

**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, 2018

**UNIVERSITY OF PITTSBURGH – OF THE
COMMONWEALTH SYSTEM OF HIGHER EDUCATION**

June 30, 2018

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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, 2018 and 2017, 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 consolidated financial position of the University of Pittsburgh – Of the Commonwealth System of Higher Education as of June 30, 2018 and 2017, 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.

**Other Reporting Required by Government Auditing Standards**

In accordance with *Government Auditing Standards*, we have also issued our report dated September 21, 2018 on our consideration of the University's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely 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 the effectiveness of the University's 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.

KPMG LLP

Pittsburgh, Pennsylvania
September 21, 2018

CONSOLIDATED FINANCIAL STATEMENTS

UNIVERSITY OF PITTSBURGH
CONSOLIDATED BALANCE SHEETS
JUNE 30, 2018 AND 2017
(in thousands of dollars)

	2018	2017
ASSETS:		
Cash and cash equivalents (Notes 1 and 5)	\$ 45,809	\$ 22,494
Operating investments (Notes 4 and 5)	382,935	521,879
Inventories and deferred charges	23,556	20,924
Accounts and notes receivable, net (Note 2)	229,576	192,103
Contributions receivable, net (Note 3)	60,161	33,193
Student loans receivable, net	40,611	45,384
Foundation assets (Note 1)	29,697	27,893
Endowment investments (Notes 4 and 5)	4,226,330	3,970,047
Endowed funds held by third parties (Note 5)	23,591	22,944
Property, plant, and equipment, net (Note 6)	1,834,129	1,783,096
TOTAL ASSETS	\$ 6,896,395	\$ 6,639,957
LIABILITIES:		
Accounts payable and accrued expenses	\$ 99,001	\$ 96,032
Accrued payroll and related liabilities	80,804	80,779
Deferred student and other revenue	52,955	53,238
Advanced receipt of grant funds	68,321	64,061
Refundable U.S. government student loans	34,373	34,338
Other liabilities (Notes 5 and 8)	90,375	112,330
Pension and postretirement obligations (Note 9)	550,588	554,086
Conditional asset remediation obligation (Note 6)	29,764	30,644
Bonds and notes payable (Note 7)	833,420	939,379
TOTAL LIABILITIES	1,839,601	1,964,887
NET ASSETS:		
Unrestricted (Notes 1 and 10)	3,366,480	3,105,495
Temporarily restricted (Notes 1 and 10)	924,249	829,574
Permanently restricted (Notes 1 and 10)	766,065	740,001
TOTAL NET ASSETS	5,056,794	4,675,070
TOTAL LIABILITIES AND NET ASSETS	\$ 6,896,395	\$ 6,639,957

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

CONSOLIDATED FINANCIAL STATEMENTS

UNIVERSITY OF PITTSBURGH
CONSOLIDATED STATEMENT OF ACTIVITIES
FOR THE YEAR ENDED JUNE 30, 2018
COMPARED TO SUMMARY INFORMATION FOR THE YEAR ENDED JUNE 30, 2017
(in thousands of dollars)

	2018			Total	2017
	Unrestricted	Temporarily Restricted	Permanently Restricted		
OPERATING REVENUES:					
Tuition and fees	\$ 813,848	\$ -	\$ -	\$ 813,848	\$ 788,455
Tuition discounts	(192,748)	-	-	(192,748)	(187,897)
Net tuition and fees	621,100	-	-	621,100	600,558
Commonwealth appropriation	169,680	-	-	169,680	158,899
Commonwealth construction grants	21,582	-	-	21,582	24,645
Grants and contracts	808,082	-	-	808,082	764,478
Contributions for operations	31,627	46,011	-	77,638	44,823
Investment income – operating investments	7,391	-	-	7,391	6,808
Endowment distributions for operations	136,144	-	-	136,144	126,472
Sales and services, educational and other	187,792	-	-	187,792	193,600
Sales and services, auxiliary	151,688	-	-	151,688	152,767
Rental revenue	18,444	-	-	18,444	18,261
Other	76,466	-	-	76,466	78,351
Net assets released from restrictions	16,039	(16,039)	-	-	-
Total operating revenues	2,246,035	29,972	-	2,276,007	2,169,662
OPERATING EXPENSES:					
Salaries and wages	1,005,074	-	-	1,005,074	949,288
Fringe benefits	308,667	-	-	308,667	300,772
Total compensation	1,313,741	-	-	1,313,741	1,250,060
Supplies	112,940	-	-	112,940	111,818
Business and professional	354,887	-	-	354,887	328,759
Utilities	46,598	-	-	46,598	47,018
Maintenance and facilities	48,508	-	-	48,508	49,887
Depreciation	177,210	-	-	177,210	177,781
Interest	30,171	-	-	30,171	31,343
Other	91,606	-	-	91,606	87,333
Total operating expenses (Note 11)	2,175,661	-	-	2,175,661	2,083,999
Change in net assets from operating activities	70,374	29,972	-	100,346	85,663
OTHER ACTIVITIES:					
Investment gains, net of endowment distributions for operations	140,366	64,703	1,767	206,836	330,579
Contributions for endowment	-	-	24,297	24,297	29,006
Change in fair value of interest rate swaps	20,526	-	-	20,526	33,826
Nonperiodic changes in benefit plans (Note 9)	29,719	-	-	29,719	54,787
Bond refunding (Note 7)	-	-	-	-	(46,464)
Total other activities	190,611	64,703	26,064	281,378	401,734
CHANGE IN NET ASSETS	260,985	94,675	26,064	381,724	487,397
NET ASSETS, BEGINNING OF YEAR	3,105,495	829,574	740,001	4,675,070	4,187,673
NET ASSETS, END OF YEAR	\$ 3,366,480	\$ 924,249	\$ 766,065	\$ 5,056,794	\$ 4,675,070

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

UNIVERSITY OF PITTSBURGH
CONSOLIDATED STATEMENT OF ACTIVITIES
FOR THE YEAR ENDED JUNE 30, 2017
(in thousands of dollars)

	2017			
	Unrestricted	Temporarily Restricted	Permanently Restricted	Total
OPERATING REVENUES:				
Tuition and fees	\$ 788,455	\$ -	\$ -	\$ 788,455
Tuition discounts	(187,897)	-	-	(187,897)
Net tuition and fees	600,558	-	-	600,558
Commonwealth appropriation	158,899	-	-	158,899
Commonwealth construction grants	24,645	-	-	24,645
Grants and contracts	764,478	-	-	764,478
Contributions for operations	32,462	12,361	-	44,823
Investment income – operating investments	6,808	-	-	6,808
Endowment distributions for operations	126,472	-	-	126,472
Sales and services, educational and other	193,600	-	-	193,600
Sales and services, auxiliary	152,767	-	-	152,767
Rental revenue	18,261	-	-	18,261
Other	78,351	-	-	78,351
Net assets released from restrictions	13,667	(13,667)	-	-
Total operating revenues	2,170,968	(1,306)	-	2,169,662
OPERATING EXPENSES:				
Salaries and wages	949,288	-	-	949,288
Fringe benefits	300,772	-	-	300,772
Total compensation	1,250,060	-	-	1,250,060
Supplies	111,818	-	-	111,818
Business and professional	328,759	-	-	328,759
Utilities	47,018	-	-	47,018
Maintenance and facilities	49,887	-	-	49,887
Depreciation	177,781	-	-	177,781
Interest	31,343	-	-	31,343
Other	87,333	-	-	87,333
Total operating expenses (Note 11)	2,083,999	-	-	2,083,999
Change in net assets from operating activities	86,969	(1,306)	-	85,663
OTHER ACTIVITIES:				
Investment gains, net of endowment distributions for operations	212,108	116,142	2,329	330,579
Contributions for endowment	-	-	29,006	29,006
Change in fair value of interest rate swaps	33,826	-	-	33,826
Nonperiodic changes in benefit plans (Note 9)	54,787	-	-	54,787
Bond refunding	(46,464)	-	-	(46,464)
Total other activities	254,257	116,142	31,335	401,734
CHANGE IN NET ASSETS	341,226	114,836	31,335	487,397
NET ASSETS, BEGINNING OF YEAR	2,764,269	714,738	708,666	4,187,673
NET ASSETS, END OF YEAR	\$ 3,105,495	\$ 829,574	\$ 740,001	\$ 4,675,070

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

CONSOLIDATED FINANCIAL STATEMENTS

UNIVERSITY OF PITTSBURGH
CONSOLIDATED STATEMENTS OF CASH FLOWS
FOR THE YEARS ENDED JUNE 30, 2018 AND 2017
(in thousands of dollars)

	2018	2017
CASH AND CASH EQUIVALENTS:		
End of year	\$ 45,809	\$ 22,494
Beginning of year	22,494	6,400
CHANGE IN CASH AND CASH EQUIVALENTS	\$ 23,315	\$ 16,094
CASH FLOWS FROM OPERATING ACTIVITIES:		
Change in net assets	\$ 381,724	\$ 487,397
Adjustments to reconcile change in net assets to net cash provided by operating activities:		
Depreciation	177,210	177,781
Nonperiodic changes in benefit plans	(29,719)	(54,787)
Bond refunding	-	46,464
Write-off of issuance costs and net premiums on refunded bonds	-	(5,467)
Amortization of debt issuance costs and bond premiums, net	66	(2,360)
Loss on disposal of plant assets	1,719	2,882
Investment gains	(321,918)	(437,093)
Change in fair value of interest rate swaps	(20,526)	(33,826)
Contributions restricted for long-term investment	(47,453)	(57,024)
Changes in operating assets and liabilities:		
Accounts, notes, contributions, and loans receivable, net	(67,891)	13,195
Other assets	(2,632)	60
Accounts payable and accrued expenses	(355)	(3,648)
Pension and postretirement obligations	26,221	19,488
Conditional asset remediation obligation	(880)	(6,702)
Other liabilities	(1,404)	3,328
Government student loans and deferred revenue	4,012	4,250
Net cash provided by operating activities	98,174	153,938
CASH FLOWS FROM INVESTING ACTIVITIES:		
Expended for property, plant, and equipment - University	(208,380)	(165,049)
Expended for property, plant, and equipment - commonwealth	(21,582)	(24,645)
Change in accounts payable for property, plant, and equipment	3,324	4,468
Proceeds from sales of operating investments, net	133,065	29,875
Purchases of endowment investments	(2,411,292)	(2,163,200)
Proceeds from sales/maturities of endowment investments	2,482,201	2,182,433
Change in endowed funds held by third parties, excluding gains	(43)	453
Change in foundation assets	(1,804)	(1,542)
Net cash used for investing activities	(24,511)	(137,207)
CASH FLOWS FROM FINANCING ACTIVITIES:		
Principal repayment of debt including bond refundings	(106,025)	(846,161)
Proceeds from issuance of debt including bond refundings	-	847,881
Defeasance of debt	-	(49,927)
Change in deposits of bond proceeds	-	6,598
Contributions restricted for long-term investment	55,677	40,972
Net cash used for financing activities	(50,348)	(637)
CHANGE IN CASH AND CASH EQUIVALENTS	\$ 23,315	\$ 16,094
Supplemental disclosure of cash flow information:		
Cash paid for interest (excluding fees)	\$ 30,401	\$ 43,071
Noncash investing activity for property, plant, and equipment - accounts payable	\$ 28,598	\$ 25,274

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

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 6,000 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. 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 \$169.7 million in 2018 and \$158.9 million in 2017. 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 \$21.6 million in 2018 and \$24.6 million in 2017.

The University also receives sponsored program support from the commonwealth. Such support in 2018 and 2017 was \$12.8 million and \$13.2 million, respectively.

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 gains, net of endowment distributions for operations; contributions for endowment; change in fair value of interest rate swaps; nonperiodic changes in pension and postretirement benefit plans; and certain bond refunding activities. Endowment distributions for operations represent those 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 distributions 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 relate primarily to cash collections on pledges, where purpose restrictions had already been met. Temporarily restricted net assets at June 30, 2018 and 2017 consist of endowment balances (\$865.5 million and \$801.6 million, respectively); the net present value of temporarily restricted contributions and unconditional pledges (\$52.5 million and \$22.6 million, respectively); and split-interest agreements (\$6.2 million and \$5.4 million, respectively). Permanently restricted net assets are those subject to permanent donor-imposed restrictions and at June 30, 2018 and 2017 consist of endowment balances (\$742.3 million and \$713.5 million, respectively); the net present value of permanently restricted contributions and unconditional pledges (\$10.1 million and \$13.1 million, respectively); and private student loan funds (\$13.7 million and \$13.4 million, respectively). Net assets restricted for purpose are for programmatic purposes including scholarships, instruction, and research.

Donor-restricted endowed contributions require that the original corpus of the contributions be maintained in perpetuity. The distributions 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, is classified as deferred revenue. Revenue for these activities is recognized as services are provided.

Advanced receipts of 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 2018 and 2017 were \$163.9 million and \$162.6 million, respectively. Tuition discounts attributable to contributions, endowment distributions, and grant activities were \$28.8 million and \$25.3 million in 2018 and 2017, 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 in a short time frame. 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 initially 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 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.

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 and exchange traded funds are based upon quoted or published 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 management fees and applicable withholding taxes on the accrual basis of accounting.

Fair Value Measurements

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. Endowment investments include \$24.1 million and \$22.4 million at June 30, 2018 and 2017, respectively, for the split-interest agreements. Other liabilities include \$12.9 million and \$12.3 million at June 30, 2018 and 2017, respectively, for the split-interest agreements.

The University maintains separate and distinct reserve funds adequate to meet future payments of all outstanding charitable gift annuities administered by the University. The University complies with applicable state annuity reserve requirements.

Property, Plant, and Equipment, Net

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 generally.

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 \$7.5 million and \$8.6 million has been recorded at June 30, 2018 and 2017, 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 other activities, including workers' compensation, unemployment compensation, and certain 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 \$9.3 million and \$9.0 million at June 30, 2018 and 2017, 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 2018 and 2017 was \$808.1 million and \$764.5 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 student loans 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 2018 or 2017.

Reclassifications

Certain 2017 operating expense line items include reclassifications related to the presentation of internal cost recovery to conform with the 2018 presentation.

Recent Accounting Pronouncements

In March 2017, FASB issued the Accounting Standards Update (ASU) No. 2017-07, *Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost*. This ASU requires presentation of the service cost component of the net periodic benefit cost within the same line item or items as other compensation costs arising from services rendered by relevant employees during the period, and presentation of the other cost components of net periodic benefit cost separately and outside of the change in net assets from operating activities. The ASU is effective for the University for fiscal year 2020, and early adoption is permitted. The University is currently evaluating the impact this ASU will have on the consolidated financial statements and related disclosures.

In August 2016, FASB issued 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 year 2019. 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 fiscal year 2020. 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 May 2014, FASB issued ASU No. 2014-09, *Revenue from Contracts with Customers (Topic 606)*, which will replace the current revenue recognition requirements in GAAP. The core principle of this ASU is that an entity should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration it expects to be entitled in exchange. In addition, the ASU requires disclosures about the nature, amount, timing, and uncertainty of revenue and cash flows arising from contracts with customers. The ASU is effective for fiscal year 2019. The University is currently evaluating the impact this ASU will have on the consolidated financial statements and related disclosures.

NOTE 2: ACCOUNTS AND NOTES RECEIVABLE, NET

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

	2018	2017
	<i>(in thousands of dollars)</i>	
Sponsored grant receivables, net	\$ 120,480	\$ 109,813
Commonwealth appropriation receivable	51,285	1,037
Hospitals and affiliated organizations receivables, net	18,202	31,944
Plant construction receivables due from commonwealth	17,491	22,708
Other receivables, net	14,124	14,856
Student receivables, net	7,994	11,745
Total accounts and notes receivable, net	\$ 229,576	\$ 192,103

NOTE 3: CONTRIBUTIONS RECEIVABLE, NET

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

	2018	2017
	<i>(in thousands of dollars)</i>	
Amounts due in:		
Less than one year	\$ 18,268	\$ 14,856
One to five years	34,905	18,322
Greater than five years	14,061	2,350
Gross contributions receivable	67,234	35,528
Less:		
Allowance for uncollectible pledges	(765)	(846)
Unamortized discounts	(6,308)	(1,489)
Total contributions receivable, net	\$ 60,161	\$ 33,193

At June 30, 2018 and 2017, the five largest outstanding pledge balances represented 61% and 29%, 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 \$271.8 million and \$239.5 million at June 30, 2018 and 2017, respectively. These bequests and conditional pledges have not been recognized in the consolidated financial statements.

NOTE 4: ENDOWMENT AND OPERATING INVESTMENTS

Investments at June 30 consist of the following:

	2018	2017
	<i>(in thousands of dollars)</i>	
Endowment investments:		
Pooled	\$ 4,188,409	\$ 3,934,117
Nonpooled	37,921	35,930
Subtotal endowment investments	4,226,330	3,970,047
Operating investments (<i>Note 1</i>)	382,935	521,879
Total endowment and operating investments	\$ 4,609,265	\$ 4,491,926
Composition of endowment investments:		
Cash and cash equivalents	\$ 101,225	\$ 99,132
Domestic equities	674,604	628,229
International equities	844,240	841,031
U.S. government and government agencies' securities, bank acceptances and certificates, and commercial paper	249,614	222,563
Corporate bonds and other obligations	108,862	121,745
Alternative investment funds, partnerships, and exchange traded funds:		
Marketable alternatives	830,639	739,118
Nonmarketable alternatives	745,331	681,045
Real assets	671,815	637,184
Total endowment investments	\$ 4,226,330	\$ 3,970,047
Composition of operating investments:		
U.S. government and government agencies' securities, repurchase agreements, and commercial paper	\$ 210,301	\$ 300,341
Corporate bonds and other obligations	148,909	201,126
Other	23,725	20,412
Total operating investments	\$ 382,935	\$ 521,879

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, 2018 and 2017, for which NAV was used as a practical expedient to estimate fair value:

Asset Class	Fair Value		Unfunded		Redemption
	Determined Using NAV		Commitments	Redemption	Notice
	2018	2017	at June 30, 2018	Frequency	Period
(in thousands of dollars)					
International equities	\$ 139,647	\$ 127,969	\$ -	Quarterly	60-120 days
Marketable alternatives:					
Redeemable within one year	711,582	585,896	-	90-365 days	30-180 days
Redeemable beyond one year	18,882	45,829	-	1-3 years	30-60 days
Nonredeemable	29,725	35,957	28,579	NA	NA
Total marketable alternatives	760,189	667,682	28,579		
Nonmarketable alternatives	745,331	681,045	432,065	NA	NA
Real assets:					
Redeemable	61,914	52,718	-	Monthly	10 days
Nonredeemable	585,947	570,938	301,367	NA	NA
Total real assets	647,861	623,656	301,367		
Total	\$ 2,293,028	\$ 2,100,352	\$ 762,011		

Descriptions follow for each asset class 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 multi-year 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, 2018 and 2017:

2018				
	Level 1	Level 2	Level 3	Total
	<i>(in thousands of dollars)</i>			
Assets				
Cash and cash equivalents	\$ 31,428	\$ 14,381	\$ -	\$ 45,809
Endowment investments:				
Cash and cash equivalents	80,475	20,750	-	101,225
Domestic equities	664,575	10,029	-	674,604
International equities	701,706	-	2,887	704,593
U.S. government, corporate bonds, and other obligations	288,141	59,585	10,750	358,476
Marketable alternatives	70,450	-	-	70,450
Real assets	23,954	-	-	23,954
Subtotal endowment investments ⁽¹⁾	1,829,301	90,364	13,637	1,933,302
Operating investments:				
U.S. government, corporate bonds, and other obligations	300,452	58,758	-	359,210
Other	1,741	-	21,984	23,725
Endowed funds held by third parties	-	-	23,591	23,591
Total assets	\$ 2,162,922	\$ 163,503	\$ 59,212	\$ 2,385,637
Liabilities				
Interest rate swaps	\$ -	\$ 56,789	\$ -	\$ 56,789
2017				
	Level 1	Level 2	Level 3	Total
	<i>(in thousands of dollars)</i>			
Assets				
Cash and cash equivalents	\$ 21,173	\$ 1,321	\$ -	\$ 22,494
Endowment investments:				
Cash and cash equivalents	57,510	41,622	-	99,132
Domestic equities	615,254	12,975	-	628,229
International equities	708,761	-	4,301	713,062
U.S. government, corporate bonds, and other obligations	278,319	56,641	9,348	344,308
Marketable alternatives	71,436	-	-	71,436
Real assets	13,528	-	-	13,528
Subtotal endowment investments ⁽¹⁾	1,744,808	111,238	13,649	1,869,695
Operating investments:				
U.S. government, corporate bonds, and other obligations	412,748	88,719	-	501,467
Other	1,699	-	18,713	20,412
Endowed funds held by third parties	-	-	22,944	22,944
Total assets	\$ 2,180,428	\$ 201,278	\$ 55,306	\$ 2,437,012
Liabilities				
Interest rate swaps	\$ -	\$ 77,315	\$ -	\$ 77,315

⁽¹⁾ The subtotals of endowment investments within the fair value tables above exclude investments of \$2,293,028 and \$2,100,352 as of June 30, 2018 and 2017, respectively, which are measured at NAV as a practical expedient 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, 2018 and 2017:

	International Equities	U.S. Government Corporate and Other	Other Operating and Endowed Funds Held by Third Parties	Total
	<i>(in thousands of dollars)</i>			
Fair Value - June 30, 2016	\$ 7,796	\$ 3,780	\$ 40,176	\$ 51,752
Capital calls/purchases	-	5,380	1,537	6,917
Distributions/sales	(3,018)	-	(638)	(3,656)
Transfers out	(1,275)	-	-	(1,275)
Realized gains	675	-	-	675
Unrealized gains	123	188	582	893
Fair Value - June 30, 2017	4,301	9,348	41,657	55,306
Capital calls/purchases	-	1,175	3,366	4,541
Distributions/sales	(1,340)	-	(1,155)	(2,495)
Realized gains	144	-	-	144
Unrealized (losses) gains	(218)	227	1,707	1,716
Fair Value - June 30, 2018	\$ 2,887	\$ 10,750	\$ 45,575	\$ 59,212

Realized and unrealized gains (losses) for Level 3 activity are reported in other activities in the Consolidated Statements of Activities. Unrealized gains related to

investments held at June 30, 2018 and 2017 were \$1.0 million and \$0.03 million, respectively.

