

CASE WESTERN RESERVE UNIVERSITY

**Report on Federal Financial Assistance Programs
in Accordance with the OMB Uniform Guidance
For the Year Ended June 30, 2016**

**Entity Identification
Number 1-341018992-A1**



CASE WESTERN RESERVE UNIVERSITY

REPORT ON FEDERAL FINANCIAL ASSISTANCE PROGRAMS
IN ACCORDANCE WITH THE OMB UNIFORM GUIDANCE

June 30, 2016

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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 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, and the related notes to the consolidated 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 audit. We conducted our audit 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, 2016, and the changes in their net assets and their cash flows for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

We previously audited the consolidated statement of financial position as of June 30, 2015, and the related consolidated statement of activities and cash flows for the year then ended (not presented herein), and in our report dated October 3, 2015, 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, 2015 and for the year then ended is consistent, in all material respects, with the audited consolidated financial statements from which it has been derived.

Other Information

Our audit was conducted for the purpose of forming an opinion on the consolidated financial statements as a whole. The accompanying schedule of expenditures of federal awards for the year ended June 30, 2016 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 8, 2016 on our consideration of Case Western Reserve 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, 2016. 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 Case Western Reserve University's internal control over financial reporting and compliance.

PriceWaterhouseCoopers LLP

October 8, 2016

CONSOLIDATED STATEMENTS OF FINANCIAL POSITION

| <i>In thousands of dollars</i> | For the year ended June 30 | |
|---|-------------------------------|---------------------|
| | 2016 | 2015 |
| ASSETS | | |
| Cash and cash equivalents | \$ 139,344 | \$ 143,096 |
| Operating investments | 160,195 | 148,105 |
| Accounts and loans receivable, net | 114,603 | 106,343 |
| Pledges receivable, net | 114,554 | 97,590 |
| Prepaid expenses and other assets | 35,972 | 6,634 |
| Investments, held for long-term purposes | 1,298,508 | 1,417,187 |
| Funds held in trust by others | 312,635 | 336,825 |
| Property, plant, equipment and books, net | 776,317 | 766,094 |
| TOTAL ASSETS | \$ 2,952,128 | \$ 3,021,874 |
| LIABILITIES AND NET ASSETS | | |
| LIABILITIES | | |
| Accounts payable and accrued expenses | \$ 55,464 | \$ 70,585 |
| Deferred income and other liabilities | 56,042 | 55,165 |
| Annuities payable | 39,322 | 40,323 |
| Refundable advances | 4,755 | 2,930 |
| Accrued pension liability | 113,516 | 67,955 |
| Notes and bonds payable | 576,290 | 583,319 |
| Refundable federal student loans | 28,811 | 29,007 |
| TOTAL LIABILITIES | \$ 874,200 | \$ 849,284 |
| NET ASSETS | | |
| Unrestricted | \$ 152,657 | \$ 201,953 |
| Temporarily restricted | 916,185 | 969,913 |
| Permanently restricted | 1,009,086 | 1,000,724 |
| TOTAL NET ASSETS | \$ 2,077,928 | \$ 2,172,590 |
| TOTAL LIABILITIES AND NET ASSETS | \$ 2,952,128 | \$ 3,021,874 |

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, 2015

| | | | | For the year ended June 30 | |
|--|--------------------|---------------------------|---------------------------|-------------------------------|---------------------|
| <i>In thousands of dollars</i> | Unrestricted | Temporarily Restricted | Permanently Restricted | 2016 | 2015 |
| OPERATING REVENUES | | | | | |
| Student tuition and fees | \$ 426,432 | | | \$ 426,432 | \$ 394,365 |
| Less: Student aid | (170,819) | | | (170,819) | (160,801) |
| | 255,613 | | | 255,613 | 233,564 |
| Investment returns distributed for operations | 65,616 | | | 65,616 | 67,885 |
| FHBO returns distributed | 15,098 | \$ 961 | | 16,059 | 15,549 |
| Investment returns on operating investments | 6,336 | | | 6,336 | 11,854 |
| Grants and contracts | 243,096 | | | 243,096 | 234,124 |
| CCLCM grants and contracts | 92,112 | | | 92,112 | 81,192 |
| Gifts and pledges | 18,020 | 91,065 | \$ 22,428 | 131,513 | 87,542 |
| State of Ohio appropriation | 2,727 | | | 2,727 | 2,770 |
| Facilities and administrative cost recovery | 72,272 | | | 72,272 | 70,611 |
| Organized activities | 13,069 | | | 13,069 | 13,228 |
| Other sources | 52,538 | | 274 | 52,812 | 47,036 |
| Auxiliary services - students | 60,237 | | | 60,237 | 54,203 |
| Auxiliary services - other | 9,794 | | | 9,794 | 11,084 |
| Net assets released from restrictions | 21,123 | (29,783) | 8,660 | - | - |
| TOTAL OPERATING REVENUES | \$ 927,651 | \$ 62,243 | \$ 31,362 | \$ 1,021,256 | \$ 930,642 |
| OPERATING EXPENSES | | | | | |
| Instructional | 311,880 | | | 311,880 | 305,429 |
| Sponsored research and training | 246,051 | | | 246,051 | 242,118 |
| Other sponsored projects | 24,914 | | | 24,914 | 25,071 |
| CCLCM research and training | 92,112 | | | 92,112 | 81,192 |
| Libraries | 21,876 | | | 21,876 | 21,926 |
| Student services | 29,477 | | | 29,477 | 26,049 |
| University services | 110,752 | | | 110,752 | 98,303 |
| Auxiliary services - students | 62,945 | | | 62,945 | 59,338 |
| Auxiliary services - other | 15,637 | | | 15,637 | 14,878 |
| TOTAL OPERATING EXPENSES | \$ 915,644 | \$ - | \$ - | \$ 915,644 | \$ 874,304 |
| NET OPERATING ACTIVITY | \$ 12,007 | \$ 62,243 | \$ 31,362 | \$ 105,612 | \$ 56,338 |
| NON-OPERATING ACTIVITIES | | | | | |
| Long-term investment activities | | | | | |
| Investment (loss) income | \$ (1,326) | \$ 4,665 | \$ 2,888 | \$ 6,227 | \$ 59,957 |
| Net depreciation | (9,754) | (62,142) | (25,800) | (97,696) | (9,390) |
| Total long-term investment activities | (11,080) | (57,477) | (22,912) | (91,469) | 50,567 |
| Investment returns distributed for operations | (65,616) | | | (65,616) | (67,885) |
| Change in liabilities due under life-income agreements | | | (88) | (88) | (2,248) |
| Loss on disposal of plant assets | (621) | | | (621) | (311) |
| Pension plan changes other than periodic benefit costs | (42,480) | | | (42,480) | (14,555) |
| Net assets released from restrictions | 58,494 | (58,494) | | - | - |
| NET NON-OPERATING ACTIVITY | \$ (61,303) | \$ (115,971) | \$ (23,000) | \$ (200,274) | \$ (34,432) |
| CHANGE IN NET ASSETS | \$ (49,296) | \$ (53,728) | \$ 8,362 | \$ (94,662) | \$ 21,906 |
| Beginning Net Assets | 201,953 | 969,913 | 1,000,724 | 2,172,590 | 2,150,684 |
| ENDING NET ASSETS | \$ 152,657 | \$ 916,185 | \$ 1,009,086 | \$ 2,077,928 | \$ 2,172,590 |

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 | |
|--|-------------------------------|--------------------|
| | 2016 | 2015 |
| CASH FLOWS FROM OPERATING ACTIVITIES | | |
| Change in net assets | \$ (94,662) | \$ 21,906 |
| <i>Adjustments to reconcile change in net assets to net cash provided by operating activities:</i> | | |
| Depreciation | 69,146 | 64,240 |
| Amortization of bond issuance costs | 315 | 194 |
| Amortization of bond premiums | (2,775) | (2,499) |
| Realized and unrealized net losses (gains) on investments | 56,892 | (65,861) |
| Increase to annuities payable resulting from actuarial adjustments | 88 | 2,248 |
| Gifts of property and equipment | (157) | (250) |
| Loss on disposal of plant assets | 621 | 311 |
| Contributions restricted for long-term investment | (16,215) | (26,355) |
| (Increase) decrease in accounts and loans receivable, net | (7,452) | 3,335 |
| Increase in pledges receivable, net | (16,964) | (1,027) |
| Increase in prepaid expenses and other assets | (29,654) | (59) |
| Decrease in funds held in trust by others | 24,189 | 3,451 |
| (Decrease) increase in accounts payable and accrued expenses | (10,150) | 6,887 |
| Increase in deferred income and other liabilities | 877 | 593 |
| Increase in annuities payable | 2,194 | - |
| Increase (decrease) in refundable advances | 1,826 | (1,969) |
| Increase in accrued pension liability | 45,561 | 12,114 |
| NET CASH PROVIDED BY OPERATING ACTIVITIES | \$ 23,680 | \$ 17,259 |
| CASH FLOWS FROM INVESTING ACTIVITIES | | |
| Student loans | | |
| Collected | \$ 7,710 | \$ 6,842 |
| Issued | (8,520) | (8,541) |
| Increase in donor-restricted cash for long-term investment | (25,148) | - |
| Proceeds from the sale of investments | 1,669,323 | 2,287,530 |
| Purchase of investments | (1,619,626) | (2,273,309) |
| Proceeds from the sale of plant assets | 341 | 814 |
| Purchases of property, plant, equipment and books | (85,144) | (91,444) |
| NET CASH USED FOR INVESTING ACTIVITIES | \$ (61,064) | \$ (78,108) |
| CASH FLOWS FROM FINANCING ACTIVITIES | | |
| (Decrease) increase in federal advances for student loans | \$ (195) | \$ 2,922 |
| Contributions restricted for long-term investment | 36,597 | 20,957 |
| Proceeds from the sale of investments received as gifts | 4,766 | 5,398 |
| Proceeds from short-term debt | 92,000 | 60,000 |
| Repayment of short-term debt | (79,000) | (80,000) |
| Proceeds from commercial paper | - | 5,000 |
| Repayment of commercial paper | (829) | (15,061) |
| Proceeds from notes and bonds payable | 75,480 | 56,887 |
| Repayment of notes and bonds payable | (91,905) | (29,956) |
| Increase to annuities payable resulting from new gifts | 273 | 847 |
| Decrease to annuities payable resulting from payments | (3,555) | (3,877) |
| NET CASH PROVIDED BY FINANCING ACTIVITIES | \$ 33,632 | \$ 23,117 |
| NET DECREASE IN CASH AND CASH EQUIVALENTS | \$ (3,752) | \$ (37,732) |
| Cash and cash equivalents, beginning of year | 143,096 | 180,828 |
| CASH AND CASH EQUIVALENTS, END OF YEAR | \$ 139,344 | \$ 143,096 |
| SUPPLEMENTAL DATA: | | |
| Interest paid in cash | \$ 12,608 | \$ 12,578 |
| Construction-in-progress payments included in accounts payable | 4,143 | 9,114 |

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, 2016, and for the year then ended, as well as summarized information for the year ended June 30, 2015, 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.

Triangle Residential LP was a limited partnership formed in 2005 that owned and operated two apartment buildings and a parking garage located in the Ford-Euclid-Mayfield Road area through March 31, 2015. The University was the sole limited partner. The general partner was Triangle Residential LLC, also a wholly-owned subsidiary of the University, formed in 2005. All material transactions between the University and its subsidiaries have been eliminated.

Effective March 31, 2015, Triangle Residential LP assigned to the University all of its right, title, and interest in all of its contracts and leases. All right, title, and interest in all tangible and intangible personal property were also assigned to the University by Triangle Residential LP. In addition, the Ground Lease between Triangle Residential LP and the University was terminated effective March 31, 2015. All transactions, assets, and liabilities related to the operation of the two apartment buildings and the parking garage are included in the accounts of the University beginning April 1, 2015.

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 and related investment returns
- 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 \$25,148 restricted by donors for investment in property and equipment as of June 30, 2016.

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, 2016 and 2015.

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 1.9% and 2.7% for June 30, 2016 and 2015, 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 ending June 30, 2015, 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, 2016 and 2015. 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, 2016 and 2015.

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, 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 April 2015, the FASB issued ASU 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 balance sheet 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. The University does not currently expect that the new standard will have a material impact on the consolidated financial statements for fiscal year ending June 30, 2017, the first year in which the standard is effective.

In May 2015, the FASB issued the disclosure changes required by ASU 2015-07: "Fair Value Measurement (Topic 820): Disclosures for Investments in Certain Entities That Calculate Net Asset Value per Share (or Its Equivalent)." Investments that are measured using net asset value will no longer be categorized in the fair-value hierarchy. This standard is intended to reduce the diversity in practice that currently exists with respect to the categorization of these investments. The standard is effective for fiscal years beginning after December 15, 2016, although early adoption is 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, 2015. As a result, investments totaling \$212,214 and \$852,341 categorized in fiscal year 2015 as Level 2 and Level 3, respectively, were recategorized as investments

measured as Net Asset Value ("NAV") totaling \$1,064,555 for fiscal year 2015.

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, 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 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 statement 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, 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.

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.

2. ACCOUNTS AND LOANS RECEIVABLE

Accounts and loans receivable of the University at June 30, 2016 and 2015 were as follows:

| | 2016 | 2015 |
|---|-------------------|-------------------|
| ACCOUNTS RECEIVABLE, NET | | |
| Grants, contracts and others | \$ 58,252 | \$ 50,594 |
| Students | 2,722 | 2,160 |
| STUDENT LOANS, NET | 53,629 | 53,589 |
| ACCOUNTS AND LOANS RECEIVABLE, NET | \$ 114,603 | \$ 106,343 |
| Allowance for doubtful accounts: | | |
| Accounts receivable | \$ 4,838 | \$ 3,703 |
| Loans receivable | \$ 2,649 | \$ 2,134 |

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, 2016 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 2016 and 2015 was 5%.

Unconditional promises to give at June 30, 2016 and 2015 are expected to be realized in the following periods:

| | 2016 | 2015 |
|--------------------------------------|-------------------|------------------|
| In one year or less | \$ 31,278 | \$ 26,295 |
| Between one year and five years | 86,030 | 74,520 |
| More than five years | 15,334 | 10,459 |
| | 132,642 | 111,274 |
| Less: Discount | (9,498) | (7,840) |
| Less: Allowance | (8,590) | (5,844) |
| TOTAL PLEDGES RECEIVABLE, NET | \$ 114,554 | \$ 97,590 |

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, 2016 is adequate to absorb any uncollectible pledges as of that date.

