

UNIVERSITY OF PITTSBURGH – OF THE COMMONWEALTH SYSTEM OF HIGHER EDUCATION

Consolidated Financial Statements and Independent Auditors' Reports Required by Title 2 U.S. Code of Federal Regulations Part 200, *Uniform Administrative Requirements*, *Cost Principles, and Audit Requirements for Federal Awards*, and Related Information

Year ended June 30, 2016

UNIVERSITY OF PITTSBURGH – OF THE COMMONWEALTH SYSTEM OF HIGHER EDUCATION

June 30, 2016

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UNIVERSITY OF PITTSBURGH



FINANCIAL REPORT
FISCAL YEAR 2016



KPMG LLP 1601 Market Street Philadelphia, PA 19103-2499

Independent Auditors' Report

The Board of Trustees of the University of Pittsburgh – Of the Commonwealth System of Higher Education:

Report on the Financial Statements

We have audited the accompanying consolidated financial statements of the University of Pittsburgh – Of the Commonwealth System of Higher Education (the University), which comprise the consolidated balance sheets as of June 30, 2016 and 2015, and the related consolidated statements of activities and cash flows for the years then ended, and the related notes to the consolidated financial statements.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with U.S. generally accepted accounting principles; 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 these consolidated financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditors' 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, the auditor considers internal control relevant to the entity'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 entity'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 financial position of the University of Pittsburgh – Of the Commonwealth System of Higher Education as of June 30, 2016 and 2015, and the changes in its net assets and its cash flows for the years then ended in accordance with U.S. generally accepted accounting principles.



University of Pittsburgh – Of the Commonwealth System of Higher Education September 22, 2016 Page 2 of 2

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated September 22, 2016 on our consideration of the University's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the University's internal control over financial reporting and compliance.



Pittsburgh, Pennsylvania September 22, 2016 UNIVERSITY OF PITTSBURGH CONSOLIDATED BALANCE SHEETS JUNE 30, 2016 AND 2015 (in thousands of dollars)

	2016	2015	
ASSETS:		_	
Cash and cash equivalents (Notes 1 and 5)	\$ 6,400	\$ 49,582	
Operating investments (Notes 4 and 5)	558,801	569,806	
Inventories and deferred charges	20,984	20,546	
Accounts and notes receivable, net (Note 2)	188,277	143,498	
Contributions receivable, net (Note 3)	31,935	34,545	
Student loans receivable, net	47,611	45,852	
Deposits of bond proceeds (Notes 1 and 5)	6,598	19,291	
Foundation assets (Note 1)	26,351	26,419	
Endowment investments (Notes 4 and 5)	3,546,458	3,610,395	
Endowed funds held by third parties (Note 5)	22,079	23,140	
Property, plant, and equipment, net (Note 6)	1,774,065	1,785,749	
TOTAL ASSETS	\$ 6,229,559	\$ 6,328,823	
LIABILITIES:			
Accounts payable and accrued expenses	\$ 95,212	\$ 98,125	
Accrued payroll and related liabilities	74,796	72,507	
Deferred student and other revenue	50,801	45,252	
Advanced receipt of grant funds	62,689	60,596	
Refundable U.S. government student loans	33,897	33,647	
Other liabilities (Notes 5 and 8)	148,811	116,071	
Pension and postretirement obligations (Note 9)	589,385	479,334	
Conditional asset remediation obligation (Note 6)	37,346	41,219	
Bonds and notes payable (Note 7)	948,949	981,632	
TOTAL LIABILITIES	2,041,886	1,928,383	
NET ASSETS:			
Unrestricted (Notes 1 and 10)	2,764,269	2,911,882	
Temporarily restricted (Notes 1 and 10)	714,738	804,388	
Permanently restricted (Notes 1 and 10)	708,666	684,170	
TOTAL NET ASSETS	4,187,673	4,400,440	
TOTAL LIABILITIES AND NET ASSETS	\$ 6,229,559	\$ 6,328,823	

UNIVERSITY OF PITTSBURGH
CONSOLIDATED STATEMENT OF ACTIVITIES
FOR THE YEAR ENDED JUNE 30, 2016
COMPARED TO SUMMARY INFORMATION FOR THE YEAR ENDED JUNE 30, 2015
(in thousands of dollars)

		Temporarily	Permanently	•	
OPERATING REVENUES:	Unrestricted	Restricted	Restricted	Total	2015
Tuition and fees	\$ 764,499	\$ -	\$ -	\$ 764,499	\$ 751,766
Tuition discounts	(176,412)	-	-	(176,412)	(171,133)
Net tuition and fees	588,087	-	-	588,087	580,633
Commonwealth appropriation	154,335	-	-	154,335	147,392
Commonwealth construction grants	21,289	-	-	21,289	37,513
Grants and contracts	726,531	-	-	726,531	713,892
Contributions for operations	35,158	18,853	-	54,011	45,057
Investment income – operating investments	6,080	-	-	6,080	5,401
Endowment distributions for operations	118,245	-	-	118,245	101,886
Sales and services, educational and other	186,864	-	-	186,864	185,224
Sales and services, auxiliary	150,533	-	-	150,533	146,789
Rental revenue	18,351	-	-	18,351	18,212
Other	82,463	-	-	82,463	78,916
Net assets released from restrictions	13,753	(13,753)	-	-	-
Total operating revenues	2,101,689	5,100	-	2,106,789	2,060,915
OPERATING EXPENSES:					
Salaries and wages	906,494	_	_	906,494	883,682
Fringe benefits	273,652	_	_	273,652	268,999
Total compensation	1,180,146	_		1,180,146	1,152,681
Supplies	108,607	_	_	108,607	107,841
Business and professional	354,292	_	_	354,292	336,643
Utilities Utilities	46,658	_	_	46,658	48,974
Maintenance and facilities	48,678	_	_	48,678	46,410
Depreciation Depreciation	175,135	_	_	175,135	168,539
Interest	42,212	_	_	42,212	43,124
Other	46,665	_	_	46,665	56,493
Total operating expenses (Note 11)	2,002,393	-	-	2,002,393	1,960,705
Change in not assets from anaroting activities	99,296	5,100		104,396	100,210
Change in net assets from operating activities	99,290	3,100		104,390	100,210
OTHER ACTIVITIES:					
Investment (losses) gains, net of endowment					
distributions for operations	(115,864)	(94,750)	2,373	(208,241)	(75,156)
Contributions for endowment	-	-	22,123	22,123	33,902
Change in fair value of interest rate swaps	(34,522)	-	-	(34,522)	(7,315)
Nonperiodic changes in benefit plans (Note 9)	(96,523)	-	-	(96,523)	(24,540)
Total other activities	(246,909)	(94,750)	24,496	(317,163)	(73,109)
CHANGE IN NET ASSETS	(147,613)	(89,650)	24,496	(212,767)	27,101
NET ASSETS, BEGINNING OF YEAR	2,911,882	804,388	684,170	4,400,440	4,373,339
NET ASSETS, END OF YEAR	\$ 2,764,269	\$ 714,738	\$ 708,666	\$ 4,187,673	\$ 4,400,440
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UNIVERSITY OF PITTSBURGH CONSOLIDATED STATEMENT OF ACTIVITIES FOR THE YEAR ENDED JUNE 30, 2015 (in thousands of dollars)

	2015							
·			Те	emporarily	Pe	rmanently		
OPERATING REVENUES:	Uı	nrestricted	F	Restricted	R	Restricted		Total
Tuition and fees	\$	751,766	\$	_	\$	_	\$	751,766
Tuition discounts	_	(171,133)	_	_	_	_	_	(171,133)
Net tuition and fees		580,633		_		_		580,633
Commonwealth appropriation		147,392		_		_		147,392
Commonwealth construction grants		37,513		_		_		37,513
Grants and contracts		713,892		_		_		713,892
Contributions for operations		33,537		11,520		_		45,057
Investment income – operating investments		5,401				_		5,401
Endowment distributions for operations		101,886		_		_		101,886
Sales and services, educational and other		185,224		_		_		185,224
Sales and services, auxiliary		146,789		_		_		146,789
Rental revenue		18,212		_		_		18,212
Other		78,916		_		_		78,916
Net assets released from restrictions		12,521		(12,521)		_		-
Total operating revenues		2,061,916		(1,001)		-		2,060,915
-								
OPERATING EXPENSES:								
Salaries and wages		883,682		-		-		883,682
Fringe benefits		268,999		=		-		268,999
Total compensation		1,152,681		-		-		1,152,681
Supplies		107,841		-		-		107,841
Business and professional		336,643		-		-		336,643
Utilities		48,974		-		-		48,974
Maintenance and facilities		46,410		-		-		46,410
Depreciation		168,539		-		-		168,539
Interest		43,124		-		-		43,124
Other		56,493		_		-		56,493
Total operating expenses (Note 11)		1,960,705		-		-		1,960,705
Change in net assets from operating activities		101,211		(1,001)		-		100,210
OTHER ACTIVITIES:								
Investment (losses) gains, net of endowment								
distributions for operations		(34,030)		(43,237)		2,111		(75,156)
Contributions for endowment		(54,050)		(43,237)		33,902		33,902
Change in fair value of interest rate swaps		(7,315)		_		33,702		(7,315)
Nonperiodic changes in benefit plans (<i>Note 9</i>)		(24,540)		_		_		(24,540)
Total other activities		(65,885)		(43,237)		36,013		(73,109)
·				/				
CHANGE IN NET ASSETS		35,326		(44,238)		36,013		27,101
NET ASSETS, BEGINNING OF YEAR		2,876,556		848,626		648,157		4,373,339
NET ASSETS, END OF YEAR	\$	2,911,882	\$	804,388	\$	684,170	\$	4,400,440

UNIVERSITY OF PITTSBURGH CONSOLIDATED STATEMENTS OF CASH FLOWS FOR THE YEARS ENDED JUNE 30, 2016 AND 2015 (in thousands of dollars)

		2016	2015		
CASH AND EQUIVALENTS:					
End of year	\$	6,400	\$	49,582	
Beginning of year		49,582		60,831	
CHANGE IN CASH AND CASH EQUIVALENTS	\$	(43,182)	\$	(11,249)	
CASH FLOWS FROM OPERATING ACTIVITIES:					
Change in net assets	\$	(212,767)	\$	27,101	
Adjustments to reconcile change in net assets to net cash provided by operating activities:					
Depreciation		175,135		168,539	
Nonperiodic changes in benefit plans		96,523		24,540	
Net bond premium amortization		(4,163)		(4,802)	
Loss on disposal of plant assets		1,254		1,926	
Investment losses (gains)		110,426		(3,546)	
Change in fair value of interest rate swaps		34,522		7,315	
Contributions restricted for long-term investment		(46,431)		(71,539)	
Changes in operating assets and liabilities:					
Accounts, notes, contributions, and loans receivable, net		(56,695)		9,222	
Other assets		(438)		(1,288)	
Accounts payable and accrued expenses		(289)		7,544	
Pension and postretirement obligations		13,528		10,769	
Conditional asset remediation obligation		(3,873)		290	
Other liabilities		507		2,937	
Government student loans and deferred revenue		7,892		(191)	
Net cash provided by operating activities		115,131		178,817	
CASH FLOWS FROM INVESTING ACTIVITIES:					
Expended for property, plant, and equipment - University		(143,416)		(123,366)	
Expended for property, plant, and equipment - commonwealth		(21,289)		(37,513)	
Change in accounts payable for property, plant, and equipment		(2,624)		(10,371)	
Purchases/sales of operating investments, net		12,067		(33,204)	
Purchases of endowment investments	((1,646,384)		1,604,549)	
Proceeds from sales/maturities of endowment investments		1,600,290		1,515,111	
Change in endowed funds held by third parties, excluding gains		(396)		(878)	
Change in foundation assets		68		(413)	
Net cash used for investing activities		(201,684)		(295,183)	
CASH FLOWS FROM FINANCING ACTIVITIES:					
Principal repayment of debt		(130,500)		(155,000)	
Proceeds from issuance of debt		101,980		198,290	
Change in deposits of bond and note proceeds		12,693		(19,291)	
Contributions restricted for long-term investment		59,198		81,118	
Net cash provided by financing activities		43,371		105,117	
CHANGE IN CASH AND CASH EQUIVALENTS	\$	(43,182)	\$	(11,249)	
Supplemental disclosure of cash flow information: Cash paid for interest (excluding fees)	\$	46,194	\$	48,052	
Noncash investing activity for property, plant, and equipment-accounts payable	\$	20,806	\$	23,430	

NOTE 1: SUMMARY OF SIGNIFICANT ACCOUNTING AND REPORTING PRACTICES

Organization

Founded in 1787, the University of Pittsburgh (the University) is one of the oldest institutions of higher education in the United States. The University's mission is to provide high-quality undergraduate and graduate programs in the arts and sciences and professional fields; engage in research, artistic, and scholarly activities that advance learning through the extension of the frontiers of knowledge and creative endeavor; cooperate with industrial and governmental institutions to transfer knowledge in science, technology, and health care; offer continuing educational programs adapted to the personal enrichment, professional upgrading, and career advancement interests and needs of adult Pennsylvanians; and make available to local communities and public agencies the expertise of the University in ways that are consistent with the primary teaching and research functions and contribute to social, intellectual, and economic development in the commonwealth, the nation, and the world.

The University's main campus in the City of Pittsburgh comprises 16 schools and several academic centers educating nearly 29,000 students in various undergraduate, graduate, and doctorate-professional programs. Four regional campuses with a total enrollment approximating 6,200 students are located throughout western Pennsylvania.

Relationship with the Commonwealth of Pennsylvania

The University derives its corporate existence under the laws of the Commonwealth of Pennsylvania (the commonwealth) by reason of the act of the General Assembly of the commonwealth establishing an "Academy or Public School in the town of Pittsburgh" on February 28, 1787 and from the act of February 18, 1819 incorporating the "Western University of Pennsylvania." In 1908, the University's name was changed to the "University of Pittsburgh" by order of the Court of Common Pleas of Allegheny County. In 1966, the Pennsylvania State Legislature enacted the "University of Pittsburgh-Commonwealth Act," which changed the name of the University to the "University of Pittsburgh – of the Commonwealth System of Higher Education" and established the University as an instrumentality of the commonwealth to serve as a state-related institution in the Commonwealth System of Higher Education. The University is a Pennsylvania nonprofit corporation subject to the Nonprofit Corporation Law of 1988.

The entire management, control, and conduct of the instructional, administrative, and financial affairs of the University are vested in the Board of Trustees. The

Board of Trustees is comprised of fifty-two members (thirty-six voting members), including twelve commonwealth trustees and sixteen special trustees elected by the board. Special trustees may attend all meetings of the board and are entitled to and exercise all rights, responsibilities, and privileges of trusteeship, except the right to vote at board meetings.

As a state-related institution, the University receives an annual operating and capital appropriation from the commonwealth. The appropriation results from the commonwealth's annual budget process. There is no assurance that such appropriation will continue to be made, or will be made, at current levels or at levels requested by the University. The appropriation from the commonwealth was \$154.3 million in 2016 and \$147.4 million in 2015. In addition to the annual appropriation, the commonwealth also funds certain capital projects in support of the University's mission. Amounts funded by the commonwealth for capital projects were \$21.3 million in 2016 and \$37.5 million in 2015.

Basis of Presentation

The consolidated financial statements include the accounts of the University, which do not include the net assets or activities of the University of Pittsburgh Medical Center (UPMC) or the University of Pittsburgh Physicians (UPP) clinical practice plans, as they are separate legal entities not controlled by the University. The University does have the right to designate one-third of the members of the UPMC Board of Directors and any Executive Committee thereof.

The other activities section of the Consolidated Statements of Activities includes investment (losses) gains, net of endowment distributions for operations; contributions for endowment; changes in fair value of interest rate swaps; and nonperiodic changes in pension and postretirement benefit plans. Endowment distributions for operations represent endowment income distributions not reinvested in the endowment (see Note 10).

Basis of Accounting

The consolidated financial statements have been prepared on the accrual basis of accounting in conformity with accounting principles generally accepted in the United States of America (GAAP) as promulgated by the Financial Accounting Standards Board (FASB).

In accordance with GAAP, the University's net assets have been classified as unrestricted, temporarily restricted, or permanently restricted based upon the existence or absence of donor-imposed restrictions. Unrestricted net assets are not subject to donor-imposed restrictions and are used for general operating purposes of the University. This class of net assets also includes certain contributions and endowment earnings whose donor-imposed restrictions have been met within the fiscal year. Temporarily restricted net assets are subject to certain time or purpose restrictions by the donor. Upon satisfaction of these restrictions, the net assets are transferred to unrestricted. Amounts released from restrictions in 2016 and 2015 relate primarily to cash collections on pledges, where purpose restrictions had already been met. Temporarily restricted net assets at June 30, 2016 and 2015 consist of endowment balances (\$686.1 million and \$781.0 million, respectively); the net present value of temporarily restricted contributions and unconditional pledges (\$23.7 million and \$18.1 million, respectively); and split-interest agreements (\$4.9 million and \$5.3 million, respectively). Permanently restricted net assets are those subject to permanent donor-imposed restrictions and at June 30, 2016 and 2015 consist of endowment balances (\$684.9 million and \$654.0 million, respectively); the net present value of permanently restricted contributions and unconditional pledges (\$10.7 million and \$17.1 million, respectively); and private student loan funds (\$13.1 million in both 2016 and 2015).

Donor-restricted endowed contributions require that the original corpus of the contributions be maintained in perpetuity. The distributions from earnings generated by these contributions may be either expended or reinvested in the endowment, in accordance with donor restrictions and endowment contribution and spending policies (see Note 10).

Estimates

The preparation of the consolidated financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the consolidated financial statements, and the reported amounts of revenues and expenses during the reporting period. Actual results could differ materially from those estimates.

Revenue Recognition

Revenue for programs or activities to be conducted in future periods such as student tuition and room and board are classified as deferred revenue. Revenue for these activities is recognized as services are provided. Advanced receipt of exchange transactions such as grants and contracts are also classified as deferred revenue, with revenue being recognized as funds are expended and sponsored programs are executed.

Tuition discounts are recorded to the extent that either institutional financial aid or aid funded by contributions, endowment distributions, and grant activities are awarded. Tuition discounts attributable to institutional funds in 2016 and 2015 were \$152.1 million and \$147.3 million, respectively. Tuition discounts attributable to contributions, endowment distributions, and grant activities were \$24.3 million and \$23.8 million in 2016 and 2015, respectively.

Cash and Cash Equivalents and Operating Investments

Cash equivalents consist of operating investments with original maturities of 90 days or less. Operating investments include U.S. Treasury instruments and other high-quality, liquid securities that at the time of purchase are rated A3/P-1 or better by Moody's Investors Service or A-/A-1 or better by Standard & Poor's Ratings Services. Operating investments, together with cash, are utilized to fund the University's short-term operating needs and are invested with the expectation that such securities can be liquidated at their current value within a seven-day period. Cash and cash equivalents that are part of endowment investments are shown therewith, as such funds are utilized for endowment purposes rather than University operating needs.

Allowance for Doubtful Accounts

The University maintains allowances for doubtful accounts to reflect management's best estimate of probable losses inherent in receivable balances.

Management determines the allowances for doubtful accounts based on known troubled accounts, historical experience, and other currently available evidence.

Receivables are written off when management determines they will not be collected.

Contributions

The University records at fair value unconditional pledges (which are agreements with donors involving non-reciprocal transfers of cash or other assets) as either temporarily restricted or permanently restricted contributions depending on the nature of the donor-imposed restrictions. Contributions whose restrictions are met in the same fiscal year in which they are received are combined and reported with unrestricted contributions.

Contributions receivable (classified as Level 3 in the fair value hierarchy) are discounted at a risk-adjusted rate commensurate with the donor's payment plan.

Conditional pledges of cash or other assets are recognized as contribution revenues and receivables when the conditions surrounding the pledge are substantially met.

Bequests are considered to be intentions to give and do not fall within the definition of an unconditional pledge, and hence, are not recognized in the consolidated financial statements.

Deposits of Bond Proceeds

Deposits of bond proceeds consist of unspent funds, which will be used for certain capital projects or for repayment of certain debt obligations. These funds are invested in cash, cash equivalents, U.S. Treasury instruments, and other high-quality, liquid securities and are reported on the Consolidated Balance Sheets at fair value.

Foundation Assets

The University's foundation assets represent the Bradford Educational Foundation (BEF). The BEF is a 509(a)(3) Type III supporting organization whose sole purpose is to receive, administer, and distribute property for the benefit of the University of Pittsburgh Bradford campus. The BEF is governed by an independent board of directors, with the majority of members being non-University members. Although the University does not exercise control of the BEF, all assets held by the BEF are held for the financial benefit of the University. As such, the consolidated financial statements include the net assets and annual change in net assets of the BEF.

Endowment Investments

The University's endowment investments are reported at fair value. The fair value of direct University holdings in publicly traded securities is based upon quoted market prices. The fair value of all other investments, which consist of indirect holdings in both privately and publicly traded assets, is determined using net asset value (NAV) per share or unit of interest. Used as a practical expedient for the estimated fair value, NAV per share or its equivalent is provided by the fund manager and reviewed by the University. Indirect holdings of private assets primarily consist of University interests in funds investing in nonmarketable alternatives, real assets, and/or distressed securities, whereas indirect holdings of publicly traded assets primarily consist of University interests in marketable alternatives or other commingled funds.

Nonmarketable alternatives are private equity or equity-like holdings, such as mezzanine and subordinated debt interests, in venture, buyout, or recapitalized companies or properties. Real assets are physical assets, or financial assets associated with such physical assets, whose income streams and/or fair values tend to rise with inflation; they include real estate, natural resources, commodities, and other hard assets. Marketable alternatives consist of distressed debt and hedging strategies, including event-driven hedging strategies, such as merger or credit arbitrage, and value-driven hedging strategies, such as long/short, market neutral, and other hedging strategies.

In the case of indirect holdings, changes in market conditions, economic environment, regulatory environment, currency exchange rates, interest rates, and commodity prices may significantly impact the NAV of the funds holding the investments and, consequently, the fair value of the University's interest in such funds and could materially affect the amounts reported in the consolidated financial statements. Although a secondary market exists for these investments, it is not active, and individual transactions are typically not observable. When transactions do occur in this limited secondary market, they may occur at discounts to the reported NAV. It is therefore possible that if the University were to sell these investments in the secondary market, a buyer may require a discount to the reported NAV, and the discount could be significant. The University attempts to manage these risks through diversification, ongoing due diligence of fund managers, maintaining adequate liquidity, and continuously monitoring economic and market conditions.

Dividend income is recognized net of applicable withholding taxes on the ex-dividend date. Noncash dividends are recorded at the fair value of the securities received. Interest income and expenses are recorded net of applicable withholding taxes on the accrual basis of accounting.

Fair Value Measurements

As of June 30, 2016 and 2015, the carrying values of the University's inventories and deferred charges, accounts and notes receivable, contributions receivable, accounts payable, accrued expenses, and deferred student and other revenue approximate their fair values because of the terms and relatively short maturities. An estimate of the fair value of student loan receivables administered by the University under federal government loan programs is not practical because the receivables can only be assigned to the United States government or its designees.

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The three levels of the fair value hierarchy are as follows:

- Level 1 Unadjusted quoted prices in active markets for identical assets or liabilities that are available at the measurement date.
- Level 2 Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly.
- Level 3 Unobservable inputs for the asset or liability that are used to measure fair value when observable inputs are not available. These inputs are developed based upon the best information available in such circumstances.

In the event that changes in the inputs used in the fair value measurement of an asset or liability result in a transfer of the fair value measurement into a different level, such transfers are recognized at the end of the reporting period.

Derivative Financial Instruments

The University records derivatives at fair value on the Consolidated Balance Sheets with changes in fair value reflected in the Consolidated Statements of Activities (see Note 8).

Split-Interest Agreements

These agreements with donors consist primarily of charitable gift annuities, pooled income funds, and irrevocable charitable remainder trusts for which the University serves as trustee. Assets are invested and payments are made to donors and/or other beneficiaries in accordance with the respective agreements. Other liabilities include \$11.5 million and \$10.4 million at June 30, 2016 and 2015, respectively, for split-interest agreements.

Property, Plant, and Equipment

Property, plant, and equipment is recorded at cost, or if acquired by contribution, at fair value as of the date of the contribution. Depreciation is calculated using the straight-line method. Useful lives generally range from 15 to 40 years for buildings and improvements and 5 to 10 years for furnishings and equipment. As assets are retired, sold, or otherwise disposed, the cost and related accumulated depreciation are removed from the accounts, and gains or losses are recognized in the Consolidated Statements of

Activities. Costs associated with the construction of new facilities and renovation and expansion of existing facilities are capitalized within construction in progress until such projects are placed in service. The University capitalizes software and certain implementation costs and generally depreciates such assets over 5 to 10 years. Works of art, historical treasures, and similar assets include a variety of paintings, sculptures, photographs, antiques, and furnishings, as well as scholarly papers and archives. These assets are used for public exhibition, the preservation of artifacts and antiques for future generations, and scholarly research. Due to their nature, these assets are not depreciated. Library books, which include hard copy publications, periodicals, and electronic publications with rights to archival content, are depreciated over a period of 7 years. Maintenance and repairs are expensed as incurred.