NOTE 6: PROPERTY, PLANT, AND EQUIPMENT, NET

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

	2018	2017
	<i>(in thousands of dollars)</i>	
Land	\$ 63,849	\$ 63,533
Buildings and improvements	3,247,659	3,150,047
Equipment	783,323	746,030
Library books	297,372	287,073
Works of art, historical treasures, and similar assets	21,555	20,949
Construction in progress	185,442	120,102
Subtotal	4,599,200	4,387,734
Less: Accumulated depreciation	(2,765,071)	(2,604,638)
Total property, plant, and equipment, net	\$ 1,834,129	\$ 1,783,096

The amount capitalized in property, plant, and equipment related to expenditures funded by the commonwealth on behalf of the University totaled \$757.5 million and \$729.5 million at June 30, 2018 and 2017, respectively. The net book value of these items was \$333.9 million and \$331.5 million at June 30, 2018 and 2017, 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, 2018 and 2017 was \$29.8 million and \$30.6 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 Remaining to Maturity	2018 Effective Interest Rates	Outstanding Principal	
			<i>(in thousands of dollars)</i>	
			2018	2017
Variable-rate bonds:				
Series 2017-C1, taxable	13-21	1.04%-2.11%	\$ 55,000	\$ 55,000
Series 2017-C2, taxable	21-23	1.04%-2.10%	55,000	55,000
Series 2017-C3, taxable	14-19	1.04%-2.17%	50,000	50,000
Series 2014-B1/B2, tax-exempt	7-17	0.80%-1.65%	46,000	46,000
Total variable-rate bonds			206,000	206,000
Fixed-rate bonds and notes:				
Series 2017-A, taxable	3 mos.-18	1.00%-3.65%	477,500	512,480
Series 2017-B, taxable	3 mos.-12	0.91%-3.60%	103,335	104,380
Series 2014-A, tax-exempt	18-26	3.51%-3.65%	49,000	49,000
Series 2016 PANTHERS™ Notes, due August 15, 2017		0.60%	-	70,000
Noninterest-bearing promissory note			171	171
Total fixed-rate bonds and notes			630,006	736,031
Unamortized net premium			1,335	1,517
Debt issuance costs			(3,921)	(4,169)
Total bonds and notes payable			\$ 833,420	\$ 939,379

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

2019	\$ 43.6
2020	\$ 42.6
2021	\$ 41.8
2022	\$ 41.2
2023	\$ 39.4

The foregoing principal payments do not include \$206.0 million of variable-rate demand bonds (VRDBs) in commercial paper (CP) mode, all of which have final maturity dates between 2030 and 2041. These bonds bear short-term rates that are fixed over staggered periods of approximately 45 days each and are remarketed at the expiry of their respective rate periods.

Liquidity support for the \$206.0 million of outstanding VRDBs in CP mode is provided by the University. In the event that the University receives notice of an optional tender on its VRDBs in CP mode, the tendered bonds will be purchased with remarketing proceeds. If the remarketing proceeds are insufficient to purchase all tendered bonds, the University would have a current obligation to meet the shortfall. As an additional source of liquidity for this situation, the University entered into a \$40.0 million unsecured standby liquidity agreement with a financial institution that matures in June 2019. Since the University commenced providing self-liquidity in October 2009, there have been no failed remarketings.

On January 17, 2017, the University issued \$512.5 million fixed-rate Taxable University Refunding Bonds (Series 2017-A). The proceeds were used to fund an escrow account that was irrevocably placed with a trustee to meet the principal and interest payments of the Series 2000-A/B/C (\$124.4 million), Series 2002-A (\$20.0 million), Series 2002-B (\$14.5 million) and Series 2009-A/B (\$290.3 million) fixed-rate bonds until their respective first call date and to redeem \$15.0 million tax-exempt Series 2002-B VRDBs in CP mode. The Series 2017-A bonds were issued at par.

On March 21, 2017, the University issued \$104.4 million fixed-rate Taxable University Refunding Bonds (Series 2017-B). The proceeds were used to fund an escrow account that was irrevocably placed with a trustee to meet the principal and interest payments of the Series 2005-A (\$35.0 million) and Series 2007-B (\$60.0 million) fixed-rate bonds until their respective first call date. The Series 2017-B bonds were issued at par.

The Series 2017-A and Series 2017-B refundings (A/B refundings) referenced above meet the legal requirements for defeasance of bond liabilities. Therefore, neither the

escrow accounts nor the refunded bonds are included in the Consolidated Balance Sheet at June 30, 2017. The A/B refundings resulted in a \$46.5 million reduction to net assets, which is reflected in the other activities section of the Consolidated Statement of Activities for the year ended June 30, 2017. This reduction in net assets represents the amount of principal required from the A/B refundings in excess of the face value of the refunded bonds, net of interest expense up to the date of the refundings and new debt issuance costs. A \$5.5 million write-off of debt issuance costs and net premiums associated with the refunded bonds is reflected as a net decrease in interest expense in the Consolidated Statement of Activities for the year ended June 30, 2017.

On May 4, 2017, the University issued \$160.0 million in Taxable University Refunding Bonds (Series 2017-C); such bonds were issued as VRDBs in CP mode. The proceeds were used to redeem \$159.6 million tax-exempt Series 2005-A/B/C and Series 2007-B VRDBs at their CP maturity date.

In August 2018, the University issued its Pitt Asset Notes – Tax-Exempt Higher Education Registered Series of 2018 (Series 2018 PANTHERS™ Notes) in the amount of \$110.0 million to reimburse the University for prior capital and equipment expenditures. These three-year floating rate notes will mature on September 15, 2021.

The \$70.0 million Series 2016 PANTHERS™ Notes, issued in July 2016, were repaid on August 15, 2017.

The University had four general unsecured credit facilities aggregating \$100.0 million at June 30, 2018. No draws were made under the facilities during 2018 or 2017. Although each of the four credit facilities carry an expiry date of October 23, 2018, it is management's intention to extend each facility for another 364-day term.

Interest costs incurred in 2018 and 2017 were \$30.2 million and \$31.3 million, respectively. Included in these amounts are net swap payments and capitalized interest associated with various construction projects. Capitalized interest for 2018 and 2017 was \$0.5 million and \$0.7 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 \$59.8 million and \$50.9 million at June 30, 2018 and 2017, 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. There were unrealized losses on these future contracts of \$0.7 million and \$0.2 million at June 30, 2018 and June 30, 2017, 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 \$56.8 million and \$77.3 million at June 30, 2018 and 2017, respectively, and are included in other liabilities on the Consolidated Balance Sheets (see also 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 gains of \$20.5 million and \$33.8 million in 2018 and 2017, respectively, due to changes in fair value of the swaps.

The aggregate notional amount of the swap agreements associated with University debt was \$335.3 million and \$350.3 million at June 30, 2018 and 2017, 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 one- or 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 2018 or 2017 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 participant directed investment in certain investments managed by the Teachers Insurance and Annuity Association (TIAA) and College Retirement Equities Fund (CREF) and in certain investment funds of the Vanguard Group. The plan 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 2018 and 2017 were \$82.5 million and \$79.0 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 new entrants effective November 3, 2015. 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 2018 and 2017 were \$6.7 million and \$15.0 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, 2018 and 2017 was \$455.0 million and \$410.6 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.

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, 2018 and 2017 is summarized in the table below:

	Defined-Benefit Plan		Postretirement Plan	
	2018	2017	2018	2017
	<i>(in thousands of dollars)</i>			
Net periodic benefit cost:				
Service cost	\$ 8,089	\$ 8,136	\$ 19,224	\$ 19,525
Interest cost	6,069	5,851	20,237	20,237
Expected return on plan assets	(9,393)	(7,427)	-	-
Actuarial loss	1,887	3,443	3,637	5,789
Amortization of prior service credit	-	-	-	(4,025)
Net periodic benefit cost	\$ 6,652	\$ 10,003	\$ 43,098	\$ 41,526
Funded status:				
Benefit obligation at beginning of year	\$ 156,877	\$ 151,266	\$ 528,040	\$ 541,785
Service cost	8,089	8,136	19,224	19,525
Interest cost	6,069	5,851	20,237	20,237
Actuarial gains	(4,783)	(7,000)	(19,003)	(36,470)
Benefits paid	(1,273)	(1,376)	(16,878)	(17,037)
Benefit obligation at end of year	\$ 164,979	\$ 156,877	\$ 531,620	\$ 528,040
Fair value of plan assets at beginning of year	\$ 130,831	\$ 103,666		
Actual return on plan assets	9,801	13,537		
Actual plan contributions	6,652	15,004		
Benefits paid	(1,273)	(1,376)		
Fair value of plan assets at end of year	\$ 146,011	\$ 130,831		
Funded status – liability recognized on Consolidated Balance Sheets:				
Pension and postretirement obligations	\$ (18,968)	\$ (26,046)	\$ (531,620)	\$ (528,040)
Accumulated benefit obligation	\$ 157,471	\$ 149,723		

Estimated 2019 employer contribution to the defined-benefit plan:
(in thousands of dollars)

\$ 4,907

	Defined-Benefit Plan		Postretirement Plan	
	2018	2017	2018	2017
Weighted-average assumptions used to determine the benefit obligation (liability) at June 30:				
Discount rate	4.25%	3.9%	4.25%	3.9%
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	-	-	6.0%	7.0%
Ultimate trend	-	-	4.5%	4.5%
Year to reach ultimate	-	-	2026	2025

Weighted-average assumptions used to determine the net periodic cost (expense) for the years ended June 30:

Discount rate	3.9%	3.9%	3.9%	3.8%
Rate of compensation increase	3.0%	3.0%	-	-
Expected long-term return on plan assets	7.25%	7.25%	-	-
Assumed health care trend cost:				
Initial trend – pre-age 65 retirees	-	-	7.0%	7.0%
Initial trend – post-age 65 retirees	-	-	7.0%	7.0%
Ultimate trend	-	-	4.5%	4.5%
Year to reach ultimate	-	-	2025	2024

	Defined-Benefit Plan	Postretirement Plan
Estimated future benefit payments:		
	<i>(in thousands of dollars)</i>	
2019	\$ 2,913	\$ 18,034
2020	\$ 3,310	\$ 21,148
2021	\$ 3,749	\$ 22,404
2022	\$ 4,206	\$ 24,215
2023	\$ 4,767	\$ 25,765
2024 - 2028	\$ 31,627	\$ 151,197

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

	Increase		Decrease	
	(in millions of dollars)			
	Revised Amount	Percent Change	Revised Amount	Percent Change
Service and interest cost (medical component only)	\$ 37.5	2.3%	\$ 35.8	2.4%
Total periodic benefit cost	\$ 44.7	3.8%	\$ 41.3	4.1%
Benefit obligation for health care benefits	\$ 502.0	3.0%	\$ 470.8	3.4%
Total benefit obligation	\$ 546.5	2.8%	\$ 515.1	3.1%

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, 2018 and 2017 was \$146.0 million and \$130.8 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, as published by the fund manager. 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:

Asset class:	Target Allocation	2018	2017
		<i>(in thousands of dollars)</i>	
Equity securities:			
Stock index and small cap	35%	\$ 50,326	\$ 45,684
International	35%	51,049	45,748
Debt securities	30%	44,136	39,098
Cash and cash equivalents	-	500	301
Total pension plan assets		\$ 146,011	\$ 130,831

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 2018 and 2017 were approximately 4.26% and 4.25%, respectively, 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:

2018				
	Unrestricted	Temporarily Restricted	Permanently Restricted	Total
	<i>(in thousands of dollars)</i>			
Donor-restricted endowment funds	\$ -	\$ 865,510	\$ 742,250	\$ 1,607,760
Quasi-endowment funds	2,617,544	-	-	2,617,544
Total endowment net assets	\$ 2,617,544	\$ 865,510	\$ 742,250	\$ 4,225,304
2017				
	Unrestricted	Temporarily Restricted	Permanently Restricted	Total
	<i>(in thousands of dollars)</i>			
Donor-restricted endowment funds	\$ -	\$ 801,566	\$ 713,522	\$ 1,515,088
Quasi-endowment funds	2,439,453	-	-	2,439,453
Total endowment net assets	\$ 2,439,453	\$ 801,566	\$ 713,522	\$ 3,954,541

The change in endowment net assets for the years ended June 30, 2018 and 2017 was as follows:

	Unrestricted	Temporarily Restricted	Permanently Restricted	Total
	<i>(in thousands of dollars)</i>			
Endowment net assets – June 30, 2016	\$ 2,163,439	\$ 686,118	\$ 684,922	\$ 3,534,479
Endowment return:				
Endowment earnings	17,146	-	2,057	19,203
Gains	326,039	115,448	117	441,604
Total endowment return	343,185	115,448	2,174	460,807
Contributions	497	-	26,426	26,923
Distributions for operations	(126,472)	-	-	(126,472)
Net transfers	58,804	-	-	58,804
Endowment net assets – June 30, 2017	2,439,453	801,566	713,522	3,954,541
Endowment return:				
Endowment earnings	15,285	-	1,495	16,780
Gains	262,111	63,944	110	326,165
Total endowment return	277,396	63,944	1,605	342,945
Contributions	270	-	27,123	27,393
Distributions for operations	(136,144)	-	-	(136,144)
Net transfers	36,569	-	-	36,569
Endowment net assets – June 30, 2018	\$ 2,617,544	\$ 865,510	\$ 742,250	\$ 4,225,304

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:

	2018	2017
	<i>(in thousands of dollars)</i>	
Instruction	\$ 600,751	\$ 581,624
Research	752,423	707,495
Public service	83,908	85,899
Academic support	219,644	205,833
Libraries	46,652	47,342
Student services	176,399	166,434
Institutional support	152,173	145,404
Auxiliary enterprises	143,711	143,968
Total functional expenses	\$ 2,175,661	\$ 2,083,999

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. There is no guarantee these agreements will be renewed in future periods. Transactions with all related entities are conducted in the ordinary course of business and are discussed below.

The following summarizes the significant related party transactions between the University and UPMC for the years ended June 30, 2018 and 2017:

Service Agreement	Location on the Consolidated Financial Statements	2018 (in thousands of dollars)	2017
Common paymaster arrangement ^(a)	Net on balance sheet	\$ 113,878	\$ 122,174
Facilities-related services, mail, telephone, printing, and other services ^(a)	Net on balance sheet	15,249	14,628
Net balance sheet transactions with UPMC		\$ 129,127	\$ 136,802
UPMC dean's tax, Children's Hospital of Pittsburgh, and other academic support ^(b)	Sales and services, educational and other	\$ 84,642	\$ 88,498
UPMC academic affiliation agreement ^(c)	Other revenue	30,500	30,000
Commonwealth and federal funds for medical assistance services that pass through UPMC ^(d)	Commonwealth appropriation	13,174	12,126
Rental revenue ^(e)	Rental revenue	10,226	10,164
UPMC Hillman Cancer Center research support payments ^(f)	Other revenue	10,039	14,444
Cost sharing for Medical and Health Sciences Foundation ^(g)	Other revenue	3,644	3,577
Institute for Personalized Medicine	Other revenue	1,946	2,346
Police services	Other revenue	685	2,436
Revenues from UPMC		\$ 154,856	\$ 163,591
Health insurance coverage for University employees ^(h)	Fringe benefits	\$ 124,970	\$ 118,365
WPIC and UPMC Hillman Cancer Center research services ⁽ⁱ⁾	Primarily compensation	26,258	23,096
Rental expense paid to UPMC ^(e)	Other expense	23,332	21,894
Expenses paid to UPMC		\$ 174,560	\$ 163,355

- (a) 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.

- (b) UPMC provides support to the SOM for the School's general academic mission, research, new programs, and faculty recruitment, and to augment operating budgets for certain departments that do not generate sufficient revenues to meet their academic and research costs. Additionally, UPMC provides financial support to the SOM through the Children's Hospital of Pittsburgh of UPMC (CHP), which supports pediatric research programs.
- (c) The University signed an 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 annual funding for the SOM.
- (d) UPMC receives commonwealth and federal matching funds, and remits these funds to the University, 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.
- (e) The University is involved in certain rental arrangements in which the University acts as both lessor or lessee with UPMC and its affiliates.
- (f) UPMC provides support payments to the UPMC Hillman Cancer Center (UHCC) for various subsidies, research initiatives, and general support.
- (g) In 2003, the University and UPMC created the Medical and Health Sciences Foundation (MHSF), a separate 501(c)(3) organization. The MHSF serves as 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 between the University and UPMC.
- (h) 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.
- (i) The University has an arrangement with UPMC whereby certain research-related costs incurred by UPMC (primarily staff compensation) in relation to WPIC and UHCC research awards are charged to such awards via an electronic billing and reimbursed to UPMC each month.

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 2018 and 2017. Included in property, plant, and equipment is \$193.2 million and \$191.9 million at June 30, 2018 and 2017, respectively, related to the land, buildings, and equipment used by WPIC. Accumulated depreciation related to these assets totaled \$167.6 million and \$163.8 million at June 30, 2018 and 2017, respectively.

NOTE 13: COMMITMENTS AND CONTINGENCIES

At June 30, 2018 and 2017, the University had outstanding contractual commitments of \$66.1 million and \$75.6 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 \$18.3 million in 2018 and 2017, respectively. Rental expense for operating leases was \$49.8 million in 2018 and \$47.8 million in 2017. 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 Revenue	Rental Expense
	<i>(in thousands of dollars)</i>	
2019	\$ 17,020	\$ 50,253
2020	\$ 8,605	\$ 40,693
2021	\$ 8,113	\$ 26,348
2022	\$ 5,401	\$ 20,487
2023	\$ 3,753	\$ 18,459
Thereafter	\$ 9,382	\$ 97,490

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 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 or contract agreements and applicable federal regulations, including the expenditure of the resources for eligible purposes. Substantially all grants and contracts, 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 on 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 21, 2018, the date on which the consolidated financial statements were issued, and determined that

there were no subsequent events requiring additional disclosure or adjustment to the consolidated financial statements.

