

Tufts University

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

June 30, 2018

EIN #042103634

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Reports on Federal Awards in Accordance with the Uniform Guidance
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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, 2018 and 2017, and the related consolidated statements of activities for the year ended June 30, 2018 and of cash flows for the years ended June 30, 2018 and 2017, 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 Tufts University and its subsidiaries as of June 30, 2018 and 2017, and the changes in their net assets for the year ended June 30, 2018 and their cash flows for the years ended June 30, 2018 and 2017 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, 2017, and the related consolidated statement of activities and cash flows for the year then ended (not presented herein), and in our report dated November 3, 2017, 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, 2017 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, 2018 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 2, 2018 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, 2018. 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.

A handwritten signature in cursive script that reads "PricewaterhouseCoopers LLP".

November 2, 2018

TUFTS UNIVERSITY

CONSOLIDATED STATEMENTS OF FINANCIAL POSITION

AS OF JUNE 30, 2018 AND JUNE 30, 2017 (in thousands)

	2018	2017
ASSETS		
Cash and cash equivalents	\$ 77,156	\$ 69,494
Investments, intermediate-term	176,777	201,282
Receivables and other assets, net	52,450	51,304
Receivables for investments purchased, net	1,618	-
Contributions receivable, net	50,535	42,415
Notes and student loans receivable, net	44,830	46,570
Investments, long-term	2,170,831	2,043,494
Land, buildings, and equipment, net	<u>1,083,931</u>	<u>1,039,672</u>
TOTAL ASSETS	<u>\$ 3,658,128</u>	<u>\$ 3,494,231</u>
LIABILITIES AND NET ASSETS		
LIABILITIES:		
Accounts payable and accrued expenses	\$ 165,681	\$ 153,397
Deferred revenue and deposits	63,675	59,626
Bonds and notes payable	766,711	778,596
Interest rate agreements	54,724	67,085
Government advances for student loans	<u>23,163</u>	<u>26,578</u>
Total liabilities	<u>1,073,954</u>	<u>1,085,282</u>
NET ASSETS:		
Unrestricted	1,344,081	1,247,635
Temporarily restricted	555,654	506,797
Permanently restricted	<u>684,439</u>	<u>654,517</u>
Total net assets	<u>2,584,174</u>	<u>2,408,949</u>
TOTAL LIABILITIES AND NET ASSETS	<u>\$ 3,658,128</u>	<u>\$ 3,494,231</u>

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

TUFTS UNIVERSITY

CONSOLIDATED STATEMENT OF ACTIVITIES

FOR THE YEAR ENDED JUNE 30, 2018, WITH SUMMARIZED INFORMATION FOR THE YEAR ENDED JUNE 30, 2017 (in thousands)

	Unrestricted	Temporarily Restricted	Permanently Restricted	Total	
				2018	2017
OPERATIONS:					
REVENUE:					
Tuition and fees	\$ 545,910	\$ -	\$ -	\$ 545,910	\$ 525,687
Less scholarships and fellowships	(147,165)	-	-	(147,165)	(140,933)
Tuition and fees, net	398,745	-	-	398,745	384,754
Government grants and contracts	150,815	-	-	150,815	149,790
Clinical and other educational activities	123,608	-	-	123,608	123,007
Auxiliary enterprises	63,866	-	-	63,866	61,130
Contributions and grants	54,843	17,423	-	72,266	90,082
Investment return utilized	92,477	10,082	-	102,559	105,641
Net assets released from restrictions	24,751	(24,751)	-	-	-
Total revenue and other support	909,105	2,754	-	911,859	914,404
EXPENSES:					
Salaries and wages	444,701	-	-	444,701	432,999
Benefits	96,324	-	-	96,324	100,025
Materials, supplies and other	126,313	-	-	126,313	126,702
Purchased services	76,297	-	-	76,297	82,531
Facility and maintenance costs	52,740	-	-	52,740	49,146
Depreciation	58,702	-	-	58,702	52,108
Interest	30,944	-	-	30,944	22,182
Travel	17,703	-	-	17,703	18,358
Total expenses	903,724	-	-	903,724	884,051
INCREASE IN NET ASSETS FROM OPERATING ACTIVITIES	5,381	2,754	-	8,135	30,353
NONOPERATING ACTIVITIES:					
Investment return reinvested, net of utilized	51,255	43,533	834	95,622	141,584
Contributions and grants	11,801	6,246	29,088	47,135	42,719
Contribution from SMFA acquisition	-	-	-	-	21,464
Net assets released from restrictions for capital and other nonoperating purposes	5,101	(5,101)	-	-	-
Net unrealized gain on interest rate agreements	12,361	-	-	12,361	21,190
Change in funded status of postretirement health care plan	14,649	-	-	14,649	15,761
Other nonoperating activities	(4,102)	1,425	-	(2,677)	(6,005)
INCREASE IN NET ASSETS FROM NONOPERATING ACTIVITIES	91,065	46,103	29,922	167,090	236,713
INCREASE IN NET ASSETS	96,446	48,857	29,922	175,225	267,066
NET ASSETS—Beginning of year	1,247,635	506,797	654,517	2,408,949	2,141,883
NET ASSETS—End of year	\$ 1,344,081	\$ 555,654	\$ 684,439	\$ 2,584,174	\$ 2,408,949

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, 2018 AND JUNE 30, 2017 (in thousands)

	2018	2017
CASH FLOWS FROM OPERATING ACTIVITIES:		
Total increase in net assets	\$ 175,225	\$ 267,066
Adjustments to reconcile total increase in net assets to net cash and cash equivalents used in operating activities:		
Net realized and unrealized investment (gains)	(185,667)	(239,855)
Depreciation and amortization	59,080	52,003
Loss on disposal of fixed assets	2,565	2,995
Gifts of securities, property and equipment	(13,798)	(10,060)
Proceeds from sales of donated securities	4,693	4,800
Settlements on interest rate swap agreements	6,576	7,630
Net unrealized (gain) on interest rate agreements	(12,361)	(21,190)
Contributions restricted for long-term investment	(17,956)	(20,263)
Increase in net assets from SMFA acquisition	-	(21,464)
Changes in operating assets and liabilities:		
Receivables and other assets	(1,146)	(9,773)
Contributions receivable	(8,120)	(10,695)
Accounts payable and accrued expenses	6,827	(6,695)
Deferred revenue and deposits	4,049	(4,831)
Net cash and cash equivalents provided by (used in) operating activities	<u>19,967</u>	<u>(10,332)</u>
CASH FLOWS FROM INVESTING ACTIVITIES:		
Notes and student loans granted	(5,403)	(5,598)
Student loans repaid	7,143	8,453
Change in funds held under bond agreement	-	4,200
Restricted funds from SMFA acquisition	-	4,176
Purchases of investments	(1,162,690)	(1,105,987)
Proceeds from sale of investments	1,242,208	1,064,031
Additions to land, buildings, and equipment	(96,267)	(143,917)
Net cash and cash equivalents (used in) investing activities	<u>(15,009)</u>	<u>(174,642)</u>
CASH FLOWS FROM FINANCING ACTIVITIES:		
(Decrease) increase in government advances for student loans	(3,415)	154
Proceeds from issuance of bonds and notes	-	144,000
Cash paid on interest rate swap agreements	(6,576)	(7,630)
Repayments of bonds and notes	(10,473)	(8,971)
Proceeds from contributions restricted for long-term investment	17,956	20,263
Proceeds from sales of donated securities restricted for long-term purposes	5,212	4,763
Net cash and cash equivalents provided by financing activities	<u>2,704</u>	<u>152,579</u>
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	7,662	(32,395)
CASH AND CASH EQUIVALENTS—Beginning of year	69,494	101,889
CASH AND CASH EQUIVALENTS—End of year	\$ 77,156	\$ 69,494
SUPPLEMENTAL DATA:		
Cash paid for interest, net of amounts capitalized (see Note 7)	<u>\$ 33,316</u>	<u>\$ 30,187</u>
Construction amounts remaining in accounts payable	<u>\$ 22,681</u>	<u>\$ 15,525</u>
Gifts of securities, property and equipment	<u>\$ 13,798</u>	<u>\$ 10,060</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, 2018 AND 2017

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 approximately 100 acres designated for commercial use in Grafton Science Park on the Cummings School of Veterinary Medicine campus. At this time, JM Holdings and the Cummings School are working to identify potential life science tenants who need a greenfield site to construct new research and development, office or bio-manufacturing facilities.

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.

Tufts Global, Inc (“Tufts Global”)—Tufts Global is a non-for-profit corporation formed as a supporting organization of the University to conduct, support and facilitate educational and research activities resulting from grant-funded projects within and outside of the United States.

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 for capitalized long term purposes 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. Fundraising expenses totaled approximately \$24,400,000 for the years ended June 30, 2018 and 2017.

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, long-term—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.

Investments, intermediate-term—Investments are reported at fair value. This portfolio is invested in high quality fixed income securities consisting of treasuries, agencies, investment grade corporates, and asset backed securities with maturities generally ranging from 1 to 3 years.

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 have been 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. Clinical and other educational activities include clinical revenues generated at the Vet school, Dental school, and Medical school and other revenue sources including royalty income and rental income.

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, 2018 and 2017, 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 date 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 \$60,632,000 and \$56,830,000 at June 30, 2018 and 2017, 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 significant 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 \$12,100,000 and \$11,300,000 at June 30, 2018 and 2017, 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 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 has completed our initial assessment and our policies and procedures related to this ASU, which we adopted effective July 1, 2018. Based on our initial assessment we do not expect the adoption of this ASU to have a significant impact to our method of recognizing operating and non-operating revenues and support at the University.

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 has completed an initial assessment of the new financial statement format and does not expect this guidance to have a significant impact other than condensing net assets and adding new required disclosures.

In January 2017, the FASB issued ASU 2017-02, *Clarifying When a Not-for-Profit Entity that is a General Partner or a Limited Partner Should Consolidate a For-Profit Limited Partnership or Similar Entity*. This guidance retains the presumption that a not-for-profit entity that is a general partner of a for-profit limited partnership or similar entity controls the limited partnership, unless that presumption can be overcome. This ASU also clarifies that the consequential amendments in the guidance on classifying and measuring financial instruments in ASU 2016-01 were not intended to affect the ability of not-for-profits (other than business-oriented health care entities) with investments in certain for-profit entities to elect to measure those investments at fair value. The ASU is effective for annual periods beginning after December 15, 2018 or fiscal year 2020 for the University. This guidance is not expected to significantly impact the University.