Pledges receivable at June 30, 2016 and 2015 had the following restrictions:

| | 2016 | 2015 |
|--|-------------------|------------------|
| Department programs and activities | \$ 27,369 | \$ 27,032 |
| Endowments for scholarships and department programs and activities | 25,967 | 24,460 |
| Building construction | 61,218 | 46,098 |
| TOTAL PLEDGES RECEIVABLE, NET | \$ 114,554 | \$ 97,590 |

Uncollectible pledges totaling \$2,136 (2016) and \$3,940 (2015) were written off against the allowance for uncollectible pledges. The University had conditional pledge commitments totaling \$13,471 (2016) and \$43,725 (2015). 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, 2016 and 2015 were as follows:

| | 2016 | 2015 |
|--------------------------------|---------------------|---------------------|
| Cash and cash equivalents | \$ 42,268 | \$ 39,049 |
| Domestic stocks | 32,551 | 45,384 |
| International securities | 18,463 | 23,079 |
| Global securities | 194,583 | 110,681 |
| Bonds | | |
| Government and municipal | 6,876 | 6,922 |
| Corporate | 14,163 | 8,167 |
| Mutual funds | 327,099 | 414,750 |
| Derivatives | 30,211 | 38,325 |
| Limited partnerships and Other | | |
| Venture capital | 110,302 | 105,390 |
| Private equity | 214,432 | 238,595 |
| Real estate | 94,416 | 101,885 |
| Hedge funds | 324,399 | 385,232 |
| Other | 48,797 | 47,753 |
| Equity real estate | 143 | 80 |
| TOTAL INVESTMENTS | \$ 1,458,703 | \$ 1,565,292 |

| | 2016 | 2015 |
|--|---------------------|---------------------|
| Operating investments | \$ 160,195 | \$ 148,105 |
| Investments, held for long-term purposes | 1,298,508 | 1,417,187 |
| TOTAL INVESTMENTS | \$ 1,458,703 | \$ 1,565,292 |

Investment returns shown on the statement of activities are netted against investment management fees of \$10,317 (2016) and \$9,811 (2015). The investments were held for the following purposes:

| | 2016 | 2015 |
|--------------------------------------|---------------------|---------------------|
| Endowment | \$ 1,035,811 | \$ 1,107,222 |
| Donor-restricted funds | 287,757 | 297,129 |
| University investments | 80,845 | 100,164 |
| Annuities | 45,041 | 50,896 |
| Funds held for the benefit of others | 9,249 | 9,881 |
| TOTAL INVESTMENTS | \$ 1,458,703 | \$ 1,565,292 |

University investments include unspent bond proceeds of \$2,551 (2016) and \$24,506 (2015) (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 | |
|--|------------------|---------------------------|---------------------------|---------------------|---------------------|
| | | | | 2016 | 2015 |
| Donor-restricted endowment funds | \$ (22,120) | \$ 451,667 | \$ 606,264 | \$ 1,035,811 | \$ 1,107,222 |
| Donor purpose-restricted funds | | 269,484 | | 269,484 | 287,188 |
| Board-designated funds | 44,809 | | | 44,809 | 44,764 |
| TOTAL ENDOWMENT AND SIMILAR FUNDS | \$ 22,689 | \$ 721,151 | \$ 606,264 | \$ 1,350,104 | \$ 1,439,174 |

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 (3.45)% (2016) and 4.77% (2015).

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 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 2016 and 2015 pooled endowment and similar funds spending allocation approximated 4.75% and 4.88%, respectively, of beginning market value. The total amount allocated was \$65,952 and \$65,578, 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 2016 and 2015 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 2016 and \$5,900 in 2015.

Changes in endowment and similar funds net assets for fiscal year 2016 and 2015 are as follows:

| | Unrestricted | Temporarily Restricted | Permanently Restricted | Total | |
|--|------------------|------------------------|------------------------|---------------------|---------------------|
| | | | | 2016 | 2015 |
| Endowment and similar funds net assets, beginning of year | \$ 36,876 | \$ 813,885 | \$ 588,413 | \$ 1,439,174 | \$ 1,380,515 |
| Add: Beginning balance, unrestricted Board-designated | | | | - | 37,720 |
| Investment income | 310 | 7,064 | | 7,374 | 45,559 |
| Realized and unrealized (losses) gains | (1,637) | (59,853) | | (61,490) | 4,922 |
| TOTAL INVESTMENT RETURN | (1,327) | (52,789) | | (54,116) | 50,481 |
| Contributions | 4,709 | 8,102 | 18,008 | 30,819 | 38,813 |
| Current year withdrawals | | | (157) | (157) | (470) |
| Current year expenditures | (3,337) | (62,279) | | (65,616) | (67,885) |
| Reclassification of deficits in donor-designated funds | (14,232) | 14,232 | | - | - |
| ENDOWMENT AND SIMILAR FUNDS NET ASSETS, END OF YEAR | \$ 22,689 | \$ 721,151 | \$ 606,264 | \$ 1,350,104 | \$ 1,439,174 |

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 \$22,120 (2016) and \$7,888 (2015). 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, \$451,667 (2016) and \$526,697 (2015) represented the portion of 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, 2016 and 2015 by the ASC 820 valuation hierarchy are as follows:

| 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 |

June 30, 2015

| | 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 | \$ 34,988 | \$ 4,061 | | | \$ 39,049 |
| Domestic stocks | 1,627 | 980 | | \$ 42,777 | 45,384 |
| International securities | | 5,005 | | 18,074 | 23,079 |
| Global securities | | | | 110,681 | 110,681 |
| Bonds | | | | | |
| Government and municipal | | 6,922 | | | 6,922 |
| Corporate | | 8,167 | | | 8,167 |
| Mutual funds | 409,311 | 5,439 | | | 414,750 |
| Derivatives | | 38,325 | | | 38,325 |
| Limited partnerships and Other | | | | | |
| Venture capital | | | \$ 15,637 | 89,753 | 105,390 |
| Private equity | | | 4,127 | 234,468 | 238,595 |
| Real estate | | | | 101,885 | 101,885 |
| Hedge funds | | 6,464 | | 378,768 | 385,232 |
| Other | | 42 | 47,711 | | 47,753 |
| Equity real estate | | | 80 | | 80 |
| TOTAL INVESTMENTS | \$ 445,926 | \$ 75,405 | \$ 67,555 | \$ 976,406 | \$ 1,565,292 |
| FUNDS HELD IN TRUST BY OTHERS | \$ - | \$ - | \$ 336,825 | \$ - | \$ 336,825 |
| PENSION PLAN ASSETS | | | | | |
| Cash and cash equivalents | \$ 4,070 | | | | \$ 4,070 |
| Mutual funds | 54,513 | \$ 8,432 | | | 62,945 |
| Limited partnerships and Other | | | | | |
| Hedge funds | | | | \$ 80,415 | 80,415 |
| Equity real estate | | | | 7,734 | 7,734 |
| TOTAL PENSION PLAN ASSETS (Note 9) | \$ 58,583 | \$ 8,432 | \$ - | \$ 88,149 | \$ 155,164 |
| ASSETS AT FAIR VALUE | \$ 504,509 | \$ 83,837 | \$ 404,380 | \$ 1,064,555 | \$ 2,057,281 |
| Interest rate swaps payable | \$ - | \$ 20,600 | \$ - | \$ - | \$ 20,600 |
| LIABILITIES AT FAIR VALUE | \$ - | \$ 20,600 | \$ - | \$ - | \$ 20,600 |

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 statement 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, 2014 | \$ 15,236 | \$ 4,116 | \$ 80 | \$ 385,453 | \$ 404,885 |
| Investment income | 12 | 3 | | 628 | 643 |
| Unrealized gains (losses) | 620 | 161 | | (221) | 560 |
| Purchases | 606 | 157 | | 20 | 783 |
| Settlements | (837) | (310) | | (1,344) | (2,491) |
| June 30, 2015 | \$ 15,637 | \$ 4,127 | \$ 80 | \$ 384,536 | \$ 404,380 |
| Investment (loss) income | (1) | | | 811 | 810 |
| Unrealized (losses) gains | (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 |

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 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 | \$ 30,060 | |
| International securities (b) | monthly, quarterly | 30 - 90 days | 13,711 | |
| Global securities (c) | monthly, quarterly | 30 - 90 days | 136,820 | |
| Limited partnerships and Other | | | | |
| Venture capital (d) | | | 95,450 | \$ 33,941 |
| Private equity (e) | | | 210,612 | 91,018 |
| Real estate (f) | | | 94,416 | 47,507 |
| Hedge funds (g) | monthly, quarterly, annually | 30 - 90 days | 395,096 | 994 |
| Equity real estate (h) | | | 8,272 | |
| TOTAL | | | \$ 984,437 | \$ 173,460 |

(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 96% of the net asset value is accessible within one year or less, with all funds 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) **Hedge funds** include 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 hedge fund category from monthly, quarterly, annually, and up to a maximum period of three years. Approximately 96% of the net asset value in this class is accessible within one year or

less, with all funds accessible within three years.

(h) **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 within investment holdings 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:

| | | 2016 | | | |
|--|----------------------------|-----------------|--------------------|--------------------|--------------------|
| Location | Derivative Type | Notional Amount | 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 | \$ - |

| | | | 2015 | | |
|--|----------------------------|------------|--------------|------------------|--------------|
| | | Notional | Level 1 Fair | Level 2 Fair | Level 3 Fair |
| Location | Derivative Type | Amount | Value | Value | Value |
| Investments, held for long-term purposes | | | | | |
| | Total return swaps | \$ 288,601 | | \$ 33,519 | |
| | Options (over-the-counter) | | | (230) | |
| | Futures contracts | 20,234 | | 4,872 | |
| | Forward contracts | | | (5) | |
| | Interest rate hedges | | | 216 | |
| | Yield curve hedges | 332,069 | | (47) | |
| TOTAL DERIVATIVES, 2015 | | | \$ - | \$ 38,325 | \$ - |

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 | 2016 | 2015 |
|--|----------------------------|--------------------|------------------|
| Net effect on investment (loss) income | | | |
| | Total return swaps | \$ (7,838) | \$ 14,020 |
| | Options (over-the-counter) | | 7,519 |
| | Futures contracts | (1,260) | |
| | Interest rate hedges | (1,172) | 152 |
| | Yield curve hedges | (54) | 208 |
| | | \$ (10,324) | \$ 21,899 |
| Net depreciation | | | |
| | Total return swaps | (7,063) | 1,291 |
| | Options (over-the-counter) | 344 | |
| | Futures contracts | 256 | (959) |
| | Interest rate hedges | (3,614) | (267) |
| | Yield curve hedges | (902) | 248 |
| | | \$ (10,979) | \$ 313 |
| NET EFFECT OF DERIVATIVES | | \$ (21,303) | \$ 22,212 |

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:

| | 2016 | 2015 |
|--|-------------------|-------------------|
| Land and land improvements | \$ 59,573 | \$ 56,099 |
| Building and building improvements | 1,306,922 | 1,222,821 |
| Equipment and software | 297,112 | 275,034 |
| Library books | 42,817 | 40,566 |
| Construction-in-progress | 48,467 | 86,361 |
| | 1,754,891 | 1,680,881 |
| Less: Accumulated depreciation | (978,574) | (914,787) |
| TOTAL PROPERTY, PLANT, EQUIPMENT AND BOOKS, NET | \$ 776,317 | \$ 766,094 |

The above assets include \$505,829 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 \$522 (2016) and \$430 (2015). The expected cost to complete construction-in-progress is approximately \$36,219.

Depreciation expense included in the consolidated statement of activities is \$69,146 (2016) and \$64,240 (2015).

8. NOTES AND BONDS PAYABLE

Notes and bonds payable are as follows:

| | | Interest Rate(s) | Maturity (Calendar Year) | 2016 | 2015 |
|--------------------------------------|--------------|------------------|-----------------------------|-------------------|-------------------|
| OHEFC revenue notes and bonds: | Series 1990 | 6.50% | 2016-2020 | \$ 9,630 | \$ 11,650 |
| | Series 1994 | 6.25% | 2016-2018 | 12,995 | 16,500 |
| | Series 2001A | 0.03% | 2016 | | 10,605 |
| | Series 2002A | 0.03% | 2016 | | 64,875 |
| | Series 2006 | 4.00 - 5.25% | 2016-2044 | 76,735 | 78,330 |
| | Series 2008A | 0.10% | 2030-2044 | 60,000 | 60,000 |
| | Series 2008C | 4.00 - 5.25% | 2016-2033 | 44,640 | 47,805 |
| | Series 2012A | 2.00 - 5.00% | 2016-2023 | 25,820 | 26,680 |
| | Series 2013A | 3.00 - 5.00% | 2016-2023 | 36,130 | 39,180 |
| | Series 2014A | 0.65% | 2030-2044 | 67,500 | 67,500 |
| | Series 2015A | 2.00 - 5.38% | 2016-2034 | 50,400 | 51,630 |
| | Series 2015B | 0.52% | 2016-2030 | 74,780 | |
| OHEFC commercial paper | | 0.09 - 0.17% | 2030 | 68,110 | 68,939 |
| Compass Group USA, Inc. | | -n/a- | 2016-2019 | 863 | 1,162 |
| TOTAL LIABILITY | | | | \$ 527,603 | \$ 544,856 |
| Line of credit | | | | 33,000 | 20,000 |
| Unamortized bond premium | | | | 15,687 | 18,463 |
| TOTAL NOTES AND BONDS PAYABLE | | | | \$ 576,290 | \$ 583,319 |

The fair market value of the University's notes and bonds payable is approximately \$588,334 (2016) and \$594,067 (2015) and is considered Level 2 financial instruments as defined by the ASC 820 valuation hierarchy. These values were estimated utilizing the discounted future cash outflows at rates for similar debt.

In February 2015, the OHEFC Series 2015A bonds were issued to finance the construction of the new residence hall in the amount of \$37,240 and to refinance the Housing and Urban Development Part A and Part B loans ("HUD") in the amount of \$7,919, with the remaining proceeds in the amount of \$6,471 funding capital projects. The total amount of the bond issue was \$51,630. Deferred financing fees of \$707 were paid and the unamortized balance is included in *Prepaid expenses and other assets*. In addition, the remaining balance of the HUD loans was paid off in March 2015.