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

**UNIVERSITY OF PITTSBURGH – OF THE
COMMONWEALTH SYSTEM OF HIGHER EDUCATION**

Schedule of Expenditures of Federal Awards

Year ended June 30, 2018

Federal grantor/pass through grantor/program title	CFDA number	Direct award or pass through number	Passed through to subrecipients	Federal expenditures
I. Research & Development Cluster:				
Department of Health and Human Services:				
Administration for Children and Families:				
Child Care and Development Block Grant	93.575	Direct	\$ —	\$ 3,160
Westat, Inc.	93.000	HHSP2332015000671	—	107,982
Total Administration for Children and Families			—	111,142
Administration for Community Living:				
ACL National Institute on Disability, Independent Living, and				
Rehabilitation Research	93.433	Direct	718,598	4,045,932
Craig Hospital	93.433	90DP0084-01	—	9,557
Gallaudet University	93.433	90RES5020-04	—	21,861
University of Alabama	93.433	90RE5009-03	—	54,550
University of Massachusetts	93.433	90RT5031-03	—	19,979
University of Michigan	93.433	90IFDV0002-01	—	18,427
Total Administration for Community Living			718,598	4,170,306
Agency for Healthcare Research and Quality:				
Research on Healthcare Costs, Quality and Outcomes	93.226	Direct	509,590	3,519,889
Commonwealth of Pennsylvania	93.226	1R18 HS025072-01	27,150	165,740
Commonwealth of Pennsylvania	93.226	5R18 HS025072-02	44,446	415,988
Dartmouth College	93.226	5R01 HS021747-05	—	1,591
Tufts University	93.226	5R01 HS025422-02	—	63,667
University of Illinois	93.226	1R01 HS025177-01A1	—	2,838
University of Massachusetts	93.226	5R01 HS024422-02	—	18,513
University of Massachusetts	93.226	5R01 HS024422-03	—	14,266
University of Wisconsin	93.226	5R18 HS022465-02	—	13,211
Subtotal 93.226			581,186	4,215,703
University of Arizona	93.000	EARLY AWARD	—	20,265
Total Agency for Healthcare Research and Quality			581,186	4,235,968
Centers for Disease Control and Prevention:				
Innovations in Applied Public Health Research	93.061	Direct	2,293	115,885
Baobab Health Trust	93.067	5NU2 GGH000729-05	—	91,951
University of Rwanda	93.067	5U01 GH000782-02	—	1,660
Subtotal 93.067			—	93,611
Birth Defects and Developmental Disabilities – Prevention and				
Surveillance	93.073	Direct	18,750	49,105
Prevention of Disease, Disability, and Death through Immunization and				
Control of Respiratory and Related Diseases	93.083	Direct	—	698,911
Commonwealth of Pennsylvania	93.094	6U58 DP004857-04	—	71,620
Centers for Research and Demonstration for Health Promotion and				
Disease Prevention	93.135	Direct	—	718,130
Injury Prevention and Control Research and State and Community				
Based Programs	93.136	Direct	16,046	536,040
Immunization Research, Demonstration, Public Information and				
Education Training and Clinical Skills Improvement Projects	93.185	Direct	—	1,852,056
Occupational Safety and Health Program	93.262	Direct	340,576	1,932,522
CPWR The Center for Construction Research and Training	93.262	5U60 OH009762-08	37,998	94,686
Mount Sinai School of Medicine	93.262	2U01 OH010401-05	—	21,345
Mount Sinai School of Medicine	93.262	5U01 OH010401-04	—	5,764
University of Southern California	93.262	5R01 OH010665-02	—	551
University of Southern California	93.262	5R01 OH010665-03	—	2,912
Subtotal 93.262			378,574	2,057,780
Association of Schools of Public Health	93.283	5U36 OE000002-05	—	69,256
Johns Hopkins University	93.283	5U50 CK000203-05	—	1,261
University of Florida	93.283	6U01 CK000337-04	—	106,771
Subtotal 93.283			—	177,288
Rare Disorders: Research, Surveillance, Health Promotion and Education	93.315	Direct	—	63,420
Spina Bifida Association	93.315	5U01 DD001077-03	—	7,854
Spina Bifida Association	93.315	5U01 DD001077-04	—	24,544
Subtotal 93.315			—	95,818

**UNIVERSITY OF PITTSBURGH – OF THE
COMMONWEALTH SYSTEM OF HIGHER EDUCATION**

Schedule of Expenditures of Federal Awards

Year ended June 30, 2018

Federal grantor/pass through grantor/program title	CFDA number	Direct award or pass through number	Passed through to subrecipients	Federal expenditures
Johns Hopkins University	93.317	NU50 CK000487-02	\$ —	\$ 106,392
Commonwealth of Pennsylvania	93.336	NU58 DP006054-02	—	(14,172)
Commonwealth of Pennsylvania	93.336	NU58 DP006054-03	—	55,491
North Dakota Department of Health	93.336	5U58 DP006035-03	—	90,020
Subtotal 93.336			—	131,339
American Academy of Pediatrics	93.424	5U38 OT000167-05	—	10,607
Johns Hopkins University	93.521	5U50 CK000316-05	—	12,478
Johns Hopkins University	93.521	NU50 CK000487-01	—	198,145
Subtotal 93.521			—	210,623
Prevention and Public Health Fund (Affordable Care Act) Enhanced Surveillance for New Vaccine Preventable Disease	93.533	Direct	—	236,915
National Association of Chain Drug Stores Foundation	93.733	1H23 IP000985-01	122,935	142,546
Commonwealth of Pennsylvania	93.745	NU58 DP006054-03	—	185,468
Idaho Department of Health and Welfare	93.745	5U58 DP006022-03	—	106,555
Subtotal 93.745			—	292,023
Commonwealth of Pennsylvania	93.940	3U62 PS003643-06	—	1,277,234
Pennsylvania Pharmacists Association	93.945	5U58 DP131305-02	—	4,382
Child Trends, Inc.	93.946	1U01 DP006129-01	—	1,869
Promundo-US	93.946	5U01 DP006129-02	—	5,448
Subtotal 93.946			—	7,317
Other Centers for Disease Control and Prevention	93.000	Direct	—	25,512
RTI International	93.000	200-2016-92270	—	19,853
Subtotal 93.000			—	45,365
Total Centers for Disease Control and Prevention			538,598	8,930,987
Centers for Medicare and Medicaid Services:				
University of North Carolina	93.610	1C1C MS331348-03	—	43,729
Centers for Medicare and Medicaid Services (CMS) Research, Demonstrations and Evaluations	93.779	Direct	—	134,368
Total Centers for Medicare and Medicaid Services			—	178,097
Food and Drug Administration:				
Duke University	93.103	5R18 FD005292-02	—	45,730
Emory University	93.103	5R01 FD004814-03	—	6,184
Magee-Womens Research Institute & Foundation	93.103	3U01 FD005447-02S1	—	19,047
Magee-Womens Research Institute & Foundation	93.103	5U01 FD005447-02	—	44,984
New England Pediatric Device Consortium	93.103	5P50 FD004907	—	4,575
University of Florida	93.103	1R01 FD005407-01	—	4,477
University of Florida	93.103	5R01 FD005407-02	—	4,102
Subtotal 93.103			—	129,099
Other Food and Drug Administration	93.000	Direct	—	92,202
Oak Ridge Associated Universities	93.000	FDA-CDRH-2017-0014	—	(172)
University of Southern California	93.000	HHSF223201400115C	—	10,857
Subtotal 93.000			—	102,887
Total Food and Drug Administration			—	231,986
Health Resources and Services Administration:				
Health Research, Inc.	93.110	1UH7 MC30773-01	—	26,885
Massachusetts General Hospital	93.110	2UA3 MC11054-07	—	1
Massachusetts General Hospital	93.110	5UA3 MC11054-08	—	19,803
Massachusetts General Hospital	93.110	5UA3 MC11054-09	—	45,014
Massachusetts General Hospital	93.110	6UA3 MC11054-09	—	23,427
Rand Corporation	93.110	5R40 MC29451-02	—	73,625
Texas A&M University	93.110	6R40 MC30760-01	—	13,796
Subtotal 93.110			—	202,551
Research Institute at Nationwide Children's Hospital	93.127	5U03 MC28844-03	—	106,578
Research Institute at Nationwide Children's Hospital	93.127	6U03 MC28844-02	—	28,169
Subtotal 93.127			—	134,747

**UNIVERSITY OF PITTSBURGH – OF THE
COMMONWEALTH SYSTEM OF HIGHER EDUCATION**

Schedule of Expenditures of Federal Awards

Year ended June 30, 2018

Federal grantor/pass through grantor/program title	CFDA number	Direct award or pass through number	Passed through to subrecipients	Federal expenditures
Grants to Increase Organ Donations	93.134	Direct	\$ 35,610	\$ 425,158
HIV-Related Training and Technical Assistance	93.145	Direct	2,063,402	3,112,546
Rutgers University	93.145	5U10 HA28686-03	25,712	46,729
Rutgers University	93.145	6U10 HA28686-02	20,000	22,736
Subtotal 93.145			2,109,114	3,182,011
National Research Service Award in Primary Care Medicine	93.186	Direct	—	251,527
University of North Carolina	93.300	6U81 HP26495-05	—	41,771
Minneapolis Medical Research Foundation	93.000	HHS25020150009C	—	4,024
Total Health Resources and Services Administration			2,144,724	4,241,789
National Institutes of Health:				
Family Smoking Prevention and Tobacco Control Act Regulatory Research	93.077	Direct	2,412,445	2,821,242
Duke University	93.077	5R01 HD083404-02	—	3,131
Duke University	93.077	5R01 HD083404-03	—	259,980
University of Southern California	93.077	5P50 CA180905-05	—	14,017
University of Texas M.D. Anderson Cancer Center	93.077	1R01 DA042526-01	—	(128)
Subtotal 93.077			2,412,445	3,098,242
Environmental Health	93.113	Direct	85,551	5,202,339
University of Cincinnati	93.113	5R01 ES026446-02	—	153,203
University of New Mexico	93.113	5R01 ES012512-13	—	50,139
Wayne State University	93.113	5R01 ES022606-05	—	47,037
Subtotal 93.113			85,551	5,452,718
Oral Diseases and Disorders Research	93.121	Direct	1,997,688	8,185,108
Forsyth Institute	93.121	5R01 DE023091-05	—	43,223
HealthPartners Institute for Education and Research	93.121	1U01 DE026135-01	—	43,625
International Agency for Research on Cancer	93.121	1R01 DE025712-01A1	—	60,209
International Agency for Research on Cancer	93.121	5R01 DE025712-02	—	46,786
Johns Hopkins University	93.121	4P50 DE019032-15	—	6,292
Johns Hopkins University	93.121	5R35 DE026631-02	—	6,337
NanoMAG, LLC	93.121	4R44 DE024919-02	—	20,090
Seattle Children's Hospital	93.121	4R01 DE022438-05	6,599	19,056
Texas A&M University	93.121	1R01 DE026749-01A1	—	5,095
University of California at San Francisco	93.121	7R01 DE024728-02	—	16,093
University of Michigan	93.121	1U24 DE026915-01	—	661,102
University of Michigan	93.121	5U24 DE026915-02	—	337,384
University of Puerto Rico Medical Sciences Campus	93.121	1R21 DE027235-01	—	8,823
Subtotal 93.121			2,004,287	9,459,223
Human Genome Research	93.172	Direct	1,046,238	3,873,354
Research Related to Deafness and Communication Disorders	93.173	Direct	776,999	5,929,742
Arizona State University	93.173	5R01 DC008329-08	—	161,926
Prentke Romich Company	93.173	1R41 DC015142-01A1	—	30,249
University of Utah	93.173	5R01 DC011311-06	—	57,698
Veterans Research Foundation of Pittsburgh	93.173	1R01 DC013803-01A1	—	16,778
Veterans Research Foundation of Pittsburgh	93.173	5R03 DC014556-03	—	16,942
Subtotal 93.173			776,999	6,213,335
Research and Training in Complementary and Integrative Health	93.213	Direct	—	98,982
Carnegie Mellon University	93.213	5R01 AT008493-03	—	80,842
Carnegie Mellon University	93.213	5R01 AT008685-02	—	26,684
Carnegie Mellon University	93.213	5R01 AT008685-03	—	130,613
Case Western Reserve University	93.213	3R21 AT008265-02S1	—	38,653
Northwestern University	93.213	1R01 AT009539-01	—	222,785
University of Minnesota	93.213	1UG3 AT008769-01A1	—	366,057
University of Washington	93.213	5U54 AT008909-02	—	7,038
University of Washington	93.213	7U54 AT008909-03	—	205,080
Subtotal 93.213			—	1,176,734
National Center on Sleep Disorders Research	93.233	Direct	—	469,333
Beth Israel Deaconess Medical Center	93.233	4R01 HL110350-05	—	36,238
Magee-Womens Research Institute & Foundation	93.233	5R01 HL120354-04	—	369,878
Oregon Health & Science University	93.233	1R01 HL142064-01	—	3,948
Rand Corporation	93.233	5R01 HL122460-04	—	55,428
Subtotal 93.233			—	934,825

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Mental Health Research Grants	93.242	Direct	\$ 2,568,193	\$ 36,749,072
Beth Israel Deaconess Medical Center	93.242	4R01 MH092440-05	—	48,312
Brown University	93.242	5R25 MH101076-05	—	25,389
Carnegie Mellon University	93.242	1R24 MH114793-01	—	59,366
Carnegie Mellon University	93.242	1RF1 MH114103-01	—	108,618
Carnegie Mellon University	93.242	5R21 MH106880-02	—	(2,223)
Center for Psychological Consultation	93.242	5R44 MH094092-05	—	170,108
Center for Social Innovation	93.242	1R44 MH115546-01	—	24,852
Centre for Addiction and Mental Health	93.242	5R01 MH099167-04	—	(2,099)
Centre for Addiction and Mental Health	93.242	7R01 MH093723-05	—	69,583
Drexel University	93.242	5R01 MH104423-04	—	2,529
Florida State University	93.242	7R01 MH059911-19	—	37,752
Magee-Womens Research Institute & Foundation	93.242	5R01 MH105538-03	—	74,297
Mount Sinai School of Medicine	93.242	1R01 MH109677-01	—	(1,233)
Mount Sinai School of Medicine	93.242	1R01 MH110921-01	—	61,413
Mount Sinai School of Medicine	93.242	5R01 MH110921-02	—	83,125
Mount Sinai School of Medicine	93.242	5R03 MH109008-02	—	30,099
Mount Sinai School of Medicine	93.242	5U01 MH103392-03	—	(3,450)
Mount Sinai School of Medicine	93.242	5U01 MH106891-02	—	138
Mount Sinai School of Medicine	93.242	5U01 MH106891-03	—	88,258
Pennsylvania State University	93.242	7K01 MH097091-05	—	780
Rand Corporation	93.242	5R01 MH106682-03	—	28,979
Research Foundation for Mental Hygiene, Inc.	93.242	1R01 MH114296-01	—	253,171
Stellenbosch University	93.242	5R01 MH105134-04	—	29,444
University of California	93.242	5R01 MH092793-05	—	5,799
University of California at Berkeley	93.242	5R01 MH105513-04	—	14,484
University of California at San Francisco	93.242	5R01 MH098062-05	—	4,715
University of Chicago	93.242	1R21 MH110716-01A1	—	15,944
University of Chicago	93.242	5R01 MH100155-05	—	336,655
University of Maryland, Baltimore	93.242	5R01 MH107459-04	—	39,335
University of Michigan	93.242	1R01 MH113582-01	—	21,993
University of Michigan	93.242	3U01 MH104311-03S1	—	9,040
University of Michigan	93.242	5U01 MH104311-03	—	85,697
University of Oregon	93.242	1R01 MH111758-01A1	—	385,015
University of Pennsylvania	93.242	5U01 MH105634-02	—	(3,398)
University of Pennsylvania	93.242	5U01 MH105634-03	—	41,341
University of Pennsylvania	93.242	5U01 MH105634-04	—	11,262
University of Rochester	93.242	1P50 MH106435-02	—	(21,920)
University of Rochester	93.242	5P50 MH106435-03	—	322,437
University of Rochester	93.242	5P50 MH106435-04	—	20,035
University of Rochester	93.242	5R34 MH100254-03	—	51,727
University of Southern California	93.242	4R01 MH098062-04	—	72,361
Washington University in St. Louis	93.242	5R21 MH105822-02	—	(1,260)
Yale University	93.242	1R61 MH111929-01A1	—	28,691
Subtotal 93.242			2,568,193	39,376,233
Alcohol Research Programs	93.273	Direct	1,357,822	6,574,025
Athersys, Inc.	93.273	4R42 AA024003-02	—	23,706
Athersys, Inc.	93.273	5R42 AA024003-03	—	114,561
Carnegie Mellon University	93.273	1R01 AA025936-01	—	11,697
Cleveland Clinic Lerner College of Medicine	93.273	1U01 AA026264-01	—	12,204
New York University School of Medicine	93.273	4U24 AA022007-05	—	5,143
Oregon Health & Science University	93.273	5R13 AA023455-03	—	(33)
Pacific Institute for Research and Evaluation	93.273	2P60 AA006282-36	—	14,951
Pacific Institute for Research and Evaluation	93.273	5R01 AA023085-03	—	28,611
Rhode Island Hospital	93.273	4R01 AA021900-05	—	(23)
Rhode Island Hospital	93.273	5R21 AA024185-02	—	8,076
University of Washington	93.273	5R34 AA023047-03	—	(51)
Wayne State University	93.273	1R01 AA025905-01	—	16,837
Yale University	93.273	2U24 AA022001-05	—	2,500
Yale University	93.273	5R01 AA023549-04	—	47,331
Yale University	93.273	5U24 AA022001-06	—	12,922
Subtotal 93.273			1,357,822	6,872,457
Drug Abuse and Addiction Research Programs	93.279	Direct	2,216,616	13,512,006
Boston Medical Center	93.279	4R01 DA034252-05	—	45,771
Boston Medical Center	93.279	5R01 DA037768-04	—	15,253
Brigham & Women's Hospital	93.279	5UM1 AI068636-11	—	4,532
Brigham & Women's Hospital	93.279	5UM1 AI068636-12	—	6,422
Carnegie Mellon University	93.279	2R90 DA023426-11	—	19,047
Carnegie Mellon University	93.279	5R90 DA023426-12	—	57,437
Duke University	93.279	5R01 DA033080-05	—	1,521
Duke University	93.279	5R01 DA038442-04	—	16,005
Emory University	93.279	5R01 DA037568-04	\$ —	\$ 64,337
Family Health International 360	93.279	5UM1 AI068619-10	747,082	747,082

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Harvard University	93.279	5R01 DA035214-03	—	22,596
Jackson Laboratory	93.279	1P50 DA039841-01A1	—	(12,881)
Jackson Laboratory	93.279	5P50 DA039841-02	—	280,907
Jackson Laboratory	93.279	5P50 DA039841-03	—	19,245
Magee-Womens Research Institute & Foundation	93.279	1R56 DA040617-01	—	59,700
Magee-Womens Research Institute & Foundation	93.279	5K23 DA038789-02	—	138,913
Magee-Womens Research Institute & Foundation	93.279	5R21 DA039345-02	—	37,517
MOSAIX Software, Inc.	93.279	1R43 DA041030-01	—	16,031
Oregon Health & Science University	93.279	5R01 DA004523-29	—	11,126
Oregon Health & Science University	93.279	5R01 DA004523-30	—	55,875
RTI International	93.279	5R01 DA036628-04	—	444,664
Temple University	93.279	5R25 DA033270-04	—	6,984
University of Florida	93.279	5R01 DA038598-04	—	122,373
University of Massachusetts	93.279	5R01 DA042074-02	—	256,319
University of Miami	93.279	3UG1 DA013720-17	—	(855)
University of Miami	93.279	5R01 DA034749-04	—	31,471
University of Miami	93.279	5UG1 DA013720-18	—	18,146
University of Michigan	93.279	2R01 DA001411-43	—	53,467
University of Michigan	93.279	4R01 DA001411-42	—	(18,623)
Yale University	93.279	5P50 DA009241-22	—	5,006
Yale University	93.279	5P50 DA009241-24	—	25,572
Subtotal 93.279			<u>2,963,698</u>	<u>16,062,966</u>
Discovery and Applied Research for Technological Innovations to Improve Human Health	93.286	Direct	225,285	3,392,949
Carnegie Mellon University	93.286	1R21 EB024675-01A1	—	14,264
Carnegie Mellon University	93.286	4R01 EB017268-04	1,499	(2,116)
Carnegie Mellon University	93.286	5T32 EB009403-08	—	5,359
Carnegie Mellon University	93.286	5T32 EB009403-09	—	126,223
Case Western Reserve University	93.286	1U01 EB021960-01A1	—	49,177
Children's Hospital of Los Angeles	93.286	1R01 EB025032-01	—	17,274
Sheehan Medical LLC	93.286	5R42 EB018124-03	—	33,576
Texas A&M Engineering Experiment Station	93.286	5R21 EB020398-02	—	(2,717)
University of North Carolina	93.286	1R01 EB025024-01	—	19,895
Yale University	93.286	5R01 EB016629-04	—	40,471
Yale University	93.286	5R01 EB016629-05	—	8,926
Subtotal 93.286			<u>226,784</u>	<u>3,703,281</u>
Minority Health and Health Disparities Research	93.307	Direct	521,985	1,720,593
Columbia University	93.307	5R01 MD011514-02	—	61,001
University of Iowa	93.307	1R01 MD011513-01	—	28,253
University of Iowa	93.307	5R01 MD011513-02	—	12,033
University of Maryland, Baltimore	93.307	5R01 MD010255-04	—	42,505
University of Mississippi Medical Center	93.307	5R01 MD009162-02	—	19,042
University of Southern California	93.307	1R01 MD012252-01	—	16,086
Virginia Commonwealth University	93.307	5R01 MD011277-02	—	52,779
Subtotal 93.307			<u>521,985</u>	<u>1,952,292</u>
Trans-NIH Research Support	93.310	Direct	621,740	11,476,327
Boston College	93.310	5U54 GM119023-03	—	(7,132)
Case Western Reserve University	93.310	1OT2 OD025307-01	—	20,037
Massachusetts General Hospital	93.310	1UG3 OD023253-01	—	278
Massachusetts General Hospital	93.310	5UG3 OD023253-02	—	3,030
Medical University of South Carolina	93.310	5UG3 OD023316-02	—	10,326
Micro-Leads, Inc.	93.310	1OT2 OD024908-01	—	68,837
Mount Sinai School of Medicine	93.310	1U24 DK112331-01	—	711
Mount Sinai School of Medicine	93.310	5U24 DK112331-02	—	9,614
University of California at Los Angeles	93.310	3OT2 OD023848-01S1	—	40,250
University of Pennsylvania	93.310	4U01 MH098953-05	—	(40)
University of Rochester	93.310	1UG3 OD023349-01	—	24,213
University of Rochester	93.310	5UG3 OD023349-02	—	132,400
University of Southern California	93.310	5UH3 TR000967-03	—	30,262
University of Toledo	93.310	1OT2 OD023859-01	—	313,301
University of Toledo	93.310	3OT2 OD023859-01S2	—	188,220
University of Washington	93.310	1UG3 OD023271-01	—	2,225
University of Wisconsin	93.310	1U01 GM125290-01	—	87,658
Virginia Commonwealth University	93.310	5UH3 TR000958-03R	—	648
Virginia Tech University	93.310	1DP2 AI112243-01	—	184,804
Subtotal 93.310			<u>621,740</u>	<u>12,585,969</u>