In June 2018, the FASB issued ASU 2018-08, Not-for-Profit Entities (Topic 958), *Clarifying the Scope and the Accounting Guidance for Contributions Received and Contributions Made*. The new standard applies to all entities that receive or make contributions. The guidance clarifies the definition of transactions accounted for as an exchange transaction subject to ASU 2014-09 or other applicable guidance, and transactions that should be accounted for as contributions (non-exchange) subject to the contribution accounting model. Further, the guidance provides criteria for evaluating whether contributions are unconditional or conditional. Conditional contributions must specify a barrier that the recipient must overcome and a right of return that releases the donor from its obligation if the barrier is not achieved, otherwise the contribution is unconditional. This ASU is for annual periods beginning after June 15, 2018 and thus fiscal year 2019 for the University.

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.

Reclassification—Certain June 30, 2017 balances and amounts previously reported have been reclassified to conform to the June 30, 2018 presentation.

Subsequent events—The University has evaluated the impact of subsequent events through November 2, 2018, representing the date the financial statements were issued.

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, 2017, 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 prepaid expenses and inventories, as well as approximately \$400 and \$300 of restricted funds held under bond agreement at June 30, 2018 and June 30, 2017, respectively. The components at June 30, 2018 and 2017 are as follows (in thousands):

	2018	2017
Gross receivables	\$ 48,786	\$ 48,819
Less allowance for uncollectible amounts	<u>(2,655)</u>	<u>(2,400)</u>
Receivables, net	46,131	46,419
Other assets	<u>6,319</u>	<u>4,885</u>
Total	<u>\$ 52,450</u>	<u>\$ 51,304</u>

4. CONTRIBUTIONS RECEIVABLE

Contributions receivable at June 30, 2018 and 2017, which are recorded at fair value, consisted of the following (in thousands):

	2018	2017
Unconditional promises scheduled to be collected in:		
Less than one year	\$ 20,378	\$ 20,185
One year to five years	29,661	26,683
More than five years	<u>15,270</u>	<u>3,445</u>
Gross contributions receivable	65,309	50,313
Less allowance for uncollectible amounts	(8,628)	(5,446)
Less discount to present value	<u>(6,146)</u>	<u>(2,452)</u>
Total	<u>\$ 50,535</u>	<u>\$ 42,415</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 2.15% to 3.65% for the years ending June 30, 2018 and 2017. The University's pledges receivable have been categorized as Level 2 assets under the fair value hierarchy.

In addition, at June 30, 2018 and 2017, the University had approximately \$36,000,000 and \$39,000,000, 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, 2018 and 2017 were intended for the following purposes (in thousands):

	2018	2017
Endowment for educational and general purposes	\$ 30,207	\$ 22,460
Construction and modernization of plant	3,291	3,565
Support of current operations	<u>17,037</u>	<u>16,390</u>
Total	<u>\$ 50,535</u>	<u>\$ 42,415</u>

5. NOTES AND STUDENT LOANS RECEIVABLE

Student loans receivables at June 30, 2018 and 2017 consisted of the following (in thousands):

	2018	2017
Student loans receivable	\$ 44,884	\$ 46,818
Less allowance for uncollectible amounts	<u>(404)</u>	<u>(598)</u>
Student receivables, net	\$ 44,480	\$ 46,220
Other notes receivable	<u>350</u>	<u>350</u>
Total	<u>\$ 44,830</u>	<u>\$ 46,570</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 years ending June 30, 2018 and 2017.

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, 2018 and 2017 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 following tables present the financial instruments carried at fair value as of June 30, 2018, and 2017, by the fair value hierarchy defined above (in thousands):

Assets as of June 30, 2018:	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total Fair Value
Investments:				
Equity securities	\$ 220,540	\$ -	\$ 200	\$ 220,740
Fixed income securities	291,651	-	2,253	293,904
Hedge funds	-	-	4,133	4,133
Private equities	-	-	14,664	14,664
Real estate	55,821	-	-	55,821
Natural resources	11,625	-	-	11,625
Perpetual trusts	-	-	30,781	30,781
Total Investments	<u>\$ 579,637</u>	<u>\$ -</u>	<u>\$ 52,031</u>	<u>\$ 631,668</u>
Other investments measured at NAV (a)	-	-	-	1,676,871
Equity method investment (see Note 12)	-	-	-	10,320
	<u>579,637</u>	<u>-</u>	<u>52,031</u>	<u>2,318,859</u>
Liabilities:				
Interest rate swaps liability	<u>\$ -</u>	<u>\$ 54,724</u>	<u>\$ -</u>	<u>\$ 54,724</u>

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
Perpetual trusts	-	-	29,664	29,664
Total Investments	<u>\$ 467,184</u>	<u>\$ -</u>	<u>\$ 52,997</u>	<u>\$ 520,181</u>
Other investments measured at NAV (a)	-	-	-	1,648,043
Equity method investment (see Note 12)	-	-	-	9,630
	<u>467,184</u>	<u>-</u>	<u>52,997</u>	<u>2,177,854</u>
Liabilities:				
Interest rate swaps liability	<u>\$ -</u>	<u>\$ 67,085</u>	<u>\$ -</u>	<u>\$ 67,085</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, 2018 and 2017, are cash and cash equivalents amounting to approximately \$28,749,000 and \$66,922,000 respectively. There were no investments pending settlement at June 30, 2018.

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, 2018, and June 30, 2017 (in thousands):

Asset Type	Industry	Valuation Approach	Unobservable Inputs	Fair Value at June 30, 2018
Private equities	Banking	Market approach	Recent market transaction	\$ 9,148
	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	5,516
Fixed Income	Financial services	Market approach	Market price of comparable debt	2,087
				\$ 16,751

Excluded from the table above, but included in level 3 investments at June 30, 2018, are perpetual trusts, tech transfers, and other investments amounting to approximately \$30,781,000, \$4,133,000, and \$366,000, respectively.

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

Excluded from the table above, but included in level 3 investments at June 30, 2017, are perpetual trusts, tech transfers, and other investments amounting to approximately \$29,664,000, \$4,833,000, and \$419,000, respectively.

The following tables present liquidity information for the investments carried at fair value at June 30, 2018, and 2017, respectively.

Redemption Terms as of June 30, 2018	Commingled							Total
	Non-Marketable Credit	Fixed Income	Private Equities	Hedge Funds	Public Equity Funds	Real Estate	Natural Resources	
Monthly, 2-120 days prior written notice	\$ -	\$35,843	\$ -	\$81,127	\$217,168	\$ -	\$10,986	\$345,124
Quarterly, 30-90 days prior written notice	-	-	-	267,065	26,788	-	-	293,853
Semi-Annually, Annually, 30-90 days prior written notice	-	-	-	59,622	53,195	-	-	112,817
1-3 Years, 45-120 days prior written notice	-	-	4,011	154,641	23,556	-	-	182,208
1-7 Years (no terms)	62,974	-	287,663	10,630	-	63,089	77,149	501,505
7+ Years (no terms)	9,628	-	166,175	-	-	36,861	27,924	240,588
Total	\$72,602	\$35,843	\$457,849	\$573,085	\$320,707	\$99,950	\$116,059	\$1,676,095
Level 1 securities								579,637
Other investments not subject to redemption								91,876
Total Investments								\$2,347,608

Redemption Terms as of June 30, 2017	Commingled							Total
	Non-Marketable Credit	Fixed Income	Private Equities	Hedge Funds	Public Equity Funds	Real Estate	Natural 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

The University had unfunded commitments of approximately \$332,435,000 at June 30, 2018 which consisted of approximately \$169,947,000 in private equities, \$72,657,000 in real estate, \$34,035,000 in natural resources, \$47,671,000 in non-marketable credit and \$8,125,000 in commingled public funds, 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, 2018 and 2017. Transfers between levels are recognized at the beginning of the reporting period. The 2018 transfers from Level 3 to NAV totaled approximately \$434,000. 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	Perpetual Trusts	Total Investments
Fair value, July 1, 2017	\$ 121	\$ 2,564	\$ 4,833	\$ 15,381	\$ 434	\$29,664	\$ 52,997
Transfers	-	-	-	-	(434)	-	(434)
Purchases	79	273	-	750	-	-	1,102
Sales	-	(405)	(1,807)	(1,434)	-	-	(3,646)
Unrealized and realized gains (losses), net	-	(179)	1,107	(33)	-	1,117	2,012
Fair value, June 30, 2018	\$ 200	\$ 2,253	\$ 4,133	\$ 14,664	\$ -	\$ 30,781	\$ 52,031

	Equity Securities	Fixed Income	Hedge Funds	Private Equities	Natural Resources	Perpetual Trusts	Total Investments
Fair value, July 1, 2016	\$ 324	\$ 335	\$ 4,531	\$ 57,321	\$ -	\$ 26,208	\$ 88,719
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)	-	3,456	(1,639)
Fair value, June 30, 2017	\$ 121	\$ 2,564	\$ 4,833	\$ 15,381	\$ 434	\$ 29,664	\$ 52,997

The total return on investments for the years ended June 30, 2018 and 2017 is as follows (in thousands):

	2018	2017
Dividends and interest	\$ 12,514	\$ 7,370
Net realized and unrealized gains	185,667	239,855
Total return on investments	198,181	247,225
Investment return utilized	(102,559)	(105,641)
Investment return reinvested, net of utilized	\$ 95,622	\$ 141,584

7. LAND, BUILDINGS, AND EQUIPMENT

Land, buildings, and equipment at June 30, 2018 and 2017 consisted of the following (in thousands):

	2018	2017
Land and land improvements	\$ 80,657	\$ 58,435
Buildings	1,466,678	1,275,231
Construction in progress	114,829	242,911
Equipment and furnishings	<u>234,886</u>	<u>222,896</u>
	1,897,050	1,799,473
Less accumulated depreciation	<u>(813,119)</u>	<u>(759,801)</u>
Total	<u>\$ 1,083,931</u>	<u>\$ 1,039,672</u>

Depreciation expense charged to operations was approximately \$58,702,000 and \$52,108,000 in 2018 and 2017, respectively. Net interest cost capitalized in fiscal 2018 and 2017 was approximately \$2,630,000 and \$6,515,000, 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 the statement of activities.

