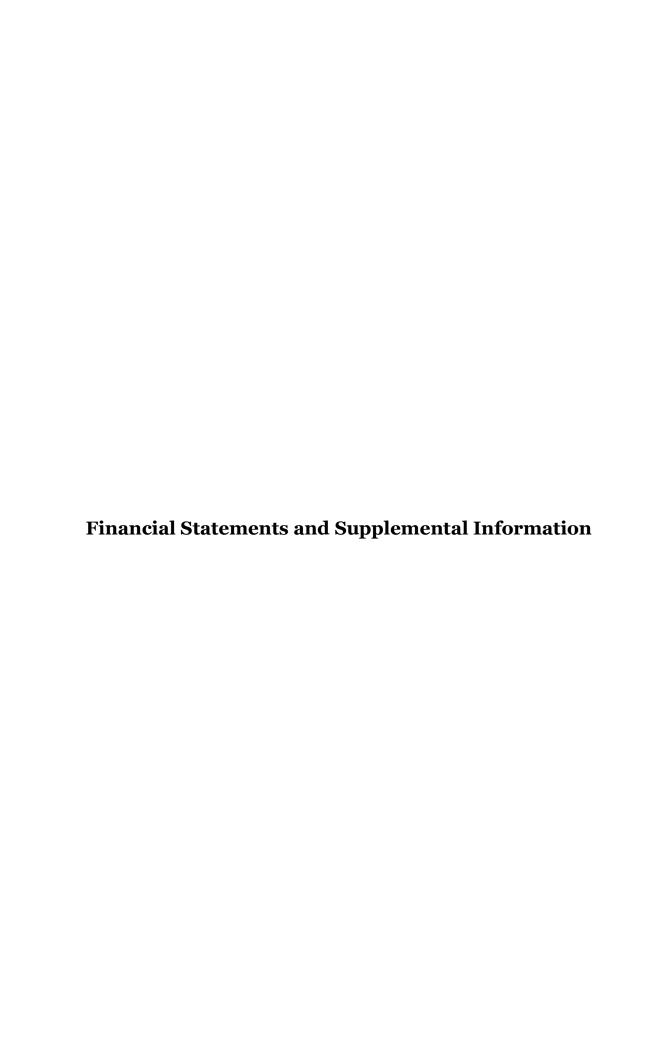
Washington University

Report on Federal Financial Assistance Programs in Accordance with Uniform Guidance For the Year Ended June 30, 2019 Employer Identification Number: 430653611

Washington University Report on Federal Financial Assistance Programs in Accordance with Uniform Guidance Index June 30, 2019

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Report of Independent Auditors

To the Board of Trustees of Washington University

Report on the Consolidated Financial Statements

We have audited the accompanying consolidated financial statements of Washington University and its subsidiaries (the "University"), which comprise the consolidated statements of financial position as of June 30, 2019 and 2018, and the related consolidated statements of activities and cash flows for the years then ended, and the related notes to the financial statements.

Management's Responsibility for the Consolidated Financial Statements

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

Auditors' Responsibility

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

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

Opinion

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of the University as of June 30, 2019 and 2018, and the changes in its net assets and cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.



Other Matters

Other Information

Our audit was conducted for the purpose of forming an opinion on the consolidated financial statements as a whole. The accompanying schedule of expenditures of federal awards is presented for purposes of additional analysis as required by Title 2 U.S. Code of Federal Regulations Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards (Uniform Guidance) and is not a required part of the consolidated financial statements. The 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 taken as a whole.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated September 25, 2019 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 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.

St. Louis, Missouri September 25, 2019

Pricevaterhouse Coopes LLP

Washington University Consolidated Statements of Financial Position June 30, 2019 and 2018

(thousands of dollars)	 2019	2018		
Assets				
Cash and cash equivalents	\$ 400,100	\$	366,525	
Investments	9,723,936		9,248,311	
Accounts and notes receivable, net	621,325		494,685	
Pledges receivable, net	389,944		439,318	
Other assets	272,499		231,280	
Fixed assets, net	2,736,428		2,541,137	
Total assets	\$ 14,144,232	\$	13,321,256	
Liabilities	_	-	_	
Accounts payable and accrued expenses	\$ 692,819	\$	484,625	
Deposits, advances and other	29,945		23,308	
Professional liability	84,236		73,756	
Deferred revenue and contract liabilities	150,426		137,744	
Liabilities under split-interest agreements	38,806		40,842	
Government supported student loans	34,981		36,232	
Notes and bonds payable	2,064,087		2,030,781	
Total liabilities	3,095,300		2,827,288	
Net Assets				
Without donor restrictions	5,476,886		5,154,934	
With donor restrictions	5,572,046		5,339,034	
Total net assets	11,048,932		10,493,968	
Total liabilities and net assets	\$ 14,144,232	\$	13,321,256	

Washington University Consolidated Statements of Activities June 30, 2019

(thousands of dollars)	Without Donor Restrictions	With Donor Restrictions	June 30, 2019 Total		
Revenues					
Tuition and fees, net	\$ 441,915		\$ 441,915		
Endowment spending distribution	331,548	9,764	341,312		
Investment return	25,983	1,499	27,482		
Gifts	137,035	90,201	227,236		
Grants and contracts revenues					
Direct costs recovered	466,504		466,504		
Facilities and administrative costs recovered	168,737		168,737		
Patient services, net	1,381,149		1,381,149		
Auxiliary enterprises - sales and services	126,182		126,182		
Educational activities - sales and services	195,738		195,738		
Affiliated hospital revenues	125,321		125,321		
Other revenue	42,943	15	42,958		
Net assets released from restrictions	132,292	(132,292)	<u> </u>		
Total Revenues and other support	3,575,347	(30,813)	3,544,534		
Expenses:					
Compensation expense	2,041,168		2,041,168		
Supplies, services, and other	1,060,079		1,060,079		
Depreciation expense	188,858		188,858		
Interest expense	65,629		65,629		
Total expenses	3,355,734		3,355,734		
Net operating results	219,613	(30,813)	188,800		
Non-operating revenues and (expenses):					
Investment returns net of endowment spending	139,305	128,890	268,195		
Permanently restricted gifts		120,914	120,914		
Other non-operating	(36,966)	14,021	(22,945)		
Non-operating, net	102,339	263,825	366,164		
Change in net assets	321,952	233,012	554,964		
Net Assets, Beginning of the Year	5,154,934	5,339,034	10,493,968		
Net Assets, End of the Year	\$ 5,476,886	\$ 5,572,046	\$ 11,048,932		

Washington University Consolidated Statements of Activities June 30, 2018

(thousands of dollars)	Without Donor Restrictions	With Donor Restrictions	June 30, 2018 Total
Revenues			
Tuition and fees, net	\$ 411,816		\$ 411,816
Endowment spending distribution	315,774	7,121	322,895
Investment return	21,245	320	21,565
Gifts	80,958	326,925	407,883
Grants and contracts revenues			
Direct costs recovered	433,429		433,429
Facilities and administrative costs recovered	155,381		155,381
Patient services, net	1,257,407		1,257,407
Auxiliary enterprises - sales and services	114,870		114,870
Educational activities - sales and services	181,235		181,235
Affiliated hospital revenues	127,595		127,595
Other revenue	40,275	(540)	39,735
Net assets released from restrictions	113,491	(113,491)	
Total Revenues and other support	3,253,476	220,335	3,473,811
Expenses:			
Compensation expense	1,870,098		1,870,098
Supplies, services, and other	950,106		950,106
Depreciation expense	180,470		180,470
Interest expense	63,046		63,046
Total expenses	3,063,720	-	3,063,720
Net operating results	189,756	220,335	410,091
Non-operating revenues and (expenses):			
Investment returns net of endowment spending	225,640	259,678	485,318
Permanently restricted gifts		119,904	119,904
Other non-operating	1,085	(4,609)	(3,524)
Non-operating, net	226,725	374,973	601,698
Change in net assets	416,481	595,308	1,011,789
Net Assets, Beginning of the Year	4,738,453	4,743,726	9,482,179
Net Assets, End of the Year	\$ 5,154,934	\$ 5,339,034	\$ 10,493,968

Washington University Consolidated Statements of Cash Flows Years Ended June 30, 2019 and 2018

(thousands of dollars)	 2019	2018		
Cash flows from operating activities				
Change in net assets	\$ 554,964	\$	1,011,789	
Adjustments to reconcile change in net assets to cash				
provided by operating activities				
Realized and unrealized net gains on investments	(644,999)		(835,751)	
Depreciation expense	188,858		180,470	
Permanently restricted gifts	(120,914)		(119,904)	
Investments received as gifts - not permanently restricted	(9,780)		(11,765)	
Proceeds from sales of investments received as gifts	9,780		11,765	
Other non-cash adjustments	(27,225)		(10,083)	
Changes in assets and liabilities				
Accounts and notes receivable, net	(91,692)		(28,290)	
Pledges receivable, net	52,044		(215,761)	
Accounts payable and accrued expenses	88,511		33,066	
Deposits and advances	(24,860)		(17,077)	
Other assets and liabilities	 6,300		14,301	
Net cash (used)/provided by operating activities	 (19,013)		12,761	
Cash flows from investing activities				
Proceeds from sales and maturities of investments	6,827,007		10,389,420	
Purchases of investments	(6,553,046)		(10,278,075)	
Sales of investments with securities lending collateral	-		173,889	
Purchases of fixed assets	(379,697)		(379,906)	
Student loans disbursed	(14,637)		(18,161)	
Student loan payments received	21,901		23,087	
Other	 4		55	
Net cash used in investing activities	 (98,468)		(89,691)	
Cash flows from financing activities				
Principal payments of debt	(22,099)		(22,788)	
Proceeds from long-term debt issuance	55,298		423,296	
Contributions restricted for long-term investment	79,769		52,038	
Proceeds from sales of investments received as gifts	39,338		46,553	
Securities lending collateral (sold) received, net	-		(173,889)	
Other	 (1,250)		(10,625)	
Net cash provided by financing activities	 151,056		314,585	
Net increase in cash	33,575		237,655	
Cash				
Beginning of year	 366,525		128,870	
End of year	\$ 400,100	\$	366,525	
Supplemental data				
Interest paid in cash	\$ 64,212	\$	57,122	
Noncash activities				
Contributions of securities and other noncash assets	49,137		59,157	
Net change in accounts payable for fixed assets	8,501		4,328	
Net change in accounts receivable for investments	(37,185)		(6,654)	
Net change in accounts payable for investments	122,649		7,090	

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

(All amounts in thousands of dollars)

1. Summary of Significant Accounting Policies

Organization

Washington University in St. Louis (the "university"), is an institution of higher education that, in furtherance of its role as a charitable and educational institution, engages in various activities, including instruction, research and provision of medical care.