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National Center for Advancing Translational Sciences	93.350	Direct	\$ 4,397,491	\$ 21,183,199
Allegheny Singer Research Institute	93.350	5UH3 TR001372-02	—	98,956
Massachusetts Institute of Technology	93.350	5UH3 TR000496-05	—	(28,444)
Subtotal 93.350			4,397,491	21,253,711
Research Infrastructure Programs	93.351	Direct	286,113	3,376,641
Carnegie Mellon University	93.351	1R24 OD023046-01A1	—	13,304
Oregon Health & Science University	93.351	2R24 OD011883-05A1	—	(2)
Scripps Research Institute	93.351	5R24 OD018254-04	—	15,150
University of Michigan	93.351	1R21 OD024789-01A1	—	6,120
Subtotal 93.351			286,113	3,411,213
Magee-Womens Research Institute & Foundation	93.361	1R01 CA211913-01A1	—	107,059
Nursing Research	93.361	Direct	703,817	4,927,956
Cornell University	93.361	7R01 NR016436-03	—	19,184
Duke University	93.361	5R01 NR015348-04	—	53,878
Emory University	93.361	1R01 NR017018-01	—	112,319
Emory University	93.361	5R01 NR017018-02	—	12,952
Magee-Womens Research Institute & Foundation	93.361	1F32 NR017113-01A1	—	44,198
University of Colorado	93.361	5U24 NR014637-05	—	31,288
University of Miami	93.361	5R01 NR014434-05	—	39,007
University of North Carolina	93.361	5R01 NR016459-02	—	89,159
Subtotal 93.361			703,817	5,329,941
Cancer Cause and Prevention Research	93.393	Direct	983,575	7,329,553
Fred Hutchinson Cancer Research Center	93.393	5U01 CA137088-07	—	2,869
Fred Hutchinson Cancer Research Center	93.393	5U01 CA137088-08	—	15,253
Harvard University	93.393	5R01 CA168959-05	—	24,632
Johns Hopkins University	93.393	1R35 CA209974-01	—	7,429
Johns Hopkins University	93.393	1R35 CA209974-02	—	27,026
Kaiser Foundation Research Institute	93.393	5U01 CA173642-05	—	10,888
Northwestern University	93.393	5U2C CA186878-03	—	5,821
Northwestern University	93.393	5U2C CA186878-04	—	35,757
Ohio State University	93.393	5P01 CA163205-05	—	354,481
University of Pennsylvania	93.393	5R01 CA206058-02	—	24,038
University of Southern California	93.393	2P01 CA138338-06	—	9,880
University of Southern California	93.393	5P01 CA138338-07	—	30,202
University of Texas M.D. Anderson Cancer Center	93.393	1U01 CA213285-01A1	—	36,688
University of Texas M.D. Anderson Cancer Center	93.393	5R01 CA186566-03	—	15,452
University of Virginia	93.393	5R01 CA113863-08	—	59,903
University of Washington	93.393	5R01 CA173754-05	—	11,940
Wake Forest University	93.393	5R01 CA199137-03	—	1,942
Subtotal 93.393			983,575	8,003,754
Cancer Detection and Diagnosis Research	93.394	Direct	1,629,672	6,015,765
Boston University	93.394	5R01 CA208599-02	—	97,694
Brigham & Women's Hospital	93.394	5R01 CA207490-02	—	203,430
Cernostics, Inc.	93.394	5R44 CA192416-02	—	32,927
Children's Hospital of Boston	93.394	5U24 CA184407-06	—	31,937
Children's Hospital of Boston	93.394	7U24 CA184407-05	—	208,907
Duquesne University	93.394	5R01 CA182840-04	—	50,538
Ecog-Acrin Medical Research Foundation, Inc.	93.394	5U24 CA196172-03	—	45,464
Ecog-Acrin Medical Research Foundation, Inc.	93.394	5U24 CA196172-04	—	14,059
Fred Hutchinson Cancer Research Center	93.394	5U01 CA152637-07	—	10,547
Fred Hutchinson Cancer Research Center	93.394	5U01 CA152637-08	—	3,944
Fred Hutchinson Cancer Research Center	93.394	5U01 CA185094-03	—	2,334
Johns Hopkins University	93.394	5U01 CA210170-02	—	46,095
Magee-Womens Research Institute & Foundation	93.394	1R01 CA188900-01A1	—	14
Magee-Womens Research Institute & Foundation	93.394	5R01 CA188900-02	—	21,881
Massachusetts General Hospital	93.394	5U01 CA182367-02	—	5,520
Massachusetts General Hospital	93.394	5U01 CA182367-03	—	97,570
NRG Oncology Foundation, Inc.	93.394	5U24 CA196067-03	27,839	46,349
University of Washington	93.394	5U01 CA148131-08	—	10,033
Van Andel Institute	93.394	2U01 CA152653-06	—	(2,393)
Van Andel Institute	93.394	2U01 CA152653-07	—	(5,229)
Van Andel Institute	93.394	5U01 CA152653-07	—	62,818
Van Andel Institute	93.394	5U01 CA152653-08	—	16,716
Subtotal 93.394			1,657,511	7,016,920

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Cancer Treatment Research	93.395	Direct	\$ 6,078,052	\$ 19,984,905
Brigham & Women's Hospital	93.395	5U10 CA031946-32	—	15,168
Children's Hospital of Philadelphia	93.395	4UM1 CA097452-15	—	23,471
Children's Hospital of Philadelphia	93.395	5R01 CA196854-02	—	9,158
Children's Hospital of Philadelphia	93.395	5U10 CA180886-04	—	90,795
Children's Hospital of Philadelphia	93.395	5U10 CA180886-05	—	1,199
Children's Hospital of Philadelphia	93.395	5UG1 CA189955-04	—	5,330
Children's Hospital of Philadelphia	93.395	5UM1 CA097452-14	—	14,505
Children's Research Institute	93.395	1R01 CA212190-01	—	15,007
Dana Farber Cancer Institute	93.395	5UG1 CA189823-03	—	4,148
Dana Farber Cancer Institute	93.395	5UG1 CA189823-04	—	14,808
Ecog-Acrin Medical Research Foundation, Inc.	93.395	5U01 CA180820-04	—	6,593
Ecog-Acrin Medical Research Foundation, Inc.	93.395	5U10 CA180820-02	—	150,477
Ecog-Acrin Medical Research Foundation, Inc.	93.395	5U10 CA180820-03	—	36,770
Ecog-Acrin Medical Research Foundation, Inc.	93.395	5U10 CA180820-04	—	151,373
Ecog-Acrin Medical Research Foundation, Inc.	93.395	5U10 CA180820-05	—	20,215
Fred Hutchinson Cancer Research Center	93.395	5U01 CA154967-06	—	(5,007)
Frontier Science & Technology Research Foundation	93.395	5U10 CA021115-39	—	8,578
Johns Hopkins University	93.395	2UM1 CA137443-06	—	198
Johns Hopkins University	93.395	5U01 CA137443-05	—	9,181
Johns Hopkins University	93.395	5UM1 CA137443-08	—	27,769
Johns Hopkins University	93.395	5UM1 CA137443-09	—	2,163
Magee-Womens Research Institute & Foundation	93.395	1R01 CA214567-01	—	52,101
Magee-Womens Research Institute & Foundation	93.395	4R01 CA163462-05	—	47,683
Magee-Womens Research Institute & Foundation	93.395	5R01 CA190498-04	—	15,253
NRG Oncology Foundation, Inc.	93.395	5U10 CA180868-03	—	37,676
NRG Oncology Foundation, Inc.	93.395	5U10 CA180868-04	—	48,330
NRG Oncology Foundation, Inc.	93.395	5U10 CA180868-05	—	28,222
NRG Oncology Foundation, Inc.	93.395	5UG1 CA189867-03	872,568	1,084,406
NRG Oncology Foundation, Inc.	93.395	5UG1 CA189867-04	1,070,350	2,531,365
NSABP Foundation, Inc.	93.395	5U10 CA180860-04	—	67,382
NSABP Foundation, Inc.	93.395	5U10 CA180868-04	—	129,998
NSABP Foundation, Inc.	93.395	5U10 CA180868-05	—	67,511
Oncovir, Inc.	93.395	4R44 CA183075-02	—	2,853
ReveraGen BioPharma, Inc.	93.395	5R01 CA095423-02	—	17,400
St. Jude Children's Research Hospital	93.395	5UM1 CA081457-18	—	(6,226)
St. Jude Children's Research Hospital	93.395	5UM1 CA081457-19	—	70,266
University of California at San Francisco	93.395	5R01 CA151692-05	—	2,664
University of California at San Francisco	93.395	5R01 CA187160-03	—	16,455
University of California at San Francisco	93.395	5R21 CA177787-02	—	(12,885)
University of Illinois	93.395	5R01 CA216410-02	—	98,486
University of Michigan	93.395	1R01 CA217141-01A1	—	215,237
University of Rochester	93.395	4R01 CA159013-05	—	4,500
University of South Alabama	93.395	2R01 CA148629-07A1	—	37,774
University of Texas Health Science Center at San Antonio	93.395	4R01 CA172886-04	—	(5,988)
Washington University in St. Louis	93.395	5R01 CA212638-02	—	24,655
Yale University	93.395	5P01 CA154295-06	—	2,946
Subtotal 93.395			8,020,970	25,164,868
Cancer Biology Research	93.396	Direct	323,691	5,803,094
Fred Hutchinson Cancer Research Center	93.396	5R01 CA188341-03	—	16,891
Fred Hutchinson Cancer Research Center	93.396	5R01 CA188341-04	—	9,439
Love Research Foundation	93.396	4UH3 CA189966-03	—	14,250
Magee-Womens Research Institute & Foundation	93.396	7R01 CA203810-02	—	30,687
Nymirum, Inc.	93.396	1R43 CA217370-01A1	—	11,422
Sage Bionetworks	93.396	3U24 CA209923-01S1	—	584
Sage Bionetworks	93.396	5U24 CA209923-02	—	48,797
Texas A&M University	93.396	7R01 CA182418-04	—	4,787
University of Pennsylvania	93.396	5R01 CA206012-02	—	29,016
University of Pennsylvania	93.396	5R01 CA206012-03	—	13,925
Wistar Institute	93.396	4R01 CA165065-05	—	116,307
Subtotal 93.396			323,691	6,099,199
Cancer Centers Support Grants	93.397	Direct	601,518	10,075,246
Dana Farber Cancer Institute	93.397	2P30 CA006516-52	—	7,225
Health Research Inc. – Roswell Park Division	93.397	4P50 CA159981-04	—	(74)
Health Research Inc. – Roswell Park Division	93.397	5P50 CA159981-05	—	349,964
Northwestern University	93.397	5P50 CA180995-02	—	39,997
Northwestern University	93.397	5P50 CA180995-03	—	44,384

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Vanderbilt University Medical Center	93.397	5P20 CA210300-02	\$ —	\$ 20,499
Washington University in St. Louis	93.397	5U54 CA199092-02	—	8,868
Washington University in St. Louis	93.397	5U54 CA199092-03	—	51,161
Subtotal 93.397			601,518	10,597,270
Cancer Research Manpower	93.398	Direct	—	1,940,092
Magee-Womens Research Institute & Foundation	93.398	2R25 CA163168-06	—	16,846
Magee-Womens Research Institute & Foundation	93.398	5R25 CA163168-07	—	96,931
University of Rochester	93.398	5R25 CA183725-03	—	79,514
Subtotal 93.398			—	2,133,383
Children's Hospital of Philadelphia	93.399	5UG1 CA189955-03	—	784
NSABP Foundation, Inc.	93.399	5U10 CA037377-28	—	(21,274)
Subtotal 93.399			—	(20,490)
Cardiovascular Diseases Research	93.837	Direct	2,045,188	24,613,803
All Children's Research Institute, Inc.	93.837	5U01 HL130048-02	—	6,711
Beth Israel Deaconess Medical Center	93.837	5K24 HL127101-02	—	93
Beth Israel Deaconess Medical Center	93.837	5K24 HL127101-03	—	275
Brigham & Women's Hospital	93.837	1U01 HL130163-01	—	3,999
Brigham & Women's Hospital	93.837	5R01 HL129920-03	—	51,465
Brown University	93.837	2R01 HL093093-06	—	399,803
Carnegie Mellon University	93.837	5R01 HL122639-03	—	36,934
Children's Hospital of Philadelphia	93.837	5R01 HL131544-03	—	9,370
Cincinnati Children's Hospital Medical Center	93.837	4R24 HL105333-05	—	(29)
Cornell University	93.837	5R01 HL122639-04	—	19,779
Duke University	93.837	5P01 HL075443-13	—	124,528
Duke University	93.837	5R01 HL121689-04	—	38,884
Elex Biotech, LLC	93.837	1R41 HL129570-01	—	15,365
Emory University	93.837	1R01 HL136205-01	—	32,297
Emory University	93.837	5R01 HL130471-02	—	35,200
Emory University	93.837	5R01 HL136205-02	—	10,528
Emory University	93.837	5U01 HL128566-02	—	12,867
Feinstein Institute for Medical Research	93.837	5R01 HL076179-10	—	106,821
Florida International University	93.837	1R21 HL128141-01A1	—	15,406
Henry M. Jackson Foundation	93.837	1R01 HL130448-01	—	3,289
Indiana University	93.837	5R01 HL126557-04	—	88,721
Johns Hopkins University	93.837	5R01 HL125053-03	—	53,526
Kaiser Foundation Research Institute	93.837	5R01 HL130462-02	—	14,670
Magee-Womens Research Institute & Foundation	93.837	4U10 HL119991-04	—	14,663
Magee-Womens Research Institute & Foundation	93.837	4U10 HL120006-04	—	(323)
Magee-Womens Research Institute & Foundation	93.837	5U01 HL120338-04	—	7,181
Magee-Womens Research Institute & Foundation	93.837	5U10 HL119991-03	—	336
Massachusetts General Hospital	93.837	2R01 HL111821.06	—	119,401
Massachusetts General Hospital	93.837	4R01 HL111821-05	—	9,148
Massachusetts General Hospital	93.837	5R01 HL125869-04	—	41,491
Massachusetts General Hospital	93.837	5U01 HL123336-04	—	15,676
Mount Sinai School of Medicine	93.837	4U01 HL088942-09	—	3,830
Mount Sinai School of Medicine	93.837	5U01 HL088942-09	—	(925)
Mount Sinai School of Medicine	93.837	5U01 HL088942-10	—	77,656
Mount Sinai School of Medicine	93.837	5U01 HL088942-11	—	6,825
New England Research Institutes	93.837	1U10 HL068270-01	—	13,781
New England Research Institutes	93.837	1U24 HL135691-01	—	42,399
New England Research Institutes	93.837	4U01 HL107407-03	—	12,837
New England Research Institutes	93.837	4U10 HL068270-15	—	(66,832)
New York University School of Medicine	93.837	5R01 HL127930-02	—	25,916
New York University School of Medicine	93.837	5R01 HL127930-03	—	31,467
Northwestern University	93.837	5R01 HL122846-03	—	47,386
Northwestern University	93.837	5R01 HL122846-04	—	132
Palo Alto Medical Foundation Research Institute	93.837	5R01 HL119453-04	—	7,027
Pennsylvania State University	93.837	5U10 HL098115-07	—	(9,687)
Progenra, Inc.	93.837	1R43 HL134411-01	—	9,058
Rand Corporation	93.837	5R01 HL131531-02	—	78,183
Seattle Children's Hospital	93.837	4U01 HL114623-04	—	205
Seattle Children's Hospital	93.837	4U01 HL119073-03	—	1,546
Tulane University	93.837	7R37 HL079142-14	—	6,262
University of Alabama	93.837	5R01 HL118067-04	—	(174)
University of Alabama	93.837	5R01 HL118067-05	—	13,340
University of Alabama	93.837	5UH3 HL125163-03	—	16,874
University of Alabama	93.837	5UH3 HL125163-04	—	3,003
University of California	93.837	5R01 HL125084-08	—	12,085
University of California at Irvine	93.837	5R01 HL125084-08	—	42,066
University of Chicago	93.837	1R01 HL137246-01	—	276,247
University of Delaware	93.837	1R01 HL128388-01A1	\$ 31,307	\$ 295,892
University of Illinois	93.837	7R01 HL119453-05	—	2,365

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University of Iowa	93.837	4R01 HL115955-04	—	(1,319)
University of Maryland, Baltimore	93.837	4R01 HL088120-08	—	12,777
University of Michigan	93.837	1U01 HL131072-01	—	7,633
University of Michigan	93.837	4U01 HL094345-06	—	504
University of Michigan	93.837	5U01 HL131072-02	—	13,347
University of Minnesota	93.837	1R01 HL133818-01	—	(1,271)
University of Minnesota	93.837	1R01 HL136679-01	—	14,948
University of Minnesota	93.837	5U01 HL133818-02	—	44,690
University of North Carolina	93.837	7R01 HL130126-02	—	16,185
University of Pennsylvania	93.837	4R01 HL115041-04	—	14,369
University of Rochester	93.837	1R34 HL133526-01	—	684
University of Washington	93.837	1U01 HL130114-01	—	(47)
University of Washington	93.837	5R01 HL129722-02	—	80,641
University of Washington	93.837	5U01 HL122894-03	—	262,175
University of Washington	93.837	5U01 HL122894-04	—	18,174
University of Washington	93.837	5U01 HL130114-02	—	98,339
Vadovations, Inc.	93.837	4R44 HL118907-02	—	147,180
Vanderbilt University Medical Center	93.837	5R01 HL125032-05	—	254,089
Wayne State University	93.837	5R01 HL109090-04	—	15,582
Yale University	93.837	1R01 HL115295-01	—	(942)
Yale University	93.837	1R01 HL126770-01A1R	—	408
Yale University	93.837	5R01 HL126770-02	—	87,787
Yale University	93.837	5R01 HL127349-03	—	58,510
Subtotal 93.837			2,076,495	27,995,085
Lung Diseases Research	93.838	Direct	2,784,208	32,672,740
Allegheny Health Network	93.838	5R01 HL134673-02	—	119,971
Carnegie Mellon University	93.838	4R01 HL105470-05	—	124,415
Duke University	93.838	4R01 HL109823-05	—	4,546
Johns Hopkins University	93.838	5U01 HL121814-04	—	12,940
Johns Hopkins University	93.838	5U01 HL121814-05	—	154,187
Massachusetts General Hospital	93.838	5U01 HL123009-03	—	(24,074)
Massachusetts General Hospital	93.838	5U01 HL123009-04	89,108	619,593
Massachusetts General Hospital	93.838	5U01 HL123009-05	—	3,019
National Jewish Medical and Research Center	93.838	4R01 HL089897-10	—	81,755
Pennsylvania State University	93.838	4U01 HL109086-06	—	(2,791)
Pennsylvania State University	93.838	5U10 HK109086-03	—	2,823
Seattle Children's Hospital	93.838	5U01 HL114623-05	—	9,099
University of Alabama	93.838	1U01 HL133232-01A1	—	81,448
University of Alabama	93.838	5R01 HL119960-05	—	81,501
University of Georgia	93.838	7R01 HL131449-02	—	1,813
University of Pennsylvania	93.838	5R01 HL087115-09	—	18,680
Subtotal 93.838			2,873,316	33,961,665
Blood Diseases and Resources Research	93.839	Direct	178,021	6,957,090
BloodCenter of Wisconsin, Inc.	93.839	5P01 HL081588-10	—	26,946
BloodCenter of Wisconsin, Inc.	93.839	5R01 HL112614-05	—	10,050
BloodCenter of Wisconsin, Inc.	93.839	5R01 HL112614-06	—	796
Carnegie Mellon University	93.839	2R01 HL089456-06A1	—	71,043
Emory University	93.839	4U01 HL117721-04	—	(17,430)
Emory University	93.839	4U01 HL117721-05	—	314,620
Emory University	93.839	5U01 HL117721-05	—	151,143
Fred Hutchinson Cancer Research Center	93.839	5R01 HL121568-03	—	13,875
Fred Hutchinson Cancer Research Center	93.839	5R01 HL121568-04	—	61,844
Howard University	93.839	5P50 HL118006-05	—	29,227
IGI Technologies, Inc.	93.839	5R42 CA192504-03	—	77,930
Massachusetts Institute of Technology	93.839	5R01 HL121386-03	—	226,958
Medical College of Wisconsin	93.839	5R01 HL128371-02	—	28,662
Ohio State University	93.839	5R01 HL131720-02	—	19,942
Oklahoma Medical Research Foundation	93.839	7UM1 HL120877-04	—	666,583
Rutgers University	93.839	1U01 HL133817-01	—	9,859
Rutgers University	93.839	5R34 HL125804-02	—	10,286
University of Miami	93.839	5R01 HL131013-03	—	52,978
University of Michigan	93.839	7UM1 HL120877-04	—	165,544
University of Michigan	93.839	EARLY AWARD	—	3,906
Subtotal 93.839			178,021	8,881,852
Arthritis, Musculoskeletal & Skin Diseases Research	93.846	Direct	462,519	8,106,771
Baylor College of Medicine	93.846	1R03 AR069323-01	—	(152)
Baylor College of Medicine	93.846	5R03 AR069323-02	—	37,236