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.

The amount outstanding under the OHEFC tax-exempt commercial paper program to provide construction funds for several approved capital projects was \$68,110 (2016) and \$68,939 (2015), with maturities not exceeding 270 days from the issuance date. In August 2014, \$5,000 was drawn to provide bridge financing for the new residence hall. Principal was paid down in the amount of \$829 (2016) and \$15,061 (2015). 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 0.73% (2016) and 0.63% (2015).

The University has revolving lines of credit with two financial institutions in the amount of \$70,000 to finance working capital. The \$30,000 line is subject to annual review and renewal, and the \$40,000 line is subject to renewal in December 2017. The amount outstanding was \$33,000 (2016) and \$20,000 (2015).

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 | Outstanding VRDOs and Commercial Paper | Total Maximum Principal Payments |
|--------------|------------------------------------|---|---|
| 2017 | \$ 15,385 | \$ 20,000 | \$ 35,385 |
| 2018 | 31,095 | 20,000 | 51,095 |
| 2019 | 16,243 | 80,000 | 96,243 |
| 2020 | 16,540 | | 16,540 |
| 2021 | 16,640 | 8,110 | 24,750 |
| Thereafter | 431,700 | (128,110) | 303,590 |
| TOTAL | \$ 527,603 | \$ - | \$ 527,603 |

The University has letter of credit agreements, standby bond purchase agreements, and liquidity agreements with various financial institutions to purchase the University's variable rate demand obligations ("VRDOs") and commercial paper if they cannot be remarketed. Outstanding VRDOs in the above table represent amounts payable in the event that bonds are tendered but not successfully remarketed.

Interest expense, including those amounts for interest rate swap agreements (Note 12), was \$19,609 (2016) and \$18,637 (2015).

Certain borrowing agreements require that the University comply with certain covenants. The University is in compliance with these provisions as of June 30, 2016.

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:

| | 2016 | 2015 |
|--------------------------------------|---------------------|--------------------|
| Benefit obligation at June 30 | \$ 253,314 | \$ 223,119 |
| Fair value of plan assets at June 30 | 139,798 | 155,164 |
| FUNDED STATUS AT JUNE 30 | \$ (113,516) | \$ (67,955) |

Accumulated benefit obligation **\$ 251,841** **\$ 221,975**

Benefit plan costs for the defined benefit plan are as follows:

| | 2016 | 2015 |
|---------------------------|----------|----------|
| Net periodic benefit cost | \$ 9,852 | \$ 8,004 |
| Employer contributions | 6,770 | 10,445 |
| Benefits paid | 14,336 | 5,632 |

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

| | |
|------|----------|
| 2017 | \$ 5,637 |
| 2018 | 6,126 |
| 2019 | 6,649 |
| 2020 | 7,308 |
| 2021 | 7,632 |

Amounts expected to be paid between 2022 and 2026 total \$50,976. The University's estimated employer contribution for the defined benefit plan in fiscal 2017 will depend on the results of the July 1, 2016 actuarial valuation and is estimated to be \$16,689.

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

| | 2016 | 2015 |
|----------------------------------|---------|---------|
| BENEFIT OBLIGATION | | |
| Discount rate | 3.90% | 4.75% |
| Rate of compensation increase | 2.25% | 2.25% |
| Measurement date | 6/30/16 | 6/30/15 |
| Census date | 7/1/15 | 7/1/14 |
| NET PERIODIC BENEFIT COST | | |
| Discount rate | 4.75% | 4.75% |
| Expected return on plan assets | 8.50% | 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:

| | 2016 | 2015 |
|-------------------------------|-------------|-------------|
| Equity securities | 28% | 31% |
| Fixed income securities | 11% | 12% |
| Real estate | 6% | 5% |
| Other | 55% | 52% |
| 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:

| | 2016 | 2015 |
|--|---------------------|--------------------|
| NET LIABILITY | \$ (113,516) | \$ (67,955) |
| UNRESTRICTED NET ASSETS | | |
| Actuarial losses | 120,798 | 78,318 |
| AMOUNT RECOGNIZED AS REDUCTION OF UNRESTRICTED NET ASSETS | \$ 120,798 | \$ 78,318 |

The estimated amortization of prior year service costs expected in fiscal 2017 totals \$6,641. 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:

| | 2016 | 2015 |
|---|------------------|------------------|
| Change in actuarial losses | \$ 42,480 | \$ 14,555 |
| TOTAL LOSS RECOGNIZED, UNRESTRICTED NET ASSETS | 42,480 | 14,555 |
| Service cost | 8,511 | 6,840 |
| Interest cost | 10,855 | 9,901 |
| Expected return on assets | (13,903) | (12,821) |
| Net loss amortization | 4,389 | 4,084 |
| Net periodic benefit cost | 9,852 | 8,004 |
| TOTAL LOSS RECOGNIZED, STATEMENT OF ACTIVITIES | \$ 52,332 | \$ 22,559 |

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 \$92,112 (2016) and \$81,192 (2015).

In April 2006, the Boards of University Hospitals Health System and the University approved an affiliation agreement between the School of Medicine

During fiscal 2015, the Board approved a change to the defined benefit plan with an effective date of June 30, 2015. The University elected to close the plan to new entrants. Employees hired prior to July 1, 2015 may enter and continue to participate in the defined benefit plan.

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 plans are \$21,024 (2016) and \$20,364 (2015).

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, 2016.

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 \$19,599 (2016) and \$19,382 (2015). 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 \$252 (2016) and \$543 (2015).

In August 2015, the Medical Center Company approved an additional energy efficiency grant in the amount of \$829. The project costs incurred totaled \$86 as of June 30, 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 \$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 activities 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 one agreement in effect at June 30, 2016, the counterparty pays the University a variable interest rate equal to the Securities Industry and Financial Markets Association ("SIFMA") index, and under four other agreements, the counterparty pays a variable interest rate equal to a percentage of the one month LIBOR.

The following table provides detailed information on the interest rate swaps at June 30, 2016, with comparative fair values for June 30, 2015. 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 | 2016 | | 2015 | |
|---|---------------|----------------|------------------|-------|---------------------------|--|--------------------|--|
| | | | | | Level 2 Fair Market Value | | | |
| \$ 18,875 | 4.34% | Aug. 12, 2004 | Oct. 1, 2022 | LIBOR | \$ (1,565) | | \$ (1,541) | |
| 15,000 | 4.43% | Jun. 5, 2002 | Jun. 5, 2022 | LIBOR | (3,248) | | (2,943) | |
| 15,000 | 3.60% | Sept. 25, 2002 | Sept. 25, 2022 | LIBOR | (2,637) | | (2,202) | |
| 35,000 | 3.81% | Aug. 4, 2004 | Aug. 1, 2034 | LIBOR | (13,375) | | (9,029) | |
| 100,000 | 3.37% | Jan. 3, 2012 | Jan. 1, 2017 | SIFMA | (1,730) | | (4,885) | |
| TOTAL INTEREST RATE SWAP AGREEMENT LIABILITY | | | | | \$ (22,555) | | \$ (20,600) | |

Changes in the fair value of derivative instruments are recorded in non-operating activities 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 \$5,231 (2016) and \$2,144 (2015) 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 \$6,086 (2016) and \$6,220 (2015).

13. RESTRICTED NET ASSETS

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

| | Temporarily Restricted | | Permanently Restricted | | 2016 | 2015 |
|--|------------------------|--|------------------------|--|---------------------|---------------------|
| Endowment | | | | | | |
| True Endowment | \$ 451,667 | | \$ 606,264 | | \$ 1,057,931 | \$ 1,115,110 |
| Funds functioning as endowment (FFE) | 269,484 | | | | 269,484 | 287,188 |
| Total True endowment and FFE | 721,151 | | 606,264 | | 1,327,415 | 1,402,298 |
| Funds held in trust by others | | | 312,635 | | 312,635 | 336,825 |
| TOTAL UNIVERSITY ENDOWMENT | \$ 721,151 | | \$ 918,899 | | \$ 1,640,050 | \$ 1,739,123 |
| Other net assets | | | | | | |
| Pledges receivable | 73,575 | | 30,898 | | 104,473 | 90,377 |
| Funds held in trust by others, unused income | 6,268 | | | | 6,268 | 5,307 |
| Student loan funds | | | 36,629 | | 36,629 | 36,201 |
| Split-interest agreements | | | 16,112 | | 16,112 | 15,630 |
| Purpose restricted gifts | 115,191 | | 6,548 | | 121,739 | 83,999 |
| TOTAL NET ASSETS | \$ 916,185 | | \$ 1,009,086 | | \$ 1,925,271 | \$ 1,970,637 |

14. SUBSEQUENT EVENTS

The University has performed an evaluation of subsequent events through October 8, 2016, the date on which

the consolidated financial statements were issued.

CASE WESTERN RESERVE UNIVERSITY
Schedule of Expenditures of Federal Awards
For the year ended June 30, 2016

| 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>Pass Through Programs</u> | | | | |
| Texas A&M University | 10.219 | 06-S160607 | \$ 55,923 | \$ - |
| Wholesome Wave Foundation Charitable Ventures, Inc. | 10.331 | 2015-70018-23350 | 27,783 | - |
| Department of Agriculture Subtotal | | | 83,706 | - |
| Department of Defense | | | | |
| <u>Direct Programs</u> | | | | |
| Research and Development | 12 | | 1,944,029 | 661,497 |
| Basic and Applied Scientific Research | 12.300 | | 1,175,487 | - |
| Basic Scientific Research - Combating Weapons of Mass Destruction | 12.351 | | 385,567 | 195,579 |
| Military Medical Research and Development | 12.420 | | 3,937,799 | 606,878 |
| Basic Scientific Research-ARRA | 12.431 | | 146,164 | 96,952 |
| Air Force Defense Research Sciences Program | 12.800 | | 3,200,555 | 1,508,537 |
| Research & Technology Development | 12.910 | | 275,448 | - |
| <u>Pass Through Programs</u> | | | | |
| Black Forest Engineering | 12 | BFE2012AR327A | (210) | - |
| Connecticut Analytical Corporation | 12 | W31P4Q13C0073 | 13,071 | - |
| Princeton Plasma Physics Lab | 12 | S-013864-W | 23,315 | - |
| SelectTech Services Corporation | 12 | 6159-05-1727 | 11,386 | - |
| American Lightweight Materials Manufacturing Innovation Institute (ALMMII) | 12.300 | 0003B-4 | 145,515 | - |
| University of Virginia | 12.351 | GG11485-138899 | (9,692) | - |
| Cleveland Veteran's Administration Medical Research and Education Foundation | 12.420 | Bogie-VA001DOD | 54,632 | - |
| Johns Hopkins University | 12.420 | W81XWH1020090 | 269,176 | - |
| Miami University | 12.420 | W81XWH-15-1-0079 (664845) | 19,987 | - |
| Stanford University | 12.420 | CRE00047-01 | 6,937 | - |
| University of Pittsburgh | 12.420 | 0027150 (408007-1) | 231,278 | - |
| Wake Forest University | 12.420 | WFUHS 441073C CF-03 | 46,777 | - |
| Fisk University | 12.630 | W911NF-13-1-0153 | 67,370 | - |
| Norfolk State University | 12.630 | W911NF-11-1-0209 | 57,942 | - |
| National Additive Manufacturing Innovation Institute | 12.800 | FA8650-12-2-7230 | 300,437 | 139,609 |
| RTI International Metals, Inc. | 12.800 | FA8650-15-2-5200 AO-43 | 146,909 | - |
| University of Washington | 12.800 | 7637699 | 219,261 | - |
| Celgene Cellular Therapeutics | 12.910 | HR0011-12-2-0015 | (137) | - |
| Johns Hopkins University | 12.910 | 2001175091 | (4,105) | - |
| MacDonald Environmental Sciences Ltd. | 12.910 | MESL (Watanabe) | (81) | - |
| University of Maryland | 12.910 | Z923801 | 103,774 | - |
| University of Virginia | 12.910 | GG11379-136861 | (400) | - |
| Department of Defense Subtotal | | | 12,768,191 | 3,209,052 |

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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 Housing and Urban Development | | | | |
| <u>Direct Programs</u> | | | | |
| General Research and Technology Activity | 14.506 | | 73,358 | - |
| Healthy Homes Technical Studies Grants | 14.906 | | 93,221 | 11,441 |
| <u>Pass Through Programs</u> | | | | |
| MDRC | 14.536 | H-21668CA | 45,100 | - |
| Department of Housing and Urban Development Subtotal | | | 211,679 | 11,441 |
| Department of the Interior | | | | |
| <u>Direct Programs</u> | | | | |
| Science and Technology Projects Related to Coal Mining and Reclamation | 15.255 | | (1,647) | - |
| <u>Pass Through Programs</u> | | | | |
| University of Southern California | 15.808 | 51147674 | 6,188 | - |
| Department of the Interior Subtotal | | | 4,541 | - |
| Department of Justice | | | | |
| <u>Pass Through Programs</u> | | | | |
| Domestic Violence and Child Advocacy Center, Cuyahoga County, Ohio | 16.590 | 2014-HI-AX-K003 | 7,890 | - |
| Center for Court Innovations | 16.738 | 2015-DP-BX-K007 | 7,813 | - |
| Alcohol, Drug & Mental Health Board of Franklin County, Ohio | 16.745 | B13024-A | (1,572) | - |
| California State University | 16.818 | 2015-CV-BX-0001 | 36,918 | - |
| Department of Justice Subtotal | | | 51,049 | - |
| National Aeronautics and Space Administration | | | | |
| <u>Direct Programs</u> | | | | |
| Research and Development | 43 | | 22,004 | - |
| Aerospace Education Services Program | 43.001 | | 682,176 | 43,952 |
| Technology Transfer | 43.002 | | 59,883 | - |
| Exploration | 43.003 | | 577,915 | - |
| Space Operations | 43.007 | | 151,747 | - |
| Education | 43.008 | | 43,570 | - |
| Cross Agency Support | 43.009 | | 55,453 | - |
| <u>Pass Through Programs</u> | | | | |
| Universities Space Research Association | 43 | 04550-001 | (4,936) | - |
| Universities Space Research Association | 43 | 04555-004 | 1,372,086 | - |
| Jet Propulsion Laboratory | 43 | 1525377 | 39,314 | - |
| Jet Propulsion Laboratory | 43 | 1527498 | 139,468 | 31,500 |
| Materials Answers, LLC | 43.001 | NNX14CL25P | 3,962 | - |
| Princeton University | 43.001 | 00002045 | 332,308 | - |
| National Aeronautics and Space Administration Subtotal | | | 3,474,950 | 75,452 |