Basis of Presentation and Use of Estimates

The consolidated financial statements have been prepared on the accrual basis of accounting. The consolidated financial statements are consolidated to include the accounts of the university and its affiliates. Significant consolidated affiliates include The Barnard Free Skin and Cancer Hospital, Parallel Properties LLC including its affiliates, Washington University Clinical Associates, LLC and associated physician practices, and Washington University Physicians in Illinois, Inc.

The preparation of consolidated financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the 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. Such estimates include, but are not limited to, the estimated useful lives of buildings and equipment, the fair value of certain investments (see footnote 2), the degree of precision in calculation of self-insurance reserves and adequacy of allowances for doubtful accounts. Actual results could differ from those estimates.

Net Assets

Resources are classified for accounting and reporting purposes based on the absence or existence of donor-imposed restrictions. Descriptions of the net asset categories follow:

- Net assets without donor restrictions are free of donor-imposed restrictions. Board-designated endowment funds are also included within net assets without donor restrictions.
- Net assets with donor restrictions consist of gifts and related earnings that are subject to
 donor-imposed restrictions or legal stipulations that have not yet been met by actions of the
 university and/or passage of time as well as gifts and trusts which, by donor restriction, are
 required to be held in perpetuity.

Revenues from sources other than contributions and investment returns are reported as increases in net assets without donor restrictions. Contributions are reported as increases in the appropriate category of net assets, except that contributions which impose donor restrictions that are met in the same fiscal year they are received are included in revenues without donor restrictions. Gains and investment income that are limited to specific uses by donor-imposed restrictions are reported as increases in net assets without donor restrictions if the restrictions are met in the same reporting period as the gains and income are recognized, except for gains and investment income earned by investment of donor-restricted endowments. Such amounts remain in net assets with donor restrictions until appropriated for expenditure. When a donor restriction expires due to the passage of time or the university's fulfillment of donor stipulated purpose, net assets are reclassified to net assets without donor restrictions and reported in the Consolidated Statements of Activities as net assets released from restrictions. Donor restricted gifts that are to be held in perpetuity are reported in the non-operating section of the Consolidated Statements of Activities. Gifts of long-lived assets with explicit restrictions that specify how the assets are to be used and

(All amounts in thousands of dollars)

gifts of cash or other assets that must be used to acquire long-lived assets are reported as restricted support. Absent explicit donor stipulations about how long those long-lived assets must be maintained, the university reports expirations of donor restrictions when the donated or acquired long-lived assets are placed in service. Expenses are reported as decreases in net assets without donor restrictions.

The university's net assets as of June 30, 2019 consist of the following:

	Without donor restrictions		 Vith donor estrictions	Total
Donor-restricted endowment funds	\$	-	\$ 4,891,626	\$ 4,891,626
Board-designated endowment funds		2,845,594	271,705	3,117,299
Investment in plant, net		711,525	-	711,525
Pledges		-	389,944	389,944
Other donor-restricted		-	18,771	18,771
Operating and other reserves		1,919,767	 _	1,919,767
	\$	5,476,886	\$ 5,572,046	\$ 11,048,932

The university's net assets as of June 30, 2018 consist of the following:

	Without donor restrictions			ith donor	Total		
Donor-restricted endowment funds	\$	-	\$	4,649,476	\$	4,649,476	
Board-designated endowment funds		2,757,498		233,195		2,990,693	
Investment in plant, net		643,786		-		643,786	
Pledges		_		439,318		439,318	
Other donor-restricted		-		17,045		17,045	
Operating and other reserves		1,753,650		-		1,753,650	
	\$	5,154,934	\$	5,339,034	\$	10,493,968	

Investments

Investment gains (losses) in excess of endowment spending distribution and the unrealized appreciation (depreciation) on investments are reported in the non-operating section of the Consolidated Statements of Activities. Investments acquired by gift or bequest are initially recorded at market or appraised value at the date so acquired.

At June 30, 2019 and 2018, investments include \$39,185 and \$133,430, respectively, purchased with unexpended proceeds from the Series 2017 A Missouri Health and Educational Facilities Authority (MOHEFA) revenue bonds issued July 6, 2017. These funds may only be expended for specific construction project costs and costs of issuance related to the MOHEFA bonds.

(All amounts in thousands of dollars)

Fixed Assets

Fixed assets are stated at cost or at fair market values if received as a gift, less accumulated depreciation, computed on a straight-line basis over the estimated useful lives of the assets. Fixed assets include equipment and other assets acquired through sponsored programs during which title is retained by the resource provider. It is probable the university will be permitted to keep the assets when the program terminates. The cost and accumulated depreciation of fixed assets are removed from the records at the time of disposal. Fixed assets by classification at June 30, 2019 and 2018 consist of the following:

	2019			2018
Construction in progress	\$	489,868	\$	400,842
Land and improvements to land		160,860		150,995
Buildings		4,036,657		3,850,398
Equipment		573,804		553,156
Total cost		5,261,189		4,955,391
Accumulated depreciation		(2,524,761)		(2,414,254)
Total, net	\$	2,736,428	\$	2,541,137

Collections

In addition to the Mildred Lane Kemper Art Museum, the university archives rare book collections, works of art, literary works, historical treasures and artifacts. These collections are protected and preserved for public exhibition, education, research and the furtherance of public service. They are neither disposed of for financial gain nor encumbered in any manner. Accordingly, such collections are not recognized or capitalized for financial statement purposes.

Financing Receivables

Financing receivables are principally loans made to students or their parents utilizing gifts, endowment payout, and university resources designated for that purpose and from funds provided by the United States government under the Federal Perkins and Health Professional Student Loan programs. Loan funds are reported at estimated realizable value, as it is not practical to determine the fair value of loan fund receivables, which include a large component of federally sponsored student loans. Federally sponsored student loans have significant government restrictions as to marketability, interest rates, and repayment terms. Federal funds are ultimately refundable to the government and are recognized as a liability in the Consolidated Statements of Financial Position (see footnote 6).

The university's loan portfolio includes over 7,800 individual loans and is geographically diverse. Loans are considered past due if the minimum payment is not received within thirty-one days past the due date. At June 30, 2019 and 2018, respectively, 90% and 92% of the parent loans and 74% and 77% of the institutional student loans were considered current. Income earned on financing receivables is recorded on an accrual basis.

Deferred Revenue and Contract Liabilities

Deferred revenue is recognized on an accrual basis when payments for services are received in advance of performance by the university. The principle components of deferred revenue are clinical trial receipts, grants and contracts, and prepaid tuition and housing.

(All amounts in thousands of dollars)

Revenue Recognition

On July 1, 2018, the university adopted the Financial Accounting Standards Board, Accounting Standards Update 2014-09, *Revenue from Contracts with Customers* (ASC 606). Prior to the adoption of ASC 606, the University recognized revenue under ASC 605, which focused on transaction specific guidance for revenue recognition. ASC 606 affects all contracts entered into with customers that result in a transfer of goods or services or a transfer of non-financial assets. The core principle of the standard is for organizations to recognize revenue in a way that depicts the transfer of goods or services to customers in amounts that reflect the consideration or payment to which the organization expects to be entitled. The university adopted ASC 606 using the modified retrospective method, whereby the cumulative effect of applying the standard is recognized in net assets on the date of adoption. The university elected to apply the new standard only to contracts not completed at the adoption date. Except for Sponsored Research Contracts within Grants and Contracts, Educational Activities Sales and Services and Clinical Trials, substantially all contracts are less than 12 months in duration and the university has elected to expense contract costs as incurred and to not adjust the transaction price for any significant financing component.

The university recorded revenue from contracts with customers during fiscal 2019 in the major service categories presented in the table below. The total amounts reported in Grants and Contracts on the Statement of Activities includes contribution income which is not included in the Sponsored Research Contracts within Grants and Contracts in the table below.

When using the modified retrospective approach, comparative prior period information continues to be accounted for under the accounting standards in effect for the period presented. ASC 606 changed the pattern of revenue recognition for some contracts with customers. Implicit price concessions are now recognized when revenue is first recognized for both tuition and patient services. Bad debt expense for patient services, reported in fiscal 2018 as expense on the Statement of Activities, was reclassified and offsets the revenue line items to which it applies. Clinical trial revenue is adjusted to be consistent with the input method described below.

The effect by line item in the 2019 Statement of Activities of this change is presented in the table below.

	Under		Under
	 ASC 605	Effect	ASC 606
Tuition and fees, net of scholarship	\$ 441,942	\$ (27)	\$ 441,915
Sponsored research contracts within grants and contracts	31,577	-	31,577
Patient services	1,492,702	(111,553)	1,381,149
Auxiliary enterprises - sales and services	126,182	-	126,182
Educational activities - sales and services			
Clinical trials revenue	82,337	2,853	85,190
Other activities	110,548	-	110,548
Affiliated hospital revenue	125,321	-	125,321
Supplies, services, and other expense	1,171,659	(111,580)	1,060,079

(All amounts in thousands of dollars)

Tuition and Fees

Tuition and fee revenue, net of scholarships and other implicit price concessions, is recognized over-time using the output method of measuring progress in the fiscal year in which the educational programs are conducted. Students are invoiced at the commencement of each academic period. Payment is due when invoiced. The performance obligation, delivery of educational services, is satisfied as services are rendered. If delivery of the performance obligation is not complete as of fiscal year-end, a contractual liability is recorded. The deferred contract liability at June 30, 2019 and 2018 was \$49,992 and \$49,893, respectively, and is reported as deferred revenue and contract liabilities on the Statement of Financial Position.

Demonstrated financial need is the major criteria for undergraduate students to receive financial aid. Graduate students often receive tuition support in connection with research assistant, teaching assistant and fellowship appointments. Total financial aid granted to students by the university, including aid provided to employees and their dependents, for the years ended June 30, 2019 and 2018, respectively, was \$387,069 and \$356,526. The table below identifies student aid by type. Scholarships are reported net against tuition in the Consolidated Statements of Activities. Other amounts are reported as expenses.