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Baylor College of Medicine	93.846	5R03 AR069323-03	\$ —	\$ 4,433
Berkeley Madonna, Inc.	93.846	1R21 AR072930-01	—	10,731
Boston University	93.846	5P30 AR061271-05R	—	27,185
Boston University	93.846	5P50 AR060780-05	—	32,092
Brigham & Women's Hospital	93.846	1U01 AR071658-01	—	21,412
Brigham & Women's Hospital	93.846	5R01 AR064367-04	—	13,642
California Pacific Medical Center Research Institute	93.846	4R01 AR065268-04	—	4,595
Case Western Reserve University	93.846	5R01 AR062546-05	—	49,276
Children's Research Institute	93.846	5P50 AR060836-05	—	63,944
Cincinnati Children's Hospital Medical Center	93.846	5P01 AR048929-10	—	(91)
C-Motion, Inc.	93.846	2R44 AR064620-02	—	(5,798)
Columbia University	93.846	5R01 AR068133-02	—	39,111
Emory University	93.846	1R01 AR070898-01	—	6,959
Emory University	93.846	5R01 AR070898-02	—	14,570
Johns Hopkins University	93.846	5R01 AR064066-03	—	742
Michigan State University	93.846	5R01 AR066028-02	—	(8,941)
Northwestern University	93.846	5R01 AR065473-04	—	79,758
University of Arizona	93.846	5R01 AR066601-03	—	(1,930)
University of Arizona	93.846	5R01 AR066601-04	—	15,479
University of Miami	93.846	1R01 AR071369-01	6,664	82,566
University of Michigan	93.846	1R34 AR068027-01A1	—	7,200
University of Michigan	93.846	4R01 AR062066-05	—	4,328
University of Pennsylvania	93.846	5R01 AR064153-04	—	5,866
University of Pennsylvania	93.846	5U54 AR057319-14	—	14,304
University of Pennsylvania	93.846	5U54 AR057319-15	—	38,211
Washington University in St. Louis	93.846	4R01 AR062947-05	—	5,249
Subtotal 93.846			469,183	8,668,748
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	Direct	3,443,976	39,862,472
Arbor Research Collaborative for Health	93.847	3U01 DK062456-16S1	—	5,829
Augusta University	93.847	2U24 DK076169-11	—	44,019
Beth Israel Deaconess Medical Center	93.847	5P20 DK108276-02	—	11,206
Brigham & Women's Hospital	93.847	5R01 DK102146-03	—	72,973
Carnegie Mellon University	93.847	4R01 DK060586-15	—	34
Carnegie Mellon University	93.847	5DP3 DK103999-03	—	285
Carnegie Mellon University	93.847	5DP3 DK103999-04	—	30,460
Case Western Reserve University	93.847	1DP3 DK101074-01	—	6,599
Case Western Reserve University	93.847	1DP3 DK104438-01	—	5,023
Case Western Reserve University	93.847	2U01 DK084157-07	—	13,281
Case Western Reserve University	93.847	2U01 DK094157-07	—	129,348
Case Western Reserve University	93.847	4U01 DK094157-06	—	(4,905)
Children's Hospital of Boston	93.847	5R01 DK108642-03	—	213,899
Cleveland Clinic Lerner College of Medicine	93.847	1U01 DK114156-01	—	232,517
Cleveland Clinic Lerner College of Medicine	93.847	5U34 DK107917-02	—	15,276
Columbia University	93.847	5R01 DK108580-02	—	6,327
Columbia University	93.847	7R01 DK072507-08	—	44,924
Connecticut Children's Medical Center	93.847	5U01 DK095745-04	—	212
Dartmouth College	93.847	5R01 DK104847-02	—	229,907
Emmes Corporation	93.847	1UC4 DK098086-01	—	4,967
George Washington University	93.847	2U01 DK061230-13	—	(4,039)
George Washington University	93.847	4U01 DK096037-04	—	23,115
George Washington University	93.847	5U01 DK061230-14	—	209,193
Kaiser Foundation Health Plan of Washington	93.847	5R01 DK105960-02	—	2,534
Kaiser Foundation Health Plan of Washington	93.847	5R01 DK105960-03	—	30,179
Kaiser Foundation Research Institute	93.847	5R01 DK106201-03	—	57,955
Lipella Pharmaceuticals, Inc.	93.847	1R41 DK108397-01	—	3,962
Lipella Pharmaceuticals, Inc.	93.847	5R44 DK102247-04	—	37,281
Magee-Womens Research Institute & Foundation	93.847	1R56 DK114225-01	—	66,243
Massachusetts General Hospital	93.847	5P01 DK011794-50	—	31,698
Mayo Clinic Rochester	93.847	5U01 DK079856-05	—	22,165
Medical College of Wisconsin	93.847	1R01 DK111822-01A1	—	9,117
Medical College of Wisconsin	93.847	5R01 DK083538-08	—	2,316
Medical University of South Carolina	93.847	1U34 DK112673-01	—	31,654
Medical University of South Carolina	93.847	5U01 DK104833-03	—	132,121
Michigan State University	93.847	5R01 DK107697-03	—	55,704
Mount Sinai School of Medicine	93.847	1U34 DK112661-01	—	10,181
Mount Sinai School of Medicine	93.847	5R01 DK038470-29	—	261,477
Mount Sinai School of Medicine	93.847	5U34 DK112661-02	—	11,748
Neuropsychiatric Research Institute	93.847	5R01 DK084979-08	—	47,463
Oregon Health & Science University	93.847	5R01 DK103842-04	—	54,792
Pennsylvania State University	93.847	1R01 DK111667-01A1	—	35,746
Research Institute – McGill University Health Center	93.847	1R01 DK110737-01	—	2,212

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Research Institute – McGill University Health Center	93.847	5R01 DK110737-02	\$ —	\$ 228,800
State University of New York	93.847	1R01 DK110456-01	—	200
University of Bristol	93.847	5R01 DK103246-03	—	1,588
University of Bristol	93.847	5R01 DK103246-04	—	1,635
University of Chicago	93.847	5R01 DK098435-04	—	155,387
University of Colorado	93.847	2U01 DK062453-13	—	683
University of Colorado	93.847	5U01 DK094467-05	—	281,147
University of Colorado	93.847	5UM1 DK072493-13	—	44,363
University of Colorado	93.847	7UM1 DK072493-12	—	4,501
University of Illinois	93.847	1R01 DK113080-01A1	—	16,333
University of Iowa	93.847	3U01 DK108328-03S1	—	300
University of Kansas	93.847	1R01 DK113111-01	—	208,118
University of Kansas	93.847	5R21 DK108093-02	—	5,321
University of Michigan	93.847	2R01 DK069950-12	—	22,665
University of Michigan	93.847	5U01 DK062456-15	—	(1,255)
University of Michigan	93.847	5U01 DK062456-16	—	13,265
University of Michigan	93.847	5U01 DK082316-09	—	2,429
University of Michigan	93.847	5U01 DK082316-10	—	66,487
University of Michigan	93.847	5U54 DK083912-09	—	31,168
University of Minnesota	93.847	5R01 DK109124-03	—	6,419
University of North Carolina	93.847	1UC4 DK101132-01	—	20,963
University of Pennsylvania	93.847	1R01 DK112812-01	—	64,463
University of Pennsylvania	93.847	4UM1 DK100846-04	—	(3,447)
University of Pennsylvania	93.847	5UM1 DK100846-05	34	22,493
University of South Florida	93.847	1UC4 DK097835-01	—	(25)
University of South Florida	93.847	1UC4 DK106993-01	—	319,477
University of Texas M.D. Anderson Cancer Center	93.847	3U01 DK108328-02S1	—	46,461
University of Washington	93.847	1DP3 DK108209-01	—	37,652
Vanderbilt University Medical Center	93.847	5R56 DK108352-03	—	1,905
Virginia Commonwealth University	93.847	5R01 DK094818-05	—	79,576
Wake Forest University	93.847	4R01 DK099164-04	—	26,624
Washington University in St. Louis	93.847	7P01 DK096990-05	434,690	653,809
Subtotal 93.847			3,878,700	44,418,975
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	Direct	2,265,786	26,452,795
Baylor College of Medicine	93.853	1UH3 NS100549-01	—	39,628
Carnegie Mellon University	93.853	5R01 NS105318-02	—	144,050
Carnegie Mellon University	93.853	5R21 NS095250-02	—	1,831
Case Western Reserve University	93.853	5R01 NS094152-02	—	92,953
Children's Research Institute	93.853	7U01 NS081041-05	—	1,295,865
Cincinnati Children's Hospital Medical Center	93.853	1R01 NS096053-01A1	—	4,773
Cincinnati Children's Hospital Medical Center	93.853	5R01 NS096053-02	—	46,037
Cleveland Clinic Foundation	93.853	1U01 NS100610-01	—	1,509
Cleveland Clinic Foundation	93.853	5U01 NS100610-02	—	6,052
Emory University	93.853	4U01 NS038455-15	—	17,281
Harvard University	93.853	5R01 NS089638-03	—	47,367
Johns Hopkins University	93.853	4U01 NS080824-04	—	41,485
Johns Hopkins University	93.853	4U01 NS080824-05	—	5,316
Massachusetts General Hospital	93.853	4U01 NS090616-02	—	12,061
Massachusetts General Hospital	93.853	4U01 NS090616-04	—	128
Massachusetts General Hospital	93.853	5U01 NS082329-05	—	25,950
Massachusetts General Hospital	93.853	5U01 NS088312-03	—	3,868
Massachusetts General Hospital	93.853	5U01 NS088312-04	—	16,721
Massachusetts General Hospital	93.853	5U01 NS090259-03	—	31,132
Massachusetts General Hospital	93.853	5U01 NS093663-02	—	12,043
Massachusetts General Hospital	93.853	5U01 NS096767-02	—	1,000
Mayo Clinic Jacksonville	93.853	1R01 NS097876-01A1	—	968
Mayo Clinic Jacksonville	93.853	5R01 NS097876-02	—	65
Mayo Clinic Jacksonville	93.853	5U01 NS080168-04	—	43,352
Mayo Clinic Jacksonville	93.853	5U01 NS080168-05	—	6,120
Mayo Clinic Rochester	93.853	5R21 NS088256-02	—	13,990
Medical College of Wisconsin	93.853	5R01 NS070711-08	—	31,615
Mount Sinai School of Medicine	93.853	5U01 HL088942-10	—	15,689
Oregon Health & Science University	93.853	1R01 NS099234-01A1	—	66,305
Psychology Software Tools, Inc.	93.853	1R43 NS103729-01	—	28,025
Stanford University	93.853	5R01 NS066506-06	—	1,366
University of California at San Francisco	93.853	5U01 NS086090-03	—	26,407
University of California at San Francisco	93.853	5U01 NS086090-05	—	213,980
University of California at San Francisco	93.853	5U01 NS092764-02	—	60,493
University of Cincinnati	93.853	1U01 NS095869-01A1	—	2,000
University of Michigan	93.853	1U01 NS088034-01	—	(15,319)

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Year ended June 30, 2018

Federal grantor/pass through grantor/program title	CFDA number	Direct award or pass through number	Passed through to subrecipients	Federal expenditures
University of Michigan	93.853	1U24 NS100659-01	\$ —	\$ 60,245
University of Michigan	93.853	2U01 NS062835-06	—	14,210
University of Michigan	93.853	4U01 NS069498-06	—	7,782
University of Michigan	93.853	5U01 NS056975-10	—	30,664
University of Michigan	93.853	5U01 NS062835-04	—	(7,842)
University of Michigan	93.853	5U01 NS069498-07	—	52,361
University of Michigan	93.853	5U01 NS079077-02	—	4,032
University of Michigan	93.853	5U01 NS088034-03	—	19,674
University of New Mexico	93.853	5R21 NS091600-02	—	10,657
University of Virginia	93.853	5U01 NS088034-02	—	3
University of Wisconsin	93.853	1R21 NS101661-01	—	11,639
University of Wisconsin	93.853	5R01 NS092870-02	—	3,050
Subtotal 93.853			2,265,786	29,001,376
Allergy and Infectious Diseases Research	93.855	Direct	6,812,573	51,253,346
Aaron Diamond AIDS Research Center	93.855	2R01 AI100720-06A1	—	15,628
Albany Medical College	93.855	5R01 AI100138-05	—	16,977
Albany Medical College	93.855	5R01 AI123129-03	—	259,017
Albert Einstein College of Medicine of Yeshiva University	93.855	1R21 AI127173-01	—	18,087
Albert Einstein College of Medicine of Yeshiva University	93.855	5R01 AI094745-06	—	47,372
Albert Einstein College of Medicine of Yeshiva University	93.855	5R01 AI097548-05	—	18,738
Allegheny Singer Research Institute	93.855	5R21 AI126335-02	—	41,765
Benaroya Research Institute at Virginia Mason	93.855	5UM1 AI109565-04	—	357,514
Benaroya Research Institute at Virginia Mason	93.855	5UM1 AI109565-05	—	42,068
Beth Israel Deaconess Medical Center	93.855	1UM1 AI126603-01	—	1,850
Beth Israel Deaconess Medical Center	93.855	5UM1 AI126603-02	—	451,907
Boston College	93.855	1U01 AI124302-01	—	(151,909)
Boston College	93.855	5U01 AI124302-02	—	418,584
Boston University	93.855	5U01 AI124302-02	—	136,288
Brigham & Women's Hospital	93.855	5UM1 AI068636-11	—	537,314
Brigham & Women's Hospital	93.855	5UM1 AI068636-12	—	399,095
Brigham & Women's Hospital	93.855	5UM1 AI106701-04	—	286,388
Brigham & Women's Hospital	93.855	5UM1 AI106701-05	—	356,807
Columbia University	93.855	5P01 AI106697-05	—	213,710
Columbia University	93.855	5U19 AI067773-12	—	13,545
Columbia University	93.855	5U19 AI067773-13	—	693,582
Cornell University	93.855	1R01 AI134183-01	—	167,779
Cornell University	93.855	1R56 AI122811-01	—	5,363
Duke University	93.855	4UM1 AI104681-04	—	1,807
Duke University	93.855	5R01 AI103315-03	—	3,806
Duke University	93.855	5UM1 AI104681-05	—	21,892
Duke University	93.855	5UM1 AI104681-06	—	19,867
Emory University	93.855	5R01 AI129862-02	—	53,097
Family Health International 360	93.855	5UM1 AI068619-12	—	11,575
George Washington University	93.855	1UM1 AI126617-01	—	(21,676)
George Washington University	93.855	5UM1 AI126617-02	—	247,403
Harvard University	93.855	1R21 AI128623-01	—	23,082
Harvard University	93.855	5R21 AI128623-02	—	11,187
Health Research, Inc.	93.855	4R01 AI097191-05	—	20,988
Hospital for Sick Children	93.855	5R21 AI126110-02	—	34,642
ImQuest BioSciences, Inc.	93.855	5U19 AI101961-05	—	4
Institute for Clinical Research Inc.	93.855	5UM1 AI068641-09	—	3,307
Johns Hopkins University	93.855	5R01 AI093520-04	—	5,921
Johns Hopkins University	93.855	5U01 AI109657-03	—	625
Johns Hopkins University	93.855	5U19 AI113127-04	—	252,633
Magee-Womens Research Institute & Foundation	93.855	1U19 AI120249-01	—	(5,320)
Magee-Womens Research Institute & Foundation	93.855	4R01 AI102835-05	—	3,179
Magee-Womens Research Institute & Foundation	93.855	5R01 AI102835-04	—	(1,132)
Magee-Womens Research Institute & Foundation	93.855	5R01 AI122301-03	—	84,759
Magee-Womens Research Institute & Foundation	93.855	5U19 AI082639-05	—	(8,242)
Magee-Womens Research Institute & Foundation	93.855	5U19 AI120249-02	—	(45,030)
Magee-Womens Research Institute & Foundation	93.855	5U19 AI120249-03	—	696,319
Magee-Womens Research Institute & Foundation	93.855	5UM1 AI068633-11	—	438,517
Magee-Womens Research Institute & Foundation	93.855	5UM1 AI068633-12	—	594,366
Magee-Womens Research Institute & Foundation	93.855	5UM1 AI106707-04	—	470,757
Magee-Womens Research Institute & Foundation	93.855	5UM1 AI106707-05	—	538,340
Massachusetts General Hospital	93.855	5R01 AI114552-04	—	3,299
Massachusetts General Hospital	93.855	5R01 AI127507-02	—	6,358
New York University	93.855	5U01 AI111598-05	—	10,355
New York University	93.855	5U01 AI111598-06	—	83,344
Oregon Health & Science University	93.855	1R21 AI30745-01A1	—	14,829
Pennsylvania State University	93.855	5R01 AI107121-03	—	10,774

**UNIVERSITY OF PITTSBURGH – OF THE
COMMONWEALTH SYSTEM OF HIGHER EDUCATION**

Schedule of Expenditures of Federal Awards

Year ended June 30, 2018

Federal grantor/pass through grantor/program title	CFDA number	Direct award or pass through number	Passed through to subrecipients	Federal expenditures
Pennsylvania State University	93.855	5R01 AI107121-04	\$ —	\$ 6,479
Rutgers University	93.855	1R01 AI136948-01A1	—	3,570
Stanford University	93.855	5U01 AI104342-05	—	49,613
State University of New York	93.855	5R01 AI124677-03	—	7,340
Tulane University	93.855	5R01 AI120033-04	—	11,981
University of California	93.855	5UM1 AI110498-02	—	9,072
University of California	93.855	5UM1 AI110498-03	—	13,863
University of California at Berkeley	93.855	5R01 AI092531-07	—	267,132
University of California at San Francisco	93.855	4U01 AI100807-05	—	93,760
University of California at San Francisco	93.855	5U01 AI104347-05	—	36,324
University of California at San Francisco	93.855	5UM1 AI110498-03	—	840
University of California at San Francisco	93.855	5UM1 AI110498-04	—	156,582
University of California at San Francisco	93.855	5UM1 AI110498-05	—	51,925
University of Florida	93.855	1P01 AI123036-01	—	14,491
University of Florida	93.855	5P01 AI123036-02	—	112,916
University of Louisville	93.855	5U19 AI113182-03	—	(3,358)
University of Louisville	93.855	5U19 AI113182-04	—	444,144
University of Maryland	93.855	1R01 AI129893-01A1	—	100,456
University of Maryland	93.855	1R56 AI118908-01A1	—	26,559
University of Maryland, Baltimore	93.855	5R01 AI121146-02	—	583
University of Maryland, Baltimore	93.855	HHSN2722013000221	—	5,395
University of Michigan	93.855	5R01 AI123093-03	—	184,693
University of Minnesota	93.855	1R34 AI118416-01A1	—	(2,095)
University of Missouri	93.855	4R01 AI100890-06	—	76,229
University of North Carolina	93.855	7U19 AI084024-06	—	(1,639)
University of Texas	93.855	5R21 AI116030-02	—	3,615
University of Washington	93.855	4R33 AI119258-03	—	40,749
University of Washington	93.855	5R21 AI119258-02	—	(18,367)
University of Wisconsin	93.855	5R21 AI127127-02	—	102,803
Vanderbilt University Medical Center	93.855	5U01 AI104336-06	—	168,874
Yale University	93.855	5R01 AI104739-04	—	50,981
Subtotal 93.855			<u>6,812,573</u>	<u>61,201,957</u>
Biomedical Research and Research Training	93.859	Direct	6,817,320	37,340,536
Carnegie Mellon University	93.859	5R01 GM114311-03	—	79,530
Case Western Reserve University	93.859	1R01 GM121583-01A1	—	16,070
Cincinnati Children's Hospital Medical Center	93.859	5R01 GM108025-03	—	92
Fox Chase Chemical Diversity Center	93.859	2R42 GM112516-02	—	115,068
Fox Chase Chemical Diversity Center	93.859	5R42 GM112516-03	—	332,237
Magee-Womens Research Institute & Foundation	93.859	1R01 GM125800-01	—	17,553
Magee-Womens Research Institute & Foundation	93.859	5R01 GM104007-05	—	87,969
MS2 Array, LLC	93.859	1R34 GM125398-01	—	38,489
North Carolina State University	93.859	1R01 GM123246-01A1	—	10,067
Ohio State University	93.859	5R01 GM118664-02	—	42,232
Princeton University	93.859	5R01 GM112758-02	—	296,531
Princeton University	93.859	5R01 GM114093-04	—	188,909
Research Institute at Nationwide Children's Hospital	93.859	5R01 GM094203-05	—	4,171
Stanford University	93.859	5R01 GM108952-04	—	137,846
State University of New York	93.859	5R01 GM115762-02	—	(7,258)
State University of New York	93.859	5R01 GM115762-03	—	20,376
Texas A&M University	93.859	2R01 GM097260-06A1	—	71,059
TruCode Gene Repair	93.859	5R44 GM108187-04	—	116,591
University of California	93.859	5R01 GM079383-08	—	135,892
University of California at San Francisco	93.859	2R01 GM089740-07	—	23,082
University of Colorado	93.859	5R01 GM107122-04	—	255,558
University of Connecticut	93.859	5R01 GM118367-02	—	24,874
University of Maryland, Baltimore	93.859	1R01 GM118837-02	—	19,429
University of Massachusetts	93.859	5P01 GM109767-03	—	22,139
University of Massachusetts	93.859	5P01 GM109767-04	—	179,307
University of Miami	93.859	4R01 GM105004-04	12,690	42,751
University of Pennsylvania	93.859	4P01 GM055876-17	—	(34)
University of Pennsylvania	93.859	5P01 GM055876-18	—	267,465
University of Pennsylvania	93.859	5R01 GM084979-08	—	11,570
University of Pennsylvania	93.859	5R01 GM084979-09	—	6,079
Washington University in St. Louis	93.859	5R01 GM113838-02	—	(2,293)
Washington University in St. Louis	93.859	5R01 GM113838-04	—	969
Subtotal 93.859			<u>6,830,010</u>	<u>39,894,856</u>