8. BONDS AND NOTES PAYABLE

Bonds and notes payable at June 30, 2018 and 2017 consisted of the following (in thousands):

	2018	2017
Massachusetts Health and Educational Facilities Authority ("MHEFA"):		
Series G, variable rate bonds, 5.21% average rate for 2018, par value of \$27,900, due February 2024 - February 2026	\$ 24,300	\$ 24,300
Series J, fixed rate bonds at 5.50%, par value of \$33,280, due August 2018	5,710	11,055
Series M, fixed rate bonds at 4.50-5.50%, par value of \$59,150, due February 2018 - February 2028	56,470	56,950
Series N-1, variable rate bonds, 3.96% average rate for 2018, par value of \$86,400, due August 2029 - August 2040	84,200	84,200
Series N-2, variable rate bonds, 3.959% average rate for 2018, par value of \$54,200, due August 2022 - August 2033	54,200	54,200
Series O, fixed rate bonds at 5.00%, par value of \$83,360, due August 2018	2,040	3,985
Massachusetts Development Finance Agency ("MDFA"):		
Series P, multi-mode bond, 5.73% average rate for 2018, par value of \$49,835, due February 2029 - February 2036	49,835	49,835
Series Q, fixed rate bonds at 3.75%-5%, par value of \$69,575, due August 2019 - August 2045	69,575	69,575
JP (through MDFA) tax exempt LOC, fixed rate 2.65%, par value of \$28,000, due May 2026	24,732	27,305
Tufts Issue 2012A, taxable fixed rate bond at 5.017%, par value of \$250,000, due April 2112	250,000	250,000
Tufts Issue 2017A, taxable fixed rate bond at 4.005%, par value of \$130,000, due August 2053 - August 2057	130,000	130,000
Cummings Property, LLC at 4%, par value of \$1,400, due February 2026	1,121	1,244
Bank of America note fixed rate 2.54%, par value of \$10,200, due May 2026	10,200	10,200
Capital Leases—various imputed interest rates, due through 2019	4	11
	<u>762,387</u>	<u>772,860</u>
Net unamortized bond premium	9,496	10,976
Net unamortized debt issuance costs	(5,172)	(5,240)
Total bonds and notes payable	<u>\$ 766,711</u>	<u>\$ 778,596</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 2018 and 2017 was 5.73% and 5.77% 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 \$24,732,000 at June 30, 2018, which is expected to be paid by 2026.

Scheduled aggregate principal repayments on bonds and notes payable at June 30, 2018 are as follows (in thousands):

Fiscal Year Ending	Scheduled Principal Maturities
2019	11,211
2020	12,069
2021	12,489
2022	13,066
2023	14,326
Thereafter	699,226
Total	\$ 762,387

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 2020 and March 2021. 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 2018, the maximum aggregate scheduled principal repayments under the VRDBs would be as follows: \$54,233,000 in 2019, \$54,233,000 in 2020 and \$54,234,000 in 2021.

In October 2017, the University renewed two of the standby bond purchase agreements through October 2020. In March 2018, the university renewed the third standby bond purchase agreement through March 2021.

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, 2018 and 2017 (in thousands).

Swap Agreements as of June 30, 2018

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, 2018	(\$17,946)	(\$7,178)	(\$8,571)	(\$10,082)	(\$10,947)	(\$54,724)

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)

The University reported the fair value of its interest rate swap agreements in the statement of financial position as a liability of \$54,724,000 and \$67,085,000 at June 30, 2018 and 2017, respectively. The change in fair market value of approximately \$12,361,000 and \$21,190,000 for the years ended June 30, 2018 and 2017, respectively, is included in the statement of activities as net unrealized gain (loss) on interest rate agreements.

The estimated market value of the interest rate exchange agreements at June 30, 2018 and June 30, 2017, 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, 2018 and 2017 consisted of the following (in thousands):

	Unrestricted	Temporarily Restricted	Permanently Restricted	2018 Total
Endowment	\$ 751,166	\$ 479,549	\$ 662,321	\$ 1,893,036
Invested in physical plant	414,618			414,618
Operating	110,749	65,910	3	176,662
Building projects	46,061	10,145		56,206
Student loans	21,487	50	22,115	43,652
Total	<u>\$ 1,344,081</u>	<u>\$ 555,654</u>	<u>\$ 684,439</u>	<u>\$ 2,584,174</u>

	Unrestricted	Temporarily Restricted	Permanently Restricted	2017 Total
Endowment	\$ 704,737	\$ 436,779	\$ 633,063	\$ 1,774,579
Invested in physical plant	384,192	-	-	384,192
Operating	97,800	60,330	3	158,133
Building projects	39,964	9,638	-	49,602
Student loans	20,942	50	21,451	42,443
Total	<u>\$ 1,247,635</u>	<u>\$ 506,797</u>	<u>\$ 654,517</u>	<u>\$ 2,408,949</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 \$312,587,000 and \$268,313,000 in 2018 and 2017, 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, 2018 total the unrestricted endowment amount in the above table.

Changes in endowment net assets for the years ended June 30, 2018 and June 30, 2017 are as follows (in thousands):

	Unrestricted	Temporarily Restricted	Permanently Restricted	2018 Total
Endowment net assets, beginning of year	\$ 704,737	\$ 436,779	\$ 633,063	\$ 1,774,579
Investment return:				
Investment income	3,739	4,308	-	8,047
Realized and unrealized gains (losses)	74,319	82,393	25	156,737
Total investment return	78,058	86,701	25	164,784
Contributions	1,509	724	28,763	30,996
Appropriation of endowment assets for expenditure	(34,134)	(43,619)	-	(77,753)
Other changes, net	996	(1,036)	470	430
Endowment net assets, end of year	<u>\$ 751,166</u>	<u>\$ 479,549</u>	<u>\$ 662,321</u>	<u>\$ 1,893,036</u>

	Unrestricted	Temporarily Restricted	Permanently Restricted	2017 Total
Endowment net assets, beginning of year	\$ 641,158	\$ 361,615	\$ 590,469	\$1,593,242
Investment return:				
Investment income	2,387	2,783	-	5,170
Realized and unrealized gains (losses)	91,041	114,027	816	205,884
Total investment return	93,428	116,810	816	211,054
Contributions	1,938	9,193	40,866	51,997
Appropriation of endowment assets for expenditure	(37,269)	(46,482)	-	(83,751)
Other changes, net	5,482	(4,357)	912	2,037
Endowment net assets, end of year	<u>\$ 704,737</u>	<u>\$ 436,779</u>	<u>\$ 633,063</u>	<u>\$1,774,579</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):

	2018	2017
Subject to time restriction	\$101,025	\$103,270
Restricted for program support	<u>378,524</u>	<u>333,509</u>
Total endowment assets classified as temporarily restricted net assets	<u>\$479,549</u>	<u>\$436,779</u>

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

	<u>2018</u>	<u>2017</u>
Restricted for scholarship support	\$321,063	\$307,642
Restricted for faculty support	142,508	137,684
Restricted for program support	<u>198,750</u>	<u>187,737</u>
Total endowment assets classified as permanently restricted net assets	<u>\$662,321</u>	<u>\$633,063</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 \$34,000 and \$35,000 as of June 30, 2018 and 2017, 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, 2018 and 2017 consisted of the following (in thousands):

	2018	2017
Instruction	\$ 271,076	\$ 262,679
Sponsored programs	166,738	168,632
Clinical and other educational activities	165,217	155,843
Academic and student services	107,258	106,536
Auxiliary enterprises	67,901	64,408
Institutional support	125,534	125,953
Total expenses	<u>\$ 903,724</u>	<u>\$ 884,051</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 \$32,390,000 and \$30,761,000 in 2018 and 2017, 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 \$130,000 and \$127,000 in 2018 and 2017, 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 \$20,459,000 and \$18,246,000 in 2018 and 2017, 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 2018 and 2017, respectively. The investment assets and related liabilities of these plans, which total approximately \$6,311,000 and \$5,822,000 in 2018 and 2017, 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.

Effective January 1, 2018, for retirees over age 65 the University transitioned from its current employer-sponsored plans to a range of Medicare Advantage, Medigap, and Prescription Drug Plans which are offered through a private health insurance exchange; and for retirees under the age of 65, who have access to the university’s active employee health plans, adjusted the employee/employer cost sharing formula. These plan changes resulted in a reduction of approximately \$14,500,000 in the related Accumulated Postretirement Benefit Obligation (APBO) in fiscal year 2018. The trust containing assets allocated and restricted for the postretirement medical plan was amended in fiscal year 2018. In addition to establishing separate sub accounts to pay welfare benefits for pre-July 1, 1993 retirees and post-July 1, 1993 retirees, some of the amount in excess of the obligations to pay retiree benefits were included in a separate sub account available to pay welfare benefits for active employees.

Changes in the University’s postretirement health care benefit obligation for the years ended June 30, 2018 and 2017 are as follows (in thousands):

	2018	2017
Change in Accumulated Postretirement Benefit Obligation (APBO):		
APBO at prior fiscal year end	\$ 31,928	\$ 44,443
Employer service cost	71	671
Interest cost	716	1,295
Actuarial (gain)	(2,171)	(12,970)
Plan participants' contributions	1,993	2,791
Benefits paid from plan assets ¹	(3,383)	(4,654)
Medicare Part D subsidy	178	352
Plan amendments	(14,544)	-
APBO at current fiscal year end	<u>\$ 14,788</u>	<u>\$ 31,928</u>

¹Net of retiree contributions

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, 2018 and 2017 are as follows (in thousands):

	2018	2017
Change in Plan Assets:		
Fair value of assets at prior fiscal year end	\$ 33,594	\$ 31,642
Actual return on assets ²	2,203	3,814
Employer contributions for key employees	83	1
Plan participants' contributions	1,993	2,791
Benefits paid ¹	(3,383)	(4,654)
Transfers	(17,518)	-
Fair value of assets at current fiscal year end	<u>\$ 16,972</u>	<u>\$ 33,594</u>
Funded Status	<u>\$ 2,184</u>	<u>\$ 1,665</u>

¹Net of retiree contributions

²Net of administrative expenses

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

	2018	2017
Receivables and other assets, net	<u>\$ 2,184</u>	<u>\$ 1,665</u>
Net amount recognized in the statement of financial position	<u>\$ 2,184</u>	<u>\$ 1,665</u>

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

	2018	2017
Unamortized actuarial (gain) loss	<u>(14,696)</u>	<u>(630)</u>
Change to unrestricted net assets	<u>\$ (14,696)</u>	<u>\$ (630)</u>

In fiscal year 2018 and 2017, the University used the RP-2014 participant mortality table for actuarial assumptions.

In fiscal year 2018, the University updated the projections scales table from MP-2015 to MP-2017.

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):

	2018	2017
Employer service cost	\$ 71	\$ 671
Interest cost	716	1,295
Expected return on assets	<u>(1,742)</u>	<u>(2,126)</u>
Subtotal	(955)	(160)
Net prior service (credit) cost amortization	(1,850)	-
Net loss amortization	<u>-</u>	<u>1,455</u>
Net periodic postretirement (income) benefit cost	<u>(2,805)</u>	<u>1,295</u>
Total changes recognized in unrestricted net assets	<u>\$ (14,649)</u>	<u>\$ (15,761)</u>
Total changes recognized in net periodic cost and in nonoperating activities	<u>\$ (17,454)</u>	<u>\$ (14,466)</u>

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

	2018	2017
Discount rate at end of year	4.28%	3.82%

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

	2018	2017
Assumptions Used to Determine Benefit Cost¹		
Discount rate	3.82/3.63%	3.00%
Long-term rate of return on assets	7.00%	7.00%
Current health care cost trend rate	7.00%	7.50%
Ultimate health care cost trend rate	4.50%	4.50%
Year of ultimate trend rate	2022	2019
Effect of 1% Increase in Health Care Cost Trend Rates		
Employer service cost	77,937	724,000
Interest cost	749,423	1,446,000
Total	827,360	2,170,000
Change	39,698	204,000
Percentage change	5.040%	10.376%
Effect of 1% Decrease in Health Care Cost Trend Rates		
Employer service cost	65,845	624,000
Interest cost	688,185	1,167,000
Total	754,030	1,791,000
Change	(33,362)	(175,000)
Percentage change	(4.27%)	(8.901%)

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:	
During fiscal year ending 06/30/2019	1,511
During fiscal year ending 06/30/2020	1,457
During fiscal year ending 06/30/2021	1,290
During fiscal year ending 06/30/2022	1,145
During fiscal year ending 06/30/2023	1,060
During fiscal years ending 06/30/2024 through 06/30/2028	4,493

The estimated University cash contribution for fiscal year 2019 is \$0.