	 2019	2018			
Scholarships from unrestricted sources Scholarship support from gifts, endowment	\$ 202,587	\$	188,072		
and other restricted sources	68,195		59,853		
Total scholarships	270,782		247,925		
Employee and dependent tuition benefits	37,531		35,025		
Stipends	76,443		71,535		
Work study	2,313		2,041		
Total	\$ 387,069	\$	356,526		

Gifts

Gifts, including unconditional promises to give, are recognized as revenues in the period the gift or promise is received. Gifts received for permanent endowments or perpetual trusts are reported as non-operating revenues. Gifts of assets other than cash are recorded at their estimated fair value at the date of gift and, unless instructed otherwise by the donor, are liquidated upon receipt or as soon as practical thereafter.

Conditional gifts and promises to give are not recognized until the conditions on which they depend are substantially met. Gifts, in the form of unconditional promises to give, to be received after one year are discounted at credit-adjusted tax exempt borrowing rates in accordance with fair value accounting. Pledges outstanding are discounted with rates ranging from 0.92% to 2.04%. Amortization of the discount is recorded as gift revenue. The university has received gifts which are recorded as gift revenue in the period the gift was made but are payable over a specified payment schedule of up to 10 years or more. During the gift payment term, the university is exposed to credit risk for the entity or individual that has made the gift. An allowance is made for uncollectible unconditional promises to give based upon management's judgment, past collections experience and other relevant factors. During fiscal year 2018, the university received a pledge of \$20,000 annually to be paid over a period of 10 years beginning in fiscal year 2019.

(All amounts in thousands of dollars)

A summary of pledges receivable is as follows:

	 2019	2018
In one year or less	\$ 122,226	\$ 148,143
Between two and five years	172,661	208,318
Over five years	 116,732	108,721
	 411,619	 465,182
Less:		
Discount	(16,414)	(19,739)
Allowance for uncollectible amounts	 (5,261)	 (6,125)
Total	\$ 389,944	\$ 439,318

Grants and Contracts

The university receives grant and contract revenue from governmental and private sources. Revenue associated with the direct costs of sponsored programs is generally recognized as the related costs are incurred. At contract inception, the university determines whether the goods or services to be provided are to be accounted for as a single performance obligation or as multiple performance obligations. If multiple performance obligations are identified, the university generally uses the cost plus a margin approach to determine the relative standalone selling price of each performance obligation. Revenue from these contracts is earned over-time. Invoicing of the customer, if required, will generally be in accordance with terms of the contract with payment due when invoiced. Generally, the time between the receipt of payment and the transfer of goods and service under these contracts is less than one year.

The university records revenue without donor restrictions upon its recovery of direct and indirect costs applicable to those sponsored programs that provide for the full or partial reimbursement of such costs. Most grants awarded to the university by government agencies are conditional contributions. The principle condition attached to these awards is that the university must incur costs in accordance with the Office of Management and Budget's uniform guidance before costs can be reimbursed. Total amounts promised under these grants for which conditions have not yet been fulfilled are approximately \$807,235 at June 30, 2019. The recovery of indirect costs, also referred to as facilities and administrative costs is based on negotiated rates and represents recoveries of facilities and administrative costs incurred under grants and contracts agreements. Recovery of facilities and administrative costs of Federally sponsored programs is at rates negotiated with the Department of Health and Human Services.

In some cases, the sponsor will prepay amounts in anticipation of costs to be incurred. In those cases, amounts received in excess of costs incurred are recorded as contract liabilities. The contract liabilities amounts at June 30, 2019 and 2018 are \$13,287 and \$12,653, respectively.

Patient Services Revenue

Net patient service revenue is reported at the amount that reflects the consideration to which the university expects to be entitled in exchange for providing patient care. These amounts are due from patients, third-party payers (including health insurers and government programs), and others. Generally, the university bills the patient and third-party payers several days after the services are performed. Revenue is recognized as performance obligations are satisfied.

(All amounts in thousands of dollars)

Revenue for performance obligations satisfied over time is recognized based on actual charges incurred in relation to total expected or actual charges which provides a faithful depiction of the transfer of services over the term of the performance obligation based on the inputs needed to satisfy the obligation.

Because the majority of its performance obligations relate to contracts with a duration of less than one year, the university has elected to apply the practical expedient provided in FASB ASC 606-10-50-14a, and therefore is not required to disclose the aggregate amounts of the transaction price allocated to performance obligations that are unsatisfied or partially unsatisfied at the end of the reporting period.

Generally patients who are covered by third-party payers are responsible for related deductibles and coinsurance, which vary in amount. The university also provides services to uninsured patients. The transaction price for both uninsured patients, as well as insured patients with deductibles and coinsurance, is estimated based on historical experience and current market conditions. The initial estimate of the transaction price is determined by reducing the standard charge by any contractual adjustments, discounts and implicit price concessions. The university determines its estimates of contractual adjustments and discounts based on contractual agreements, its discount policies and historical experience. The university determines its estimate of implicit price concessions based on historical collection experience with these classes of patients using a portfolio approach as a practical expedient. The portfolio approach is being used as there are a large volume of similar contracts with similar classes of customers. Management's judgment to group the contracts by portfolio is based on the payment behavior expected in each portfolio category. The effect of applying a portfolio approach to a group of contracts would not differ materially from considering each contract separately. Contractual adjustments to patient service revenue were \$1.79 billion and \$1.51 billion for the years ended June 30, 2019 and 2018, respectively.

The university has elected the practical expedient allowed under FASB ASC 606-10-32-18 and does not adjust the promised amount of consideration from patients and third-party payors for the effects of a significant financing component due to the expectation that the period between the time the service is provided to a patient and the time that the patient or a third-party payor pays for that service will be one year or less. In certain instances, the university may enter into payment agreements with patients that allow payments in excess of one year. For those cases, the financing component is not deemed to be significant to the contract. The university reported net accounts receivable for patient services of \$168,877 and \$172,727, at June 30, 2019 and 2018, respectively.

(All amounts in thousands of dollars)

Auxiliary Enterprises – Sales and Services

Auxiliary enterprises sales and services revenue is primarily earned over-time utilizing the output method of measuring progress. Auxiliary enterprise sales and services contracts will generally constitute a single performance obligation as there is a single promise. This revenue is composed primarily of on and off campus housing charges, dining services, and parking and transportation fees with separate contracts for each type of service. Housing, dining services and parking fees are invoiced to undergraduate students at the beginning of each academic period. Payment is due upon invoice issuance. Graduate students and undergraduates who live off campus sign rental agreements providing for monthly rent payments. Each contract for services in this category has a duration of one year or less. A contract liability is recorded for the delivery of performance obligations that is not completed prior to the fiscal year end. The contract liabilities at June 30, 2019 and 2018 are \$10,034 and \$10,235, respectively, and are reported as deferred revenue and contract liabilities on the Statement of Financial Position.

Educational Activities – Sales and Services

Clinical trial revenue is earned over-time as the university provides services. The transaction price is negotiated with the customer and is usually based on standard rates for clinical services and the expected cost to complete the contract. Payment terms under these contracts vary but generally provide for the right to invoice the customer as work progresses, either based on units performed or the achievement of billing milestones. Management has determined that an input method using costs incurred as a basis to estimate revenue earned best depicts the pattern of transfer of control to the customer. In those limited cases where prepayments are significant, revenue is deferred until earned and a contract liability is recorded. The contract liabilities at June 30, 2019 and 2018 are \$40,954 and \$36,120, respectively, and are reported as deferred revenue and contract liabilities on the Statement of Financial Position.

Contracts in other educational sales and services cover a broad range of activities including physician services to affiliated and unaffiliated hospitals, executive education program fees and royalties. Revenue from the contracts in this category is earned over-time as services are rendered. The measure of progress varies according to the nature of the services provided. Invoicing to customers is performed in the cadence required under the contracts and amounts invoiced generally are considered due upon receipt. Accruals for services provided but not yet invoiced are recorded at year end. Amounts receivable under service contracts are \$85,497 and \$57,156 at June 30, 2019 and 2018, respectively. Fees for executive education programs are often received in advance of the program and represent a contract liability. Such amounts are reported as deferred revenue and contract liabilities in the Statement of Financial Position.

(All amounts in thousands of dollars)

Affiliated Hospital Revenues

Affiliated hospital revenue is earned over-time as the various services are provided as an integrated performance obligation as more fully described in footnote 12. The measure of progress towards completion of those obligations is based on the day-to-day operations of the University's School of Medicine and the affiliated hospitals. Payments are received under the agreement semiannually. Amounts receivable under the agreement are \$62,633 and \$54,401 at June 30, 2019 and 2018 respectively.

Operating Results

The university's measure of operations as presented in the Consolidated Statements of Activities includes income from tuition and fees, grants and contracts, medical services, contributions for operating programs, the endowment spending distribution and other revenues. Operating expenses are reported on the Consolidated Statements of Activities as incurred for employee compensation, depreciation, interest and supplies, services and other. Operating results exclude investment gains (losses) except for the portion of gains utilized for the endowment spending distribution, contributions to be held in perpetuity, and other non-operating amounts.

Split-Interest Agreements

The university's split-interest agreements with donors consist primarily of charitable gift annuities 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. Contribution revenues for charitable gift annuities and charitable remainder trusts are recognized after recording liabilities for the present value of the estimated future payments to be made to the respective donors and/or other beneficiaries. The discount rate used is a credit-adjusted rate in existence at the date of the gift. The rates used range from 1.94% to 3.27% for 2019 and 1.72% to 3.03% for fiscal year 2018. Annually, the university records the change in value of split-interest agreements by recording at fair value the assets that are associated with each trust and recalculating the liability for the present value of the estimated future payments to be made to the donors and/or other beneficiaries.

Cash and Cash Equivalents

The university considers cash on hand and in banks and all highly liquid financial instruments with an original maturity of 90 days or less, except those amounts assigned to and invested by its investment managers, which amounts are classified as investments, to be cash and cash equivalents.