**UNIVERSITY OF PITTSBURGH – OF THE
COMMONWEALTH SYSTEM OF HIGHER EDUCATION**

Schedule of Expenditures of Federal Awards

Year ended June 30, 2018

Federal grantor/pass through grantor/program title	CFDA number	Direct award or pass through number	Passed through to subrecipients	Federal expenditures
Child Health and Human Development Extramural Research	93.865	Direct	\$ 2,028,979	\$ 9,963,231
Arizona State University	93.865	1R01 HD082094-01A1	—	4,133
Arizona State University	93.865	5R01 HD075800-05	—	167,502
Arizona State University	93.865	5R01 HD086761-02	—	100,269
Baebies, Inc.	93.865	1R44 HD088211-01	—	15,893
Baebies, Inc.	93.865	4R44 HD088211-02	—	15,889
Carnegie Mellon University	93.865	1R21 HD090679-01	—	130,274
Children's Hospital of Philadelphia	93.865	5R01 HD079419-05	—	45,278
C-Motion, Inc.	93.865	2R44 HD066831-02A1	—	108,787
Cornell University	93.865	5R01 HD075929-03	—	8,783
George Washington University	93.865	5U01 HD068541-05	—	3,194
George Washington University	93.865	5U10 HD036801-19	—	5,578
George Washington University	93.865	5U10 HD036801-20	—	53,387
Johns Hopkins University	93.865	4U54 HD070725-05	—	60,738
Magee-Womens Research Institute & Foundation	93.865	1R01 HD086916-01A1	—	308,276
Magee-Womens Research Institute & Foundation	93.865	1R01 HD088629-01A1	—	112,613
Magee-Womens Research Institute & Foundation	93.865	1R01 HD091735-01	—	58,767
Magee-Womens Research Institute & Foundation	93.865	1R01 HD092016-01	—	191,269
Magee-Womens Research Institute & Foundation	93.865	1R01 HD092084-01	—	167,272
Magee-Womens Research Institute & Foundation	93.865	1R21 HD087741-01A1	—	7,253
Magee-Womens Research Institute & Foundation	93.865	1R21 HD089732-01	—	136,460
Magee-Womens Research Institute & Foundation	93.865	1R21 HD091548-01	—	61,073
Magee-Womens Research Institute & Foundation	93.865	1T32 HD087194-01A1	—	68,353
Magee-Womens Research Institute & Foundation	93.865	1UG1 HD087230-01	—	(152)
Magee-Womens Research Institute & Foundation	93.865	2K12 HD043441-16	—	379,509
Magee-Womens Research Institute & Foundation	93.865	2K12 HD063087-06	—	(12,283)
Magee-Womens Research Institute & Foundation	93.865	2U54 HD047905-11	—	(208)
Magee-Womens Research Institute & Foundation	93.865	4K12 HD043441-15	—	38,945
Magee-Womens Research Institute & Foundation	93.865	4P01 HD069316-05	—	130,981
Magee-Womens Research Institute & Foundation	93.865	4R01 HD070647-05	—	14,740
Magee-Womens Research Institute & Foundation	93.865	4R01 HD075665-05	—	69,832
Magee-Womens Research Institute & Foundation	93.865	4T32 HD071859-05	—	60,891
Magee-Womens Research Institute & Foundation	93.865	5K12 HD063087-07	—	(121)
Magee-Womens Research Institute & Foundation	93.865	5K12 HD063087-08	—	228,653
Magee-Womens Research Institute & Foundation	93.865	5P01 HD075795-02	—	(477)
Magee-Womens Research Institute & Foundation	93.865	5P01 HD075795-04	—	236,412
Magee-Womens Research Institute & Foundation	93.865	5R01 HD044858-10	—	206,640
Magee-Womens Research Institute & Foundation	93.865	5R01 HD076412-04	—	248,296
Magee-Womens Research Institute & Foundation	93.865	5R01 HD079546-03	—	11,470
Magee-Womens Research Institute & Foundation	93.865	5R01 HD082065-02	—	1,515
Magee-Womens Research Institute & Foundation	93.865	5R01 HD083383-03	—	218,592
Magee-Womens Research Institute & Foundation	93.865	5R01 HD086325-03	—	321,221
Magee-Womens Research Institute & Foundation	93.865	5R03 HD082446-02	—	51,186
Magee-Womens Research Institute & Foundation	93.865	5R21 HD080755-02	—	6,855
Magee-Womens Research Institute & Foundation	93.865	5R21 HD083659-02	—	154,658
Magee-Womens Research Institute & Foundation	93.865	5R21 HD084914-02	—	142,336
Magee-Womens Research Institute & Foundation	93.865	5R21 HD089457-02	—	104,545
Magee-Womens Research Institute & Foundation	93.865	5U24 HD069031-07	—	86,127
Magee-Womens Research Institute & Foundation	93.865	5U54 HD047905-12	—	1,821
Magee-Womens Research Institute & Foundation	93.865	5U54 HD047905-13	—	330,384
Magee-Womens Research Institute & Foundation	93.865	5UG1 HD069006-07	—	133,065
Magee-Womens Research Institute & Foundation	93.865	5UG1 HD087230-02	—	54,604
Medical University of South Carolina	93.865	5P2C HD086844-02	—	13,345
New York University	93.865	5R01 HD076390-04	—	524,864
Next Health, Inc.	93.865	1R44 HD085702-01	—	162,784
NuReIm, Inc.	93.865	1R41 HD090813-01	—	19,381
Oregon Health & Science University	93.865	5P50 HD071836-05	—	16,311
Oregon State University	93.865	1R01 HD091175-01	—	21,567
Pacific Institute for Research and Evaluation	93.865	4R01 HD073386-03	—	13,865
Seattle Children's Hospital	93.865	5R01 HD073362-05	—	12,006
Seattle Children's Hospital	93.865	5R01 HD074757-05	—	44,805
Simbex, LLC	93.865	5P2C HD086841-03	—	19,403
University of Alabama	93.865	5P2C HD086851-03	—	23,762
University of Chicago	93.865	1R01 HD084586-01R	—	7,678
University of Maryland, Baltimore	93.865	5R21 HD085061-02	—	5,489
University of Michigan	93.865	7R01 HD085233-03	—	42,592
University of Nebraska Medical Center	93.865	5U54 HD061939-08	—	821
University of Nebraska Medical Center	93.865	5U54 HD061939-09	—	2,519
University of Texas Medical Branch at Galveston	93.865	5P2C HD065702-07	—	1,175
University of Utah	93.865	5U01 HD049934-12	—	26,315
University of Utah	93.865	5U01 HD049934-13	—	10,343
University of Utah	93.865	5U01 HD049934-14	—	6,753

**UNIVERSITY OF PITTSBURGH – OF THE
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Schedule of Expenditures of Federal Awards

Year ended June 30, 2018

Federal grantor/pass through grantor/program title	CFDA number	Direct award or pass through number	Passed through to subrecipients	Federal expenditures
Washington University in St. Louis	93.865	2K12 HD055931-11	\$ —	\$ 6,929
Washington University in St. Louis	93.865	4K12 HD055931-10	—	24,335
Washington University in St. Louis	93.865	5R21 HD086644-02	—	56,863
Yale University	93.865	5R01 HD076248-04	—	24,382
Subtotal 93.865			2,028,979	16,102,596
Aging Research	93.866	Direct	4,410,244	36,563,658
Brigham & Women's Hospital	93.866	5U01 AG048270-03	—	117,458
Brigham & Women's Hospital	93.866	5U01 AG048270-04	—	128,965
Brigham & Women's Hospital	93.866	5U01 AG051421-02	—	6,296
California Pacific Medical Center Research Institute	93.866	5R01 AG052964-02	—	17,444
Columbia University	93.866	1U24 AG056270-01	—	59,934
Columbia University	93.866	4R01 AG041797-05	—	4,705
Crossroads Consulting, LLC	93.866	9R44 AG059258-02	—	195,814
Green Technologies, Inc.	93.866	2R44 AG042664-02A1	—	46,183
Jackson Laboratory	93.866	5P30 AG038070-07	—	(33)
Johns Hopkins University	93.866	1R01 AG055426-01	—	65,403
Johns Hopkins University	93.866	1UH2 AG056933-01	—	17,644
Johns Hopkins University	93.866	5R01 AG052510-02	—	2,877
Magee-Womens Research Institute & Foundation	93.866	3R25 AG043365-04	—	(85)
Magee-Womens Research Institute & Foundation	93.866	5R01 AG050455-02	—	69,875
Magee-Womens Research Institute & Foundation	93.866	5R25 AG043365-05	—	237,458
Minneapolis Medical Research Foundation	93.866	3U01 AG029824-07S2	—	5,770
Minneapolis Medical Research Foundation	93.866	5U01 AG029824-03	—	42,835
Minneapolis Medical Research Foundation	93.866	5U01 AG029824-07	—	18,228
Northern California Institute for Research and Education	93.866	5U19 AG024904-12	—	66,257
Northwestern University	93.866	3U2C AG057441-01S1	—	33,924
Northwestern University	93.866	5R01 AG047416-02	—	(62)
Northwestern University	93.866	5R01 AG047416-03	—	27,270
Northwestern University	93.866	5R01 AG047416-04	—	3,529
Rand Corporation	93.866	1R21 AG057396-01	—	13,110
Scripps Research Institute	93.866	4P01 AG043376-04	—	(2,689)
Scripps Research Institute	93.866	5P01 AG043376-05	10,565	352,576
St. Joseph's Hospital and Medical Center	93.866	5P01 AG014449-20	—	223,308
University of Florida	93.866	5U01 AG022376-10	—	108,286
University of Florida	93.866	5U01 AG050499-02	—	(107)
University of Florida	93.866	5U01 AG050499-03	—	158,404
University of Kansas	93.866	5R01 AG051470-04	—	87,107
University of Maryland, Baltimore	93.866	5R01 AG037120-05	—	24,533
University of Massachusetts	93.866	5R24 AG045050-04	—	9,790
University of Miami	93.866	5R01 AG054009-02	—	31,512
University of New South Wales	93.866	1RF1 AG057531-01	—	21,127
University of Southern California	93.866	2U19 AG024904-11	—	106,680
University of Southern California	93.866	5U19 AG010483-25	—	24,700
University of Tennessee	93.866	1R01 AG054424-01A1	—	63,347
University of Utah	93.866	1R01 AG055606-01	—	28,401
University of Washington	93.866	5U01 AG016976-18	—	50,533
Washington University in St. Louis	93.866	2UF1 AG032438-07	—	147,791
Subtotal 93.866			4,420,809	39,179,756
Vision Research	93.867	Direct	459,429	8,412,302
Carnegie Mellon University	93.867	1R01 EY027018-01A1	—	21,548
Carnegie Mellon University	93.867	5R01 EY024678-04	—	60,622
Carnegie Mellon University	93.867	5R01 EY024912-03	—	9,761
Carnegie Mellon University	93.867	5R01 EY024912-04	—	39,607
Children's Hospital of Philadelphia	93.867	4R01 EY021137-05	—	6,800
Columbia University	93.867	5R01 EY020495-07	—	1,589
JAEB Center for Health Research, Inc.	93.867	5U01 EY011751-19	—	9,132
Johns Hopkins University	93.867	1R01 EY027691-01	—	24,415
Johns Hopkins University	93.867	5U10 EY024527-02	—	20,788
Johns Hopkins University	93.867	5U10 EY024527-03	—	12,234
New York University	93.867	5R01 EY013178-18	—	148,887
New York University	93.867	7R01 EY013178-17	—	14,083
Schepens Eye Research Institute	93.867	5R01 EY026640-02	—	17,044
Tufts University	93.867	5R01 EY020856-07	—	56,895
University of California San Diego	93.867	5R21 EY027507-02	—	9,504
University of Mississippi Medical Center	93.867	5R01 EY014263-12	—	81,910
University of Southern California	93.867	1R01 EY028662-01	—	37,177
University of Texas at Austin	93.867	1R21 EY028272-01	—	21,665
West Virginia University	93.867	5R01 EY023620-03	—	3,582
West Virginia University	93.867	5R01 EY023620-04	—	18,312
Subtotal 93.867			459,429	9,027,857
Medical Library Assistance	93.879	Direct	\$ 818,135	\$ 4,808,919
Brigham & Women's Hospital	93.879	5R01 LM011966-04	—	59,059

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Federal grantor/pass through grantor/program title	CFDA number	Direct award or pass through number	Passed through to subrecipients	Federal expenditures
Subtotal 93.879			818,135	4,867,978
International Research and Research Training	93.989	Direct	146,459	1,146,298
Other National Institutes of Health:				
Allergy and Infectious Diseases	93.000	Direct	729,181	1,078,483
Cancer	93.000	Direct	—	29,465
Child Health	93.000	Direct	—	25,004
Drug Abuse	93.000	Direct	6,219	1,446,323
Heart, Lung & Blood	93.000	Direct	—	113,875
Aethlon Medical, Inc.	93.000	HHSN261201700022C	—	30,692
Cancer Targeted Technology, LLC	93.000	HHSN261201500074C	—	273,609
Children's Hospital of Philadelphia	93.000	HHSN261200622012C	—	(49)
Children's Hospital of Philadelphia	93.000	HHSN272200900022C	—	875,046
Children's Hospital of Philadelphia	93.000	HHSN272201600014C	—	71,113
Duke University	93.000	HHSN275201000003I	—	43,950
Fred Hutchinson Cancer Research Center	93.000	EARLY AWARD	—	1,224
Institute for Transfusion Medicine	93.000	HHSN268201100004I	—	125,907
Leidos Biomedical Research, Inc.	93.000	HHSN261200800001E	—	1,789,034
Magee-Womens Research Institute & Foundation	93.000	HHSN261201300016C	—	5,347
Mayo Clinic Rochester	93.000	HHSN261201200042I	—	193,615
Medical University of South Carolina	93.000	EARLY AWARD	—	3,257
Mimetas US, Inc.	93.000	HHSN271201600011C	—	(726)
Mimetas US, Inc.	93.000	HHSN271201800008C	—	98,199
Northwestern University	93.000	HHSN272201600016C	—	19,431
Ohio State University	93.000	HHSN268201600002C	—	193,070
Rockland Immunochemicals, Inc.	93.000	HHSN261201600014C	—	45,510
Scientific Consulting Group, Inc.	93.000	HHSN2632012000621I	—	28,997
Social & Scientific Systems, Inc.	93.000	HHSN261200800001E	—	14,579
Social & Scientific Systems, Inc.	93.000	HHSN273201600002I	—	12,705
University of Alabama	93.000	HHSN272201100034C	—	79,200
University of Alabama	93.000	HHSN272201100037C	—	5,995
University of Alabama	93.000	HHSN272201300012I	—	54,541
University of Michigan	93.000	HHSN268201100026C	—	12,183
University of Minnesota	93.000	HHSN275201700005C	—	197,617
University of Minnesota	93.000	HHSN276201200017C	—	47,526
University of Texas M.D. Anderson Cancer Center	93.000	HHSN268200900039C	—	152
University of Texas M.D. Anderson Cancer Center	93.000	EARLY AWARD	—	2,628
University of Utah	93.000	HHSN268200900046C	—	69,601
Vanderbilt University Medical Center	93.000	HHSN272201300023I	—	654,419
Westat, Inc.	93.000	HHSN261201300028I	19,731	34,034
Westat, Inc.	93.000	HHSN261201600007I	—	11,959
Subtotal 93.000			755,131	7,687,515
Total National Institutes of Health			65,573,454	531,894,971
Substance Abuse and Mental Health Services Administration:				
Allegheny County	93.104	5H79 SM063411-02	—	60,771
Luzerne County	93.104	5H79 SM063421-02	—	102,742
Subtotal 93.104			—	163,513
Commonwealth of Pennsylvania	93.243	1H79 TI026666-01	—	139,294
Other Substance Abuse and Mental Health Services Administration	93.000	Direct	—	75,729
University of Pittsburgh Medical Center	93.000	EARLY AWARD	—	22,961
Subtotal 93.000			—	98,690
Total Substance Abuse and Mental Health Services Administration			—	401,497
DHHS Other:				
Johns Hopkins University	93.088	6AST WH150032-01-03	—	172,968
University of Illinois	93.360	HHS0100201500008I	—	2,597
Total DHHS Other			—	175,565
Total Department of Health and Human Services			69,556,560	554,572,308
Department of Defense:				
Advanced Research Projects Agency:				
Rutgers University	12.431	W911NF-15-2-0036	165,122	530,931
Research and Technology Development	12.910	Direct	—	10,663
HRL Laboratories, LLC	12.910	HR0011-13-C-0052	—	58,074
Subtotal 12.910			—	68,737
Other Advanced Research Projects Agency	12.000	Direct	\$ —	\$ 38,387
University of Notre Dame	12.000	FA8650-15-C-7546	—	38,683
Subtotal 12.000			—	77,070

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Total Advanced Research Projects Agency			165,122	676,738
Defense Health Agency:				
MD Consulting, LLC.	12.000	HT0014-16-C-0013	—	84,688
Total Defense Health Agency			—	84,688
Defense Threat Reduction Agency:				
Scientific Research – Combating Weapons of Mass Destruction	12.351	Direct	174,583	1,703,003
University of Arizona	12.351	HDTRA1-16-1-0054	—	74,448
University of Texas at Austin	12.351	HDTRA1-14-1-0021	—	144,166
Washington State University	12.351	HDTRA1-15-1-0013	—	309,381
Subtotal 12.351			174,583	2,230,998
BAE Systems	12.000	EARLY AWARD	—	26,049
Total Defense Threat Reduction Agency			174,583	2,257,047
Department of the Air Force:				
Basic and Applied Scientific Research	12.300	Direct	210,822	353,221
Air Force Defense Research Sciences Program	12.800	Direct	23,956	1,117,858
Carnegie Mellon University	12.800	FA9550-13-1-0129	—	(5,198)
Carnegie Mellon University	12.800	FA9550-15-1-0442	—	190,070
Washington University in St. Louis	12.800	FA9550-16-1-0386	—	63,787
Subtotal 12.800			23,956	1,366,517
Booz Allen Hamilton Inc.	12.000	FA8075-14-D-0002	—	77,412
Engineering Research and Consulting, Inc.	12.000	FA9300-15-C-0004	—	116,886
National Center for Defense Manufacturing & Machining	12.000	FA8650-12-2-7230	59,020	212,744
Nokomis, Inc.	12.000	W81XWH-17-C-0058	—	44,683
Triton Systems, Inc.	12.000	FA9550-16-C-0010	—	32,260
Triton Systems, Inc.	12.000	FA9550-16-C-0037	—	74,000
Subtotal 12.000			59,020	557,985
Total Department of the Air Force			293,798	2,277,723
Department of the Army:				
Research on Chemical and Biological Defense	12.360	Direct	—	1,304,574
Military Medical Research and Development	12.420	Direct	5,457,406	21,635,491
Brigham & Women's Hospital	12.420	W81XWH-15-1-0263	—	57,951
Case Western Reserve University	12.420	W81XWH-17-2-0064	—	24,798
Children's Hospital of Boston	12.420	W81XWH-17-1-0532	—	311
Craig Hospital	12.420	W81XWH-14-1-0564	—	197
Duquesne University	12.420	W81XWH-16-1-0690	—	15,464
Geneva Foundation	12.420	W81XWH-14-2-0178	—	33,460
Georgia Institute of Technology	12.420	W81XWH-17-1-0221	—	8,585
Henry M. Jackson Foundation	12.420	W81XWH-14-2-0145	—	343,201
Magee-Womens Research Institute & Foundation	12.420	W81XWH-16-1-0133	—	34,998
Magee-Womens Research Institute & Foundation	12.420	W81XWH-15-1-0083	—	28,485
Minnesota Veterans Medical Research and Education Foundation	12.420	W81XWH-16-1-0312	—	12,669
St. Joseph's Hospital and Medical Center	12.420	W81XWH-17-1-0429	—	261,966
TDA Research, Inc.	12.420	W81XWH-13-C-0157	—	(4,416)
University of Alabama	12.420	W81XWH-15-1-0705	—	110,037
University of California	12.420	W81XWH-14-2-0176	—	115,021
University of California at San Francisco	12.420	W81XWH-14-2-0176	—	188,195
University of Cincinnati	12.420	W81XWH-16-2-0020	—	23,500
University of Colorado	12.420	W81XWH-17-1-0597	—	11,086
University of Michigan	12.420	W81XWH-BAA-14-1	—	90,392
University of Missouri	12.420	W81XWH-14-1-0604	—	4,709
University of New Mexico	12.420	W81XWH-17-2-0053	—	21,639
University of Pittsburgh Medical Center	12.420	W81XWH-04-1-0851	58,443	211,705
University of Texas at Arlington	12.420	W81XWH-15-1-0719	—	49,604
Wake Forest University	12.420	W81XWH-08-2-0032	324,159	334,377
Wake Forest University	12.420	W81XWH-13-2-0052	—	61,776
Wake Forest University	12.420	W81XWH-13-2-0053	172,101	296,267
Wake Forest University	12.420	W81XWH-13-2-0054	—	238,730
Wake Forest University	12.420	W81XWH-14-2-0003	—	574,693
Wake Forest University	12.420	W81XWH-14-2-0004	190,972	722,271
Yale University	12.420	W81XWH-17-1-0505	—	13,659
Subtotal 12.420			6,203,081	25,520,821
Basic Scientific Research	12.431	Direct	\$ 660,452	\$ 1,338,798
Carnegie Mellon University	12.431	W911NF-17-1-0082	—	124,143
Princeton University	12.431	W911NF-15-1-0397	—	270,435
University of California at Santa Barbara	12.431	W911NF-16-1-0474	—	171,529
University of Michigan	12.431	W911NF-17-1-0312	—	169,060
Subtotal 12.431			660,452	2,073,965