Insurance Liabilities

The University is self-insured through an agreement with UPMC to provide medical coverage for its employees. A liability for estimated incurred but unreported claims of \$6.3 million and \$6.7 million has been recorded at June 30, 2016 and 2015, respectively, based upon management's analysis of claims history. This liability is reflected in accrued payroll and related liabilities on the Consolidated Balance Sheets.

The University is also self-insured for certain other activities, including workers' compensation, unemployment compensation, and litigation claims. Liabilities have been established for these programs generally based on third-party administrators' estimates using the University's historical loss experience. The self-insurance accrual is subject to periodic adjustment by the University based on actual loss experience factors. Liabilities for these other self-insured obligations aggregated \$10.5 million and \$8.6 million at June 30, 2016 and 2015, respectively, and are included in accrued payroll and related liabilities on the Consolidated Balance Sheets.

Grants and Contracts

The University conducts sponsored program activity with various sponsors, including agencies and departments of the federal government, the commonwealth, local government entities, companies, and foundations. Sponsored activity in 2016 and 2015 was \$726.5 million and \$713.9 million, respectively, with approximately 66% of the funding awarded through the National Institutes of Health. Most University sponsored activity is conducted on a cost reimbursable basis with the University receiving funding after the related expenses have been incurred.

Certain sponsors, however, provide funding in advance of related expenses, and such funding is recorded as advanced receipt of grant funds on the Consolidated Balance Sheets. Revenue from sponsored awards is recognized as the related expenses are incurred. There is no assurance that sponsored awards will continue to be made at current levels.

The University incurs both direct and indirect costs in the conduct of its sponsored activity. Recovery of indirect costs through federal awards is based upon predetermined rates negotiated with the Department of Health and Human Services. Indirect cost recovery rates from nonfederal sources may vary. Funds received through federal sources are subject to audit each year in accordance with the Office of Management and Budget's Uniform Guidance.

Government Loan Funds

U.S. government-sponsored student loan funds are recorded as liabilities because these funds are refundable to the federal government under certain conditions. Student loan funds donated by private groups, organizations, or individuals are recorded as permanently restricted net assets since such funds operate on a revolving fund basis with principal and interest payments remaining in the fund for future lending.

Tax-Exempt Status

The University is exempt from federal income tax under Section 501(c)(3) of the United States Internal Revenue Code. Accordingly, it is not subject to income taxes except to the extent it has taxable income from activities that are not related to its exempt purpose. The University annually reviews its tax positions and has determined that there are no material uncertain tax positions that require recognition in the consolidated financial statements. No provision for income taxes was required for 2016 or 2015.

Recent Accounting Pronouncements

In August 2016, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) No. 2016-14, Not-for-Profit Entities (NFPs)(Topic 958): Presentation of Financial Statements for Not-for-Profit Entities. The ASU is effective for the University for fiscal years beginning after December 15, 2017, and early adoption is permitted. The ASU reduces the number of net asset classes presented from three to two: with donor restrictions and without donor restrictions; requires all NFPs to present expenses by their functional and

natural classifications in one location in the financial statements; and requires NFPs to provide quantitative and qualitative information about management of liquid resources and availability of financial assets to meet cash needs within one year of the balance sheet date. The University is currently evaluating the impact this ASU will have on the consolidated financial statements and related disclosures.

In February 2016, FASB issued ASU No. 2016-02, *Leases (Topic 842)*. The ASU is effective for reporting periods beginning after December 15, 2018, and early adoption is permitted. The ASU will require lessees to report most leases as assets and liabilities on the balance sheet, while lessor accounting will remain substantially unchanged. The ASU requires a modified retrospective transition approach for existing leases, whereby the new rules will be applied to the earliest year presented. The University is currently evaluating the impact this ASU will have on the consolidated financial statements and related disclosures.

In January 2016, the FASB issued ASU No. 2016-01, Financial Instruments – Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities. ASU No. 2016-01 amends certain aspects of recognition, measurement, presentation, and disclosure of financial instruments. The ASU exempts all nonpublic business entities from disclosing fair value information for financial instruments measured at amortized cost. The University has adopted the early application guidance for this ASU as of June 30, 2016 and modified the related disclosures to conform.

Effective in 2016, the University retroactively adopted the provisions of ASU No. 2015-10, Technical Corrections and Improvements. This ASU clarified one aspect of the definition of readily determinable fair value (RDFV), thereby affecting the measurement of and disclosure about certain equity investments. During 2016, management evaluated its investments in the pension plan, historically measured using NAV as a practical expedient in structures with characteristics similar to a mutual fund, as to whether they have an RDFV. Certain investments aggregating \$93.9 million, previously presented using NAV as a practical expedient as of June 30, 2015 and excluded from the fair value hierarchy, were determined to have an RDFV and have been classified as Level 1 investments, consistent with the June 30, 2016 presentation.

NOTE 2: ACCOUNTS AND NOTES RECEIVABLE, NET

Accounts and notes receivable, net, at June 30 consists of the following:

	2016	2015	
	(in thousands of dollars)		
Sponsored grant receivables, net	\$ 105,398	\$ 86,250	
Hospitals and affiliated organizations receivables, net	40,580	18,405	
Commonwealth appropriation receivable	11,143	-	
Student receivables, net	9,173	10,447	
Plant construction receivables due from commonwealth	9,090	15,433	
Interest income receivables	1,694	1,512	
Other receivables, net	11,199	11,451	
Total accounts and notes receivable, net	\$ 188,277	\$ 143,498	

NOTE 3: CONTRIBUTIONS RECEIVABLE, NET

Contributions receivable, net, at June 30 consists of the following:

	2016	2015		
	(in thousands of dollars)			
Amounts due in:				
Less than one year	\$ 15,599	\$ 16,992		
One to five years	16,558	17,754		
Greater than five years	2,153	2,248		
Gross contributions receivable	34,310	36,994		
Less:				
Allowance for uncollectible pledges	(1,654)	(1,414)		
Unamortized discounts	(721)	(1,035)		
Total contributions receivable, net	\$ 31,935	\$ 34,545		

At June 30, 2016 and 2015, the five largest outstanding pledge balances represented 37% and 39%, respectively, of the University's net contributions receivable.

The University has been named a beneficiary in the wills of numerous donors or has received conditional pledges

totaling \$207.9 million and \$199.6 million at June 30, 2016 and 2015, respectively. These bequests and conditional pledges are not included in the consolidated financial statements.

NOTE 4: ENDOWMENT AND OPERATING INVESTMENTS

Investments at June 30 consist of the following:

	2016	2015			
	(in thousands of dollars)				
Endowment investments:					
Pooled	\$ 3,513,665	\$ 3,577,793			
Nonpooled	32,793	32,602			
Subtotal endowment investments	3,546,458	3,610,395			
Operating investments (Note 1)	558,801	569,806			
Total endowment and operating investments	\$ 4,105,259	\$ 4,180,201			
Composition of endowment investments:					
Cash and cash equivalents	\$ 65,204	\$ 98,908			
Domestic equities	554,918	527,552			
International equities	715,179	742,036			
U.S. government and government agencies'					
securities, bank acceptances and certificates,					
and commercial paper	173,468	170,082			
Corporate bonds and other obligations	143,856	179,019			
Alternative investment funds and partnerships:					
Marketable alternatives	679,765	740,625			
Nonmarketable alternatives	624,905	622,515			
Real assets	589,163	529,658			
Total endowment investments	\$ 3,546,458	\$ 3,610,395			
Composition of operating investments:					
U.S. government and government agencies' securities,					
repurchase agreements, and commercial paper	\$ 347,117	\$ 358,130			
Corporate bonds and other obligations	192,190	192,367			
Other	19,494	19,309			
Total operating investments	\$ 558,801	\$ 569,806			

Unless precluded by size or donor restrictions, individual endowment fund assets are pooled and collectively managed on a unitized basis. Each endowment fund subscribes to or disposes of units in the pool using fair value per unit at the beginning of the month such subscription or disposition occurs to account for the transaction.

The philosophies and policies employed in the management of the endowment are long-term by definition, as they are based on the expectation that the endowment will continue to provide financial support to

the University in perpetuity. Accordingly, the University's investment policy is intended to optimize long-term total return — income plus capital appreciation — relative to the level of risk taken.

The University's investment policy contemplates the effects of its spending policy. The endowment spending policy balances the need for reliable and predictable earnings distributions to support current University activities with the desire to maintain the purchasing power of endowment assets so that they can continue providing financial support for future generations (see Note 10).

The following table summarizes the University's investments at June 30, 2016 and 2015, for which NAV was used as a practical expedient to estimate fair value:

		Fair Value			Unfunded		Redemption	
		Determined	l Usi	ng NAV	_	Commitments	Redemption	Notice
Asset Class		2016		2015		at June 30, 2016	Frequency	Period
				(i	in t	housands of doll	ars)	
International equities	\$	108,485	\$	126,968	-	\$ -	Quarterly	60-120 days
Marketable alternatives:								
Redeemable within one year		483,100		523,206		-	90-365 days	30-180 days
Redeemable beyond one year		156,848		176,352		-	1-3 years	30-60 days
Nonredeemable		39,817		41,067		79	NA	NA
Total marketable alternatives		679,765		740,625		79		
Nonmarketable alternatives		624,905		622,515		347,547	NA	NA
Real assets:								
Redeemable		65,811		88,882		-	Monthly	10 days
Nonredeemable		523,352		440,776		267,989	NA	NA
Total real assets		589,163		529,658		267,989		
Total	\$ 2	2,002,318	\$ 2	2,019,766		\$ 615,615		

Descriptions follow for each of the investments set forth in the table above:

International Equities

A portion of the University's investments in emerging market equities includes an interest in one fund that holds publicly traded emerging market equities.

Marketable Alternatives

The University's investments in marketable alternatives are interests in commingled funds that hold various combinations of long and short positions predominantly in publicly traded equities, fixed income, and financial derivatives. Funds that are nonredeemable typically have investment periods of three or more years during which committed capital may be called and invested. The University's interests in the nonredeemable funds are considered to be illiquid in that they are not easily transferable and typically achieve liquidity over multiyear periods when and if the fund managers distribute proceeds realized from the underlying fund assets.

Nonmarketable Alternatives

The University's investments in nonmarketable alternatives are interests in commingled, private equity funds, including venture capital. These funds are invested

in equity and equity-like securities of mostly nonpublicly traded companies over investment periods of typically three to five years during which committed capital may be called and invested. The University's interests in private equity funds are considered to be illiquid in that they are not easily transferable and typically achieve liquidity over multi-year periods when and if the fund managers distribute proceeds realized from underlying fund assets.

Real Assets

The University's investments in real assets are interests in commingled funds that hold various combinations of publicly and nonpublicly traded physical assets (such as real estate, natural resources, commodities, and utilities), the financial assets and derivatives associated with such physical assets, and the equity and equity-like securities of companies engaged in physical asset ownership, operations and/or services. Funds that are nonredeemable typically have investment periods of three or more years during which committed capital may be called and invested. The University's interests in the nonredeemable funds are considered to be illiquid in that they are not easily transferable and typically achieve liquidity over multi-year periods when and if the fund managers distribute proceeds realized from the underlying fund assets.

NOTE 5: FAIR VALUE MEASUREMENTS

The following tables summarize the inputs used in valuing the University's assets and liabilities carried at fair value, excluding investments stated at NAV as a practical expedient, at June 30, 2016 and 2015:

	2016				
	Level 1	Level 2	Level 3	Total	
Assets		(in thousan	ds of dollars)		
Cash and cash equivalents	\$ 4,057	\$ 2,343	\$ -	\$ 6,400	
Endowment investments:					
Cash and cash equivalents	35,539	29,665	-	65,204	
Domestic equities	541,057	13,861	-	554,918	
International equities	598,898	-	7,796	606,694	
U.S. government, corporate bonds,					
and other obligations	257,724	55,820	3,780	317,324	
Subtotal endowment investments ⁽¹⁾	1,433,218	99,346	11,576	1,544,140	
Operating investments:					
U.S. government, corporate bonds,					
and other obligations	441,045	98,262	-	539,307	
Other	1,397	-	18,097	19,494	
Deposits of bond proceeds	5,806	792	-	6,598	
Endowed funds held by third parties			22,079	22,079	
Total assets	\$ 1,885,523	\$ 200,743	\$ 51,752	\$ 2,138,018	
Liabilities					
Interest rate swaps	\$ -	\$ 111,141	\$ -	\$ 111,141	
•					
			015		
	Level 1	Level 2	Level 3	Total	
Assets		Level 2 (in thousan	Level 3 ds of dollars)		
Cash and cash equivalents	Level 1 \$ 47,339	Level 2	Level 3	Total \$ 49,582	
Cash and cash equivalents Endowment investments:	\$ 47,339	Level 2 (in thousan \$ 2,243	Level 3 ds of dollars)	\$ 49,582	
Cash and cash equivalents Endowment investments: Cash and cash equivalents	\$ 47,339 73,686	Level 2 (in thousan \$ 2,243	Level 3 ds of dollars)	\$ 49,582 98,908	
Cash and cash equivalents Endowment investments: Cash and cash equivalents Domestic equities	\$ 47,339 73,686 519,442	Level 2 (in thousan \$ 2,243	Level 3 ds of dollars) \$ -	\$ 49,582 98,908 527,552	
Cash and cash equivalents Endowment investments: Cash and cash equivalents Domestic equities International equities	\$ 47,339 73,686	Level 2 (in thousan \$ 2,243	Level 3 ds of dollars)	\$ 49,582 98,908	
Cash and cash equivalents Endowment investments: Cash and cash equivalents Domestic equities International equities U.S. government, corporate bonds,	\$ 47,339 73,686 519,442 602,220	Level 2 (in thousan \$ 2,243 25,222 8,110	Level 3 ds of dollars)	\$ 49,582 98,908 527,552 615,068	
Cash and cash equivalents Endowment investments: Cash and cash equivalents Domestic equities International equities U.S. government, corporate bonds, and other obligations	\$ 47,339 73,686 519,442 602,220 262,257	Level 2 (in thousan) \$ 2,243 25,222 8,110 83,064	Level 3 ds of dollars) \$ - 12,848 3,780	\$ 49,582 98,908 527,552 615,068 349,101	
Cash and cash equivalents Endowment investments: Cash and cash equivalents Domestic equities International equities U.S. government, corporate bonds, and other obligations Subtotal endowment investments ⁽¹⁾	\$ 47,339 73,686 519,442 602,220	Level 2 (in thousan \$ 2,243 25,222 8,110	Level 3 ds of dollars)	\$ 49,582 98,908 527,552 615,068	
Cash and cash equivalents Endowment investments: Cash and cash equivalents Domestic equities International equities U.S. government, corporate bonds, and other obligations Subtotal endowment investments ⁽¹⁾ Operating investments:	\$ 47,339 73,686 519,442 602,220 262,257	Level 2 (in thousan) \$ 2,243 25,222 8,110 83,064	Level 3 ds of dollars) \$ - 12,848 3,780	\$ 49,582 98,908 527,552 615,068 349,101	
Cash and cash equivalents Endowment investments: Cash and cash equivalents Domestic equities International equities U.S. government, corporate bonds, and other obligations Subtotal endowment investments ⁽¹⁾ Operating investments: U.S. government, corporate bonds,	\$ 47,339 73,686 519,442 602,220 262,257 1,457,605	Level 2 (in thousan) \$ 2,243 25,222 8,110 83,064 116,396	Level 3 ds of dollars) \$ - 12,848 3,780	\$ 49,582 98,908 527,552 615,068 349,101 1,590,629	
Cash and cash equivalents Endowment investments: Cash and cash equivalents Domestic equities International equities U.S. government, corporate bonds, and other obligations Subtotal endowment investments ⁽¹⁾ Operating investments: U.S. government, corporate bonds, and other obligations	\$ 47,339 73,686 519,442 602,220 262,257 1,457,605	Level 2 (in thousan) \$ 2,243 25,222 8,110 83,064	Level 3 ds of dollars) \$ - 12,848 3,780 16,628	\$ 49,582 98,908 527,552 615,068 349,101 1,590,629 550,497	
Cash and cash equivalents Endowment investments: Cash and cash equivalents Domestic equities International equities U.S. government, corporate bonds, and other obligations Subtotal endowment investments ⁽¹⁾ Operating investments: U.S. government, corporate bonds, and other obligations Other	\$ 47,339 73,686 519,442 602,220 262,257 1,457,605 442,095 1,123	Level 2 (in thousan) \$ 2,243 25,222 8,110 83,064 116,396	Level 3 ds of dollars) \$ - 12,848 3,780	\$ 49,582 98,908 527,552 615,068 349,101 1,590,629 550,497 19,309	
Cash and cash equivalents Endowment investments: Cash and cash equivalents Domestic equities International equities U.S. government, corporate bonds, and other obligations Subtotal endowment investments(1) Operating investments: U.S. government, corporate bonds, and other obligations Other Deposits of bond proceeds	\$ 47,339 73,686 519,442 602,220 262,257 1,457,605	Level 2 (in thousan) \$ 2,243 25,222 8,110 83,064 116,396	Level 3 ds of dollars) \$	\$ 49,582 98,908 527,552 615,068 349,101 1,590,629 550,497 19,309 19,291	
Cash and cash equivalents Endowment investments: Cash and cash equivalents Domestic equities International equities U.S. government, corporate bonds, and other obligations Subtotal endowment investments ⁽¹⁾ Operating investments: U.S. government, corporate bonds, and other obligations Other Deposits of bond proceeds Endowed funds held by third parties	\$ 47,339 73,686 519,442 602,220 262,257 1,457,605 442,095 1,123 18,344	Level 2 (in thousan) \$ 2,243 25,222 8,110 83,064 116,396 108,402 947	Level 3 ds of dollars) \$ - 12,848 3,780 16,628 - 18,186 - 23,140	\$ 49,582 98,908 527,552 615,068 349,101 1,590,629 550,497 19,309 19,291 23,140	
Cash and cash equivalents Endowment investments: Cash and cash equivalents Domestic equities International equities U.S. government, corporate bonds, and other obligations Subtotal endowment investments ⁽¹⁾ Operating investments: U.S. government, corporate bonds, and other obligations Other Deposits of bond proceeds Endowed funds held by third parties Total assets	\$ 47,339 73,686 519,442 602,220 262,257 1,457,605 442,095 1,123	Level 2 (in thousan) \$ 2,243 25,222 8,110 83,064 116,396	Level 3 ds of dollars) \$	\$ 49,582 98,908 527,552 615,068 349,101 1,590,629 550,497 19,309 19,291	
Cash and cash equivalents Endowment investments: Cash and cash equivalents Domestic equities International equities U.S. government, corporate bonds, and other obligations Subtotal endowment investments ⁽¹⁾ Operating investments: U.S. government, corporate bonds, and other obligations Other Deposits of bond proceeds Endowed funds held by third parties	\$ 47,339 73,686 519,442 602,220 262,257 1,457,605 442,095 1,123 18,344	Level 2 (in thousan) \$ 2,243 25,222 8,110 83,064 116,396 108,402 947	Level 3 ds of dollars) \$ - 12,848 3,780 16,628 - 18,186 - 23,140	\$ 49,582 98,908 527,552 615,068 349,101 1,590,629 550,497 19,309 19,291 23,140	

⁽¹⁾ The subtotal of endowment investments within the fair value tables above exclude investments of \$2,002,318 and \$2,019,766 as of June 30, 2016 and 2015, respectively, which are measured at NAV and are not classified in the fair value hierarchy (see Note 4).

The following table summarizes the change in the Level 3 activity for the years ended June 30, 2016 and 2015:

	International Equities	U.S. Government Corporate and Other	Other and Endowed Funds Held by Third Parties ands of dollars)	Total
		(in inousai	nas oj aonars)	
Balance - June 30, 2014	\$ 12,262	\$ 3,927	\$ 40,286	\$ 56,475
Capital calls/purchases	3,946	- -	1,348	5,294
Distributions/sales	(7,247)	(147)	(1,439)	(8,833)
Realized gains	1,312	-	-	1,312
Unrealized gains	2,575	-	1,131	3,706
Balance - June 30, 2015	12,848	3,780	41,326	57,954
Capital calls/purchases	3,485	-	894	4,379
Distributions/sales	(6,499)	-	(495)	(6,994)
Realized gains	263	-	-	263
Unrealized losses	(2,301)	-	(1,549)	(3,850)
Balance - June 30, 2016	\$ 7,796	\$ 3,780	\$ 40,176	\$ 51,752

Realized and unrealized gains (losses) for Level 3 activity are reported in other activities in the Consolidated Statements of Activities. Unrealized losses related to investments held at June 30, 2016 were \$2.8 million. Unrealized gains related to investments held at June 30, 2015 were \$3.4 million.

There were no transfers of investments between levels in 2016 or 2015.

NOTE 6: PROPERTY, PLANT, AND EQUIPMENT, NET

Property, plant, and equipment, net, at June 30 is summarized below:

		2016		2015
	(in thousands of dollars)			
Land	\$	61,546	\$	51,321
Buildings and improvements		3,048,432		2,919,391
Equipment		750,761		714,636
Library books		276,837		267,415
Works of art, historical treasures, and similar assets		20,838		18,316
Construction in progress		93,484		135,127
Subtotal		4,251,898		4,106,206
Less: Accumulated depreciation		(2,477,833)		(2,320,457)
Total property, plant, and equipment, net	\$	1,774,065	\$	1,785,749

The amount capitalized in property, plant, and equipment related to expenditures funded by the commonwealth on behalf of the University totaled \$707.3 million and \$657.6 million at June 30, 2016 and 2015, respectively. The net book value of these items was \$335.5 million and \$311.0 million at June 30, 2016 and 2015, respectively.

The University has recognized a liability for conditional asset retirement obligations. The University performed an

analysis of such obligations and determined that asbestos remediation costs represented the primary source of the liability. The University reviewed facilities on all campuses and estimated the timing, method, and cost of remediation. The resulting liability for conditional asset remediation obligations recognized at June 30, 2016 and 2015 was \$37.3 million and \$41.2 million, respectively.

NOTE 7: BONDS AND NOTES PAYABLE

Bonds and notes payable at June 30 are reported based upon outstanding principal and consist of the following:

	Range of Years		Outstanding Principal			ncipal
	Remaining	2016 Effective		(in thousands of dollars		dollars)
	to Maturity	Interest Rates		2016		2015
Variable-rate bonds:						
Series 2014-B1/B2 Bonds	9-19	0.05%-0.50%	\$	46,000	\$	46,000
Series 2007-B Bonds	24-25	0.04% - 0.54%		44,621		44,621
Series 2005-A Bonds	21-23	0.06%-0.59%		40,000		40,000
Series 2005-B Bonds	15-22	0.04%-0.60%		45,000		45,000
Series 2005-C Bonds	16-19	0.07%-0.62%		30,000		30,000
Series 2002-B Bonds	15-20	0.06%-0.50%		15,000		15,000
Total variable-rate bonds				220,621		220,621
Fixed-rate bonds and notes:						
Series 2014-A Bonds	20-28	3.51%-3.65%		49,000		49,000
Series 2009-A/B Bonds	3 mos15	3.70%-5.10%		312,640		338,140
Series 2007-B Bonds	7-12	4.28%-4.69%		60,000		60,000
Series 2005-A Bonds	12-14	4.69%-4.83%		35,000		35,000
Series 2002-A Bonds	3 mos7	2.88%-4.31%		25,000		30,000
Series 2002-B Bonds	10-11	4.53%-4.74%		14,500		14,500
Series 2000-A/B/C Bonds	8-19	4.37%-5.07%		124,400		124,400
Series 2015 PANTHER Notes, due Augus	t 2, 2016	0.30%		100,000		-
Series 2014 PANTHER Notes, due July 22	2, 2015	0.12%		-		100,000
Noninterest-bearing promissory note				171		171
Total fixed-rate bonds and notes				720,711		751,211
Unamortized net premium				12,125		14,542
Debt issuance costs				(4,508)		(4,742)
Total bonds and notes payable			\$	948,949	\$	981,632

The principal payments of bonds and notes payable for the next five years ending June 30 in millions of dollars are:

2017	\$ 127.4
2018	\$ 26.4
2019	\$ 35.0
2020	\$ 35.0
2021	\$ 35.0

The foregoing principal payments do not include \$220.6 million of variable-rate demand bonds (VRDBs) in commercial paper (CP) mode, all of which have final maturity dates between 2031 and 2041. These bonds bear short-term rates that are fixed over staggered periods of approximately 90 days each and are remarketed at the expiry of each rate period.

Liquidity support for the \$220.6 million of outstanding VRDBs in CP mode is provided by the University. In the event the University receives notice of an optional tender on its VRDBs in CP mode, the purchase price of the bonds will be paid from the remarketing of such bonds. However, if the remarketing proceeds are insufficient, the University will have a current obligation to purchase the tendered bonds. To provide a secondary source of liquidity for this type of event, the University entered into a \$100.0 million unsecured standby liquidity agreement with a financial institution that matures in June 2017. Since the October 2009 effective date of the liquidity agreement, no draws have occurred.

On September 18, 2014, the University issued \$95.0 million in University Capital Project Bonds (2014 Bonds). The 2014 Bonds consist of \$49.0 million of Series A Bonds (fixed-rate bonds) and \$46.0 million of Series B1/B2 Bonds (variable-rate bonds issued in CP mode). The 2014 Bonds have a final maturity date of 2044.

The 2015 Pitt Asset Notes - Tax Exempt Higher Education Series (PANTHERS of 2015) were issued in July 2015 in the amount of \$100.0 million and were repaid on August 2, 2016.