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|---|-------------|---|-------------------------------|-------------------------------------|
| National Science Foundation | | | | |
| <u>Direct Programs</u> | | | | |
| Engineering Grants | 47.041 | | 2,113,309 | 129,806 |
| Mathematical & Physical Sciences | 47.049 | | 6,836,298 | 1,019,441 |
| Geosciences | 47.050 | | 209,313 | - |
| Computer and Information Science & Engineering | 47.070 | | 815,248 | 4,196 |
| Biological Sciences | 47.074 | | 1,589,684 | - |
| Social, Behavioral and Economic Sciences | 47.075 | | 55,083 | - |
| Education and Human Resources | 47.076 | | 183,368 | 943 |
| International Science and Engineering (OISE) | 47.079 | | 734,366 | 283,412 |
| Office of Cyberinfrastructure | 47.080 | | (180) | - |
| Trans-NSF Recovery Act Research Support-ARRA | 47.082 | | 8,827 | - |
| <u>Pass Through Programs</u> | | | | |
| PolymerPlus LLC | 47.041 | POLYMERPLUS | 9 | - |
| PolymerPlus LLC | 47.041 | PolymerPlus (IIP-1534063) | 40,358 | - |
| University of California, Davis | 47.049 | 201222382-01 | 34,444 | - |
| University of Michigan | 47.049 | 3002527784 | 132,892 | - |
| University of Chicago | 47.050 | FP052668 | 258,869 | - |
| Rehabilitation Institute Research Corp. | 47.070 | PRIME CNS-0932263 | 39,944 | - |
| University of Connecticut | 47.070 | 104887 | 32,008 | - |
| University of Denver | 47.076 | SC37033A-01-00 | 29,770 | - |
| National Science Foundation Subtotal | | | 13,113,610 | 1,437,798 |
| Environmental Protection Agency | | | | |
| <u>Direct Programs</u> | | | | |
| P3 Award: National Student Design Competition for Sustainability | 66.516 | | 32,638 | - |
| Environmental Education Grants | 66.951 | | 1,520 | - |
| <u>Pass Through Programs</u> | | | | |
| Ohio Lake Erie Commission | 66 | LECFGLR14 | 12,650 | - |
| Environmental Protection Agency Subtotal | | | 46,808 | - |
| Department of Energy | | | | |
| <u>Direct Programs</u> | | | | |
| Research and Development | 81 | | 5,744 | - |
| Office of Science Financial Assistance Program | 81.049 | | 1,093,449 | - |
| Conservation Research and Development | 81.086 | | 394,140 | 103,849 |
| Renewable Energy Research and Development | 81.087 | | 399,943 | 117,976 |
| Fossil Energy Research and Development | 81.089 | | 459,937 | - |
| Stewardship Science Grant Program | 81.112 | | 326,185 | - |
| Advanced Research and Projects Agency Energy Financial Assistance Program | 81.135 | | 1,258,568 | - |

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|--|-------------|---|-------------------------------|-------------------------------------|
| <u>Pass Through Programs</u> | | | | |
| Battelle Energy Alliance, LLC | 81 | 128081 | 111,316 | 55,604 |
| Los Alamos National Security, LLC | 81 | 336766 Agmt. #338686 | 75,000 | - |
| PolymerPlus, LLC | 81.086 | PolymerPlus(DE-EE0007211) | 76,706 | - |
| Bay Area Photovoltaic Consortium | 81.087 | 60220829-51077-T | 119,966 | - |
| LEEDCo, Inc. | 81.087 | LEEDCOINC | 92,495 | - |
| LG Fuel Cell Systems Inc. | 81.087 | DE-FE0012077 | 43,792 | - |
| Underwriters Laboratory, Inc. | 81.087 | 7202040440 | 88,707 | - |
| Department of Energy Subtotal | | | 4,545,948 | 277,429 |
| Department of Education | | | | |
| <u>Pass Through Programs</u> | | | | |
| Cincinnati Children's Hospital Medical Center | 84.133 | B090010 (107354) | (3,050) | - |
| Department of Education Subtotal | | | (3,050) | - |
| Department of Health & Human Services | | | | |
| Administration for Children and Families | | | | |
| <u>Direct Programs</u> | | | | |
| Child Abuse and Neglect Discretionary Activities | 93.670 | | 116,795 | - |
| Administration for Community Living | | | | |
| <u>Pass Through Programs</u> | | | | |
| Children's Hospital Medical Center | 93.433 | 136239 | 28,727 | - |
| Agency for Healthcare Research and Quality | | | | |
| <u>Direct Programs</u> | | | | |
| Research on Healthcare Costs, Quality and Outcomes | 93.226 | | 411,765 | 30,138 |
| <u>Pass Through Programs</u> | | | | |
| Cincinnati Children's Hospital | 93.226 | 130341 | 362 | - |
| Cleveland Clinic Foundation | 93.226 | HS024277 (659-SUB) | 16,443 | - |
| Harvard University | 93.226 | HS021636-01 (HARVARD) | 18,555 | - |
| Mount Sinai Medical Center | 93.226 | HS020518 (0254-5694-4609) | 148,491 | - |
| Oregon Health and Science University | 93.226 | HS (1005864_CaseWestern) | 43,404 | - |
| Rhode Island Hospital | 93.226 | 701-713-7041-OH | 64,156 | - |
| Centers for Disease Control and Prevention | | | | |
| <u>Direct Programs</u> | | | | |
| Research and Development | 93 | | 1,071,591 | 22,159 |
| Centers for Research and Demonstration for Health Promotion and Disease Prevention | 93.135 | | 1,374,367 | 5,334 |
| Centers for Disease Control and Prevention Investigations and Technical Assistance | 93.283 | | 2,941,237 | - |
| <u>Pass Through Programs</u> | | | | |
| Ohio Department of Health | 93.079 | FAM-32995-01 | (368) | - |
| Hemophilia Foundation of Michigan | 93.080 | ATH(CDC14-15-HTC443) | 20,723 | - |
| University of Oklahoma | 93.262 | OH(RS20140600-01) | 55,780 | - |
| Central Brain Tumor Registry of the Unit | 93.283 | DP003831 (CWRU02) | 24,369 | - |
| Cuyahoga County Board of Health | 93.738 | REACH CCBH (Trapl) | 558,850 | - |

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|--|-------------|---|-------------------------------|-------------------------------------|
| YMCA of Greater Cleveland | 93.738 | REACH YMCA | 96,650 | - |
| Ohio Department of Health | 93.758 | ODH (FREEDMAN) | 17,447 | - |
| Cuyahoga County Board of Health | 93.944 | CCBH (TRAPL) | 82,080 | - |
| Cincinnati Children's Hospital | 93.946 | DP005361 (134940) | 2,714 | - |
| Food and Drug Administration | | | | |
| <u>Direct Programs</u> | | | | |
| Food and Drug Administration Research | 93.103 | | 109,180 | - |
| Health Resources and Services Administration | | | | |
| <u>Direct Programs</u> | | | | |
| Maternal and Child Health Federal Consolidated Programs | 93.110 | | 153,016 | 61,421 |
| Grants to Increase Organ Donations | 93.134 | | 371,975 | 68,456 |
| <u>Pass Through Programs</u> | | | | |
| American Academy of Pediatrics | 93.110 | 6636-99951-731100 | 51,008 | - |
| Children's Hospital of Philadelphia | 93.110 | MC20218-05 (320896) | 2,256 | - |
| City of Cleveland | 93.926 | CT5005SG 2015-107 | 90,618 | - |
| City of Cleveland | 93.926 | CT5005 SG 2016-75 | 21,729 | - |
| Cleveland Clinic Foundation | 93.110 | 407-SUB; 505-SUB; 600-SUB | 61,677 | - |
| Genetic Alliance | 93.110 | MC16509-05-05 (Genetic A) | 32,107 | - |
| Hemophilia Foundation of Michigan | 93.110 | 1-H30MC24047-01-00 | 12,425 | - |
| Northeast Ohio Medical University | 93.884 | HP20645 (NEOMED) | 1,425 | - |
| National Institutes of Health | | | | |
| <u>Direct Programs</u> | | | | |
| Research and Development | 93 | | 2,972,677 | 997,130 |
| Family Smoking Prevention and Tobacco Control Act Regulatory Research | 93.077 | | 195,647 | - |
| Environmental Health | 93.113 | | 87,165 | - |
| Oral Diseases & Disorder Research | 93.121 | | 4,093,912 | 464,081 |
| Human Genome Research | 93.172 | | 719,689 | 163,575 |
| Research Related to Deafness & Communications Disorders | 93.173 | | 2,645,711 | - |
| Research and Training in Complementary and Integrative Health | 93.213 | | 567,316 | 130,079 |
| National Center on Sleep Disorders Research | 93.233 | | 19,437 | - |
| Mental Health Research Grants | 93.242 | | 2,199,983 | 324,871 |
| Alcohol Research Programs | 93.273 | | 354,376 | - |
| Drug Abuse and Addiction Research Programs | 93.279 | | 2,697,616 | 397,792 |
| Discovery and Applied Research for Technological Innovations to Improve Human Health | 93.286 | | 5,205,233 | 223,508 |
| Minority Health and Health Disparities Research | 93.307 | | 1,243,932 | 284,894 |
| Trans-NIH Research Support | 93.310 | | 986,643 | 72,328 |
| National Center for Advancing Translational Sciences | 93.350 | | 12,418,224 | 15,239 |
| Research Infrastructure Programs | 93.351 | | 68,445 | - |
| Nursing Research | 93.361 | | 2,100,357 | 162,207 |
| National Center for Research Resources | 93.389 | | 13 | - |
| Cancer Cause & Prevention Research | 93.393 | | 2,006,937 | - |
| Cancer Detection and Diagnosis Research | 93.394 | | 4,694,448 | 507,303 |
| Cancer Treatment Research | 93.395 | | 1,989,963 | 43,928 |
| Cancer Biology Research | 93.396 | | 4,406,639 | 219,460 |
| Cancer Centers Support Grants | 93.397 | | 6,951,608 | 22,246 |

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|--|-------------|---|-------------------------------|-------------------------------------|
| Cancer Research Manpower | 93.398 | | 748,369 | - |
| Cancer Control | 93.399 | | 1,589,741 | 547,942 |
| Trans-NIH Recovery Act Research Support-ARRA | 93.701 | | (8,096) | - |
| Cardiovascular Diseases Research | 93.837 | | 11,307,763 | 296,984 |
| Lung Diseases Research | 93.838 | | 3,438,309 | 1,044,689 |
| Blood Diseases and Resources Research | 93.839 | | 892,465 | 160,897 |
| Arthritis, Musculoskeletal, and Skin Diseases Research | 93.846 | | 4,321,773 | 388,904 |
| Diabetes, Digestive, and Kidney Diseases Extramural Research | 93.847 | | 16,945,848 | 6,156,524 |
| Extramural Research Programs in the Neurosciences and Neurological Disorders | 93.853 | | 12,099,160 | 1,357,983 |
| Allergy, Immunology and Transplantation Research | 93.855 | | 17,631,297 | 3,651,112 |
| Biomedical Research and Research Training | 93.859 | | 8,161,759 | 237,594 |
| Child Health and Human Development Extramural Research | 93.865 | | 4,537,188 | 373,002 |
| Aging Research | 93.866 | | 1,126,562 | 14,423 |
| Vision Research | 93.867 | | 9,949,550 | 1,314,343 |
| Medical Library Assistance | 93.879 | | 341,041 | - |
| <u>Pass Through Programs</u> | | | | |
| Clinical Research Management, Inc. | 93 | CWRU-08-01 | (2,641) | - |
| Columbus NanoWorks, Inc. | 93 | HHSN268201500011C | 15,971 | - |
| Duke Clinical Research Institute | 93 | 201316 | 3,578 | - |
| Duke Clinical Research Institute | 93 | 12012000061 (199651) | 57,098 | - |
| Duke University | 93 | HHSN (178785) | 629 | - |
| Social and Scientific Systems, Inc. | 93 | SSS-S-13-003466 | (35,120) | - |
| Social and Scientific Systems, Inc. | 93 | CRB-SSS-S-15-004283 | 1,660 | - |
| The Ohio State University | 93 | HHSN (60033339) | 59,998 | - |
| University of Alabama | 93 | HHSN272201100037C | 7,997 | - |
| University of Alabama | 93 | HHSN272201100038C | 367 | - |
| University of Alabama | 93 | 000406291-001 | 20,747 | - |
| Washington University | 93 | HHSN (WU-15-217) | 188,945 | - |
| University of Michigan | 93.121 | DE (3003724044) | 22,769 | - |
| Wright State University | 93.121 | P0037005 (DE024732) | 40,316 | - |
| University of Cape Town | 93.172 | HG008226 (Cape Town) | 9,278 | - |
| Vanderbilt University | 93.172 | HG006857 (VUMC 43957) | 28,859 | - |
| Massachusetts Eye and Ear Infirmary | 93.173 | EY022305 (ME&EI) | 61,089 | - |
| University of Michigan | 93.173 | DC009410 (3002992709) | 82,707 | - |
| Vulintus, LLC | 93.173 | Vulintus (DC013467) | 8,924 | - |
| The Ohio State University | 93.213 | AT004454 (60033066) | 276,021 | - |
| Cleveland Clinic Foundation | 93.233 | 204-SUBI/245-SUBI | 75,837 | - |
| Cincinnati Children's Hospital | 93.242 | CHMC 102316 M4 | 8,988 | - |
| Geisinger Clinic | 93.242 | U01HG006382 | 7,974 | - |
| Johns Hopkins University | 93.242 | MH (2001815868) | 627,340 | - |
| Massachusetts General Hospital | 93.242 | MH106053 (225144) | 87,230 | - |
| University of California, San Diego | 93.242 | MH (10313885004) | 4,983 | - |
| University of Rochester | 93.242 | MH (416088-G) | 38,449 | - |
| University of Rochester | 93.242 | MH014701 (416536) | 81,855 | - |
| University of Texas Health Science Center | 93.242 | MH (153442/152932) | 26,062 | - |