Income Taxes

The university is exempt from federal income taxes under Section 501 (c)(3) of the Internal Revenue Code except to the extent the university has unrelated business income, provides certain fringe benefits deemed to be taxable income, or consolidated for-profit affiliates incur taxes. The Tax Cuts and Jobs Act (the "Act") was enacted on December 22, 2017. The Act impacts the university in several ways, including new excise taxes on executive compensation and net investment income, increases to unrelated business taxable income (UBTI), changes to the net operating loss rules, repeal of the alternative minimum tax (AMT), and the computation of UBTI separately for each unrelated trade or business. Further, the Act reduces the U.S. federal corporate tax rate and federal corporate unrelated business income tax rate from 35% to 21%. The overall impact of the Act remains uncertain and the full impact of the Act will not be known until further regulatory guidance is provided to assist the university with calculating income and excise tax liabilities. The university continues to evaluate the impact of tax reform on the organization.

(All amounts in thousands of dollars)

As of June 30, 2019, the university has made a reasonable estimate of the determinable effects of the enactment of the Act on existing deferred tax balances. These amounts are provisional, subject to change and not material to the university's consolidated financial statements. Management believes the university has no uncertain tax positions that result in material unrecognized tax expense/benefits.

Other Recent Accounting Pronouncements

In August 2016, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 2016-14, Presentation of Financial Statements of Not-for-Profit Entities, which revises the not-for-profit reporting model. The university adopted this standard in fiscal 2019. This guidance requires the university to reclassify its net assets (i.e., previously unrestricted, temporarily restricted, and permanently restricted) into two categories; net assets with donor restrictions and net assets without donor restrictions. Among other changes are greater disclosure of self-imposed limits on the use of resources without donor restrictions; qualitative and quantitative information on financial resources and liquidity; and expenses reported in both natural and functional classifications. As a result of adopting this standard, the fiscal year 2018 Statement of Financial Position and Statement of Activities have been restated to recognize balances and activity in accordance with the prescribed reclassification of net assets. Reclassifications of net assets without donor restrictions to net assets with donor restrictions as a result of adopting this accounting pronouncement were not material.

During fiscal 2016, the FASB issued ASU 2016-02, Leases. The ASU requires lessees to recognize in the Statements of Financial Position for leases with a term of greater than one year, a liability to make lease payments and a right-of-use asset representing its right to use the asset for the lease term. Generally, lease payments will be recognized as interest expense and as a reduction of the liability. The asset will be amortized over the life of the lease. Accounting by a lessor will be largely unchanged from that required by current generally accepted accounting principles. Adoption of ASU 2016-02 is required for the university's fiscal year 2020. The university is evaluating the impact to the consolidated financial statements.

In August and November 2016, the FASB issued two standards on the presentation of certain items in the statement of cash flows. The standards provide guidance on the appropriate classification of certain cash flow items as operating, investing, and financing activities, including prepayments on debt and debt extinguishment costs. The standards also require the statement of cash flows to present the changes in all cash and cash equivalents, including restricted cash, and provide additional disclosures regarding the nature of restrictions on cash. These standards are effective for fiscal years beginning after December 15, 2018. University management is evaluating the impact this will have on the financial statements beginning in fiscal year 2020.

In August 2018, the FASB issued a standard modifying existing requirements to disclosures on Fair Value Measurement. The standard removes the requirements to disclose transfers between Level 1 and Level 2 of the fair value hierarchy and the changes in unrealized gains and losses for recurring Level 3 fair value measurements, among other disclosures. The standard modifies other disclosure requirements regarding transfers into and out of Level 3 of the fair value hierarchy and investments in entities that calculate net asset value. Finally, the standard adds requirements for disclosures for information surrounding the unobservable input used to develop Level 3 fair value measurements. This standard is effective for fiscal years beginning after December 15, 2019. University management is evaluating the impact this will have on the financial statements beginning in Fiscal Year 2021.

(All amounts in thousands of dollars)

2. Fair Value

The university follows FASB guidance for fair value measurements. This guidance defines fair value, establishes a framework for measuring fair value under generally accepted accounting principles and enhances disclosures about fair value measurements. Fair value is defined as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date.

The FASB guidance establishes a hierarchy of valuation inputs based on the extent to which the inputs are observable in the marketplace. Observable inputs reflect market data obtained from sources independent of the university and unobservable inputs reflect the university's assumptions about how market participants would value an asset or liability based on the best information available. Valuation techniques used to measure fair value maximize the use of observable inputs and minimize the use of unobservable inputs. The fair value hierarchy is based on three levels of inputs, of which the first two are considered observable and the last unobservable, that may be used to measure fair value.

The following describes the hierarchy of inputs used to measure fair value and the primary valuation methodologies used by the university for financial instruments measured at fair value on a recurring basis. The three levels of inputs are as follows:

- Level 1 Quoted prices in active markets for identical assets or liabilities, such as exchange traded equity securities.
- Level 2 Inputs other than Level 1 that are observable, either directly or indirectly, such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the same term of the assets or liabilities. Examples of Level 2 include U.S. Treasury securities and corporate bonds.
- Level 3 Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

A financial instrument's categorization within the valuation hierarchy is based upon the lowest level of input that is significant to the fair value measurement.

(All amounts in thousands of dollars)

The following table presents the financial instruments carried at fair value as of June 30, 2019, on the Consolidated Statements of Financial Position by caption and by the valuation hierarchy defined above. Amounts measured at net asset value are reported using the practical expedient under ASC topic 820 and excluded from the fair value hierarchy. Included as Level 2 fixed income are U.S. Treasury securities of approximately \$714,396.

		Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)		Significant Unobservable Inputs (Level 3)		Measured at Net Asset Value			Balance June 30, 2019
Investments										
Public equity										
Domestic	\$	5,505	\$	27	\$	-	\$	1,250,989	\$	1,256,521
International		21,344		-		-		2,039,837		2,061,181
Fixed income - Nominal		-		778,146		-		-		778,146
Absolute return		-		-		-		1,125,310		1,125,310
Private capital		-		-		130,923		3,208,676		3,339,599
Short-term investments		345,121		12,237		-		-		357,358
Real assets		-		-		110,600		473,025		583,625
Other investments		80,696		(1,101)		70,183		34,485		184,263
Total investments at fair value		452,666		789,309		311,706		8,132,322		9,686,003
Investments not reported at fair value Affiliates - Equity basis Accrued investment income		-		-		-		-		32,443 5,490
Total investments	s	452,666	s	789,309	\$	311,706	s	8,132,322	ş	9,723,936

The following table presents the financial instruments carried at fair value as of June 30, 2018, by caption on the Consolidated Statements of Financial Position and by the valuation hierarchy defined above. Included as Level 2 fixed income are U.S. Treasury securities of approximately \$564,851.

	Pric Ac Mai		Quoted Significant Prices in Other Active Observable Markets Inputs (Level 1) (Level 2)		Significant Unobservable Inputs (Level 3)			Measured at Net Asset Value		Balance June 30, 2018	
Investments											
Public equity											
Domestic	\$	65,034	\$	27	\$	-	\$	1,457,753	\$	1,522,814	
International		189,839		-		-		1,358,790		1,548,629	
Fixed income - Nominal		-		630,837		-		-		630,837	
Absolute return		-		-		-		1,682,094		1,682,094	
Private capital		-		-		118,087		2,349,105		2,467,192	
Short-term investments		353,806		5,286		-		-		359,092	
Real assets		-		-		18,833		703,925		722,758	
Other investments		177,681		(1,537)		67,688		33,190		277,022	
Total investments at											
fair value		786,360		634,613		204,608		7,584,857		9,210,438	
Investments not reported at fair value Affiliates - Equity basis		-		_		_		_		33,759	
Accrued investment income		-		-		-		-		4,114	
Total investments	\$	786,360	\$	634,613	\$	204,608	\$	7,584,857	\$	9,248,311	

(All amounts in thousands of dollars)

Beneficial interests in perpetual trusts held by third parties are valued at the present value of the future distributions expected to be received over the term of the agreement.

Following is a description of the university's valuation methodologies for assets and liabilities measured at fair value. The methods described below may produce a fair value calculation that may not be indicative of net realizable value or reflective of future fair values. Furthermore, while the university believes its valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different estimate of fair value at the reporting date.

Fair value for Level 1 is based upon quoted prices in active markets that the university has the ability to access for identical assets and liabilities. Market price data is generally obtained from exchange or dealer markets. The university does not adjust the quoted price for such assets and liabilities.

Fair value for Level 2 is based on quoted prices for similar instruments in active markets, quoted prices for identical or similar instruments in markets that are not active and model-based valuation techniques for which all significant assumptions are observable in the market or can be corroborated by observable market data for substantially the full term of the assets. Inputs are obtained from various sources including market participants, dealers, and brokers.

Fair value for Level 3 is based on valuation techniques that use significant inputs that are unobservable as they trade infrequently or not at all. Trustees determine the valuation for beneficial interest trusts and split-interest agreements. Strategic real estate is valued at historical cost and is evaluated annually for impairment.

Investments measured at net asset value primarily consist of the university's ownership in alternative investments (principally limited partnership interests in absolute return, private capital investments, real assets, and other similar funds). The fair values (Net Asset Value ("NAV") or partner's capital per share) of the securities held by limited partnerships that do not have readily determinable fair values are determined by the respective general partners and are based on appraisals or other estimates that require varying degrees of judgment. If no public market exists for the investments, the fair value is determined by the general partners taking into consideration significant unobservable inputs including, among other things, the cost of the investments, prices of recent significant placements of investments of the same issuer, and subsequent developments concerning the companies to which the investments relate. Excluding the cost of the investment, significant increases or decreases in the remainder of those inputs could result in a significantly higher or lower fair value measurement. The university has performed due diligence with respect to these investments to ensure NAV or partner's capital per share is an appropriate measure of fair value as of June 30. NAVs are calculated by the investees in a manner consistent with generally accepted accounting principles for investment companies.

Significant terms of agreements with external investment managers or funds by major classes of investments are provided in the following tables.

(All amounts in thousands of dollars)

The following table summarizes the significant terms of the agreements with external investment managers or funds by major category at June 30, 2019:

Investments	Unfunded Commitment (1)	Remaining Life (2)	Redemption Terms	Redemption Restrictions
Public equities	\$ 72,067	4 Years - No Limit	Daily to annually, with 1 day-1 year notice	Lock-up provision periods range from 0 to 5 years. Certain investments include side pockets subject to external manager discretion.
Fixed income and short-term investments	-	No Limit	Daily, 1-2 days notice	No lock-up provision periods
Absolute return	50,000	No Limit	Monthly to annually, with 30 -180 days notice	Lock-up provision periods range from 0 to 3 years. Certain investments include side pockets subject to external manager discretion.
Private capital	1,716,831	0 - 23 Years	Not eligible for redemption	Not redeemable
Real assets	446,607	0 - 12 Years	Not eligible for redemption	Not redeemable
Total	\$ 2,285,505			

Footnote (1): The university is obligated under certain agreements to fund capital calls periodically up to specified commitment amounts. Such commitments are expected to be called over the life of the agreement and are not expected to be fully funded in the subsequent year.