In July 2016, the University issued its PANTHERS of 2016 in the amount of \$70.0 million. The entire amount was used to partially refund the \$100.0 million of PANTHERS of 2015 that matured on August 2, 2016. The PANTHERS of 2016 mature on August 15, 2017.

The University had three general unsecured credit facilities aggregating \$75.0 million at June 30, 2016. No draws were made under the facilities during 2016 or 2015. Although each of the three credit facilities carry an expiry date of October 25, 2016, it is management's intention to extend each facility for another 364-day term.

Interest costs incurred in 2016 and 2015 were \$42.2 million and \$43.1 million, respectively. Included in these amounts are net swap payments and capitalized interest associated with various construction projects. Capitalized interest for 2016 and 2015 was \$0.8 million and \$1.4 million, respectively.

NOTE 8: DERIVATIVE AND OTHER FINANCIAL INSTRUMENTS

The University does not issue or trade derivative financial instruments except as described herein. University financial assets are invested on its behalf with various investment managers, some of whom are authorized to employ derivative instruments, including swaps, futures, forwards, and options. These derivatives are generally used for managing interest rate or foreign currency risk or to attain or hedge a specific financial market position. Additionally, the University has entered into various interest rate swap agreements to hedge its interest rate risk associated with certain debt obligations.

The University may be exposed to financial loss should a derivative counterparty fail to perform pursuant to the instrument. In the case of exchange-traded derivatives, the counterparty is the exchange itself. In the case of over-the-counter derivatives, the counterparty is typically a financial institution. Counterparty risks are mitigated by using creditworthy counterparties, settling positions periodically, and requiring collateral to be posted at predetermined levels of exposure.

Not including University derivative instruments held by various alternative investment funds, the University invested in futures contracts with gross notional values of \$51.2 million and \$53.7 million at June 30, 2016 and 2015, respectively. When the University uses futures to replicate an investment position, it has opted to do so on a fully collateralized basis. Futures contracts are marked-to-market daily based on settlement prices established by the board of trade or exchange on which they are traded. Gains and losses are realized when the contracts expire or are closed. The associated unrealized gain (loss) on these assets was \$1.4 million and \$(0.2) million as of June 30, 2016 and 2015, respectively.

The University liabilities arising from variable-to-fixed interest rate swap agreements associated with certain University debt obligations had an aggregated fair value of \$111.1 million and \$76.6 million at June 30, 2016 and 2015, respectively, and are included in other liabilities on the Consolidated Balance Sheets (see Note 5). The fair value represents the estimated amount the University would be required to pay to terminate these agreements as of the respective fiscal year-end. The University recorded in the Consolidated Statements of Activities unrealized losses of \$34.5 million in 2016 and \$7.3 million in 2015 due to changes in fair value of the swaps.

The aggregate notional amount of the swap agreements associated with University debt was \$365.3 million and \$380.3 million at June 30, 2016 and 2015, respectively. These swaps were entered into for the sole purpose of hedging interest payable on certain University VRDBs. The variable interest rates received by the University under the swap agreements are either 67% or 70% of oneor three-month London Interbank Offered Rates (LIBOR), while the fixed rates paid by the University range from 3.25% to 5.14%. Net swap payments made or received by the University are reported in interest expense in the Consolidated Statements of Activities. No collateral was called or posted during 2016 or 2015 with respect to these swap agreements. Furthermore, the University does not anticipate posting collateral pursuant to these swap agreements since there are no collateral thresholds applicable to the University given the University's current credit ratings.

NOTE 9: PENSION AND POSTRETIREMENT OBLIGATIONS

Pension

The University provides retirement benefits under contributory or noncontributory plans to substantially all employees. The University's contributory plan provides for participation in the Teachers Insurance and Annuity Association (TIAA) and College Retirement Equities Fund (CREF) and in investment funds of the Vanguard Group. The plan is fully funded and requires three years of service for vesting of the University contribution. Employees hired before January 1, 1995 were immediately vested. University contributions to this plan in 2016 and 2015 were \$76.2 million and \$74.7 million, respectively.

The noncontributory plan is a defined-benefit pension plan that covers employees who do not participate in the contributory plan. The plan was amended to freeze participation effective November 3, 2015. If employees have an employment commencement date on or after November 3, 2015, they will not be eligible to participate in this plan. The plan provides for vesting after five years with pension benefits accruing at 2.1% of base salary or the Social Security wage base, whichever is lower. Pension benefits are payable upon normal retirement at age 65 or early retirement at age 55, in accordance with the conditions and pension eligibility criteria described in the plan. University contributions to this plan in 2016 and 2015 were \$10.9 million and \$9.8 million, respectively.

Postretirement

The University also provides postretirement medical and life insurance benefits to eligible employees and their spouses upon retirement through a contributory benefit plan.

Though funding is not required, the University has elected to fund its postretirement liability via a quasi-endowment fund, which is managed within the University's pooled endowment investments (see Notes 4 and 10). The fair value of these investments at June 30, 2016 and 2015 was \$354.3 million and \$353.5 million, respectively, and is included in endowment investments on the Consolidated Balance Sheets. Although the University has established this quasi-endowment for the postretirement plan, payments to beneficiaries of this plan are currently made through nonendowed operating funds.

Under the Medicare Prescription Drug, Improvement, and Modernization Act of 2003, the federal government provides a subsidy to employers equal to 28% of the employer's qualifying prescription drug costs for retirees if the plan offered by the employer is at least actuarially equivalent to Medicare Part D. The University is qualified for and receives the subsidy via a reduction in premiums charged by its provider.

In 2010, the Patient Protection and Affordable Care Act and the Health Care and Education Reconciliation Act (collectively, the Health Care Acts) were signed into law. The Health Care Acts include several provisions that are included in the measurement of the postretirement benefit obligation.

The University uses a measurement date of June 30 for plan assets and the benefit obligations. Information related to the benefit obligation, assets, and funded status of the defined-benefit pension plan and the postretirement benefit plan as of and for the years ended June 30, 2016 and 2015 is summarized in the table below:

	Defined-Benefit Plan				Postretirement Plan			
		2016		2015		2016		2015
	(in thousand			ands of de	ollars)			
Net periodic benefit cost:								
Service cost	\$	6,255	\$	5,660	:	\$ 15,276	\$	15,686
Interest cost		5,605		4,737		21,431		18,572
Expected return on plan assets		(6,990)		(6,232)		-		-
Actuarial loss		1,113		643		2,897		2,330
Amortization of prior service credit		(52)		(52)		(3,964)		(3,964)
Net periodic benefit cost	\$	5,931	\$	4,756		\$ 35,640	\$	32,624
Funded status:								
Benefit obligation at beginning of year	\$	117,822	\$	106,204		\$ 455,755	\$	421,842
Service cost		6,255		5,660		15,276		15,686
Interest cost		5,605		4,737		21,431		18,572
Actuarial loss		22,722		2,186		66,435		16,510
Benefits paid		(1,138)		(965)		(17,112)		(16,855)
Benefit obligation at end of year	\$	151,266	\$	117,822		\$ 541,785	\$	
Fair value of plan assets at beginning of year	\$	94,243	\$	84,021				
Actual return on plan assets		(370)		1,432				
Actual plan contributions		10,931		9,755				
Benefits paid		(1,138)		(965)				
Fair value of plan assets at end of year	\$	103,666	\$	94,243				
Funded status – liability recognized on Consolidated Balance Sheets:								
Pension and postretirement obligations	\$	(47,600)	\$	(23,579)		\$ (541,785)	\$	(455,755)
-		, , ,			_		·	
Accumulated benefit obligation	\$	144,496	\$	112,680				

Estimated 2017 employer contribution to the defined-benefit plan:

(in thousands of dollars)

\$ 10,004

	Defined-Benefit Plan		Postretirem	ent Plan
	2016	2015	2016	2015
Weighted-average assumptions used to determine				
the benefit obligation (liability) at June 30:				
Discount rate	3.9%	4.8%	3.8%	4.8%
Rate of compensation increase	3.0%	3.0%	-	-
Assumed health care trend cost:				
Initial trend – pre-age 65 retirees	-	-	7.0%	7.0%
Initial trend – post-age 65 retirees	-	-	7.0%	6.0%
Ultimate trend	-	-	4.5%	4.5%
Year to reach ultimate	-	-	2024	2023
Weighted-average assumptions used to determine the net periodic cost (expense) for				
the years ended June 30:				
Discount rate	4.8%	4.5%	4.8%	4.5%
Rate of compensation increase	3.0%	3.0%	-	-
Expected long-term return on plan assets	7.5%	7.5%	-	-
Assumed health care trend cost:				
Initial trend – pre-age 65 retirees	-	-	7.0%	7.0%
Initial trend – post-age 65 retirees	-	-	6.0%	5.0%
Ultimate trend	-	-	4.5%	4.5%
Year to reach ultimate	-	-	2023	2020

Estimated future benefit payments:	Defined-Benefit Plan	Postretirement Plan
	(in thousand	ds of dollars)
2017	\$ 2,454	\$ 17,037
2018	\$ 2,739	\$ 19,233
2019	\$ 3,004	\$ 20,425
2020	\$ 3,335	\$ 21,885
2021	\$ 3,727	\$ 23,425
2022 - 2026	\$ 25,191	\$ 139,280

A one-percentage point change in assumed health care cost trend rates would have the following effects on the postretirement plan:

	Increa	Increase		crease			
		(in millions of dollars)					
	Revised Amount	Percent Change	Revised Amount	Percent Change			
Service and interest cost							
(medical component only)	\$ 36.2	5.8%	\$ 29.8	12.9%			
Total periodic benefit cost	\$ 39.1	9.6%	\$ 28.7	19.4%			
Benefit obligation for health care							
benefits	\$ 526.5	5.8%	\$ 445.9	10.4%			
Total benefit obligation	\$ 570.5	5.3%	\$ 489.8	9.6%			

Pension Assets

Assets related to the University's defined-benefit pension plan are segregated in a trust managed by a third-party investment manager. The fair value of these assets at June 30, 2016 and 2015 was \$103.7 million and \$94.2 million, respectively. The fund is invested through common collective trust funds in domestic and international equities and fixed-income securities using the S&P 500 Index as a benchmark for domestic equities, the MSCI EAFE Index for international equities, and the Barclays Intermediate Government/Credit Bond Index for the fixed-income securities. Common collective trust funds are similar to mutual funds; however, they are generally not registered with the U.S. Securities and Exchange Commission and participation is not open to the public but limited to institutional investors. The specific investment objective is to meet or exceed the investment policy benchmark over the long term. Plan investments are determined using NAV per share available at the measurement date. The plan has no unfunded commitments. Pension plan assets are Level 1 in the fair value hierarchy.

The long-term investment strategy for pension plan assets is to meet present and future benefit obligations to all

participants and beneficiaries; cover reasonable expenses incurred to provide such benefits, including expenses incurred in the administration of the trust and the plan; provide sufficient liquidity to meet benefit and expense payment requirements on a timely basis; and provide a total return that, over the long term, maximizes the ratio of trust assets to liabilities by maximizing investment return, at an appropriate level of risk. The expected return on plan assets is based on a weighted average of the individual expected return for each asset category in the plan's portfolio. Expected return comprises inflation plus the real rate of return for each asset class.

Over the long term, asset allocation is believed to be the single greatest determinant of risk and return. Asset allocation will deviate from the target percentages due to market movement, cash flows, and investment manager performance. Material deviations from the asset allocation target can alter the expected return and risk of the trust. However, frequent rebalancing to the asset allocation targets may result in significant transaction costs, which can impair the trust's ability to meet its investment objective.

The target allocation for both fiscal years and the fair value of the University's pension plan assets at June 30, by asset category, were as follows:

	Target		
	Allocation	2016	2015
Asset class		(in thousan	ds of dollars)
Equity securities:			
Stock index and small cap	35%	\$ 36,616	\$ 32,800
International	35%	35,438	33,326
Debt securities	30%	31,312	27,793
Cash and cash equivalents	-	300	324
Total pension plan assets		\$ 103,666	\$ 94,243

NOTE 10: ENDOWMENT NET ASSETS

The commonwealth has not adopted The Uniform Prudent Management of Institutional Funds Act of 2006 (UPMIFA) and, instead, enacted in December 1998 Pennsylvania Act 141 (codified as Title 15 of the Pennsylvania Consolidated Statutes §5548(c) and referred to herein as "Title 15") to govern the investment of restricted funds held in trust by Pennsylvania nonprofit corporations. Title 15 permits Pennsylvania nonprofit corporations to elect a total return approach for determining income distributions from restricted funds held in trust, whereby income is defined as a stipulated percentage of the value of the assets held; the stipulated percentage must be determined at least annually and may be no less than 2% nor more than 7%, and the value of the assets held must be averaged over a period of three or more preceding years. A resolution to elect a total return approach for determining endowment income distributions for the University's consolidated investment pool was passed by the University's Board of Trustees on October 21, 1999. The University's endowment income distribution is determined annually using a stipulated

percentage of 4.25% of the endowment's three-year average fair value, provided that such distribution is not less than the amount distributed in the previous year. The endowment income distribution amounts for both 2016 and 2015 were 4.25% of the endowment's three-year average fair value.

Employing the total return approach, the University records the original value of an endowed contribution as a permanently restricted asset, along with any endowment income distributions that are reinvested in the endowment. Nonendowed funds that lack third-party donor restrictions but function as endowments (quasi-endowments) are classified as unrestricted net assets. Gains and losses attributable to donor-restricted endowed funds are recorded as temporarily restricted net assets, whereas gains and losses attributable to quasi-endowment funds are recorded as unrestricted net assets.

The University's endowment net assets at June 30 were as follows:

		201	16			
	Unrestricted	Temporarily Restricted	Permanently Restricted	Total		
•		(in thousan	ds of dollars)			
Donor-restricted endowment funds	\$ -	\$ 686,118	\$ 684,922	\$ 1,371,040		
Quasi-endowment funds	2,163,439	-	=	2,163,439		
Total endowment net assets	\$ 2,163,439	\$ 686,118	\$ 684,922	\$ 3,534,479		
	2015					
		Temporarily	Permanently			
	Unrestricted	Restricted	Restricted	Total		
		(in thousan	ds of dollars)			
Donor-restricted endowment funds	\$ -	\$ 780,998	\$ 653,935	\$ 1,434,933		
Quasi-endowment funds	2,164,556	-	-	2,164,556		
Total endowment net assets	\$ 2,164,556	\$ 780,998	\$ 653,935	\$ 3,599,489		

The change in endowment net assets for the years ended June 30, 2016 and 2015 was as follows:

		Temporarily	Permanently	
	Unrestricted	Restricted	Restricted	Total
		(in thousand	ls of dollars)	
Endowment net assets – June 30, 2014	\$ 2,056,794	\$ 824,655	\$ 620,510	\$ 3,501,959
Endowment return:				
Endowment earnings	21,714	-	1,469	23,183
Gains (losses)	48,786	(43,657)	438	5,567
Total endowment return	70,500	(43,657)	1,907	28,750
Contributions	334	-	31,518	31,852
Distributions for operations	(101,886)	-	=	(101,886)
Net transfers	138,814	-	-	138,814
Endowment net assets – June 30, 2015	2,164,556	780,998	653,935	3,599,489
Endowment return:				
Endowment earnings	14,978	-	2,237	17,215
(Losses)	(15,270)	(94,880)	(62)	(110,212)
Total endowment return	(292)	(94,880)	2,175	(92,997)
Contributions	173	-	28,812	28,985
Distributions for operations	(118,245)	-	-	(118,245)
Net transfers	117,247	-	-	117,247
Endowment net assets – June 30, 2016	\$ 2,163,439	\$ 686,118	\$ 684,922	\$ 3,534,479

Approximately 99% of the University's endowment funds are collectively managed in a broadly diversified pool of assets called the consolidated investment pool. The Investment Committee of the Board of Trustees

provides general oversight, policy guidance, and performance review of the consolidated investment pool and approves asset allocation and spending policies.

NOTE 11: FUNCTIONAL EXPENSES

The University accounts for expenses according to major classes of program services or functions. Functional expenses for the years ended June 30 consist of the following:

	2016			2015
	(in thousands of dollars)			
Instruction	\$	566,786	\$	554,616
Research		676,069		655,546
Public service		85,449		86,489
Academic support		193,807		191,288
Libraries		47,240		48,979
Student services		150,751		145,153
Institutional support		139,898		137,527
Auxiliary enterprises		142,393		141,107
Total functional expenses	\$	2,002,393	\$	1,960,705

Costs related to the operation and maintenance of property, including depreciation of property and equipment and interest on related debt, are primarily allocated to program and support activities based upon salary effort.

NOTE 12: RELATED PARTIES

The University has relationships and affiliation agreements with separately incorporated entities including UPMC and affiliated hospitals and UPP. These relationships include a common paymaster arrangement for certain University School of Medicine (SOM) faculty with academic and clinical responsibilities; contractual obligations for UPMC and UPP to support certain educational and research functions at the University; and property rental agreements. Transactions with all related entities are conducted in the ordinary course of business and are discussed below.

Certain University SOM faculty and staff provide clinical services through their University appointments to UPMC, UPP, and affiliated hospitals. The University invoices these entities monthly for reimbursement of the clinical portion of the associated compensation costs. SOM faculty members, having both a University academic appointment and a separate, external appointment for clinical responsibilities, participate in the common paymaster arrangement for purposes of determining appropriate FICA taxation. In addition to the reimbursable compensation costs, the University also engages in other

transactions with these entities, which include providing certain facilities-related services, telephone, mailing, printing, and various other services, which are reimbursed at cost. Reimbursements from UPMC, UPP, and affiliated hospitals for clinical compensation and other costs totaled \$137.6 million and \$138.9 million in 2016 and 2015, respectively.

In 1998, the University signed a 10-year agreement with UPMC that included financial commitments designed to further the two entities' commitment to their interrelated teaching, research, clinical care, and community service missions. As part of the agreement, UPMC provides \$12.5 million annually in funding for the SOM. UPMC also provides additional funding up to \$2.5 million annually on a matching basis. The match is on a one-to-two basis with UPMC matching \$1 for every \$2 provided by the University to support health sciences programs. The University has received this match each year since the inception of the agreement. This agreement was amended in 2007 under essentially the same terms, except for a provision to provide an additional \$10.0 million per year in 2007, increased annually by \$0.5 million from

2008 through 2016. The University received \$29.5 million and \$29.0 million (including the annual match) in 2016 and 2015, respectively. Effective July 1, 2014, the term of the agreement was extended through June 30, 2018. These amounts are reported as other revenue in the Consolidated Statements of Activities.

The UPMC agreement was further amended in 2009 to include additional financial support through the Children's Hospital of Pittsburgh of UPMC (CHP) to the University of at least \$7.5 million annually related to an agreement detailing the transfer of certain pediatric research programs from CHP to the University. This transfer standardized procedures, eliminated duplication of services, improved efficiency, reduced costs, and enhanced recruitment efforts for pediatric programs. The University received \$10.9 million and \$10.8 million in 2016 and 2015, respectively, related to this additional support. These amounts are reported as sales and services, educational and other in the Consolidated Statements of Activities.

UPMC also provided \$14.7 million and \$14.3 million in 2016 and 2015, respectively, of contractual dean's tax, which represents support for the academic and research activities of the SOM. This activity is reported as sales and services, educational and other in the Consolidated Statements of Activities.

UPMC also provides additional academic support to the SOM. These funds are used to support new programs, recruit faculty, and for general support of the School's academic mission. The University received \$59.5 million and \$60.3 million in 2016 and 2015, respectively, related to this additional support. These amounts are reported as sales and services, educational and other in the Consolidated Statements of Activities.

UPMC also provided \$2.9 million and \$3.3 million in 2016 and 2015, respectively, for the Institute for Personalized Medicine. These amounts are reported as other revenue in the Consolidated Statements of Activities.

Additionally, UPMC provided support to various departments within the SOM to augment their operating budgets. These payments were made to those departments that do not generate sufficient revenues to meet their research and academic costs. Payments made by UPMC for this purpose totaled \$9.0 million and \$8.9 million in 2016 and 2015, respectively, and are reported

as sales and services, educational and other in the Consolidated Statements of Activities.

The University is involved in certain rental arrangements where the University acts as both lessor or lessee with UPMC and its affiliates. Rental revenue from UPMC and affiliates totaled \$10.0 million and \$9.9 million in 2016 and 2015, respectively. Rent expense paid to UPMC and affiliates totaled \$21.9 million and \$21.0 million in 2016 and 2015, respectively.

In April 2013, the University entered into a five-year agreement with UPMC to provide full-time, armed police aid, support, and assistance for certain UPMC facilities. Payments made by UPMC for these services totaled \$2.3 million and \$2.5 million in 2016 and 2015, respectively, and are reported as other revenue in the Consolidated Statements of Activities.

UPMC serves as the provider of health insurance coverage to all eligible University employees who enroll in the plan. The University is self-insured for these costs and reimburses UPMC for actual claims cost. Health insurance expense including administrative fees totaled \$107.2 million and \$107.5 million in 2016 and 2015, respectively, and is reported as fringe benefits in the Consolidated Statements of Activities.

UPMC receives federal matching funds for costs incurred by academic medical centers for medical assistance services. The funds are remitted to the University to support the activities of the SOM, the Western Psychiatric Institute and Clinic (WPIC), the Center for Public Health Practice, and the clinic within the School of Dental Medicine. These remittances were \$11.1 million in both 2016 and 2015 and are reported as commonwealth appropriation revenue in the Consolidated Statements of Activities.

In 2003, the University and UPMC created the Medical and Health Sciences Foundation (MHSF), a separate 501(c)(3) organization. The mission of MHSF is to create a unified fundraising organization for the University's schools of the health sciences and UPMC. The arrangement calls for the cost of MHSF to be split evenly between the University and UPMC. UPMC's share of total operating costs for MHSF totaled \$3.7 million and \$4.4 million in 2016 and 2015, respectively, and is reported as other revenue in the Consolidated Statements of Activities. All contributions generated by MHSF are credited to the University or UPMC based upon donor intent.

In November 2004, the University entered into an agreement with UPMC to jointly construct and own the Carrillo Street steam plant, a gas-fired steam-generating facility. The University funded 78.1% of construction costs with UPMC funding the remaining 21.9%. The plant provides steam to each entity's respective buildings and is managed by the University.

A lease arrangement exists between the University and the commonwealth for WPIC. Since 1949, the University has managed WPIC under an agreement between the University and the commonwealth whereby the University rents for a consideration of \$1 per year the land, building, equipment, and other items that are used by WPIC. The agreement provides for continuing terms of 10 years each; however, this agreement is cancelable by either party on one year's written notice. In 1992, the University subleased to UPMC the land, building, equipment, and other items subject to the current lease arrangement between the commonwealth and the University. This sublease arrangement continued to be in effect during 2016 and 2015. Included in property, plant,

and equipment is \$190.7 million and \$189.2 million at June 30, 2016 and 2015, respectively, related to the land, buildings, and equipment used by WPIC. Accumulated depreciation related to these assets totaled \$159.9 million and \$155.8 million at June 30, 2016 and 2015, respectively.

The University also has an arrangement with UPMC whereby certain research-related costs incurred by UPMC (primarily staff compensation) in relation to WPIC and the University of Pittsburgh Cancer Institute (UPCI) research awards are charged to such awards via an electronic billing and reimbursed to UPMC each month. Payments totaled \$23.2 million in 2016 and \$24.7 million in 2015 and are recorded as expenses in the Consolidated Statements of Activities. All billings are recorded at cost.

UPMC provided support payments to UPCI for various subsidies, research initiatives, and general support. These payments totaled \$14.4 million and \$14.2 million in 2016 and 2015, respectively, and are primarily reported in other revenue in the Consolidated Statements of Activities.

NOTE 13: COMMITMENTS AND CONTINGENCIES

At June 30, 2016 and 2015, the University had outstanding contractual commitments of \$63.4 million and \$51.5 million, respectively, for property, plant, and equipment expenditures.

The University engages in various leasing activities as both a lessor and lessee. Rental revenue from operating leases was \$18.4 million and \$18.2 million in 2016 and 2015, respectively. Rental expense for operating leases was \$45.5 million in 2016 and \$45.1 million in 2015. Minimum future rental revenue and expense under operating leases that have initial or remaining noncancelable lease terms for the years ended June 30 are as follows:

	Rental		Rental				
	Revenue		E	Expense			
	(in thousands of dollars)						
2017	\$	16,650	\$	45,537			
2018	\$	14,631	\$	43,415			
2019	\$	11,863	\$	43,302			
2020	\$	5,036	\$	34,246			
2021	\$	4,536	\$	20,084			
Thereafter	\$	9,934	\$	108,914			

The University is a defendant in a number of legal actions seeking damages and other relief from the University. While the final outcome of each action cannot be determined at this time, legal counsel and University management are of the opinion that the liability, if any, in these legal actions will not have a material adverse effect on the University's consolidated financial statements.

The University receives significant support from UPMC to continue the two entities' commitment to their interrelated teaching, research, clinical care, and community service missions. There are various agreements between the University and UPMC that provide for this support (see Note 12), but there is no guarantee these agreements will be renewed in future periods.

The University receives significant financial assistance from the federal government including the sponsorship of federal research projects. Grants and contracts normally provide for the recovery of direct and indirect costs. Recovery of indirect costs is recorded at predetermined rates negotiated with the federal government. Entitlement to these resources for the recovery of the applicable direct and related indirect costs is generally conditioned upon compliance with the terms and conditions of the grant agreements and applicable federal regulations, including the expenditure of the resources for eligible purposes. Substantially all grants and the University's indirect cost rate are subject to financial and compliance reviews and audits by the grantors. In management's opinion, the likelihood of a material adverse outcome upon the University's financial position from those reviews and audits is remote.