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

	2018	2017	Target Allocation
Equity securities	57%	59%	58%
Debt securities	29%	28%	29%
Real estate securities	14%	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, 2018 and 2017 by asset category (in thousands):

VEBA Trust Investments at June 30, 2018	Level 1	Level 2	Level 3	Total
Equity securities	\$ 9,661	\$ -	\$ -	\$ 9,661
Debt securities	4,838	-	-	4,838
Real estate securities	2,292	-	-	2,292
	<u>\$ 16,791</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 16,791</u>
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
	<u>\$ 33,155</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 33,155</u>

At June 30, 2018 and 2017, the plan also held cash and cash equivalents amounting to approximately \$656,000 and \$439,000.

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, 2018 and 2017 were approximately \$5,361,000 and \$5,420,000, respectively. The University’s 50% ownership investment in TSS has been recorded at approximately \$10,319,000 and \$9,630,000 and at June 30, 2018 and 2017 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 \$59,067,000 at June 30, 2018.

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, 2018, with terms in excess of one year for office space. Expenses associated with operating leases totaled approximately \$9,429,000 and \$8,237,000 for the years ended June 30, 2018 and 2017, respectively.

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

Fiscal Year 2019	8,638
Fiscal Year 2020	7,883
Fiscal Year 2021	7,196
Fiscal Year 2022	4,819
Fiscal Year 2023	3,275
Thereafter	<u>3,462</u>
Total	<u>\$35,273</u>

Tufts University

Schedule of Expenditures of Federal Awards

June 30, 2018

Cluster / Federal Program Research and Development Cluster	CFDA	Direct	Pass-Through	Pass-Through Entity	Pass-Through Entity Sponsor Number	Total Expenditures	Passed to Sub-Recipients
Department of Agriculture							
Agricultural Research Service							
Agricultural Research Basic and Applied Research	10.001	\$ 5,800,212	\$ -			\$ 5,800,212	\$ -
Agricultural Research Basic and Applied Research	10.001	-	2,176	California Strawberry Commission	59-8050-5-002	2,176	-
Agricultural Research Basic and Applied Research	10.001	-	34,026	Strawberry Commission	59-8050-7-001	34,026	-
National Institute of Food and Agriculture							
Agricultural Experiment Stations	10.203	-	2,809	West Virginia University	101359	2,809	-
Animal Health and Disease Research	10.207	38,234	-			38,234	-
Sustainable Agriculture Research and Education	10.215	-	15,245	Third Sector New England	CTI CFP TRAINING	15,245	-
Sustainable Agriculture Research and Education	10.215	-	735	Third Sector New England	CTI/SARE 2014	735	-
1890 Institution Capacity Building Grants	10.216	-	20,634	South Carolina State University	17-521053-AGRI-TUFTS	20,634	-
Community Food Projects	10.225	-	37,165	Third Sector New England	00005590	37,165	-
Food Assistance and Nutrition Research Programs (FANRP)	10.250	28,306	-			28,306	-
Food Assistance and Nutrition Research Programs (FANRP)	10.253	263,953	-			263,953	122,912
Agriculture and Food Research Initiative (AFRI)	10.310	1,222,685	15,603	UMASS Amherst	GAID # 8077	1,238,288	90,984
Beginning Farmer and Rancher Development Program	10.311	177,169	21,485	Third Sector New England	00004619	198,654	44,742
Cooperative Extension Service	10.500	-	8	University of Delaware	39134	8	-
Cooperative Extension Service	10.500	-	(701)	University of Delaware	42695	(701)	-
Cooperative Extension Service	10.500	-	24,643	University of Delaware	45957	24,643	-
Foreign Agricultural Service							
Technical Agricultural Assistance	10.960	-	68,422	Rutgers University	642521	68,422	-
Natural Resources Conservation Service							
USDA Special Projects	10.RD	1,181,724	-			1,181,724	-
		8,712,283	242,250			8,954,533	258,638
National Oceanic and Atmospheric Administration							
Arrangements for Interdisciplinary Research Infrastructure	11.619	-	8,433	UMASS Lowell	S51700000029488	8,433	-
		-	8,433			8,433	-
United States Department of Commerce							
Science, Technology, Business and/or Education Outreach	11.620	1,190	-			1,190	-
		1,190	-			1,190	-

The accompanying notes are an integral part of this schedule.

Tufts University

Schedule of Expenditures of Federal Awards

June 30, 2018

Cluster / Federal Program Research and Development Cluster (cont.)	CFDA	Direct	Pass-Through	Pass-Through Entity	Pass-Through Entity Sponsor Number	Total Expenditures	Passed to Sub-Recipients
Department of Defense							
Department of the Navy, Office of the Chief of Naval Research							
Basic and Applied Scientific Research	12.300	4,672,972	-			4,672,972	1,121,050
Basic and Applied Scientific Research	12.300	-	39,172	APTIMA, INC	1224-2049	39,172	
Basic and Applied Scientific Research	12.300	-	20,478	The Trustees of Princeton University	SUB0000143	20,478	
Basic and Applied Scientific Research	12.300	-	(107)	University of Washington	UWSC7586 BPO10248-V2	(107)	
Military Construction, National Guard	12.400	17,354	-			17,354	
Department of Army Research and Material Command							
Military Medical Research and Development	12.420	1,682,651	-			1,682,651	76,417
Military Medical Research and Development	12.420	-	65,100	University of Pittsburgh	0042752 (409774-1)	65,100	
Military Medical Research and Development	12.420	-	45,053	Wake Forest University Health	WFUHS 441074B CF-04	45,053	
Military Medical Research and Development	12.420	-	15,538	Wake Forest University Health	WFUHS 441078C CF-08	15,538	
Army Material Command	12.420	-	38,281	Wake Forest University Health	WFUHS 441083B CF-13	38,281	
Basic Scientific Research	12.431	2,362,343	-			2,362,343	35,595
Basic Scientific Research	12.431	-	39,270	Emory University	T863163	39,270	
Basic Scientific Research	12.431	-	176,645	Smart Information Flow Technologies	CLIC-ECI-TUFTS-01	176,645	
Basic Scientific Research	12.431	-	27,532	Smart Information Flow Technologies	CLIC-TUFTS-01	27,532	
Basic Scientific Research	12.431	-	1,355	The University of Liverpool	W911NF-17-2-0109	1,355	
Basic Scientific Research	12.431	-	148,514	Wyss Institute	167936-5095581	148,514	
Basic Scientific Research	12.431	-	462	Wyss Institute	WYSS_167831-01	462	
Basic, Applied, and Advanced Research in Science and Engineering	12.630	-	(1,112)	Emory University	T008088	(1,112)	
Legacy Resource Management Program	12.632	-	44,866	Washington State University	128528-G003746	44,866	
Department of Air Force							
Air Force Defense Research Sciences Program	12.800	253,665	-			253,665	
Air Force Defense Research Sciences Program	12.800	-	48,013	APOGEE Electronics	DARPA-BAA-15-54	48,013	
Air Force Defense Research Sciences Program	12.800	-	41,588	Galois, Inc.	2016-006	41,588	
Air Force Defense Research Sciences Program	12.800	-	135,386	Stanford University	60805793-114411	135,386	
Air Force Defense Research Sciences Program	12.800	-	20,236	University of California, SD	70303838	20,236	
Defense Advanced Research Projects Agency							
Research and Technology Development	12.910	1,500,613	16,478	Ceres Nanosciences Inc	W911NF-16-C-0060	1,517,091	195,948
Research and Technology Development	12.910	-	(129)	Univ of NC Chapel Hill	5-55065	(129)	
Research and Technology Development	12.910	-	121,584	University of Pittsburgh	0046185(410918-1)	121,584	
Research and Technology Development	12.910	-	37,206	Whitehead Institute	10-1798-9902	37,206	
Research and Technology Development	12.910	-	39,011	American Science & Engineering	PO 100478	39,011	
Research and Technology Development	12.910	-	43,091	MIT Lincoln Laboratory	7000380221	43,091	
Research and Technology Development	12.910	-	155,827	Technology Holding, LLC	FA8650-16-C-5020	155,827	
Research and Technology Development	12.910	-	36,359	Triton Systems, Inc.	TSI-2512-17-106586	36,359	
Research and Technology Development	12.910	-	2,148	Triton Systems, Inc.	TSI-2456-15-104221	2,148	
Research and Technology Development	12.910	-	35,437	University of Minnesota	P003653901	35,437	
Research and Technology Development	12.910	-	(21,636)	University of Montana	PG16-24864-01	(21,636)	
		<u>10,489,598</u>	<u>1,371,646</u>			<u>11,861,244</u>	<u>1,429,010</u>
Department of Education							
Institute of Education Sciences							
Education Research, Development and Dissemination	84.305	245,783	-			245,783	71,937
Education Research, Development and Dissemination	84.305	-	21,106	University of Texas at Austin	UTA15-000642	21,106	
		<u>245,783</u>	<u>21,106</u>			<u>266,889</u>	<u>71,937</u>
Department of Energy							
Office of Science Financial Assistance Program	81.049	1,484,415	-			1,484,415	
Office of Science Financial Assistance Program	81.049	-	183,542	Harvard University	130298-5079796	183,542	
Office of Science Financial Assistance Program	81.049	-	107,636	University of Wisconsin	153405569	107,636	
Office of Science Financial Assistance Program	81.049	-	144,355	Harvard University	130298-51011035	144,355	
Renewable Energy Research and Development	81.087	-	114,304	3M	DE-EE0007650	114,304	
Fossil Energy Research and Development	81.089	-	36,312	Proton Engery Systems Inc.	DE-EE0008081/0000	36,312	
Novel Polymer Electrolyte	81.RD	-	55,790	IONIC MATERIALS	IONICMATERIALS	55,790	
Mech. Behavior of REBCO	81.RD	-	64,623	Lawrence Berkeley National Lab	7323038	64,623	
ORISE Dante DeMeo AdvisorAward	81.RD	10,882	-			10,882	
Department of Environmental Protection							
Office of Research and Development							
Science To Achieve Results	66.509	-	27,043	Northeastern University	505110-78050	27,043	
		<u>1,495,297</u>	<u>733,605</u>			<u>2,228,902</u>	<u>-</u>

The accompanying notes are an integral part of this schedule.

