

CASE WESTERN RESERVE UNIVERSITY

**Report on Federal Financial Assistance Programs
in Accordance with the Uniform Guidance
For the Year Ended June 30, 2017**

**Federal Entity Identification
Number 34-1018992**



CASE WESTERN RESERVE UNIVERSITY
REPORT ON FEDERAL FINANCIAL ASSISTANCE PROGRAMS
IN ACCORDANCE WITH THE UNIFORM GUIDANCE

June 30, 2017

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FINANCIAL



Report of Independent Auditors

To the Board of Trustees,
Case Western Reserve University:

Report on the Consolidated Financial Statements

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

Management's Responsibility for the Consolidated Financial Statements

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

Auditors' Responsibility

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

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

Opinion

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of Case Western Reserve University as of June 30, 2017 and 2016, and the changes in its net assets for the year ended June 30, 2017 and its cash flows for the years ended June 30, 2017 and 2016 in accordance with accounting principles generally accepted in the United States of America.



Other Matters

We previously audited the University's consolidated statement of financial position as of June 30, 2016, and the related consolidated statements of activities and of cash flows for the year then ended (not presented herein), and in our report dated October 8, 2016, we expressed an unmodified opinion on those consolidated financial statements. In our opinion, the information set forth in the accompanying summarized financial information as of June 30, 2016 and for the year then ended is consistent, in all material respects, with the audited consolidated financial statements from which it has been derived.

Other Information

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

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated October 14, 2017 on our consideration of the University's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts and grant agreements and other matters for the year ended June 30, 2017. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the University's internal control over financial reporting and compliance.

PricewaterhouseCoopers LLP

October 14, 2017

CONSOLIDATED STATEMENTS OF FINANCIAL POSITION

In thousands of dollars	For the year ended June 30	
	2017	2016
ASSETS		
Cash and cash equivalents	\$ 143,589	\$ 139,344
Operating investments	187,904	160,195
Accounts and loans receivable, net	106,965	114,603
Pledges receivable, net	145,177	114,554
Prepaid expenses and other assets	35,013	32,700
Investments, held for long-term purposes	1,395,449	1,298,508
Funds held in trust by others	337,553	312,635
Property, plant, equipment and books, net	757,082	776,317
TOTAL ASSETS	\$ 3,108,732	\$ 2,948,856
LIABILITIES AND NET ASSETS		
LIABILITIES		
Accounts payable and accrued expenses	\$ 61,267	\$ 55,464
Deferred income and other liabilities	59,713	56,042
Annuities payable	34,241	39,322
Refundable advances	6,127	4,755
Accrued pension liability	101,817	113,516
Notes and bonds payable	531,184	573,018
Refundable federal student loans	28,223	28,811
TOTAL LIABILITIES	\$ 822,572	\$ 870,928
NET ASSETS		
Unrestricted	\$ 205,826	\$ 152,657
Temporarily restricted	1,012,836	916,185
Permanently restricted	1,067,498	1,009,086
TOTAL NET ASSETS	\$ 2,286,160	\$ 2,077,928
TOTAL LIABILITIES AND NET ASSETS	\$ 3,108,732	\$ 2,948,856

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

CONSOLIDATED STATEMENT OF ACTIVITIES

with summarized financial information for the year ended June 30, 2016

				For the year ended June 30	
<i>In thousands of dollars</i>	Unrestricted	Temporarily Restricted	Permanently Restricted	2017	2016
OPERATING REVENUES					
Student tuition and fees	\$ 451,874			\$ 451,874	\$ 426,432
Less: Student aid	(173,616)			(173,616)	(170,819)
	278,258			278,258	255,613
Investment returns distributed for operations	62,044			62,044	65,616
FHBO returns distributed	14,622	\$ 1,195		15,817	16,059
Investment returns on operating investments	19,676			19,676	6,336
Grants and contracts	253,861			253,861	243,096
CCLCM grants and contracts	96,310			96,310	92,112
Gifts and pledges	13,801	54,727	\$ 27,251	95,779	131,513
State of Ohio appropriation	2,734			2,734	2,727
Facilities and administrative cost recovery	74,557			74,557	72,272
Organized activities	11,960			11,960	13,069
Other sources	39,051		188	39,239	52,812
Auxiliary services - students	62,681			62,681	60,237
Auxiliary services - other	9,700			9,700	9,794
Net assets released from restrictions	40,653	(40,182)	(471)	-	-
TOTAL OPERATING REVENUES	\$ 979,908	\$ 15,740	\$ 26,968	\$ 1,022,616	\$ 1,021,256
OPERATING EXPENSES					
Instructional	322,242			322,242	311,880
Sponsored research and training	252,592			252,592	246,051
Other sponsored projects	25,769			25,769	24,914
CCLCM research and training	96,310			96,310	92,112
Libraries	22,500			22,500	21,876
Student services	30,802			30,802	29,477
University services	122,928			122,928	110,752
Auxiliary services - students	69,506			69,506	62,945
Auxiliary services - other	15,805			15,805	15,637
TOTAL OPERATING EXPENSES	\$ 958,454	\$ -	\$ -	\$ 958,454	\$ 915,644
NET OPERATING ACTIVITY	\$ 21,454	\$ 15,740	\$ 26,968	\$ 64,162	\$ 105,612
NON-OPERATING ACTIVITIES					
Long-term investment activities					
Investment (loss) income	\$ (688)	\$ 17,715	\$ 2,916	\$ 19,943	\$ 6,227
Net appreciation (depreciation)	19,000	124,928	26,505	170,433	(97,696)
Total long-term investment activities	18,312	142,643	29,421	190,376	(91,469)
Investment returns distributed for operations	(62,044)			(62,044)	(65,616)
Change in liabilities due under life-income agreements	(4)	1	2,023	2,020	(88)
Loss on disposal of plant assets	(2,382)			(2,382)	(621)
Pension plan changes other than periodic benefit costs	16,100			16,100	(42,480)
Net assets released from restrictions	61,733	(61,733)		-	-
NET NON-OPERATING ACTIVITY	\$ 31,715	\$ 80,911	\$ 31,444	\$ 144,070	\$ (200,274)
CHANGE IN NET ASSETS					
Beginning Net Assets	152,657	916,185	1,009,086	2,077,928	2,172,590
ENDING NET ASSETS	\$ 205,826	\$ 1,012,836	\$ 1,067,498	\$ 2,286,160	\$ 2,077,928

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

CONSOLIDATED STATEMENTS OF CASH FLOWS

<i>In thousands of dollars</i>	For the year ended June 30	
	2017	2016
CASH FLOWS FROM OPERATING ACTIVITIES		
Change in net assets	\$ 208,232	\$ (94,662)
<i>Adjustments to reconcile change in net assets to net cash provided by operating activities:</i>		
Depreciation	68,344	69,146
Amortization of bond issuance costs	208	315
Amortization of bond premiums	(3,184)	(2,775)
Loss on debt refunding and defeasance	601	
Realized and unrealized net (gains) losses on investments	(178,438)	56,892
(Decrease) increase to annuities payable resulting from actuarial adjustments	(2,020)	88
Gifts of property and equipment	(49)	(157)
Loss on disposal of plant assets	2,382	621
Contributions restricted for long-term investment	(19,931)	(16,215)
Decrease (increase) in accounts and loans receivable, net	5,692	(7,452)
Increase in pledges receivable, net	(30,623)	(16,964)
Increase in prepaid expenses and other assets	(2,313)	(29,654)
(Increase) decrease in funds held in trust by others	(24,918)	24,189
Increase (decrease) in accounts payable and accrued expenses	3,108	(10,150)
Increase in deferred income and other liabilities	3,671	877
Increase in annuities payable		2,194
Increase in refundable advances	1,372	1,826
(Decrease) increase in accrued pension liability	(11,699)	45,561
NET CASH PROVIDED BY OPERATING ACTIVITIES	\$ 20,435	\$ 23,680
CASH FLOWS FROM INVESTING ACTIVITIES		
Student loans		
Collected	\$ 7,834	\$ 7,710
Issued	(5,887)	(8,520)
Increase in donor-restricted cash for long-term investment	(3,019)	(25,148)
Proceeds from the sale of investments	2,924,537	1,669,323
Purchase of investments	(2,870,749)	(1,619,626)
Proceeds from the sale of plant assets	415	341
Purchases of property, plant, equipment and books	(49,162)	(85,144)
NET CASH PROVIDED BY (USED FOR) INVESTING ACTIVITIES	\$ 3,969	\$ (61,064)
CASH FLOWS FROM FINANCING ACTIVITIES		
Decrease in federal advances for student loans	\$ (588)	\$ (195)
Contributions restricted for long-term investment	15,690	36,597
Proceeds from the sale of investments received as gifts	7,260	4,766
Proceeds from short-term debt	157,600	92,000
Repayment of short-term debt	(176,600)	(79,000)
Repayment of commercial paper	(38,110)	(829)
Proceeds from notes and bonds payable	182,919	75,480
Repayment of notes and bonds payable	(165,268)	(91,905)
Increase to annuities payable resulting from new gifts	270	273
Decrease to annuities payable resulting from payments	(3,332)	(3,555)
NET CASH (USED FOR) PROVIDED BY FINANCING ACTIVITIES	\$ (20,159)	\$ 33,632
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	\$ 4,245	\$ (3,752)
Cash and cash equivalents, beginning of year	139,344	143,096
CASH AND CASH EQUIVALENTS, END OF YEAR	\$ 143,589	\$ 139,344
SUPPLEMENTAL DATA:		
Interest paid in cash	\$ 17,728	\$ 12,608
Construction-in-progress payments included in accounts payable	6,838	4,143

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

Basis of Presentation

Case Western Reserve University ("the University") is an Ohio not-for-profit corporation that operates a private research university in Cleveland, Ohio. The consolidated financial statements of the University as of June 30, 2017, and for the year then ended, as well as summarized information for the year ended June 30, 2016, have been prepared in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP"). Accordingly, the accompanying consolidated financial statements have been prepared on the accrual basis of accounting and include the accounts of the University and all wholly-owned subsidiaries.

Net Asset Categories

Standards for external financial reporting by not-for-profit organizations require that resources be classified for reporting purposes into three net asset categories according to donor-imposed restrictions:

UNRESTRICTED net assets are available for any purpose consistent with the University's mission. Unrestricted net assets and related activity include the following:

- All revenues traditionally classified as unrestricted resources of the University, including tuition and fees, unrestricted gifts, investment returns on unrestricted funds designated to function as endowment, recovery of facility and administrative costs from grants and contracts, and auxiliary services revenues
- Revenues related to sponsored research and other sponsored program agreements which are considered exchange transactions
- Unrestricted funds functioning similar to endowment
- Gifts with donor-imposed restrictions, if the restriction is anticipated to be met within the current fiscal year of the University
- Investments in plant assets
- All expenses of the University

TEMPORARILY RESTRICTED net assets include investment returns from endowments and gifts for which donor-imposed restrictions have not been met. This restriction on temporarily restricted endowment returns (income and realized and unrealized gains and losses) is released when appropriations are distributed for use and the funds have been spent for intended purposes. The

category also includes pledges receivable and life-income gifts for which the ultimate purpose of the proceeds is not permanently restricted.

PERMANENTLY RESTRICTED net assets include gifts, trusts and pledges on which donors have imposed the restriction that the corpus is maintained in perpetuity and only the investment returns be made available for program operations. In the case of trusts, gains and losses are added to the gift amount. Gifts restricted by donors to provide loans to students are also included in permanently restricted net assets.

Expirations of temporary restrictions on net assets are reported as reclassifications between the applicable classes of net assets. Donor required matching from University funds and donor release or clarification of restrictions are also included in this category.

Accounting Standards Codification ("ASC") 958, "Not for Profit Entities," provides guidance on the net asset classification of donor-restricted endowment funds for a not-for-profit organization that is subject to an enacted version of the Uniform Prudent Management of Institutional Funds Act ("UPMIFA"), and expanded disclosures about an organization's endowment (both donor-restricted and board-designated funds). The University's Board of Trustees ("the Board") has interpreted UPMIFA as requiring the preservation of the original gift as of the gift date of the donor-restricted endowment funds absent explicit donor stipulation to the contrary. As a result of this interpretation, the University classifies as permanently restricted net assets, (a) the original value of initial 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 as permanently restricted net assets is classified as temporarily restricted net assets until those amounts are appropriated and expended by the University in a manner consistent with the standard of prudence prescribed by UPMIFA.

Contributions

Contributions, including unconditional pledges to give and irrevocable trusts held by others with the University

as the beneficiary, are recognized as revenues in the period received or promised. They are classified as unrestricted, temporarily restricted, or permanently restricted net assets depending upon the donor's intent.

Contributions restricted for the acquisition of land, buildings and equipment are reported as temporarily restricted revenues. These contributions are reclassified to unrestricted net assets when the assets are placed in service. Promises to give that are subject to donor-imposed stipulations that the corpus be maintained in perpetuity are recognized as increases in permanently restricted net assets.

Conditional promises to give are not recognized until the conditions on which they depend are substantially met. Gifts whose restrictions are met in the same fiscal year in which they are received are reported with unrestricted contribution revenues. Contributions of assets other than cash are reported at their estimated fair value at the date of gift. Contributions scheduled to be received after one year are discounted using a market rate (Note 3).

In September 2015, the Board approved the commencement of the construction phase of the Health Education Campus, a joint project with Cleveland Clinic Foundation. At this time, it is expected that the project will be funded by gifts and private grants (Note 3).

Grants and Contracts (Government and Private)

Revenues from government and private grants and contracts are recognized as earned in accordance with the terms of the grant or contract. Any government payment received before it has been expended is recorded as a refundable advance. Projects funded by government grants that incur expenses prior to payment receipt are recorded as revenue with a corresponding receivable.

Investment Returns on Operating Investments

The University has invested excess operating funds and certain Board-designated funds with the University's investment pool. The operating funds are invested alongside other funds and receive a pro-rata portion of income, expenses, gains, and losses of the pool.

Cash and Cash Equivalents

The University considers all highly liquid investments with an original maturity of 90 days or fewer when

purchased as cash and cash equivalents, except those amounts managed by investment managers as part of the investment pool that do not belong to operations, or unspent bond proceeds, which are classified as investments. The University maintains operating cash and reserves for replacement balances in financial institutions which, from time to time, may exceed federally insured limits. The University periodically assesses the financial condition of these institutions and believes that the risk of loss is minimal.

Operating Investments

Operating investments are stated at fair value and include all other current investments with original maturities greater than 90 days that are used to support operations. These investments may include obligations of triple A-rated banks, various United States Government agencies, other investments, and internal operating funds invested in the University's investment pool. Although the pool primarily invests in mid- to long-term investments, the pool maintains a sufficient investment mix that allows operating assets to be liquidated upon demand.

Prepaid Expenses and Other Assets

Within other assets, the University had cash of \$28,167 and \$25,148 as of June 30, 2017 and 2016, respectively, restricted by donors for investment in property and equipment.

Investments

Investments are made within guidelines authorized by the Board. Investments are initially recorded at cost at date of acquisition or fair value at date of donation in the case of gifts.

Ownership of marketable securities is recognized as of the trade date. Endowment returns are calculated net of internal and external investment management expenses.

Investments are stated at fair value as defined by ASC 820, "Fair Value Measurements and Disclosures." Fair value is defined under ASC 820 as the exchange price that would be received for an asset or paid to transfer a liability, i.e., an exit price, in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date.

The fair value of all debt and equity securities with

readily determinable fair values are based on quotations obtained from national securities exchanges. The alternative investments, which are not readily marketable, are carried at estimated fair values as provided by the investment managers. The University reviews and evaluates the values provided by the investment managers and agrees with the valuation methods and assumptions used in determining the fair value of the alternative investments. Those estimated fair values may differ significantly from the values that would have been used had a ready market for these securities existed.

Realized gains and losses on investments are included in *Investment (loss) income*. Average cost is generally used to determine gains or losses on securities sold. Unrealized changes in the fair value of investments are shown as net unrealized appreciation or depreciation.

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 (Note 6). The three levels of inputs are as follows:

Level 1 — Quoted unadjusted prices in active markets for identical assets or liabilities. An active market is one in which transactions occur with sufficient frequency and volume to produce pricing information on an ongoing basis. Market price data are generally obtained from exchange or dealer markets.

Level 2 — Pricing 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. Inputs are obtained from various sources including market participants, dealers and brokers.

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.

Collections

The University's collections of historically significant artifacts, scientific specimens, and art objects are held for education, research, scientific inquiry, and public exhibition. They are neither disposed of for financial gain nor encumbered in any manner. Accordingly, their value

is not reflected in the University's consolidated financial statements.

Funds Held in Trust by Others

Funds held in trust by others are assets held and administered by outside trustees from which the University derives income or residual interest. Funds held in trust by others are reported at their fair value as of June 30, 2017 and 2016.

Income received from funds held in trust by others is classified as temporarily restricted net assets until those amounts are appropriated and expended by the University. Income appropriated within the same year earned/received is classified as unrestricted. Unrealized changes in the fair value of investments are shown as net unrealized appreciation or depreciation in permanently restricted net assets.

Fixed Assets

When capital assets are sold or disposed, the carrying value of such assets and any accumulated depreciation are removed from the asset accounts. Any resulting gain or loss on disposal is recognized in the non-operating portion of the consolidated statement of activities.

Expenditures for construction-in-progress are capitalized as incurred and depreciated over the estimated life of the asset when placed into service. All identifiable direct costs including other costs incurred to ready the asset for its intended use are included in the cost of the project. The University capitalizes interest on borrowings to finance facilities, net of any investment income earned through the temporary investment of project borrowings, during construction until the project has been substantially completed.

Split-Interest Agreements

The University has split-interest agreements consisting primarily of pooled income funds, charitable gift annuities and charitable remainder unitrusts and annuities. Contributions are recognized at the date the trusts and annuities are established, net of a liability for the present value of the estimated future cash outflows to beneficiaries, using a discount rate of 2.6% and 1.9% for June 30, 2017 and 2016, respectively. These assets are invested and payments are made to donors and beneficiaries in accordance with the respective agreements.

Allocation of Certain Expenses

The consolidated statement of activities presents expenses by function. Some expenses — such as depreciation, amortization, and expenses related to the operation of the physical plant — are allocated by square footage. Interest expense is allocated to the functions that derive the greatest benefit from the facilities financed.

Retirement Plans

The University accounts for its defined benefit postretirement plan in accordance with ASC 715, “Compensation - Retirement Benefits.” The University recognizes the overfunded or underfunded status of a defined benefit postretirement plan as an asset or liability in its consolidated statements of financial position in the year in which the change occurs, with an offsetting impact to unrestricted net assets.

Use of Estimates

Financial statements using U.S. GAAP rely on estimates. At June 30, management makes certain estimates and assumptions, which affect assets and liabilities, disclosures of contingent assets and liabilities, and reported revenues and expenses during the period. Actual results may differ from these estimates.

Comparative Information

The consolidated statement of activities includes prior year summarized comparative information in total, but not by net asset category. Such information does not include enough detail to constitute a presentation in conformity with U.S. GAAP. Accordingly, such information should be read in conjunction with the University’s consolidated financial statements for the year ended June 30, 2016, from which it was derived.