Footnote (2): Assuming all extension options under the agreements are exercised and approved.

(All amounts in thousands of dollars)

The following table summarizes the significant terms of the agreements with external investment managers or funds by major category at June 30, 2018:

Investments	Unfunded Commitment (1)	Remaining Life (2)	Redemption Terms	Redemption Restrictions
Public equities	\$ 180,000	4 Years - No Limit	Daily to annually, with 1 day-1 year notice	Lock-up provision periods range from 0 to 5 years. Certain investments include side pockets subject to external manager discretion.
Fixed income and short-term investments	-	No Limit	Daily, 1-2 days notice	No lock-up provision periods
Absolute return	95,230	No Limit	Monthly to annually, with 30 -180 days notice	Lock-up provision periods range from 0 to 3 years. Certain investments include side pockets subject to external manager discretion.
Private capital	1,541,661	0 - 23 Years	Not eligible for redemption	Not redeemable
Real assets	419,530	0 - 12 Years	Not eligible for redemption	Not redeemable
Total	\$ 2,236,421			

Footnote (1): Assuming all extension options under the agreements are exercised and approved

Public Equities

Public equities include investments in publicly—traded securities in domestic, developed international, emerging, and frontier markets. The majority of assets are held in pooled comingled funds which are valued at NAV as described above. Investments held in custody accounts are valued at quoted market price in accordance with Level 1 and Level 2 valuation techniques as described above.

Fixed Income and Short-Term Investments

Investments in this class include domestic and international nominal fixed income instruments. Fixed income investments are held principally as liquid vehicles for operating needs and as a source of diversification. A significant component of non-endowment fixed income investments is held in highly liquid funds. The valuation of these funds is determined using a market approach in accordance with the techniques for Level 2 as described above.

Absolute Return

Investments in absolute return are typically held in commingled funds that employ various uncorrelated investment strategies including but not limited to equity hedged and event driven. These funds are valued at net asset value as described above.

(All amounts in thousands of dollars)

Private Capital

Investments in private capital strategies are made in targeted categories including growth equity, venture capital, distressed credit, and corporate finance. Redemptions of such funds are not permitted and distributions are received as underlying investments are liquidated. These funds are primarily valued at net asset value as described above.

Real Assets

Investments in the real assets class are made in targeted categories. The majority of these assets are held in non-redeemable fund structures that invest primarily in real estate and natural resources. These funds are primarily valued at net asset value as described above.

The following tables roll forward the Statements of Financial Position amounts for financial instruments classified by the university within Level 3 of the fair value hierarchy defined above for the years ended June 30, 2019 and 2018.

	-	Balance ne 30, 2018	and	t Realized Unrealized ns (Losses)		chases, Sales Settlements Net	Transfers in/(out) of Level 3, net	-	Balance ne 30, 2019
Investments (by strategy) Private capital Real assets Other investments	\$	118,087 18,833 67,688	\$	27,647 4,894 2,308	s	3,907 31,288 1,801	\$ (18,718) 55,585 (1,614)	\$	130,923 110,600 70,183
Total	\$	204,608	\$	34,849	\$	36,996	\$ 35,253	\$	311,706

It is probable that all of the real assets reported as Level 3 above will be sold at an amount different from the net asset value of the university's ownership interest in partners' capital. The fair value of these investments has been estimated at the expected selling price of these investments based on sale negotiations in process at June 30, 2019.

The amount of realized and unrealized gains (losses) for Level 3 investments for the period included in net assets attributable to the change in unrealized gains or losses relating to assets still held at June 30, 2019, reported as investment returns net of endowment spending in the Statements of Activities by type of investment is:

Private capital	\$	29,126
Real assets		(1,436)
Other investments		1,060
Total	8	28,750

	_	Balance ne 30, 2017	and	t Realized Unrealized ns (Losses)	chases, Sales Settlements Net	Transfers in/(out) of Level 3, net	Balance ne 30, 2018_
Investments (by strategy)							
Private capital	\$	94,045	\$	4,933	\$ 16,109	\$ 3,000	\$ 118,087
Real assets		-		(214)	9,945	9,102	18,833
Other investments		66,645		2,890	 6,719	 (8,566)	 67,688
Total	\$	160,690	\$	7,609	\$ 32,773	\$ 3,536	\$ 204,608

(All amounts in thousands of dollars)

The amount of realized and unrealized gains (losses) for Level 3 investments for the period included in net assets attributable to the change in unrealized gains or losses relating to assets still held at June 30, 2018, reported as investment returns net of endowment spending in the Statements of Activities by type of investment is:

Private capital	\$ 4,968
Real assets	(27,190)
Other investments	 1,339
Total	\$ (20,883)

3. Investment Return

The following summarizes the return on investments. Investment income represents earnings on non-endowed funds. Return on investments is presented net of investment management fees. Certain investments, including some but not all of those in the absolute return and private capital categories, report investment returns net of fees.

	 2019	2018		
Investment return	\$ 27,482	\$	21,565	
Pooled endowment dividends and interest income,	(35,492)		(27,538)	
net of investment management fees Pooled endowment distribution in excess of income	376,804		350,433	
Pooled endowment spending distribution	341,312		322,895	
Investment gains, net	644,999		835,751	
Gains distributed as endowment distribution	 (376,804)		(350,433)	
Investment gains net of endowment spending distribution	 268,195		485,318	
Net investment return	\$ 636,989	\$	829,778	

4. Endowment

The state of Missouri has adopted legislation that incorporates the provisions outlined in the Uniform Prudent Management of Institutional Funds Act (UPMIFA). The statutory guidelines contained in this legislation relate to the prudent management, investment, and expenditure of donor-restricted endowment funds held by charitable organizations. Additionally, the legislation specifies factors for fiduciaries to consider prior to making a decision to appropriate from or accumulate into an institution's endowment funds.

At June 30, 2019, the university's endowment consists of 3,631 individual donor-restricted endowment funds and Board of Trustees or management-designated endowment funds for a variety of purposes plus split-interest agreements and other net assets where the assets have been designated for endowment. The net assets associated with endowment funds, including funds designated by the Board of Trustees or management to function as endowments, are classified and reported based on the existence or absence of donor-imposed restrictions.

(All amounts in thousands of dollars)

The university has interpreted Missouri UPMIFA as requiring the preservation of the original gift as of the gift date of the donor-restricted endowment funds absent explicit donor stipulations to the contrary. As a result of this interpretation, the university classifies as net assets with donor restrictions, (a) the original value of gifts donated to the donor-restricted endowment, (b) the original value of subsequent gifts to the donor-restricted endowment, (c) accumulations to the donor-restricted endowment made in accordance with the direction of the applicable donor gift instrument at the time the accumulation is added to the fund. The remaining portion of donor-restricted endowment funds that are not restricted in perpetuity are considered restricted until the donor-imposed stipulations attached to those amounts have been met by actions of the university and/or passage of time and appropriated for expenditure in a manner consistent with the standard of prudence prescribed by UPMIFA.

Endowment net asset composition, which includes the effect of changes in endowment investments as well as other endowment-related assets and liabilities, by type of fund as of June 30, 2019:

	 thout Donor Sestriction	 ith Donor Sestriction	Total		
Donor-restricted endowment funds Board-designated endowment funds	\$ - 2,845,594	\$ 4,891,626 271,705	\$ 4,891,626 3,117,299		
Total endowment funds	\$ 2,845,594	\$ 5,163,331	\$ 8,008,925		

Changes in endowment net assets for the year ended June 30, 2019:

	Without Donor Restriction			ith Donor estriction	Total		
Endowment net assets, beginning of year	\$	2,757,498	\$	4,882,671	\$	7,640,169	
Investment return Net investment income Net appreciation (realized and		(15,332)		(18,647)		(33,979)	
unrealized)		282,227		366,179		648,406	
Total investment return		266,895		347,532		614,427	
Gifts		140		120,479		120,619	
Appropriation of endowment assets for expenditure Net transfers of funds		(147,447) 9,576		(193,865) 30,582		(341,312) 40,158	
Allocation of endowment return to treasurer's investment pool Other activity		(44,780) 3,712		(23,962) (106)		(68,742) 3,606	
Endowment net assets, end of year	\$	2,845,594	\$	5,163,331	\$	8,008,925	

Of the amount classified as endowment net assets with donor restrictions, \$2,546,281 represents the portion of endowment funds subject to time restrictions under Missouri's enacted version of UPMIFA.

(All amounts in thousands of dollars)

Endowment net asset composition by type of fund as of June 30, 2018:

	hout Donor estriction	 ith Donor estriction	Total		
Donor-restricted endowment funds Board-designated endowment funds	\$ 2,757,498	\$ 4,649,476 233,195	\$	4,649,476 2,990,693	
Total endowment funds	\$ 2,757,498	\$ 4,882,671	\$	7,640,169	

Changes in endowment net assets for the year ended June 30, 2018:

	Without Donor Restriction			ith Donor estriction	Total		
Endowment net assets, beginning of year	\$	2,561,367	\$	4,524,663	\$	7,086,030	
Investment return							
Net investment income		(11,918)		(14,423)		(26,341)	
Net appreciation (realized and							
unrealized)		367,415		478,789		846,204	
Total investment return		355,497		464,366		819,863	
Gifts		140		107,116		107,256	
Appropriation of endowment assets for							
expenditure		(139,749)		(183,146)		(322,895)	
Net transfers of funds		29,825		(1,504)		28,321	
Allocation of endowment return to treasurer's							
investment pool		(53,623)		(20,933)		(74,556)	
Reclassification of deficits in donor-designated							
funds		35		(35)		-	
Other activity		4,006		(7,856)		(3,850)	
Endowment net assets, end of year	\$	2,757,498	\$	4,882,671	\$	7,640,169	

Of the amount classified as endowment net assets with donor restrictions, \$2,465,832 represents the portion of endowment funds subject to time restrictions under Missouri's enacted version of UPMIFA.