As part of ongoing operations, the University enters into utility contracts to secure electric and natural gas rates. These contracts are with various utility suppliers and some of the contracts cover multiple years. The University monitors the energy markets on an ongoing basis and will make commitments on new rates if deemed in the best interest of the University.

The University conducts a review of contracts and agreements that may contain guarantees, including loan guarantees such as standby letters of credit and indemnifications. In certain contracts, the University agrees to indemnify a third-party service provider under certain circumstances. Pursuant to its bylaws, the University provides indemnification to directors, officers, and, in some cases, employees and agents against certain liabilities incurred as a result of service provided on behalf of or at the request of the University. The terms of indemnity vary from agreement to agreement, and the amount of indemnification, if any, cannot be reasonably determined.

NOTE 14: SUBSEQUENT EVENTS

The University has evaluated subsequent events through September 22, 2016, the date on which the consolidated financial statements were issued, and determined that there were no subsequent events requiring disclosure or adjustment to the consolidated financial statements.

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L David Barnes

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The consolidated financial statements have been reviewed and approved by the University's Audit Committee. The Audit Committee is comprised of outside directors having requisite financial expertise and meets regularly with University management and both internal and external auditors to review internal accounting controls, audit issues, and financial reporting matters. The committee meets with the external auditors in private sessions and is also responsible for approving the independent auditing firm retained each year. Nonvoting representatives on the committee include members of the University's administration as well as student, faculty, and staff representatives.

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS AND AUDITORS' REPORT AS REQUIRED BY TITLE 2 U.S. CODE OF FEDERAL REGULATIONS PART 200

Federal Grantor/Pass-Through Grantor/Program Title	CFDA Number	Direct Award or Pass Through #	Passed Through to Subrecipients	Federal Expenditures
RESEARCH AND DEVELOPMENT CLUSTER:				
Department of Health and Human Services:				
Administration for Children and Families:				
Child Care and Development Block Grant	93.575	Direct	\$ - \$	87,621
Total Administration for Children and Families			-	87,621
Administration for Community Living:				
ACL National Institute on Disability, Independent Living, and				
Rehabilitation Research	93.433	Direct	643,492	3,213,29
University of Alabama	93.433	90RE5009-01	-	71,86
University of Alabama	93.433	90RE5009-02	-	74,38
University of Massachusetts	93.433	90RT5031-02-01	-	65,79
Total Administration for Community Living			643,492	3,425,32
Agency for Healthcare Research and Quality:	02.226	D: .	256 206	2.040.16
Research on Healthcare Costs, Quality and Outcomes	93.226	Direct	256,386	2,848,18
Society for Academic Emergency Medicine	93.226	1R13 HS023498-01	-	4,09
University of Maryland	93.226	5R01 HS018975-03	-	48,6
University of Massachusetts	93.226	1R01 HS024422-01	-	16,07
University of Utah	93.226	5R18 HS018932-04	-	29,29
University of Wisconsin	93.226	5R01 HS018368-05	-	5,17
University of Wisconsin	93.226	5R18 HS022465-02	_	66,66
Veterans Medical Research Foundation	93.226	5R01 HS021290-04	_	18,89
Subtotal 93.226	75.220	3101113021270 04	256,386	3,036,99
American Institutes for Research	93.000	HHSA290201000018I	-	17,75
Total Agency for Healthcare Research and Quality			256,386	3,054,75
Centers for Disease Control and Prevention:				
Innovations in Applied Public Health Research	93.061	Direct	-	49,93
Baobab Health Trust	93.067	5U2G GH000729-03	-	37,27
University of Rwanda	93.067	3U01 GH000782-02W1	_	10,26
Subtotal 93.067	75.007	3001 G11000702 02W1		47,53
Birth Defects and Developmental Disabilities - Prevention and				
Surveillance	93.073	Direct	93,750	263,27
Prevention of Disease, Disability, and Death through	75.075	Direct	73,130	203,27
Immunization and Control of Respiratory and Related Diseases	93.083	Direct	-	201,25
Commonwealth of Pennsylvania	93.094	5U58 DP004857-03	-	20,85
Centers for Research and Demonstration for Health				
Promotion and Disease Prevention	93.135	Direct	-	780,75
Injury Prevention and Control Research and State				
and Community Based Programs	93.136	Direct	84,658	959,28
University of Illinois	93.136	5R01 CE002340-02	-	10,57
University of Illinois	93.136	5R01 CE002340-03	-	31,47
University of Washington	93.136	5U01 CE002196-03	-	7,50
University of Washington	93.136	5U01 CE002196-04	_	4,64
Subtotal 93.136		· · · · · · · · · ·	84,658	1,013,48
Subiotal 75.150			04,030	1,013,4

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS YEAR ENDED JUNE 30, 2016

Food

Federal Grantor/Pass-Through Grantor/Program Title	CFDA Number	Direct Award or Pass Through #	Passed Through to Subrecipients	Federal Expenditures
Immunization Research, Demonstration, Public Information and				
Education Training and Clinical Skills Improvement Projects	93.185	Direct	77,225	1,951,037
Occupational Safety and Health Program	93.262	Direct	438,595	2,567,883
University of Southern California	93.262	1R01 OH010665-01A1	-	1,138
University of Wisconsin	93.262	5R21 OH010038-02	-	(9)
Subtotal 93.262			438,595	2,569,012
American Association of Colleges of Nursing	93.283	3U36 OE000003-03	36,180	99,152
Association of Schools of Public Health	93.283	5U36 OE000002-05	-	154,667
Johns Hopkins University	93.283	5U01 CK000337	-	31,122
Johns Hopkins University	93.283	5U01 CK000337-03	-	401,408
Johns Hopkins University	93.283	5U50 CK000203-03	-	3,645
Johns Hopkins University	93.283	5U50 CK000203-04	-	106,165
Johns Hopkins University	93.283	5U50 CK000203-05	-	60,311
University of Texas Health Science Center at Houston	93.283	5U01 DD001007-03	-	5,155
Subtotal 93.283			36,180	861,625
Commonwealth of Pennsylvania	93.292	5U58 CD001297-04	-	38,724
Rare Disorders: Research, Surveillance, Health Promotion				
and Education	93.315	Direct	-	68,572
Spina Bifida Association	93.315	1U01 DD001077-01	-	8,192
Spina Bifida Association	93.315	5U01 DD001077-02	-	23,048
Subtotal 93.315			-	99,812
Commonwealth of Pennsylvania	93.336	1U58 DP006054-01	-	387,053
American Academy of Pediatrics	93.424	5U38 OT000167-03	-	23,745
Johns Hopkins University	93.521	5U50 CK000316-03	-	5,722
Johns Hopkins University	93.521	5U50 CK000316-04	-	15,489
Subtotal 93.521				21,211
Vanderbilt University	93.533	3U01 IP000464-05S2	-	59,727
Commonwealth of Pennsylvania	93.758	2B01 OT009045-14	-	7,051
Harvard Pilgrim Health Care	93.823	3U54 CK000172-05S2	-	60,023
Pennsylvania Pharmacists Association	93.945	5U58 DP131305-02	-	43,232
Cooperative Agreements to Support State-Based Safe				
Motherhood and Infant Health Initiative Programs	93.946	Direct	-	(434)
Other Centers for Disease Control and Prevention	93.000	Direct	-	21,229
Commonwealth of Pennsylvania	93.000	5U35 EH000352-05	-	23,245
Magee-Women's Research Institute & Foundation	93.000	HHSD20002013M5389B	-	14,823
Subtotal 93.000			-	59,297
Total Centers for Disease Control and Prevention			730,408	8,558,217
d and Danie Administration				
d and Drug Administration: Food and Drug Administration - Research	93.103	Direct	-	61,675
Duke University	93.103	5R18 FD005292-02	-	1,185
Emory University	93.103	1R01 FD004814-01A2	-	4,681
Magee-Women's Research Institute & Foundation	93.103	1U01 FD005447-01	-	43,930
Oregon Health & Science University	93.103	5R01 FD003895-02	-	(468)
Oregon Health & Science University	93.103	5R01 FD003895-03	-	16
Pennsylvania State University	93.103	5R01 FD003410-02	-	(1,270)
University of Tennessee	93.103	5R01 FD003709-03	-	(10)
Total Food and Drug Administration			<u> </u>	109,739

Federal Grantor/Pass-Through Grantor/Program Title	CFDA Number	Direct Award or Pass Through #	Passed Through to Subrecipients	Federal Expenditures
Health Resources and Services Administration:				
Maternal & Child Health Federal Consolidated Programs	93.110	Direct	5,546	76,087
Epilepsy Foundation	93.110	6H98 MC26261-02	-	18,691
Health Research, Incorporated	93.110	6H46 MC24094-03	_	2,575
Hemophilia Center	93.110	6H30 MC24050	_	12,300
Massachusetts General Hospital	93.110	2UA3 MC11054-07	_	10,377
Massachusetts General Hospital	93.110	4UA3 MC11054-06-03	_	18,304
Massachusetts General Hospital	93.110	6UA3 MC11054-07	_	14,267
Subtotal 93.110	75.110	00A3 WC11034-07	5,546	152,601
Emergency Medical Services for Children	93.127	Direct	54,454	247,309
Grants to Increase Organ Donations	93.134	Direct	111,934	789,987
AIDS Education and Training Centers	93.134	Direct	2,231,263	3,162,288
National Research Service Award in Primary Care Medicine	93.143	Direct	2,231,203	
Universal Newborn Hearing Screening	93.180	Direct	-	260,216 (432)
Chiversal Newborn Hearing Screening	93.231	Direct		(432
Total Health Resources and Services Administration			2,403,197	4,611,969
National Institutes of Health:				
Family Smoking Prevention and Tobacco Control Act	02.055	D .	10.000.770	10 (00 510
Regulatory Research	93.077	Direct	10,898,559	12,623,719
Duke University	93.077	1R01 HD083404-01	-	164,865
Subtotal 93.077			10,898,559	12,788,584
Environmental Health	93.113	Direct	294,839	5,538,879
Trevigen, Inc.	93.113	2R44 ES021116-02A1	-	50,439
Wayne State University Subtotal 93.113	93.113	5R01 ES022606-02	294,839	40,303 5,629,621
				-,,-
Oral Diseases and Disorders Research	93.121	Direct	1,253,658	7,183,443
Boston University	93.121	5R01 DE011939-16	-	(1,060)
Forsyth Institute	93.121	4R01 DE023091-04	-	80,004
Forsyth Institute	93.121	5R01 DE023091-03	-	19,728
HealthPartners Institute for Education and Research	93.121	1R34 DE023895-01A1	-	4,378
Johns Hopkins University	93.121	3P50 DE019032-14S1	-	26,533
Johns Hopkins University	93.121	3P50 DE019032-14S2	-	24,329
Johns Hopkins University	93.121	5R01 DE021395-03	-	1,372
Medical University of South Carolina	93.121	5R03 DE023350-03	-	12,700
NanoMAG, LLC	93.121	1R44 DE024919-01	-	89,300
Seattle Children's Hospital	93.121	5R01 DE022438-03	-	34,202
Seattle Children's Hospital	93.121	5R01 DE022438-03S1	7,534	87,754
Seattle Children's Hospital	93.121	5R01 DE022438-04	-	19,385
Temple University	93.121	5R21 DE022427-02	-	15,938
University of California at San Francisco	93.121	7R01 DE023685-02	-	37,380
University of Iowa	93.121	5R37 DE008559-24	_	3,304
West Virginia University	93.121	5F31 DE023493-02	- -	10,009
Subtotal 93.121	75.121	31 31 DE023473 02	1,261,192	7,648,699
Human Genome Research	93.172	Direct	916,319	3,427,495
			916,319	
Atharva, LLC	93.172	1R43 HG007800-01A1	916,319 - -	56,094
			916,319 - - -	3,427,495 56,094 8 20,800

Federal Grantor/Pass-Through Grantor/Program Title	CFDA Number	Direct Award or Pass Through #	Passed Through to Subrecipients	Federal Expenditures
Research Related to Deafness and Communication Disorders	93.173	Direct	619,115	6,309,211
Arizona State University	93.173	5R01 DC008329-08	-	227,400
Carnegie Mellon University	93.173	5R01 DC011184-08	-	(13,934)
Cornell University	93.173	5R03 DC013376-03	-	18,058
Neuro Kinetics, Inc.	93.173	1R43 DC014611-01	-	22,462
University of Michigan	93.173	5R21 DC012410-02	-	13,488
Veterans Research Foundation of Pittsburgh Subtotal 93.173	93.173	1R01 DC013803-01A1	619,115	13,106 6,589,791
Research and Training in Complementary and				
Integrative Health	93.213	Direct	12,425	639,788
Brigham & Women's Hospital	93.213	5P01 AT006663-05	-	14,000
Carnegie Mellon University	93.213 93.213	1R01 AT008685-01 1R21 AT008493-01A1	-	63,198 10,731
Carnegie Mellon University Carnegie Mellon University	93.213	5R01 AT006694-05	-	32,082
Case Western Reserve University	93.213	5R01 AT008054-03 5R21 AT008265-02	-	112,270
Massachusetts General Hospital	93.213	2U01 AT000613-12	-	(248)
University of Utah	93.213	5R01 AT007262-05	-	(116)
University of Utah	93.213	5R01 AT007262-06	-	47,412
Subtotal 93.213			12,425	919,117
National Center on Sleep Disorders Research	93.233	Direct	11,010	527,635
Beth Israel Deaconess Medical Center	93.233	5R01 HL110350-04	-	35,005
California Pacific Medical Center Research Institute	93.233	5R01 HL071194-11	-	31,596
Cleveland Clinic Lerner College of Medicine	93.233	HHSN268200700036C	-	(9,595)
Magee-Women's Research Institute & Foundation	93.233	5R01 HL120354-02	-	435,763
Rand Corporation	93.233	1R01 HL122460-01A1		21,000
Subtotal 93.233			11,010	1,041,404
Mental Health Research Grants	93.242	Direct	2,439,484	35,731,964
3-C Institute for Social Development	93.242	1R43 MH108178-01	-	37,465
Autism Speaks	93.242	5R01 MH081754-06	-	(2,231)
Beth Israel Deaconess Medical Center	93.242	4R01 MH092440-05	-	43,491
Beth Israel Deaconess Medical Center	93.242	5R01 MH092440-03	-	(1,547)
Beth Israel Deaconess Medical Center	93.242 93.242	5R01 MH092440-04	-	176,253 12,236
Brigham & Women's Hospital Brigham & Women's Hospital	93.242	2R01 MH091448-06 5R01 MH091448-05	-	(921)
Brown University	93.242	5R01 MH091448-03 5R25 MH101076-03	-	27,675
Carnegie Mellon University	93.242	1R21 MH106880-01	_	31,775
Carnegie Mellon University	93.242	5R01 MH068243-09	_	7,078
Carnegie Mellon University	93.242	5R01 MH097849-02	-	40,000
Carnegie Mellon University	93.242	5R01 MH097849-03	-	10,366
Carnegie Mellon University	93.242	5R21 MH099487-02	-	60,346
Center for Psychological Consultation	93.242	2R44 MH094092-03	-	7,978
Centre for Addiction and Mental Health	93.242	3R01 MH093723-05S1	-	114,319
Centre for Addiction and Mental Health	93.242	5R01 MH099167-04	-	42,199
Columbia University	93.242	5R01 MH104574-02	-	8,160
Electrical Geodesics, Inc.	93.242	9R44 MH100707-02	-	78,337
Harvard Medical School	93.242	5R01 MH093359-03	-	63,575
Miriam Hospital Mount Sinai School of Medicine	93.242 93.242	5R01 MH092450-04 1U01 MH103392-01	-	11,689 (9,900)
Mount Sinai School of Medicine	93.242	1U01 MH106891-01A1	-	73,053
Mount Sinai School of Medicine	93.242	5U01 MH103392-02	_	99,465
Pennsylvania State University	93.242	5K01 MH097091-05	-	42,405
Research Foundation for Mental Hygiene, Inc.	93.242	5R01 MH085921-05	-	22,705
Stellenbosch University	93.242	5R01 MH105134-02	-	49,194
University of California at Berkeley	93.242	1R01 MH105513-01	-	17,323
University of California at Berkeley	93.242	5R01 MH105513-02	-	10,244
University of California at Berkeley	93.242	7R01 MH083799-05	-	15,785

Federal Grantor/Pass-Through Grantor/Program Title	CFDA Number	Direct Award or Pass Through #	Passed Through to Subrecipients	Federal Expenditures
University of California at San Francisco	93.242	5R01 MH098062-03	-	85,644
University of California San Diego	93.242	5R01 MH098062-02	-	45,623
University of Chicago	93.242	5R01 MH093605-02	-	353,505
University of Chicago	93.242	5R01 MH100155-03	-	406,364
University of Florida	93.242	5R34 MH100253-03	-	75,136
University of Maryland	93.242	1R01 MH107459-01	-	18,475
University of Maryland	93.242	1R21 MH106813-01A1	-	4,368
University of Michigan	93.242	1U01 MH104311-01	-	88,704
University of Michigan	93.242	5U01 MH104311-02	-	144,803
University of Pennsylvania	93.242	1U01 MH105634-01	-	18,830
University of Pennsylvania	93.242	5U01 MH105634-02	-	9,341
University of Rochester	93.242	1P50 MH106435-01	-	285,019
University of Rochester	93.242	5P50 MH106435-02	-	1,744
University of Texas Southwestern Medical Center	93.242	5U01 MH092221-04	-	83,872
Washington University in St. Louis Subtotal 93.242	93.242	1R21 MH105822-01A1	2,439,484	152,412 38,594,321
Alcohol Research Programs	93.273	Direct	793,432	5,492,849
ABT Holding Company	93.273	1R42 AA024003-01A1	193,432	213,517
Children's Hospital and Research Center Oakland	93.273	1R21 AA022753-01	_	93
Children's Hospital and Research Center Oakland	93.273	5R21 AA022753-02	_	17,389
Dartmouth College	93.273	4R01 AA021347-04	_	2,036
Dartmouth College	93.273	5R01 AA021347-03	_	(871)
New York University School of Medicine	93.273	5U24 AA022007-03	_	7,986
New York University School of Medicine	93.273	5U24 AA022007-04	_	27,580
Oregon Health & Science University	93.273	7R13 AA023455-02	-	2,983
Rhode Island Hospital	93.273	5R01 AA021900-03	-	57
Rhode Island Hospital	93.273	5R01 AA021900-04	_	5,823
University of New Mexico	93.273	1R13 AA023455-01	-	1,000
University of Texas at Austin	93.273	5R01 AA006399-33	-	91,680
University of Washington	93.273	1R34 AA023047-01A1	-	23,091
Yale University	93.273	5R01 AA023549-02	-	62,397
Yale University	93.273	5U01 AA020790-04	-	(7,084)
Yale University	93.273	5U24 AA020794-04	-	4,547
Yale University	93.273	5U24 AA020794-05		34,876
Subtotal 93.273			793,432	5,979,949
Drug Abuse Scientist Development Award and Research				
Scientist Awards	93.277	Direct	-	11,263
American Academy of Child & Adolescent Psychiatry Subtotal 93.277	93.277	5K12 DA000357-15		3,803 15,066
Drug Abuse and Addiction Research Programs	93.279	Direct	1,991,355	11,616,563
Carnegie Mellon University	93.279	5R90 DA023426-09	-	29,888
Carnegie Mellon University	93.279	5R90 DA023426-10	-	53,285
Decision Science Research Institute, Inc.	93.279	5R01 DA033322-02	-	(1,808)
Diagnostic Biochips, Inc.	93.279	5R43 AA022030-02	-	6,323
Diagnostic Biochips, Inc.	93.279	5R43 DA036264-02	-	91,193
Diagnostic Biochips, Inc.	93.279	7R43 DA035545-02	-	53,627
Duke University	93.279	5R01 DA033080-04	-	35,627
Duke University Emory University	93.279 93.279	5R01 DA038442-02	-	17,441 157,456
•		5R01 DA037568-02	-	157,456 36,279
Harvard University	93.279 93.279	5R01 DA035214-03	-	36,279 8 124
Magee-Women's Research Institute & Foundation Magee-Women's Research Institute & Foundation	93.279	5R01 DA026410-05 5R21 DA039345-02	-	8,124 105,034
McGill University	93.279	5R21 DA039343-02 5R01 DA037911-02	-	863
Oregon Health & Science University	93.279	2R01 DA004523-28A1	_	39,144
RTI International	93.279	5R01 DA036628-02	_	587,008
Rutgers University	93.279	5R01 DA033303-03	-	28,042

Federal Grantor/Pass-Through Grantor/Program Title	CFDA Number	Direct Award or Pass Through #	Passed Through to Subrecipients	Federal Expenditures
Tufts Medical Center	93.279	5R01 DA032889-04	-	29,467
University of Florida	93.279	7R01 DA038598-02	_	113,834
University of Miami	93.279	5R01 DA034749-03	-	14,320
University of Michigan	93.279	4R01 DA001411-42	-	25,313
University of Texas at Austin	93.279	5R21 DA034316-02	-	(1,155)
US WorldMeds, LLC	93.279	5U01 DA033276-03	-	136,939
Yale University	93.279	2P50 DA009241-21	-	4,660
Yale University	93.279	5P50 DA009241-22	-	23,582
Yale University Subtotal 93.279	93.279	5R01 DA035775-02	1,991,355	19,907 13,230,956
Mental Health Research Career/Scientist				
Development Awards	93.281	Direct	-	24,387
Discovery and Applied Research for Technological				
Innovations to Improve Human Health	93.286	Direct	84,066	4,214,884
Carnegie Mellon University	93.286	2T32 EB009403-06	-	9,486
Carnegie Mellon University	93.286	5R01 EB017268-03	-	232,902
Carnegie Mellon University	93.286	5T32 EB009403-07	-	130,347
Kitware, Inc	93.286	5R41 EB015775-02	-	11,613
Love Research Foundation	93.286	1UH2 EB019889-01	-	9,148
Love Research Foundation	93.286	5UH2 EB019889-02	-	31,533
Texas A&M Engineering Experiment Station	93.286	5R21 EB020398-02	-	14,921
University of Michigan	93.286	2R01 EB012579-04	-	96,828
Yale University Subtotal 93.286	93.286	5R01 EB016629-03	84,066	4,760,102
				.,,
Minority Health and Health Disparities Research	93.307	Direct	197,105	547,124
University of Maryland	93.307	1R01 MD010255-01	-	21,575
University of Mississippi Medical Center	93.307	5R01 MD009162-02		12,412
Subtotal 93.307			197,105	581,111
Trans-NIH Research Support	93.310	Direct	22,164	787,710
Boston College	93.310	8U54 GM119023-02S1	-	134,605
University of Pennsylvania	93.310	5U01 MH098953-03	-	(9,966)
University of Pennsylvania	93.310	5U01 MH098953-04	-	332,210
University of Pennsylvania	93.310	5U01 MH098953-05	-	22,262
University of Southern California	93.310	4UH3 TR000967-02	-	1,973
Virginia Commonwealth University	93.310	4UH3 TR000958-02	-	752
Virginia Commonwealth University Subtotal 93.310	93.310	5UH3 TR000958-03R	22,164	660,529 1,930,075
W. 10	02.250	D .		15.041.511
National Center for Advancing Translational Sciences	93.350	Direct	2,101,848	17,841,511
3-C Institute for Social Development	93.350	5R44 TR000256-05	-	12,993
Allegheny Singer Research Institute EXCMR, Ltd	93.350	1UH3 TR001372-01 5R42 TR000473-03	-	57,266
Massachusetts Institute of Technology	93.350 93.350	3UH3 TR000475-03	-	(3,996) 63,138
Massachusetts Institute of Technology	93.350	4UH3 TR000496-03		886
Massachusetts Institute of Technology	93.350	5UH3 TR000496-04	_	503,318
University of California San Diego	93.350	4UH3 TR000967-02	-	(1,859)
Subtotal 93.350	75.550		2,101,848	18,473,257
Research Infrastructure Programs	93.351	Direct	252,607	4,613,029
Emory University	93.351	1R24 OD010445-02	- ,	(17)
Emory University	93.351	5R24 OD010445-03	-	80,426
Emory University	93.351	5R24 OD010445-04	-	6,702
Oregon Health & Science University	93.351	5R24 OD011883-03	-	12,403
Oregon Health & Science University	93.351	5R24 OD011883-04	-	81,744
Scripps Research Institute	93.351	5R24 OD018254-02	-	8,363