Income Taxes

The University is exempt from federal income tax to the extent provided under section 501(c) (3) of the Internal Revenue Code (“IRC”). The University is classified as an organization that is not a private foundation under section 509(a) of the IRC, and as such, gifts to the University qualify for deduction as charitable contributions. The University is exempt from federal income tax; however, it is required to pay federal income tax on unrelated business income. The University did

not have any material income tax liabilities for the years ended June 30, 2017 and 2016. ASC 740, “Income Taxes,” prescribes a recognition threshold and measurement requirements for financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. In addition, ASC 740 provides guidance on recognition, classification and disclosure requirements for uncertain tax provisions. The University has no financial reporting requirements associated with ASC 740 for the years ended June 30, 2017 and 2016.

New Pronouncements

In May 2014, the FASB issued Accounting Standard Update (“ASU”) 2014-09: “Revenue from Contracts with Customers (Topic 606)” 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 revenue as performance obligations are satisfied. Qualitative and quantitative disclosures are 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 standard is effective for fiscal years beginning after December 15, 2017. The University is evaluating the impact this will have on the consolidated financial statements for fiscal year ending June 30, 2019, the first year in which the standard is effective.

In April 2015, the FASB issued ASC 2015-03: “Imputation of Interest (Subtopic 835-30): Simplifying the Presentation of Debt Issuance Costs,” which requires all costs incurred to issue debt to be presented in the consolidated statements of financial position as a direct deduction from the carrying value of the associated debt liability. The standard is effective for fiscal years beginning after December 15, 2015, and has been adopted by the University in the current fiscal year. As a result of the adoption, *Prepaid expenses and other assets* and *Notes and bonds payable* decreased by \$3,272 for fiscal year 2016.

In January 2016, the FASB issued ASU 2016-01: “Financial Instruments - Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities,” which addresses certain aspects of recognition, measurement, presentation and disclosure of financial

instruments. Among other clarifications, this standard requires certain equity investments to be measured at fair value, simplifies the impairment assessment of equity investments, and eliminates the requirement to disclose the fair value of financial instruments measured at amortized costs for non-public business entities. The standard is effective for fiscal years beginning after December 15, 2018 with early adoption permitted. The University implemented the standard in the current fiscal year and accordingly applied the new guidance retrospectively to the fiscal year ended June 30, 2016.

In February 2016, the FASB issued ASU 2016-02: "Leases (Topic 842)," which increases transparency and comparability among organizations by recognizing lease assets and lease liabilities on the consolidated statements of financial position and disclosing key information about leasing arrangements. This standard requires the recognition of lease assets and lease liabilities by lessees for those leases previously classified as operating leases. The standard is effective for fiscal years beginning after December 15, 2018. The University is evaluating the impact this will have on the consolidated financial statements for fiscal year ending June 30, 2020, the first year in which the standard is effective.

In August 2016, the FASB issued ASU 2016-14: "Presentation of Financial Statements of Not-for-Profit Entities," which simplifies and improves how a not-for-profit entity classifies net assets and presents and discloses information related to liquidity, financial performance, and cash flows in financial statements. The standard is effective for fiscal years beginning after December 15, 2017. The University is evaluating the impact this will have on the consolidated financial statements for fiscal year ending June 30, 2019, the first year in which the standard is effective.

In August 2016, the FASB issued ASU 2016-15: "Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments," which attempts to eliminate the diversity in practice in how certain cash receipts and cash payments are presented and classified in the statement of cash flows. This includes debt prepayment or debt extinguishment costs, certain contingent consideration payments and proceeds

from the settlement of insurance claims, among others. The standard is effective for fiscal years beginning after December 15, 2018. The University is evaluating the impact this will have on the consolidated financial statements for fiscal year ending June 30, 2020, the first year in which the standard is effective.

In November 2016, the FASB issued ASU 2016-18: "Statement of Cash Flows (Topic 230): Restricted Cash," which requires amounts generally described as restricted cash and restricted cash equivalents to be included with cash and cash equivalents when reconciling the beginning-of-period and end-of-period total amounts shown on the statement of cash flows. The standard is effective for fiscal years beginning after December 15, 2018. The University is evaluating the impact this will have on the consolidated financial statements for fiscal year ending June 30, 2020, the first year in which the standard is effective.

In March 2017, the FASB issued ASU 2017-07: "Compensation – Retirement Benefits (Topic 715): Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost," which requires an employer report the service cost component in the same line item or items as other compensation costs arising from services rendered by the pertinent employees during the period, among other improvements to benefit cost presentation. The standard is effective for fiscal years beginning after December 15, 2018. The University is evaluating the impact this will have on the consolidated financial statements for fiscal year ending June 30, 2020, the first year in which the standard is effective.

In March 2017, the FASB issued ASU 2017-08: "Receivables – Nonrefundable Fees and Other Costs (Subtopic 310-20): Premium Amortization on Purchased Callable Debt Securities," which shortens the amortization period of premiums on certain purchased callable debt securities to the earliest call date. The standard is effective for fiscal years beginning after December 15, 2019. The University is evaluating the impact this will have on the consolidated financial statements for fiscal year ending June 30, 2021, the first year in which the standard is effective.

2. ACCOUNTS AND LOANS RECEIVABLE

Accounts and loans receivable of the University at June 30, 2017 and 2016 were as follows:

	2017	2016
ACCOUNTS RECEIVABLE, NET		
Grants, contracts and others	\$ 52,362	\$ 58,252
Students	2,890	2,722
STUDENT LOANS, NET	51,713	53,629
ACCOUNTS AND LOANS RECEIVABLE, NET	\$ 106,965	\$ 114,603

Allowance for doubtful accounts:

Accounts receivable	\$ 3,857	\$ 4,838
Loans receivable	\$ 2,419	\$ 2,649

Management regularly assesses the adequacy of the allowance for doubtful accounts by performing ongoing evaluations of the various components of the accounts receivable and student loan portfolios, including such factors as the differing economic risks associated with each category, the financial condition of specific

borrowers, the economic environment in which the borrowers operate, the level of delinquent loans, and the past history of the various borrowers and the University.

Factors also considered by management when performing its assessment, in addition to general economic conditions and the other factors described above, included, but were not limited to, a detailed review of the aging of the various receivables and loans, and a review of the default rate by loan category in comparison to prior years. The level of the allowance is adjusted based on the results of management's analysis.

Management considers the allowance for doubtful accounts to be prudent and reasonable. Furthermore, the University's allowance is general in nature and is available to absorb losses from any loan category. Management believes that the allowance for doubtful accounts at June 30, 2017 is adequate to absorb credit losses inherent in the portfolio as of that date.

3. PLEDGES RECEIVABLE

Unconditional promises to give are included in the consolidated financial statements as pledges receivable and revenue of the appropriate net asset category. Multi-year pledges are recorded after discounting based on the market rate to the present value of expected future cash flows. The discount rate utilized for fiscal 2017 and 2016 was 5%.

Unconditional promises to give at June 30, 2017 and 2016 are expected to be realized in the following periods:

	2017	2016
Less than one year	\$ 46,979	\$ 31,278
Between one year and five years	101,849	86,030
More than five years	17,500	15,334
	166,328	132,642
Less: Discount	(11,819)	(9,498)
Less: Allowance	(9,332)	(8,590)
TOTAL PLEDGES RECEIVABLE, NET	\$ 145,177	\$ 114,554

Management follows a similar approach as described in Note 2 for accounts and loans receivable in evaluating the adequacy of the allowance for doubtful accounts for pledges receivable. Management considers the

allowance for doubtful accounts to be prudent and reasonable. Management believes that the allowance for doubtful accounts at June 30, 2017 is adequate to absorb any uncollectible pledges as of that date.

Pledges receivable at June 30, 2017 and 2016 had the following restrictions:

	2017	2016
Department programs and activities	\$ 35,418	\$ 27,369
Endowments for scholarships and		
department programs and activities	29,948	25,967
Building construction	79,811	61,218
TOTAL PLEDGES RECEIVABLE, NET	\$ 145,177	\$ 114,554

Uncollectible pledges totaling \$6,113 (2017) and \$2,136 (2016) were written off against the allowance for uncollectible pledges. The University had conditional pledge commitments totaling \$10,568 (2017) and \$13,471 (2016). The approval by the Board for the commencement of the construction phase of the Health Education Campus in fiscal year 2016 released the conditions for multiple pledge commitments and resulted in increased pledges receivable related to building construction.

4. LONG-TERM INVESTMENTS

The University holds long-term investments for permanently restricted endowment funds, donor-restricted funds, annuity assets, Board-designated funds and excess operating assets that are able to be invested in longer term investments.

The University invests through traditional investments as well as operating an investment pool that works similar to a mutual fund (Note 5). The University's long-term investments at June 30, 2017 and 2016 were as follows:

	2017	2016
Cash and cash equivalents	\$ 50,423	\$ 42,268
Domestic stocks	66,094	32,551
International securities	92,480	18,463
Global securities	252,175	194,583
Bonds		
Government and municipal	19,088	6,876
Corporate	19,509	14,163
Mutual funds	272,173	327,099
Derivatives	27,280	30,211
Limited partnerships and Other		
Venture capital	116,624	110,302
Private equity	231,050	214,432
Real estate	77,815	94,416
Absolute return/Hedge funds	322,125	324,399
Other	36,436	48,797
Equity real estate	81	143
TOTAL INVESTMENTS	\$ 1,583,353	\$ 1,458,703

	2017	2016
Operating investments	\$ 187,904	\$ 160,195
Investments, held for long-term purposes	1,395,449	1,298,508
TOTAL INVESTMENTS	\$ 1,583,353	\$ 1,458,703

Investment returns shown on the consolidated statement of activities are netted against investment management fees of \$9,548 (2017) and \$10,317 (2016). The investments were held for the following purposes:

	2017	2016
Endowment	\$ 1,118,540	\$ 1,035,811
Donor-restricted funds	298,486	287,757
University investments	111,748	80,845
Annuities	44,294	45,041
Funds held for the benefit of others	10,285	9,249
TOTAL INVESTMENTS	\$ 1,583,353	\$ 1,458,703

University investments include unspent bond proceeds of \$24 (2017) and \$2,551 (2016) (Note 8).

Endowment Funds

The purpose of endowment funds is to generate in perpetuity revenue to support specific activities or for general institutional use. Endowments represent only those net assets that are under the control of the University. Gift annuities, interests in funds held in trust by others, and pledges designated for the endowment but not yet received are not considered components of the endowment.

The state of Ohio has enacted legislation that incorporates the provisions outlined in the Uniform Prudent Management of Institutional Funds Act ("UPMIFA"). UPMIFA stipulates that unless directed otherwise in the gift instrument, donor-restricted assets in an endowment fund are restricted assets until appropriated for expenditure by the institution. Accordingly, the following items are recorded as permanently restricted net assets:

- The original value of initial gifts donated to the permanent endowment
- The original value of subsequent gifts to the permanent endowment
- For those endowment funds with donor-specified reinvestment provisions, accumulations to the

permanent endowment made in accordance with the gift instrument at the time the accumulation is added to the fund

The remaining portion of donor-restricted endowment funds that are not classified in permanently restricted net assets is classified as temporarily restricted net assets until those amounts are appropriated and spent in accordance with the endowment purpose by the University.

Similar Funds

The University has designated certain funds to function as endowments and has co-invested as such. Donor purpose-restricted funds were not given to the University with the understanding that the gift amount would be maintained in perpetuity; these funds are classified in temporarily restricted net assets. All other Board-designated funds are classified in unrestricted net assets. Even though the Board has elected to treat these funds in the same fashion as an endowment fund, at its option, the Board may elect to change that treatment and spend these funds in accordance with the intentions of the donor, if any, without the constraints of the University endowment spending formula.

The breakdown of these classifications are:

	Unrestricted	Temporarily Restricted	Permanently Restricted	Total	
				2017	2016
Donor-restricted endowment funds	\$ (11,234)	\$ 501,891	\$ 627,883	\$ 1,118,540	\$ 1,035,811
Donor purpose-restricted funds		288,060		288,060	269,484
Board-designated funds	54,637			54,637	44,809
TOTAL ENDOWMENT AND SIMILAR FUNDS	\$ 43,403	\$ 789,951	\$ 627,883	\$ 1,461,237	\$ 1,350,104

Investment Pool

The Board's interpretation of its fiduciary responsibilities for endowment and similar funds is to preserve intergenerational equity to the extent possible. This principle holds that future beneficiaries should receive at least the same level of economic support that the current generation enjoys. To that end, investment goals are formulated to earn returns over the long term that equal or exceed the Board-approved distribution rates plus the impacts of inflation. The University's endowment and similar funds are invested in a broadly diversified portfolio designed to produce long-term rates of return that sustain or increase the real spending contribution

from endowed and similar assets and to mitigate downturns in a single sector.

Unless otherwise directed in the gift instrument, both endowment and similar funds are pooled for efficient investment purposes.

The pool is accounted for on a dollarized method of accounting similar to a money market fund and accounted for on an account basis. The total investment return for the pooled investments, net of external manager fees, approximated 12.43% (2017) and (3.45)% (2016).

Spending Policy

The Board has approved an endowment spending policy for pooled investments based on a hybrid formula. The objective of this two-pronged approach is to provide support for operations, preserve intergenerational equity, and insulate programming supported by endowment and similar funds from short-term fluctuations in the investment markets. The two components are:

- A constant growth component which seeks to provide growth in annual spending equal to the rate of academic inflation as measured by the Higher Education Price Index
- A market value component based on 4.5% of the average of the three previous calendar year-end market values

Specific appropriation for expenditure of funds under the policy occurs each spring when the Board approves the operating budget for the following year. The fiscal 2017 and 2016 pooled endowment and similar funds spending allocation approximated 4.87% and 4.75%, respectively, of beginning market value. The total amount allocated was \$63,439 and \$65,952, respectively.

While the policy provides guidance for the level of spending permitted (allocation), the actual spending will vary from the spending allocation based on the timing of actual expenditures. Funds are transferred

from the investment pool to the University's operating account after they have been spent in accordance with the endowment and similar funds requirements. The actual movement of cash and investments between the investment pool and operating accounts occurs on a periodic basis as determined by the University and its processes to maintain the proper balance between liquidity and the remaining invested.

For years where actual investment return exceeds actual approved spending, the difference remains in temporarily restricted net assets; years in which the actual endowment and similar funds return is less than distributions under the policy, the shortfall is covered by realized returns from prior years. Both fiscal years 2017 and 2016 pooled endowment and similar funds distribution were funded from a combination of current year investment income and prior year accumulated realized gains.

In addition to the general distribution described above, the Board has authorized a temporary supplemental distribution of previously reinvested income and realized appreciation to support certain development-related activities. This distribution totaled \$6,000 in 2017 and \$6,000 in 2016.

Changes in endowment and similar funds net assets for fiscal year 2017 and 2016 are as follows:

	Unrestricted	Temporarily Restricted	Permanently Restricted	Total	
				2017	2016
Endowment and similar funds net assets, beginning of year	\$ 22,689	\$ 721,151	\$ 606,264	\$ 1,350,104	\$ 1,439,174
Investment income	1,878	41,439		43,317	7,374
Realized and unrealized gains (losses)	4,398	96,656		101,054	(61,490)
TOTAL INVESTMENT RETURN	6,276	138,095		144,371	(54,116)
Contributions	6,012	1,175	21,797	28,984	30,819
Current year withdrawals			(178)	(178)	(157)
Current year expenditures	(2,460)	(59,584)		(62,044)	(65,616)
Reclassification of deficits in donor-designated funds	10,886	(10,886)		-	-
ENDOWMENT AND SIMILAR FUNDS NET ASSETS, END OF YEAR	\$ 43,403	\$ 789,951	\$ 627,883	\$ 1,461,237	\$ 1,350,104

Occasionally, the fair market value of assets associated with individual donor-restricted endowment funds falls below the value of the original gift amounts. When deficits exist in these funds, they are classified as a reduction of unrestricted net assets. Deficits of this nature reported in unrestricted net assets were \$11,234 (2017) and \$22,120 (2016). These deficits resulted from unfavorable market fluctuations that occurred after the investment of recently established endowments

and additions, and authorized appropriation that was deemed prudent.

Of the amount classified as temporarily restricted endowment net assets, \$501,891 (2017) and \$451,667 (2016) represented the investment returns on perpetual endowment funds subject to time and purpose restrictions under Ohio's enacted version of UPMIFA.

6. FAIR VALUE MEASUREMENTS

Financial instruments carried at fair market value as of June 30, 2017 and 2016 by the ASC 820 valuation hierarchy are as follows:

June 30, 2017	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Net Asset Value	Total
INVESTMENTS					
Cash and cash equivalents	\$ 36,092	\$ 14,331			\$ 50,423
Domestic stocks	29,586	980		\$ 35,528	66,094
International securities		33,615		58,865	92,480
Global securities				252,175	252,175
Bonds					
Government and municipal		19,088			19,088
Corporate		19,509			19,509
Mutual funds	266,151	6,022			272,173
Derivatives		27,280			27,280
Limited partnerships and Other					
Venture capital			\$ 15,952	100,672	116,624
Private equity			4,127	226,923	231,050
Real estate				77,815	77,815
Absolute return		6,175		315,950	322,125
Other		42	36,394		36,436
Equity real estate			81		81
TOTAL INVESTMENTS	\$ 331,829	\$ 127,042	\$ 56,554	\$ 1,067,928	\$ 1,583,353
FUNDS HELD IN TRUST BY OTHERS	\$ -	\$ -	\$ 337,553	\$ -	\$ 337,553
PENSION PLAN ASSETS					
Cash and cash equivalents	\$ 5,455				\$ 5,455
Mutual funds	82,056	\$ 9,273			91,329
Limited partnerships and Other					
Absolute return				\$ 44,954	44,954
Other				4,073	4,073
Equity real estate				8,597	8,597
TOTAL PENSION PLAN ASSETS (Note 9)	\$ 87,511	\$ 9,273	\$ -	\$ 57,624	\$ 154,408
ASSETS AT FAIR VALUE	\$ 419,340	\$ 136,315	\$ 394,107	\$ 1,125,552	\$ 2,075,314
Interest rate swaps payable	\$ -	\$ 14,690	\$ -	\$ -	\$ 14,690
LIABILITIES AT FAIR VALUE	\$ -	\$ 14,690	\$ -	\$ -	\$ 14,690

June 30, 2016

	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Net Asset Value	Total
INVESTMENTS					
Cash and cash equivalents	\$ 12,679	\$ 29,589			\$ 42,268
Domestic stocks	1,511	980		\$ 30,060	32,551
International securities		4,752		13,711	18,463
Global securities	54,583	3,180		136,820	194,583
Bonds					
Government and municipal		6,876			6,876
Corporate		14,163			14,163
Mutual funds	321,695	5,404			327,099
Derivatives		30,211			30,211
Limited partnerships and Other					
Venture capital			\$ 14,852	95,450	110,302
Private equity			3,820	210,612	214,432
Real estate				94,416	94,416
Hedge funds		6,164		318,235	324,399
Other		42	48,755		48,797
Equity real estate			143		143
TOTAL INVESTMENTS	\$ 390,468	\$ 101,361	\$ 67,570	\$ 899,304	\$ 1,458,703
FUNDS HELD IN TRUST BY OTHERS	\$ -	\$ -	\$ 312,635	\$ -	\$ 312,635
PENSION PLAN ASSETS					
Cash and cash equivalents	\$ 99				\$ 99
Mutual funds	45,225	\$ 9,341			54,566
Limited partnerships and Other					
Hedge funds				\$ 76,861	76,861
Equity real estate				8,272	8,272
TOTAL PENSION PLAN ASSETS (Note 9)	\$ 45,324	\$ 9,341	\$ -	\$ 85,133	\$ 139,798
ASSETS AT FAIR VALUE	\$ 435,792	\$ 110,702	\$ 380,205	\$ 984,437	\$ 1,911,136
Interest rate swaps payable	\$ -	\$ 22,555	\$ -	\$ -	\$ 22,555
LIABILITIES AT FAIR VALUE	\$ -	\$ 22,555	\$ -	\$ -	\$ 22,555

Level 3 Investment Information

Investments included in Level 3 consist primarily of the University's ownership in alternative investments (principally limited partnership interests in venture capital, private equity, equity real estate, real assets and other similar funds), beneficial interests in funds held in trust by others, and portions of investments in the pension assets. Level 3 investments are more difficult to value due to the following:

- The fair values of the securities held by limited partnerships that do not have readily determinable fair values are determined by the general partner based on appraisals or other estimates that require varying degrees of judgment.
- If no public market consideration exists, the fair value is determined by the general partner taking

into consideration, among other things, the cost of the securities, prices of recent significant placements of securities of the same issuer, subsequent developments concerning the companies to which the securities relate, or other estimates requiring varying degrees of judgment. The University regularly reviews, evaluates and performs significant due diligence around these investments to ensure that the values provided by the investment managers are appropriate measures of fair value. The University agrees with the valuations and assumptions used in determining the fair value of these investments.