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Federal grantor/pass through grantor/program title	CFDA number	Direct award or pass through number	Passed through to subrecipients	Federal expenditures
Research and Technology Development	12.910	Direct	209,757	1,099,515
Other Department of the Army	12.000	Direct	4,276,455	6,402,942
Abzyme Therapeutics LLC	12.000	W911QY-16-P-0229	—	11,879
Abzyme Therapeutics LLC	12.000	W911QY-18-C-0004	—	2,547
Banyan Biomarkers Inc.	12.000	W911QY-15-C-0019	—	894
Battelle Memorial Institute	12.000	W911NF-11-D-0001	—	2,174
Battelle Memorial Institute	12.000	W911NF-15-F-0006	—	126,738
Carnegie Mellon University	12.000	W911NF-10-2-0022	—	32,501
Johns Hopkins University	12.000	W81XWH-10-2-0090	—	12,708
Johns Hopkins University	12.000	W81XWH-10-2-0134	—	5,395
Johns Hopkins University	12.000	W81XWH-16-2-0060	—	2,000
KCF Technologies, Inc.	12.000	W81XWH-14-C-0013	—	12,599
Lynntech, Inc.	12.000	W81XWH-17-C-0080	—	218,618
Materials Sciences Corporation	12.000	W31P4Q-16-C-0125	—	123,927
Materials Sciences Corporation	12.000	W31P4Q-16-P-0092	—	3,266
Materials Sciences Corporation	12.000	W31P4Q-17-C-0088	—	10,874
University of California at Santa Barbara	12.000	W911NF-17-1-0323	—	59,475
University of Cincinnati	12.000	W81XWH-16-C-0161	—	72,337
Subtotal 12.000			<u>4,276,455</u>	<u>7,100,874</u>
Total Department of the Army			<u>11,349,745</u>	<u>37,099,749</u>
Department of the Navy:				
Basic and Applied Scientific Research	12.300	Direct	699,742	4,268,176
Carnegie Mellon University	12.300	N00014-17-1-2675	—	106,676
Johns Hopkins University	12.300	N66001-10-C-4056	—	(2,550)
University of California at Los Angeles	12.300	N00014-17-1-2322	—	95,113
University of Kentucky	12.300	N00014-15-1-0069	—	16,520
University of Virginia	12.300	N00014-14-1-0348	—	164,683
University of Virginia	12.300	N00014-14-1-0637	—	145,903
Subtotal 12.300			<u>699,742</u>	<u>4,794,521</u>
Other Department of the Navy	12.000	Direct	1,034,409	3,043,921
Directed Vapor Technologies International, Inc.	12.000	N68335-17-C-0057	—	49,025
Henry M. Jackson Foundation	12.000	N62645-14-C-4034	—	147,127
Subtotal 12.000			<u>1,034,409</u>	<u>3,240,073</u>
Total Department of the Navy			<u>1,734,151</u>	<u>8,034,594</u>
Space and Naval Warfare Systems Command:				
Paradromics Inc.	12.000	N66001-17-C-4005	—	264,705
Total Space and Naval Warfare Systems Command			<u>—</u>	<u>264,705</u>
Total Department of Defense			<u>13,717,399</u>	<u>50,695,244</u>
Other Agencies:				
Agency for International Development:				
JSI Research & Training Institute, Inc.	98.001	AID-OAA-A-12-00047	92,415	390,560
Management Sciences For Health, Inc.	98.001	AID-OAA-A-11-00015	—	1,707
World Learning, Inc.	98.001	DFD-A-00-08-00260-00	—	321,674
Subtotal 98.001			<u>92,415</u>	<u>713,941</u>
Other Agency for International Development	98.000	Direct	235,107	820,751
Magee-Womens Research Institute & Foundation	98.000	AID-OAA-A-14-00011	—	97,143
Mitchell Group, Inc.	98.000	AID-624-M-13-00001	—	154,266
National Opinion Research Center	98.000	AID-OAA-M-13-00013	—	246,411
RTI International	98.000	AID-OAA-A-14-00012	—	62,087
Subtotal 98.000			<u>235,107</u>	<u>1,380,658</u>
Total Agency for International Development			<u>327,522</u>	<u>2,094,599</u>
Department of Agriculture:				
U.S. Civilian Research & Development Foundation	10.001	59-0210-2-160	—	31,948
Center for Produce Safety	10.170	024072	—	13,355
Clemson University	10.310	2012-67009-25266	—	3,589
Total Department of Agriculture			<u>—</u>	<u>48,892</u>
Department of Commerce:				
Cluster Grants	11.020	Direct	\$ 11,483	\$ 182,845
Total Department of Commerce			<u>11,483</u>	<u>182,845</u>
Department of Education:				
International Research and Studies	84.017	Direct	—	45,885
Commonwealth of Pennsylvania	84.126	H126A170056	—	636,453
Graduate Assistance in Areas of National Need	84.200	Direct	—	8,040
Education Research, Development and Dissemination	84.305	Direct	246,746	1,490,324

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Harvard University	84.305	R305A140121	—	168,417
Pennsylvania State University	84.305	R305A160403	—	380,637
Temple University	84.305	R305A160400	—	23,167
University of Michigan	84.305	R305A140647	—	10,111
University of North Carolina	84.305	R305A170269	—	25,932
Subtotal 84.305			246,746	2,098,588
University of South Carolina	84.324	R305A130467	—	2,846
Salus University	84.325	H325H140002	—	2,344
Allegheny Intermediate Unit	84.366	Title IIB	—	48,153
Total Department of Education			246,746	2,842,309
Department of Energy:				
Office of Science Financial Assistance Program	81.049	Direct	223,610	3,230,338
Central Michigan University	81.049	DE-SC0018331	—	163,891
Harvard University	81.049	DE-SC0005247	—	120,000
Northwestern University	81.049	DE-SC0000989	—	152,596
UT-Battelle, LLC	81.049	DE-AC05-00OR22725	—	(601)
Subtotal 81.049			223,610	3,666,224
Conservation Research and Development	81.086	Direct	—	808,378
Giner, Inc.	81.087	DE-EE0008075	—	38,973
Rapid Advancement Process Intensification Deployment Manufacturing Institute	81.087	DE-EE0007888	—	217,426
University of Central Florida	81.087	DE-EE0006340	—	9,716
University of Central Florida	81.087	DE-EE0007327	—	73,434
West Virginia University	81.087	DE-EE0007888	—	6,364
Subtotal 81.087			—	345,913
Fossil Energy Research and Development	81.089	Direct	114,824	1,026,478
Pennsylvania State University	81.089	DE-FE0024056	—	(10,420)
Subtotal 81.089			114,824	1,016,058
Nuclear Energy Research, Development and Demonstration	81.121	Direct	—	512,630
Westinghouse Electric Company, LLC	81.121	DE-NE0008222	—	56,535
Subtotal 81.121			—	569,165
Clarkson University	81.122	DE-OE0000842	—	19,242
Other Department of Energy	81.000	Direct	—	(17)
AECOM Energy and Construction, Incorporated	81.000	DE-FE0004000	—	335,646
Battelle Energy Alliance, LLC	81.000	DE-AC07-05ID14517	—	11,968
Battelle Memorial Institute	81.000	DE-AC05-76RL01830	—	146,364
Bechtel Marine Propulsion Corporation	81.000	DE-NR0000031	—	25,181
Brookhaven Science Associates, LLC	81.000	DE-SC0012704	—	64,188
Directed Vapor Technologies International, Inc.	81.000	DE-SC0013098	—	46,358
Leland Stanford, Jr. University	81.000	DE-AC02-76SF00515	—	(25)
Los Alamos National Security, LLC	81.000	DE-AC52-06NA25396	—	107,736
Sandia Corporation, a subsidiary of Lockheed Martin	81.000	DE-AC04-94AL85000	—	9,449
Savannah River Nuclear Solutions, LLC	81.000	DE-AC09-08SR22470	—	43,068
University of California	81.000	DE-AC02-05CH11231	—	56,486
UT-Battelle, LLC	81.000	DE-AC05-00OR22725	—	69,247
Subtotal 81.000			—	915,649
Total Department of Energy			338,434	7,340,629
Department of Housing and Urban Development:				
Municipality of Penn Hills	14.218	B-16-MC-42-0104	—	(21)
Municipality of Penn Hills	14.218	B-17-MC-42-0104	—	2,154
Total Department of Housing and Urban Development			—	2,133

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Department of the Interior:				
Commonwealth of Pennsylvania	15.250	S18AP20010	\$ —	\$ 65,238
Total Department of the Interior			—	65,238
Department of Justice:				
National Institute of Justice Research, Evaluation, and Development Project Grants	16.560	Direct	—	131,366
Criminal Justice Research and Development Graduate Research Fellowships	16.562	Direct	—	47,044
PA Commission on Crime and Delinquency	16.738	2014-MU-BX-1052	—	12,367
PA Commission on Crime and Delinquency	16.812	2016-CZ-BX-0001	—	25,516
Other Department of Justice	16.000	Direct	—	42,464
Total Department of Justice			—	258,757
Department of State:				
Institute of International Education	19.401	S-ECAGD-13-CA-149	—	(231)
Total Department of State			—	(231)
Department of Transportation:				
National Academy of Sciences	20.200	DTFH61-13-H-00024	—	38,712
University of Cincinnati	20.200	DTFH61-13-H-00024	—	43,721
Subtotal 20.200			—	82,433
Commonwealth of Pennsylvania	20.205	Construct and planning	—	528,220
Minnesota Department of Transportation	20.000	TPF-5(269)	—	95,075
Minnesota Department of Transportation	20.000	TPF-5(341)	—	19,077
National Academy of Sciences	20.000	DC-2016-011-00	—	50,286
National Association of EMS	20.000	DTNH22-15-C-00029	—	249,448
Pathway Accessibility Solutions, Inc.	20.000	DTFH61-17-C-00005	—	114,322
Thornton Tomasetti, Inc.	20.000	DTFR53-17-C-00002	—	33,716
Subtotal 20.000			—	561,924
Total Department of Transportation			—	1,172,577
Department of Veterans Affairs:				
Specially Adapted Housing Assistive Technology Grant Program	64.051	Direct	—	95,883
Other Department of Veterans Affairs	64.000	Direct	142,914	5,505,726
Total Department of Veterans Affairs			142,914	5,601,609
Environmental Protection Agency:				
Vanderbilt University	66.509	RD-83573601	—	449,848
Other Environmental Protection Agency	66.000	Direct	—	83,767
Total Environmental Protection Agency			—	533,615
Institute of Museum and Library Services:				
Children's Museum of Pittsburgh	45.301	MA-20-14-0473-14	—	6,364
National Leadership Grants	45.312	Direct	—	53,136
Laura Bush 21st Century Librarian Program	45.313	Direct	8,632	63,642
Total Institute of Museum and Library Services			8,632	123,142
N.A.S.A.:				
Aerospace Education Services Program:				
NNX14AB41G	43.001	Direct	—	25,680
NNX14AK88H	43.001	Direct	—	6,023
NNX14AQ96G	43.001	Direct	—	106,196
NNX15AM03G	43.001	Direct	29,827	85,567
NNX15AQ72H	43.001	Direct	—	43,660
NNX15AU50G	43.001	Direct	—	57,013
NNX16AN66G	43.001	Direct	—	1,620
NNX17AB97G	43.001	Direct	—	23,925
NNX17AB69G	43.001	Direct	—	46,552
NNX17AC43G	43.001	Direct	—	23,669
80NSSC17K0445	43.001	Direct	—	37,015
80NSSC17K0460	43.001	Direct	—	34,301
80NSSC17K0388	43.001	Direct	—	36,897
Arizona State University	43.001	NMO7-10630	—	44,972
Directed Vapor Technologies International, Inc.	43.001	NNX14CS63C	—	43,725
Smithsonian Astrophysical Observatory	43.001	NAS8-03060	—	18,872
University of Maryland	43.001	NNX17AF90G	—	25,040
University of Montana	43.001	NNA15BB04A	—	(87,613)
Subtotal 43.001			29,827	573,114
University of Houston	43.003	NNX15AC13G	\$ —	\$ 5,324
Pennsylvania State University	43.008	NNX15AK06H	—	24,263
Space Technology	43.012	Direct	—	102,171

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Other N.A.S.A.	43.000	Direct	—	17,017
Center for the Advancement of Science in Space	43.000	NNH11CD70A	33,480	142,757
Georgia Institute of Technology	43.000	NNA17BB05A	—	149,195
QuesTek Innovations LLC	43.000	NNX17CL84P	—	49,779
Space Telescope Science Institute	43.000	NAS5-26555	—	104,007
Subtotal 43.000			33,480	462,755
Total N.A.S.A.			63,307	1,167,627
National Endowment for the Humanities:				
Promotion of the Humanities Division of Preservation and Access	45.149	Direct	—	109,551
Promotion of the Humanities Office of Digital Humanities	45.169	Direct	—	115,153
Total National Endowment for the Humanities			—	224,704
National Science Foundation:				
Engineering Grants	47.041	Direct	175,759	4,980,232
North Carolina A & T State University	47.041	EEC-0812348	—	702,135
Rice University	47.041	CMMI-1642531	—	104,418
University of Florida	47.041	IIP-1161022	—	379,965
Virginia Tech University	47.041	EFMA-1741656	—	86,249
Subtotal 47.041			175,759	6,252,999
Mathematical and Physical Sciences	47.049	Direct	280,355	7,218,859
Associated Universities, Inc.	47.049	AST-1519126	—	5,419
AURA, Inc.	47.049	AST-1258333	—	75,135
Carnegie Mellon University	47.049	DMS-1516288	—	83,552
Research Foundation – State University of New York	47.049	PHY-1624739	—	83,363
University of California at Irvine	47.049	CHE-1414466	—	215,900
Subtotal 47.049			280,355	7,682,228
Geosciences	47.050	Direct	247,770	986,679
University of Arizona	47.050	EAR-1338553	—	26,301
Subtotal 47.050			247,770	1,012,980
Computer and Information Science and Engineering	47.070	Direct	53,596	3,660,778
Boise State University	47.070	ACI-1440638	—	83,619
Virginia Tech University	47.070	ACI-1547580	—	36,725
Subtotal 47.070			53,596	3,781,122
Biological Sciences	47.074	Direct	216,896	2,468,699
Baylor University	47.074	MCB-1613534	—	79,321
Carnegie Mellon University	47.074	DBI-1356505	—	1,526
Carnegie Mellon University	47.074	IOS-1553252	—	29,679
Duquesne University	47.074	MCB-1553143	—	10,137
Hauptman Woodward Medical Research Institute	47.074	DBI-1231306	—	21,474
Oregon Health & Science University	47.074	MCB-1715823	—	19,338
University of Dayton	47.074	IOS-1555906	—	59,000
Subtotal 47.074			216,896	2,689,174
Social, Behavioral, and Economic Sciences	47.075	Direct	—	775,554
Carnegie Mellon University	47.075	BCS-1351748	—	56,184
Carnegie Mellon University	47.075	BCS-1533672	—	70,236
Duke University	47.075	SES-1657851	—	7,137
National Bureau of Economic Research	47.075	SES-1459847	—	46,265
University of California	47.075	SES-1629193	—	31,708
University of North Carolina	47.075	SES-1658043	—	30,982
Subtotal 47.075			—	1,018,066
Education and Human Resources	47.076	Direct	338,465	4,623,662
American Educational Research Association	47.076	DRL-0941014	—	1,393
Carnegie Mellon University	47.076	DRL-1612744	—	7,355
Carnegie Mellon University	47.076	DRL-1623969	—	25,539
Community College of Allegheny County	47.076	DUE-1400575	—	19,251
Duke University	47.076	DRL-1031351	—	(2)
Educational Development Center	47.076	DRL-1321216	—	33,404
Franklin Institute	47.076	DUE-1239782	—	11,062
Fred Rogers Company	47.076	DRL-1516446	—	136,697

**UNIVERSITY OF PITTSBURGH – OF THE
COMMONWEALTH SYSTEM OF HIGHER EDUCATION**

Schedule of Expenditures of Federal Awards

Year ended June 30, 2018

Federal grantor/pass through grantor/program title	CFDA number	Direct award or pass through number	Passed through to subrecipients	Federal expenditures
University of South Florida	47.076	DUE-1322586	\$ —	\$ (31)
University of South Florida	47.076	DUE-1609637	—	51,472
Subtotal 47.076			338,465	4,909,802
Office of International Science and Engineering	47.079	Direct	56,670	367,769
Office of Integrative Activities	47.083	Direct	—	147,455
Other National Science Foundation	47.000	Direct	—	62,804
Total National Science Foundation			1,369,511	27,924,399
Nuclear Regulatory Commission:				
U.S. Nuclear Regulatory Commission Nuclear Education Grant Program	77.006	Direct	—	1,885
U.S. Nuclear Regulatory Commission Scholarship and Fellowship Program	77.008	Direct	—	70,815
Total Nuclear Regulatory Commission			—	72,700
Total Other Agencies			2,508,549	49,655,544
Total Research & Development Cluster			85,782,508	654,923,096
II. Student Financial Assistance Cluster:				
Department of Education:				
Federal Supplemental Educational Opportunity Grants	84.007	Direct	—	1,230,003
Federal Work-Study Program	84.033	Direct	—	1,859,219
Federal Pell Grant Program	84.063	Direct	—	23,364,542
Teacher Education Assistance for College and Higher Education Grants (TEACH Grants)	84.379	Direct	—	(5,000)
Federal Perkins Loan Program	84.038	Direct	—	28,814,180
Direct Student Loans Program	84.268	Direct	—	250,390,918
Total Department of Education			—	305,653,862
Health Resources and Services Administration:				
Nursing Faculty Loan Program	93.264	Direct	—	713,491
Health Professions Student Loan Program:				
Medicine	93.342	Direct	—	124,369
Dentistry	93.342	Direct	—	5,164,079
Pharmacy	93.342	Direct	—	1,615,897
Subtotal 93.342			—	6,904,345
Disadvantaged Student Loan Program:				
Dentistry	93.342	Direct	—	149,100
Medicine	93.342	Direct	—	274,092
Subtotal 93.342			—	423,192
Nursing Student Loan Program:				
Baccalaureate	93.364	Direct	—	1,952,716
Nursing Faculty Loan Program – ARRA	93.408	Direct	—	147,025
Total Health Resources and Services Administration			—	10,140,769
Total Student Financial Assistance Cluster			—	315,794,631
III. TRIO Cluster:				
Department of Education:				
TRIO – Student Support Services	84.042	Direct	—	626,965
Total Department of Education			—	626,965
Total TRIO Cluster			—	626,965
IV. Head Start Cluster:				
Administration for Children and Families:				
Head Start	93.600	Direct	3,239,899	4,037,411
Total Administration for Children and Families			3,239,899	4,037,411
Total Head Start Cluster			3,239,899	4,037,411
V. Child Nutrition Cluster:				
Department of Agriculture:				
Commonwealth of Pennsylvania	10.559	SFSP	—	8,317
Total Department of Agriculture			—	8,317
Total Children Nutrition Cluster			—	8,317