Endowment by Purpose

The purpose of endowment funds as of June 30, 2019:

	Without Donor With Donor Restriction Restriction					Total		
Restricted for general activities	\$	2,378,476	\$	3,473,772	\$	5,852,248		
Restricted for student assistance		315,546		1,015,986		1,331,532		
Restricted for buildings and renovations		151,549		634,711		786,260		
Life income		23		38,862		38,885		
Total endowment net assets								
	\$	2,845,594	\$	5,163,331	\$	8,008,925		

(All amounts in thousands of dollars)

The purpose of endowment funds as of June 30, 2018:

	 ithout Donor Restriction	 ith Donor Sestriction	Total	
Restricted for general activities	\$ 2,316,243	\$ 3,235,730	\$ 5,551,973	
Restricted for student assistance	299,794	974,101	1,273,895	
Restricted for buildings and renovations	141,438	635,122	776,560	
Life income	 23	 37,718	 37,741	
Total endowment net assets	 _		 	
	\$ 2,757,498	\$ 4,882,671	\$ 7,640,169	

Endowment Funds With Deficits

As determined under UPMIFA, the fair value of assets associated with individual donor-restricted endowment funds may fall below the value of the initial and subsequent donor gift amounts (i.e., deficit). When donor endowment deficits exist, they remain classified as net assets with donor restrictions. Deficits of this nature were immaterial as of June 30, 2019 and 2018, respectively. The deficits resulted largely from unfavorable market fluctuations that occurred shortly after the investment of newly established endowments.

Return Objectives and Risk Parameters

The university has adopted endowment investment and spending policies that attempt to provide a predictable stream of funding to programs supported by its endowment while seeking to maintain the purchasing power of endowment assets. Under this policy, the return objective for the endowment assets, measured over a full market cycle, shall be to meet or exceed the return of its policy benchmark, based on the endowment's target allocation applied to the appropriate individual benchmarks. The university expects its endowment funds, over time, to provide an average rate of return that will exceed the sum of inflation and the spending rate. Actual returns in any given year may vary from this amount.

Strategies Employed for Achieving Investment Objectives

To achieve its long-term rate of return objectives, the university relies on a total return strategy in which investment returns are achieved through both capital appreciation (realized and unrealized gains) and current yield (interest and dividends). The university targets a diversified global asset allocation that places greater emphasis on equity-based and alternative investments to achieve its long-term objectives within prudent risk constraints.

Endowment Spending Allocation and Relationship of Spending Policy to Investment Objectives

The university has an endowment spending distribution policy designed to stabilize annual spending levels and preserve the real value of the endowment over time. Under this policy, earnings of the pooled endowment are distributed at a rate set annually to the schools and other units of the university. Consideration is given to the provisions of UPMIFA in determining the amount to appropriate. This spending rate must fall within the range of 3.0% to 5.5% of the five-year average market value of a unit of the pooled endowment. For 2019, the spending rate from the pooled endowment was 4.5% of the beginning market value of the pooled endowment. The spending rate is funded from current earnings and, in years when current earnings are insufficient, from previously accumulated earnings of the endowment.

(All amounts in thousands of dollars)

The university's endowment assets at June 30 are as follows:

	2019 2018				
Pooled endowment and other funds	\$	9,001,587	\$	8,471,155	
Life income trusts and pools		79,529		80,779	
Externally administered trusts		31,533		32,123	
Separately invested endowment		9,140		7,085	
Total		9,121,789		8,591,142	
Less: Operating funds invested in pool		(991,306)		(903,750)	
Net endowment assets	\$	8,130,483	\$	7,687,392	

5. Liquidity and Availability of Resources

At June 30, 2019, the university's financial assets available for general expenditures within one year of the balance sheet date are as follows:

	2019
Total assets at year end	\$14,144,232
Less:	
Accounts and notes receivable due in more than one year	(107,520)
Pledges receivable unavailable for general expenditure	(301,655)
Donor-restricted endowment funds	(4,981,501)
Board-designated endowment funds	(3,148,982)
Other long-term investments	(1,173,200)
Other assets	(272,499)
Fixed assets	(2,736,428)
Total financial assets available within one year	\$1,422,447

The university's endowment funds consist of donor-restricted and board-designated endowment funds. As described in Note 4, the university has an endowment spending distribution policy with a spending rate range of 3.0% to 5.5% of the five-year average market value. For fiscal year 2020, the Board of Trustees approved a spending rate which approximates 4.6% of the beginning market value of the pooled endowment. An endowment payout of \$404,956, which includes an allocation to the treasurer's investment pool, will be available for operations during fiscal year 2020.

(All amounts in thousands of dollars)

In addition to these available financial assets, the university's annual expenditures will be primarily funded by current year operating revenues including tuition, patient services income, and sponsored research income. As part of the university's liquidity management, a policy is in place to structure its financial assets to be available as general expenditures, liabilities, and other obligations come due. The university also invests cash in excess of daily requirements in short-term investments. Furthermore, although the university does not intend to spend from its board-designated endowment funds other than amounts appropriated for general expenditure as part of its annual budget approval and appropriation process, amounts from its board-designated endowment that are free from investment restrictions could be made available if necessary. Other long-term investments are primarily composed of amounts designated by the university as reserves. Such investments are without donor restriction and could be drawn upon in the event of extreme stress. In the event of an unanticipated liquidity need, the university could also draw upon available lines of credit which were approximately \$200,000 at June 30, 2019.

6. Accounts and Notes Receivable

Accounts and notes receivable at June 30 were as follows:

	 2019	2018			
Patient services	\$ 472,166	\$ 398,705			
Student and parent loans					
Parent loan fund	45,076	46,095			
Government student loans	26,222	33,332			
Institutional student loans	22,333	22,780			
Due from affiliates	166,162	108,872			
Sponsored project receivables	89,050	56,028			
Other	 109,352	61,132			
	930,361	726,944			
Less: Allowance for contractual adjustments					
and doubtful accounts	 (309,036)	 (232,259)			
Total	\$ 621,325	\$ 494,685			

The university is exposed to credit risk on amounts receivable from student and parent loans. Parent loan funds are offered by the university as a way for parents to finance their children's education at a fixed rate. Institutional student loans are offered by the university based on financial need. Both parent and institutional loans typically have ten year terms and, in the case of parent loans, existing economic conditions are evaluated annually in determining the interest rates for these loans. Government sponsored student loans carry minimal risk for the university.

(All amounts in thousands of dollars)

The principal credit quality indicator used by the university for the portfolio of non-government student and parent loans is collection experience. In order to reduce its credit risk, the university has adopted credit policies which include a review of credit limits and maintaining an active collections process with the assistance of third party collection agencies as necessary. At June 30, 2019, the allowance for parent and institutional student loans was \$4,226 compared to \$4,377 at June 30, 2018. Allowances are established based on management's best estimate of exposure at June 30 and are influenced by historical losses, existing economic conditions, and the current payment activity on loans. Activity in these allowances was not significant.

Parent loans and institutional student loans are sent to a third party collection agency if the loan is past due for a period of time and the university has been unable to collect payment. As these loans are non-dischargeable in bankruptcy, accounts are not typically considered uncollectible until all collection efforts have been exhausted with no receipt of payment. At this time, a loan will be written off. The carrying amount of accounts receivable approximate fair value because of the short maturity of these financial instruments.

7. Notes and Bonds Payable

Outstanding principal on bonds and notes payable at June 30, 2019 and 2018 consists of the following:

	Rates at June 30, 2019	Maturity	2019	2018
Missouri Health and Educational Facilities Authority \$142,400 of 1996A, B, C and D Series Variable Rate Bonds, due in full	.45% - 2.26%	September 1, 2030	\$ 142,400 \$	142,400
\$88,000 of 2000B and C Series Variable Rate Bonds, due in full	.45% - 2.30%	March 1, 2040	88,000	88,000
\$25,135 of 2003B Series Variable Rate Bonds, due in full	.50% - 2.30%	February 15, 2033	25,135	25,135
\$22,985 of 2011A Series Revenue Bonds due in full	5.00%	November 15, 2041	22,985	22,985
\$96,350 of 2011B Series Revenue Bonds due in full November 15, 2030 (\$39,050) and November 15, 2037 (\$57,300)	5.00%	November 15, 2030 and 2037	96,350	96,350
877,495 of 2011C Series Revenue Bonds due serially from November 15, 2012 to November 15, 2037	.75% - 5.06%	November 15, 2037	54,360	57,740
\$200,785 of 2012A Series Revenue Bonds due serially from February 15, 2023 to February 15, 2047	2.39% - 3.69%	February 15, 2047	200,785	200,785
\$150,000 of 2014A Series Revenue Bonds due in full	4.07%	October 15, 2044	150,000	150,000
\$402,920 of 2016A Series Revenue Bonds due in full January 15, 2036 (\$109 ,300) and January 15, 2046 (\$293,620)	3.47% - 3.65%	January 15, 2036 and 2046	402,920	402,920
\$272,750 of 2016 B Series Revenue Bonds due in full	3.09%	September 15, 2051	272,750	272,750
\$375,000 of 2017 A Series Revenue Bonds, due in full	3.65%	August 15, 2057	375,000	375,000
Other Bonds: \$131,435 of 2015A Series Taxable Bonds due in full	3.79%	October 15, 2055	131,435	131,435
Other notes payable			105,377	68,798
Total outstanding notes and bonds payable			2,067,497	2,034,298
Unamortized original issue premiums/discounts and				
cost of issuance, net			(3,410)	(3,517)
Total			\$ 2,064,087 \$	2,030,781

(All amounts in thousands of dollars)

Bonds payable are redeemable at the option of the university at various times from 2019 through 2057. The university is required to maintain certain ratios and comply with other restrictive covenants principally that the university maintain a ratio of expendable financial resources to debt of at least 1.25 times. The university is in compliance with this covenant. During 2019 and 2018, interest, accretion of debt discount and related fees incurred on notes and bonds payable totaled \$71,054 and \$67,862, respectively.