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|--|-------------|---|-------------------------------|-------------------------------------|
| Vanderbilt University | 93.242 | MH096972(VUMC 40221) | 294,383 | - |
| Fred Hutchinson Cancer Research Ctr | 93.279 | DA032106 (000838988) | 94,189 | - |
| Nova Southeastern University | 93.279 | DA019048 (331985) | 25,170 | - |
| The Miriam Hospital | 93.279 | 710-9958 | 17,680 | - |
| University of Cincinnati | 93.279 | 007073-026 | 22,052 | - |
| University of Washington | 93.279 | DA037979 (UWSC8811) | 16,967 | - |
| Medical University of South Carolina | 93.286 | EB012099 (MUSC13-050) | (30) | - |
| Purdue University | 93.286 | 4102-64822 | 112,784 | - |
| Mayo Clinic Rochester | 93.307 | MD008934(63706900) | 101,927 | - |
| University of Pittsburgh | 93.310 | EB (0049064 (126858-1)) | 100,152 | - |
| Dartmouth College | 93.350 | TR001086(1592) | 122,382 | - |
| Fred Hutchinson Cancer Research Ctr | 93.389 | HL106868 (0000851273) | 6,508 | - |
| American College of Radiology | 93.393 | CA021661 (RTOG) | 140 | - |
| Baylor College of Medicine | 93.393 | CA139020 (5600779094) | 109,070 | - |
| Duke Univ. Comprehensive Cancer Center | 93.393 | CA142081 (203-0309) | (62,741) | (600) |
| Kaiser Permanente | 93.393 | CA140377 (KAISER) | 44,423 | - |
| Massachusetts General Hospital | 93.393 | CA137178 (226172) | 8,274 | - |
| University of Southern California | 93.393 | CA143237 (73415689) | 24,962 | - |
| University of Virginia | 93.393 | CA142081 (UVA) | 65,919 | 600 |
| Vanderbilt University | 93.393 | CA092447 (VUMC 57665) | 13,068 | - |
| Virginia Commonwealth University | 93.393 | CA (PD304087-SC106362) | 6,833 | - |
| Akrotome Imaging | 93.394 | CA180296 (AKROTOME) | 155,901 | - |
| Fred Hutchinson Cancer Research Ctr | 93.394 | CA152756 (0000728543) | 85,799 | - |
| Molecular Theranostics, LLC | 93.394 | CA199826 (Molecular Ther) | 26,541 | - |
| Riverside Research | 93.394 | NYO.G00386P.012942.1 | 9 | - |
| The Ohio State University | 93.394 | CA183713 (60040784) | 23,061 | - |
| University of Miami | 93.394 | CA160593 (660555) | 108,498 | - |
| University of Michigan | 93.394 | CA086400 (3001861745) | 1,027 | - |
| University of Pennsylvania | 93.394 | 557445 | 896 | - |
| University of Texas Health Science Center | 93.394 | CA086402 (152906) | (2,085) | - |
| American College of Obstetricians & Gynecology | 93.395 | 27469-094 | 93,270 | - |
| Children's Hospital of Philadelphia | 93.395 | CA095861 (CHOP) | 1,245 | - |
| Children's Hospital of Philadelphia | 93.395 | CA180886 (CHOP) | 23,895 | - |
| Dana Farber Cancer Institute | 93.395 | CA188288 (1236001) | 52,042 | - |
| ECOG-ACRIN Cancer Research Group | 93.395 | CA180820 (ECOG-ACRIN) | 151,630 | - |
| Frontier Science Technology Research Foundation | 93.395 | U10CA180820-02CWRU1 | 8,187 | - |
| Lentigen Corporation | 93.395 | CA128269-LENTINGEN | 129,606 | - |
| National Surgical Adjuvant Breast & Bowel Project | 93.395 | TFED41-728 | (1) | - |
| NRG Oncology Foundation, Inc. | 93.395 | CA180868 (CWRU-YR 1) | 64,107 | - |
| Vanderbilt University Medical Center | 93.396 | CA162433 (VUMC 58042) | 9,328 | - |
| National Surgical Adjuvant Breast & Bowel Project | 93.399 | TIND-728 | 90 | - |
| NRG Oncology Foundation, Inc | 93.399 | CA189867 (NRG) | 188,887 | - |
| Duke University | 93.701 | 165191 | (10,711) | - |
| Seattle Children's Hospital | 93.701 | AR09762 | (1,461) | - |
| Affinity Therapeutics | 93.837 | AFFINITY HL121928 | 7,969 | - |

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|--|-------------|---|-------------------------------|-------------------------------------|
| Brigham and Women Hospital | 93.837 | HL114473 (109593) | (24,081) | - |
| Brigham and Women Hospital | 93.837 | HL123336 (225707) | 10,676 | - |
| Children's Hospital of Philadelphia | 93.837 | HL125295 (CHOP) | 148,082 | - |
| Cleveland Clinic Foundation | 93.837 | (HL119810) SUBI-239 | 147,779 | - |
| Cleveland Clinic Foundation | 93.837 | 255-SUBI (HL119810) | 7,794 | - |
| Cleveland Clinic Foundation | 93.837 | HL119810 | 1,797 | - |
| Duke Clinical Research Institute | 93.837 | 177494/200464/209692 | 24,545 | - |
| Duke University | 93.837 | HL075443 (2031044) | (19,279) | - |
| Duke University | 93.837 | HL075443 (2034808) | 339,095 | - |
| Duke University | 93.837 | HL084904 (193603) | 51,028 | - |
| Emory University | 93.837 | HL117721 (T558589) | 92,451 | - |
| Henry Ford Health System | 93.837 | HL028982 (HFHS) | 216,903 | - |
| Kent State University | 93.837 | HL119977 (403013-CWRU) | 139,000 | - |
| National Jewish Health | 93.837 | HL124053 (2020101401) | 12,454 | - |
| New England Research Institute | 93.837 | HL107407 (NERI) | 2,199 | - |
| Partners Healthcare System | 93.837 | HL122177 (224883) | 9,236 | - |
| The Ohio State University | 93.837 | HL126563 (60045030) | 196,829 | - |
| University of California, San Francisco | 93.837 | HL117713 (138316-4000) | 30,968 | - |
| University of North Carolina | 93.837 | HL123677 (5-50144) | 23,839 | - |
| University of Pennsylvania | 93.837 | 562070 | 18,413 | - |
| University of Pittsburgh | 93.837 | 0025070 (406794-2) | 118,772 | - |
| University of Pittsburgh | 93.837 | HL 9005405 (119281-1) | (2,833) | - |
| University of Pittsburgh | 93.837 | 0041063 (409584-1) | 130,998 | - |
| University of South Carolina | 93.837 | HL112787 (14-2475) | 10,274 | - |
| University of Southern California | 93.837 | HL129902 (63709959) | 241,420 | - |
| Vanderbilt University | 93.837 | HL121429 (VUMC 44275) | 29,794 | - |
| Vanderbilt University | 93.837 | HL056693 (VUMC 53100) | 9,907 | - |
| Washington University | 93.837 | HL118305 (WU-14-243) | 23,668 | - |
| Brigham and Women Hospital | 93.838 | HL113338 (108605) | 85,706 | - |
| Mayo Foundation- Rochester | 93.838 | HL056470 (63677679) | 115,581 | - |
| Pennsylvania State University | 93.838 | HL(CWU HL 109086) | 2,682 | - |
| Seattle Children's Hospital | 93.838 | HL114623(11140SUB) | 1,000 | - |
| University of California, San Francisco | 93.838 | HL128156 (8892sc) | 63,357 | - |
| University of Washington | 93.838 | HL06800 (747426) | 98 | - |
| Vanderbilt University | 93.838 | HL079937 (VUMC 38162) | 1,593 | - |
| Apto Orthopaedics | 93.846 | RAR067008A | 5,365 | - |
| Burnham Institute | 93.846 | AR056273 | 293 | - |
| Cleveland Clinic Foundation | 93.846 | 244-SUBI | 119,855 | - |
| Drexel University | 93.846 | 232222; 232486-3850 | 67,354 | - |
| University of Michigan | 93.846 | AR069071 (3003716879) | 54,872 | - |
| Dialysis Clinic, Inc | 93.847 | DIALYSIS CL (NEGREA) | 95,872 | - |
| Cleveland Clinic Foundation | 93.847 | DK101500 | 228 | - |
| Emory University | 93.847 | DK087694 (S624243) | 6,483 | - |
| George Washington University | 93.847 | DK (S-GRD1213-EAS) | 767,318 | - |
| George Washington University | 93.847 | DK (S-LIF1314-JB01) | 12,376 | - |

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|--|-------------|---|-------------------------------|-------------------------------------|
| George Washington University | 93.847 | DK061230 | 316,766 | - |
| Georgia Regents University | 93.847 | DK076169 (25730-10) | 14,432 | - |
| Georgia Regents University | 93.847 | DK076169 (25034-47) | 32,022 | - |
| Georgia Regents University | 93.847 | DK076169 (25034-59) | 75,000 | - |
| Georgia Regents University | 93.847 | 25732-55 | 35,284 | - |
| Medical University of South Carolina | 93.847 | DK104833 (MUSC) | 126,174 | - |
| Mount Sinai School of Medicine of the NE | 93.847 | DK096549 (0255-8161-4609) | 57,787 | - |
| Northwestern University | 93.847 | 60031497 | 268,357 | - |
| Rutgers, The State University of New Jersey | 93.847 | DK090593 (UMDNJ) | 5,378 | - |
| Stanford University | 93.847 | 6020764851126-H | 1,580 | - |
| Thermalin Diabetes Incorporated | 93.847 | DK (2R44DK092041-02A1-1) | 152,004 | - |
| Thermalin Diabetes Incorporated | 93.847 | DK103445 | 64,105 | - |
| Thermalin Diabetes Incorporated | 93.847 | DE107121 (Thermalin) | 68,091 | - |
| University of Alabama, Birmingham | 93.847 | DK108438 (000509533-004) | 6,918 | - |
| University of California, San Francisco | 93.847 | DK080123 (7081SC) | 21,191 | - |
| University of Michigan | 93.847 | DK083912 | 39,139 | - |
| University of North Carolina | 93.847 | DK092239 (5-31660) | 20,683 | - |
| University of Pennsylvania | 93.847 | UM1DK100846 | 27,465 | - |
| University of Utah | 93.847 | 10019509-03 | (60,213) | - |
| University of Utah | 93.847 | DK (VUMC 40347) | 103,380 | - |
| Yale University School of Medicine | 93.847 | DK (M13A11503 (A09021)) | (5,774) | - |
| Aeromics | 93.853 | AEROMICS | (14) | - |
| Athersys, Inc. | 93.853 | AYTHERSIS (Silver) | 48,565 | - |
| Brigham and Women Hospital | 93.853 | NS091864 (109446) | 7,925 | - |
| Cincinnati Children's Hospital | 93.853 | NS045911 (107759) | 680 | - |
| Cleveland Clinic Foundation | 93.853 | NS081443 | 3,881 | - |
| Columbia University | 93.853 | NS078059 (GG00632) | 98,956 | - |
| ConservoCare | 93.853 | ConservoCare | (45) | - |
| Drexel University | 93.853 | NS069221 232475-5826 | 23,813 | - |
| Johns Hopkins University | 93.853 | NS062851 (2001049002) | 10,370 | - |
| Johns Hopkins University | 93.853 | NS055089 (2001958471) | 6,319 | - |
| Massachusetts General Hospital | 93.853 | NS095548-01 | 22,070 | - |
| Mayo Clinic Jacksonville | 93.853 | NS080168 (Mayo) | 4,833 | - |
| Northwestern University | 93.853 | 60029363 CWRU | 69,015 | - |
| University of Cincinnati | 93.853 | NS091951-123198 | 16,635 | - |
| University of Kentucky | 93.853 | HS (320000444-16-242) | 127,804 | - |
| University of Minnesota | 93.853 | NS085188 (N003584201) | 196,051 | - |
| University of Pittsburgh | 93.853 | NS 0017392 (122175-2) | 17,053 | - |
| Van Andel Research Institute | 93.853 | NS060729-07 V1858-1 | 278,158 | - |
| Vanderbilt University | 93.853 | 2797-018496 | 53,868 | - |
| Benaroya Research Institute | 93.855 | AI109565 (FY15ITN136) | 7,323 | - |
| Beth Israel Deaconess Medical Center | 93.855 | AI095985 (01027421 CORE E) | 644,155 | - |
| Beth Israel Deaconess Medical Center | 93.855 | AI124377 (01028935) | 5,088 | - |
| Brigham and Women Hospital | 93.855 | AI068636 (110198) | 70,342 | 69,014 |
| Brigham and Women Hospital | 93.855 | AI068636 (110230) | 6,041 | - |