Tufts University

Schedule of Expenditures of Federal Awards

June 30, 2018

Cluster / Federal Program Research and Development Cluster (cont.)	CFDA	Direct	Pass-Through	Pass-Through Entity	Pass-Through Entity Sponsor Number	Total Expenditures	Passed to Sub-Recipients
Department of Health and Human Services							
National Institutes of Health							
National Resource Center for HIV Prevention Among Adolescents	93.057	-	19,486	Tufts Medical Center, Inc.	5U2GGH001181	19,486	
Training in General, Pediatric, and Public Health Dentistry.	93.059	1,168,246	-			1,168,246	
Food and Drug Administration Research	93.103	-	8,248	CTTI/Duke University	2038315	8,248	
Food and Drug Administration Research	93.103	-	28,541	CTTI/Duke University	203-7583	28,541	
Maternal and Child Health Federal Consolidated Programs	93.110	-	66,711	University of Massachusetts Worcester	WA00648009	66,711	
Environmental Health	93.113	976,892	-			976,892	216,807
Environmental Health	93.113	-	10,798	Northeastern University	500486-78050	10,798	
Environmental Health	93.113	-	95,607	University of California Irvine	2016-3343	95,607	
Environmental Health	93.113	-	47,808	Northeastern University	500548-78050	47,808	
Oral Diseases and Disorders Research	93.121	2,443,259	-			2,443,259	254,239
Oral Diseases and Disorders Research	93.121	-	118,361	Columbia University	1(GG012517)	118,361	
Oral Diseases and Disorders Research	93.121	-	328,545	The Forsyth Institute	TUFTS024308-2476	328,545	
Community Programs to Improve Minority Health Grant Program	93.137	-	73,890	Lupus Foundation of America	00-8130-200-2507-5	73,890	
NIEHS Hazardous Waste Worker Health and Safety Training	93.142	60,817	-			60,817	
NIEHS Hazardous Waste Worker Health and Safety Training	93.142	-	9,151	Tony Mazzocchi Center	2UH4ES009761	9,151	
NIEHS Hazardous Waste Worker Health and Safety Training	93.142	-	488	Tony Mazzocchi Center	2U45ES006175	488	
Research Related to Deafness and Communication Disorders	93.173	3,645	-			3,645	
Research Related to Deafness and Communication Disorders	93.173	909,678	-			909,678	19,986
Research Related to Deafness and Communication Disorders	93.173	-	141,383	University of Florida	UFDSP00010198	141,383	
Research and Training in Complementary and Integrative Health	93.213	-	39,987	Hypnalgistics, LLC	RAT009517A	39,987	
Research and Training in Complementary and Integrative Health	93.213	-	76,554	Massachusetts General Hospital	227956	76,554	
Research on Healthcare Costs, Quality and Outcomes	93.226	163,185	-			163,185	76,667
Mental Health Research Grants	93.242	2,506,724	-			2,506,724	
Mental Health Research Grants	93.242	-	75,613	Boston Children's Hospital	RSTFD0000708343	75,613	
Alcohol Research Programs	93.273	463,283	-			463,283	
Alcohol Research Programs	93.273	30,758	-			30,758	
Drug Abuse and Addiction Research Programs	93.279	1,194,970	-			1,194,970	
Drug Abuse and Addiction Research Programs	93.279	-	150,846	Icahn School of Medicine at Mount Sinai	0255-7341-4609	150,846	
Drug Abuse and Addiction Research Programs	93.279	-	59	Miriam Hospital	710-9993	59	
Drug Abuse and Addiction Research Programs	93.279	-	14,015	Brown University	00001068	14,015	
Improve Human Health	93.286	3,374,848	-			3,374,848	
Improve Human Health	93.286	-	161,218	KIYATEC, Inc.	2R44EB021704-02	161,218	1,255,142
Minority Health and Health Disparities Research	93.307	497,087	-			497,087	113,925
Trans- NIH Research Support	93.310	494,747	-			494,747	21,600
Trans- NIH Research Support	93.310	-	5,265	Boston University	HHSN269201600006I	5,265	
Trans- NIH Research Support	93.310	-	136,112	Massachusetts General Hospital	229595	136,112	
National Center for Advancing Translational Services	93.350	5,823,363	-			5,823,363	3,615,969
National Center for Advancing Translational Services	93.350	-	46,910	Ohio State University	PO# RF01496199	46,910	
Research Infrastructure Programs	93.351	302,479	-			302,479	11,700
Research Infrastructure Programs	93.351	31,945	-			31,945	11,700
Research Infrastructure Programs	93.351	-	1,023	Michigan State University	RC102764TU	1,023	
Research Infrastructure Programs	93.351	-	46,921	Broad Institute, Inc.	5000003-5500000971	46,921	
Research Infrastructure Programs	93.351	-	278	Purdue University	4102-83613	278	
21st Century Cures Act - Beau Biden Cancer Moonshot	93.353	135,974	-			135,974	65,568
21st Century Cures Act - Beau Biden Cancer Moonshot	93.353	-	29,942	Colorado State University	G-40258-01	29,942	
Nursing Research	93.361	278,195	-			278,195	
Nursing Research	93.361	-	2,251	Brigham and Women's Hospital	117914	2,251	
Cancer Cause and Prevention Research	93.393	946,602	-			946,602	308,274
Cancer Cause and Prevention Research	93.393	-	82,574	Research Institute Fox Chase	15075-03	82,574	
Cancer Cause and Prevention Research	93.393	-	(2,075)	Research Institute Fox Chase	15075-02	(2,075)	
Cancer Cause and Prevention Research	93.393	-	266,596	Dana Farber Cancer Institute	PCA203655A	266,596	
Cancer Cause and Prevention Research	93.393	-	25,677	Boston University	Oral Microbiome	25,677	
		<u>21,806,697</u>	<u>2,108,783</u>			<u>23,915,480</u>	<u>5,971,577</u>

The accompanying notes are an integral part of this schedule.

Tufts University

Schedule of Expenditures of Federal Awards

June 30, 2018

Cluster / 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.)							
Cancer Cause and Prevention Research	93.393	-	11,019	Columbia University	1(GG011708-01)	11,019	
Cancer Cause and Prevention Research	93.393	-	5,122	Boston University	4500002162	5,122	
Cancer Detection and Diagnosis Research	93.394	-	35,313	Brigham and Women's Hospital	109296/114166	35,313	
Cancer Treatment Research	93.395	230,829	-			230,829	33,048
Cancer Treatment Research	93.395	-	37,216	Adecto Pharmaceuticals Inc	STTR.1T	37,216	
Cancer Treatment Research	93.395	-	28,763	Tufts Medical Center, Inc.	5014477-SERV	28,763	
Cancer Treatment Research	93.395	-	75,162	Massachusetts General Hospital	226691	75,162	
Cancer Treatment Research	93.395	-	54,458	Tufts Medical Center, Inc.	5014477-SERV	54,458	
Cancer Biology Research	93.396	1,630,807	-			1,630,807	138,477
Cancer Biology Research	93.396	-	4,023	Connecticut College	141581-B	4,023	
Cancer Centers Support Grants	93.397	29,753	-			29,753	
Cancer Centers Support Grants	93.397	-	23,733	Dana Farber Cancer Institute	1003053	23,733	
Cancer Centers Support Grants	93.397	-	4,909	Fox Chase Cancer Center	083P3CA006927-52S1	4,909	
Cancer Research Manpower	93.398	247,634	-			247,634	
Lgr5+ Cochlear Progenitor	93.713	17,825	-			17,825	
Behavioral Health Workforce Education and Training (BHWET)	93.732	62,904	-			62,904	
Cardiovascular Disease Research	93.837	4,136,532	-			4,136,532	1,268,529
Cardiovascular Disease Research	93.837	-	(5,063)	University of Massachusetts Lowell	55111000026655	(5,063)	
Cardiovascular Disease Research	93.837	-	17,508	University of Massachusetts Lowell	FF1110000029374	17,508	
Cardiovascular Disease Research	93.837	-	11,462	University of Virginia	GB10368 154398	11,462	
Cardiovascular Disease Research	93.837	-	7,648	Tufts Medical Center	5015364-SERV	7,648	
Cardiovascular Disease Research	93.837	-	76,842	Brigham & Women's Hospital	111147	76,842	
Cardiovascular Disease Research	93.837	-	12,697	University of South Florida	6143-1130-00-A	12,697	
Cardiovascular Disease Research	93.837	-	6,156	University of South Florida	6143-1130-00-B	6,156	
Cardiovascular Disease Research	93.837	-	4,739	Cornell University	69020-10250	4,739	
Cardiovascular Disease Research	93.837	-	292,710	Harvard Pilgrim Health Care	AH000485	292,710	13,211
Cardiovascular Disease Research	93.837	-	56,230	University of South Florida	BPO21191/UWSC9636	56,230	
Lung Disease Research	93.838	-	46,298	University of Chicago	FP055673-B	46,298	
Lung Disease Research	93.838	-	204,278	Brigham and Women's Hospital	113280	204,278	
Blood Diseases and Resources Research	93.839	112,343	-			112,343	
Blood Diseases and Resources Research	93.839	-	30,951	Brigham & Women's Hospital	116380	30,951	
Translation and Implementation Science Research for Heart, Lung, Blood Diseases, and Sleep Disorders	93.840	-	91,373	Immunetics, Inc.	HL127698	91,373	
Translation and Implementation Science Research for Heart, Lung, Blood Diseases, and Sleep Disorders	93.840	-	21,697	Immunetics, Inc.	HL127698	21,697	
Translation and Implementation Science Research for Heart, Lung, Blood Diseases, and Sleep Disorders	93.840	-	3,084	Immunetics, Inc.	HL127698	3,084	
Arthritis, Musculoskeletal and Skin Diseases Research	93.846	1,939,566	-			1,939,566	345,327
Arthritis, Musculoskeletal and Skin Diseases Research	93.846	-	56,741	Boston University	4500002415	56,741	
Arthritis, Musculoskeletal and Skin Diseases Research	93.846	-	55,117	Celdara Medical, LLC	Complex 3-Dimensional in Vitr	55,117	
Arthritis, Musculoskeletal and Skin Diseases Research	93.846	-	113,903	The Washington University	WU-17-376-MOD-1	113,903	
Arthritis, Musculoskeletal and Skin Diseases Research	93.846	-	14,109	University of Mass-Worcester	OSP2018016	14,109	
Diabetes, Endocrinology and Metabolism Research	93.847	1,155,950	-			1,155,950	110,454
Diabetes, Endocrinology and Metabolism Research	93.847	-	59,788	UCSF	Drug-Vitamin Thiamine	59,788	
Diabetes, Endocrinology and Metabolism Research	93.847	-	138,470	BIDMC	1DP3DK108224-01	138,470	
Diabetes, Endocrinology and Metabolism Research	93.847	-	1,474	University of Alabama at Bir	000508172-SP006-002	1,474	
Diabetes, Endocrinology and Metabolism Research	93.847	-	5,704	University of South Florida	6144-1173-00-A	5,704	
Diabetes, Endocrinology and Metabolism Research	93.847	-	(1,131)	Boston Medical Center	0186713	(1,131)	
Diabetes, Endocrinology and Metabolism Research	93.847	-	11,466	Boston Medical Center	046200G	11,466	
Diabetes, Endocrinology and Metabolism Research	93.847	-	13,082	Boston Medical Center	0475501	13,082	
Diabetes, Endocrinology and Metabolism Research	93.847	-	61,484	Boston Medical Center	P30DK046200	61,484	
Diabetes, Endocrinology and Metabolism Research	93.847	-	168,050	Maine Medical Center	OXBURGH R24-01	168,050	
Diabetes, Endocrinology and Metabolism Research	93.847	-	5,082	Tufts Medical Center	5007811-SERV	5,082	
Diabetes, Endocrinology and Metabolism Research	93.847	-	18,330	Tufts Medical Center	5015261-SERV	18,330	
Diabetes, Endocrinology and Metabolism Research	93.847	-	2,276	University of Iowa	W000942864	2,276	
Diabetes, Endocrinology and Metabolism Research	93.847	-	34,794	BIDMC	01028521	34,794	
Neurological Disorders	93.853	5,771,511	-			5,771,511	372,601
Neurological Disorders	93.853	-	102,984	Massachusetts General Hospital	230537	102,984	
		15,335,654	2,020,051			17,355,705	2,281,647