A roll forward of the consolidated statements of financial position amounts for financial instruments classified by the University within Level 3 of the fair value hierarchy is as follows:

	Venture Capital	Private Equity	Equity Real Estate	Other & Funds Held by Others	Total
June 30, 2015	\$ 15,637	\$ 4,127	\$ 80	\$ 384,536	\$ 404,380
Investment (loss) income	(1)			811	810
Unrealized losses	(191)	(50)		(22,197)	(22,438)
Purchases	203	53	63		319
Settlements	(796)	(310)		(1,760)	(2,866)
June 30, 2016	\$ 14,852	\$ 3,820	\$ 143	\$ 361,390	\$ 380,205
Investment income	15	4		9,169	9,188
Unrealized gains	1,785	462		17,684	19,931
Purchases	169	44			213
Settlements	(869)	(203)	(62)	(14,296)	(15,430)
June 30, 2017	\$ 15,952	\$ 4,127	\$ 81	\$ 373,947	\$ 394,107

The net realized and unrealized gains and losses in the table above are included in the University's consolidated statement of activities in one of two financial statement lines: *Investment (loss) income* or *Net appreciation (depreciation)*. In the case of pension assets, net realized and unrealized gains and losses are recognized in the financial statement line *Pension plan changes other than periodic benefit costs*.

The pricing inputs and methods described above could 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 is permitted under U.S. GAAP to estimate the fair value of an investment at the measurement date using the reported net asset value ("NAV") without further adjustment unless the entity expects to sell the investment at a value other than NAV or if the NAV is not calculated in accordance with U.S. GAAP. The University's investments in domestic stocks, international securities, global securities, venture capital, private equity, real estate, and certain hedge funds in the absolute return portfolio are fair valued based on the most current NAV.

The University performs additional procedures including due diligence reviews on its investments in investment companies and other procedures with respect to the capital account or NAV provided to ensure conformity with U.S. GAAP. The University has assessed factors

including, but not limited to, managers' compliance with the Fair Value Measurement standard, price transparency at NAV at the measurement date, and existence of certain redemption restrictions at the measurement date.

The guidance also requires additional disclosures to

enable users of the financial statements to understand the nature and risk of the University's investments.

The table below illustrates the fair value of the University's investments measured at NAV and the commitments that have been made for future purchases:

Category	Redemption Frequency	Redemption Notice Period	Fair Value	Unfunded Commitments
Domestic stocks (a)	monthly, quarterly, annually	30 - 90 days	\$ 35,528	
International securities (b)	monthly, quarterly	30 - 90 days	58,865	
Global securities (c)	monthly, quarterly	30 - 90 days	252,175	
Limited partnerships and Other				
Venture capital (d)			100,672	\$ 24,343
Private equity (e)			226,923	73,525
Real estate (f)			77,815	40,555
Absolute return (g)	monthly, quarterly, annually	30 - 90 days	360,904	
Other (h)			4,073	
Equity real estate (i)			8,597	
TOTAL			\$ 1,125,552	\$ 138,423

(a) **Domestic stocks** include funds invested in equity securities domiciled in the United States. Fund liquidity is daily, monthly, quarterly, semi-annual, annual, and up to a maximum period of three years. Approximately 100% of the net asset value is accessible within three years.

(b) **International securities** include funds invested in equity securities domiciled in countries outside of the United States including developed and emerging markets. Approximately 100% of the net asset value is accessible within one year or less.

(c) **Global securities** include funds invested in equity securities domiciled in both Domestic stocks and International securities. Investments in this asset class have a mandate for global securities worldwide. Approximately 100% of the net asset value is accessible within one year or less.

(d) **Venture capital** includes several private equity funds that invest primarily in technology, health care or clean technology industries. While the portfolio is U.S. centric, there are small allocations to companies in foreign markets. The funds typically provide money and resources to entrepreneurs to finance a start-up company or product, with the hope that the company experiences exceptional growth and therefore would produce a successful investment. The funds invest at different stages of a company's growth, some very early and others at a later stage where the company may already produce revenues. The valuations for these investments have been estimated using the managers'

fair market values, which have been vetted to make sure they meet the ASC 820 guidelines. These investments can never be redeemed with the funds. As these investments age in duration, distributions will be received from these funds as the underlying portfolio companies are sold in the market. It is estimated that the underlying investments within the funds would be fully liquidated over the next 7-12 years.

(e) **Private equity** includes several private equity funds that invest across all industries. While the portfolio is U.S. centric, there has been an increasingly larger allocation to companies in foreign markets. The funds typically invest capital into more mature companies for a minority or majority of ownership and through operational and financial expertise, generate a return of capital greater than the original amount invested. The valuations for these investments have been estimated using the managers' fair market values, which have been vetted to make sure they meet the ASC 820 guidelines. These investments can never be redeemed with the funds. As these investments age in duration, distributions will be received from these funds as the underlying portfolio companies are sold in the market. It is estimated that the underlying investments within the funds would be fully liquidated over the next 7-12 years.

(f) **Real estate** includes private real estate funds that invest primarily in the United States. Some of these private partnerships also make investments internationally, primarily in Europe, India and Brazil. The private funds make investments in various real

estate types, such as office, industrial, retail and multi-family properties. The valuations for these investments have been estimated using the managers' fair market values, which have been vetted to make sure they meet the ASC 820 guidelines. These investments can never be redeemed with the funds. As these investments age in duration, distributions will be received from these funds as the underlying properties are sold at the market. It is estimated that the underlying investments within the funds would be fully liquidated over the next 5-7 years.

(g) **Absolute return** includes hedge fund investments across a multitude of strategies including long/short equity, long/short commodity, global macro, multi-strategy, event-driven, credit, fund of hedge funds, and emerging markets. The vast majority of these investments are U.S. based, but some may invest internationally. Investment managers may make investment decisions based on top down macroeconomic analysis or bottom up company or theme specific analysis; managers may shift portfolios from net long to net short positioning but on balance tend to carry a net long exposure within their portfolios. The estimated fair values of the investments are received on a monthly basis from the fund administrators. Final valuations are typically received around mid-month for most funds but in some instances funds will report final valuations on a quarterly basis in accordance with the reporting period specified in the fund legal documents. Fund liquidity varies across the absolute return category from monthly, quarterly, annually, and up to a maximum period of three years. Approximately 97% of the net asset value in this class is accessible within one year or less, with all funds accessible within three years.

(h) **Other** includes various investments that do not fall within the other categories listed. Examples would include liquid multi-asset strategy investments.

(i) **Equity real estate** includes liquid real estate securities and indices domiciled in both the United States and countries outside of the United States including developed and emerging markets.

Derivative Information

The use of financial derivative instruments is governed by the University's Investment Policy Statement, which is approved and overseen by the Investment Committee of the Board. The University assumes many risks as a result of its investment decisions and investment holdings. Many risks are discussed in the Investment Policy

Statement:

Manager risk – the risk that a manager underperforms similar managers, benchmarks, or appropriate indices.

Benchmark risk – the risk of harm caused by constructing, selecting, or managing to an inappropriate benchmark.

Peer risk – the risk that one's peers generate better investment performance, thereby boosting the relative size of their endowments and enhancing their competitive advantage.

Market risk – the risk that the value of an investment will decrease due to market moves.

Interest rate risk – the risk that an investment's value will change due to a change in the absolute level of interest rates, the spread between two rates, the shape of the yield curve, or any other interest rate relationships.

Concentration – the risk of being too concentrated in one particular security, manager, strategy, sector or asset class, thus being vulnerable to poor performance stemming from lack of diversification.

Absolute return risk – the ability to generate positive absolute returns, not just in favorable markets, but also in uncertain and negative phases measured over a business cycle.

Currency risk – the risk that currency fluctuations or trends reduce the value of investments in non-U.S. markets.

Commodity risk – refers to the uncertainties of future market values and the size of future income caused by fluctuation in the prices of commodities (energy, agricultural, precious and industrial metals) due to demand/supply imbalances.

Leverage – the risk that significant volatility or losses will be generated by the use of debt designed to magnify returns.

Counterparty risk – the risk that one party to a transaction does not make complete or timely payment of margin, swap cash flow, bond proceeds, or other similar payments.

Credit risk – the possibility that a bond issuer will default by failing to pay interest or repay principal in a timely manner.

Tail risk – a form of portfolio risk that arises when the possibility that an investment will move more than three

standard deviations from the mean is greater than what is shown by a normal distribution.

Liquidity risk – the inability to sell or trade securities at fair market value within a short period of time; also, the risk that sufficient cash is not maintained, or cannot be accessed, to meet short-term obligations.

Inflation risk – the risk that rising prices significantly erode the effective purchasing power of the portfolio, as measured by the University's cost inflation.

Shortfall risk – the risk that investment returns will be lower than expected, causing a failure to accomplish investment or financial objectives.

The University seeks to mitigate these risks by using derivative transactions. At the macro level of the investment portfolio, derivative transactions also create cost-effective beta exposure that may replace a fund or investment manager, add alpha, support liquidity management, and reduce the impact of extreme negative market conditions. The derivative instruments used include futures, total return swaps, and over-the-counter options.

Futures: An Equity Index Future is a standardized obligation to buy or sell a market index, at a certain date in the future (settlement date), at a specified price (futures price). Equity Index Futures are typically cash-settled. Trading Medium: Exchange A single clearing house (e.g., Options Clearing Corporation, for the Chicago Board Options Exchange) is the counterparty to both parties involved in the contract. Futures trade a premium or discount to the cash index level based on the following theoretical formula: $\text{Futures Fair Value} = \text{Cash Index Value} + \text{Expected Interest Income prior to contract expiry} - \text{Expected Dividend Income prior to contract expiry} - \text{Expected Lending Income prior to contract expiration}$. The value of a futures contract converges to that of the underlying index at expiration. The investor posts an initial margin and a maintenance margin which represents a small portion of the overall notional value (usually 12%-18% of the notional value). Collateral between the counterparties is exchanged daily based on the mark to market performance of the futures contract. Used primarily as a manager replacement strategy to gain beta exposure to an index on the long side and to hedge out beta exposure on the short side.

Total Return Swaps ("TRS"): A TRS is a non-standardized agreement whereby one party makes periodic cash payments based on a set rate (e.g., London

Interbank Offered Rate ("LIBOR")) while another party makes periodic cash payments based on the total return of an underlying index. The total return payer agrees to pay the total return of the underlying index to the total return receiver. The total return receiver agrees to receive future total return, and pay periodic payments to the total return payer. Trading Medium: Over-The-Counter ("OTC"). TRS offer synthetic exposure to beta returns while avoiding the transaction and administrative costs of owning the actual underlying equity shares. TRS are subject to counterparty credit risk; if collateral is posted between parties, counterparty credit risk can be mitigated. Transacted via agreement between counterparties. There is no initial or maintenance margin posting. Collateral between the counterparties is exchanged daily based on the mark to market performance of the swap. Used to gain beta exposure to an index on the long side and to hedge out beta exposure on the short side. The swap resets on a periodic basis (monthly, quarterly, or annually), at which point the LIBOR rate is reset and the gains/losses cash settled. A new notional value reflecting the settled gains/losses is established at this point. The next measurement begins with the new notional value. There may be a breakup fee if the swap is terminated earlier than its expiration date. Used primarily as a manager replacement strategy.

Options: Options or Option Structures are non-standardized agreements whereby one party makes or receives one payment at the time of initial transaction to/from a counterparty and may make or receive a second payment to/from the counterparty at the expiration date of the agreement based on an individual option or a combination of individual options. Trading Medium: OTC. Transacted via ISDA/CSA agreement between counterparties. Options are subject to counterparty credit risk; if collateral is posted between parties, counterparty credit risk can be mitigated. Options/Option Structures allow investors to customize the risk/return profile of existing portfolios. For example: Investors who are underweight equities and have a moderately positive outlook can obtain enhanced equity exposure by capping returns with or without a leveraged payoff. More bearish investors can opt for downside protection to reduce risk. Collateral between the counterparties is exchanged daily based on the mark to market performance of the Option or Option Structure. At maturity the Option or Option Structure is cash settled. Prior to maturity, Options/Option Structures may trade above or below their intrinsic value due to various factors such as time, volatility, interest rates, skew, delta, gamma,

etc. The value eventually converges to intrinsic value at maturity. Used for beta replacement strategies, alpha strategies or hedging strategies.

Swaptions: Swaptions are a specific type of Option which gives the buyer the right, but not the obligation, to enter into a specified swap agreement with the counterparty on a specified future day.

Forward contracts: A forward contract is an agreement to buy or sell an asset at a certain future time for a certain price. A forward contract is traded in the OTC market – usually between two financial institutions or a financial institution and a client. One party assumes a long position and agrees to buy the underlying asset on a certain date for a certain price. The other party assumes

a short position and agrees to sell the underlying asset on a certain date for a certain price. The price in a forward contract is known as the delivery price. Forward contracts are commonly used to hedge foreign currency risk. Payoff for a long position on a forward contract is $S_t - K$ where K is the delivery price and S_t is the spot price at maturity of the contract. Similarly the payoff on a short position in a forward contract is $K - S_t$. Settlement of forward contracts can be made with delivery of the underlying or cash settlement. Since the contract is OTC, margin and collateral are determined by individual agreements and sometimes fall under the agreement.

The following table provides detailed information on the derivatives included in the investment portfolio as of June 30 and where they are located in the consolidated statements of financial position:

Location	Derivative Type	Notional Amount	2017		
			Level 1 Fair Value	Level 2 Fair Value	Level 3 Fair Value
Investments, held for long-term purposes	Total return swaps	\$ 207,681		\$ 27,799	
	Options (over-the-counter)			(519)	
	TOTAL DERIVATIVES, 2017		\$ -	\$ 27,280	\$ -

Location	Derivative Type	Notional Amount	2016		
			Level 1 Fair Value	Level 2 Fair Value	Level 3 Fair Value
Investments, held for long-term purposes	Total return swaps	\$ 267,392		\$ 26,965	
	Options (over-the-counter)	5,344		(419)	
	Futures contracts	18,300		3,403	
	Forward contracts			6	
	Interest rate hedges			195	
	Yield curve hedges	457,318		61	
	TOTAL DERIVATIVES, 2016		\$ -	\$ 30,211	\$ -

The following table provides detailed information on the effect the derivatives had on the overall performance

of the investment portfolio which is reflected in the consolidated statement of activities:

Location	Derivative Type	2017	2016
Net effect on investment (loss) income			
	Total return swaps	\$ 6,031	\$ (7,838)
	Options (over-the-counter)	601	
	Futures contracts	330	(1,260)
	Interest rate hedges	(2,121)	(1,172)
	Yield curve hedges	(1,306)	(54)
		\$ 3,535	\$ (10,324)
Net appreciation (depreciation)			
	Total return swaps	\$ 21,299	\$ (7,063)
	Options (over-the-counter)		344
	Futures contracts		256
	Interest rate hedges		(3,614)
	Yield curve hedges		(902)
		\$ 21,299	\$ (10,979)
NET EFFECT OF DERIVATIVES		\$ 24,834	\$ (21,303)

7. PROPERTY, PLANT, EQUIPMENT AND BOOKS

Property, plant, equipment and books are stated at cost, less accumulated depreciation. Depreciation is computed on the straight-line method over the estimated useful life of 10 to 30 years for land improvements, 10

to 50 years for building and building improvements, 5 to 15 years for equipment, and 10 years for books. Components of property, plant, equipment and books are as follows:

	2017	2016
Land and land improvements	\$ 61,035	\$ 59,573
Building and building improvements	1,337,187	1,306,922
Equipment and software	290,629	297,112
Library books	44,920	42,817
Construction-in-progress	41,380	48,467
	1,775,151	1,754,891
Less: Accumulated depreciation	(1,018,069)	(978,574)
TOTAL PROPERTY, PLANT, EQUIPMENT AND BOOKS, NET	\$ 757,082	\$ 776,317

The above assets include \$507,991 leased from the Ohio Higher Educational Facility Commission ("OHEFC"). The University may purchase each of the leased assets for a nominal amount at the end of the lease period. Therefore, these assets have been capitalized and are included in the above listing. The corresponding liability is included in *Notes and bonds payable* on the consolidated statements of financial position.

Capitalized interest added to construction-in-progress was \$152 (2017) and \$522 (2016). The expected cost to complete construction-in-progress is approximately \$38,964.

Depreciation expense included in the consolidated statement of activities is \$68,344 (2017) and \$69,146 (2016).

8. NOTES AND BONDS PAYABLE

Notes and bonds payable are as follows:

		Interest Rate(s)	Maturity (Calendar Year)	2017	2016
OHEFC revenue notes and bonds:	Series 1990	6.50%	2017-2020	\$ 8,045	\$ 9,630
	Series 1994	6.25%	2017-2018	9,085	12,995
	Series 2006	4.00 - 5.25%	2017-2044	42,260	76,735
	Series 2008A	0.69%	2017		60,000
	Series 2008C	4.00 - 5.25%	2017-2018	1,595	44,640
	Series 2012A	3.00 - 5.00%	2017-2023	22,415	25,820
	Series 2013A	3.00 - 5.00%	2017-2023	22,510	36,130
	Series 2014A	0.89%	2030-2044	67,500	67,500
	Series 2015A	2.00 - 5.38%	2017-2034	48,765	50,400
	Series 2015B	0.82%	2017-2030	73,730	74,780
	Series 2016	3.00 - 5.00%	2018-2040	166,450	
OHEFC commercial paper		0.17 - 0.66%	2030	30,000	68,110
Compass Group USA, Inc.		-n/a-	2017-2019	563	863
TOTAL LIABILITY				\$ 492,918	\$ 527,603
Line of credit				14,000	33,000
Unamortized bond premium				27,264	15,687
Unamortized bond issuance cost				(2,998)	(3,272)
TOTAL NOTES AND BONDS PAYABLE				\$ 531,184	\$ 573,018

In July 2015, the OHEFC Series 2015B bonds were issued to refinance the balance of the OHEFC Series 2001A bonds in the amount of \$10,605 and the OHEFC Series 2002A bonds in the amount of \$64,875. The total amount of the bond issue was \$75,480. The financing fees of \$172 were not included in the refinancing and were expensed.