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|--|-------------|---|-------------------------------|-------------------------------------|
| Brigham and Women Hospital | 93.855 | AI068636 (110668) | 4,600 | - |
| Brigham and Women Hospital | 93.855 | AI068636 (110758) | 128,533 | 128,564 |
| Brigham and Women Hospital | 93.855 | AI068636 (111668) | 338,405 | - |
| Brigham and Women Hospital | 93.855 | AI068636 (111857) | 103,478 | 11,056 |
| Brigham and Women Hospital | 93.855 | AI068636 (113091) | 81,215 | - |
| Brigham and Women Hospital | 93.855 | AI106701 (109926) | 386,932 | - |
| Brigham and Women Hospital | 93.855 | AI106701 (109928) | 27,082 | - |
| Children's Hospital of Boston | 93.855 | AI084011 (75940) | 453 | - |
| Children's Hospital of Oakland | 93.855 | AI (12.8216.003) | (4,360) | - |
| Colorado State University | 93.855 | AI115619 (G-16851-1) | 108,216 | - |
| Duke University | 93.855 | AI104681 (203-9707) | 135,152 | - |
| Duke University | 93.855 | AI104681 (203 9894) | 62,584 | - |
| Emory University | 93.855 | AI107960 (T270260) | 214,820 | - |
| Emory University | 93.855 | AI110334 (T310399) | 297,795 | - |
| Fred Hutchinson Cancer Research Ctr | 93.855 | AI068614 (0000750859) | 113 | - |
| Fred Hutchinson Cancer Research Ctr | 93.855 | AI068614 (000819593) | 185,249 | - |
| Fred Hutchinson Cancer Research Ctr | 93.855 | AI068614 (0000841640) | 168,689 | - |
| Grand Valley State University | 93.855 | AI082416 (GVU-207034-01) | 3,309 | - |
| Institute for Clinical Research Inc. | 93.855 | ICR (Salata) | 2,327 | - |
| Johns Hopkins University | 93.855 | AI069918 (2001317194) | 76,864 | - |
| La Jolla Institute for Allergy and Immunology | 93.855 | AI118626 (20025-04-384) | 50,141 | - |
| Magee-Women's Research Institute and Foundation | 93.855 | AI068633 (9329) | 7,623 | - |
| Magee-Women's Research Institute and Foundation | 93.855 | AI068633 (9374) | 20,601 | - |
| Mount Sinai School of Medicine of the NE | 93.855 | AI (0255-1358-4609) | 182,370 | - |
| Mount Sinai School of Medicine of the NE | 93.855 | AI (0255-1611-4609) | 158,939 | - |
| Partners Healthcare System | 93.855 | AI068636 (114868) | 5,418 | - |
| Partners Healthcare System | 93.855 | AI068636 (113237) | 1,360 | - |
| Rutgers, The State University of New Jersey | 93.855 | AI030155 (8095) | 60,180 | - |
| University of North Carolina | 93.855 | AI096113(5-33806) | 4,140 | - |
| St. Jude Children's Research Hospital | 93.855 | 112192019-7633216 | 170,472 | - |
| Stanford University | 93.855 | AI102918 (61017674-117727) | 33,381 | - |
| University of Alabama, Birmingham | 93.855 | 000503356-SP002-SC01 | 223,064 | - |
| University of Alabama, Birmingham | 93.855 | AI (000397076-007) | 421,310 | - |
| University of California, San Francisco | 93.855 | AI096109 (8428SC) | 134,591 | - |
| University of California, San Francisco | 93.855 | AI096109 (8429SC) | 304,868 | - |
| University of California, San Francisco | 93.855 | AI096109 (8628SC) | 25,947 | - |
| University of Cape Town | 93.855 | AI087915 (U of Cape Town) | 321,551 | - |
| University of Florida | 93.855 | AI (UFDSP00011053) | 23,893 | - |
| University of Maryland | 93.855 | AI0277630 (1400231) | 11,524 | - |
| University of Miami | 93.855 | AI073961 (665103) | 5,436 | - |
| University of North Carolina | 93.855 | AI050410 (5-33229) | (1,176) | - |
| University of North Carolina | 93.855 | AI096113 (5-31533) | 227,626 | - |
| University of North Carolina | 93.855 | AI096113 (5100235) | (2,340) | - |
| University of South Florida | 93.855 | AI (6408-1063-00-A) | 233,412 | - |
| University of Southern California | 93.855 | AI104751 (54233861) | 5,579 | - |

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|--|-------------|---|-------------------------------|-------------------------------------|
| University of Southern California | 93.855 | AI101750 (61454407) | 9,165 | - |
| University of Southern California | 93.855 | AI101492 (54267827) | 6,377 | - |
| University of Southern California | 93.855 | AI117211 (72507150) | 15,802 | - |
| University of Washington | 93.855 | AI104920 (759576) | 139,515 | - |
| University of Washington | 93.855 | AI057005 (747348) | 136 | - |
| Vanderbilt University | 93.855 | AI093234 (VUMC 51740) | 87,663 | - |
| ViTi, Inc. | 93.855 | AI091267 (9003_CWRU) | 89,010 | - |
| Cleveland Clinic Foundation | 93.859 | GM050009 (CCLCM) | 22,887 | - |
| CommonWealth Informatics, Inc. | 93.859 | GM112523 | 51,902 | - |
| Mayo Foundation- Rochester | 93.859 | GM061388 (63246114) | (124) | - |
| New York Structural Biology Center | 93.859 | GM (NYSBCG01908-4) | (10,097) | - |
| University of California, Los Angeles | 93.859 | 0145GTA360 (GM115833) | 76,671 | - |
| University of California, San Diego | 93.859 | GM (10313432-001) | (5,280) | - |
| University of Michigan | 93.859 | 3002520016 | 185,807 | - |
| University of Michigan | 93.859 | GM083241 (3002596977) | 15,155 | - |
| University of Mississippi | 93.859 | 66662060716-03 | 106,722 | - |
| University of Pittsburgh | 93.859 | GM082251 0029564 (123550-8) | 391,903 | - |
| University of Pittsburgh | 93.859 | GM (0024510 123320-1) | 83,702 | - |
| University of Texas at Austin | 93.859 | GM111926 (UTA15-000330) | 100,665 | - |
| University of Utah | 93.859 | GM (10027535-14-8S1) | 34,907 | - |
| University of Virginia | 93.859 | GM (GC12257 145836) | 20,153 | - |
| University of Washington | 93.859 | GM110569 (755978) | 166,330 | - |
| Vanderbilt University | 93.859 | GM109145 (VUMC 53101) | 10,561 | - |
| Celsense | 93.865 | HD079116 (CELSENSE) | (11,920) | - |
| Children's National Medical Center | 93.865 | HD (30002425-03) | 113,918 | - |
| Children's National Medical Center | 93.865 | HD (30000744-13-03) | 28,205 | - |
| Children's Research Institute | 93.865 | HD076885 (933813) | 278,617 | - |
| Cincinnati Children's Hospital | 93.865 | HD042729 (106049) | 20,438 | - |
| George Washington University | 93.865 | 21050-37-CCLS29181F | 337,312 | - |
| RTI International | 93.865 | HD036790 (0212456) | 338,280 | - |
| RTI International | 93.865 | HD063036 | 45,512 | - |
| The Ohio State University | 93.865 | 60035809-CWRU | 49,283 | - |
| University of Pittsburgh | 93.865 | HD079647 | 42,570 | - |
| University of Utah | 93.865 | HD082148 (10036366-CASE) | 8,303 | - |
| City of Hope | 93.866 | 23030.914940.6692 | (1,197) | - |
| Duke University | 93.866 | AG034661 (2039364) | 39,112 | - |
| Medical University of South Carolina | 93.866 | AG046543 (MUSC14-074) | 57,880 | - |
| Neogene Bioscience LLC | 93.866 | AG (2013 CHAMBER P1) | 24,627 | - |
| Purdue University | 93.866 | AG047447 (4102-62336) | 16,187 | - |
| ReXceptor Inc | 93.866 | AG048658-(REXCEPTOR) | 21,172 | - |
| RMD, Inc. | 93.866 | AG044234 (C13-19) | 73,777 | - |
| University of California, Los Angeles | 93.866 | AG(1440 G TA931) | 27,675 | - |
| University of California, San Diego | 93.866 | AG010483 (37336810) | 10,593 | - |
| University of California, San Diego | 93.866 | AG010483 (45891447) | 173,285 | - |
| University of California, San Diego | 93.866 | AG024904 (114-ADNI-2) | 24,622 | - |

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|---|-------------|---|-------------------------------|-------------------------------------|
| University of California, San Diego | 93.866 | AG030048 (114CWRU) | 45,468 | - |
| University of California, Santa Barbara | 93.866 | KK1331 | 10,056 | - |
| University of Louisville Health Sciences | 93.866 | AG (ULRF 14-1080S1-01) | 7,439 | - |
| University of Louisville Health Sciences | 93.866 | AG047297 (ULRF 14-1080-01) | 7,968 | - |
| University of Miami | 93.866 | AG032984 (665263) | 62,481 | - |
| University of Michigan | 93.866 | AG045061 | 11,498 | - |
| University of Pennsylvania | 93.866 | AG (568933/10052383/19536) | 13,673 | - |
| University of Pennsylvania | 93.866 | AG047133 (564315) | 154,533 | - |
| University of Southern California | 93.866 | WFUHS 110858 USC | 227 | - |
| Virginia Commonwealth University | 93.866 | PD302561-SC103652 | 98,362 | - |
| Wake Forest University | 93.866 | AG (WFUHS 110918) | 5,000 | - |
| Wake Forest University | 93.866 | WFUHS 110918 Canady | (360) | - |
| Indiana University | 93.867 | EY025383 (IN4684833CWRU) | 8,738 | - |
| Jaeb Center for Health Research | 93.867 | EY014231 (DRCRN 58) | 21,471 | - |
| Jaeb Center for Health Research | 93.867 | EY020791 (JAEB) | 17,323 | - |
| Jaeb Center for Health Research | 93.867 | EY11751 | 1,929 | - |
| Massachusetts Eye and Ear Infirmary | 93.867 | EY020928 (ME&EI) | 110,487 | - |
| University of California, Irvine | 93.867 | EY014362 (2015-3236) | 118,039 | - |
| University of California, Irvine | 93.867 | EY018612 (2015-3237) | 146,311 | - |
| University of California, Irvine | 93.867 | EY024817 (2015-3259) | 181,014 | - |
| University of Miami | 93.867 | EY012118 (661456) | 385,139 | - |
| University of Pennsylvania | 93.867 | EY023164 (560636) | 427,407 | - |
| University of Pennsylvania | 93.879 | LM010098 (567329) | 36,729 | - |
| Office of Adolescent Health, Office of the Secretary | | | | |
| <u>Pass Through Programs</u> | | | | |
| Cuyahoga County Board of Health | 93.297 | CCBH (Trapl) | 81,818 | - |
| 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 | | 60,696 | - |
| <u>Pass Through Programs</u> | | | | |
| Cuyahoga County of Ohio | 93 | Cuyahoga County | 19,453 | - |
| Cuyahoga County of Ohio | 93 | CCC of Common Pleas | 87,033 | - |
| City of Cleveland | 93.243 | 2013-086 | 16,560 | - |
| City of Cleveland | 93.243 | CT0115PS 2015-127 | 79,062 | - |
| City of Cleveland | 93.243 | CT0115PS 2016-127 | 1,620 | - |
| Ohio Department of Mental Health | 93.243 | 99-3095-SSHS-P-15-1453 | 5,696 | - |
| Ohio Department of Mental Health | 93.959 | 99-13509-SSHS-T-16-1453 | 124,557 | - |
| Department of Health & Human Services Subtotal | | | 180,856,998 | 19,969,180 |

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|--|--------|---------------------------------------|-----------------------|-----------------------------|
| Corporation for National and Community Service | | | | |
| <u>Direct Programs</u> | | | | |
| National Service and Civic Engagement Research Competition | 94.026 | | 102,804 | - |
| Corporation for National and Community Service Subtotal | | | 102,804 | - |
| Department of Homeland Security | | | | |
| <u>Direct Programs</u> | | | | |
| Assistance to Firefighters Grant | 97.044 | | 425,433 | 42,426 |
| Department of Homeland Security Subtotal | | | 425,433 | 42,426 |
| Total Research and Development Grants – University Only | | | 215,682,667 | 25,022,778 |
| Research Training – University | | | | |
| Department of Commerce | | | | |
| <u>Direct Programs</u> | | | | |
| Science, Technology, Business and/or Education Outreach | 11.620 | | 8,250 | - |
| Department of Commerce Subtotal | | | 8,250 | - |
| Department of Defense | | | | |
| <u>Direct Programs</u> | | | | |
| Military Medical Research and Development | 12.420 | | 42,106 | - |
| Department of Defense Subtotal | | | 42,106 | - |
| National Aeronautics and Space Administration | | | | |
| <u>Direct Programs</u> | | | | |
| Aerospace Education Services Program | 43.001 | | 3,660 | - |
| Education | 43.008 | | 68,655 | - |
| Cross Agency Support | 43.009 | | 11,870 | - |
| National Aeronautics and Space Administration Subtotal | | | 84,185 | - |
| National Science Foundation | | | | |
| <u>Direct Programs</u> | | | | |
| Education and Human Resources | 47.076 | | 503,997 | - |
| <u>Pass Through Programs</u> | | | | |
| Jackson State University | 47.080 | 633108 | (500) | - |
| National Science Foundation Subtotal | | | 503,497 | - |

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|--|-------------|---|-------------------------------|-------------------------------------|
| Department of Education | | | | |
| <u>Direct Programs</u> | | | | |
| Graduate Assistance in Areas of National Need | 84.200 | | 351,991 | - |
| Special Education - Personnel Development to Improve Services and Results for Children with Disabilities | 84.325 | | 213,746 | - |
| Department of Education Subtotal | | | 565,737 | - |
| Vietnam Education Foundation | | | | |
| <u>Direct Programs</u> | | | | |
| Fellowship Program | 85.802 | | 3,556 | - |
| Vietnam Education Foundation Subtotal | | | 3,556 | - |
| 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 | 15-59 | 109,863 | - |
| Health Resources and Services Administration | | | | |
| <u>Direct Programs</u> | | | | |
| Nurse Anesthetist Traineeships | 93.124 | | 40,721 | - |
| Substance Abuse and Mental Health Services Projects of Regional and National Significance | 93.243 | | 120,332 | - |
| Advanced Nursing Education Grant Program | 93.247 | | (237) | - |
| Nurse Education, Practice Quality and Retention Grants | 93.359 | | (12,132) | - |
| Affordable Care Act (ACA) Advanced Nursing Education Expansion Initiative | 93.513 | | 255,420 | - |
| Grants for Training in Primary Care Medicine and Dentistry | 93.884 | | 1,402,170 | 229 |
| National Institutes of Health | | | | |
| <u>Direct Programs</u> | | | | |
| Oral Diseases & Disorder Research | 93.121 | | 169,366 | - |
| Research Related to Deafness and Communication Disorders | 93.173 | | 32,425 | - |
| Mental Health Research Grants | 93.242 | | 27,264 | - |
| Drug Abuse and Addiction Research Programs | 93.279 | | 9,377 | - |
| Discovery and Applied Research for Technological Innovations to Improve Human Health | 93.286 | | 489,738 | - |
| National Center for Advancing Translational Sciences | 93.350 | | 518,488 | - |
| Nursing Research | 93.361 | | 795,439 | - |
| National Center for Research Resources | 93.389 | | (316) | - |
| Cancer Research Manpower | 93.398 | | 976,606 | 110,276 |
| Cardiovascular Diseases Research | 93.837 | | 646,970 | - |
| Lung Diseases Research | 93.838 | | 66,886 | - |
| Blood Diseases and Resources Research | 93.839 | | 12,521 | - |
| Arthritis, Musculoskeletal and Skin Diseases Research | 93.846 | | 502,167 | - |
| Diabetes, Digestive, and Kidney Diseases Extramural Research | 93.847 | | 335,985 | - |
| Extramural Research Programs in the Neurosciences and Neurological Disorders | 93.853 | | 130,006 | - |
| Allergy and Infectious Diseases Research | 93.855 | | 105,342 | - |
| Biomedical Research and Research Training | 93.859 | | 2,576,253 | 7,731 |