The accompanying notes are an integral part of this schedule.

Tufts University
Schedule of Expenditures of Federal Awards
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Cluster / 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	15,778,879	-			15,778,879	2,521,967
Allergy, Immunology and Transplantation Research	93.855	-	157,453	Rensselaer Polytechnic	PO225208/A12878	157,453	
Allergy, Immunology and Transplantation Research	93.855	-	141,759	New York University School of Medicine	PO#: M180082702	141,759	
Allergy, Immunology and Transplantation Research	93.855	-	105,946	University of California Merced	F105GRA085	105,946	
Allergy, Immunology and Transplantation Research	93.855	-	130,064	Microbiotix Inc.	R41AI122433	130,064	
Allergy, Immunology and Transplantation Research	93.855	-	209,603	Northeastern University	500490-78050	209,603	
Allergy, Immunology and Transplantation Research	93.855	-	44,815	Boston Medical Center	0515001	44,815	
Allergy, Immunology and Transplantation Research	93.855	-	13,161	University of Pennsylvania	R21AI25924	13,161	
Allergy, Immunology and Transplantation Research	93.855	-	33,493	Brigham & Women's Hospital	115242	33,493	
Allergy, Immunology and Transplantation Research	93.855	-	65,648	University of Maryland	SR00004691	65,648	
Allergy, Immunology and Transplantation Research	93.855	-	93,018	University of Maryland	SR00004692	93,018	
Allergy, Immunology and Transplantation Research	93.855	-	185,398	University of Maryland	SR00004693	185,398	
Allergy, Immunology and Transplantation Research	93.855	-	461,870	University of Maryland	SR00004694	461,870	
Allergy, Immunology and Transplantation Research	93.855	-	142,226	Medical College of Wisconsin	PO1574678	142,226	
Allergy, Immunology and Transplantation Research	93.855	-	91,365	University of Oklahoma	RS20161502	91,365	
Allergy, Immunology and Transplantation Research	93.855	-	287,562	Boston College	5103182-2	287,562	
Allergy, Immunology and Transplantation Research	93.855	-	98,401	Boston College	U01AI1243-02	98,401	
Allergy, Immunology and Transplantation Research	93.855	-	(2,930)	The Washington University	WU-16-321	(2,930)	
Allergy, Immunology and Transplantation Research	93.855	-	155,772	The Washington University	WU-17-387	155,772	
Allergy, Immunology and Transplantation Research	93.855	-	94,333	Tufts Medical Center	5014247-SERV	94,333	
Allergy, Immunology and Transplantation Research	93.855	-	135,495	Tufts Medical Center	SUBWRD# 5014331-SERV	135,495	
Allergy, Immunology and Transplantation Research	93.855	-	166,909	University of Pittsburgh	9012710 (127648-1)	166,909	
Allergy, Immunology and Transplantation Research	93.855	-	1,859	Miriam Hospital	4P30AI042853-19	1,859	
Allergy, Immunology and Transplantation Research	93.855	-	38,328	Miriam Hospital	7109156	38,328	
Allergy, Immunology and Transplantation Research	93.855	-	(660)	Miriam Hospital	710-9165	(660)	
Allergy, Immunology and Transplantation Research	93.855	-	71,113	University of Florida	R01AI128750	71,113	
Allergy, Immunology and Transplantation Research	93.855	-	236	Boston University	4500001973	236	
Allergy, Immunology and Transplantation Research	93.855	-	44,877	Northwestern University	60039166TU	44,877	
Allergy, Immunology and Transplantation Research	93.855	-	111,798	North Dakota State University	FAR0026616	111,798	
Allergy, Immunology and Transplantation Research	93.855	-	118,478	University of California Irvine	2016-3336	118,478	
Allergy, Immunology and Transplantation Research	93.855	-	10,800	University of Virginia	GB10389 154745	10,800	
Biomedical Research and Research Training	93.859	3,833,796	-			3,833,796	208,347
Biomedical Research and Research Training	93.859	623,652	-			623,652	
Biomedical Research and Research Training	93.859	-	8,190	University of Pittsburgh	0029564	8,190	
Biomedical Research and Research Training	93.859	-	376,261	Brandeis University	402372	376,261	
Biomedical Research and Research Training	93.859	-	226,405	Brandeis University	402373	226,405	
Biomedical Research and Research Training	93.859	-	291,489	Brandeis University	402374	291,489	
Biomedical Research and Research Training	93.859	-	34,804	Brandeis University	402375	34,804	
Biomedical Research and Research Training	93.859	-	59,341	University of Pittsburgh	0029564 (126332-8)	59,341	
Biomedical Research and Research Training	93.859	-	19,795	Yale University	M16A12276/CON-800004	19,795	
Biomedical Research and Research Training	93.859	-	31,667	Harvard Medical School	152297.5078083.0410	31,667	
Biomedical Research and Research Training	93.859	-	1,619	Harvard Medical School	P50GM107618	1,619	
Child Health and Human Development Extramural Research	93.865	2,489,042	-			2,489,042	262,357
Child Health and Human Development Extramural Research	93.865	-	18,338	Johns Hopkins University	2003145744	18,338	
Child Health and Human Development Extramural Research	93.865	-	8,816	Johns Hopkins University	2003190849	8,816	
Child Health and Human Development Extramural Research	93.865	-	19,928	Johns Hopkins University	2003314752	19,928	
Child Health and Human Development Extramural Research	93.865	-	125,136	Massachusetts General Hospital	226712	125,136	
Child Health and Human Development Extramural Research	93.865	-	(722)	Harvard University	114205-1162-5096814	(722)	
Child Health and Human Development Extramural Research	93.865	-	1,686	Harvard University	114205-1262-5096814	1,686	
Child Health and Human Development Extramural Research	93.865	-	722	Harvard University	114205-1362-5096814	722	
Aging Research	93.866	1,690,674	-			1,690,674	393,900
Aging Research	93.866	-	54,755	Hebrew Rehabilitation Center	90075	54,755	
Aging Research	93.866	-	16,192	University of Colorado	1551883	16,192	
Aging Research	93.866	-	66,292	Brigham & Women's Hospital	115097	66,292	
		<u>24,416,043</u>	<u>4,568,904</u>			<u>28,984,947</u>	<u>3,386,571</u>

The accompanying notes are an integral part of this schedule.

Tufts University

Schedule of Expenditures of Federal Awards

June 30, 2018

Cluster / Federal Program Research and Development Cluster (cont.)	CFDA	Direct	Pass-Through	Pass-Through Entity	Pass-Through Entity Sponsor Number	Total Expenditures	Passed to Sub-Recipients
Aging Research	93.866	-	208,742	Brigham & Women's Hospital	115640	208,742	
Aging Research	93.866	-	6,890	Brigham & Women's Hospital	115907	6,890	
Aging Research	93.866	-	15,144	Brigham & Women's Hospital	P30AG031679/115903	15,144	
Aging Research	93.866	-	59,637	Brigham & Women's Hospital	115903	59,637	
Aging Research	93.866	-	40,124	Brigham & Women's Hospital	113340	40,124	
Aging Research	93.866	-	1,862	University of Florida	U01AG050499	1,862	
Aging Research	93.866	-	(453)	University of Florida	UAG050499A	(453)	
Aging Research	93.866	-	58,239	University of Florida	UFDSP00010688	58,239	
Aging Research	93.866	-	1,762	University of Florida	UFDSP00011302	1,762	
Aging Research	93.866	-	20,840	Mayo Clinic	65407587	20,840	
Aging Research	93.866	-	189	University of New Mexico	MSC08 4640	189	
Aging Research	93.866	-	110,871	University of Florida	ENRGISE Study	110,871	5,066
Aging Research	93.866	-	4,324	University of Southern California	65348999	4,324	
Vision Research	93.867	1,145,629	-			1,145,629	121,457
Vision Research	93.867	-	61,832	SBMRI	59258-12696-TU	61,832	
Medical Library Assistance	93.879	20,070	-			20,070	
Medical Library Assistance	93.879	-	19,679	Brigham & Women's Hospital	111366	19,679	
Medical Library Assistance	93.879	-	3,585	University of Massachusetts Boston	27457	3,585	
Grants for Primary Care Training and Enhancement	93.884	42,640	-			42,640	
Based Dental Partnership Grants	93.924	37,594	-			37,594	
International Research and Research Training	93.989	850,158	-			850,158	277,844
International Research and Research Training	93.989	-	(213)	Brown University	00000444	(213)	
Health Resources and Services Administration							
In Vitro Assessment C02	93.RD	62,242	-			62,242	
Task Order A03	93.RD	220,527	-			220,527	
The use of a recombinant, atte	93.RD	-	7,833	Morris Animal Foundation	5007633-SERV	7,833	
NCI Contract	93.RD	-	214,560	Leidos Biomedical Research Inc	ARGUESO:4300076	214,560	
Surveillance-related Research	93.RD	-	463,596	Icahn School of Med Mt. Sina	13XS110	463,596	
TO4 Effects of Dietary Sodium	93.RD	-	11,924	RAND Corporation	9920170016	11,924	
Post Dev Testing of Battery	93.RD	-	40,162	Boston University	4500002233	40,162	
Task 2.2 Post Dev Battery	93.RD	-	9,121	Boston University	4500002313	9,121	
CD147 and Corneal Wound Repair	93.RD	-	16,202	Schepens Eye Research Institute	ARGUESO:4300076	16,202	
Option 18C	93.RD	-	52,927	Icahn School of Med Mt. Sinai	9920140172	52,927	
		<u>2,378,860</u>	<u>1,429,379</u>			<u>3,808,239</u>	<u>404,367</u>
National Service and Civic Engagement Research Competition							
Corporation for National and Community Service	94.026	131,432	-			131,432	8,238
		<u>131,432</u>	<u>-</u>			<u>131,432</u>	<u>8,238</u>
Research and Data Analysis							
EXECUTIVE OFFICE OF THE PRESIDENT	95.007	42,921	-			42,921	19,842
		<u>42,921</u>	<u>-</u>			<u>42,921</u>	<u>19,842</u>
Social Security Research and Demonstration							
SOCIAL SECURITY ADMINISTRATION	96.007	-	27,104	Boston College	5002110-04	27,104	
		<u>-</u>	<u>27,104</u>			<u>27,104</u>	<u>-</u>
Department of Homeland Security							
Disaster Grants-Public Assistance	97.036	-	90,028	Harvard School of Public Health	112163-5094639	90,028	
Centers for Homeland Security	97.061	-	83,676	Northeastern University	505035-78057/78053	83,676	
LaserExposureMeasurementDevice	97.RD	-	807	Pendar Technologies	HSHQDC-16-C-B0027	807	
		<u>-</u>	<u>174,511</u>			<u>174,511</u>	<u>-</u>
		<u>2,553,213</u>	<u>1,630,994</u>			<u>4,184,207</u>	<u>432,447</u>
Department of the Interior							
Fish and Wildlife Service							
Endangered Species Conservation and Recovery Implementation Funds	15.657	18,720	-			18,720	
Cooperative Ecosystem Studies Units	15.678	-	18,285	Washington State University	130959-G003723	18,285	
Cooperative Ecosystem Studies Units	15.678	-	16,826	Washington State University	132124-G003818	16,826	
Northeast Wildlife Disease Cooperative	15.RD	18,153	-			18,153	
U.S. Geological Survey							
Earthquake Hazards Reduction Program	15.807	69,298	-			69,298	14,868
FBI							
Graphics-based Learning Approach Integrated with Vision Elements (GLAIVE)	16.RD	-	59,808	University of Southern California	57124821	59,808	
		<u>106,171</u>	<u>94,919</u>			<u>201,090</u>	<u>14,868</u>