Federal Grantor/Pass-Through Grantor/Program Title	CFDA Number	Direct Award or Pass Through #	Passed Through to Subrecipients	Federal Expenditures
Scripps Research Institute	93.351	5R24 OD018254-03	_	6,237
Subtotal 93.351	73.331	312 (0201023 (03	252,607	4,808,887
Nuuring Decearch	93.361	Direct	1,431,983	5 500 222
Nursing Research Columbia University	93.361	5R01 NR013687-04	1,431,963	5,580,233 33,057
Duke University	93.361	5R01 NR015348-02	-	1,117
Magee-Women's Research Institute & Foundation	93.361	5F32 NR014622-02	_	7,280
University of Miami	93.361	5R01 NR014434-03	-	30,887
Subtotal 93.361			1,431,983	5,652,574
Cancer Cause and Prevention Research	93.393	Direct	833,588	7,177,717
Baylor College of Medicine	93.393	5R21 CA172864-02	-	560
Fred Hutchinson Cancer Research Center	93.393	2U01 CA137088-05	-	2,774
Fred Hutchinson Cancer Research Center	93.393	5U01 CA137088-06	-	14,221
Fred Hutchinson Cancer Research Center	93.393	5U01 CA164930-03	-	2,186
Fred Hutchinson Cancer Research Center	93.393	5U01 CA164930-04	-	11,347
Harvard University	93.393	5R01 CA168959-04	-	168,585
Kaiser Foundation Research Institute	93.393	5UM1 CA173642-02	-	(4)
Kaiser Foundation Research Institute	93.393	5UM1 CA173642-03	-	14,820
Michigan State University	93.393	7R01 CA153073-05	-	10,791
Minneapolis Medical Research Foundation	93.393	5U01 AG029824-05	-	18,088
Mount Sinai School of Medicine	93.393	5UH2 CA169111-02	-	(853)
Northwestern University	93.393 93.393	1U2C CA186878-01	-	7,197 47,531
Northwestern University The Ohio State University	93.393	5U2C CA186878-02 4P01 CA163205-04	-	131,732
The Ohio State University The Ohio State University	93.393	5P01 CA163205-03	-	93,997
The Ohio State University The Ohio State University	93.393	5P01 CA163205-04	-	30,222
University of Michigan	93.393	3R01 CA158286-05S1	-	24,679
University of Minnesota	93.393	5R01 CA172555-03	_	115,765
University of North Carolina	93.393	4R01 CA150980-05	-	31,184
University of North Carolina	93.393	5R01 CA150980-04	-	111,095
University of Oklahoma	93.393	5R01 CA160205-05	-	53,440
University of Texas M.D. Anderson Cancer Center	93.393	1R01 CA186566-01A1	-	16,590
University of Texas M.D. Anderson Cancer Center	93.393	5R01 CA186566-02	-	3,707
University of Virginia	93.393	2R01 CA113863-06A1	-	12,411
University of Washington	93.393	4R01 CA173754-04	-	14,188
Vanderbilt University	93.393	5R01 CA141596-07	-	91,399
Vanderbilt University	93.393	7R01 CA141596-06	-	(39,892)
Wake Forest University	93.393	1R01 CA199137-01	-	3,309
World Health Organization Subtotal 93.393	93.393	5U01 CA155340-04	833,588	4,335 8,173,121
	02.204	D' .		
Cancer Detection and Diagnosis Research	93.394	Direct	855,109	3,775,421
California Pacific Medical Center Research Institute	93.394	5R01 CA114337-11	-	8,558
Cernostics, Inc.	93.394 93.394	1R44 CA192416-01A1	-	86,337 46,064
Duquesne University Ecog-Acrin Medical Research Foundation, Inc	93.394	5R01 CA182840-02 1U24 CA196172-01	-	46,964 58,315
Ecog-Acrin Medical Research Foundation, Inc	93.394	5U24 CA196172-02	-	14,867
Fred Hutchinson Cancer Research Center	93.394	1U01 CA185094-01	_	2,405
Fred Hutchinson Cancer Research Center	93.394	5U01 CA185094-02	-	13,704
Johns Hopkins University	93.394	5U01 CA152753-05	_	75,075
Magee-Women's Research Institute & Foundation	93.394	1R01 CA188900-01A1	-	19,395
Massachusetts General Hospital	93.394	1U01 CA182367-01A1	-	13,077
Memorial Sloan Kettering Cancer Center	93.394	1R01 CA182076-01A1	-	103,395
NRG Oncology Foundation, Inc.	93.394	1U24 CA196067-01	26,605	50,924
NRG Oncology Foundation, Inc.	93.394	5U24 CA196067-02	-	4,314
The Ohio State University	93.394	5U01 CA111302-10	-	(8)
University of Texas Health Science Center at San Antonio	93.394	5U01 CA086402-14	35,705	79,613
University of Washington	93.394	5P01 CA042045-25	-	1,177

Federal Grantor/Pass-Through Grantor/Program Title	CFDA Number	Direct Award or Pass Through #	Passed Through to Subrecipients	Federal Expenditures
University of Washington	93.394	5P01 CA042045-26	-	5,956
Van Andel Institute	93.394	3U01 CA152653-05S1	-	15,072
Van Andel Institute	93.394	5U01 CA152653-05	-	(1,083)
Van Andel Institute	93.394	5U01 CA168896-04		43,527
Subtotal 93.394			917,419	4,417,005
Cancer Treatment Research	93.395	Direct	6,845,032	19,476,786
Brigham & Women's Hospital	93.395	5U10 CA031946-32	-	7,017
Children's Hospital of Philadelphia	93.395	1U10 CA180886-02	-	4,000
Children's Hospital of Philadelphia	93.395	1UG1 CA189955-01	-	11,089
Children's Hospital of Philadelphia	93.395	3U10 CA180886-02S7	-	11,410
Children's Hospital of Philadelphia	93.395	5U10 CA180866-02	-	25,716
Children's Hospital of Philadelphia	93.395	5U10 CA180886-02	-	74,707
Children's Hospital of Philadelphia	93.395	5U10 CA180886-03	-	23,772
Children's Hospital of Philadelphia	93.395	5UG1 CA189955-02	-	25,779
Children's Hospital of Philadelphia	93.395	5UM1 CA097452-13	-	7,145
Children's Hospital of Philadelphia	93.395	5UM1 CA097452-14	-	54,953
Dana Farber Cancer Institute	93.395	5UG1 CA189823-02	-	64,070
Ecog-Acrin Medical Research Foundation, Inc	93.395	5U01 CA180820-02	-	9,708
Ecog-Acrin Medical Research Foundation, Inc	93.395	5U10 CA180820 03	-	1,846
Ecog-Acrin Medical Research Foundation, Inc	93.395	5U10 CA180820-02	-	22,849
Ecog-Acrin Medical Research Foundation, Inc	93.395	5U10 CA180820-03	-	5,721
Emmes Corporation	93.395	2U01 CA121947-04	-	31,193
Emory University	93.395	4R01 CA165306-05	-	26,768
Fred Hutchinson Cancer Research Center	93.395	5U01 CA154967-06	-	4,442
Frontier Science & Technology Research Foundation	93.395	5U10 CA021115-39	-	135,569
Gynecologic Oncology Group Foundation	93.395	5U10 CA027469-33	-	21,669
Johns Hopkins University	93.395	2UM1 CA137443-06	-	12,672
Johns Hopkins University	93.395	5U01 CA137443-05	-	(8)
Magee-Women's Research Institute & Foundation	93.395	4R01 CA163462-05	-	79,974
Magee-Women's Research Institute & Foundation	93.395	5R01 CA163462-04	-	105,765
Michigan State University	93.395	4R01 CA162401-04	-	40,636
NRG Oncology Foundation, Inc.	93.395	1UG1 CA189867-01	700,091	1,095,143
NRG Oncology Foundation, Inc.	93.395	5U10 CA180868-02		8,859
NRG Oncology Foundation, Inc.	93.395	5UG1 CA189867-02	1,198,290	2,381,779
NSABP Foundation, Inc.	93.395	5U10 CA180868-02	-	127,111
NSABP Foundation, Inc.	93.395	5U10 CA180868-03	-	64,172
St. Jude Children's Research Hospital	93.395	2U01 CA081457-16	-	(2,997)
St. Jude Children's Research Hospital	93.395	5UM1 CA081457-17	-	103,940
University of California at Los Angeles	93.395	2UM1 CA121947-09	-	38,360
University of California at San Francisco	93.395	1R01 CA187160-01	-	15,539
University of California at San Francisco	93.395	5R01 CA151692-05	- 22.714	25,898
University of California at San Francisco	93.395	5R21 CA177787-02	33,714	109,834
University of California at San Francisco	93.395	7R01 CA098372-12	-	7,708
University of Rochester	93.395	5R01 CA159013-03	-	(12,086)
University of Rochester	93.395	5R01 CA159013-04	-	113,546
University of South Florida	93.395 93.395	5R21 CA167259-02	-	37,609
University of Texas		5R01 CA172886-03	-	65,978
Virginia Commonwealth University	93.395 93.395	5R01 CA149305-03	-	34,169
Yale University Subtotal 93.395	93.393	5P01 CA154295-04	8,777,127	144,108 24,643,918
Cancer Biology Research	93.396	Direct	441,689	4,434,485
Baylor College of Medicine	93.396	5R01 CA183976-02	-	11,944
Fred Hutchinson Cancer Research Center	93.396	1R01 CA188341-01	-	26,197
Fred Hutchinson Cancer Research Center	93.396	5R01 CA188341-02	-	9,604
Massachusetts Institute of Technology	93.396	5U01 CA184898-02	-	49,405
Tuskegee University	93.396	5R21 CA188799-02	-	49,403
Tablegee Oniversity	75.570	51121 C/1100///-02	=	77,712

Federal Grantor/Pass-Through Grantor/Program Title	CFDA Number	Direct Award or Pass Through #	Passed Through to Subrecipients	Federal Expenditures
University of California at San Francisco	93.396	7R01 CA077308-17	-	21,038
Wistar Institute	93.396	5R01 CA165065-04		93,449
Subtotal 93.396			441,689	4,695,534
Cancer Centers Support Grants	93.397	Direct	456,625	12,355,096
Health Research Inc Roswell Park Division	93.397	5P50 CA159981-02	-	(396)
Health Research Inc Roswell Park Division	93.397 93.397	5P50 CA159981-03 1P50 CA180995-01A1	-	526,823 5,680
Northwestern University Washington University in St. Louis	93.397	1U54 CA199092-01	-	72,538
Subtotal 93.397	73.371	1034 CA177072-01	456,625	12,959,741
Cancer Research Manpower	93.398	Direct	_	1,597,588
Magee-Women's Research Institute & Foundation	93.398	5R25 CA163168-04	-	29,967
Magee-Women's Research Institute & Foundation	93.398	5R25 CA163168-05	-	151,181
University of Rochester	93.398	1R25 CA183725-01A1		57,650
Subtotal 93.398			-	1,836,386
Cancer Control	93.399	Direct	(139,543)	(139,543)
Mayo Clinic Rochester	93.399	5UG1 CA189823-02	-	4,214
NSABP Foundation, Inc.	93.399	5U10 CA037377-28		19,654
Subtotal 93.399			(139,543)	(115,675)
Cardiovascular Diseases Research	93.837	Direct	1,659,193	26,874,595
Albert Einstein College	93.837	5R01 HL113180-02	-	24,660
Beth Israel Deaconess Medical Center	93.837	1K24 HL127101-01	-	584
Brigham & Women's Hospital	93.837	1R01 HL129920-01	-	61,204
Brigham & Women's Hospital	93.837	5R01 HL117713-03	-	(34)
Brown University Carnegie Mellon University	93.837 93.837	5R01 HL093093-05 5R01 HL078839-07	-	53,689 (1,416)
Carnegie Mellon University	93.837	5R21 HL126081-02	_	14,562
Cincinnati Children's Hospital Medical Center	93.837	5R24 HL105333-04	-	13,748
Duke University	93.837	2P01 HL075443-11	-	120,906
Duke University	93.837	5R01 HL121689-02	-	45,125
Elex Biotech, LLC	93.837	1R41 HL129570-01	-	49,668
Emory University	93.837 93.837	1R34 HL122557-01 5U01 HL117721-02	-	652
Emory University Emory University	93.837	5U01 HL117721-02 5U01 HL117721-03	-	(88,605) 751,991
Emory University	93.837	5U01 HL117721-03	-	230
Indiana University	93.837	5R01 HL126557-02	-	127,943
Johns Hopkins University	93.837	5R01 HL125053-02	-	105,522
Magee-Women's Research Institute & Foundation	93.837	5U01 HL120338-02	-	27,434
Magee-Women's Research Institute & Foundation	93.837	5U10 HL119991-03	-	18,109
Magee-Women's Research Institute & Foundation	93.837	5U10 HL120006-02	-	(1,034)
Magee-Women's Research Institute & Foundation Massachusetts General Hospital	93.837 93.837	5U10 HL120006-03 1R01 HL125869-01A1	-	14,729 45,334
Massachusetts General Hospital	93.837	4R01 HL111821-05	- -	14,386
Massachusetts General Hospital	93.837	5R01 HL111821-04	-	23,303
Massachusetts General Hospital	93.837	5U01 HL123336-02	-	42,286
Mount Sinai School of Medicine	93.837	5U01 HL088942-08	-	5,611
New England Research Institutes	93.837	5U01 HL098188-05	-	5,189
New England Research Institutes	93.837	5U01 HL107407-02	-	5,400
New England Research Institutes	93.837	5U01 HL107407-03	-	193
New York University School of Medicine New York University School of Medicine	93.837 93.837	1R01 HL127930-01A1 5U01 HL105907-04	-	9,453 4,195
Oklahoma Medical Research Foundation	93.837	1UM1 HL120877-03	-	64,888
Oklahoma Medical Research Foundation	93.837	5UM1 HL120877-03	-	35,089
Palo Alto Medical Foundation Research Institute	93.837	5R01 HL119453-02	-	8,882
Pennsylvania State University	93.837	5U10 HL098115-05	84,746	149,998
Pennsylvania State University	93.837	5U10 HL098115-06	1,747	23,756

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Pennsylvania State University	93.837	5U10 HL098115-07	228,248	396,621
Rand Corporation	93.837	1R01 HL131531-01	-	11,643
Rand Corporation	93.837	5R01 HL112646-05	-	2,246
Seattle Children's Hospital	93.837	5U01 HL114623-02	-	5,804
Seattle Children's Hospital	93.837	5U01 HL114623-03	-	12,471
Transonic Systems, Inc.	93.837	5R43 HL111852-02	-	10,493
University of Alabama	93.837	1UH2 HL125163-01	-	26,621
University of Alabama	93.837	4UH3 HL125163-02	-	2,766
University of Alabama	93.837	5R01 HL118067-03	-	13,871
University of Alabama	93.837	5R01 HL119960-04	-	82,129
University of California	93.837	5R01 HL125084-06	-	16,547
University of California at Irvine University of Iowa	93.837 93.837	5R01 HL125084-06 5R01 HL115955-02	-	66,764 (1,313)
University of Iowa University of Iowa	93.837	5R01 HL115955-02	_	17,014
University of Maryland	93.837	5R01 HL088120-07	_	19,665
University of Michigan	93.837	5R01 HL105114-04	_	(7)
University of Michigan	93.837	5U01 HL094345-05	_	378
University of Pennsylvania	93.837	5R01 HL103723-04	_	(25,484)
University of Pennsylvania	93.837	5R01 HL115041-03	-	10,651
University of Rochester	93.837	5U01 HL096607-05	-	36,453
University of Utah	93.837	5R01 HL107241-04	-	182
University of Vermont	93.837	1UM1 HL120877-02	-	(7,877)
University of Vermont	93.837	1UM1 HL120877-03	-	139,419
University of Vermont	93.837	5UM1 HL120877-02	102,800	189,923
University of Vermont	93.837	5UM1 HL120877-03	59,336	562,558
University of Washington	93.837	1U01 HL122894-01A1	-	73,777
University of Washington	93.837	5R01 HL080295-09	-	93,682
University of Washington	93.837	5U01 HL077863-11	-	(6,783)
Vadovations, Inc	93.837 93.837	1R44 HL118907-01A1	-	6,415 434,648
Vadovations, Inc Vanderbilt University	93.837	4R44 HL118907-02R 1R01 HL125032-01	-	(8,053)
Vanderbilt University	93.837	1R01 HL126555-01	_	20,283
Vanderbilt University	93.837	5R01 HL125032-02	_	95,022
Vanderbilt University Medical Center	93.837	5R01 HL126555-02	_	50,872
Washington University in St. Louis	93.837	5P01 DK096990-04	_	115,755
Wayne State University	93.837	7R01 HL109090-03	-	11,528
Yale University	93.837	1R01 HL115295-01	-	37,319
Yale University	93.837	1R01 HL127349-01	-	142,476
Yale University	93.837	1R01 HL128602-01	-	121,535
Yale University	93.837	5U01 HL108624-04		(1,699)
Subtotal 93.837			2,136,070	31,428,540
Lung Diseases Research	93.838	Direct	3,936,168	27,292,101
Carnegie Mellon University	93.838	5R01 HL105470-04	-	60,062
Carnegie Mellon University	93.838	5R01 HL105470-05	-	91,064
Duke University	93.838	5R01 HL109823-04	-	96,736
Fred Hutchinson Cancer Research Center	93.838	5U01 HL102547-03	-	73,334
Johns Hopkins University	93.838	1U01 HL121814-01	-	(745)
Johns Hopkins University	93.838 93.838	5U01 HL121814-02	-	37,691
Johns Hopkins University Louisiana State University	93.838	5U01 HL121814-03 5P01 HL076100-11	-	237,783 625,245
Lovelace Respiratory Research Institute	93.838	5R01 CA164782-04	_	(133)
Massachusetts General Hospital	93.838	5U01 HL123009-02	_	64,532
Massachusetts General Hospital	93.838	5U01 HL123009-02 5U01 HL123009-03	-	2,915
National Jewish Medical and Research Center	93.838	5R01 HL089897-08	_	228,658
Parion Sciences, Inc.	93.838	2R44 HL110502-02	-	39,292
Pennsylvania State University	93.838	5U01 HL109086-04	-	(2,778)
Pennsylvania State University	93.838	5U01 HL109086-05	-	34,080
Pennsylvania State University	93.838	5U01 HL109086-06	-	2,868

Federal Grantor/Pass-Through Grantor/Program Title	CFDA Number	Direct Award or Pass Through #	Passed Through to Subrecipients	Federal Expenditures
Pennsylvania State University	93.838	5U10 HK109086-03	-	61,337
Progenra, Inc.	93.838	5R44 HL114299-03	-	136,429
Research Institute at Nationwide Children's Hospital	93.838	1R56 HL117032-01A1	-	17,729
Tulane University	93.838	7R01 HL122760-02	-	9,925
University of Alabama	93.838	5R01 HL119960-04	-	1,875
University of Alabama	93.838	7R01 HL119960-03	-	56,614
University of California at San Francisco	93.838	5U01 HL108713-02	-	74,154
University of California at San Francisco	93.838	5U01 HL108713-03	-	70,743
University of Pennsylvania	93.838	2R01 HL087115-06A1	-	20,176
University of Pennsylvania	93.838	5R01 HL087115-07	-	30,441
University of Washington	93.838	5R01 HL106800-04	-	651
Vanderbilt University	93.838	5R01 HL085317-09	-	5,106
Subtotal 93.838			3,936,168	29,367,885
Blood Diseases and Resources Research	93.839	Direct	269,780	3,796,466
BloodCenter of Wisconsin, Inc.	93.839	5P01 HL081588-09	-	13,500
BloodCenter of Wisconsin, Inc.	93.839	5R01 HL112614-03	-	13,800
BloodCenter of Wisconsin, Inc.	93.839	5R01 HL112614-04	-	2,402
Carnegie Mellon University	93.839	5R01 HL089456-05	-	21,354
Children's Hospital of Philadelphia	93.839	5U10 HL069294-13	-	3,639
Fred Hutchinson Cancer Research Center	93.839	1R01 HL121568-01A1	-	(2,897)
Fred Hutchinson Cancer Research Center	93.839	5R01 HL121568-02	-	34,787
Fred Hutchinson Cancer Research Center	93.839	5R01 HL121568-03	-	2,915
Massachusetts Institute of Technology	93.839	5R01 HL121386-02	-	143,289
Rutgers University	93.839	1R34 HL125804-01A1	-	31,331
University of Utah	93.839	5R01 HL085707-05	-	(176)
Virginia Commonwealth University	93.839	5P01 HL107152-04	15,447	14,076
Virginia Commonwealth University	93.839	5P01 HL107152-05	229,182	290,875
Virginia Commonwealth University	93.839	5P01 HL107152-06	-	12,720
Wake Forest University	93.839	4R37 HL058091-20	-	31,963
Washington University in St. Louis	93.839	5U01 HL088476-05	514.400	54,299
Subtotal 93.839			514,409	4,464,343
Arthritis, Musculoskeletal and Skin Diseases Research	93.846	Direct	727,113	5,939,723
Boston University	93.846	5P30 AR061271-05	-	44,824
Boston University	93.846	5P50 AR060780-05	-	153,821
Brigham & Women's Hospital	93.846	1U01 AR068043-01A1	-	1,774
Brigham & Women's Hospital	93.846	5R01 AR064367-02	-	21,464
California Pacific Medical Center Research Institute	93.846	5R01 AR065268-03	-	28,165
Case Western Reserve University	93.846	4R01 AR062546-04	-	17,346
Children's Research Institute	93.846	5P50 AR060836-03	-	7,967
Children's Research Institute	93.846	5P50 AR060836-04	-	47,956
Cincinnati Children's Hospital Medical Center	93.846	5P01 AR048929-10	-	3,675
C-Motion, Inc.	93.846	2R44 AR064620-02	-	90,881
Duke University	93.846	3U01 AR052186-09S1	-	5,453
Johns Hopkins University	93.846	5R01 AR064066-03	-	524
Michigan State University	93.846	1R01 AR066028-01A1	-	8,650
Northwestern University	93.846	1R01 AR065473-01	-	(287)
Northwestern University	93.846	3U54 AR057951-04S4	-	6,045
Northwestern University	93.846	5R01 AR065473-02	-	155,326
Northwestern University	93.846	5R01 AR065473-03	-	2,897
University of Alabama	93.846	5R01 AR060240-04	-	1,881
University of Arizona	93.846	5R01 AR066601-02	-	223,794
University of Michigan	93.846	5R01 AR062066-04	-	22,022
University of Minnesota	93.846	5R01 AR055267-04	-	1
University of Pennsylvania	93.846	2U54 AR057319-12	-	11,151
University of Pennsylvania	93.846	5R01 AR064153-03	-	2,521
University of Pennsylvania	93.846	5R01 AR064153-04	-	5,832
University of Pennsylvania	93.846	5U54 AR057319-13	-	46,891

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University of Texas	93.846	7R01 AR065445-03	-	109,292
University of Texas Health Science Center at Houston	93.846	7R21 AR066206-03	-	40,665
Washington University in St. Louis	93.846	5R01 AR062947-04		102,181
Subtotal 93.846			727,113	7,102,435
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	Direct	2,508,239	38,077,359
Albert Einstein College	93.847	1R18 DK102080-01	-	1,375
Albert Einstein College	93.847	5R18 DK102080-02	-	8,412
Baylor College of Medicine	93.847	5U24 DK097748-02	-	(267)
Baylor College of Medicine	93.847	7R01 DK053456-14	-	15,074
Boston University	93.847	1R01 DK101501-01A1	-	22,302
Brigham & Women's Hospital	93.847	1R01 DK102146-01A1	-	68,442
Carnegie Mellon University	93.847	1DP3 DK103999-01	-	2,102
Carnegie Mellon University	93.847	5DP3 DK103999-02	-	53,009
Carnegie Mellon University	93.847 93.847	5R01 DK060586-14	-	109,561
Carnegie Mellon University Case Western Reserve University	93.847	5R01 DK095780-04 1DP3 DK101074-01	-	24,447 13,763
Case Western Reserve University	93.847	1DP3 DK101074-01 1DP3 DK104438-01	-	15,461
Case Western Reserve University	93.847	5U01 DK094157-04	_	76
Case Western Reserve University	93.847	5U01 DK094157-05	_	122,935
Children's Hospital of Boston	93.847	1R01 DK108642-01	_	98,475
Cincinnati Children's Hospital Medical Center	93.847	5UM1 DK072493-09	-	7,540
Cincinnati Children's Hospital Medical Center	93.847	5UM1 DK072493-10	-	40,679
Cincinnati Children's Hospital Medical Center	93.847	5UM1 DK095710-04	-	15,400
Cleveland Clinic Lerner College of Medicine	93.847	1U34 DK107917-01	-	46,705
Columbia University	93.847	1R01 DK108580-01	-	13,587
Columbia University	93.847	7R01 DK072507-08	-	80,993
Connecticut Children's Medical Center	93.847	5U01 DK095745-03	-	10,853
Connecticut Children's Medical Center	93.847	5U01 DK095745-04	-	5,823
Dartmouth College	93.847	1R01 DK104847-01A1	-	10,850
Emmes Corporation	93.847	1UC4 DK098086-01	-	3,553
George Washington University	93.847	2U01 DK061230-12	-	245,042
George Washington University	93.847	5U01 DK061230-11	-	21,039
George Washington University	93.847	5U01 DK096037-03	-	120,001
George Washington University	93.847 93.847	5U01 DK096037-04	-	4,580
Georgia Regents University Georgia State University	93.847	5U24 DK076169-10 5U24 DK076169-09	-	158,886 (722)
Georgia State University	93.847	5U24 DK076169-10	-	37,851
Group Health Research Institute	93.847	1R01 DK105960-01	_	23,526
Kaiser Foundation Research Institute	93.847	1R01 DK106201-01	_	12,297
Lipella Pharmaceuticals, Inc.	93.847	1R41 DK108397-01	_	78,703
Lipella Pharmaceuticals, Inc.	93.847	1R44 DK102247-01	-	4,097
Lipella Pharmaceuticals, Inc.	93.847	4R44 DK102247-02	-	43,849
Massachusetts General Hospital	93.847	5P01 DK011794-48	-	30,840
Mayo Clinic Rochester	93.847	2R01 DK080670-07	-	473
Mayo Clinic Rochester	93.847	5U01 DK079856-05	-	168,819
Medical University of South Carolina	93.847	1U01 DK104833-01	-	86,726
Michigan State University	93.847	1R01 DK107697-01	-	31,140
Mount Sinai School of Medicine	93.847	5R01 DK038470-26	-	(322)
Mount Sinai School of Medicine	93.847	5R01 DK038470-27	-	138,254
Mount Sinai School of Medicine	93.847	5R01 DK065149-10	-	21,058
Mount Sinai School of Medicine	93.847	5R01 DK080740-06	-	(35,588)
Neuropsychiatric Research Institute	93.847	5R01 DK084979-06	-	75,782
Oregon Health & Science University	93.847	1R01 DK103842-01	-	1,923
Oregon Health & Science University Stanford University	93.847	5R01 DK103842-02	-	11,262
Stanford University University of Bristol	93.847 93.847	5R01 DK092241-04 1R01 DK103246-01	-	1,756 1,530
University of Colorado	93.847	2U01 DK062453-13	- -	(125)
University of Colorado University of Colorado	93.847	5U01 DK062453-14	-	3,781
The second of Colorado	, 5.017	2 2 0 1 2 1 2 0 2 1 0 2 1 1		3,701