In November 2016, the OHEFC Series 2016 bonds were issued to refinance the balance of the OHEFC Series 2008A bonds in the amount of \$60,000, a portion of the OHEFC Series 2006 bonds in the amount of \$32,805, and OHEFC tax-exempt Commercial Paper in the amount \$33,000. The OHEFC Series 2016 bonds were also issued to defease a portion of the OHEFC Series 2008C in the amount of \$43,662, and a portion of the OHEFC Series 2013A in the amount of \$13,416 and included a University cash contribution of \$2,197. Deferred financing fees of \$1,370 were paid and the unamortized balance is a reduction to *Notes and bonds payable*. The total amount of the bond proceeds were \$186,450.

The amount outstanding under the OHEFC tax-exempt commercial paper program to provide construction funds for several approved capital projects was \$30,000 (2017) and \$68,110 (2016), with maturities not exceeding 270 days from the issuance date. Principal was paid down

in the amount of \$38,110 (2017) and \$829 (2016). All commercial paper issued under the terms of the program must mature no later than February 1, 2030. The annualized interest cost and credit facility expense for this program was 1.20% (2017) and 0.73% (2016).

The University has revolving lines of credit with two financial institutions in the amount of \$90,000 to finance working capital. The \$50,000 line is subject to annual review and renewal, and the \$40,000 line is subject to renewal in December 2017. The amount outstanding was \$14,000 (2017) and \$33,000 (2016).

Principal payment requirements for bonds, notes, and capital lease obligations for the next five fiscal years and thereafter are as follows:

Year	Scheduled Principal Payments	Commercial Paper	Total Maximum Principal Payments
2018	\$ 18,095		\$ 18,095
2019	15,993		15,993
2020	16,540		16,540
2021	16,340		16,340
2022	19,305	\$ 30,000	49,305
Thereafter	406,645	(30,000)	376,645
TOTAL	\$ 492,918	\$ -	\$ 492,918

The University has standby bond purchase agreements and liquidity agreements with a financial institution to purchase the University's commercial paper if they cannot be remarketed. The University no longer had variable rate demand obligations as of June 30, 2017 due to the OHEFC Series 2016 bond issuance.

Interest expense, including those amounts for interest rate swap agreements (Note 12), was \$19,721 (2017) and \$19,609 (2016).

Certain borrowing agreements require that the University comply with certain covenants. The University is in compliance with these provisions as of June 30, 2017.

9. RETIREMENT PLANS

The University has both defined benefit and defined contribution pension plans for its employees. In accordance with provisions of the Employee Retirement Income Security Act of 1974, the University has established a trust to hold plan assets for its defined benefit plan. The funded status of the University's defined benefit plan is as follows:

	2017	2016
Benefit obligation at June 30	\$ 256,225	\$ 253,314
Fair value of plan assets at June 30	154,408	139,798
FUNDED STATUS AT JUNE 30	\$ (101,817)	\$ (113,516)

Accumulated benefit obligation	\$ 254,593	\$ 251,841
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Benefit plan costs for the defined benefit plan are as follows:

	2017	2016
Net periodic benefit cost	\$ 14,933	\$ 9,852
Employer contributions	10,532	6,770
Benefits paid	6,138	14,336

Estimated benefits expected to be paid under the defined benefit plan for the next five fiscal years are as follows:

2018	\$ 6,183
2019	6,608
2020	7,277
2021	7,647
2022	8,496

Amounts expected to be paid between 2023 and 2027 total \$55,080. The University's estimated employer contribution for the defined benefit plan in fiscal 2018 will depend on the results of the July 1, 2017 actuarial valuation and is estimated to be \$14,223.

Weighted-average assumptions used to determine the benefit obligation and benefit plan costs are as follows:

	2017	2016
BENEFIT OBLIGATION		
Discount Rate	4.10%	3.90%
Rate of compensation increase	2.25%	2.25%
Measurement date	6/30/17	6/30/16
Census date	7/1/16	7/1/15

NET PERIODIC BENEFIT COST		
Discount rate	3.90%	4.75%
Expected return on plan assets	7.50%	8.50%
Rate of compensation increase	2.25%	2.25%

The expected long-term rate of return for the defined benefit plan was estimated using market benchmarks for equities and bonds applied to the plan's target asset allocation. Management estimated the rate by which the plan assets would outperform the market in the future based on historical experience adjusted for changes in asset allocation and expectations compared to past periods.

The investment objective for the defined benefit plan is to maximize total return with tolerance for slightly above average risk, in order to meet the obligations that the University has to its plan beneficiaries. To accomplish this objective, the University has established a broadly-diversified asset allocation strategy that includes absolute return strategies (combination of fixed income and equity securities) (50%), equity investments (30%), bonds and cash (16%), and real estate (4%). The weightings of the investments relative to each other in the total portfolio fluctuate as market conditions vary; they are adjusted regularly to remain within acceptable ranges.

The weighted-average asset allocation for the defined benefit plan is as follows:

	2017	2016
Equity securities	39%	28%
Fixed income securities	23%	11%
Real estate	6%	6%
Other	32%	55%
TOTAL ASSET ALLOCATION	100%	100%

The amounts recognized in the University's consolidated statements of financial position and in unrestricted net assets related to the defined benefit plan are as follows:

	2017	2016
NET LIABILITY	\$ (101,817)	\$ (113,516)
UNRESTRICTED NET ASSETS		
Actuarial losses	104,698	120,798
AMOUNT RECOGNIZED AS REDUCTION OF UNRESTRICTED NET ASSETS	\$ 104,698	\$ 120,798

The estimated amortization of net loss expected in fiscal 2018 totals \$5,859. Components of the net periodic benefit cost and other changes in plan assets that are recognized in the consolidated statement of activities are as follows:

	2017	2016
Change in actuarial (gains) losses	\$ (16,100)	\$ 42,480
TOTAL (GAIN) LOSS RECOGNIZED, UNRESTRICTED NET ASSETS	(16,100)	42,480
Service cost	10,287	8,511
Interest cost	10,098	10,855
Expected return on assets	(12,236)	(13,903)
Net loss amortization	6,784	4,389
Net periodic benefit cost	14,933	9,852
TOTAL (GAIN) LOSS RECOGNIZED, STATEMENT OF ACTIVITIES	\$ (1,167)	\$ 52,332

During fiscal 2016, the Board approved of certain de-risking efforts by the University related to the defined benefit plan in which certain eligible participants, who are non-current employees, were offered lump-sum payouts. The payouts to the eligible participants of \$9,055, who elected to receive this lump-sum value, were completed by June 30, 2016.

Benefit plan costs for the defined contribution plan are \$21,940 (2017) and \$21,024 (2016).

10. COMMITMENTS AND CONTINGENCIES

In its normal operations, the University is subject to various claims and lawsuits. In management's opinion, the resolution of these contingencies will not have a significant adverse effect on the University's financial position, operations, or cash flows.

In May 2002, the University entered into an agreement with the Cleveland Clinic Foundation ("CCF") to form a new medical education and research program, the Cleveland Clinic Lerner College of Medicine ("CCLCM"). Beginning in 2004, research grants from the National Institutes of Health to support work by CCF-based investigators were awarded to and administered through the University by CCLCM, which operates as an academic unit of the School of Medicine. Expenditures for research conducted under this joint agreement totaled \$96,310 (2017) and \$92,112 (2016).

In April 2006, the Boards of University Hospitals Health System and the University approved an affiliation agreement between the School of Medicine and University Hospitals of Cleveland ("UHC"). This agreement created the Case Medical Center, a virtual entity that encompasses certain teaching, research,

and clinical activities of the School of Medicine and UHC. In September 2016, the affiliation agreement was renewed with the exception of the Case Medical Center designation. Even though the virtual entity will be dissolved, there will be continued collaboration in education and research.

During 2013, the University entered into a joint purchase agreement with the Cleveland Museum of Art to purchase real property from the Cleveland Institute of Art. The University's commitment was \$4,600 with \$505 placed as an earnest deposit as of June 30, 2015. In September 2015, the University paid the remainder of its commitment. The investment in the property is shown on the consolidated statements of financial position in *Prepaid expenses and other assets* as of June 30, 2017.

The University is self-insured for workers compensation and employee and student medical coverage. Property is commercially insured with an aggregate deductible of \$700. The University also carries general liability insurance with a deductible of \$100 per occurrence. The University believes its reserves for self-insured risks and the deductible portion of insured risks are sufficient.

11. RELATED PARTY TRANSACTIONS

In 1998, the University entered into a thirty-year agreement with the Medical Center Company (a cooperative utility company formed by and serving institutions in the University Circle area) to purchase steam, chilled water, and other utilities for several University buildings. The amounts purchased were \$22,423 (2017) and \$19,599 (2016). No obligation associated with this agreement is recorded in the accompanying consolidated financial statements.

In July 2012, the University received an energy efficiency grant from the Medical Center Company in the amount of \$998. The grant required a capital contribution of

\$267 from the University and payback of a portion of projected energy cost savings. Payback terms are 36 months beginning January 2014. The obligation recorded in *Deferred income and other liabilities* is \$23 (2017) and \$252 (2016).

In August 2015, the Medical Center Company approved an additional energy efficiency grant in the amount of \$829. The project costs incurred totaled \$169 (2017) and \$86 (2016). The payback terms related to this project are 36 months beginning March 2016. The obligation related to this project recorded in *Deferred income and other liabilities* is \$217 (2017) and \$76 (2016).

12. DERIVATIVES

The University uses floating-to-fixed interest rate swap agreements of various durations to manage both its funding cost and the interest rate risk associated with variable rate debt. Under these swap agreements, the University pays a fixed rate and receives from its counterparty a variable rate payment, each calculated by reference to specified notional principal amounts during the agreement period. Operations are charged the variable rate interest on the corresponding bonds; the difference between the fixed and variable interest amounts under the swap agreements is recorded in non-operating revenues and expenses as *Investment (loss) income*.

The University follows accounting guidance that defines fair value, establishes a framework for measuring fair value, and expands disclosure requirements about fair value measurements, including derivatives. The University's interest rate swaps are valued by an independent swap consultant that uses the mid-market levels, as of the close of business, to value the agreements. The valuations provided are derived

from proprietary models based upon well-recognized financial principles and reasonable estimates about relevant future market conditions and the University's credit worthiness. The University's interest rate swap arrangements have inputs that can generally be corroborated by market data and are classified as Level 2 in the fair value hierarchy.

Under four agreements in effect at June 30, 2017, the counterparty pays a variable interest rate equal to a percentage of the one month LIBOR. Under one agreement which terminated in fiscal year 2017, the counterparty paid the University a variable interest rate equal to the Securities Industry and Financial Markets Association ("SIFMA") index.

The following table provides detailed information on the interest rate swaps at June 30, 2017, with comparative fair values for June 30, 2016. Information related to the interest rate swap agreements and the liability recognized in the consolidated statements of financial position in *Deferred income and other liabilities* are as follows:

Notional Amount	Interest Rate	Commencement	Termination Date	Basis	2017		2016
					Level 2 Fair Market Value		
\$ 9,210	4.34%	Aug. 12, 2004	Oct. 1, 2022	LIBOR	\$ (1,005)	\$	(1,565)
15,000	4.43%	Jun. 5, 2002	Jun. 5, 2022	LIBOR	(2,244)		(3,248)
15,000	3.60%	Sept. 25, 2002	Sept. 25, 2022	LIBOR	(1,732)		(2,637)
35,000	3.81%	Aug. 4, 2004	Aug. 1, 2034	LIBOR	(9,709)		(13,375)
100,000	3.37%	Jan. 3, 2012	Jan. 1, 2017	SIFMA			(1,730)
TOTAL INTEREST RATE SWAP AGREEMENT LIABILITY					\$ (14,690)	\$	(22,555)

Changes in the fair value of derivative instruments are recorded in non-operating revenues and expenses as *Investment (loss) income*. The provisions of the swap agreements require that on a weekly basis the University place into an escrow fund collateral sufficient to limit the counter-party's financial exposure to the University to no more than \$20,000. The University had placed \$0 (2017)

and \$5,231 (2016) into such a fund, which is shown in *Cash and cash equivalents* on the consolidated statements of financial position.

Interest expense recorded for the swap agreements in the non-operating activities for the year ended June 30 was \$4,236 (2017) and \$6,086 (2016).

13. RESTRICTED NET ASSETS

The University's restricted net assets as of June 30 were as follows:

	Temporarily Restricted	Permanently Restricted	2017	2016
Endowment				
True endowment	\$ 501,891	\$ 627,883	\$ 1,129,774	\$ 1,057,931
Funds functioning as endowment (FFE)	288,060		288,060	269,484
Total true endowment and FFE	789,951	627,883	1,417,834	1,327,415
Funds held in trust by others		337,553	337,553	312,635
TOTAL UNIVERSITY ENDOWMENT	\$ 789,951	\$ 965,436	\$ 1,755,387	\$ 1,640,050
Other net assets				
Pledges receivable	94,343	38,665	133,008	104,473
Funds held in trust by others, unused income	7,463		7,463	6,268
Student loan funds		37,125	37,125	36,629
Split-interest agreements	143	18,396	18,539	16,112
Purpose restricted gifts	120,936	7,876	128,812	121,739
TOTAL NET ASSETS	\$ 1,012,836	\$ 1,067,498	\$ 2,080,334	\$ 1,925,271

14. SUBSEQUENT EVENTS

The University has performed an evaluation of subsequent events through October 14, 2017, the date on which the consolidated financial statements were issued.

In September 2017, the University amended one of the two revolving lines of credit, increasing the total amount available for working capital from \$90,000 to \$100,000, subject to annual review and renewal.

CASE WESTERN RESERVE UNIVERSITY
Schedule of Expenditures of Federal Awards
For the year ended June 30, 2017

FEDERAL GRANTOR/PASS-THROUGH GRANTOR PROGRAM or CLUSTER TITLE	CFDA	Pass-Through Entity Sponsor Number	Total Expenditures	Passed to Sub-Recipients
Research and Development Cluster – University				
Research and Development – University				
Department of Agriculture				
<u>Direct Programs</u>				
Research and Development	10.RD		\$ 9,147	\$ -
<u>Pass Through Programs</u>				
Texas A&M University	10.219	06-S160607	21,730	-
Wholesome Wave Foundation Charitable Ventures, Inc.	10.331	2015-70018-23350	49,879	-
Department of Agriculture Subtotal			80,756	-
Department of Commerce				
<u>Direct Programs</u>				
Patent and Trademark Technical Information Dissemination	11.900		38,808	-
Department of Commerce Subtotal			38,808	-
Department of Defense				
<u>Direct Programs</u>				
Research and Development	12.RD		2,780,250	1,576,526
Basic and Applied Scientific Research	12.300		1,982,014	183,140
Basic Scientific Research - Combating Weapons of Mass Destruction	12.351		403,134	254,788
Military Medical Research and Development	12.420		3,836,351	437,350
Basic Scientific Research	12.431		84,013	30,801
Air Force Defense Research Sciences Program	12.800		2,555,860	890,773
Research & Technology Development	12.910		204,319	62,542
<u>Pass Through Programs</u>				
Azimuth Corporation	12.RD	238-5404-CWRU	15,216	-
Materials Resources, LLC	12.RD	Work Order# 2016-MRL-T004	24,211	-
Princeton Plasma Physics Lab	12.RD	S-013864-W	42,196	-
SelectTech Services Corporation	12.RD	6159-05-1727	9,379	-
Virtual EM	12.RD	VEM-CWRU-1	4,321	-
American Lightweight Materials Manufacturing Innovation Institute (ALMMII)	12.300	0003B-4	191,077	-
American Lightweight Materials Manufacturing Innovation Institute (ALMMII)	12.300	0005B-8	67,554	-

CASE WESTERN RESERVE UNIVERSITY
Schedule of Expenditures of Federal Awards
For the year ended June 30, 2017

FEDERAL GRANTOR/PASS-THROUGH GRANTOR PROGRAM or CLUSTER TITLE	CFDA	Pass-Through Entity Sponsor Number	Total Expenditures	Passed to Sub-Recipients
American Lightweight Materials Manufacturing Innovation Institute (ALMMII)	12.300	0006A-4	127,747	-
Cleveland Veteran's Administration Medical Research and Education Foundation	12.420	Bogie-Case-DOD002	56,848	-
Cleveland Veteran's Administration Medical Research and Education Foundation	12.420	Bogie-VA001DOD	6,343	-
Johns Hopkins University	12.420	W81XWH-15-2-0067	41,407	-
Miami University	12.420	W81XWH-15-1-0079 (664845)	13	-
Stanford University	12.420	CRE00047-01	5,594	-
University of Kentucky	12.420	W81XWH(3200000830-17-056)	10,926	-
University of Pittsburgh	12.420	0027150 (408007-1)	185,407	-
Viamet Pharmaceuticals	12.420	Viamet Pharm (Ghannoum)	10,795	-
Johns Hopkins University	12.431	W81XWH1020090	161,730	-
University of Michigan	12.431	3004177603	60,808	-
Fisk University	12.630	W911NF-13-1-0153	(177)	-
Norfolk State University	12.630	W911NF-11-1-0209	(11,551)	-
Pennsylvania State University	12.630	5436-CWRU-DMDII-1514	45,189	-
Lehigh University	12.800	543105-78005	(10,742)	-
National Additive Manufacturing Innovation Institute	12.800	FA8650-12-2-7230	107,779	82,516
Ohio Aerospace Institute	12.800	OAI-CAP-1700018	8,028	-
RTI International Metals, Inc.	12.800	FA8650-15-2-5200 AO-43	44,417	-
University of Washington	12.800	UWSC7988	223,203	-
West Virginia University	12.800	15-906-CWRU	1,364	-
Youngstown State University	12.800	G00000862-5	118,268	-
University of Maryland	12.910	Z923801	(861)	-
Department of Defense Subtotal			13,392,430	3,518,436
Department of Housing and Urban Development				
<u>Direct Programs</u>				
General Research and Technology Activity	14.506		116	-
Healthy Homes Technical Studies Grants	14.906		124,664	39,281
<u>Pass Through Programs</u>				
MDRC	14.536	H-21668CA	65,328	-
Environmental Health Watch	14.913	OHHHP0001-11	2,997	-
Department of Housing and Urban Development Subtotal			193,105	39,281

CASE WESTERN RESERVE UNIVERSITY
Schedule of Expenditures of Federal Awards
For the year ended June 30, 2017