The accompanying notes are an integral part of this schedule.

Tufts University

Schedule of Expenditures of Federal Awards

June 30, 2018

Cluster / Federal Program Research and Development Cluster (cont.)	CFDA	Direct	Pass-Through	Pass-Through Entity	Pass-Through Entity Sponsor Number	Total Expenditures	Passed to Sub-Recipients
National Aeronautics and Space Administration (NASA)							
Science	43.001	210,686	-			210,686	
Science	43.001	20,443	-			20,443	
Science	43.001	-	61,165	Cornell University	77810-10705	61,165	
Space Operations	43.007	454,343	-			454,343	66,483
NASA Education Opportunities	43.008	7,771	-			7,771	
NASA Education Opportunities	43.008	-	61,398	The National Inst. of Aero Associates	C17-2D00-TU	61,398	
Space Technology	43.012	87,693	-			87,693	
Space Technology	43.012	53,015	-			53,015	
NASA Research Announcements/Research Opportunities in Space and Earth Sciences	43.RD	-	130,940	Space Telescope Science Institute	HST-AR-14302.001-A	130,940	
Grizli: The Grism reshift&Line	43.RD	-	76,137	Space Telescope Science Institute	HST-AR_14553.002-A	76,137	
		<u>833,951</u>	<u>329,640</u>			<u>1,163,591</u>	<u>66,483</u>
NATIONAL ENDOWMENT FOR THE ARTS							
Promotion of the Arts Grants to Organizations and Individuals	45.024	6,225	-			6,225	
NATIONAL ENDOWMENT FOR THE HUMANITIES, None;							
Promotion of the Humanities Fellowships and Stipends	45.160	7,206	-			7,206	
Promotion of the Humanities Fellowships and Stipends	45.160	50,358	-			50,358	
Promotion of the Humanities Office of Digital Humanities	45.169	31,598	-			31,598	
		<u>95,387</u>	<u>-</u>			<u>95,387</u>	<u>-</u>
National Science Foundation							
Engineering Grants	47.041	2,215,542	-			2,215,542	118,937
Engineering Grants	47.041	9,436	-			9,436	
Engineering Grants	47.041	-	9,489	Boston University	4500000149	9,489	
Engineering Grants	47.041	-	1,080	Brigham & Women's Hospital	108305	1,080	
Engineering Grants	47.041	-	34,490	Brown University	00001148	34,490	
Engineering Grants	47.041	-	52,354	Northeastern University	502225-78050	52,354	
Engineering Grants	47.041	-	150,443	Massachusetts Institute of Technology	5710003972	150,443	
Engineering Grants	47.041	-	224,778	University of Tennessee	A12-0044-S004-A03	224,778	
Engineering Grants	47.041	-	873	University of Illinois	2012-02178-01	873	
Engineering Grants	47.041	-	10,582	North Carolina State University	2008-1015-14	10,582	
Mathematical and Physical Science	47.049	2,286,704	-			2,286,704	18,230
Geosciences	47.050	614,204	-			614,204	96,948
Geosciences	47.050	-	139,138	CUAHSI	1338606	139,138	
Geosciences	47.050	-	22,352	University of Southern California	53-4830-0090	22,352	
Computer and Information Science and Engineering	47.070	1,422,560	-			1,422,560	
Computer and Information Science and Engineering	47.070	-	4,007	Drexel University	#13167	4,007	
Computer and Information Science and Engineering	47.070	-	32,792	Drexel University	PO/REF_U0139915	32,792	
Computer and Information Science and Engineering	47.070	-	26,499	Indiana University	BL-4812525-TU	26,499	
Computer and Information Science and Engineering	47.070	-	68,947	Utah state University	201242-477	68,947	
Biological Sciences	47.074	1,563,689	-			1,563,689	10,776
Biological Sciences	47.074	-	47,535	University of Maryland	55375-Z3708019	47,535	
Social, Behavioral, and Economic Sciences	47.075	392,307	-			392,307	18,472
Education and Human Resources	47.076	3,848,378	-			3,848,378	277,514
Education and Human Resources	47.076	138,168	-			138,168	
Education and Human Resources	47.076	-	34,554	University of Connecticut	137511	34,554	
Education and Human Resources	47.076	-	50,465	TERC	1742127	50,465	
Education and Human Resources	47.076	-	19,762	TERC	2915	19,762	
Education and Human Resources	47.076	-	57,710	TERC	44074	57,710	
Education and Human Resources	47.076	-	13,801	University of California Davis	201400026-01	13,801	
Education and Human Resources	47.076	-	7,812	University of Minnesota	A004521703	7,812	
Office of Cyberinfrastructure	47.080	-	32	Utah State University	12008203	32	
		<u>12,490,988</u>	<u>1,009,495</u>			<u>13,500,483</u>	<u>540,877</u>

The accompanying notes are an integral part of this schedule.

Tufts University

Schedule of Expenditures of Federal Awards

June 30, 2018

Cluster / Federal Program	CFDA	Direct	Pass-Through	Pass-Through Entity	Pass-Through Entity Sponsor Number	Total Expenditures	Passed to Sub-Recipients
RESEARCH AND DEVELOPMENT PROGRAMS FROM OTHER FEDERAL AGENCIES							
Research and Development Cluster (cont.)							
Department of Housing and Urban Development							
Office of Policy Development and Research							
Department of Labor							
Department of Labor Chief Evaluation Office	17.791	94,238	-			94,238	-
		<u>94,238</u>	<u>-</u>			<u>94,238</u>	<u>-</u>
Department of State							
Bureau of International Security and Nonproliferation							
Global Threat Reduction	19.033	94,974	-			94,974	-
Global Threat Reduction	19.033	5,584	-			5,584	-
		<u>100,558</u>	<u>-</u>			<u>100,558</u>	<u>-</u>
Department of Transportation							
Federal Highway Administration							
Highway Research and Development Program	20.200	-	71,713	Research Foundation of CUNY	49204-A	71,713	-
Federal Aviation Administration							
Characterizing Performance of the Ground Based Augmentation System	20.RD	81,583	-			81,583	-
		<u>81,583</u>	<u>71,713</u>			<u>153,296</u>	<u>-</u>
Agency for International Development							
USAID Foreign Assistance for Programs Overseas	98.001	11,634,005	-			11,634,005	4,352,587
USAID Foreign Assistance for Programs Overseas	98.001	-	(4,070)	Save the Children US	84010473D	(4,070)	-
USAID Foreign Assistance for Programs Overseas	98.001	-	9,222	Street LAW	Street Law	9,222	-
USAID Foreign Assistance for Programs Overseas	98.001	-	1,212,798	Save the Children	84004093	1,212,798	-
USAID Foreign Assistance for Programs Overseas	98.001	-	125,262	USAID	33133S002S	125,262	-
USAID Foreign Assistance for Programs Overseas	98.001	-	256,131	University of Florida	UFDSP00011695	256,131	-
USAID Foreign Assistance for Programs Overseas	98.001	-	7,781	Johns Hopkins University	2002944953	7,781	-
USAID Foreign Assistance for Programs Overseas	98.001	-	42,630	Texas A&M AgriLife Research	06-S160677	42,630	-
USAID Foreign Assistance for Programs Overseas	98.001	-	12,034	Texas A&M AgriLife Research	06-S160677	12,034	-
USAID Foreign Assistance for Programs Overseas	98.001	-	106,220	MercyCorps	PAHAL 32589S003	106,220	-
USAID Foreign Assistance for Programs Overseas	98.001	-	76,376	Catholic Relief Services	MW.16.SRV.V1886-658.	76,376	-
USAID Foreign Assistance for Programs Overseas	98.001	-	92,998	Catholic Relief Services	MW.16.SRV.V1886-658	92,998	-
Disaster Risk Reduction	98.001	-	2,088,821	University of Minnesota	P004721401	2,088,821	-
		<u>11,634,005</u>	<u>4,026,203</u>			<u>15,660,208</u>	<u>4,352,587</u>
Total R&D from Other Federal Agencies		<u>11,910,384</u>	<u>4,097,916</u>			<u>16,008,300</u>	<u>4,352,587</u>
Total Research and Development Cluster		<u>110,492,639</u>	<u>18,237,742</u>			<u>128,730,381</u>	<u>18,806,642</u>

The accompanying notes are an integral part of this schedule.