Maturities on notes and bonds payable for the next five fiscal years are as follows:

2020	\$ 8	33,413
2021	1	14,744
2022		11,743
2023		22,477
2024		2,577
Thereafter	1,93	32,543

During fiscal 2018, the university issued \$375,000 of taxable Series 2017A Missouri Health and Educational Facilities Authority (MOHEFA) bonds. The bonds bear a fixed rate of 3.652% and will mature on August 15, 2057. The proceeds of these bonds will be used to finance various construction projects.

The university has other lines of credit, which generally expire annually, aggregating \$407,520, of which \$301,956 is available at June 30, 2019. The university expects that these lines of credit will be renewed but can make no assurances.

8. Derivative and Other Financial Instruments

The university utilizes derivative instruments including futures, swaps, and options, to manage market risk, to provide temporary investment exposure in stocks and bonds, and to manage currency and interest rate exposures. When directly implementing a derivative strategy, the university uses a third party manager to execute, settle and manage the positions on a non-discretionary basis. These contracts are valued at periodic intervals such as daily, monthly, and quarterly as well as at June 30, with the resulting changes in the values of the contracts either added to or deducted from the university's custodial account. Gains or losses from these derivative instruments are reported as realized and unrealized gains or losses in the Consolidated Statements of Activities. Indirect strategies in derivatives held by limited partnerships and commingled investment trusts in which the university invests pose no off-balance sheet risk to the university due to the limited liability structure of the investments. Derivatives are also used to manage operating expenses but are not material to the consolidated financial statements. No derivative contracts are designated as hedges for accounting purposes.

9. Functional Expenses

Operating expenses are reported on the Consolidated Statements of Activities in natural categories. Expenses reported by functional categories include allocations of costs for operation and maintenance of plant, interest on indebtedness and depreciation expense. Operation and maintenance of plant and depreciation are allocated to functional categories largely based on square footage. Interest expense is allocated based on specific identification of the uses of debt proceeds. Instruction expenses include instruction, departmental research and patient care costs.

(All amounts in thousands of dollars)

Operating expenses by functional and natural classification for the year ended June 30, 2019 are as follows:

	mpensation nd benefits		Supplies, ervices and other	De	preciation	Interest	Total
Instruction	\$ 1,345,432	\$	738,779	\$	67,951	\$ 18,369	\$ 2,170,532
Research	332,661		155,509		41,961	10,976	541,107
Academic Support	166,972	-			33,684	11,605	212,260
Student Services	44,379		49,338		6,018	2,793	102,527
Institutional Support	109,307		48,275		5,764	1,151	164,497
Auxiliary Enterprises	18,946		54,136		32,451	20,597	126,130
Other	 23,472		14,042		1,029	 138	 38,681
Total	\$ 2,041,168	\$	1,060,079	\$	188,858	\$ 65,629	\$ 3,355,734

Operating expenses by functional and natural classification for the year ended June 30, 2018 are as follows:

	npensation ad benefits	Supplies, rvices and other	De	preciation	Interest	Total
Instruction	\$ 1,215,660	\$ 624,100	\$	62,283	\$ 17,418	\$ 1,919,461
Research	318,069	168,165		41,377	10,166	537,777
Academic Support	150,790	8,510		31,004	12,892	203,196
Student Services	39,968	47,329		6,557	2,794	96,648
Institutional Support	104,035	44,431		6,173	1,196	155,835
Auxiliary Enterprises	17,580	52,589		29,236	17,748	117,153
Other	23,996	 4,982		3,840	 832	 33,650
Total	\$ 1,870,098	\$ 950,106	\$	180,470	\$ 63,046	\$ 3,063,720

10. Commitments and Contingencies

At June 30, 2019, the university had outstanding commitments under certain construction contracts in the amount of \$88,956.

The university maintains a self-insurance program for professional liability at the Medical School and a separate program for Washington University Physicians in Illinois. This program is supplemented with commercial excess insurance above the university's self-insurance retention. Funding for the program reserves is based on claims made. The assets supporting the funded reserve are reported as investments in the Consolidated Statements of Financial Position. The university also accrues for an estimate of claims incurred but not reported. Reserves, funded and unfunded, are based upon actuarial studies and represent undiscounted estimated claims and related costs. The total self-insurance reserves at June 30, 2019 and 2018, respectively, were \$84,236 and \$73,756. Self-insurance reserves are necessarily estimates based on historical loss experience and other factors, and while management believes that the reserves are adequate, the ultimate liabilities may be in excess of or less than the amounts provided.

(All amounts in thousands of dollars)

The university is a party, along with other universities, to an agreement with a reciprocal risk retention group for purposes of obtaining general liability and auto liability insurance coverage in excess of a pre-determined retention level. Under the terms of these agreements, the university can be called upon to make additional capital contributions. In management's view, any such capital calls would not be material.

The university is involved in various legal proceedings arising in the normal course of operations. Although the outcome of any legal proceeding cannot be predicted with certainty, it is the opinion of the university's management that the outcome of these proceedings individually or in the aggregate, will not have a material adverse effect on the business, Consolidated Statements of Activities, financial position or liquidity of the university.

11. Retirement Plan

The university provides its faculty and staff with a defined contribution (403(b)) retirement savings plan in which employee contributions, university contributions and investment earnings accumulate to assist employees at retirement. Participating employees own individual retirement accounts through the Teachers Insurance and Annuity Association (TIAA) and College Retirement Equity Fund (CREF). Under this arrangement, the university and plan participants make monthly contributions to TIAA-CREF. For employees who were benefits eligible as of August 31, 2006, the amount of contribution made by the university, commencing after two years of eligible service, is based upon the employee's age and salary. For benefits-eligible employees hired or rehired after August 31, 2006, the university contribution commences after two years of eligible service and is based upon the employee's years of eligible service and salary. Vesting provisions are full and immediate. The university's share of the cost of these benefits in 2019 and 2018 was \$88,923 and \$82,065, respectively.

12. Agreements With Affiliated Hospitals

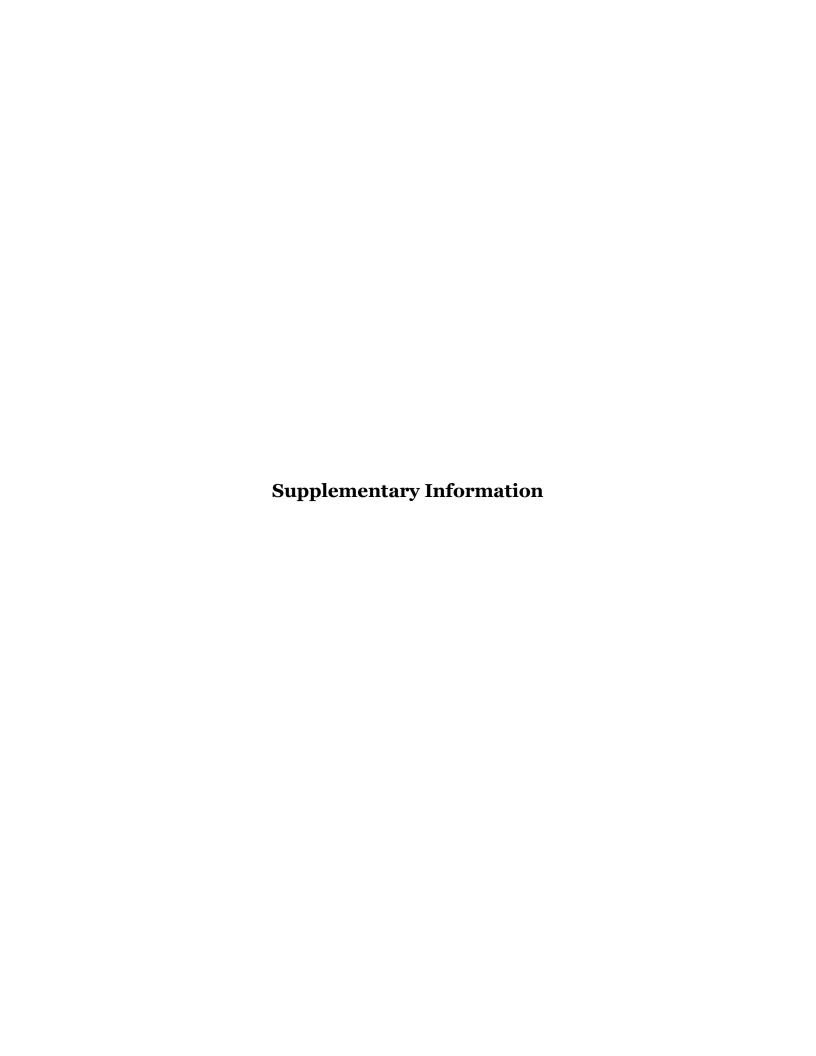
The university has affiliation agreements, that expire December 31, 2027, with Barnes Jewish Hospital (BJH) and St. Louis Children's Hospital (SLCH), collectively the Hospitals. These agreements relate to various operating activities of Barnes Jewish Hospital at Barnes Jewish West County Hospital (BJWCH), Barnes Jewish Orthopedic Center (OC) in Chesterfield, the Siteman Cancer Center – South County, and the Children's Specialty Care Center in Town and Country.

The terms of the affiliation agreements provide for the university to be responsible for providing professional medical staff and direction, supervision of residents and interns, appropriate resources for research and medical education, and participation in joint clinical planning. BJH and SLCH are responsible for the hospitals and health care delivery facilities. BJH and SLCH compensate the university for services provided by the university through a fixed annual base payment (adjusted annually for inflation) and an additional contingent payment equal to a share of the combined BJH and SLCH adjusted net operating income. The combined compensation payments are reported as Affiliated hospital revenue on the Consolidated Statements of Activities (see footnote 1). In addition, the university derives revenue from patient services provided at Barnes-Jewish at St. Peters Hospital under an agreement with that hospital and BJH. During 2013, BJH agreed to fund on a cost-reimbursement basis over a period of years, certain expenditures by the university. Payments of \$36,652 and \$37,941 were received or accrued as gifts on the Consolidated Statements of Activities under the agreement during 2019 and 2018, respectively.

(All amounts in thousands of dollars)

13. Subsequent Events

The university has performed an evaluation of subsequent events through September 25, 2019, which is the date the consolidated financial statements were issued.