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|--|-------------|---|-------------------------------|-------------------------------------|
| Child Health and Human Development Extramural Research | 93.865 | | 314,685 | - |
| Aging Research | 93.866 | | 183,360 | - |
| Vision Research | 93.867 | | 243,540 | - |
| International Research and Research Training | 93.989 | | 548,642 | 85,475 |
| <u>Pass Through Programs</u> | | | | |
| Makerere University | 93.853 | NS080968 (01-03) | 17,890 | - |
| Cuyahoga Community College | 93.859 | GM049010 (TRI-C) | 4,328 | - |
| Makerere University | 93.989 | TW010132 (02-01) | 16,917 | - |
| Substance Abuse and Mental Health Services Administration | | | | |
| <u>Direct Programs</u> | | | | |
| Block Grants for Community Mental Health Services | 93.958 | | 311,416 | - |
| Block Grants for Prevention and Treatment of Substance Abuse | 93.959 | | 19,781 | - |
| <u>Pass Through Programs</u> | | | | |
| University of Maryland | 93 | Task #9 | 20,561 | - |
| Ohio Department of Mental Health | 93.243 | '99-3095-SPEMP-T-15 | 848 | - |
| Ohio Department of Mental Health | 93.243 | 99-3095-SPEMP-T-16-161101 | 85,103 | - |
| Ohio Department of Mental Health | 93.243 | 99-13509-Engage-P-1616029 | 258,563 | - |
| Ohio Department of Mental Health | 93.958 | 99-3095-BESTPRACT-T | 19,202 | - |
| Ohio Department of Mental Health | 93.958 | 99-3095-BESTPRACT-T16-1543 | 520,101 | - |
| Ohio Department of Mental Health | 93.958 | 99-3095-FCSPPT-P-15 | 1,330 | - |
| Ohio Department of Mental Health | 93.958 | 99-3095-BESTPRACT-T-161527 | 272,194 | - |
| Ohio Department of Mental Health and Addiction Services | 93.959 | 99-3095-SAMI-T-15-03 | (6,644) | - |
| Department of Health & Human Services Subtotal | | | 12,142,471 | 203,711 |
| Total Research Training Grants – University Only | | | 13,349,802 | 203,711 |
| Total Research and Development Cluster – University Only | | | 229,032,469 | 25,226,489 |

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|--|-------------|---|-------------------------------|-------------------------------------|
| Research and Development Cluster – Cleveland Clinic Lerner College of Medicine (See Note A) | | | | |
| Department of Health & Human Services | | | | |
| Health Services Research Administration | | | | |
| <u>Direct Programs</u> | | | | |
| Geriatric Academic Career Awards | 93.250 | | 12,418 | - |
| National Institutes of Health | | | | |
| <u>Direct Programs</u> | | | | |
| Research and Development | 93 | | 107,044 | 83,875 |
| Family Smoking Prevention and Tobacco Control Act Regulatory Research | 93.077 | | 54,071 | - |
| Oral Diseases and Disorders Research | 93.121 | | 988 | - |
| Human Genome Research | 93.172 | | 211,450 | - |
| Research Related to Deafness and Communication Disorders | 93.173 | | (1) | - |
| National Center on Sleep Disorders Research | 93.233 | | 667,250 | - |
| Mental Health Research Grants | 93.242 | | 792,699 | - |
| Alcohol Research Programs | 93.273 | | 4,193,903 | 747,994 |
| Discovery and Applied Research for Technological Innovations to Improve Human Health | 93.286 | | 284,845 | 27,396 |
| Trans-NIH Research Support | 93.310 | | 230,742 | - |
| Research Infrastructure Programs | 93.351 | | 1,672,313 | - |
| National Center for Research Resources | 93.389 | | 84,368 | - |
| Cancer Cause & Prevention Research | 93.393 | | 1,691,472 | 258,352 |
| Cancer Detection and Diagnosis Research | 93.394 | | 653,236 | 88,469 |
| Cancer Treatment Research | 93.395 | | 3,190,101 | 103,310 |
| Cancer Biology Research | 93.396 | | 5,577,377 | 418,696 |
| Cancer Research Manpower | 93.398 | | 748,413 | - |
| Cardiovascular Diseases Research | 93.837 | | 17,834,417 | 1,597,099 |
| Lung Diseases Research | 93.838 | | 7,113,392 | 245,065 |
| Blood Diseases & Resources Research | 93.839 | | 5,396,654 | 48,085 |
| Arthritis, Musculoskeletal, & Skin Diseases Research | 93.846 | | 3,063,070 | 194,409 |
| Diabetes, Digestive, and Kidney Diseases Extramural Research | 93.847 | | 7,255,044 | 913,227 |
| Extramural Research Programs in the Neurosciences and Neurological Disorders | 93.853 | | 12,436,561 | 4,410,312 |
| Allergy, Immunology and Transplantation Research | 93.855 | | 3,459,565 | 67,246 |
| Biomedical Research and Research Training | 93.859 | | 3,631,120 | 255,397 |
| Child Health and Human Development Extramural Research | 93.865 | | 1,275,024 | 33,051 |
| Aging Research | 93.866 | | 1,852,615 | 28,128 |
| Vision Research | 93.867 | | 2,970,321 | - |
| <u>Pass Through Programs</u> | | | | |
| Childrens Hospital of Philadelphia | 93 | HHSN261200800001E | 10,538 | - |
| Emmes Corporation | 93 | HHSN268201400002I | 20,042 | - |
| Radiological Society North America | 93 | HHSN268201300071C | 6,398 | - |
| Radiological Society North America | 93 | HHSN268201500021C | 19,952 | - |
| University of Florida | 93 | HHSN272201000043C | 668 | - |
| University of Michigan | 93 | HHSN268201100026C | 15,902 | - |
| Massachusetts General Hospital | 93.213 | U01AT000613 | (9,742) | - |
| FHC, Inc. | 93.242 | R34MH107037 | 34,433 | - |
| Flocel, Inc. | 93.242 | R42MH093302 | 59,856 | - |

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 |
|--|-------------|---|-------------------------------|-------------------------------------|
| Vanderbilt University | 93.242 | R01MH095621 | 159,448 | - |
| Applied Nanotech | 93.273 | R43AA022854 | 56,037 | - |
| Massachusetts General Hospital | 93.286 | R01EB009048 | 56,687 | - |
| Mayo Clinic | 93.286 | R01EB018965 | 5,515 | - |
| Vanderbilt University | 93.350 | UH2TR000491 | 81,207 | - |
| Cornell University | 93.389 | R01CA184712 | 25,933 | - |
| Fred Hutchinson Center | 93.393 | R01CA18953 | 2,967 | - |
| Sloan-Kettering Cancer Research | 93.393 | R01CA179115 | 8,181 | - |
| Stanford University | 93.393 | UM1CA167551 | 43,901 | - |
| University Of North Carolina Chapel Hill | 93.393 | R01CA098286 | 87,538 | - |
| University of Southern California | 93.393 | R01CA074799 | (99) | - |
| Advance Cell Diagnostics | 93.394 | R44CA168019 | 211,275 | - |
| Advance Cell Diagnostics | 93.394 | R43CA192728 | 29,970 | - |
| Cernostics, Inc. | 93.394 | 1R44CA192416 | 29,058 | - |
| Cornell University | 93.394 | R01CA184712 | 11,299 | - |
| Harvard University | 93.394 | R01CA151532 | (1,412) | - |
| Oncoscope, Inc. | 93.394 | R44CA128163 | (614) | - |
| Rice University | 93.394 | R01CA186132 | 8,747 | - |
| The Ohio State University | 93.394 | UM1CA183713 | 28,306 | - |
| University of California, San Francisco | 93.394 | R01CA158200 | (15,965) | - |
| University of Texas | 93.394 | U01CA086402 | 39,273 | - |
| Brigham and Women's Hospital | 93.395 | U10CA076001 | 9,248 | - |
| Children's Hospital of Philadelphia | 93.395 | U10CA180886 | 2,366 | - |
| Children's Hospital of Philadelphia | 93.395 | UG1CA189955 | 4,195 | - |
| Children's Oncology Group | 93.395 | U10CA095861 | 4,861 | - |
| Fred Hutchinson Center | 93.395 | R01CA118953 | 10,551 | - |
| Fred Hutchinson Center | 93.395 | 5U01CA154967 | 217,108 | - |
| Fred Hutchinson Center | 93.395 | R01CA160684 | 1,122 | - |
| Gynecological Oncology Group | 93.395 | U10CA027469 | 19,697 | - |
| Johns Hopkins University | 93.395 | U01CA137443 | 316,777 | - |
| Massachusetts General Hospital | 93.395 | P01CA084203 | 110,677 | - |
| Mount Sinai School Of Medicine | 93.395 | P01CA108671 | 2,473 | - |
| NRG Oncology Foundation, Inc. | 93.395 | U10CA180868 | 6,999 | - |
| Sloan-Kettering Cancer Research | 93.395 | R01CA182551 | 58,394 | - |
| Southwestern Oncology Group | 93.395 | U01CA027057 | 27,313 | - |
| Southwestern Oncology Group | 93.395 | U10CA32102 | (2,221) | - |
| The Ohio State University | 93.395 | U01CA044971 | (40,436) | - |
| University of Michigan | 93.395 | CA032102 | 5,346 | - |
| The Ohio State University | 93.396 | R01CA143082 | 9,116 | - |
| The Ohio State University | 93.396 | P01CA124570 | 361,084 | - |
| University of Minnesota | 93.396 | R01CA172986 | 105,467 | - |
| Sarcoma Alliance for Research | 93.397 | U54CA168512 | 18,986 | - |
| Elucid Bioimaging | 93.399 | R44HL126224 | 3,254 | - |
| National Surgical Adjuvant Breast and Bowel Project | 93.399 | R01CA037377 | 1,401 | - |
| Children's Hospital of Philadelphia | 93.701 | U10CA098543 | (758) | - |

CASE WESTERN RESERVE UNIVERSITY
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For the year ended June 30, 2016

| FEDERAL GRANTOR/PASS-THROUGH GRANTOR PROGRAM or CLUSTER TITLE | CFDA | Pass-Through Entity Sponsor Number | Total Expenditures | Passed to Sub-Recipients |
|--|-------------|---|-------------------------------|-------------------------------------|
| Bringham & Women's Hospital | 93.837 | P50HL112349 | 101,581 | - |
| Bringham & Women's Hospital | 93.837 | R01HL034594 | 75,691 | - |
| Bringham & Women's Hospital | 93.837 | U01HL101422 | 4,388 | - |
| Cornell University | 93.837 | R01HL111141 | 4,164 | - |
| Duke University | 93.837 | R01HL105448 | 26,431 | - |
| Duke University | 93.837 | U01HL084904 | 30,090 | - |
| Icon Clinical | 93.837 | U01HL117006 | 72,248 | - |
| Mount Sinai School Of Medicine | 93.837 | U01HL088942 | 237,691 | - |
| New England Research Institute | 93.837 | U01HL107407 | 29,847 | - |
| Perfusion Solutions, Inc. | 93.837 | R43HL126236 | 10,500 | - |
| Perfusion Solutions, Inc. | 93.837 | R43HL115868 | 26,276 | - |
| The Ohio State University | 93.837 | R34HL123586 | 49,970 | - |
| The Ohio State University | 93.837 | R01HL128857 | 32,407 | - |
| University of Colorado | 93.837 | R24HL123767 | 296,637 | - |
| University Of Pennsylvania | 93.837 | R01HL115041 | 16,510 | - |
| University Of Pennsylvania | 93.837 | R01HL118018 | 105,772 | - |
| University of Texas | 93.837 | UM1HL087318 | 12,961 | - |
| University of Virginia | 93.837 | U01HL117006 | 20,334 | - |
| Virginia Commonwealth University | 93.837 | 1UM1HL116885 | 47,440 | - |
| Baystate Medical Center | 93.838 | R18HL108810 | 16,603 | - |
| Fred Hutchinson Center | 93.838 | U01HL102547 | 52,718 | - |
| Massachusetts General Hospital | 93.838 | U01HL123009 | 32,270 | - |
| National Jewish Health | 93.838 | R01HL114587 | 55,140 | - |
| Pennsylvania State University | 93.838 | U10HL109086 | 83,853 | - |
| University Of Alabama At Birmingham | 93.838 | R01HL085324 | 79,305 | - |
| University Of Pennsylvania | 93.838 | R01HL113988 | (1,804) | - |
| University Of Washington At St. Louis | 93.838 | R01HL056643 | 101 | - |
| Vanderbilt University | 93.838 | R01HL117074 | 53,809 | - |
| Virginia Commonwealth University | 93.838 | 1UM1HL116885 | 29,247 | - |
| Cincinnati Children's Hospital | 93.839 | R01HL114582 | 8,461 | - |
| University of Michigan | 93.839 | U01HL117658 | 447,424 | - |
| University Of Washington At St. Louis | 93.839 | U01HL088476 | 211 | - |
| Brigham & Women's Hospital | 93.846 | R01AR055557 | 7,290 | - |
| Brigham & Women's Hospital | 93.846 | U01AR068043 | 1,179 | - |
| Brigham & Women's Hospital | 93.846 | U34AR067426 | 1,984 | - |
| Hospital for Special Surgery | 93.846 | R01AR064840 | (5,229) | - |
| University Of Alabama At Birmingham | 93.846 | R21AR062300 | 2,817 | - |
| University Of Alabama At Birmingham | 93.846 | UM1AR065705 | 138 | - |
| University Of Pennsylvania | 93.846 | R01AR064153 | 3,371 | - |
| University Of Pennsylvania | 93.846 | U54AR057319 | 115,816 | - |
| Vanderbilt University | 93.846 | R01AR053684 | 3,736 | - |
| Baylor College of Medicine | 93.847 | R01DK101500 | 722 | - |
| Beth Israel Deconess Medical Center | 93.847 | R01DK085185 | 12,802 | - |
| Children's Mercy Hospital and Clinic | 93.847 | U01DK066143 | 13,522 | - |
| East Tennessee State University | 93.847 | R01DK102020 | 9,281 | - |

