checkbox"/> none reported
Noncompliance material to financial statements noted?	<input type="checkbox"/> yes	<input checked="" type="checkbox"/> no

Federal Awards

Internal control over major programs		
Material weakness(es) identified?	<input type="checkbox"/> yes	<input checked="" type="checkbox"/> no
Significant deficiency(ies) identified that are not considered to be material weaknesses?	<input type="checkbox"/> yes	<input checked="" type="checkbox"/> none reported
Type of auditor's report issued on compliance for major programs		Unmodified
Any audit findings that are required to be reported in accordance with Section .510(a) of Uniform Guidance?	<input type="checkbox"/> yes	<input checked="" type="checkbox"/> no

Identification of Major Programs

CFDA Number(s)	Name of Federal Program/Cluster
84.032L	Federal Family Education Loan (Lender)
Various	Student Financial Assistance Cluster
93.884	Grants for Primary Care Training and Enhancement

Dollar threshold used to distinguish between Type A and Type B programs		\$ 3,000,000
Auditee qualified as a low-risk auditee?	<input checked="" type="checkbox"/> yes	<input type="checkbox"/> no

II. Financial Statement Findings

None noted

III. Federal Award Findings and Questioned Costs

None noted

Tufts University
Summary of Status of Prior Audit Findings
Year Ended June 30, 2017

2016-001 – Subrecipient risk assessment documentation

Research and Development Cluster and certain other awards*

Award Name: Various*

Award Year: Various

Award Number: Various*

CFDA Number: Various*

*See 2016 Schedule of Expenditures of Federal Awards for awards with subrecipient expenditures

Through PwC’s testing of the subrecipient risk assessment process at the University, it was noted that documentation of a risk assessment being performed prior to entering into a subcontract was not available for all entities. Additionally, there was no formal documentation of subrecipient risk being reassessed after initial review and thus no documented link between the risk associated with the subrecipients and the level of subsequent monitoring to be completed for each subrecipient.

A summary of the exceptions noted by award were as follows:

	Award name	CFDA #	Total subrecipient expenditures selected
1.	Array x Array: Screening and Ultrasensitive Detection of Epi-Proteomic Modifications	16.RD	\$306,018
2.	ViM/Food Aid Qualit Review (FAQR)	98.001	\$250,068
3.	Microbiomes in Human Pancreatic Cancer	93.393	\$149,680
4.	Array x Array: Screening and Ultrasensitive Detection of Epi-Proteomic Modifications	16.RD	\$130,041
5.	Applied Research of Disinfection of Hands, Surfaces, and Wastewater to Prevent Ongoing Transmission of Ebola	98.001	\$73,294
6.	A platform for therapeutic agents that promote rapid recovery from botulism	93.855	\$109,360
7.	Stx-Mediated Disease and Immunomodulatory Effectors of Enterohemorrhagic E. Coli	93.855	\$70,593

In fiscal year 2017, the University implemented a template to be utilized for the initial risk assessment and a continuing reassessment template. In addition to these tools, PwC recommended the University consider the following:

- Implementing a formal review of the initial and continuing subrecipient risk reassessments
- Formalizing the monitoring that is expected when a subrecipient is categorized as high versus low-risk and the departments/individuals responsible for such monitoring
- Formalize the annual subrecipient risk assessment process and the criteria to be reviewed and ensure it includes all subrecipients. Input into this assessment should be obtained from various constituents, including the PI, school/department, SPA, etc. and allow the University to formally conclude on and document the level of risk associated with each subrecipient.

Status

A formal process of documenting the initial risk assessments of subrecipients has been implemented and is performed using the Federal Demonstration Partnership (FDP) Risk Assessment Questionnaire (RAQ). RAQs are completed prior to issuing any new subaward and an amendment to a subaward for which RAQ had not been completed in the past. The RAQ focuses on federal and non-federal flow-through funds and is a tool to assist with determining the risk of a subrecipient and documenting this

Tufts University

Summary of Status of Prior Audit Findings

Year Ended June 30, 2017

determination. A copy of RAQ is uploaded in Research Administration System (RAS) in the award record. The completed RAQ is reviewed by the Pre-Award Signing Official to make a determination regarding the appropriate resulting subaward terms. The determination of risk is communicated to the PI and the department, along with any additional requirements and need for special monitoring. The FDP Continuing Assessment Tool (CAT) is used to assess whether any changes are needed in the subaward terms and conditions at the time of issuing an amendment and offers a mechanism for documenting actions taken and the reasoning behind them.

This formal documentation makes it easier to ensure consistency of our risk assessments and provides a clear link with the formal annual reassessment of subrecipient risk. A new position of Subrecipient Monitoring Specialist was created and filled at 0.6 FTEs as of July 1, 2017. The position resides in the new unit formed at the Office of the Vice Provost for Research led by Associate Director of Research Administration Compliance & Risk Management who will report to the Associate Vice Provost for Research Administration & Development when hired.

The Subrecipient Monitoring Specialist analyzes the subrecipient audit documentation and any relevant information from departments to ensure our risk rating for each subrecipient is appropriate, completes RAQs and CATs, and continues the workflow into the post-award. This new position focuses on the oversight of the subawards and of the appropriate monitoring actions, with additional measures applicable when a subrecipient is categorized as medium or high risk versus low-risk. The key feature of this oversight is the partnership with Pre-Award, Post-Award, and departments to ensure consistency of monitoring actions.