Federal Grantor/Pass-Through Grantor/Program Title	CFDA Number	Direct Award or Pass Through #	Passed Through to Subrecipients	Federal Expenditures
University of Colorado	93.847	5U01 DK094467-04	_	7,325
University of Colorado	93.847	5U01 DK094467-05	-	382,712
University of Iowa	93.847	5R21 DK096327-02	-	(3,244)
University of Michigan	93.847	2U01 DK062456-13	-	(300)
University of Michigan	93.847	3U01 DK062456-14S1	-	21,172
University of Michigan	93.847	5U01 DK082316-08	-	8,571
University of North Carolina	93.847	1UC4 DK101132-01	-	1,706
University of Pennsylvania	93.847	5UM1 DK100846-02	-	(2,211)
University of Pennsylvania	93.847	5UM1 DK100846-03	-	25,232
University of South Florida	93.847	1UC4 DK095300-01	-	170,486
University of South Florida	93.847	5UC4 DK097835-02	-	12,242
University of Utah	93.847	5R01 DK091437-04	-	12,567
University of Washington Vanderbilt University	93.847 93.847	1DP3 DK108209-01 1R56 DK108352-01	-	5,983 39,798
Vanderbilt University	93.847	5K23 DK090304-04	-	2,444
Virginia Commonwealth University	93.847	5R01 DK094818-03	_	101,136
Wake Forest University	93.847	3R01 DK092237-02S2	_	10,846
Wake Forest University	93.847	5R01 DK092237-04	-	50,525
Wake Forest University	93.847	5R01 DK099164-02	-	11,799
Wake Forest University	93.847	5R01 DK099164-03	-	19,973
Washington University in St. Louis	93.847	5P01 DK096990-04		270,760
Subtotal 93.847			2,508,239	41,304,489
Extramural Research Programs in the Neurosciences				
and Neurological Disorders	93.853	Direct	1,364,476	25,316,176
Case Western Reserve University	93.853	1R01 NS094152-01	-	116,389
Columbia University	93.853	2U54 NS078059-04	-	242
Columbia University	93.853	5U54 NS078059-05	-	1,576
Emory University	93.853	3U01 NS038455-14	-	10,204
Emory University	93.853	5R01 NS071867-04	-	(2,566)
Emory University	93.853	5R01 NS071867-05	-	18,837
Emory University	93.853	5U01 NS038455-12	-	2,346
George Washington University	93.853	5U01 HD068541-04	-	1,477
Gladstone Institutes Harvard University	93.853 93.853	3R01 NS057715-05S1 1R01 NS089638-01A1	-	121 49,593
Johns Hopkins University	93.853	1U01 NS080824-01A1	-	(2,217)
Johns Hopkins University	93.853	5U01 NS080824-01A1	-	38,670
Massachusetts General Hospital	93.853	1U01 NS082329-01A1		19,435
Massachusetts General Hospital	93.853	1U01 NS088312-01	_	7,998
Massachusetts General Hospital	93.853	5K12 NS080223-03	-	84,687
Massachusetts General Hospital	93.853	5U01 NS082329-03	-	62,772
Massachusetts General Hospital	93.853	5U01 NS088312-02	-	167,201
Mayo Clinic Jacksonville	93.853	5U01 NS080168-02	-	8,259
Mayo Clinic Jacksonville	93.853	5U01 NS080168-03	-	2,322
Mayo Clinic Rochester	93.853	1R21 NS088256-01A1	-	67,289
Mayo Clinic Rochester	93.853	5R21 NS088256-02	-	15,577
Medical College of Wisconsin	93.853	5R01 NS070711-06	-	36,380
NeuroDx Development	93.853	5R44 NS067772-04	-	44,128
Rutgers University	93.853	5R01 NS038384-09	-	16,895
Solano Pharmaceuticals, Inc.	93.853	1R42 NS087700-01	-	(21)
Stanford University	93.853	5R01 NS066506-05	-	274
Stanford University	93.853	5R01 NS075209-04	-	35,093
University of California at San Francisco	93.853	3U01 NS086090-02S2	-	16,924
University of California at San Francisco	93.853 93.853	5U01 NS058634-05	-	3,492
University of California at San Francisco University of California at San Francisco	93.853	5U01 NS086090-02 5U01 NS086090-03	-	100,189 156,539
University of Cantornia at San Francisco University of Cincinnati	93.853	5U01 NS052220-06	-	136,339
University of Colorado	93.853	5R01 NS074343-04	16,310	81,543
University of Michigan	93.853	1R01 NS091175-01A1	-	22,057

Federal Grantor/Pass-Through Grantor/Program Title	CFDA Number	Direct Award or Pass Through #	Passed Through to Subrecipients	Federal Expenditures
University of Michigan	93.853	1U01 NS088034-01	_	12,846
University of Michigan	93.853	5U01 NS056975-10	-	57,743
University of Michigan	93.853	5U01 NS062091-04	-	37,213
University of Michigan	93.853	5U01 NS062835-04	-	27,711
University of Michigan	93.853	5U01 NS069498-03	-	117,681
University of Michigan	93.853	5U01 NS079077-02	-	4,514
University of New Mexico	93.853	1R21 NS091600-01A1	-	17,644
University of Utah	93.853	1R01 NS078331-01A1	-	935
University of Virginia	93.853	1U01 NS088034-01	-	50,000
University of Washington	93.853	5R01 NS072308-05	-	17,045
University of Wisconsin	93.853	1R01 NS092870-01A1		2,153
Subtotal 93.853			1,380,786	26,845,493
Allergy and Infectious Diseases Research	93.855	Direct	4,181,794	39,308,182
Albany Medical College	93.855	1R01 AI123129-01	-	44,716
Albert Einstein College	93.855	5R01 AI094745-03	-	46,526
Albert Einstein College	93.855	5R01 AI094745-04	-	56,074
Albert Einstein College	93.855	5R01 AI097548-02	-	(556)
Albert Einstein College	93.855	5R01 AI097548-03	-	112,381
Albert Einstein College	93.855	EARLY AWARD	-	11,827
Benaroya Research Institute at Virginia Mason	93.855	5UM1 AI109565-02	-	51,551
Benaroya Research Institute at Virginia Mason	93.855	5UM1 AI109565-03	-	48,010
Boston College	93.855	1U01 AI124302-01	-	23,110
Brigham & Women's Hospital	93.855	5UM1 AI068636-09	-	819,770
Brigham & Women's Hospital	93.855	5UM1 AI068636-10	-	338,196
Brigham & Women's Hospital	93.855	5UM1 AI106701-02	-	360,772
Brigham & Women's Hospital	93.855	5UM1 AI106701-03	-	354,169
Columbia University	93.855 93.855	2U19 AI067773-11	-	16,298 283,663
Columbia University Columbia University	93.855	5P01 AI106697-03 5P01 AI106697-04	-	22,746
Duke University	93.855	1UM1 AI104681-01	-	17,764
Duke University	93.855	4UM1 AI104681-04	-	58,964
Duke University	93.855	5U19 AI056363-10		58,129
Duke University	93.855	5U19 AI056363-10R	_	44,461
Duke University	93.855	5UM1 AI104681-03	_	51,487
East Carolina University	93.855	5R01 AI076272-08	-	21,011
Harvard University	93.855	5R21 AI101291-03	-	2,957
Health Research, Incorporated	93.855	5R01 AI097191-04	-	124,974
ImQuest BioSciences, Inc.	93.855	5U19 AI101961-04	-	23,484
Institute for Clinical Research Inc.	93.855	5UM1 AI068641-09	-	1,636
Johns Hopkins University	93.855	1U19 AI113127-01	-	(108)
Johns Hopkins University	93.855	5R01 AI093520-04	-	59,988
Johns Hopkins University	93.855	5U01 AI109657-03	-	4,539
Johns Hopkins University	93.855	5U19 AI113127-02	-	70,433
Johns Hopkins University	93.855	5UM1 AI035043-23	-	35,884
Loma Linda University	93.855	5R01 AI090659-04	-	(4,607)
Magee-Women's Research Institute & Foundation	93.855	1R01 AI122301-01	-	15,747
Magee-Women's Research Institute & Foundation	93.855	1U19 AI120249-01	-	662,543
Magee-Women's Research Institute & Foundation	93.855	4R01 AI102835-05	-	30,306
Magee-Women's Research Institute & Foundation	93.855	5R01 AI102835-04	-	133,457
Magee-Women's Research Institute & Foundation	93.855	5U19 AI082637-05	-	120,643
Magee-Women's Research Institute & Foundation	93.855	5U19 AI082639-05	-	213,226
Magee-Women's Research Institute & Foundation	93.855	5UM1 AI068633-09	-	723,185
Magee-Women's Research Institute & Foundation	93.855	5UM1 AI1068633-10	-	698,717
Magee-Women's Research Institute & Foundation Magee-Women's Research Institute & Foundation	93.855 93.855	5UM1 AI106707-02 5UM1 AI106707-03	-	302,558 417,148
Massachusetts General Hospital	93.855	1R01 AI114552-01	-	4,526
Massachusetts General Hospital	93.855	5R01 AI114552-02	-	3,632
Massachusetts General Hospital	93.855	5U01 AI087881-04	- -	9,241
	75.055	20011100700104		7,271

Federal Grantor/Pass-Through Grantor/Program Title	CFDA Number	Direct Award or Pass Through #	Passed Through to Subrecipients	Federal Expenditures
New York University	93.855	5U01 AI111598-03	_	47,751
New York University	93.855	5U01 AI111598-04	_	64,995
North Carolina State University	93.855	1R56 AI103557-01A1	_	7
Pennsylvania State University	93.855	1R01 AI107121-01A1	-	24,930
Pennsylvania State University	93.855	5R01 AI107121-02	-	8,265
Stanford University	93.855	4U01 AI104342-04	-	5,516
Stanford University	93.855	5U01 AI104342-03	-	30,760
Universal Stabilization Technologies	93.855	5R33 AI094508-05	-	40,563
University of California at Berkeley	93.855	5R01 AI092531-04	-	2,674
University of California at Berkeley	93.855	5R01 AI092531-05	-	163,827
University of California at San Francisco	93.855	1UM1 AI110498-01	-	17,493
University of California at San Francisco	93.855	5U01 AI100807-03	-	11,301
University of California at San Francisco	93.855	5U01 AI100807-04	-	82,313
University of Central Florida	93.855	5R33 AI082693-05	-	509
University of Louisville	93.855 93.855	1U19 AI113182-01 5U19 AI113182-02	-	260 335,015
University of Louisville University of Maryland	93.855	5R01 AI102966-02	-	159,116
University of Michigan	93.855	1R01 AI123093-01	-	57,181
University of Missouri	93.855	2R01 AI076119-06A1	-	(11,230)
University of Missouri	93.855	5R01 AI100890-03	-	6,863
University of Missouri	93.855	5R01 AI100890-04	_	107,351
University of North Carolina	93.855	5UM1 AI104681-03	_	10,010
University of North Carolina	93.855	7U19 AI084024-06	_	156,870
University of Pennsylvania	93.855	5P01 AI088564-06	_	57,490
University of Pennsylvania	93.855	5R01 AI094604-06	-	159,864
University of Texas	93.855	1R21 AI116030-01A1	-	71,519
University of Texas Medical Branch at Galveston	93.855	5R01 AI021242-29	-	(1)
University of Washington	93.855	1R21 AI119258-01	-	10,635
University of Wisconsin	93.855	5U01 AI102456-03	-	161,227
University of Wisconsin	93.855	5U01 AI102456-04	-	155,283
Vanderbilt University	93.855	4U01 AI104336-04	-	85,160
Vanderbilt University	93.855	5U01 AI104336-02	-	(21)
Vanderbilt University	93.855	5U01 AI104336-03	-	237,719
Yale University	93.855	5R01 AI104739-03	4 101 704	45,046
Subtotal 93.855			4,181,794	48,109,621
Biomedical Research and Research Training	93.859	Direct	6,164,453	33,554,599
Carnegie Mellon University	93.859	1R01 GM114311-01A1	-	52,517
Carnegie Mellon University	93.859	5T36 GM095335-05	-	27,854
Cincinnati Children's Hospital Medical Center	93.859	3R01 GM108025-02S1	-	60,207
Fox Chase Chemical Diversity Center	93.859	1R41 GM112156-01	-	43,499
Magee-Women's Research Institute & Foundation	93.859	4R01 GM104007-04	-	40,734
Magee-Women's Research Institute & Foundation	93.859	5R01 GM104007-03	-	81,018
PNA Innovations, Inc.	93.859	5R43 GM108187-02	-	81,507
Princeton University	93.859	5R01 GM114093-02	-	126,976
Research Institute at Nationwide Children's Hospital	93.859	5R01 GM094203-05	-	3,880
Rutgers University	93.859	5R01 GM104037-03	-	19,103
Scripps Research Institute	93.859	5P50 GM103368-03	-	32,984
Stanford University	93.859	5R01 GM108952-02	-	218,378
State University of New York Temple University	93.859 93.859	1R01 GM115762-01	-	15,318 (16,189)
Temple University Temple University	93.859	1R01 GM113243-01 5R01 GM113243-02	-	9,812
University of California	93.859	5R01 GM089740-06	- -	29,733
University of Colorado	93.859	5R01 GM107122-02	-	189,969
University of Massachusetts	93.859	5P01 GM109767-02	-	197,137
University of Miami	93.859	5R01 GM105004-03	80,349	165,758
University of Michigan	93.859	5R01 GM099143-04	-	20,267
University of Pennsylvania	93.859	2R01 GM084979-06A1	-	8,661
University of Pennsylvania	93.859	5P01 GM055876-15	-	(744)

Federal Grantor/Pass-Through Grantor/Program Title	CFDA Number	Direct Award or Pass Through #	Passed Through to Subrecipients	Federal Expenditures
University of Pennsylvania	93.859	5P01 GM055876-16	-	318,331
University of Pennsylvania	93.859	5P01 GM055876-17	-	23,906
University of Pennsylvania	93.859	5R01 GM084979-07	-	6,997
Washington University in St. Louis	93.859	5R01 GM113838-02		24,344
Subtotal 93.859			6,244,802	35,336,556
Child Health and Human Development Extramural Research	93.865	Direct	2,829,519	11,279,742
Accessible Designs Inc	93.865	2R44 HD060335-02	-	83,219
Arizona State University	93.865	1R01 HD082094-01A1	-	5,873
Arizona State University	93.865	1R01 HD086761-01	-	26,897
Arizona State University	93.865	5R01 HD075800-03	-	147,034
Boston University	93.865	5R24 HD065688-05	-	4,017
Carnegie Mellon University	93.865	5R01 HD071686-05	-	157,743
Children's Hospital of Philadelphia	93.865	5R01 HD079419-03	-	83,616
Children's Research Institute	93.865	5R01 HD058567-07	-	12,624
Cincinnati Children's Hospital Medical Center	93.865	5R01 HD067174-04	-	1,078 28,033
Cincinnati Children's Hospital Medical Center C-Motion, Inc.	93.865 93.865	5R01 HD067174-05 2R44 HD066831-02A1	-	60,297
Emory University	93.865	5R01 HD038979-13	-	(923)
George Washington University	93.865	5U01 HD068541-05	-	30,543
Johns Hopkins University	93.865	5U54 HD070725-04	_	51,531
Magee-Women's Research Institute & Foundation	93.865	1P01 HD075795-01	-	(959)
Magee-Women's Research Institute & Foundation	93.865	1P01 HD075795-01A1	-	(4,065)
Magee-Women's Research Institute & Foundation	93.865	1R01 HD082065-01A1	-	2,060
Magee-Women's Research Institute & Foundation	93.865	1R01 HD083383-01A1	-	104,497
Magee-Women's Research Institute & Foundation	93.865	1R01 HD086325-01	-	211,184
Magee-Women's Research Institute & Foundation	93.865	1R03 HD082446-01A1	-	10,943
Magee-Women's Research Institute & Foundation	93.865	1R21 HD080755-01	-	11,442
Magee-Women's Research Institute & Foundation	93.865	1R21 HD083659-01A1	-	66,060
Magee-Women's Research Institute & Foundation	93.865	1UG1 HD087230-01	-	17,493
Magee-Women's Research Institute & Foundation	93.865	2K12 HD063087-06	-	143,960
Magee-Women's Research Institute & Foundation	93.865	2U54 HD047905-11	-	367,044
Magee-Women's Research Institute & Foundation	93.865	3R01 HD076412-02S1	-	59,670
Magee-Women's Research Institute & Foundation	93.865	4R01 HD070647-05	-	35,860
Magee-Women's Research Institute & Foundation	93.865	5K08 HD058073-06	-	8,962
Magee-Women's Research Institute & Foundation	93.865 93.865	5K12 HD043441-13	-	410.822
Magee-Women's Research Institute & Foundation Magee-Women's Research Institute & Foundation	93.865	5K12 HD043441-14 5K12 HD063087-05	-	419,823 26,807
Magee-Women's Research Institute & Foundation	93.865	5P01 HD069316-03	-	(968)
Magee-Women's Research Institute & Foundation	93.865	5P01 HD069316-04		483,902
Magee-Women's Research Institute & Foundation	93.865	5P01 HD075795-02	-	186,778
Magee-Women's Research Institute & Foundation	93.865	5R01 HD044858-08	-	186,779
Magee-Women's Research Institute & Foundation	93.865	5R01 HD059533-04	-	5,695
Magee-Women's Research Institute & Foundation	93.865	5R01 HD065893-05	-	18,856
Magee-Women's Research Institute & Foundation	93.865	5R01 HD068578-05	-	161,817
Magee-Women's Research Institute & Foundation	93.865	5R01 HD070647-04	-	99,497
Magee-Women's Research Institute & Foundation	93.865	5R01 HD075665-04	-	422,234
Magee-Women's Research Institute & Foundation	93.865	5R01 HD076412-02	-	184,767
Magee-Women's Research Institute & Foundation	93.865	5R21 HD074278-02	-	38,240
Magee-Women's Research Institute & Foundation	93.865	5R21 HD080755-02	-	3,054
Magee-Women's Research Institute & Foundation	93.865	5T15 HD072833-03	-	40,550
Magee-Women's Research Institute & Foundation	93.865	5T32 HD071859-04	-	86,933
Magee-Women's Research Institute & Foundation	93.865	5U10 HD021410-31	-	12,992
Magee-Women's Research Institute & Foundation	93.865	5U10 HD047905-10	-	29,899
Magee-Women's Research Institute & Foundation	93.865	5U10 HD063041-04	-	16,938
Magee-Women's Research Institute & Foundation	93.865	5U10 HD069006-05	-	143,690 15,075
Magee-Women's Research Institute & Foundation Michigan Public Health Institute	93.865 93.865	HHSN275201300001I 5R01 HD069039-05	-	15,075 31,247
New York University	93.865	5R01 HD076390-02	-	164,294
1.0 Tota Omitototy	75.005	51101 IID010570-02	-	107,277

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

YEAR ENDED JUNE 30, 2016

Federal Grantor/Pass-Through Grantor/Program Title	CFDA Number	Direct Award or Pass Through #	Passed Through to Subrecipients	Federal Expenditures
Next Health, Inc.	93.865	1R44 HD085702-01	_	59,057
Oregon Health & Science University	93.865	5P50 HD071836-03	_	10,390
Oregon Health & Science University	93.865	5P50 HD071836-04	-	4,532
RE2, Inc.	93.865	1R43 HD078009-01A1	-	5,782
Rhode Island Hospital	93.865	4R01 HD072693-05	-	52,385
Rhode Island Hospital	93.865	5R01 HD072693-04	-	145,410
Seattle Children's Hospital	93.865	5R01 HD073363-02	-	6,991
Seattle Children's Hospital	93.865	5R01 HD074757-04	-	159,128
Seattle Children's Hospital	93.865	7R01 HD074757-03	-	17,535
Three Rivers Holdings, LLC	93.865	5R44 HD058376-03	-	(5,259)
University of Chicago	93.865	1R01 HD084586-01	-	4,999
University of Nebraska Medical Center	93.865	2U54 HD061939-06	-	13,640
University of Nebraska Medical Center	93.865	5U54 HD061939-07	-	3,748
University of Utah	93.865	2U01 HD049934-11	-	48,540
University of Utah	93.865	5U01 HD049934-12	-	12,643
Washington University in St. Louis	93.865	5K12 HD055931-08	-	9,734
Washington University in St. Louis	93.865	5K12 HD055931-09	-	128,977
Yale University	93.865	5R01 HD076248-03	2.020.510	35,580
Subtotal 93.865			2,829,519	16,498,214
Aging Research	93.866	Direct	2,189,719	23,339,126
Adventist Health System/Sunbelt, Inc.	93.866	7R01 AG021961-07	-	19,613
Boston University	93.866	5R01 AG018037-14	-	590
Brigham & Women's Hospital	93.866	1U01 AG048270-01	-	(46,388)
Brigham & Women's Hospital	93.866	1U01 AG051421-01	-	16,088
Brigham & Women's Hospital	93.866	5U01 AG048270-02	-	131,250
Columbia University	93.866	5R01 AG041797-03	-	(15,172)
Columbia University	93.866	5R01 AG041797-04	-	38,617
Columbia University	93.866	5R01 AG041797-05	-	6,719
Dartmouth College	93.866	5U01 AG046830-03	-	17,392
Jackson Laboratory	93.866	2P30 AG038070-06	-	50,098
Magee-Women's Research Institute & Foundation	93.866	5R25 AG043365-04	-	186,354
Massachusetts General Hospital	93.866	5U01 AG012531-22	-	45,584
Minneapolis Medical Research Foundation	93.866	5U01 AG029824-03	-	98,928
NeurOp, Inc.	93.866	1R41 AG048723-01A1	-	63,213
Northern California Institute for Research and Education	93.866	5U01 AG024904-09	-	7,007
Northern California Institute for Research and Education	93.866	5U01 AG024904-10	-	77,481
Northwestern University	93.866	1R01 AG047416-01A1	-	19,733
Northwestern University	93.866	5R01 AG047416-02	-	6,950
Psychology Software Tools, Inc.	93.866	1R43 AG047635-01A1	-	10,499
Rush University Medical Center Scripps Research Institute	93.866 93.866	2P01 AG014449-16 4P01 AG043376-04	-	(11,471) 86,826
Scripps Research Institute Scripps Research Institute	93.866	5P01 AG043376-02	-	1,154
Scripps Research Institute Scripps Research Institute	93.866	5P01 AG043376-02	-	435,712
St. Joseph's Hospital and Medical Center	93.866	5P01 AG014449-19	-	398,792
Tufts Medical Center	93.866	5R01 AG027002-08		(1,493)
Tufts Medical Center	93.866	5R01 AG027002-09	_	15,027
University of California	93.866	5U19 AG010483-24	_	54,868
University of California San Diego	93.866	5U01 AG024904-08	-	15,057
University of Delaware	93.866	4R01 AG041202-05	-	18,189
University of Florida	93.866	1U01 AG050499-01	-	94,824
University of Florida	93.866	5U01 AG022376-10	-	82,905
University of Florida	93.866	5U01 AG050499-02	-	6,121
University of Kansas	93.866	1R01 AG051470-01	-	59,568
University of Maryland	93.866	5R01 AG037120-03	-	15,991
University of Massachusetts	93.866	5R24 AG045050-02	-	8,699
University of Pennsylvania	93.866	5U01 AG030644-06	-	115,099
University of Southern California	93.866	5R21 AG044731-02	-	12,126
University of Texas Health Science Center at San Antonio	93.866	5R01 AG044768-04	-	20,350