FEDERAL GRANTOR/PASS-THROUGH GRANTOR PROGRAM or CLUSTER TITLE	CFDA	Pass-Through Entity Sponsor Number	Total Expenditures	Passed to Sub-Recipients
Department of Justice				
<u>Pass Through Programs</u>				
Ohio Attorney General	16.320	2016-VOCA-19811377	38,090	-
Frontline Services	16.582	OVC-2016-9441	6,374	-
Domestic Violence and Child Advocacy Center, Cuyahoga County, Ohio	16.590	DVCAC	60,171	-
Center for Court Innovations	16.738	2015-DP-BX-K007	13,997	-
California State University	16.818	2015-CV-BX-0001/CWRU23123	68,849	-
Department of Justice Subtotal			187,481	-
National Aeronautics and Space Administration				
<u>Direct Programs</u>				
Research and Development	43.RD		29,219	-
Aerospace Education Services Program	43.001		690,941	66,635
Technology Transfer	43.002		(516)	-
Exploration	43.003		529,441	1,279
Space Operations	43.007		237,356	-
Education	43.008		41,000	-
Cross Agency Support	43.009		82,863	-
<u>Pass Through Programs</u>				
Seacoast Science, Inc.	43.RD	Seacoast (NNX16CJ26P)	51,764	-
Universities Space Research Association	43.RD	04555-004	1,626,730	-
Princeton University	43.001	00002045	429,473	-
National Aeronautics and Space Administration Subtotal			3,718,271	67,914
National Science Foundation				
<u>Direct Programs</u>				
Engineering Grants	47.041		1,932,901	33,523
Mathematical & Physical Sciences	47.049		5,280,299	908,113
Geosciences	47.050		305,974	-
Computer and Information Science & Engineering	47.070		1,477,051	19,547
Biological Sciences	47.074		1,047,766	-
Social, Behavioral and Economic Sciences	47.075		164,768	-
Education and Human Resources	47.076		1,389,124	56,453

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International Science and Engineering (OISE)	47.079		797,773	234,470
Trans-NSF Recovery Act Research Support – ARRA	47.082		(87)	-
<u>Pass Through Programs</u>				
Agiltron	47.041	PO 783857; NSF112725	175	-
PolymerPlus LLC	47.041	PolymerPlus (IIP-1534063)	45,382	-
Preciosion Made Partsm LLC	47.041	1047151	(17,668)	-
University of Rochester	47.041	416928G/GR510497	1,463	-
Yale University	47.041	C17D12529 (D02172)	4,531	-
University of Michigan	47.049	3002527784	91,362	-
University of Chicago	47.050	FP052668	198,938	-
University of Connecticut	47.070	104887	38,048	-
University of Illinois	47.070	1019343 BDhub001 (15795)	4,682	-
University of Kansas	47.074	FY2017-023	9,290	-
The Research Foundation of the State University of New York	47.076	73299128962-3	5,592	-
Wayne State University	47.076	WSU17005/1612400	16,742	-
University of Chicago	47.078	ANT-0638937	(371)	-
National Science Foundation Subtotal			12,793,735	1,252,106
Department of Veterans Affairs				
<u>Direct Programs</u>				
Department of Veterans Affairs	64.RD		296	-
Department of Veterans Affairs Subtotal			296	-
Environmental Protection Agency				
<u>Direct Programs</u>				
P3 Award: National Student Design Competition for Sustainability	66.516		22,624	-
Environmental Education Grants	66.951		(167)	-
<u>Pass Through Programs</u>				
Michigan State University	66.509	RD-83479701 (RC063384CW)	13,330	-
Environmental Protection Agency Subtotal			35,787	-

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Department of Energy				
<u>Direct Programs</u>				
Research and Development	81.RD		30,362	-
Office of Science Financial Assistance Program	81.049		796,512	-
Conservation Research and Development	81.086		107,080	20,032
Renewable Energy Research and Development	81.087		521,668	134,971
Fossil Energy Research and Development	81.089		485,063	35,560
Stewardship Science Grant Program	81.112		319,249	-
Advanced Research and Projects Agency Energy Financial Assistance Program	81.135		1,209,605	149,760
<u>Pass Through Programs</u>				
Battelle Energy Alliance, LLC	81.RD	128081	21,783	-
Los Alamos National Security, LLC	81.RD	418666	56,196	-
Faraday Technology, Inc.	81.049	DE-SC0007516	(2,940)	-
Proton Energy Systems	81.049	EC-017327-01	25,000	-
University of Arkansas	81.049	SA1711147	52,089	-
PolymerPlus, LLC	81.086	PolymerPlus(DE-EE0007211)	268,571	-
Bay Area Photovoltaic Consortium	81.087	60220829-51077-T	131,052	-
Electric Power Research Institute	81.087	100006356	215,742	98,020
LEEDCo, Inc.	81.087	LEEDCOINC	82,264	-
Underwriters Laboratory, Inc.	81.087	7202040440	105,950	-
Department of Energy Subtotal			4,425,246	438,343
Department of Education				
<u>Pass Through Programs</u>				
Cuyahoga County of Ohio	84.419	CE1700063/RQ#EC-17-39441	23,871	-
Department of Education Subtotal			23,871	-
Department of Health & Human Services				
Administration for Children and Families				
<u>Direct Programs</u>				
Child Abuse and Neglect Discretionary Activities	93.670		17,913	-

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Administration for Community Living				
<u>Direct Programs</u>				
ACL National Institute on Disability, Independent Living, and Rehabilitation Research	93.433		139,639	-
<u>Pass Through Programs</u>				
Children's Hospital Medical Center	93.433	136239	10,186	-
Agency for Healthcare Research and Quality				
<u>Direct Programs</u>				
Research on Healthcare Costs, Quality and Outcomes	93.226		726,909	285,643
<u>Pass Through Programs</u>				
Cleveland Clinic Foundation	93.226	HS024277 (659-SUB)	1,661	-
Harvard University	93.226	HS021636-01 (HARVARD)	(1)	-
Mount Sinai Medical Center	93.226	HS020518 (0254-5694-4609)	(2,568)	-
Oregon Health and Science University	93.226	HS (1005864 _CaseWestern)	77,093	-
Rhode Island Hospital	93.226	701-713-7041-OH	37,638	-
Centers for Disease Control and Prevention				
<u>Direct Programs</u>				
Research and Development	93.RD		1,432,997	30,784
Centers for Research and Demonstration for Health Promotion and Disease Prevention	93.135		1,366,940	25,097
Centers for Disease Control and Prevention Investigations and Technical Assistance	93.283		3,099,391	-
<u>Pass Through Programs</u>				
Ohio Department of Health	93.079	FAM-32995-01	60,184	-
Hemophilia Foundation of Michigan	93.080	ATH(CDC14-15-HTC443)	15,542	-
University of Oklahoma	93.262	OH(RS20140600-01)	8,189	-
Central Brain Tumor Registry of the Unit	93.283	DP003831 (CWRU02)	3,826	-
Cuyahoga County Board of Health	93.738	REACH CCBH (Trapl)	299,913	-
YMCA of Greater Cleveland	93.738	REACH YMCA	25,990	-
Cuyahoga County Board of Health	93.944	CCBH (TRAPL)	28,781	-
Food and Drug Administration				
<u>Direct Programs</u>				
Food and Drug Administration Research	93.103		261,165	-
Health Resources and Services Administration				
<u>Direct Programs</u>				
Maternal and Child Health Federal Consolidated Programs	93.110		44,377	(3,425)
Grants to Increase Organ Donations	93.134		290,941	33,516

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<u>Pass Through Programs</u>				
City of Cleveland	93.RD	Fund: 19276000	29,717	-
American Academy of Pediatrics	93.110	6636-99951-731100	(4,440)	-
Children's Hospital of Philadelphia	93.110	MC20218-05 (320896)	8,031	-
Cleveland Clinic Foundation	93.110	407-SUB; 505-SUB; 600-SUB	11,032	-
Cleveland Clinic Foundation	93.110	794-SUB (H98MC26260)	58,348	-
Genetic Alliance	93.110	MC16509-05-05 (Genetic A)	34,524	-
Hemophilia Foundation of Michigan	93.110	1-H30MC24047-01-00	8,146	-
City of Cleveland	93.926	CT5005 SG 2016-75	90,770	-
National Institutes of Health				
<u>Direct Programs</u>				
Research and Development	93.RD		1,001,973	447,621
Family Smoking Prevention and Tobacco Control Act Regulatory Research	93.077		473,014	23,612
Environmental Health	93.113		257,042	-
Oral Diseases & Disorder Research	93.121		4,304,773	209,412
Human Genome Research	93.172		358,983	-
Research Related to Deafness & Communications Disorders	93.173		3,120,467	-
Research and Training in Complementary and Integrative Health	93.213		457,916	20,749
National Center on Sleep Disorders Research	93.233		(7,057)	-
Mental Health Research Grants	93.242		1,601,071	366,316
Alcohol Research Programs	93.273		288,032	-
Drug Abuse and Addiction Research Programs	93.279		3,684,253	279,991
Discovery and Applied Research for Technological Innovations to Improve Human Health	93.286		6,288,776	361,434
Minority Health and Health Disparities Research	93.307		1,599,714	355,472
Trans-NIH Research Support	93.310		1,771,865	80,210
National Center for Advancing Translational Sciences	93.350		9,391,024	-
Research Infrastructure Programs	93.351		1,188,962	-
Nursing Research	93.361		3,082,064	99,153
Cancer Cause & Prevention Research	93.393		3,572,015	187,788
Cancer Detection and Diagnosis Research	93.394		5,355,883	562,108
Cancer Treatment Research	93.395		4,315,616	270,314
Cancer Biology Research	93.396		4,620,370	575,175
Cancer Centers Support Grants	93.397		6,318,997	1,198,644

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Cancer Research Manpower	93.398		639,196	-
Cancer Control	93.399		1,022,814	376,432
Cardiovascular Diseases Research	93.837		10,490,505	278,913
Lung Diseases Research	93.838		4,001,752	334,595
Blood Diseases and Resources Research	93.839		1,664,340	220,938
Arthritis, Musculoskeletal, and Skin Diseases Research	93.846		4,390,648	322,989
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847		17,345,424	5,661,393
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853		12,623,184	1,233,704
Allergy, Immunology and Transplantation Research	93.855		17,898,699	4,132,227
Microbiology and Infectious Diseases Research	93.856		249,891	-
Biomedical Research and Research Training	93.859		6,963,816	280,135
Child Health and Human Development Extramural Research	93.865		4,449,943	115,136
Aging Research	93.866		1,324,776	14,023
Vision Research	93.867		9,702,020	724,443
Medical Library Assistance	93.879		93,901	-
<u>Pass Through Programs</u>				
Clinical Research Management, Inc.	93.RD	CWRU-08-01	(5,634)	-
Columbus NanoWorks, Inc.	93.RD	HHSN268201500011C	83,623	-
Duke Clinical Research Institute	93.RD	201316	29,918	-
Duke Clinical Research Institute	93.RD	12012000061 (199651)	64,290	-
Duke University	93.RD	HHSN (178785)	5,804	-
PediaStent, LLC	93.RD	HHSN268201600038C	12,027	-
Social and Scientific Systems, Inc.	93.RD	CRB-SSS-S-15-004283	44	-
Social and Scientific Systems, Inc.	93.RD	SSS-S-13-003466	6,362	-
Sujana Biotech	93.RD	HHSN268201700003C (SUJANA)	60,635	-
University of Alabama	93.RD	000406291-001	26,092	-
University of Alabama	93.RD	HHSN272201100037C	5,315	-
Washington University	93.RD	HHSN (WU-15-217)	197,475	-
Johns Hopkins University	93.113	ES026721 (2003332929)	68,693	-
Missouri University	93.121	C00054503-3	35,349	-
University of California, Davis	93.121	201604317-01	3,153	-
University of Michigan	93.121	DE (3003724044)	38,869	-
University of Louisville Health Sciences	93.172	HG008988 (ULRF 16-0709-01)	111,762	-

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Vanderbilt University	93.172	HG006857 (VUMC 43957)	21,670	-
Boys Town National Research Hospital	93.173	DC011038	16,807	-
Boys Town National Research Hospital	93.173	DC015056	33,278	-
Massachusetts Eye and Ear Infirmary	93.173	EY022305 (ME&EI)	135,413	-
University of Michigan	93.173	DC009410 (3002992709)	72,065	-
Vulintus, LLC	93.173	Vulintus (DC013467)	84,566	-
The Ohio State University	93.213	AT004454 (60033066)	24,769	-
Drexel University	93.242	MH110360 (800002)	217,362	-
Johns Hopkins University	93.242	MH (2001815868)	337,359	-
Massachusetts General Hospital	93.242	MH106053 (225144)	224,244	-
Massachusetts General Hospital	93.242	MH111320 (229447)	50,052	-
University of Rochester	93.242	MH (416088-G)	113,666	-
University of Rochester	93.242	MH014701 (416536)	63,370	-
University of Southern California	93.242	MH113457 (87651489)	8,890	-
Vanderbilt University	93.242	MH096972(VUMC 40221)	299,375	-
Washington University	93.242	MH112355 (WU-17-328)	8,096	-
Nova Southeastern University	93.279	DA019048 (331985)	46,596	-
The Miriam Hospital	93.279	710-9958	17,209	-
University of Cincinnati	93.279	007073-026	17,970	-
University of Washington	93.279	DA037979 (UWSC8811)	74,416	-
Purdue University	93.286	4102-64822	14,925	-
Mayo Clinic Rochester	93.307	MD008934(63706900)	165,963	-
University of Pittsburgh	93.310	EB (0049064 (126858-1))	120,889	-
Dartmouth College	93.350	TR001086(1592)	(40,647)	-
University of Kentucky	93.351	OD (3200000524-16-223)	5,290	-
Great Lakes Science Center	93.389	GLSC (MACLEISH)	1,371	-
Fred Hutchinson Cancer Research Ctr	93.389	HL106868 (0000851273)	2,061	-
American College of Radiology	93.393	CA021661 (RTOG)	49	-
Baylor College of Medicine	93.393	CA139020 (5600779094)	3,181	-
Duke Univ. Comprehensive Cancer Center	93.393	CA142081 (203-0309)	326	-
Fred Hutchinson Cancer Research Ctr	93.393	CA201407 (0000883192)	16,833	-
Kaiser Permanente	93.393	CA140377 (KAISER)	7,731	-
Massachusetts General Hospital	93.393	CA137178 (226172)	3,117	-
University of Hawaii	93.393	CA168530 (KA1054)	25,790	-

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University of Southern California	93.393	CA143237 (73415689)	31,122	-
University of Washington	93.393	CA194393 (UWSC9236)	85,322	-
Vanderbilt University	93.393	CA028842 (VUMC 58182)	87,089	-
Vanderbilt University	93.393	CA092447 (VUMC 57665)	10,679	-
Virginia Commonwealth University	93.393	CA (PD304087-SC106362)	724	-
Akrotome Imaging	93.394	CA180296 (AKROTOME)	286,143	-
Akrotome Imaging	93.394	R44CA180296	19,746	-
Johns Hopkins University	93.394	CA (2003087224)	40,222	-
Molecular Theranostics, LLC	93.394	CA199826 (Molecular Ther)	48,429	-
The Ohio State University	93.394	CA183713 (60040784)	(20,812)	-
University of Miami	93.394	CA160593 (660555)	82,706	-
BioInVision Inc.	93.395	BIOINVISION (R41CA213601)	10,914	-
Children's Hospital of Philadelphia	93.395	CA095861 (CHOP)	(170)	-
Children's Hospital of Philadelphia	93.395	CA098543	21,889	-
Children's Hospital of Philadelphia	93.395	CA180886 (CHOP)	37,873	-
Dana Farber Cancer Institute	93.395	CA188288 (1236001)	56,904	-
ECOG-ACRIN Cancer Research Group	93.395	CA180820 (ECOG-ACRIN)	15,998	-
MiRx Pharmaceuticals	93.395	CA139791(Invenio)	114,955	-
NRG Onconolgy Foundation, Inc.	93.395	CA180868 (CWRU-YR 1)	30,980	-
The Ohio State University	93.395	CA186712	13,380	-
University of Texas Southwestern Medical	93.395	CA216863	30,079	-
University of Pittsburgh	93.396	CA (0051992 128582-1)	58,575	-
Vanderbilt University Medical Center	93.396	CA162433 (VUMC 58042)	66,006	-
Roswell Park Cancer Institute	93.397	CA159981 (234-01)	18,456	-
NRG Oncology Foundation, Inc	93.399	CA189867 (NRG)	84,820	-
Affinity Therapeutics	93.837	AFFINITY HL121928	382	-
Binnacle Biosciences	93.837	HL134012 (BB LLC)	79,059	-
Brigham and Women Hospital	93.837	HL123336 (225707)	35,991	-
Children's Hospital of Philadelphia	93.837	HL125295 (CHOP)	247,579	-
Duke Clinical Research Institute	93.837	177494/200464/209692	2,236	-
Duke Clinical Research Institute	93.837	HL084904 (IN121)	2,527	-
Duke University	93.837	HL075443 (2034808)	369,719	-
Duke University	93.837	HL084904 (193603)	24,410	-

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Emory University	93.837	HL117721 (T558589)	85,285	-
Henry Ford Health System	93.837	HL028982 (HFHS)	223,171	-
Iasis Molecular Sciences	93.837	IASIS MOLECULAR SCI	1,120	-
Kent State University	93.837	HL119977 (403013-CWRU)	105,725	-
Michigan Technological University	93.837	HL129199 (1410048Z2)	5,447	-
National Jewish Health	93.837	HL124053 (2020101401)	(34)	-
New England Research Institute	93.837	HL107407 (NERI)	25,823	-
Partners Healthcare System	93.837	HL122177 (224883)	3,449	-
Seattle Children's Hospital	93.837	HL124053 (11489SUB)	37,098	-
The Ohio State University	93.837	HL126563 (60045030)	24,583	-
The Ohio State University	93.837	HL134544 (60058122)	275,697	-
University of California, San Francisco	93.837	HL117713 (138316-4000)	95,100	-
University of Maryland	93.837	HL127422 (1600487)	13,982	-
University of North Carolina	93.837	HL123677 (5-50144)	22,003	-
University of Pennsylvania	93.837	562070	20,205	-
University of Pittsburgh	93.837	0025070 (406794-2)	37,445	-
University of Pittsburgh	93.837	0041063 (409584-1)	83,797	-
University of Pittsburgh	93.837	9011665 (126166-1)	855	-
University of Pittsburgh	93.837	HL 9005404 (126066-1)	259	-
University of Pittsburgh	93.837	HL098115 (0043880 410091)	57,245	-
University of South Carolina	93.837	HL112787 (14-2475)	(1,335)	-
University of Southern California	93.837	HL129902 (63709959)	150,504	-
University of Toledo	93.837	NS 2008-007	(747)	-
University of Virginia	93.837	HL074940 (GB10332 153410)	41,147	-
Vanderbilt University	93.837	HL056693 (VUMC 53100)	5,032	-
Vanderbilt University	93.837	HL121429 (VUMC 44275)	(7)	-
Washington University	93.837	HL118305 (WU-14-243)	20,442	-
Brigham and Women Hospital	93.838	HL113338 (108605)	91,576	-
Cincinnati Children's Hospital Medical Center	93.838	HL109362 (136295)	(39)	-
Duke University	93.838	58	8,836	-
George Washington University	93.838	2R01HL098354	6,742	-
Mayo Foundation- Rochester	93.838	HL056470 (63677679)	44,851	-
Mayo Foundation- Rochester	93.838	HL056470 (CAS-222601)	42,570	-