Tufts University
Schedule of Expenditures of Federal Awards
June 30, 2018

Cluster / Federal Program	CFDA	Direct	Pass-Through	Pass-Through Entity	Pass-Through Entity Sponsor Number	Total Expenditures	Passed to Sub-Recipients
Research and Development Cluster							
Other Sponsored Programs							
Department of Defense							
VA HEALTH ADMINISTRATION CENTER, VETERANS AFFAIRS, DEPARTMENT OF	64.054	16,874	-			16,874	-
		16,874	-			16,874	-
U.S. Department of Housing and Urban Development							
General Research and Technology Activity	14.506	-	13,601	Johns Hopkins University	2002170664	13,601	-
		-	13,601			13,601	-
Library of Congress							
Books for the Blind and Physically Handicapped	42.001	-	4,725	Muzzy Lane Software	GA16C0010-CC	4,725	-
		-	4,725			4,725	-
						-	-
Total Other Sponsored Programs		16,874	18,326			35,200	-
Foreign Food Aid Donation Cluster							
Agency for International Development							
Food for Peace Development Assistance Program (DAP)	98.007	-	36,832	MercyCorps	FIC MYAP 32208S002	36,832	-
Total Foreign Food Aid Donation Cluster		-	36,832			36,832	-
Student Financial Assistance Cluster							
Department of Education							
Federal Supplemental Educational Opportunity Grants	84.007	518,389	-			518,389	-
Federal Work Study Program	84.033	1,708,863	-			1,708,863	-
Federal Pell Grant Program	84.063	3,118,989	-			3,118,989	-
Federal Family Education Loan	84.032L						
Outstanding Loans @ July 1, 2017		4,323,358	-			4,323,358	-
New Loans issued during 2018						-	-
Administrative Cost Allowance						-	-
Federal Perkins Loan	84.038						
Outstanding Loans @ July 1, 2017		14,186,130	-			14,186,130	-
New Loans issued during 2018		311,300	-			311,300	-
Administrative Cost Allowance		156,298	-			156,298	-
Federal Direct Student Loan	84.268	152,737,850				152,737,850	
Health Professions Student Loans, Including Primary Care Loans and Loans for Disadvantaged Students (HPSL/PCL/LDS)	94.342						
Outstanding Loans @ July 1, 2017		8,418,968	-			8,418,968	-
New Loans issued during 2018		1,744,135	-			1,744,135	-
Total Student Financial Assistance Cluster		187,224,280	-			187,224,280	-
Total Federal Award Expenditures		\$ 297,733,793	\$ 18,292,900			\$ 316,026,693	\$ 18,806,642

The accompanying notes are an integral part of this schedule.

Tufts University
Notes to the Schedule of Expenditures of Federal Awards
June 30, 2018

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, 2018 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, 2018 are summarized as follows:

Title	CFDA No.	Amount Issued FY18
Perkins	84.038	\$ 311,300
Primary Care - Medical	93.342	286,515
LDS - Medical	93.342	168,000
LDS - Dental	93.342	105,000
HPSL - Dental	93.342	1,062,620
LDS - Veterinary	93.342	12,000
HPSL - Veterinary	93.342	110,000
Total 93.342		1,744,135
Total Loans Issued		\$ 2,055,435

Tufts University
Notes to the Schedule of Expenditures of Federal Awards
June 30, 2018

The balance of loans outstanding at June 30, 2018 consists of:

Title	CFDA No.	Amount Outstanding at June 30, 2018
Perkins	84.038	\$ 11,787,539
Primary Care - Medical	93.342	1,163,384
LDS - Medical	93.342	812,847
HPSL - Medical	93.342	63,654
LDS - Dental	93.342	427,462
HPSL - Dental	93.342	5,890,907
LDS - Veterinary	93.342	81,123
HPSL - Veterinary	93.342	681,792
Total 93.342		9,121,169
Total Loan Balances Outstanding		\$ 20,908,708

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, 2018. At June 30, 2018, the University held \$3,356,147 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, 2018 and the related statements 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 2, 2018.

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 entity'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 entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

PricewaterhouseCoopers LLP

November 2, 2018



**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, 2018. 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, the 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, 2018.



Other Matters

The results of our auditing procedures disclosed an instance of noncompliance, which is required to be reported in accordance with the Uniform Guidance and which is described in the accompanying schedule of findings and questioned costs as item 2018-001. Our opinion on each major federal program is not modified with respect to this matter.

The University's response to the noncompliance finding identified in our audit is described in the accompanying schedule of findings and questioned costs and management's views and corrective action plan. The University's response was not subjected to the auditing procedures applied in the audit of compliance and, accordingly, we express no opinion on the response.

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 and therefore, material weaknesses or significant deficiencies may exist that were not identified. We did not identify any deficiencies in internal control over compliance that we consider to be material weaknesses. However, we identified certain deficiencies in internal control over compliance, as described in the accompanying schedule of findings and questioned costs as item 2018-001 that we consider to be a significant deficiency.



The University's response to the internal control over compliance finding identified in our audit is described in the accompanying schedule of findings and questioned costs and management's views and corrective action plan. The University's response was not subjected to the auditing procedures applied in the audit of compliance and, accordingly, we express no opinion on the response.

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

November 2, 2018

**Part III
Findings**

Tufts University
Schedule of Findings and Questioned Costs
Year Ended June 30, 2018

I. Summary of Auditor's Results

Financial Statements

Type of auditor's report issued	Unmodified	
Internal control over financial reporting		
Material weakness(es) identified?	___ yes	_x_ no
Significant deficiency(ies) identified that are not considered to be material weaknesses?	___ yes	_x_ none reported
Noncompliance material to financial statements noted?	___ yes	_x_ no

Federal Awards

Internal control over major programs		
Material weakness(es) identified?	___ yes	_x_ no
Significant deficiency(ies) identified that are not considered to be material weaknesses?	_x_ yes	___ 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 2 CFR 200.516(a)?	_x_ yes	___ no

Identification of Major Programs

CFDA Number(s)	Name of Federal Program/Cluster
84.032L	Federal Family Education Loan Program
Various	Research and Development

Dollar threshold used to distinguish between Type A and Type B programs \$ 3 million

Auditee qualified as a low-risk auditee? ___ yes _x_ no*

*The University is not a low-risk auditee due to submitting their fiscal year 2017 Data Collection Form one-day late.

II. Financial Statement Findings

None noted

Tufts University

Schedule of Findings and Questioned Costs

Year Ended June 30, 2018

III. Federal Award Findings and Questioned Costs

2018-001 Overdraw on HHS Letter of Credit and Lack of Review of Cash Drawdowns

Cluster: Research and Development

Grantor: All Research and Development awards

Award Name: All Research and Development awards

Award Year: All Research and Development awards

CFDA Numbers: All Research and Development awards

Condition

Through our audit procedures, we noted that the University's Department of Health and Human Services (HHS) letter of credit account was in a payable position at June 30, 2018 totaling \$1.6 million. This was the result of the University drawing down more funds from HHS than expenses incurred on HHS federal awards. This error first occurred in February 2018 resulting in a \$2.9 million overdraw and repeated itself again in March 2018 (\$3.9 million overdraw) and May 2018 (\$8.5 million overdraw). The University identified this issue themselves and did not draw down funds in subsequent months to remedy this issue. The University has subsequently calculated and reimbursed HHS for interest totaling \$24,427 related to this matter.

Additionally, during our Uniform Guidance cash management testing, we selected 16 out of a total of 116 drawdowns across all agencies for testing. Of these 16, we were unable to obtain the detailed calculations supporting the drawdown on a grant by grant basis for 1 selection: HHS March 2018 totaling \$215,527. There was also no evidence of supervisory review on all 16 drawdowns selected for testing.

Criteria

The Uniform Guidance notes that the financial management system of each non-Federal entity must provide for records that identify adequately the source and application of funds for federally-funded activities. These records must contain information pertaining to Federal awards, authorizations, obligations, unobligated balances, assets, expenditures, income and interest and be supported by source documentation. (2 CFR 200.302(b)(3))

Cause

Through review of the process, discussions with University management and review of the detailed drawdown files we and the University believe the cause is due to several factors. Drawdowns are completed manually using data accumulated in a spreadsheet and this spreadsheet contained formula errors, data input errors, inaccurate data and clerical errors. Additionally, there was no supervisory review and approval of the drawdown completed. The drawdowns without supporting documentation were completed by an employee no longer with the University and were not appropriately retained.

Effect

The drawdown errors resulted in payments to the University in excess of costs incurred on certain HHS awards.

Tufts University
Schedule of Findings and Questioned Costs
Year Ended June 30, 2018

Recommendation

We recommend the University perform a complete review of its HHS cash drawdown process and enhance controls over the process, including:

- Developing formal documented policies and procedures over HHS drawdowns
- Implementing and evidencing a supervisory review prior to executing drawdowns
- Consider creating a system-generated report that accumulates the data needed for drawdowns to minimize manual input and looking for other opportunities for automation

Management's Views and Corrective Action Plan

Management's views and corrective action plan are included at the end of this report after the summary of status of prior audit findings.

Tufts University
Summary of Status of Prior Audit Findings
Year Ended June 30, 2018

There are no findings from prior years that require an update in this report.



November 1, 2018

2018-001 Overdraw on HHS Letter and Lack of Review of Cash Drawdowns

Management's Views and Corrective Action Plan

Management acknowledges there were drawdown errors that resulted in payments to the University in excess of costs incurred on certain HHS awards due to the cause described in the audit report. We identified the issue at the time and adjusted draws in subsequent months to remedy the over-draws. We have calculated the interest owed to the government as a result of being in an overdrawn position and are in the process of remitting payment to DHHS. We notified the DHHS Office of Inspector General and, upon their recommendation, had a discussion with the Payment Management Liaison at the DHHS Program Support Center with regards to our corrective action plan.

To remedy this deficiency, Tufts is performing a review of its cash drawdown process, including HHS draws, and will enhance controls over the process. This has/will include:

- Development of formal documented processes and procedures for drawdowns. Draft completed October 31, 2018. Final documentation to be completed by December 1, 2018.
- Training/re-training of staff tasked with performing draws currently underway with completion expected by December 1, 2018.
- Implementation, as of October 1, 2018, of a more robust review process prior to each draw. Drawdowns are now prepared by a staff member and reviewed by two managers prior to the draw. Evidence of review is documented.
- Formalizing the documentation of reconciliations between data in the DHHS Payment Management System and the Tufts General Ledger (authorized to budget and draws to date in both systems).
- Development of a more evolved system-generated report that accumulates the data needed for the drawdowns to minimize manual input.
- Transfer of the responsibility for drawdowns from the University's Office of the Vice Provost for Research to the University's Central Finance Office.

A handwritten signature in black ink, appearing to read "James Walsh", written over a horizontal line.

James Walsh
University Controller