Federal Grantor/Pass-Through Grantor/Program Title	CFDA Number	Direct Award or Pass Through #	Passed Through to Subrecipients	Federal Expenditures
University of Washington	93.866	5U01 AG016976-17	_	26,453
University of Washington	93.866	5U19 AG032438-06	_	(1,215)
University of Washington	93.866	5UF1 AG032438-07	_	178,496
Wake Forest University	93.866	5R01 AG033087-04	-	12,092
Subtotal 93.866			2,189,719	25,717,852
Vision Research	93.867	Direct	376,517	6,880,706
JAEB Center for Health Research, Inc.	93.867	5U01 EY011751-19	-	1,869
Massachusetts Eye and Ear Infirmary	93.867	2R01 EY022305-04	-	10,427
Tufts University	93.867	5R01 EY020856-06	-	57,851
University of Mississippi Medical Center	93.867	2R01 EY014263-09	-	96,255
University of Pennsylvania	93.867	5R01 EY014943-10	-	18,730
West Virginia University	93.867	5R01 EY023620-02		12,356
Subtotal 93.867			376,517	7,078,194
Medical Library Assistance	93.879	Direct	718,596	3,843,415
Brigham & Women's Hospital	93.879	5R01 LM011966-02	-	62,545
University of Utah	93.879	5R01 LM010964-05	-	60,774
Subtotal 93.879			718,596	3,966,734
International Research and Research Training	93.989	Direct	149,495	1,412,503
Other National Institutes of Health:				
Allergy and Infectious Diseases	93.000	Direct	1,091,204	2,175,680
Cancer	93.000	Direct	-	204,402
Clinical Center	93.000	Direct	-	18,054
Drug Abuse	93.000	Direct	-	1,153,827
Heart, Lung & Blood	93.000	Direct	107,085	589,438
National Library of Medicine	93.000	Direct	334,917	1,160,021
Blood Systems, Inc.	93.000	HHSN268201100001I	-	103,977
Cancer Targeted Technology, LLC	93.000	HHSN261201500074C	-	83,008
Children's Hospital of Philadelphia	93.000	HHSN261200622012C	-	8,185
Children's Hospital of Philadelphia	93.000 93.000	HHSN261200800001E HHSN272200900022C	-	48 647,702
Children's Hospital of Philadelphia Cincinnati Children's Hospital Medical Center	93.000	HHSN275200900022C HHSN275200900018C	-	
Columbus Nanoworks, Inc.	93.000	HHSN268201500011C	-	(55) 13,255
Duke University	93.000	HHSN272201100025C	-	958
Exact Sport LLC	93.000	HHSN271201200030C	_	58,980
Hager Sharp, Inc.	93.000	HHSN2762012000001U	_	48,382
Institute for Transfusion Medicine	93.000	HHSN268201100004I	_	452,462
Leidos Biomedical Research, Inc.	93.000	HHSN261200800001E	(81)	1,819,095
Magee-Women's Research Institute & Foundation	93.000	HHSN261201300016C	-	573
Mayo Clinic Rochester	93.000	HHSN261201200042I	-	115,642
Oregon Health & Science University	93.000	HHSN268201400093P	-	17,673
Qrono, Inc.	93.000	HHSN261201400043C	-	52,894
Social & Scientific Systems, Inc.	93.000	HHSN261200800001E	-	5,491
Social & Scientific Systems, Inc.	93.000	N01ES55553	-	15,264
The Ohio State University	93.000	HHSN268201100002C	-	100,625
University of Alabama	93.000	HHSN268201100025C	-	52,234
University of Alabama	93.000	HHSN272201100034C	-	52,969
University of Alabama	93.000	HHSN272201100037C	-	7,376
University of Alabama	93.000	HHSN272201300012I	-	58,826
University of California	93.000	HHSN261201100038C	-	40,721
University of Minnecote	93.000	HHSN268201100026C	-	138,243
University of Minnesota University of Missouri	93.000 93.000	HHSN276201200017C HHSN272201000035I	-	270,160 7,827
University of Missouri University of Texas M.D. Anderson Cancer Center	93.000	HHSN268200900039C	- -	14,395
University of Utah	93.000	HHSN268200900039C	-	101,202
University of Washington	93.000	HHSN268201300005C	-	16,454
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Federal Grantor/Pass-Through Grantor/Program Title	CFDA Number	Direct Award or Pass Through #	Passed Through to Subrecipients	Federal Expenditures
Vanderbilt University Medical Center	93.000	HHSN272201300023I	-	65,828
Washington University in St. Louis	93.000	EARLY AWARD	-	163,188
Westat, Inc.	93.000	HHSN261201100008C		8,089
Subtotal 93.000			1,533,125	9,843,093
Total National Institutes of Health			64,040,760	477,258,280
Substance Abuse and Mental Health Services Administration:				
Other Substance Abuse and Mental Health Services	02.000	D' .		56.402
Administration	93.000	Direct	-	56,403
Total Substance Abuse and Mental Health Services Administration	ation		-	56,403
DHHS Other:				
Johns Hopkins University	93.088	6 ASTWH150032-01-03	-	45,000
HHS Programs for Disaster Relief Appropriations Act -				
Non-Construction	93.095	Direct	7,483	77,622
Carnegie Mellon University	93.297	5TP1 AH000040-05	-	203,646
Magee-Women's Research Institute & Foundation	93.297	5TP1 AH000040-05	-	(1)
Subtotal 93.297			-	203,645
Total DHHS Other			7,483	326,267
Total Department of Health and Human Services			68,081,726	497,488,575
Department of Defense: Advanced Research Projects Agency: Rutgers University	12.431	W911NF-15-2-0036	-	339,028
Research and Technology Development	12.910	Direct	_	131,939
Carnegie Mellon University	12.910	D14AP00040	-	62,557
Harvard University	12.910	HR0011-11-C-0093	-	(128)
HRL Laboratories, LLC	12.910	HR0011-13-C-0052	-	197,173
Subtotal 12.910			-	391,541
Other Advanced Research Projects Agency	12.000	Direct	-	253,213
Triton Systems, Inc.	12.000	W31P4Q-16-C-0057	-	1,120
University of Notre Dame	12.000	FA8650-15-C-7546		26,073
Subtotal 12.000				280,406
Total Advanced Research Projects Agency				1,010,975
Defense Threat Reduction Agency: Basic Scientific Research - Combating Weapons of Mass				
Basic Scientific Research - Combating Weapons of Mass Destruction	12.351	Direct	61,306	923,267
Basic Scientific Research - Combating Weapons of Mass Destruction University of Iowa	12.351	HDTRA1-14-1-0065	61,306	52,519
Basic Scientific Research - Combating Weapons of Mass Destruction University of Iowa University of Texas at Austin	12.351 12.351	HDTRA1-14-1-0065 HDTRA1-14-1-0021	61,306 - -	52,519 97,242
Basic Scientific Research - Combating Weapons of Mass Destruction University of Iowa	12.351	HDTRA1-14-1-0065	61,306 - - -	52,519
Basic Scientific Research - Combating Weapons of Mass Destruction University of Iowa University of Texas at Austin	12.351 12.351	HDTRA1-14-1-0065 HDTRA1-14-1-0021	61,306	52,519 97,242
Basic Scientific Research - Combating Weapons of Mass Destruction University of Iowa University of Texas at Austin Washington State University	12.351 12.351	HDTRA1-14-1-0065 HDTRA1-14-1-0021	- - -	52,519 97,242 388,759

Federal Grantor/Pass-Through Grantor/Program Title	CFDA <u>Number</u>	Direct Award or Pass Through #	Passed Through to Subrecipients	Federal Expenditures
Air Force Defense Research Sciences Program	12.800	Direct	1,623,896	2,605,635
Carnegie Mellon University	12.800	FA9550-13-1-0129	-	268,687
Lehigh University	12.800	FA8650-12-2-7230	-	(4,668)
Northwestern University	12.800	FA9550-11-1-0275		164,639
Subtotal 12.800			1,623,896	3,034,293
Cornell University	12.910	FA8750-13-2-0015	-	138,126
National Center for Defense Manufacturing & Machining	12.000	FA8650-12-2-7230	234,176	617,994
Triton Systems, Inc.	12.000	FA9550-14-C-0059	-	(1,691)
Triton Systems, Inc.	12.000	FA9550-16-C-0037		4,333
Subtotal 12.000			234,176	620,636
Total Department of the Air Force			1,858,072	4,746,972
Department of the Army:				
Geneva Foundation	12.360	W911QY-14-1-0003	-	12,630
Military Medical Research and Development	12.420	Direct	3,401,072	14,973,405
Craig Hospital	12.420	W81XWH-14-1-0564	-	1,010
Geneva Foundation	12.420	W81XWH-13-2-0004	-	56,223
Geneva Foundation	12.420	W81XWH-14-2-0178	-	10,844
Geneva Foundation	12.420	W81XWH-15-2-0047	-	59,583
Geneva Foundation	12.420	W81XWH-15-2-0061	-	9,661
Henry M. Jackson Foundation	12.420	W81XWH-11-2-0131	-	415
Henry M. Jackson Foundation	12.420	W81XWH-14-2-0144	-	9,888
Henry M. Jackson Foundation	12.420	W81XWH-14-2-0145	-	551,208
Lipella Pharmaceuticals, Inc.	12.420	W81XWH-12-1-0565	-	117,690
Magee-Women's Research Institute & Foundation	12.420	W81XWH-10-1-0542	-	(3,315
Medical University of South Carolina	12.420	W81XWH-11-2-0229	-	4,877
Neuren Pharmaceuticals, Ltd	12.420	W81XWH-09-1-0496	-	3,256
TDA Research, Inc.	12.420	W81XWH-13-C-0157	-	248,128
Tissue Genesis Institute, LLC	12.420	W81XWH-13-2-0030	-	132,874
University of Alabama	12.420	W81XWH-15-1-0705	-	15,236
University of California	12.420	W81XWH-14-2-0176	-	112,980
University of Maryland	12.420	W81XWH-08-2-0159	-	3,382
University of Michigan	12.420	W81XWH-BAA-14-1	-	122,077
University of Pittsburgh Medical Center	12.420	W81XWH-04-1-0851	-	43,496
University of Texas at Arlington	12.420	W81XWH-15-1-0719	-	75,806
Wake Forest University	12.420	W81XWH-08-2-0032	398,953	1,112,664
Wake Forest University	12.420	W81XWH-13-2-0052	-	121,238
Wake Forest University	12.420	W81XWH-13-2-0053	131,092	291,251
Wake Forest University	12.420	W81XWH-13-2-0054	-	43,872
Wake Forest University	12.420	W81XWH-14-2-0003	-	696,663
Wake Forest University Subtotal 12.420	12.420	W81XWH-14-2-0004	187,216 4,118,333	560,905 19,375,317
Basic Scientific Research	12.431	Direct	238,256	1,357,214
Carnegie Mellon University	12.431	W911NF-14-1-0422	-	108,653
Princeton University Subtotal 12.431	12.431	W911NF-15-1-0397	238,256	156,363 1,622,230
Research and Technology Development	12.910	Direct	514,446	2,019,528
Other Department of the Army	12.000	Direct	165,797	836,984
Banyan Biomarkers Inc.	12.000	W911QY-15-C-0019	-	126
Brigham & Women's Hospital	12.000	W81XWH-15-1-0263	-	34,285
Children's Research Institute	12.000	W81XWH-12-1-0417	-	426

Federal Grantor/Pass-Through Grantor/Program Title	CFDA <u>Number</u>	Direct Award or Pass Through #	Passed Through to Subrecipients	Federal Expenditures
DetectIR Technologies, Inc.	12.000	W911NF-16-P-0011	-	13,876
Johns Hopkins University	12.000	W81XWH-09-2-0108	-	32,817
Johns Hopkins University	12.000	W81XWH-10-2-0090	-	113,447
KCF Technologies, INC	12.000	W81XWH-14-C-0013	-	4,934
Materials Sciences Corporation	12.000	W31P4Q-15-C-0121	-	30,000
MD Consulting, LLC.	12.000	W91YTZ-11-P-0929	-	99,993
Neuren Pharmaceuticals, Ltd	12.000	W81XWH-08-2-0014	-	289,171
Subtotal 12.000			165,797	1,456,059
Total Department of the Army			5,036,832	24,485,764
Department of the Navy:				
Basic and Applied Scientific Research	12.300	Direct	832,611	5,903,199
Johns Hopkins University	12.300	N66001-10-C-4056	-	861,497
University of California at Los Angeles	12.300	N00014-14-1-0650	_	131,376
University of Kentucky	12.300	N00014-15-1-0069	_	50,163
University of Virginia	12.300	N00014-14-1-0348	_	57,867
University of Virginia	12.300	N00014-14-1-0637	_	54,111
Subtotal 12.300	12.000	1,0001, 1, 1, 0,00,	832,611	7,058,213
Other Department of the Navy	12.000	Direct	666,813	1,986,366
Total Department of the Navy			1,499,424	9,044,579
National Security Agency: Information Security Grants Carnegie Mellon University Total National Security Agency	12.902 12.000	H98230-14-C-0140	- -	60,076 55,000 115,076
DoD Other:				
Research on Chemical and Biological Defense	12.360	Direct	-	968,617
Geneva Foundation	12.750	HU0001-15-1-TS04		16,527
Total DoD Other			-	985,144
Total Department of Defense			8,455,634	41,850,297
Other Agencies:				
Agency for International Development:				
JSI Research & Training Institute, Inc	98.001	AID-OAA-A-12-00047	-	789,306
Management Sciences For Health, Inc.	98.001	AID-OAA-A-11-00015		45,370
Subtotal 98.001				834,676
Other Agency for International Development	98.000	Direct	57,615	331,858
Mitchell Group, Inc.	98.000	AID-624-M-13-00001	-	473,752
National Opinion Research Center	98.000	AID-OAA-M-13-00013	-	22,122
RTI International	98.000	AID-OAA-A-14-00012		17,502
Subtotal 98.000			57,615	845,234
Total Agency for International Development			57,615	1,679,910

Federal Grantor/Pass-Through Grantor/Program Title	CFDA Number	Direct Award or Pass Through #	Passed Through to Subrecipients	Federal Expenditures
Department of Agriculture:				
US Civilian Research & Development Foundation	10.001	59-0210-2-160	-	52,773
Arizona State University	10.310	2012-67009-19717	-	1,080
Pennsylvania State University	10.561	SNAP	-	13,045
Other Department of Agriculture	10.000	Direct	-	16,854
Total Department of Agriculture			<u> </u>	83,752
Department of Commerce:				
Measurement and Engineering Research and Standards	11.609	Direct	-	1,367
Total Department of Commerce			-	1,367
Department of Education:				
Overseas Programs - Doctoral Dissertation Research Abroad	84.022	Direct	-	19,535
Commonwealth of Pennsylvania	84.126	FC4000007735	-	619,842
National Institute on Disability and Rehabilitation Research	84.133	Direct	(27,671)	(37,913
Gallaudet University	84.133	H133E140056	-	29,730
Innovative Design Labs, Inc.	84.133	H133S140099	-	21,445
University of Alabama	84.133	H133E120005	-	(35,90
University of Massachusetts Subtotal 84.133	84.133	H133B140040	(27,671)	24,06° 1,430
Graduate Assistance in Areas of National Need	84.200	Direct		166,018
Propel Schools	84.287	21st CCLC	-	13,000
Education Research, Development, and Dissemination	84.305	Direct	374,138	2,599,602
Harvard University	84.305	R305A140121	-	39,273
University of Michigan	84.305	R305A140647	-	132,910
University of Wisconsin	84.305	R305A130030	-	47,090
Subtotal 84.305			374,138	2,818,880
Research in Special Education	84.324	Direct	-	2
University of South Carolina	84.324	R305A130467		49,289
Subtotal 84.324				49,293
Pittsburgh Public Schools	84.000	S366B120039	-	29,000
Total Department of Education			346,467	3,717,004
Department of Energy:				
Office of Science Financial Assistance Program	81.049	Direct	220,934	3,643,572
Directed Vapor Technologies International, Inc.	81.049	DE-SC0013098	-	34,880
Harvard University	81.049	DE-SC0005247	-	95,000
Northwestern University	81.049	DE-SC0000989	-	194,868
University of Illinois	81.049	DE-FG02-03ER15476	-	139,124
UT-Battelle, LLC Subtotal 81.049	81.049	DE-AC05-00OR22725	220,934	13,855 4,121,299
			220,934	
Conservation Research and Development	81.086	Direct	-	406,984
University of Central Florida	81.087	DE-EE0006340	-	10,931
University of Oklahoma Subtotal 81.087	81.087	DE-EE0006287		82,913 93,844
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Federal Grantor/Pass-Through Grantor/Program Title	CFDA Number	Direct Award or Pass Through #	Passed Through to Subrecipients	Federal Expenditures
Fossil Energy Research and Development Pennsylvania State University	81.089 81.089	Direct DE-FE0024056	45,923	497,111 53,201
Subtotal 81.089	61.069	DE-PE0024030	45,923	550,312
Nuclear Energy Research, Development, and Demonstration	81.121	Direct	-	548,464
Westinghouse Electric Company, LLC Subtotal 81.121	81.121	DE-FOA-0001163		97,644 646,108
Advanced Research Projects Agency - Energy	81.135	Direct	339,774	591,951
, , ,			332,771	
Other Department of Energy Battelle Memorial Institute	81.000 81.000	Direct DE-AC05-76RL01830	-	15,772 142,665
Battelle Memorial Institute	81.000	DE-AC03-70KL01830 DE-AC07-05ID14517	_	9,198
Brookhaven Science Associates, LLC	81.000	DE-AC02-98CH10886	_	26,173
Brookhaven Science Associates, LLC	81.000	DE-SC0012704	_	84,100
Fermi Research Alliance, LLC	81.000	DE-AC02-76CH03000	_	7,617
KeyLogic Systems, Inc.	81.000	DE-FOA-0001190	_	(6,135)
Leland Stanford, Jr. University	81.000	DE-AC02-76SF00515	_	51,379
Los Alamos National Security, LLC	81.000	DE-AC52-06NA25396	_	570,953
Oak Ridge National Laboratory	81.000	DE-AC05-00OR22725	_	12,996
Research Foundation - State University of New York	81.000	DE-AC07-05ID14517	-	51,668
Sandia Corporation, a subsidiary of Lockheed Martin	81.000	DE-AC04-94AL85000	-	98,954
URS Corporation	81.000	DE-FE0004000	-	209,155
UT-Battelle, LLC	81.000	DE-AC05-00OR22725	-	80,396
UT-Battelle, LLC	81.000	DE-AC07-05ID14517	13,975	71,893
Subtotal 81.000	01.000	22 11607 00121 1017	13,975	1,426,784
Total Department of Energy			620,606	7,837,282
Department of Housing and Urban Development: Housing Authority of the City of Pittsburgh	14.881	MTW Demonstration	-	(132)
Total Department of Housing and Halon Development				(122)
Total Department of Housing and Urban Development			-	(132)
Department of the Interior:				
University of Wyoming	15.945	P14AC00990	-	2,757
Other Department of the Interior	15.000	Direct	(188)	_
Vanderbilt University	15.000	D15PC00304	-	6,994
Subtotal 15.000			(188)	6,994
Total Department of the Interior			(188)	9,751
Department of Justice:				
Juvenile Justice and Delinquency Prevention Allocation to States	16.540	Direct	-	631,423
Commonwealth of Pennsylvania	16.540	2012-JF-FX-0013		18,480
Subtotal 16.540				649,903
Pennsylvania Commission on Crime and Delinquency	16.738	2012-DJ-BX-0176	_	81,516
Magee-Women's Research Institute & Foundation	16.738	2012-DJ-BX-0176	_	(734)
Subtotal 16.738	10.750			80,782
Other Department of Justice	16.000	Direct	-	85,733
Total Department of Justice			-	816,418

Federal Grantor/Pass-Through Grantor/Program Title	CFDA Number	Direct Award or Pass Through #	Passed Through to Subrecipients	Federal Expenditures
Department of Labor:				
Three Rivers Workforce Investment Board	17.259	WIA/WIOA	-	80,659
Total Department of Labor			 -	80,659
4				
Department of State:				
Institute of International Education	19.401	S-ECAGD-13-CA-149	-	89,313
Total Department of State			-	89,313
Department of Transportation:				
University of Cincinnati	20.200	DTFH61-08-H-000035	_	51,986
Commonwealth of Pennsylvania	20.205	construct&planning	_	588,395
National Association of EMS	20.614	DTNH22-13-H-00435	_	381
Transportation Planning, Research, and Education	20.931	Direct	103,178	195,143
Transportation Flamming, Research, and Education	20.731	Direct	103,176	173,143
Carnegie Mellon University	20.000	DTFH61-14-C-000001	-	23,560
National Association of EMS	20.000	DTHN2215C00029		46,288
Subtotal 20.000			-	69,848
Total Department of Transportation			103,178	905,753
Department of Veterans Affairs:				
Other Department of Veterans Affairs	64.000	Direct	54,936	5,122,049
Total Department of Veterans Affairs			54,936	5,122,049
Environmental Protection Agency:				
Science To Achieve Results (STAR) Research Program	66.509	Direct	_	58,248
Emory University	66.509	RD-83479901	_	8,743
Vanderbilt University	66.509	RD-83573601		655,690
valider of the Conversity	00.509	KD-83373001	-	055,090
Total Environmental Protection Agency				722,681
General Services Administration:				
Other General Services Administration	93.000	Direct	-	24,850
Total General Services Administration			<u> </u>	24,850
N.A.S.A.:				
Aerospace Education Services Program:				
NNX11AL29G	43.001	Direct	-	(11)
NNX11AP17G	43.001	Direct	8,660	32,432
NNX14AB41G	43.001	Direct	-	84,495
	43.001	Direct	_	29,024
NNX14AK88H	45.001	* * * *		223,933
NNX14AK88H NNX14AO96G		Direct	62.212	ZZ.7.911
NNX14AQ96G	43.001	Direct	62,212	
NNX14AQ96G NNX15AM03G	43.001 43.001	Direct	62,212	83,768
NNX14AQ96G NNX15AM03G NNX15AQ72H	43.001 43.001 43.001	Direct Direct	62,212 - - -	83,768 23,674
NNX14AQ96G NNX15AM03G	43.001 43.001	Direct	62,212	83,768

Federal Grantor/Pass-Through Grantor/Program Title	CFDA Number	Direct Award or Pass Through #	Passed Through to Subrecipients	Federal Expenditures
Smithsonian Astrophysical Observatory	43.001	NAS8-03060	-	37,076
University of Montana	43.001	NNA15BB04A	70.072	186,939
Subtotal 43.001			70,872	839,787
University of Houston	43.003	NNX15AC13G	-	15,003
Pennsylvania State University	43.008	NNX15AK06H	-	9,425
Pennsylvania State University	43.000	NNX10AK74H	-	13,061
Space Telescope Science Institute	43.000	NAS5-26555		99,276
Subtotal 43.000			-	112,337
Total N.A.S.A			70,872	976,552
National Endowment for the Humanities:				
Promotion of the Humanities Division of Preservation and Access Promotion of the Humanities - Teaching and Learning	45.149	Direct	-	5,139
Resources and Curriculum Development	45.162	Direct	-	40,860
Total National Endowment for the Humanities				45,999
National Science Foundation:	47.041	Direct	15,009	4,542,589
Engineering Grants Alacrity Semiconductors, Inc.	47.041	Direct IIP-1448305	13,009	4,342,389
Carnegie Mellon University	47.041	CMMI-1130616	-	(5)
Carnegie Mellon University	47.041	EEC-0540865	-	(39,410)
Liquid X Printed Metals, Inc.	47.041	IIP-1521413	-	48,710
North Carolina A & T State University	47.041	EEC-0812348	-	1,265,744
Subtotal 47.041			15,009	5,817,620
Mathematical and Physical Sciences	47.049	Direct	316,930	7,258,109
AURA, Inc.	47.049	AST-1202910	-	64,824
Carnegie Mellon University	47.049	DMS-1516288	-	503
Carnegie Mellon University	47.049	DMS-1557572	-	46,501
Carnegie Mellon University	47.049	PHY-1306805	-	17,692
Columbia University	47.049	PHY-1119200	-	48,958
University of California at Irvine Subtotal 47.049	47.049	CHE-1414466	316.930	211,820 7,648,407
Successive Property				7,010,107
Geosciences	47.050	Direct	518,072	1,398,040
Pennsylvania State University	47.050	OCE-1140159	-	21,598
University of Arizona Subtotal 47.050	47.050	EAR-1338553	518,072	37,861 1,457,499
Computer and Information Science and Engineering	47.070	Direct		2,687,983
Carnegie Mellon University	47.070	IIS-1320347	-	25,561
Rochester Institute of Technology	47.070	CCF-1331788	-	65,248
Subtotal 47.070			-	2,778,792
Biological Sciences	47.074	Direct	123,116	1,571,003
Carnegie Mellon University	47.074	DBI-1356505	-	103,609
Carnegie Mellon University	47.074	IOS-1024811	-	1,144
Hauptman Woodward Medical Research Institute	47.074	DBI-1231306	 .	62,097
Subtotal 47.074			123,116	1,737,853
Social, Behavioral, and Economic Sciences	47.075	Direct	25,129	547,191
Carnegie Mellon University	47.075	BCS-1439237	-	4,990
Carnegie Mellon University	47.075	BCS-1533672	-	33,117