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Pennsylvania State University	93.838	HL(CWU HL 109086)	8,934	-
Seattle Children's Hospital	93.838	HL114623(11140SUB)	3,154	-
University of California, San Francisco	93.838	HL128156 (8892sc)	101,803	-
Apto Orthopaedics	93.846	RAR067008A	29,642	-
Drexel University	93.846	232222; 232486-3850	782	-
University of Michigan	93.846	AR069071 (3003716879)	169,866	-
Augusta University	93.847	25732-55	1,507	-
Augusta University	93.847	DK076169(25034-47)	42,978	-
Emory University	93.847	DK087694 (S624243)	1,535	-
George Washington University	93.847	DK (S-GRD1213-EAS)	657,202	-
George Washington University	93.847	DK (S-LIF1314-JB01)	16,494	-
George Washington University	93.847	DK(S-GRD1617-LL5)	34,938	-
George Washington University	93.847	DK061230	289,896	-
George Washington University	93.847	DK061230 (12-D02)	5,958	-
George Washington University	93.847	DK104845 (GRADE EDS)	1,040	-
Medical University of South Carolina	93.847	DK104833 (MUSC)	87,117	-
Icahn School of Medicine at Mount Sinai	93.847	DK096549 (0255-8161-4609)	42,740	-
Northwestern University	93.847	60031497	114,356	-
Stanford University	93.847	6020764851126-H	(1,533)	-
Thermalin Diabetes Incorporated	93.847	DE107121 (Thermalin)	14,909	-
Thermalin Diabetes Incorporated	93.847	DK (2R44DK092041-02A1-1)	(4,444)	-
Thermalin Diabetes Incorporated	93.847	DK111003-01A-1	43,873	-
Tulane University	93.847	DK109883 (TUL-TNPRC-555-2	3,375	-
University of Alabama, Birmingham	93.847	DK108438 (000509533-004)	8,180	-
University of Michigan	93.847	DK083912	40,077	-
University of North Carolina	93.847	DK092239 (5-31660)	(5,442)	-
University of Utah	93.847	10019509-03	52,037	-
University of Wisconsin - Madison	93.847	U of WI (DK083538)	11,746	-
Vanderbilt University	93.847	DK (VUMC 40347)	54,255	-
Athersys, Inc.	93.853	AYTHERSIS (Silver)	7,544	-
Beth Israel Deaconess Medical Center	93.853	NS074425 (01027587)	20,220	-
Brigham and Women Hospital	93.853	NS090259 (PSG Site #84)	6,765	-
Columbia University	93.853	NS078059 (GG00632)	70,140	-

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Drexel University	93.853	NS069221 232475-5826	(325)	-
Johns Hopkins University	93.853	NS055089 (2001958471)	30,666	-
Massachusetts General Hospital	93.853	229356	42,334	-
Massachusetts General Hospital	93.853	NS095548-01	7,566	-
Scripps Research Institute	93.853	NS098219 (5-53192)	9,116	-
University of Cincinnati	93.853	NS091951-123198	32,455	-
University of Kentucky	93.853	HS (320000444-16-242)	175,087	-
University of Minnesota	93.853	NS062091(N000936937)	14,575	-
University of Minnesota	93.853	NS085188 (N003584201)	174,245	-
University of Minnesota	93.853	NS098573 (N006040201)	50,039	-
Van Andel Research Institute	93.853	NS060729-07 V1858-1	214,441	-
Vanderbilt University	93.853	2797-018496	30,030	-
Vanderbilt University	93.853	UNIV 58936	53,698	-
Yale University School of Medicine	93.853	NS044876 (A07593)	3,398	-
Benaroya Research Institute	93.855	AI109565 (FY15ITN136)	46,939	-
Beth Israel Deaconess Medical Center	93.855	AI095985 (01027421 CORE E)	112,146	-
Beth Israel Deaconess Medical Center	93.855	AI124377 (01028935)	377,797	-
Brigham and Women Hospital	93.855	AI068636 (110009)	8,775	-
Brigham and Women Hospital	93.855	AI068636 (110198)	51,790	-
Brigham and Women Hospital	93.855	AI068636 (110230)	6,217	-
Brigham and Women Hospital	93.855	AI068636 (110668)	314,922	-
Brigham and Women Hospital	93.855	AI068636 (110758)	55,052	-
Brigham and Women Hospital	93.855	AI068636 (111668)	422,242	-
Brigham and Women Hospital	93.855	AI106701 (109926)	378,272	-
Brigham and Women Hospital	93.855	AI106701 (109928)	48,120	-
Children's Hospital of Boston	93.855	AI084011 (75940)	4,492	-
Colorado State University	93.855	AI115619 (G-16851-1)	89,686	-
Duke University	93.855	AI104681 (203 9894)	39,712	-
Duke University	93.855	AI104681 (203-9707)	177,193	-
Emory University	93.855	AI107960 (T270260)	228,016	-
Emory University	93.855	AI110334 (T310399)	161,103	-
Family Health International	93.855	AI068619 (PO16002949)	192,300	177,675
Fred Hutchinson Cancer Research Ctr	93.855	AI068614 (0000841640)	583,305	-

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Fred Hutchinson Cancer Research Ctr	93.855	AI068614 (000819593)	149,966	-
Grand Valley State University	93.855	AI082416 (GVU-207034-01)	3,328	-
Hemex Health	93.855	AI131810 Hemex (Grimberg)	22,307	-
Institute for Clinical Research Inc.	93.855	ICR (Salata)	1,272	-
Johns Hopkins University	93.855	AI069918	55,475	-
Johns Hopkins University	93.855	AI069918 (2001317194)	2,192	-
La Jolla Institute for Allergy and Immunology	93.855	AI118626 (20025-04-384)	116,571	-
Magee-Women's Research Institute and Foundation	93.855	AI068633 (9329)	3,617	-
Magee-Women's Research Institute and Foundation	93.855	AI068633 (9374)	64,453	-
Icahn School of Medicine at Mount Sinai	93.855	AI (0255-1358-4609)	155,873	-
Icahn School of Medicine at Mount Sinai	93.855	AI (0255-1611-4609)	221,305	-
Partners Healthcare System	93.855	AI068636 (113237)	(1,360)	-
Partners Healthcare System	93.855	AI068636 (114868)	64,178	-
Rutgers, The State University of New Jersey	93.855	AI090155 (8318)	3,332	-
Rutgers, The State University of New Jersey	93.855	AI109713 (8282)	110,786	-
St. Jude Children's Research Hospital	93.855	112192019-7633216	149,816	-
Stanford University	93.855	AI102918 (61017674-117727)	22,029	-
University of Alabama, Birmingham	93.855	000503356-SP002-SC01	(10,179)	-
University of Alabama, Birmingham	93.855	AI (000397076-007)	38,455	-
University of Alabama, Birmingham	93.855	AI (000510836-002)	277,367	-
University of California, Irvine	93.855	AI129326	35,560	-
University of California, San Francisco	93.855	9885SC	6,036	-
University of California, San Francisco	93.855	AI096109 (8428SC)	79,095	-
University of California, San Francisco	93.855	AI096109 (8429SC)	10,001	-
University of California, San Francisco	93.855	AI096109 (8628SC)	(380)	-
University of California, San Francisco	93.855	AI131296 (10038sc)	8,559	-
University of Cape Town	93.855	AI087915 (U of Cape Town)	39,452	-
University of Florida	93.855	AI (UFDSP00011053)	61,247	-
University of Maryland	93.855	AI103228 (10019432)	3,799	-
University of Miami	93.855	AI073961 (665103)	934	-
University of Miami	93.855	AI073961 (667330)	29,220	-
University of Michigan	93.855	AI091627 (3004050998)	71,010	-
University of North Carolina	93.855	AI096113 (5-31533)	(871)	-

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University of South Florida	93.855	AI (6408-1063-00-A)	204,226	-
University of Southern California	93.855	AI101492 (54267827)	15	-
University of Southern California	93.855	AI104751 (54233861)	(115)	-
University of Southern California	93.855	AI117211 (72507150)	28,335	-
University of Texas Health Science Center	93.855	AI077774 (0011877C)	26,544	-
University of Washington	93.855	AI104920 (759576)	142,279	-
Vanderbilt University	93.855	AI093234 (VUMC 51740)	176,060	-
ViTi, Inc.	93.855	AI091267 (9003_CWRU)	46,674	-
CommonWealth Informatics, Inc.	93.859	GM112523	1,054	-
University of California, Los Angeles	93.859	0145GTA360 (GM115833)	32,063	-
University of Michigan	93.859	3002520016	261,619	-
University of Mississippi	93.859	66662060714-02	(1,896)	-
University of Mississippi	93.859	66662060716-03	11,648	-
University of Mississippi	93.859	66662060717-04	99,079	-
University of Pittsburgh	93.859	0050790 (128759-1)	27,606	-
University of Pittsburgh	93.859	GM (0024510 123320-1)	93,212	-
University of Pittsburgh	93.859	GM082251 0029564 (123550-8)	395,301	-
University of Texas at Austin	93.859	GM111926 (UTA15-000330)	90,964	-
University of Virginia	93.859	GM (GC12257 145836)	(8)	-
University of Washington	93.859	GM110569 (755978)	158,055	-
Vanderbilt University	93.859	GM109145 (VUMC 53101)	3,555	-
Ann & Robert H. Lurie Children's Hospital	93.865	HD068901 (901467-CWRU)	321,037	-
Children's National Medical Center	93.865	HD (30000744-13-03)	16,960	-
Children's National Medical Center	93.865	HD (30002425-03)	131,043	-
Children's Research Institute	93.865	HD076885 (933816)	334,275	-
Cincinnati Children's Hospital	93.865	HD074683 (138624)	3,143	-
Cincinnati Children's Hospital	93.865	HD089076 (137578)	22,736	-
George Washington University	93.865	21050-37-CCLS29181F	287,462	-
MC3, Inc.	93.865	HD088243 (MC3)	9,245	-
RTI International	93.865	HD036790 (0212456)	285,443	-
RTI International	93.865	HD063036	70,829	-
The Ohio State University	93.865	60035809-CWRU	2,286	-
University of Pittsburgh	93.865	HD079647	41,293	-

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University of Utah	93.865	HD082148 (10036366-CASE)	12,467	-
Duke University	93.866	AG034661 (2039364)	4,632	-
Medical University of South Carolina	93.866	AG046543 (MUSC14-074)	59,518	-
ReXceptor Inc	93.866	AG048658-(REXCEPTOR)	12,562	-
University of California, Los Angeles	93.866	AG(1440 G TA931)	20,397	-
University of California, San Diego	93.866	AG010483 (37336810)	25,057	-
University of California, San Diego	93.866	AG010483 (37617388)	9,603	-
University of California, San Diego	93.866	AG010483 (45891447)	153,184	-
University of California, San Diego	93.866	AG024904 (114-ADNI-2)	7,029	-
University of California, San Diego	93.866	AG030048 (114CWRU)	5,638	-
University of California, San Diego	93.866	AG041845(114CWRU)	5,080	-
University of California, Santa Barbara	93.866	KK1331	(87)	-
University of Louisville Health Sciences	93.866	AG (ULRF 14-1080S1-01)	6,371	-
University of Louisville Health Sciences	93.866	AG047297 (ULRF 14-1080-01)	115,878	-
University of Miami	93.866	AG032984 (665263)	123,401	-
University of Miami	93.866	AG052410 (667146)	78,483	-
University of Miami	93.866	AG054074 (667608)	102,118	-
University of Pennsylvania	93.866	AG (568933/10052383/19536)	245,937	-
University of Pennsylvania	93.866	AG047133 (564315)	605,939	-
University of Southern California	93.866	AG010483 (75696709)	97,026	-
University of Southern California	93.866	AG024904 (79685610)	450	-
University of Southern California	93.866	AG024904 (CTAADNI114)	17,706	-
University of Southern California	93.866	WFUHS 110858 USC	77,941	-
Virginia Commonwealth University	93.866	PD302561-SC103652	111,135	-
Cedar-Sinai Medical Center	93.867	EY009052 (0001154307)	7,992	-
Indiana University	93.867	EY025383 (IN4684833CWRU)	33,826	-
Jaeb Center for Health Research	93.867	EY012358 (JCHR)	(4,000)	-
Jaeb Center for Health Research	93.867	EY014231 (DRCRN 58)	20,363	-
Jaeb Center for Health Research	93.867	EY11751	16,412	-
Massachusetts Eye and Ear Infirmary	93.867	EY020928 (ME&EI)	28,907	-
University of California, Irvine	93.867	EY014362 (2015-3236)	134,279	-
University of California, Irvine	93.867	EY018612 (2015-3237)	(4,549)	-
University of California, Irvine	93.867	EY024817 (2015-3259)	(23,762)	-
University of Illinois	93.867	EY(2015-00767-01-00)	3,662	-

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University of Miami	93.867	EY012118 (661456)	80,894	-
University of Pennsylvania	93.867	EY022879 (564824)	53,511	-
University of Pennsylvania	93.867	EY023164 (560636)	353,178	-
Washington University	93.867	EY025696 (WU-17-56)	138,289	-
University of Pennsylvania	93.879	LM010098 (567329)	54,487	-
Office of Adolescent Health, Office of the Secretary				
<u>Pass Through Programs</u>				
Cuyahoga County Board of Health	93.297	CCBH (Trapl)	98,256	-
Substance Abuse and Mental Health Services Administration				
<u>Direct Programs</u>				
Substance Abuse and Mental Health Services-Projects of Regional and National Significance	93.243		93,846	-
<u>Pass Through Programs</u>				
Cuyahoga County of Ohio	93.RD	CCC of Common Pleas	79,840	-
City of Cleveland	93.243	CT0115PS 2015-127	92,869	-
City of Cleveland	93.243	CT0115PS 2016-127	47,861	-
Cuyahoga County of Ohio	93.243	Cuyahoga County of Ohio	57,371	-
Ohio Department of Mental Health	93.243	FY17-1700107/FY18 1800364	89,910	-
Ohio Department of Mental Health	93.959	99-13509-SSHS-T-16-1453	(57)	-
Department of Health & Human Services Subtotal			185,083,449	19,282,217
Corporation for National and Community Service				
<u>Direct Programs</u>				
National Service and Civic Engagement Research Competition	94.026		151,070	-
Corporation for National and Community Service Subtotal			151,070	-
Department of Homeland Security				
<u>Direct Programs</u>				
Assistance to Firefighters Grant	97.044		570,174	432,513
Department of Homeland Security Subtotal			570,174	432,513
Total Research and Development Grants – University Only			220,694,479	25,030,810

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Research Training – University				
Department of Commerce				
<u>Direct Programs</u>				
Science, Technology, Business and/or Education Outreach	11.620		5,500	-
Department of Commerce Subtotal			5,500	-
Department of Defense				
<u>Direct Programs</u>				
Military Medical Research and Development	12.420		57,472	-
Department of Defense Subtotal			57,472	-
Department of State				
<u>Pass Through Programs</u>				
IREX US	19.009	FY17-YALI-PM-CWRU-01	14,366	-
Department of State Subtotal			14,366	-
National Aeronautics and Space Administration				
<u>Direct Programs</u>				
Education	43.008		19,369	-
Space Technology	43.012		58,099	-
National Aeronautics and Space Administration Subtotal			77,468	-
Department of Education				
<u>Direct Programs</u>				
Overseas Programs - Doctoral Dissertation Research Abroad	84.022		20,148	-
Graduate Assistance in Areas of National Need	84.200		413,254	-
Special Education - Personnel Development to Improve Services and Results for Children	84.325		244,559	-
Department of Education Subtotal			677,961	-

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Vietnam Education Foundation				
<u>Direct Programs</u>				
Fellowship Program	85.802		411	-
Vietnam Education Foundation Subtotal			411	-
Department of Health & Human Services				
Administration for Children and Families				
<u>Pass Through Programs</u>				
Research Foundation for the State University of New York, Albany	93.648	16-36	211,238	-
Health Resources and Services Administration				
<u>Direct Programs</u>				
Nurse Anesthetist Traineeship	93.124		34,731	-
Substance Abuse and Mental Health Services Projects of Regional and National Significance	93.243		191,907	-
Nurse Education, Practice Quality and Retention Grants	93.359		(1,823)	-
Affordable Care Act (ACA) Advanced Nursing Education Expansion Initiative	93.513		32,125	-
Grants for Training in Primary Care Medicine and Dentistry	93.884		534,803	-
<u>Pass Through Programs</u>				
Northeast Ohio Medical University	93.884	G0098-A	85,217	-
National Institutes of Health				
<u>Direct Programs</u>				
Oral Diseases & Disorder Research	93.121		50,664	-
Research Related to Deafness and Communication Disorders	93.173		34,127	-
Mental Health Research Grants	93.242		40,353	-
Drug Abuse and Addiction Research Programs	93.279		29,840	-
Discovery and Applied Research for Technological Innovations to Improve Human Health	93.286		731,784	-
National Center for Advancing Translational Sciences	93.350		462,195	-
Nursing Research	93.361		979,013	-
Cancer Research Manpower	93.398		987,831	26,506
Cardiovascular Diseases Research	93.837		205,182	-
Lung Diseases Research	93.838		316,036	-
Arthritis, Musculoskeletal and Skin Diseases Research	93.846		527,623	-
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847		360,364	-
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853		208,160	-

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Allergy and Infectious Diseases Research	93.855		159,475	-
Biomedical Research and Research Training	93.859		2,522,475	39,419
Child Health and Human Development Extramural Research	93.865		199,341	-
Aging Research	93.866		101,997	-
Vision Research	93.867		100,503	-
International Research and Research Training	93.989		394,912	104,049
<u>Pass Through Programs</u>				
Vanderbilt University	93.847	DK076169 (UNIV 58439)	6,348	-
Makerere University	93.853	NS080968 (01-03)	(253)	-
Cuyahoga Community College	93.859	GM049010 (TRI-C)	9,293	-
Makerere University	93.989	TW010132 (02-01)	26,165	-
Substance Abuse and Mental Health Services Administration				
<u>Pass Through Programs</u>				
University of Maryland	93.RD	Task #9	1,408	-
Kalamazoo Community Mental Health	93.RD	Kalamazoo Community MHSAS	16,561	-
Ohio Department of Mental Health	93.243	1700079	263,860	-
Ohio Department of Mental Health	93.243	1700117	68,015	-
Ohio Department of Mental Health	93.243	99-13509-Engage-P-1616029	40,006	-
Ohio Department of Mental Health	93.243	99-3095-SPEMP-T-16-161101	(103)	-
Ohio Department of Mental Health	93.958	1700005	150,000	-
Ohio Department of Mental Health	93.958	1700068	292,172	-
Ohio Department of Mental Health	93.958	1700190	528,226	-
Ohio Department of Mental Health	93.958	1700730	20,187	-
Ohio Department of Mental Health	93.958	99-13509-FCS-P-16-1516	1,880	-
Ohio Department of Mental Health	93.958	99-3095-BESTPRACT-T-161527	3,074	-
Ohio Department of Mental Health	93.958	99-3095-BESTPRACT-T16-1543	2,140	-
Ohio Department of Mental Health	93.959	99-3095-HousingT-16-15118	219	-
Department of Health & Human Services Subtotal			10,929,271	169,974
Total Research Training Grants – University Only			11,762,449	169,974
Total Research and Development Cluster – University Only			232,456,928	25,200,784