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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 |
|--|-------------|---|-------------------------------|-------------------------------------|
| Harvard University | 93.847 | R01DK100383 | 68,203 | - |
| Johns Hopkins University | 93.847 | R01DK097087 | 32,934 | - |
| Kaiser Permanente | 93.847 | R01DK076165 | 4,257 | - |
| Mayo Clinic | 93.847 | R01DK090358 | 19,975 | - |
| Mayo Clinic | 93.847 | U01DK062410 | 3,125 | - |
| Nationwide Children's Hospital Research Center | 93.847 | R01DK106286 | 40,552 | - |
| New England Medical Center - Tufts | 93.847 | DK098245 | 273,330 | - |
| Northwestern University | 93.847 | R01DK102438 | 14,797 | - |
| Sloan-Kettering Cancer Research | 93.847 | DK097087 | 150,092 | - |
| University Of Utah | 93.847 | R01DK088777 | 10,186 | - |
| University Of Utah | 93.847 | R01DK090046 | 39,990 | - |
| Wake Forest University | 93.847 | R56DK100669 | 13,108 | - |
| Beth Israel Deconess | 93.853 | U01NS074425 | (10,239) | - |
| Children's Hospital Boston | 93.853 | U54NS092090 | 207,299 | - |
| Cleveland Medical Devices | 93.853 | R43NS082109 | 37,241 | - |
| Columbia University | 93.853 | R01NS078059 | 948 | - |
| Cornell University | 93.853 | UH3NS095554 | 10,177 | - |
| Emmes Corporation | 93.853 | 1U01NS026835 | 22,541 | - |
| Great Lakes Neuro Technologies | 93.853 | R43NS076052 | (5,816) | - |
| Great Lakes Neuro Technologies | 93.853 | R44NS065554 | 4,711 | - |
| Iron Horse Diagnostics Inc. | 93.853 | R42NS083227 | 83,111 | - |
| Massachusetts General Hospital | 93.853 | U01NS090259 | 132,244 | - |
| Mayo Clinic Jacksonville | 93.853 | U01NS080168 | 8,158 | - |
| Medical College of Wisconsin | 93.853 | R01NS035929 | 89,916 | - |
| Neurodx Development LLC | 93.853 | R44NS067772 | (116) | - |
| Northwestern University | 93.853 | U01NS080818 | 26,259 | - |
| Rutgers University, Brunswick | 93.853 | R01NS038384 | 3,174 | - |
| The Ohio State University | 93.853 | R01NS083767 | 31,112 | - |
| University Of California At L A | 93.853 | R01NS074980 | 41,988 | - |
| University Of California At San Francisco | 93.853 | R01NS053998 | 780 | - |
| University Of California At San Francisco | 93.853 | R01NS071463 | 4,478 | - |
| University Of Iowa | 93.853 | R01NS077946 | 262 | - |
| University of North Texas | 93.853 | R01NS048837 | 95,992 | - |
| Wayne State University | 93.853 | U01NS061264 | 4,059 | - |
| Yale University | 93.853 | U01NS044876 | 2,127 | - |
| Brigham & Women's Hospital | 93.855 | U01AI063623 | 28,440 | - |
| Duke University | 93.855 | SUM1AI104681 | 76,167 | - |
| Duke University | 93.855 | AI056363 | 19,711 | - |
| Duke University | 93.855 | U01AI113315 | 177,718 | - |
| Johns Hopkins University | 93.855 | U01AI109657 | 3,861 | - |
| Mount Sinai School Of Medicine | 93.855 | U01AI063594 | 579,440 | - |
| National Jewish Health | 93.855 | U01AI097073 | 1,667 | - |
| Northwestern University | 93.855 | U01AL084146 | 7,389 | - |
| University of California, San Francisco | 93.855 | U01AI113362 | 48,628 | - |
| University of Pennsylvania | 93.855 | R21AI114920 | 34,221 | - |

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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 | R01AI104887 | 356,295 | - |
| Research Triangle International | 93.865 | U01HD069031 | 76,366 | - |
| Sportsguard Laboratories | 93.865 | R41HD079158 | 34,681 | - |
| University of Kansas | 93.865 | R01HD069043 | 49,786 | - |
| University Of South Florida | 93.865 | U01DK061055 | 707 | - |
| Diapedia LLC. | 93.866 | R44AG041001 | 260 | - |
| Mount Sinai School Of Medicine | 93.866 | R01AG029656 | 459 | - |
| New England Medical Center - Tufts | 93.866 | R01AG027002 | 18,858 | - |
| Northwestern University | 93.866 | R01AG047416 | 16,082 | - |
| University of California, San Diego | 93.866 | U19AG010483 | 10,246 | - |
| Duke University | 93.867 | R01EY023039 | 276,915 | - |
| Emory University | 93.867 | EY025553 | 5,063 | - |
| H-Cubed Inc. | 93.867 | R43EY025463 | 20,405 | - |
| Jaeb Center Health Research | 93.867 | U10EY011751 | 18,793 | - |
| Thomas Jefferson University | 93.867 | R01EY012042 | 106,073 | - |
| University of Pennsylvania | 93.867 | U10EY023530 | 60,885 | - |
| Department of Health & Human Services Subtotal | | | 94,454,567 | 9,520,111 |
| Total Research and Development Cluster – Cleveland Clinic Lerner College of Medicine | | | 94,454,567 | 9,520,111 |
| Total Research and Development Cluster | | | 323,487,036 | 34,746,600 |
| Hurricane Sandy Relief Cluster – Cleveland Clinic Lerner College of Medicine | | | | |
| Department of Health & Human Services | | | | |
| <u>Direct Programs</u> | | | | |
| HHS Programs for Disaster Relief Appropriations Act - Non Construction | 93.095 | | 296,636 | 296,636 |
| Total Department of Health & Human Services – Hurricane Sandy Relief Cluster – Cleveland Clinic Lerner College of Medicine | | | 296,636 | 296,636 |
| Highway Planning & Construction Cluster | | | | |
| Department of Justice | | | | |
| <u>Pass Through Programs</u> | | | | |
| Ohio Department of Transportation | 20.205 | 24950 | 23,236 | - |
| Ohio Department of Transportation | 20.205 | 26906 | 88,721 | - |
| Total Department of Justice – Highway Planning & Construction Cluster | | | 111,957 | - |
| 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 | 134709/G-1415-07-0060; ODM201436 | (13,769) | - |
| Children's Hospital Medical Center | 93.778 | 137310/G-1617-05-0003; ODM201636 | 134,474 | - |

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 |
|---|-------------|---|-------------------------------|-------------------------------------|
| Children's Hospital Medical Center | 93.778 | 137153/G-1617-05-0003; ODM201604 | 35,517 | - |
| Northeast Ohio Medical University | 93.778 | G-1617-05-0003 (NEOMED) | 46,947 | - |
| The Ohio State University | 93.778 | 60036810/G-1213-07-0343; Task Order OHP201209 | 17,861 | - |
| The Ohio State University | 93.778 | 60046085/G-1415-07-0060; OMD201409 | 59,391 | - |
| The Ohio State University | 93.778 | 60051005/G-1617-05-003; OMD201609 | 2,674,818 | 58,038 |
| The Ohio State University | 93.778 | 60051403/DOH010000040766; CSP9027151 | 4,397 | - |
| The Ohio State University | 93.778 | 60054868/G-1617-05-0295; ODM201650 | 2,431 | - |
| The Ohio State University | 93.778 | 60054208/G-1617-05-0295; Task Order ODM201650 | 177,042 | - |
| The Ohio State University | 93.778 | MEDTAPP CHW | 16,217 | - |
| The Ohio State University | 93.778 | MEDTAPP BH | 49,831 | - |
| The Ohio State University | 93.778 | G-1213-07-0343 | 3,480 | - |
| Total Department of Health & Human Services – Medicaid Cluster | | | 3,208,637 | 58,038 |
| SNAP Cluster | | | | |
| Department of Agriculture | | | | |
| <u>Pass Through Programs</u> | | | | |
| The Ohio State University | 10.561 | 20H430128 (60047119) | 84,104 | - |
| Total Department of Agriculture – SNAP Cluster | | | 84,104 | - |
| Other Federal Assistance | | | | |
| Department of State | | | | |
| <u>Pass Through Programs</u> | | | | |
| Institute of International Education, Inc. | 19.401 | 3069-CWRU-4-1-16 | 3,080 | - |
| Institute of International Education, Inc. | 19.432 | S-ECAGD-15-CA-1101 | 50,199 | - |
| Department of State Subtotal | | | 53,279 | - |
| National Endowment for the Humanities | | | | |
| <u>Direct Programs</u> | | | | |
| Promotion of the Humanities - Fellowships and Stipends | 45.160 | | 20,999 | - |
| Promotion of the Humanities - Public Programs | 45.164 | | 119,584 | - |
| National Endowment for the Humanities Subtotal | | | 140,583 | - |
| Department of Health & Human Services | | | | |
| Maternal and Child Health Services | | | | |
| <u>Pass Through Programs</u> | | | | |
| Ohio Department of Health | 93.994 | B04MC21400-01-04 | (1) | - |

CASE WESTERN RESERVE UNIVERSITY
Schedule of Expenditures of Federal Awards
For the year ended June 30, 2016

| FEDERAL GRANTOR/PASS-THROUGH GRANTOR PROGRAM or CLUSTER TITLE | CFDA | Pass-Through Entity Sponsor Number | Total Expenditures | Passed to Sub-Recipients |
|--|--------|---------------------------------------|-----------------------|-----------------------------|
| National Institutes of Health | | | | |
| <u>Pass Through Programs</u> | | | | |
| Great Lakes Science Center | 93.389 | GLSC (MACLEISH) | 54,616 | - |
| University of Mississippi | 93.859 | 66662060715-02 | 11,485 | - |
| Substance Abuse and Mental Health Services Administration | | | | |
| <u>Pass Through Programs</u> | | | | |
| Ohio Department of Mental Health | 93.150 | 99-3095-ENGAGE-C-15-1552 | 1 | - |
| Department of Health & Human Services Subtotal | | | 66,101 | - |
| Total Other Federal Assistance | | | 259,963 | - |
| TRIO Cluster | | | | |
| Department of Education | | | | |
| <u>Direct Programs</u> | | | | |
| TRIO Upward Bound | 84.047 | | 464,391 | - |
| Special Education - Personnel Development to Improve Services and Results for Children with Disabilities | 84.325 | | 7,067 | - |
| Total Department of Education – TRIO Cluster | | | 471,458 | - |
| 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 | | 1,469,105 | - |
| Federal Perkins Loan | | | | |
| Outstanding loans as of July 1, 2015 | 84.038 | | 11,941,917 | - |
| New loans issued during 2016 | 84.038 | | 3,406,812 | - |
| Federal Pell Grant Program | 84.063 | | 3,491,912 | - |
| Federal Direct Student Loans | 84.248 | | 115,465,635 | - |
| Nursing Student Loans | | | | |
| Outstanding loans as of July 1, 2015 | 93.364 | | 265,992 | - |
| New loans issued during 2016 | 93.364 | | 23,500 | - |
| Health Professions Student Loans, Including Primary Care Loans | | | | |
| Outstanding loans as of July 1, 2015 | 93.342 | | 1,906,523 | - |
| New loans issued during 2016 | 93.342 | | 192,000 | - |
| Loans for Disadvantaged Students | | | | |
| Outstanding loans as of July 1, 2015 | 93.342 | | 10,695 | - |
| Total Department of Education – SFA Cluster | | | 139,237,665 | - |
| TOTAL EXPENDITURES OF FEDERAL AWARDS | | | \$ 467,157,456 | \$ 35,101,274 |

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, 2016. 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 March 8, 2016, the final rate effective for the period July 1, 2015 to June 30, 2016 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%. Provisional rates have been established for fiscal year 2017 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, 2016 consists of:

| Title | CFDA Number | Amount Outstanding at June 30, 2016 |
|--|----------------|--|
| Perkins Loan Program | 84.038 | \$ 12,861,710 |
| Nursing Student Loan Program | 93.364 | 220,952 |
| Health Professions Student Loans, Including Primary Care Loans | 93.342 | 1,788,067 |
| Loan for Disadvantaged Students | 93.342 | 8,522 |
| Total loan balances outstanding | | <u>\$ 14,879,251</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 statements of financial position as of June 30, 2016, 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 8, 2016.

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 University's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the University's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

PricewaterhouseCoopers LLP

October 8, 2016



**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 Case Western Reserve University's major federal programs for the year ended June 30, 2016. The University's major federal programs are identified in the summary of auditor's results section of the accompanying schedule of findings and questioned costs.

Management's Responsibility

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

Auditors' Responsibility

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

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

Opinion on Each Major Federal Program

In our opinion, Case Western Reserve 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, 2016.

Report on Internal Control Over Compliance

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

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

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

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

PricewaterhouseCoopers LLP

March 30, 2017

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 | _____ <u>X</u> No |
| ◆ Significant deficiency(ies) identified that are not considered to be material weakness(es)? | _____ Yes | _____ <u>X</u> None reported |
| ◆ Noncompliance material to financial statements noted? | _____ Yes | _____ <u>X</u> No |

FEDERAL AWARDS

Internal control over major programs:

- | | | |
|---|-----------|------------------------------|
| ◆ Material weakness(es) identified? | _____ Yes | _____ <u>X</u> No |
| ◆ Significant deficiency(ies) identified that are not considered to be material weakness(es)? | _____ Yes | _____ <u>X</u> 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 _____ X No

IDENTIFICATION OF MAJOR PROGRAMS

| <u>CFDA Number(s)</u> | <u>Name of Federal Program or Cluster</u> |
|--|---|
| Various | Research and Development Cluster |
| Dollar threshold used to distinguish between Type A and Type B programs: | \$3,000,000 |
| Auditee qualified as low-risk auditee? | _____ <u>X</u> Yes _____ No |

SECTION II – FINANCIAL STATEMENT FINDINGS

No findings to be reported.

SECTION III – FEDERAL AWARD FINDINGS AND QUESTIONED COSTS

No findings to be reported.

SUMMARY OF STATUS OF FINDINGS FROM PRIOR AUDITS

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