Federal Grantor/Pass-Through Grantor/Program Title	CFDA Number	Direct Award or Pass Through #	Passed Through to Subrecipients	Federal Expenditures
Carnegie Mellon University	47.075	OMA-0836012	-	21,269
National Bureau of Economic Research	47.075	SES-1459847	<u></u> _	23,841
Subtotal 47.075			25,129	630,408
Education and Human Resources	47.076	Direct	374,162	4,813,518
Community College of Allegheny County	47.076	DUE-1400575	-	50,969
Duke University	47.076	DRL-1031351	-	49,741
Educational Development Center	47.076	DRL-1321216	-	218,779
Franklin Institute	47.076	DUE-1239782	-	161,384
Fred Rogers Company	47.076	DRL-1323485	-	102,302
Fred Rogers Company	47.076	DRL-1516446	-	53,172
Miami Science Museum	47.076	HRD-0937245	-	1,104
Michigan State University	47.076 47.076	DRL-1440988	- 15 576	(53,904) 30,872
National Writing Project Corporation University of South Florida	47.076	DRL-1224161 DUE-1322586	15,576	51,853
University of Wisconsin	47.076	DUE-1322380 DUE-1231286	-	59,572
Subtotal 47.076	47.070	DOE-1231200	389,738	5,539,362
Office of Cyberinfrastructure	47.080	Direct		258,834
Trans-NSF Recovery Act Research Support - ARRA	47.080	Direct	-	(264)
University of California	47.000	EARLY AWARD	-	37,811
Total National Science Foundation			1,387,994	25,906,322
Nuclear Regulatory Commission: U. S. Nuclear Regulatory Commission Nuclear Education Grant Program Total Nuclear Regulatory Commission	77.006	Direct	- 	75,665 75,665
Vietnam Education Foundation: U.S. Faculty Scholar Grants	85.801	Direct	-	4,500
Total Vietnam Education Foundation				4,500
Total Other Agencies			2,641,480	48,099,695
TOTAL RESEARCH AND DEVELOPMENT CLUSTER			79,178,840	587,438,567
II. STUDENT FINANCIAL ASSISTANCE CLUSTER:				
Department of Education:				
Federal Supplemental Educational Opportunity Grants	84.007	Direct	-	1,264,524
Federal Work-Study Program	84.033	Direct	-	2,384,637
Federal Pell Grant Program	84.063	Direct	-	22,329,689
Teacher Education Assistance for College and Higher				
Education Grants (TEACH Grants)	84.379	Direct	-	5,000
Federal Perkins Loan Program	84.038	Direct	-	34,789,856
Direct Student Loans Program	84.268	Direct	-	248,874,430
Total Department of Education			-	309,648,136

Federal Grantor/Pass-Through Grantor/Program Title	CFDA Number	Direct Award or Pass Through #	Passed Through to Subrecipients	Federal Expenditures
Health Resources and Services Administration:				
Nursing Faculty Loan Program	93.264	Direct	-	467,236
Health Professions Student Loan Program:				
Medicine	93.342	Direct	-	163,749
Dentistry Pharmacy	93.342 93.342	Direct Direct	-	5,020,938 1,492,644
Subtotal 93.342	93.342	Direct	-	6,677,331
Disadvantaged Student Loan Program:				
Dentistry	93.342	Direct	-	136,358
Medicine	93.342	Direct		305,551
Subtotal 93.342				441,909
Nursing Student Loan Program:	02.254	70.		2 201 440
Baccalaureate	93.364 93.408	Direct	-	2,381,440 146,795
Nursing Faculty Loan Program - ARRA	93.408	Direct		140,793
Total Health Resources and Services Administration				10,114,711
TOTAL STUDENT FINANCIAL ASSISTANCE CLUSTER				319,762,847
III. TRIO CLUSTER:				
Department of Education: TRIO - Student Support Services	84.042	Direct	-	569,820
Total Department of Education				569,820
TOTAL TRIO CLUSTER				569,820
IV. HEAD START CLUSTER:				
Administration for Children and Families:				
Head Start	93.600	Direct	3,440,427	4,066,638
Total Administration for Children and Families			3,440,427	4,066,638
TOTAL HEAD START CLUSTER			3,440,427	4,066,638
V. CHILD NUTRITION CLUSTER:				
Department of Agriculture: Commonwealth of Pennsylvania	10.559	SFSP	-	10,289
Total Department of Agriculture				10,289
TOTAL CHILDREN NUTRITION CLUSTER				10,289

Federal Grantor/Pass-Through Grantor/Program Title	CFDA <u>Number</u>	Direct Award or Pass Through #	Passed Through to Subrecipients	Federal Expenditures
OTHER PROGRAMS:				
Department of Health and Human Services:				
Administration for Children and Families:				
Commonwealth of Pennsylvania	93.556	4100064360	-	110,235
Commonwealth of Pennsylvania	93.643	4100064360	-	303,961
Commonwealth of Pennsylvania	93.658	4100066356	-	8,467,356
Commonwealth of Pennsylvania	93.658	4100064360	110,245	9,359,114
Subtotal 93.658			110,245	17,826,470
Commonwealth of Pennsylvania	93.669	4100064360	-	81,588
Commonwealth of Pennsylvania	93.674	4100064360	-	640,866
Total Administration for Children and Families			110,245	18,963,120
Centers for Disease Control and Prevention:				
Commonwealth of Pennsylvania	93.074	3U90 TP000545-03S1	-	13,543
Commonwealth of Pennsylvania	93.074	5U90 TP000545-03	-	13,316
Commonwealth of Pennsylvania	93.074	5U90 TP000545-04	-	28,798
Commonwealth of Pennsylvania	93.074	TP12-120102CONT13	-	(3,491
District of Columbia	93.074	5U90 TP000519-03	-	1,703
Subtotal 93.074				53,869
Commonwealth of Pennsylvania	93.283	5U58 DP003937-04	-	26,113
Assoc. of State and Territorial Health Officials	93.524	3U38 OT000161-01S1	-	6,058
ChangeLab Solutions	93.524	5U38 OT000141-03		100,053
Subtotal 93.524				106,111
Commonwealth of Pennsylvania	93.758	2B01 OT009045-14	-	22,451
Commonwealth of Pennsylvania	93.758	2B01 OT009045-15	-	52,403
Subtotal 93.758				74,854
Commonwealth of Pennsylvania	93.940	5U62 PS003643-04	-	870,354
Commonwealth of Pennsylvania	93.940	5U62 PS003643-05	-	645,770
Commonwealth of Pennsylvania Subtotal 93.940	93.940	5U62 PS323509-07	-	1,516,138
Commonwealth of Pennsylvania	93.988	3U58 SO000042-03S2	- 90.972	6,348
Commonwealth of Pennsylvania	93.991	PHHSBG	89,872	438,065
Total Centers for Disease Control and Prevention			89,872	2,221,498
Centers for Medicare and Medicaid Services:				
Feinstein Institute for Medical Research	93.610	1C1 CMS331052-03	-	28,446
Allegheny County	93.778	Medical Assistance Program	-	5,827
Behavioral Health Alliance of Rural Pennsylvania Subtotal 93.778	93.778	Medical Assistance Program		11,692 17,519
Total Centers for Medicare and Medicaid Services				45,965
Health Resources and Services Administration:				
Training in General, Pediatric, and Public Health Dentistry	93.059	Direct	-	287,472

Federal Grantor/Pass-Through Grantor/Program Title	CFDA <u>Number</u>	Direct Award or Pass Through #	Passed Through to Subrecipients	Federal Expenditures
Pennsylvania State University	93.107	5U77 HP06111-10	30,163	30,163
Pennsylvania State University	93.107	5U77 HP06111-11	49,193	49,193
Subtotal 93.107			79,356	79,356
Maternal & Child Health Federal Consolidated Programs	93.110	Direct	-	692,690
Health Research, Incorporated	93.110	5H46 MC24094-03	-	(238)
Health Research, Incorporated	93.110	5H46 MC24094-04	-	24,959
Subtotal 93.110			-	717,411
Nurse Anesthetist Traineeships	93.124	Direct	-	62,777
Emergency Medical Services for Children	93.127	Direct	-	182,937
Consolidated Health Centers (Community Health Centers				
Migrant Health Centers, Health Care for the Homeless				
and Public Housing Primary Care)	93.224	Direct	-	900,461
Substance Abuse and Mental Health Services Projects				
of Regional and National Significance	93.243	Direct	-	445,556
Advanced Nursing Education Grant Program	93.247	Direct	-	113,174
Public Health Training Centers Program	93.249	Direct	-	2,700
Geriatric Academic Career Awards	93.250	Direct	-	23,441
Leadership in Public Health Social Work Education Grant				
Program	93.330	Direct	-	222,238
Nurse Education, Practice Quality and Retention Grants	93.359	Direct	-	70,722
Affordable Care Act (ACA) Public Health Training				
Centers Program	93.516	Direct	495,954	960,932
Grants for Primary Care Training and Enhancement	93.884	Direct	-	3,979
Jewish Healthcare Foundation	93.917	Ryan White CARE Act	_	190,018
PPHF Geriatric Education Centers	93.969	Direct	231,822	750,598
Total Health Resources and Services Administration			807,132	5,013,772
Substance Abuse and Mental Health Services Administration:				
CMSU Counties of Central Pennsylvania	93.104	1U79 AM062468-01	_	52,707
Commonwealth of Pennsylvania	93.104	5U79 SM059056-05	(580)	433,437
Subtotal 93.104	75.104	3077 5141037030 03	(580)	486,144
Substance Abuse and Mental Health Services Projects of				
Regional and National Significance	93.243	Direct	138,572	659,731
Allegheny County	93.243	1H79 SM061548-01	136,372	202,856
Allegheny Singer Research Institute	93.243	5U79 SM061257-03	_	26,196
Allegheny Singer Research Institute	93.243	5U79 SM061257-04	_	10,405
Allegheny Singer Research Institute	93.243	5U79 SM061257-04R	_	60,678
Allegheny Singer Research Institute	93.243	5U79 TI025406-02	_	36,296
Allegheny Singer Research Institute	93.243	5U79 TI025406-03	_	110,480
Chatham University	93.243	1H79 TI025985-01	_	91,861
Commonwealth of Pennsylvania	93.243	1H79 SM061915-01	_	79,343
Commonwealth of Pennsylvania	93.243	5H79 SM061915-02	_	216,116
Commonwealth of Pennsylvania	93.243	5U79 SM061250-02	11,164	39,802
Commonwealth of Pennsylvania	93.243	5U79 SM061250-03	-	348,825
Commonwealth of Virginia	93.243	5U79 SM061221-03	_	40,032
Morehouse School of Medicine	93.243	1H79 TI026010-01	_	91,131
University of the Sciences in Philadelphia	93.243	1H79 TI026008-01	_	90,634
Subtotal 93.243	75.245	-11.7 11020000 01	149,736	2,104,386
Total Substance Abuse and Mental Health Services Administ	ration		149,156	2,590,530

12.900	Direct	-	45,908
		-	45,908
12.357	H98210-13-2-0001	-	424,948
		-	424,948
			470,856
98 000	AID-611-C-12-00003	_	39,435
70.000	112 011 0 12 00000		
			39,435
94.006	090200	-	161,725
		-	161,725
10.558	CACFP	-	43,762
		-	43,762
11.307	Direct	-	80,108
		-	80,108
84.015	Direct	-	1,652,989
84.021	Direct	-	5,443
84.116	P116M100008	-	(13,779
84.129	Direct	-	24,628
84.200	Direct	-	49,390
84.325	Direct	-	810,798
84.367	SEED	-	9,837
84.367	U367D150004	-	6,850 16,687
	98.000 94.006 10.558 11.307 84.015 84.021 84.116 84.129 84.200 84.325	12.357 H98210-13-2-0001 98.000 AID-611-C-12-00003 94.006 090200 10.558 CACFP 11.307 Direct 84.021 Direct 84.116 P116M100008 84.129 Direct 84.200 Direct 84.325 Direct 84.367 SEED	12.357

Federal Grantor/Pass-Through Grantor/Program Title	CFDA Number	Direct Award or Pass Through #	Passed Through to Subrecipients	Federal Expenditures
Department of Energy:				
Nuclear Energy Research, Development and Demonstration	81.121	Direct	-	69,076
Total Department of Energy			-	69,076
Department of Homeland Security:				
Homeland Security-related Science, Technology, Engineering and Mathematics (HS STEM) Career Development Program	97.104	Direct	-	4,320
Total Department of Homeland Security			-	4,320
Department of Housing and Urban Development:				
Municipality of Penn Hills Municipality of Penn Hills	14.218 14.218	B-14-MC-42-0104 B-15-MC-42-0104	-	(576 1,309
Municipanty of Femi Finis	14.216	D-13-MC-42-0104	-	1,309
Total Department of Housing and Urban Development			-	733
Department of Labor:				
Commonwealth of Pennsylvania University of Wisconsin	17.245 17.502	TAA0249-14 SH-24880-13-60-F-55	-	39,845 (11)
Total Department of Labor			<u> </u>	39,834
Department of Treasury:	21 000	D :		00.202
Low-Income Taxpayer Clinics	21.008	Direct		88,393
Total Department of Treasury			-	88,393
Institute of Museum and Library Services:				••••
Commonwealth of Pennsylvania Commonwealth of Pennsylvania	45.310 45.310	LS-00-14-0039-14 LS-00-15-0039-15	-	20,414 18,442
Total Institute of Museum and Library Services				38,856
National Endowment for the Humanities: Promotion of the Humanities - Professional Development	45.163	Direct	-	46,916
Total National Endowment for the Humanities			<u> </u>	46,916
Nuclear Regulatory Commission:				
U.S. Nuclear Regulatory Commission Scholarship and Fellowship Program	77.008	Direct	-	73,500
Total Nuclear Regulatory Commission				73,500
Peace Corps:				
Other Peace Corps	08.000	Direct	-	21,233
Total Peace Corps				21,233

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

YEAR ENDED JUNE 30, 2016

Federal Grantor/Pass-Through Grantor/Program Title	CFDA Number	Direct Award or Pass Through #	Passed Through to Subrecipients	Federal Expenditures
Small Business Administration:				
University of Pennsylvania	59.037	SBAHQ-14-B-0076	-	46,741
University of Pennsylvania	59.037	SBAHQ-15-B-0053		266,745
Subtotal 59.037				313,486
Other Small Business Administration	59.000	Direct	-	8,480
University of Pennsylvania	59.000	EARLY AWARD	-	85,878
Subtotal 59.000				94,358
Total Small Business Administration				407,844
Total Other Agencies			_	3,661,891
TOTAL OTHER PROGRAMS			1,156,405	32,967,632
GRAND TOTAL - FEDERAL AWARDS			\$ 83,775,672 \$	944,815,793

See accompanying notes to schedule of expenditures of federal awards.

Notes to Schedule of Expenditures of Federal Awards Year ended June 30, 2016

(1) Basis of Presentation and Significant Accounting Policies

The accompanying schedule of expenditures of federal awards (the Schedule) includes all grants, contracts, and similar agreements of the University of Pittsburgh – Of the Commonwealth System of Higher Education (the University), which have been financed by the U.S. federal government for the year ended June 30, 2016. The federal award information is presented in accordance with the requirements of Title 2 U.S. Code of Federal Regulations Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance).

For the purposes of the Schedule, federal awards have been classified in two types:

- Direct federal awards, and
- Pass-through funds received from nonfederal organizations made under federally sponsored programs conducted by those organizations.

The Schedule also presents expenditures passed through from the University to other nonfederal subrecipient organizations. Since the Schedule presents only a selected portion of the activities of the University, it is not intended to and does not present either the financial position, changes in net assets, or cash flows of the University. The Schedule is prepared on the accrual basis of accounting. Negative expenditures detailed in the Schedule result from current year adjustments to prior year award amounts.

Expenditures for federal awards (excluding student financial assistance) are determined using cost accounting principles and procedures set forth in OMB Circular A-21, Cost Principles for Educational Institutions, and the uniform administrative requirements as set forth in OMB Circular A-110, Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations or the administrative and cost principles contained in the Uniform Guidance, as applicable. Under these cost principles and administrative requirements, certain expenditures are not allowable or are limited as to reimbursement.

Expenditures for student financial assistance are recognized as incurred and include the federal share of students' Federal Supplemental Educational Opportunity Grants program and Federal Work-Study program earnings, Pell grants, loan disbursements, and administrative cost allowances, where applicable.

(2) Reimbursement of Facilities and Administrative Costs

Sponsored grants and contracts normally provide for the recovery of direct and facilities and administrative costs (F&A costs). Recovery of the related F&A costs is generally recorded at predetermined rates negotiated with the federal government. Entitlement to these resources for the recovery of the applicable direct and related F&A costs is generally conditioned upon compliance with the terms and conditions of the grant agreements and applicable federal regulations, including the expenditure of the resources for eligible purposes. Substantially all grants and the University's F&A cost rate are subject to financial and compliance reviews and audits by the grantors. In management's opinion, the likelihood of an adverse material outcome upon the University's financial position from those reviews and audits is remote. On June 10, 2015, the Department of Health and Human Services approved F&A cost recovery rates effective from July 1, 2015 through June 30, 2019. The University has elected not to use the 10-percent de minimis indirect cost rate as allowed under the Uniform Guidance.

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(Continued)

Notes to Schedule of Expenditures of Federal Awards

Year ended June 30, 2016

(3) Federal Loan Programs

The University administers the following federal loan programs with an outstanding loan balance as of June 30, 2016:

Federal grant and program title	CFDA number	 Outstanding loan balance
Department of Education – Federal Perkins Loan Program	84.038	\$ 28,134,252
Department of Health and Human Services – Public Service: Health Professions Student Loan Program:		
Medicine	93.342	139,133
Dentistry	93.342	4,333,022
Pharmacy	93.342	1,315,512
Nursing Student Loan Program – Baccalaureate	93.364	1,937,628
Nursing Faculty Loan Program:		
Nursing Faculty Loan ARRA	93.408	146,795
Nursing Faculty Loan	93.264	458,721
Disadvantaged Student Loan Program:		
Medicine	93.342	293,073
Dentistry	93.342	136,358

The Perkins and Department of Health and Human Services Public Service Loan Programs are administered directly by the University, and balances and transactions relating to these programs are included in the University's consolidated financial statements. The amounts included in the Schedule of Expenditures under the Perkins and Department of Health and Human Services Public Service Loan Programs include the balance of the respective loan program as of June 30, 2015 and new loans issued during fiscal 2016.

(4) Department of Education Direct Loan Programs

The University is responsible only for the performance of certain administrative duties with respect to the Direct Loans; accordingly, these loans are not included in the University's consolidated financial statements and it is not practical to determine the balance of loans outstanding to students and former students of the University under these programs.

(5) Vendor Relationships

The Special Education Program (CFDA #84.027) constitutes a vendor relationship with the University in accordance with Uniform Guidance. This project is being excluded from the Schedule, although it represents federal funds of \$5,049,004 for the year ended June 30, 2016.



KPMG LLP 1601 Market Street Philadelphia, PA 19103-2499

Independent Auditors' Report 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

The Board of Trustees of the University of Pittsburgh – Of the Commonwealth System of Higher Education:

We have audited, in accordance with the 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 the University of Pittsburgh – Of the Commonwealth System of Higher Education (the University), which comprise the consolidated balance sheet as of June 30, 2016, and the related consolidated statements of activities and cash flows for the year then ended, and the related notes to the consolidated financial statements, and have issued our report thereon dated September 22, 2016.

Internal Control Over Financial Reporting

In planning and performing our audit of the consolidated 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 consolidated 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 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 consolidated 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.

KPMG LLP

Pittsburgh, Pennsylvania September 22, 2016



KPMG LLP

1601 Market Street Philadelphia, PA 19103-2499

Independent Auditors' Report on Compliance for Each Major Federal Program; Report on Internal Control Over Compliance; and Report on Schedule of Expenditures of Federal Awards Required by the Uniform Guidance

The Board of Trustees of the University of Pittsburgh – Of the Commonwealth System of Higher Education:

Report on Compliance for Each Major Federal Program

We have audited the University of Pittsburgh – Of the Commonwealth System of Higher Education's (the University) compliance with the types of compliance requirements described in the *OMB Compliance Supplement* that could have a direct and material effect on each of the University's major federal programs for the year ended June 30, 2016. The University's major federal programs are identified in the summary of auditors' results section of the accompanying schedule of findings and questioned costs.

Management's Responsibility

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

Auditors' Responsibility

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

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

Opinion on Each Major Federal Program

In our opinion, the University complied, in all material respects, with the types of compliance requirements referred to above that could have a direct and material effect on each of its major federal programs for the year ended June 30, 2016.



Other Matters

The results of our auditing procedures disclosed an instance of noncompliance, which is required to be reported in accordance with the Uniform Guidance and which is described in the accompanying schedule of findings and questioned costs as item 2016-001. Our opinion on each major federal program is not modified with respect to this matter.

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

Report on Internal Control Over Compliance

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

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

Our consideration of internal control over compliance was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control over compliance that might be material weaknesses or significant deficiencies and therefore, material weaknesses or significant deficiencies may exist that were not identified. We did not identify any deficiencies in internal control over compliance that we consider to be material weaknesses. However, we identified a deficiency in internal control over compliance, as described in the accompanying schedule of findings and questioned costs as item 2016-001 that we consider to be a significant deficiency.

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

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



Report on Schedule of Expenditures of Federal Awards Required by the Uniform Guidance

We have audited the consolidated financial statements of the University as of and for the year ended June 30, 2016, and have issued our report thereon dated September 22, 2016, which contained an unmodified opinion on those financial statements. 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 is presented for purposes of additional analysis as required by the 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.

KPMG LLP

Pittsburgh, Pennsylvania March 20, 2017

Schedule of Findings and Questioned Costs

Year ended June 30, 2016

(1) Summary of Auditors' Results

- (a) Type of report issued on whether the consolidated financial statements were prepared in accordance with generally accepted accounting principles: **Unmodified**
- (b) Internal control deficiencies over financial reporting disclosed by the audit of the consolidated financial statements:
 - Material weaknesses: No
 - Significant deficiencies: None reported
- (c) Noncompliance material to the financial statements: No
- (d) Internal control deficiencies over major programs disclosed by the audit:
 - Material weaknesses: No
 - Significant deficiencies: Yes (2016-001)
- (e) Type of report issued on compliance for major programs: Unmodified
- (f) Audit findings that are required to be reported in accordance with 2 CFR 200.516(a): Yes (2016-001)
- (g) Major programs:
 - Research and Development Cluster various CFDA numbers
 - Foster Care Title IV-E CFDA 93.658
- (h) Dollar threshold used to distinguish between Type A and Type B programs: \$3,000,000
- (i) Auditee qualified as a low-risk auditee: Yes
- (2) Findings Relating to the Financial Statements Reported in Accordance with *Government Auditing Standards*

None

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Schedule of Findings and Questioned Costs Year ended June 30, 2016

(3) Findings and Questioned Costs Relating to Federal Awards

Finding 2016-001 – Allowability of Costs

Federal Program Information

Research and Development Cluster: Allergy and Infectious Diseases Research/grant number: 4R01 AI095436-05; CFDA 93.855

Federal Agency

Department of Health and Human Services

Direct Award

Federal Award Year

February 1, 2016–January 31, 2017

Criteria or Requirement

In accordance with 2 CFR 200.403 – *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards*, costs must meet the following general criteria in order to be allowable under federal awards: (a) be necessary and reasonable for the performance of the federal award and be allocable thereto under these principles. (b) conform to any limitations or exclusions set forth in these principles or in the federal award as to types or amount of cost items. (c) be consistent with policies and procedures that apply uniformly to both federally financed and other activities of the nonFederal entity. (d) be accorded consistent treatment. (e) be determined in accordance with generally accepted accounting principles, except, for state and local governments and Indian tribes only, as otherwise provided for in this part. (f) not be included as a cost or used to meet cost sharing or matching requirements of any other federally financed program in either the current or a prior period.

Facilities and administrative (F&A) rates are based on modified total direct cost (MTDC), which is defined in 2 CFR 200.68 as: "all direct salaries and wages, applicable fringe benefits, materials and supplies, services, travel, and up to the first \$25,000 of each subaward."

Condition Found

In a sample of 185 direct cost expenditures aggregating \$15,387,232, which included payroll, fringe benefits, supplies and materials, subrecipient expenditures, and other direct costs, we identified one direct cost expenditure (\$73,295), which was allowable and allocable but not includable in MTDC for F&A cost recovery. Full on-camps F&A (51.5% or \$37,747) was charged to the federal award, which was not allowed.

Cause and Possible Asserted Effect

Controls in place for University program personnel to monitor allowable costs claimed on federal programs require manual effort and judgment. As a result, there is a risk that unallowable costs claimed on federal

71 (Continued)

Schedule of Findings and Questioned Costs
Year ended June 30, 2016

programs may not be identified. The direct cost was inadvertently coded to an incorrect grant expense category that is subject to indirect cost recovery.

Questioned Costs

Known questioned costs are \$37,747.

Whether the Sampling was a Statistically Valid Sample

The sample was not intended to be and was not a statistically valid sample.

Identification of Whether the Audit Finding is a Repeat of a Finding in the Immediately Prior Audit

This was not a finding in the immediately prior audit.

Recommendation

We recommend that the University reinforce its policies and procedures over the management review of program costs and charges to appropriate general ledger accounts and to the federal awards.

Views of Responsible Officials

The costs described in this finding were inadvertently coded to an incorrect general ledger expense code. Federal regulations require the University to properly identify and record costs on federal awards. The process of identifying and recording grant-related costs cannot be automated and, therefore, must be performed as a manual process. After-the-fact review and verification of sponsored project ledgers is integral to the University's system of internal control to help ensure the integrity of costs identified and recorded in our general ledger, including grant-related accounts. The error identified by the auditors was corrected upon identification and is correct as of the date of issuance of this report.

The department staff in this case made a manual error in keying the transaction to an expense code that improperly attributed indirect costs. Management has discussed this finding with the department and has reinforced existing policies and procedures with department personnel.