**UNIVERSITY OF PITTSBURGH – OF THE
COMMONWEALTH SYSTEM OF HIGHER EDUCATION**

Schedule of Expenditures of Federal Awards

Year ended June 30, 2018

Federal grantor/pass through grantor/program title	CFDA number	Direct award or pass through number	Passed through to subrecipients	Federal expenditures
VI. Other Programs:				
Department of Health and Human Services:				
Administration for Children and Families:				
Commonwealth of Pennsylvania	93.556	4100064360	\$ —	\$ 85,914
Commonwealth of Pennsylvania	93.643	4100064360	—	357,480
Commonwealth of Pennsylvania	93.658	4100066356	—	8,844,455
Commonwealth of Pennsylvania	93.658	4100064360	60,286	10,301,060
Commonwealth of Pennsylvania	93.658	4100081112	—	3,726
Subtotal 93.658			60,286	19,149,241
Commonwealth of Pennsylvania	93.669	4100064360	—	118,505
Commonwealth of Pennsylvania	93.674	4100064360	—	726,068
Total Administration for Children and Families			60,286	20,437,208
Centers for Disease Control and Prevention:				
Louisiana Department of Health	93.069	3U90 TP000524-03S2	—	3,113
Birth Defects and Developmental Disabilities – Prevention and Surveillance	93.073	Direct	37,500	150,598
Commonwealth of Pennsylvania	93.074	3U90 TP000545-03S2	—	(1,760)
District of Columbia	93.074	3U90 TP000519-03S2	—	15,792
Louisiana Department of Health	93.074	1U90 TP921938-01	—	39,475
Subtotal 93.074			—	53,507
Association for Prevention Teaching and Research	93.283	5NU3 6OE000005-05	—	24,500
ChangeLab Solutions	93.424	5U38 OT000141-05	—	56,971
ChangeLab Solutions	93.424	6U38 OT000141-04	—	12,925
Subtotal 93.424			—	69,896
ChangeLab Solutions	93.524	5U38 OT000141-03	—	(7,646)
Children's Hospital of Philadelphia	93.758	1NB01 OT009111-01	—	26,855
Commonwealth of Pennsylvania	93.758	4100066456	149,010	453,200
Subtotal 93.758			149,010	480,055
Commonwealth of Pennsylvania	93.940	3U62 PS003643-06	—	34,638
Commonwealth of Pennsylvania	93.977	5H25 PS004354-05	—	98,315
Total Centers for Disease Control and Prevention			186,510	906,976
Centers for Medicare and Medicaid Services:				
Allegheny County	93.778	Medical Assistance Program	—	3,957
Total Centers for Medicare and Medicaid Services			—	3,957
Health Resources and Services Administration:				
Training in General, Pediatric, and Public Health Dentistry	93.059	Direct	—	271,917
Pennsylvania State University	93.107	5U77 HP061111-12	39,469	39,469
Maternal & Child Health Federal Consolidated Programs	93.110	Direct	—	609,878
Nurse Anesthetist Traineeships	93.124	Direct	—	63,110
Substance Abuse and Mental Health Services Projects of Regional and National Significance	93.243	Direct	—	346,437
Leadership in Public Health Social Work Education Grant Program	93.330	Direct	—	273,428
Public Health Training Centers Program	93.516	Direct	400,976	931,139
Grants for New and Expanded Services under the Health Center Program	93.527	Direct	—	233,349
Family First Health Corporation	93.527	3H80 CS00529-16	—	5,555
Subtotal 93.527			—	238,904
Mental and Behavioral Health Education and Training Grants	93.732	Direct	—	64,704
Chatham University	93.732	1M01 HP31291-01-00	—	11,471
Subtotal 93.732			—	76,175
Grants for Primary Care Training and Enhancement	93.884	Direct	—	414
Jewish Healthcare Foundation	93.917	Ryan White CARE Act	—	180,766
PPHF Geriatric Education Centers	93.969	Direct	296,778	876,846
Total Health Resources and Services Administration			737,223	3,908,483
Substance Abuse and Mental Health Services Administration:				
CMSU Counties of Central Pennsylvania	93.104	5U79 SM062468-02	—	18,763
CMSU Counties of Central Pennsylvania	93.104	5U79 SM062468-03	—	59,795
Commonwealth of Pennsylvania	93.104	1H79 SM080147-01	—	396,783
Luzerne County	93.104	1H79 SM063421-01	—	36,409
Subtotal 93.104			—	511,750
Substance Abuse and Mental Health Services Projects of Regional and National Significance	93.243	Direct	\$ 38,974	\$ 852,229

**UNIVERSITY OF PITTSBURGH – OF THE
COMMONWEALTH SYSTEM OF HIGHER EDUCATION**

Schedule of Expenditures of Federal Awards

Year ended June 30, 2018

Federal grantor/pass through grantor/program title	CFDA number	Direct award or pass through number	Passed through to subrecipients	Federal expenditures
Allegheny County	93.243	1H79 SM061548-01	—	395,914
Allegheny Singer Research Institute	93.243	1U79 SM080056-01	—	14,678
Allegheny Singer Research Institute	93.243	5U79 SM080056-02	—	44,034
Allegheny Singer Research Institute	93.243	5U79 TI025406-03	—	27,890
Chatham University	93.243	1H79 TI025985-01	—	181,014
Commonwealth of Pennsylvania	93.243	5H79 SM061915-03	—	105,798
Commonwealth of Pennsylvania	93.243	5H79 SM061915-04	—	231,005
Commonwealth of Pennsylvania	93.243	5H79 TI026666-02	—	131,365
Commonwealth of Pennsylvania	93.243	5U79 SM061250-04	—	237,737
Morehouse School of Medicine	93.243	1H79 TI026010-01	—	190,279
University of the Sciences in Philadelphia	93.243	1H79 TI026008-01	—	171,220
University of Utah	93.243	1U79 SM080000-01	—	7,339
University of Utah	93.243	5U79 SM080000-02	—	22,017
Subtotal 93.243			38,974	2,612,519
Total Substance Abuse and Mental Health Services Administration			38,974	3,124,269
DHHS Other:				
Futures Without Violence	93.088	1AST WH160050-01-00	—	9,819
Total DHHS Other			—	9,819
Total Department of Health and Human Services			1,022,993	28,390,712
Department of Defense:				
National Security Agency:				
Language Grant Program	12.900	Direct	—	173,496
Total National Security Agency			—	173,496
DoD Other:				
Institute of International Education	12.357	H98210-13-2-0001	—	454,746
University of California at Los Angeles	12.000	HDMWR-14-C-0021	—	114,113
Total DoD Other			—	568,859
Total Department of Defense			—	742,355
Other Agencies:				
Appalachian Regional Commission:				
Innovation Works	23.002	PW-18685-IM-16	—	95,209
Total Appalachian Regional Commission			—	95,209
Corporation for National and Community Services:				
Jumpstart for Young Children, Inc.	94.006	090200	—	208,829
Total Corporation for National and Community Services			—	208,829
Department of Agriculture:				
Commonwealth of Pennsylvania	10.558	CACFP	—	17,307
Total Department of Agriculture			—	17,307
Department of Commerce:				
Catalyst Connection	11.307	01-69-14709	—	42,939
Catalyst Connection	11.307	01-79-14777	—	72
Total Department of Commerce			—	43,011
Department of Education:				
National Resource Centers Program for Foreign Language and Area Studies or Foreign Language and International Studies Program and Foreign Language and Area Studies Fellowship Program	84.015	Direct	—	1,769,577
Undergraduate International Studies and Foreign Language Programs	84.016	Direct	—	76,943
Overseas Programs – Group Projects Abroad	84.021	Direct	—	87,647
Higher Education Institutional Aid	84.031	Direct	—	484,016
Commonwealth of Pennsylvania	84.126	H126A170056	—	190,198
Graduate Assistance in Areas of National Need	84.200	Direct	—	216,907
Homewood Children's Village	84.215	U215J150122	—	45,785
Special Education – Personnel Development to Improve Services and Results for Children with Disabilities	84.325	Direct	—	200,943
Salus University	84.325	H325H140002	—	64,545
Subtotal 84.325			—	265,488

**UNIVERSITY OF PITTSBURGH – OF THE
COMMONWEALTH SYSTEM OF HIGHER EDUCATION**

Schedule of Expenditures of Federal Awards

Year ended June 30, 2018

Federal grantor/pass through grantor/program title	CFDA number	Direct award or pass through number	Passed through to subrecipients	Federal expenditures
National Writing Project Corporation	84.367	U367D150004	\$ —	\$ 3,269
Northwest Tri-County Intermediate Unit	84.412	PPS Arsenal	—	(76)
Total Department of Education			—	3,139,754
Department of Energy:				
Office of Science Financial Assistance Program	81.049	Direct	—	28,000
Total Department of Energy			—	28,000
Department of Homeland Security:				
Homeland Security-related Science, Technology, Engineering and Mathematics (HS STEM) Career Development Program	97.104	Direct	—	5,975
Total Department of Homeland Security			—	5,975
Department of Justice:				
Commonwealth of Pennsylvania	16.754	2015-PM-BX-0003	—	206,680
Commonwealth of Pennsylvania	16.000	2015-PM-0003	—	190,659
Total Department of Justice			—	397,339
Department of Labor:				
Commonwealth of Pennsylvania	17.245	TAA0249-14	—	117,505
Commonwealth of Pennsylvania	17.245	TAA0249-17	—	35,500
Total Department of Labor			—	153,005
Department of State:				
Partners of the Americas	19.009	S-ECAGD-15-CA-1108	—	8,453
Total Department of State			—	8,453
Department of Treasury:				
Low-Income Taxpayer Clinics	21.008	Direct	—	86,470
Total Department of Treasury			—	86,470
Institute of Museum and Library Services:				
Commonwealth of Pennsylvania	45.310	LS-00-16-0039-16	—	39,890
Pennsylvania School Librarians Association	45.310	LS-00-17-0039-17	—	26,048
Total Institute of Museum and Library Services			—	65,938
National Endowment for the Humanities:				
Promotion of the Humanities Fellowships and Stipends	45.160	Direct	—	25,359
Total National Endowment for the Humanities			—	25,359
Nuclear Regulatory Commission:				
U.S. Nuclear Regulatory Commission Scholarship and Fellowship Program	77.008	Direct	—	74,000
Total Nuclear Regulatory Commission			—	74,000
Peace Corps:				
Other Peace Corps	08.000	Direct	—	22,590
Total Peace Corps			—	22,590
Small Business Administration:				
University of Pennsylvania	59.058	FAST-2016-R-0010A	—	585
University of Pennsylvania	59.000	SBAHQ-17-B-0057	—	170,153
University of Pennsylvania	59.000	SBAHQ-17-B-0080	—	35,159
University of Pennsylvania	59.000	EARLY AWARD	—	135,134
Subtotal 59.000			—	340,446
Total Small Business Administration			—	341,031
Total Other Agencies			—	4,712,270
Total Other Programs			1,022,993	33,845,337
Grand Total – Federal Awards and Grants			\$ 90,045,400	1,009,235,757

See accompanying notes to schedule of expenditures of federal awards and 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.

**UNIVERSITY OF PITTSBURGH – OF THE
COMMONWEALTH SYSTEM OF HIGHER EDUCATION**

Notes to Schedule of Expenditures of Federal Awards

Year ended June 30, 2018

(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 received from the U.S. federal government for the year ended June 30, 2018. 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 the 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, and the cost accounting principles and procedures set forth in OMB Circular A-21, *Cost Principles for Educational Institutions*, as applicable. Under these administrative requirements and cost principles, 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 costs 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.

**UNIVERSITY OF PITTSBURGH – OF THE
COMMONWEALTH SYSTEM OF HIGHER EDUCATION**

Notes to Schedule of Expenditures of Federal Awards

Year ended June 30, 2018

(3) Federal Loan Programs

The University administers the following federal loan programs with an outstanding loan balance as of June 30, 2018:

<u>Federal grant and program title</u>	<u>Federal CFDA number</u>	<u>Outstanding loan balance</u>
Department of Education – Federal Perkins Loan Program	84.038	\$ 24,370,893
Department of Health and Human Services – Public Service:		
Health Professions Student Loan Program:		
Medicine	93.342	\$ 116,327
Dentistry	93.342	4,575,777
Pharmacy	93.342	1,371,701
Nursing Student Loan Program – Baccalaureate	93.364	1,537,800
Nursing Faculty Loan Program:		
Nursing Faculty Loan ARRA	93.408	88,736
Nursing Faculty Loan	93.264	443,230
Disadvantaged Student Loan Program:		
Medicine	93.342	267,678
Dentistry	93.342	126,000

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, 2017, administrative costs, if any, and new loans issued during fiscal 2018.

(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) Student Financial Assistance Program

For the year ended June 30, 2018, administrative costs on the Student Financial Assistance Program were claimed under the Federal Work Study Program in the amount of \$231,207.

**UNIVERSITY OF PITTSBURGH – OF THE
COMMONWEALTH SYSTEM OF HIGHER EDUCATION**

Notes to Schedule of Expenditures of Federal Awards

Year ended June 30, 2018

(6) 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 \$3,398,511 for the year ended June 30, 2018.



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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
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, 2018, 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 21, 2018.

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 21, 2018



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**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, 2018. 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 identified in the summary of auditors' results section of the accompanying schedule of findings and questioned costs for the year ended June 30, 2018.



Other Matters

The results of our auditing procedures disclosed instances of noncompliance, which are required to be reported in accordance with the Uniform Guidance and which are described in the accompanying schedule of findings and questioned costs as items 2018-001, 2018-002, and 2018-003. Our opinion on each major federal program is not modified with respect to these matters.

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

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 a 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 have not been identified. We did not identify any deficiencies in internal control over compliance that we consider to be material weaknesses. However, we did identify certain deficiencies in internal control over compliance, described in the accompanying schedule of findings and questioned costs as items 2018-001, 2018-002, and 2018-003, that we consider to be significant deficiencies.

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

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, 2018, and have issued our report thereon dated September 21, 2018, 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 19, 2019

**UNIVERSITY OF PITTSBURGH – OF THE
COMMONWEALTH SYSTEM OF HIGHER EDUCATION**

Schedule of Findings and Questioned Costs

Year ended June 30, 2018

(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 – 2018-001, 2018-002, 2018-003**
- (e) Type of report issued on compliance for major programs: **Unmodified – Research and Development; Unmodified – Student Financial Assistance**
- (f) Audit findings that are required to be reported in accordance with 2 CFR 200.516(a): **Yes – 2018-001, 2018-002, 2018-003**
- (g) Major programs:
 - Research and Development Cluster – various CFDA numbers
 - Student Financial Aid Cluster – various CFDA numbers
- (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

(3) Findings and Questioned Costs Relating to Federal Awards

Finding 2018-001: Pell Reporting

Federal Program – Student Financial Assistance Programs Cluster (CFDA #84.063); Award number P063P172159

Federal Agency – U.S. Department of Education

Federal Award Period – July 1, 2017 to June 30, 2018

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Year ended June 30, 2018

Criteria or Requirement – Under the Federal Register (82 FR 29061), all schools receiving Pell grants submit Pell payment data to the Department through the Common Origination and Disbursement (COD) System. Institutions must report student payment data within 15 calendar days after the school makes a payment; or becomes aware of the need to make an adjustment to previously reported student payment data or expected student payment data. Schools may do this by reporting once every 15 calendar days, bi-weekly, or weekly, or may set up their own system to ensure that changes are reported in a timely manner.

Condition Found, Including Perspective – For 5 out of 89 Pell disbursements (from a sample of 40 students with fall, spring and summer disbursements), the University did not report the actual disbursement or disbursement date to the COD within 15 calendar days after the school made the disbursement. For the 5 disbursements, which were from the summer session, the University reported the actual disbursement and date to the COD between 97 and 119 days.

Possible Cause and Effect – Management's control over monitoring Pell reporting during the summer session was not operating effectively, or at a precision level necessary, to ensure timely reporting.

Questioned Costs – None identified.

Statistical Validity of Sampling – The sample was not intended to be, and was not, a statistically valid sample.

Repeat Finding in the Prior Year – No

Recommendation – We recommend that management enhance its monitoring control over Pell Reporting to ensure that summer disbursements are reported within 15 days to the COD.

Views of Responsible Officials –

The Office of Financial Aid (OFA) identified the error with summer Pell in June 2018 as part of the Pell Reconciliation process. The affected students were those who were eligible for summer Pell (Year Round Pell (YRP)). Due to PeopleSoft system settings, the system flags denoting YRP were not being applied and any manual attempts to apply the flags were being overridden. The University applied several PeopleSoft patches over the summer to correct the system, resulting in at least eight separate known issues. The final patch was tested and loaded into PeopleSoft in mid-August of 2018 and we were able to resolve all of the outstanding issues at that time.

Finding 2018-002: Verification

Federal Program – Student Financial Assistance Programs Cluster (various); Award numbers P268K182159; P268K187036; P063P172159

Federal Agency – U.S. Department of Education and Department of Health and Human Services

Federal Award Period – July 1, 2017 to June 30, 2018

Criteria or Requirement – Institutions are required to establish written policies and procedures that incorporate the provisions of 34 CFR sections 668.51 through 668.61 for verifying applicant information.

**UNIVERSITY OF PITTSBURGH – OF THE
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Schedule of Findings and Questioned Costs

Year ended June 30, 2018

Such an institution shall require each applicant whose application is selected by ED to verify the information required for the Verification Tracking Group to which the applicant is assigned. Specified verification items and acceptable documentation are listed in the *Federal Register*. For award year 2017-2018, the *Federal Register* notice was published April 1, 2016.

Condition Found, Including Perspective – For 3 of 50 students sampled, there were discrepancies in information used in the verification process. For one student sampled, the parents' adjusted gross income was incorrectly documented on the ISIR due to a mathematical error, which resulted in the student being overawarded Pell by \$500. For the second sampled student, the student's education credits of \$1,000 were reflected on the ISIR but not on the student's tax return (no impact on award). For the third sampled student, the student's education credits of \$950 were reflected on the student's tax return but not on the ISIR. This resulted in the student being underawarded Pell by \$125.

Possible Cause and Effect – Management's process for verifying specified items is manual, which results in a higher likelihood of oversight in compliance.

Questioned Costs – Known questioned costs were \$625.

Statistical Validity of Sampling – The sample was not intended to be, and was not, a statistically valid sample.

Repeat Finding in the Prior Year – No

Recommendation – We recommend that management enhance the controls over verification to fully address inconsistencies in information.

Views of Responsible Officials –

Staff members did not identify the discrepancies during the manual verification process. Management in OFA have meet with the staff to go over the errors and reinforce the need for accuracy during the verification process. In addition, OFA will select a sample of completed verifications for re-performance.

Finding 2018-003: Enrollment Reporting

Federal Program – Student Financial Assistance Programs Cluster (CFDA #84.268); Award numbers P268K182159; P268K187036; P063P172159

Federal Agency – U.S. Department of Education

Federal Award Period – July 1, 2017 to June 30, 2018

**UNIVERSITY OF PITTSBURGH – OF THE
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Year ended June 30, 2018

Criteria or Requirement – Under the Pell grant and ED loan programs, institutions must complete and return within 15 days the Enrollment Reporting roster file [formerly the Student Status Confirmation Reports (SSCR)] placed in their Student Aid Internet Gateway (SAIG) (OMB No. 1845-0002) mailboxes sent by ED via NSLDS (OMB No. 1845-0035). The institution determines how often it receives the Enrollment Reporting roster file with the default set at a minimum of every 60 days. Once received, the institution must update for changes in student status, report the date the enrollment status was effective, enter the new anticipated completion date, and submit the changes electronically through the batch method or the NSLDS website. (FPL, 34 CFR section 674.19; Pell, 34 CFR Section 690.83(b)(2), FFEL, 34 CFR section 682.610; Direct Loan, 34 CFR section 685.309).

Condition Found, Including Perspective – For 20 out of 40 students sampled, the student's status was reported as withdrawn rather than graduated to the NSLDS. For 12 students that graduated in April, the data was submitted after 60 days since withdrawals are not classified until the following semester, which begins in August.

Possible Cause and Effect – Management's control over monitoring enrollment reporting changes to NSLDS was not operating consistently throughout 2018 to ensure that all student status changes were accurately and timely reported to NSLDS.

Questioned Costs – None identified.

Statistical Validity of Sampling – The sample was not intended to be, and was not, a statistically valid sample.

Repeat Finding in the Prior Year – No

Recommendation – We recommend that management reinforce its procedures around the enrollment reporting process to ensure that the University reports all status changes accurately and timely.

Views of Responsible Officials –

There are four separate causes for the errors identified, which resulted in the student status changes to be misreported by NSC and excluded from the Degree Verify File sent to the Clearinghouse. To correct these issues going forward, the Registrar's Office will do the following:

- Modify their custom extract to include the appropriate code recognized by the NSC for graduating and professional students, such as those with Master's degrees.
- Manually update any student with 2+ degrees to "graduated" until a new graduate enrollment verification report can be created. A new report called "Graduates Only Enrollment Verification" will be created. This report will look at students at the end of the term who have a "completed" in their degree program. Those students will be put into this report, sent to the NSC, who will forward to NSLDS.
- UPJ Nursing students are currently active at the Pittsburgh and UPJ campuses (for tuition purposes). Right before the Office of the Registrar runs graduation, these students will be made "inactive" on the Pittsburgh campus and remain active at UPJ, allowing for tuition to calculate correctly, while also synching the data on the last Enrollment Verification file with the Degree Verification file.