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Research and Development Cluster – Cleveland Clinic Lerner College of Medicine (See Note A)				
Department of Health & Human Services				
National Institutes of Health				
<u>Direct Programs</u>				
Research and Development	93.RD		(41,377)	-
Family Smoking Prevention and Tobacco Control Act Regulatory Research	93.077		167,099	31,651
Human Genome Research	93.172		160,394	-
National Center on Sleep Disorders Research	93.233		422,200	-
Mental Health Research Grants	93.242		1,040,977	2,262
Alcohol Research Programs	93.273		4,769,559	1,106,355
Discovery and Applied Research for Technological Innovations to Improve Human Health	93.286		210,570	-
Trans-NIH Research Support	93.310		113,132	-
Research Infrastructure Programs	93.351		469,030	-
National Center for Research Resources	93.389		721,810	65,974
Cancer Cause & Prevention Research	93.393		1,788,171	361,334
Cancer Detection and Diagnosis Research	93.394		597,443	105,597
Cancer Treatment Research	93.395		3,461,378	127,957
Cancer Biology Research	93.396		5,895,955	354,724
Cancer Research Manpower	93.398		706,471	-
Cardiovascular Diseases Research	93.837		20,864,234	1,361,843
Lung Diseases Research	93.838		8,726,617	413,638
Blood Diseases & Resources Research	93.839		5,205,706	32,423
Arthritis, Musculoskeletal, & Skin Diseases Research	93.846		3,453,318	348,890
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847		6,298,050	373,357
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853		12,764,179	2,410,229
Allergy, Immunology and Transplantation Research	93.855		4,043,370	78,147
Biomedical Research and Research Training	93.859		2,717,949	194,778
Child Health and Human Development Extramural Research	93.865		164,987	-
Aging Research	93.866		1,615,510	-
Vision Research	93.867		4,267,149	-
<u>Pass Through Programs</u>				
Childrens Hospital of Philadelphia	93.RD	HHSN261200800001E	76,828	-
Emmes Corporation	93.RD	EMMES1504MS	12,213	-
Radiological Society North America	93.RD	HHSN268201500021C	27,764	-
Sujana Biotech	93.RD	HHSN268201700003C	9,764	-

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University of Michigan	93.RD	HHSN268201100026C	52,937	-
FHC, Inc.	93.242	R34MH107037	23,211	-
Vanderbilt University	93.242	R01MH095621	124,248	-
Massachusetts General Hospital	93.286	R01EB009048	148,671	-
Mayo Clinic	93.286	R01EB018965	27,501	-
Vanderbilt University	93.350	UH2TR000491	102,409	-
Cornell University	93.389	R01CA184712	33,971	-
Fred Hutchinson Center	93.393	R01CA18953	6,776	-
Sloan-Kettering Cancer Research	93.393	R01CA179115	560	-
Stanford University	93.393	UM1CA167551	34,128	-
University Of North Carolina Chapel Hill	93.393	R01CA098286	6,767	-
Advance Cell Diagnostics	93.394	ACDI1402JR	10,093	-
Advance Cell Diagnostics	93.394	R43CA168019	(19,885)	-
Advance Cell Diagnostics	93.394	R44CA168019	150,635	-
Rice University	93.394	R01CA186132	10,346	-
Texas A&M University	93.394	5R03CA198630-02	4,519	-
The Ohio State University	93.394	UM1CA183713	(10,474)	-
University of Texas	93.394	156545	3,155	-
University of Texas	93.394	U01CA086402	1,424	-
Brigham and Women's Hospital	93.395	U10CA076001	6,850	-
Children's Hospital of Philadelphia	93.395	U10CA098543	(2,032)	-
Children's Hospital of Philadelphia	93.395	U10CA180886	10,088	-
Children's Oncology Group	93.395	U10CA180886	231	-
Fred Hutchinson Center	93.395	824377	(25,687)	-
Fred Hutchinson Center	93.395	824954	(17,183)	-
Fred Hutchinson Center	93.395	0000803703-212968 S5293	10,193	-
Fred Hutchinson Center	93.395	5U01CA154967	7,289	-
Fred Hutchinson Center	93.395	R01CA118953	7,253	-
Johns Hopkins University	93.395	UM1CA137443	127,487	-
Massachusetts General Hospital	93.395	P01CA084203	205,230	-
Mount Sinai School Of Medicine	93.395	P01CA108671	7,953	-
Oregon Health & Science University	93.395	U10CA037429	2,699	-
Sloan-Kettering Cancer Research	93.395	BD517265	82,617	-
Sloan-Kettering Cancer Research	93.395	R01CA182551	(32,044)	-
Southwestern Oncology Group	93.395	U10CA32102	3,129	-

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FEDERAL GRANTOR/PASS-THROUGH GRANTOR PROGRAM or CLUSTER TITLE	CFDA	Pass-Through Entity Sponsor Number	Total Expenditures	Passed to Sub-Recipients
University of Virginia	93.395	R01CA189524	11,982	-
NRG Oncology Foundation, Inc.	93.396	1U10CA180868	6,999	-
The Ohio State University	93.396	60,026,046.00	(510)	-
The Ohio State University	93.396	P01CA124570	315,184	-
University of Minnesota	93.396	R01CA172986	105,752	-
University of South Carolina	93.396	1R01CA204786	6,097	-
Cernostics, Inc.	93.399	1R44CA192416	81,673	-
Elucid Bioimaging	93.399	R44HL126224	23,881	-
Brigham & Women's Hospital	93.837	108025	95,640	-
Brigham & Women's Hospital	93.837	R01HL034594	103,759	-
Brigham & Women's Hospital	93.837	U01HL101422	4,942	-
Duke University	93.837	200464	11,914	-
Duke University	93.837	177494/200464/209692	13,687	-
Duke University	93.837	R01HL105448	43,902	-
Duke University	93.837	U01HL084904	6,884	-
Fred Hutchinson Center	93.837	P50HL110787	591	-
Icon Clinical	93.837	22220003	51,215	-
Lam Foundation	93.837	U54HL127672	2,972	-
Mayo Clinic	93.837	1K23HL128859	1,203	-
Missouri Breaks Research, Inc.	93.837	5R01HL109315	38,841	-
Mount Sinai School of Medicine	93.837	0255-3106-4605	49,089	-
Mount Sinai School of Medicine	93.837	ISMMS No.0255-3106-4605	26,071	-
Mount Sinai School of Medicine	93.837	U01HL088942	72,846	-
National Bone Marrow Donor Program	93.837	3U10HL069294-12S1	29,337	-
New England Research Institute	93.837	BEST-CLI	14,967	-
Perfusion Solutions, Inc.	93.837	R43HL126236	64,207	-
The Ohio State University	93.837	R01HL128857	9,731	-
The Ohio State University	93.837	R34HL123586	24,791	-
University of Cincinnati	93.837	U01HL131755	14,150	-
University of Colorado	93.837	R24HL123767	(243,320)	-
University of Colorado	93.837	R34HL109369	(410)	-
University of Indiana	93.837	R24HL123767	569,509	-
University of Pennsylvania	93.837	R01HL115041	11,770	-
University of Pennsylvania	93.837	R01HL118018	125,923	-
University of Southern California	93.837	R01HL133169	4,057	-

CASE WESTERN RESERVE UNIVERSITY
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For the year ended June 30, 2017

FEDERAL GRANTOR/PASS-THROUGH GRANTOR PROGRAM or CLUSTER TITLE	CFDA	Pass-Through Entity Sponsor Number	Total Expenditures	Passed to Sub-Recipients
University of Texas	93.837	UM1HL087318	1,037	-
University of Virginia	93.837	GC12239 145993	(50)	-
Virginia Commonwealth University	93.837	1UM1HL116885	17,345	-
Baystate Medical Center	93.838	R18HL108810	1,299	-
Fred Hutchinson Center	93.838	788123	(35,262)	-
Massachusetts General Hospital	93.838	R01HL114587	44,585	-
Massachusetts General Hospital	93.838	U01HL123009	248,662	-
Pennsylvania State University	93.838	U10HL109086	56,859	-
University of Alabama, Birmingham	93.838	R01HL085324	100,822	-
University of Pennsylvania	93.838	R01HL113988	4,627	-
Vanderbilt University	93.838	R01HL117074	56,771	-
Virginia Commonwealth University	93.838	1UM1HL116885	82,475	-
Beth Israel Deaconess Medical Center	93.839	1R34HL127156	43,332	-
Cincinnati Children's Hospital	93.839	R01HL114582	5,567	-
The Ohio State University	93.839	R01HL131720	41,890	-
University of Michigan	93.839	U01HL117658	253,468	-
University of Washington, St. Louis	93.839	U01HL088476	2,109	-
Brigham & Women's Hospital	93.846	R01AR055557	2,075	-
Brigham & Women's Hospital	93.846	U01AR068043	8,904	-
Brigham & Women's Hospital	93.846	U34AR067426	6	-
Hospital for Special Surgery	93.846	R01AR064840	99	-
Hospital for Special Surgery	93.846	R01AR064849	13,375	-
University of Alabama, Birmingham	93.846	UM1AR065705	6,288	-
University of Pennsylvania	93.846	R01AR064153	3,309	-
University of Pennsylvania	93.846	U54AR057319	127,237	-
Baylor College of Medicine	93.847	R01DK101500	172,441	-
Beth Israel Deaconess Medical Center	93.847	1024796	11,398	-
Children's Mercy Hospital and Clinic	93.847	13-0017	14,485	-
East Tennessee State University	93.847	R01DK102020	14,943	-
Mayo Clinic	93.847	R01DK090358	62,050	-
Nationwide Children's Hospital Research Center	93.847	R01DK106286	41,861	-
New England Medical Center - Tufts	93.847	DK098245	144,266	-
New England Medical Center - Tufts	93.847	PO5010810SERV	119,390	-
North Dakota State University	93.847	R01DK112585	78,079	-

CASE WESTERN RESERVE UNIVERSITY
Schedule of Expenditures of Federal Awards
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FEDERAL GRANTOR/PASS-THROUGH GRANTOR PROGRAM or CLUSTER TITLE	CFDA	Pass-Through Entity Sponsor Number	Total Expenditures	Passed to Sub-Recipients
Northwestern University	93.847	R01DK102438	12,672	-
Sloan-Kettering Cancer Research	93.847	DK097087	146,372	-
University of Utah	93.847	10019799-00	10,695	-
Boston University	93.853	U01NS093334	101,573	-
Children's Hospital Boston	93.853	U54NS092090	406,300	-
Columbia University	93.853	7 (GG010312)	2,062	-
Columbia University	93.853	R01NS078059	4,545	-
Cornell University	93.853	UH3NS095554	31,255	-
Emmes Corporation	93.853	1U01NS026835	21,481	-
Iron Horse Diagnostics Inc.	93.853	IH-STTR-02	46,254	-
Massachusetts General Hospital	93.853	U01NS082329	44,484	-
Massachusetts General Hospital	93.853	U01NS090259	91,299	-
Mayo Clinic Jacksonville	93.853	U01NS080168	9,208	-
Medical College of Wisconsin	93.853	R01NS035929	12,309	-
Northwestern University	93.853	60036745 CCF	(7,145)	-
Northwestern University	93.853	U01NS080818	14,785	-
University of Alabama, Birmingham	93.853	R01NS083767	142,522	-
University of California, Los Angeles	93.853	R01NS074980	1,217	-
University of California, Los Angeles	93.853	U01NS098961	157,473	-
University of California, San Francisco	93.853	R01NS071463	4,211	-
University of California, San Francisco	93.853	R56NS062820-06	1,205	-
University of Miami	93.853	U54NS092091	28,146	-
University of North Texas	93.853	R01NS048837	83,409	-
Rutgers University, Brunswick	93.854	R01NS038384	136	-
Duke University	93.855	4UM1AI104681	88,279	-
Duke University	93.855	C13AUC02CLE	(115,759)	-
Duke University	93.855	R01AI113315	21,245	-
Duke University	93.855	U01AI113315	421,460	-
Johns Hopkins University	93.855	2002156950	2,397	-
Mount Sinai School of Medicine	93.855	U01AI063594	715,204	-
National Jewish Health	93.855	U01AI097073	5,506	-
Northwestern University	93.855	60024957 CC	(3,471)	-
University of California, San Francisco	93.855	U01AI113362	64,208	-
University of Pennsylvania	93.855	R01AI104887	292,721	-

CASE WESTERN RESERVE UNIVERSITY
Schedule of Expenditures of Federal Awards
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FEDERAL GRANTOR/PASS-THROUGH GRANTOR PROGRAM or CLUSTER TITLE	CFDA	Pass-Through Entity Sponsor Number	Total Expenditures	Passed to Sub-Recipients
University of Pennsylvania	93.855	R21AI114920	35,239	-
University of Washington, St. Louis	93.855	U01AI077810	13,708	-
NEOMED	93.859	R01GM112044-01A1	8,593	-
University of Iowa	93.859	R01GM113935	89,762	-
Wake Forest University	93.859	P01GM113852	107,894	-
Wake Forest University	93.859	P01GM113853	60	-
International Foundation for CDKL5 Research	93.865	U54HD061222	837	-
Metrohealth Hospital	93.865	R01HD088061	106,328	-
Research Triangle International	93.865	U01HD041249	75,425	-
Research Triangle International	93.865	U01HD069031	11,170	-
University of Kansas	93.865	R01HD069043	17,518	-
University of South Florida	93.865	U01DK061055	19,635	-
Diapedia LLC.	93.866	R44AG041001	61,971	-
Great Lakes Neuro Technologies	93.866	AG033947-05	3,461	-
Northwestern University	93.866	R01AG047416	58,753	-
University of California, San Diego	93.866	U19AG010483	(3,782)	-
University of Southern California	93.866	U19AG010483	36,783	-
University of Southern California	93.866	U19AG02	18,046	-
Cincinnati Children's Hospital Research Foundation	93.867	R01EY027077	113,688	-
Duke University	93.867	R01EY023039	(42,265)	-
Emory University	93.867	EY025553	4,283	-
H-Cubed Inc.	93.867	R43EY025463	9,011	-
Jaeb Center Health Research	93.867	Jaeb	115	-
Jaeb Center Health Research	93.867	U10EY011751	16,136	-
Thomas Jefferson University	93.867	R01EY012042	101,844	-
University of Pennsylvania	93.867	U10EY023530	18,505	-
University of Washington	93.891	R01DK094891	34,506	-
Sarcoma Alliance for Research	93.937	U54CA168512	68,991	-
Department of Health & Human Services Subtotal			99,125,056	7,369,159
Total Research and Development Cluster – Cleveland Clinic Lerner College of Medicine			99,125,056	7,369,159
Total Research and Development Cluster			331,581,984	32,569,943

CASE WESTERN RESERVE UNIVERSITY
Schedule of Expenditures of Federal Awards
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FEDERAL GRANTOR/PASS-THROUGH GRANTOR PROGRAM or CLUSTER TITLE	CFDA	Pass-Through Entity Sponsor Number	Total Expenditures	Passed to Sub-Recipients
Highway Planning & Construction Cluster				
Department of Transportation				
<u>Pass Through Programs</u>				
Ohio Department of Transportation	20.205	26906	100,766	-
Total Department of Justice – Highway Planning & Construction Cluster			100,766	-
Medicaid Cluster				
Department of Health & Human Services				
Centers for Medicaid and Medicare Services				
<u>Pass Through Programs</u>				
Children's Hospital Medical Center	93.778	MEDTAPP (WALSH)	58,912	-
Cincinnati Children's Hospital Medical Center	93.778	G-1415-07-0060	37,180	-
Northeast Ohio Medical University	93.778	G-1617-05-0003 (NEOMED)	61,967	-
The Ohio State University	93.778	60055834	41,477	-
The Ohio State University	93.778	60058545	50,382	-
The Ohio State University	93.778	60058546	72,094	-
The Ohio State University	93.778	60058562	11,220	-
The Ohio State University	93.778	60058563	30,349	-
The Ohio State University	93.778	07-0060 (ODM201316)	(56)	-
The Ohio State University	93.778	60058441 (MEDTAPP)	3,255	-
The Ohio State University	93.778	60058440 (MEDTAPP)	3,332	-
The Ohio State University	93.778	60059809 (MEDTAPP)	14,050	-
The Ohio State University	93.778	60059810 (MEDTAPP)	26,944	-
The Ohio State University	93.778	CSP9027151	103	-
The Ohio State University	93.778	G-1415-07-0060 (OMD201409)	(1,620)	-
The Ohio State University	93.778	G-1617-05-0003 (OMD201609)	2,826,882	-
The Ohio State University	93.778	MEDTAPP BH	(3,583)	-
The Ohio State University	93.778	MEDTAPP CHW	28,752	-
The Ohio State University	93.778	MEDTAPP RCC	356	-
The Ohio State University	93.778	ODM201650	384,783	72,654
Total Department of Health & Human Services – Medicaid Cluster			3,646,779	72,654

CASE WESTERN RESERVE UNIVERSITY
Schedule of Expenditures of Federal Awards
For the year ended June 30, 2017

FEDERAL GRANTOR/PASS-THROUGH GRANTOR PROGRAM or CLUSTER TITLE	CFDA	Pass-Through Entity Sponsor Number	Total Expenditures	Passed to Sub-Recipients
SNAP Cluster				
Department of Agriculture				
<u>Pass Through Programs</u>				
The Ohio State University	10.561	2OH430128 (60047119)	404,030	21,963
Total Department of Agriculture – SNAP Cluster			404,030	21,963
Other Federal Assistance				
Department of Justice				
<u>Pass Through Programs</u>				
Ohio Attorney General	16.320	2016-VOCA-26476885	1,394	-
Ohio Attorney General	16.320	2016-VOCA-34075780	1,369	-
Ohio Attorney General	16.320	2017-VOCA-43551379	185,041	-
Department of Justice Subtotal			187,804	-
Department of State				
<u>Pass Through Programs</u>				
Institute of International Education, Inc.	19.401	3069-CWRU-4-1-16	48,840	-
Institute of International Education, Inc.	19.432	S-ECAGD-15-CA-1101	(6,886)	-
Department of State Subtotal			41,954	-
National Endowment for the Humanities				
<u>Direct Programs</u>				
Promotion of the Arts - Grants to Organizations and Individuals	45.024		818	-
Promotion of the Humanities - Fellowships and Stipends	45.160		8,401	-
Promotion of the Humanities - Public Programs	45.164		267,626	-
<u>Pass Through Programs</u>				
Ohio Humanities Council	45.129	MA17-009	9,809	-
Ohio Humanities Council	45.129	QU16-064	4,666	-
CFDA 45.129 Subtotal			14,475	-
National Endowment for the Humanities Subtotal			291,320	-

CASE WESTERN RESERVE UNIVERSITY
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FEDERAL GRANTOR/PASS-THROUGH GRANTOR PROGRAM or CLUSTER TITLE	CFDA	Pass-Through Entity Sponsor Number	Total Expenditures	Passed to Sub-Recipients
Department of Veterans Affairs				
<u>Direct Programs</u>				
Department of Veterans Affairs	64		1,993	-
Department of Veterans Affairs Subtotal			1,993	-
Department of Health & Human Services				
Administration for Children and Families				
<u>Pass Through Programs</u>				
US Together, Inc.	93.604	90ZT0157-01-01	38,850	-
Maternal and Child Health Services				
<u>Pass Through Programs</u>				
Ohio Department of Health	93.994	B04MC21400-01-04	(584)	-
Substance Abuse and Mental Health Services Administration				
<u>Pass Through Programs</u>				
Ohio Department of Mental Health	93.958	1700758	18,200	-
Department of Health & Human Services Subtotal			56,466	-
Total Other Federal Assistance			579,537	-
TRIO Cluster				
Department of Education				
<u>Direct Programs</u>				
TRIO Talent Search	84.044		136,101	-
TRIO Upward Bound	84.047		454,333	-
Total Department of Education – TRIO Cluster			590,434	-

CASE WESTERN RESERVE UNIVERSITY
Schedule of Expenditures of Federal Awards
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FEDERAL GRANTOR/PASS-THROUGH GRANTOR PROGRAM or CLUSTER TITLE	CFDA	Pass-Through Entity Sponsor Number	Total Expenditures	Passed to Sub-Recipients
Student Financial Assistance Cluster				
Department of Education				
<u>Direct Programs</u>				
Federal Supplemental Educational Opportunity Grants	84.007		1,063,574	-
Federal Work-Study Program	84.033		1,443,984	-
Federal Perkins Loan				
Outstanding loans as of July 1, 2016	84.038		12,681,710	-
New loans issued during 2017	84.038		1,153,762	-
Federal Pell Grant Program	84.063		2,985,606	-
Federal Direct Student Loans	84.268		130,186,799	-
Nursing Student Loans				
Outstanding loans as of July 1, 2016	93.364		220,952	-
New loans issued during 2017	93.364		21,000	-
Health Professions Student Loans, Including Primary Care Loans				
Outstanding loans as of July 1, 2016	93.342		1,788,067	-
New loans issued during 2017	93.342		230,000	-
Loans for Disadvantaged Students				
Outstanding loans as of July 1, 2016	93.342		8,522	-
Total Department of Education – SFA Cluster			151,783,976	-
TOTAL EXPENDITURES OF FEDERAL AWARDS			\$ 488,687,506	\$ 32,664,560

A. Basis of Presentation

The accompanying Schedule of Expenditures of Federal Awards (the "Schedule") summarizes the expenditures of Case Western Reserve University (the "University") under programs of the federal government for the year ended June 30, 2017. The information presented in the Schedule is presented on the accrual basis of accounting, which is in accordance with the Title 2 U.S. *Code of Federal Regulations* Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* ("Uniform Guidance"). Because the Schedule presents only the federal award activity of the University, it is not intended to and does not present the financial position, changes in net assets and cash flows of the University.

Negative numbers in the Schedule represent adjustments to amounts reported in prior years in the normal course of business. Catalog of Federal Domestic Assistance ("CFDA") numbers and pass-through numbers are provided when available.

For purposes of the Schedule, federal awards include all grants, contracts and similar agreements entered into directly between the University and agencies and departments of the federal government and all sub-awards to the University by non-federal organizations pursuant to federal grants, contracts and similar agreements.

In May 2002, the University entered into an agreement with the Cleveland Clinic Foundation ("CCF") to form a new medical education and research program, Cleveland Clinic Lerner College of Medicine ("CCLCM"), within the University's School of Medicine. This is a collaborative arrangement between the University and CCF which is governed by the academic and research standards of the University. The results of both the academic and research operations of CCLCM are included in the University's accompanying consolidated financial statements. Beginning in fiscal 2004, research grants from the National Institutes of Health were awarded to and administered through the University in support of CCLCM investigators based at CCF. Oversight for the CCLCM grants is ultimately the responsibility of the Vice Dean for the University's School of Medicine, though day-to-day operations is delegated to CCF who abide by the research policies and procedures of the University. The University's indirect cost rate set by the Department of Health & Human Services is applied to the grants awarded for CCLCM. For these reasons, the awards in support of CCLCM investigators based at CCF are not presented as sub-recipient awards in the Schedule.

The University applies its predetermined approved facilities and administrative rate ascertained through negotiations with the U.S. Department of Health and Human Services 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. Pursuant to the agreement with the U.S. Department of Health and Human Services dated February 13, 2017, the final rate effective for the period July 1, 2016 to June 30, 2017 for on-campus research and for the CCLCM is 58.5% of modified total direct costs, while for off-campus research the rate is 26%. The February 13, 2017 agreement also finalized rates through fiscal year 2021 and established provisional rates for fiscal year 2022 and beyond.

B. Directly Administered 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. The balance of loans outstanding at June 30, 2017 consists of:

Title	CFDA Number	Amount Outstanding at June 30, 2017
Perkins Loan Program	84.038	\$ 11,730,926
Nursing Student Loan Program	93.364	171,911
Health Professions Student Loans, Including Primary Care Loans	93.342	1,740,669
Loan for Disadvantaged Students	93.342	6,237
Total loan balances outstanding		<u>\$ 13,649,743</u>

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,
Case Western Reserve 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 Case Western Reserve University (the "University"), which comprise the consolidated statement of financial position as of June 30, 2017, and the related consolidated statements of activities and of cash flows for the year then ended, and the related notes to the financial statements, and have issued our report thereon dated October 14, 2017.

Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered the University's internal control over financial reporting ("internal control") to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion 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 entity'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

October 14, 2017



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

To the Board of Trustees,
Case Western Reserve University:

Report on Compliance for Each Major Federal Program

We have audited Case Western Reserve University's (the "University") compliance with the types of compliance requirements described in the *OMB Compliance Supplement* that could have a direct and material effect on each of the University's major federal programs for the year ended June 30, 2017. The University's major federal programs are identified in the summary of auditors' 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, 2017.

Other Matters

The results of our auditing procedures disclosed instances of noncompliance, which are required to be reported in accordance with the Uniform Guidance and which are described in the accompanying schedule of findings and questioned costs as items 2017-001, 2017-002, 2017-003 and 2017-004. Our opinion on each major federal program is not modified with respect to these matters.



The University's response to the noncompliance findings identified in our audit is described in the accompanying management's 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 a certain deficiency in internal control over compliance, as described in the accompanying schedule of findings and questioned costs as item 2017-001 that we consider to be a significant deficiency.

The University's response to the internal control over compliance findings identified in our audit is described in the accompanying management's 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

March 28, 2018

SCHEDULE OF FINDINGS AND QUESTIONED COSTS

SECTION I – SUMMARY OF AUDITORS’ RESULTS

FINANCIAL STATEMENTS

Type of auditors report issued: Unmodified

Internal control over financial reporting:

- ◆ Material weakness(es) identified? ☐ Yes ☒ No
- ◆ Significant deficiency(ies) identified that are not considered to be material weakness(es)? ☐ Yes ☒ None reported
- ◆ Noncompliance material to financial statements noted? ☐ Yes ☒ No

FEDERAL AWARDS

Internal control over major programs:

- ◆ Material weakness(es) identified? ☐ Yes ☒ No
- ◆ Significant deficiency(ies) identified that are not considered to be material weakness(es)? ☒ Yes ☐ None reported

Type of auditors report issued on compliance for major programs: Unmodified

Any audit findings disclosed that are required to be reported in accordance with 2 CFR 200.516(a)? ☒ Yes ☐ No

IDENTIFICATION OF MAJOR PROGRAMS

CFDA Number(s)

Various

Name of Federal Program or Cluster

Research and Development Cluster

Various

Student Financial Assistance Cluster

Dollar threshold used to distinguish between Type A and Type B programs: \$3,000,000

Auditee qualified as low-risk auditee? ☒ Yes ☐ No

SECTION II – FINANCIAL STATEMENT FINDINGS

No findings to be reported.

SECTION III – FEDERAL AWARD FINDINGS AND QUESTIONED COSTS

2017-001 – Enrollment Reporting – Significant Deficiency

Cluster: Student Financial Assistance

Program Name: Federal Direct Student Loans and Federal Perkins Loans

CFDA Number: 84.268 and 84.038

Award Year: July 1, 2016 – June 30, 2017

Criteria

Under the Federal Direct Student Loan and Federal Perkins Loan programs, institutions must complete and return within 15 days the Enrollment Reporting roster file placed in their Student Aid Internet Gateway mailboxes sent by the Department of Education via National Student Loan Data System (“NSLDS”). The institution determines how often it receives the Enrollment Reporting roster file with the default set at every two months, but the minimum is twice a year. Once received, the institution must update for changes in student status, report the date the enrollment status was effective, enter the new anticipated completion date, and submit the changes electronically through the batch method or the NSLDS web site. Unless the school expects to complete its next roster within 60 days, the school must notify the lender or the guaranty agency within 15 days, if it discovers that a student who received a loan either did not enroll or ceased to be enrolled on at least a half-time basis. (34 CFR 685.309(b) and 674.19(f)).

Condition

The University Registrar's Office uses the National Student Clearinghouse (“NSC”) as its servicer for enrollment reporting to the NSLDS. Through our testing of 25 students who received Federal student financial assistance and had an enrollment status change, we identified that the University did not inform the NSC on a timely basis about 4 students that withdrew from all of their classes for a semester. We also identified an additional student withdrawal that was never communicated to the NSC.

The amount of time that a withdrawal was reported late to the NSLDS depended on the date of the withdrawal, if and when the student re-enrolled in classes for the subsequent semester, and was limited by the fact that the NSC has a process to insert the withdrawn date as the last date of the withdrawn term for students that did not re-enroll in classes for the subsequent semester. The late-reported student withdrawals were ultimately updated in NSLDS an average of 60 days later than the requirement and in some instances without accurate withdrawn dates.

Cause

The University Registrar's Office transmits updated enrollment information for all students enrolled, including students receiving Title IV funds, to NSC on a monthly schedule via a file that is produced from the Oracle PeopleSoft Campus Solutions Student Information System (“SIS”). The NSLDS submits roster file requests to the NSC for the University students receiving Title IV funds. Enrollment data for the students on the roster file is transmitted back to the NSLDS by the NSC.

Personnel responsible for reporting to the NSLDS use SIS to generate a monthly file in order to update the enrollment status for students in the NSC database. In Fall of 2014, the NSLDS reporting rules changed such that new fields on the program level data were required. SIS was updated and shifted from a custom NSC file creation process to the delivered Oracle PeopleSoft Campus Solutions NSC file creation process. At that time, a setting for the delivered file creation process was overlooked causing students who did not withdraw from their programs of study, but who withdrew from all classes for the semester, to not have their withdrawn statuses reported to the NSC.

Effect

Effective administration of Title IV loans could be impacted when changes in students' status are not reported timely and accurately. The accuracy of enrollment information is important as a student's enrollment status determines eligibility for in-school status, deferment, grace periods, and repayments, as well as the Government's payment of interest subsidies. The amount of loan repayments impacted by the issue cannot be determined by the University because the calculations are handled by the loan servicer and are different for each student depending on his or her own individual circumstances.

Questioned Costs

None noted.

Recommendation

We recommend the University correct SIS such that all required fields properly feed into the status report in a manner that results in all student enrollment change information being properly included in the report. We also recommend the University implement a periodic review control to compare the University's records of withdrawn students against what was reported to NSLDS.

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 schedule of prior audit findings.

2017-002 – Pell Disbursement

Cluster: Student Financial Assistance

Program Name: Federal Pell Grant Program

CFDA Number: 84.063

Award Year: July 1, 2016 – June 30, 2017

Criteria

The Department of Education provides Payment and Disbursement Schedules for determining the annual amount of Pell to be awarded to a student based on the student's enrollment status, estimated family contribution, and the cost of attendance.

Condition

In examining 41 student recipients of Pell, one student was found to have been under-awarded because their award was calculated based on a three quarters enrollment while they had in fact been enrolled full time.

Cause

The University uses their PowerFAIDS system to automatically calculate the amount of Pell awarded to students based on the student's enrollment status, estimated family contribution, and the cost of attendance. PowerFAIDS was configured such that Pell award calculations were only performed automatically during a semester up to the date that semester's add/drop period was over. Personnel responsible for student financial assistance compliance thought that the automated process was configured to function for the entire semester. The student identified as having been under-awarded increased their attendance level after the add/drop period and thus the student's Pell award was not updated.

Effect

Calculating Pell awards using outdated enrollment status information may result in miscalculations of the award amount.

Questioned Costs

The one student identified as being under-awarded was impacted by \$916.

Recommendation

We recommend the University correct the system issue in a manner such that changes to student enrollment status triggers updates to the amount of Pell awarded to students.

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 schedule of prior audit findings.

2017-003 – Title IV Disbursement Notification Letters

Cluster: Student Financial Assistance

Program Name: Federal Supplemental Educational Opportunity Grants, Federal Work-Study Program, Federal Perkins Loan, Federal Pell Grant Program, Federal Direct Student Loans, Nursing Student Loans, Health Professional Student Loans (Including Primary Care Loans), Loans for Disadvantaged Students

CFDA Number: 84.007, 84.033, 84.038, 84,063, 84.268, 93.364, 93.342

Award Year: July 1, 2016 – June 30, 2017

Criteria

A general notification must be provided to all students, or parent, receiving Title IV, HEA program funds, in writing of (1) the date and amount of the disbursement; (2) the student's right, or parent's right, to cancel all or a portion of that loan or loan disbursement and have the loan proceeds returned to the holder of that loan; and (3) the procedure and time by which the student or parent must notify the institution that he or she wishes to cancel the loan. This notification must occur within 30 days before or after crediting the student's account with the funds. (34 CFR section 668.165)

Condition

In examining 60 student records, we found that 23 of the 60 students had not been notified in writing of their receipt of Title IV funds within the 30 day requirement. Each of the 23 students had Title IV funds credited to their accounts in the fall semester, and each of the 23 students were ultimately notified within 60 days after receiving their Title IV funds.

Cause

The University sends notification letters to students through a program maintained within the PowerFAIDS system that automatically sends Title IV emails to awarded students. In the Fall 2016 semester, the automated process worked as intended for the months of August and September, however the automated process stopped working in mid-October due to issues with the email server. The server issue made it appear to the University that the system generated emails had been sent while in fact they never were. The University identified this issue in November at which point they sent 3,302 paper letters to students with disbursements in the Fall 2016 semester, however the timing of identifying and correcting the issue resulted in many students receiving the notification after the 30 day required time frame.

Effect

Students that do not receive timely communication of receiving funds may not be able to effectively and timely identify and correct potential issues with the funds.

Questioned Costs

None noted.

Recommendation

We note that the University corrected this issue before the start of the Spring 2017 semester by generating emails on a more frequent basis and establishing a control to verify the emails were actually delivered. We recommend the University continue to follow the newly established process and control going forward.

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 schedule of prior audit findings.

2017-004 – E-Sign Act

Cluster: Student Financial Assistance

Program Name: Federal Supplemental Educational Opportunity Grants, Federal Work-Study Program, Federal Perkins Loan, Federal Pell Grant Program, Federal Direct Student Loans, Nursing Student Loans, Health Professional Student Loans (Including Primary Care Loans), Loans for Disadvantaged Students

CFDA Number: 84.007, 84.033, 84.038, 84.063, 84.268, 93.364, 93.342

Award Year: July 1, 2016 – June 30, 2017

Criteria

The Electronic Signatures in Global and National Commerce Act (E-Sign Act) states that a school must obtain a student's voluntary consent to participate in electronic transactions.

Condition

In examining 60 student records, we noted that the University requires each student annually agree to certain terms and conditions before they accept federal student assistance, however a statement prompting the student to voluntarily consent to participate in electronic transactions was not included in the list of terms and conditions.

Cause

The University inadvertently omitted the statement prompting the student to voluntarily consent to participate in electronic transactions from the list of terms and conditions each student is required to accept.

Effect

A lack of student consent to participate in electronic transactions may result in the transactions being denied legal effect, validity, or enforceability solely because it is in electronic form or because an electronic signature or electronic record was used in its formation.

Questioned Costs

None noted.

Recommendation

We recommend the University add a statement that the student voluntarily consents to participating in electronic transactions to the list of terms and conditions annually agreed to by students receiving federal student financial assistance.

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 schedule of prior audit findings.

SUMMARY SCHEDULE OF PRIOR AUDIT FINDINGS

CASE WESTERN RESERVE UNIVERSITY
SUMMARY SCHEDULE OF PRIOR AUDIT FINDINGS
FOR THE YEAR ENDED JUNE 30, 2017

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

**Case Western Reserve University
Management's Corrective Action Plan
Year Ended June 30, 2017****2017-001 – Enrollment Reporting – Significant Deficiency**

The University investigated the exceptions and discovered that the issue pertained only to students who withdrew from all classes for a semester and who also did not inform the University as to whether they would be attending classes in a future semester. The University determined that the issue dated back to fall 2014 semester, and 544 students were identified since fall 2014 that had withdrawn from a semester but not completely from the University. Of the 544 students, 138 were found to have not been reported timely to NSLDS, with 49 of these withdrawals pertaining to students for whom Federal Direct Student loan repayment dates were impacted.

The University contacted NSLDS in September 2017 to obtain instructions on how to correct the NSLDS data for students with inaccurate withdrawal dates, and plans on correcting the NSLDS data by March 31, 2018. Additionally, the University corrected and tested the Student Information System process that transmits data to the NSC and ultimately to the NSLDS in September 2017. The University also implemented a monthly review process in September to ensure that records of withdrawn students have been reported correctly and within the required time period. The University informed the Department of Education about the issue in January 2018.

Primary responsibility for implementing the correction action plan for this finding rests with Amy Hammett, University Registrar and Director of Student Information Systems and Services, 216-368-4310.

2017-002 – Pell Disbursement

In summer 2017, the University fully investigated all students who received Pell awards and found that a total of 8 students had been under-awarded collectively by \$5,915. In August 2017, the University corrected the student accounts and began employing a nightly scheduled process in PowerFAIDS that automatically recalculates Federal Pell Grants for students whose enrollment has changed from full-time to less than full-time and vice versa.

Primary responsibility for implementing the correction action plan for this finding rests with Sheryl Reinschmidt, Associate/Deputy Director of Financial Aid, 216-368-6659.

2017-003 – Title IV Disbursement Notification Letters

In November 2016, the University identified an issue with the automatic communications scheduler within PowerFAIDS. At that time, all students were sent paper letters until the automated email issue could be resolved. The automated email communications issue was resolved on November 2016 and the appropriate emails now go out on the Friday of the week of any Title IV disbursement.

Primary responsibility for implementing the correction action plan for this finding rests with Michael Collins, Assistant Director of Financial Aid, 216-368-6579. Michael will verify that Enrollment Operations ran the process and it executed correctly.

2017-004 – E-Sign Act

The University updated its system on February 1, 2018 to allow for students to voluntarily agree to the requirements of the E-sign act before they can access, accept or decline financial aid in the My Financial Aid portal.

Primary responsibility for implementing the correction action plan for this finding rests with Venus M. Puliafico, Director of Financial Aid, 216-368-6574.

Sincerely,



Diane Domanovics
Assistant Vice President for Sponsored Projects