Cluster Title/Federal Grantor/Program Title	CFDA Number	Pass Through Entity	Pass-through Entity Identification Number	Total Expenditures	Passed to Sub- Recipients
Research and Development Cluster					
DEPARTMENT OF DEFENSE					
Advanced Research Projects Agency					
Research and Technology Development	12.910			\$200,397	\$-
Research and Technology Development	12.910	Brown University	00001198	45,077	-
Research and Technology Development	12.910	Vanderbilt University Medical Center	HR00111820001	829,136	-
Research and Technology Development	12.910	Wesleyan University	HR00111820042	20,408	-
Research and Technology Development	12.910	Zyvex Labs,LLC	140D6318C0072	48,806	-
Defense Advanced Research Projects Agency					
Defense Advanced Research Projects Agency	12.RD	Raytheon BBN Technologies	HR001117C0049	180,236	-
Defense Advanced Research Projects Agency	12.RD	Two Six Labs	HR00117C0111	672,235	-
Defense Threat Reduction Agency					
Basic Scientific Research - Combating Weapons of Mass Destruction	12.351			891,713	358,698
Basic Scientific Research - Combating Weapons of Mass Destruction	12.351	Georgia State University	HDTRA11610033	234,029	-
Department of Defense					
Department of Defense	12.RD	Johns Hopkins University	USAMRA(DOD)	2,667	-
Department of Defense	12.RD	North Carolina State University	H9823019D0012	22,646	-
Department of the Air Force, Material Command		•			
Air Force Defense Research Sciences Program	12.800			622,248	94,127
Air Force Defense Research Sciences Program	12.RD	Massachusetts Institute of Technology	FA870215D0001	11,503	-
Air Force Defense Research Sciences Program	12.800	UES, INC.	FA865015D5405	14,466	-
Department of the Navy, Office of the Chief of Naval Research					
Applied Research and Exploratory Development	12.RD		N0001417P7002	85	-
Applied Research and Exploratory Development	12.RD		N0001418C2017	138,252	-
Applied Research and Exploratory Development	12.RD	Univesity of Southern California	N000141812632	59,878	-
Basic and Applied Scientific Research	12.300	•		923,655	-
Basic and Applied Scientific Research	12.300	University of California, Davis	N000141712961	313,103	_
U.S. Army Material Command			1, 2	0 0/ -0	
Military Medical Research and Development	12.RD	Arizona State University	W911NF19C0039	1,704	-
Military Medical Research and Development	12.RD	CFD Research Corporation	W911QY17C0008	82,227	-
Basic Scientific Research	12.431		., ., ., .,	719,472	_
Basic Scientific Research	12.431	Georgia Institute of Technology	W911NF1310244	(103)	_
Basic Scientific Research	12.431	Georgia Institute of Technology	W911W61720002	61,168	-
Basic Scientific Research	12.431	Leonard Wood Institute	W911NF1420034	46,771	-
Basic Scientific Research	12.431	University of Michigan	SUBK00009859	139,871	-
Basic Scientific Research	12.431	University of Minnesota	W911NF1810240	201,967	-
Basic Scientific Research	12.431	Vanderbilt University	W911NF161069	45,472	-
U.S. Army Medical Command		· · · · · · · · · · · · · · · · · · ·	,,	1011/-	
Military Medical Research and Development	12.420			7,955,515	652,848
Military Medical Research and Development	12.420	Brigham and Women's Hospital	W81XWH1510269	56,719	-3-,
Military Medical Research and Development	12.420	Johns Hopkins University	W81XWH09200108	3,941	_
Military Medical Research and Development	12.420	Johns Hopkins University	W81XWH1020090	2,595	_
Military Medical Research and Development	12.420	Johns Hopkins University	W81XWH-15-2-0067	2,908	_
Military Medical Research and Development	12.420	Northern California Institute for Research and Education	W81XWH1310259	5,645	-
Military Medical Research and Development	12.420	St. Louis College of Pharmacy	W81XWH1610235	31,194	_
Military Medical Research and Development	12.420	St. Louis University	WX81XWH1810140	72,811	_
Military Medical Research and Development	12.420	Stanford University	W81XWH1510131	(1,727)	_
Military Medical Research and Development	12.420	University of California, San Diego	W81XWH1710393	38,390	_
Military Medical Research and Development	12.420	University of Kentucky	W81XWH1210550	12,415	_
Military Medical Research and Development	12.420	University of Minnesota	W81XWH1710633	14,061	-
Military Medical Research and Development	12.420	University of Missouri	W81XWH1/10033 W81XWH1520037	71,672	=
Military Medical Research and Development Military Medical Research and Development		University of Pittsburgh	W81XWH152003/ W81XWH1720073	138	-
Military Medical Research and Development Military Medical Research and Development	12.420 12.420	University of Pittsburgh University of Virginia	W81XWH1720073 W81XWH1010818	138 33,121	-
Military Medical Research and Development Military Medical Research and Development		Veterans Research and Education Foundation	W81XWH1010818 W81XWH1810548	33,121 65,006	-
Military Medical Research and Development Military Medical Research and Development	12.420 12.420	Wayne State University	W81XWH1810548 W81XWH180039	26,132	-
minuty medical research and Development	12.420	rrayine state University	***************************************	20,132	-

Poster P		CFDA		Pass-through Entity	Total	Passed to Sub-
Part	Cluster Title/Federal Grantor/Program Title		Pass Through Entity			
Mesenser fellousible protogon fellocation (Miscol Post Control Federal Contro	DEPARTMENT OF EDUCATION					
Personal Post Section Post Secti	National Institute on Disability and Rehabilitation Research					
Position Pagemine Decident Decident Desire Horizon (1965) 1965 196	Switzer Research Fellowship Program	84.133	Gallaudet University	90RE50200201	26,099	-
Continue	Office of Postsecondary Education					
Professional Exclusional Improve Services and Beach for Children with Disabilities 84,35 Solid University 1,000,000 14,	Overseas Programs - Doctoral Dissertation Research Abroad	84.022			19,518	-
Special Education - Nersoum Development to Improve Services and Beatla for Clidare with Disabilities 40	Graduate Assistance in Areas of National Need	84.200			181,919	-
Positionation Personant	Office of Special Education and Rehabilitative Services					
DEPARTMENT OF DEDARTMENT OF DEDARTMENT OF DEBARTMENT OF	Special Education - Personnel Development to Improve Services and Results for Children with Disabilities	84.325			741,979	-
Page	Special Education - Personnel Development to Improve Services and Results for Children with Disabilities	84.325	Salus University	H325H140002	147,678	-
Department of Energy 1966	TOTAL DEPARTMENT OF EDUCATION				1,117,193	-
Silves S	DEPARTMENT OF ENERGY					
Science Flauncial Assistance Program	Department of Energy					
Science Flanacial Asistateme Program	Office of Science Financial Assistance Program	81.049			5,590,060	1,273,247
Section Sect	Office of Science Financial Assistance Program		Georgia Tech	DESC0012577	127,507	-
Significant Sistence Frequency Significant Sistence Frequency Significant Sistence Frequency Significant S				DESC0013617		_
Persistant processor and pro						-
Persistant processor and pro	Renewable Energy Research and Development	81.087			739,909	315,056
Posis Energy Research and Development		81.087	West Virginia Research Corporation	DEP10000017		-
Posis Energy Research and Development						598
Selection Floreign Count Program			Electric Power Research Institute	10007331		-
Stewardship Science Grant Program	Fossil Energy Research and Development	81.089	University of Illinois, Urbana-Champaigne	DEFE0029161		_
Steam Program Advanced Research Projects Ageny - Energy	Stewardship Science Grant Program	81.112	. , , , , , , , , , , , , , , , , , , ,			_
Advanced Research Projects Agenry - Energy	Stewardship Science Grant Program	81.112	Texas A&M University	DENA0003841		_
Pepartment of Energy	Advanced Research Projects Agency - Energy	81.135	•	•		94,210
Pepartment of Energy	Advanced Research Projects Agency - Energy	81.135	Danforth Plant Science Center	DEAR0000594	142,879	-
Pepartment of Energy	Department of Energy	81.RD		394636	188,331	-
Pepartment of Energy	Department of Energy	81.RD		DEAC0207CH11359	9,778	-
Pepartment of Energy		81.RD				_
Popartment of Energy	Department of Energy	81.RD	Aerosol Dynamics	DESC0013103	101,448	-
Popartment of Energy	Department of Energy	81.RD	Brookhaven National Lab			_
Perentino of Energy Sir D University of California, Lawrence Berkley National Laboratory DEACoog/CH123 145,800 2	Department of Energy	81.RD	Linde LLC	DEFE0031592		-
Paper	Department of Energy	81.RD	Sandia National Labs	DENA0003525	18,395	-
TAL DEPARTMENT OF ENERGY DEPARTMENT OF HEALTH AND HUMAN SERVICES Healthy Marriage Promotion and Responsible Fatherhood Grants 9.0.6 Stater's Support Center St. Louis HIS2015ACFOFAFK0993 23.2.57 - 1.990 (1.01) (Department of Energy	81.RD	University of California, Lawrence Berkley National Laboratory	DEAC0205CH11231	145,809	-
DEPARTMENT OF HEALTH AND HUMAN SERVICES Administration for Children and Families Healthy Marriage Promotion and Responsible Patherhood Grants 9,3,680 Father's Support Center St. Louis HHS2015ACFOFAFK0993 233,257 105,747 1,990 Administration for Community Living ACL National Institute on Disability, Independent Living, and Rehabilitation Research 93,433 Alzeimer's Disease Initiative 93,433 Alzeimer's Disease Initiative 93,670 State Grants for Protection and Advocacy Services 93,873 Agency for Healthcare Research and Quality Research on Healthcare Costs, Quality and Outcomes 93,226 Research on Healthcare Costs, Quality and Outcomes 93,226 Diversity of Maryland 95,073 Sirth Defects and Developmental Disabilities - Prevention and Surveillance 93,084 Prevention of Disease, Disability, and Death by Infectious Diseases 93,084 Nuke University Prevention of Disease, Disability, and Death by Infectious Diseases 93,084 Rush University Prevention of Disease, Disability, and Death by Infectious Diseases 93,084 Rush University Prevention of Disease, Disability, and Death by Infectious Diseases 93,084 Rush University 105,000 Rush	Department of Energy	81.RD	University of Arkansas	DEOE0000779	852	-
Healthy Marriage Promotion and Responsible Fatherhood Grants 9,366 Father's Support Center St. Louis HHS2015ACFOFAFK0993 23,257 10,5747 1,990 (2014)	TOTAL DEPARTMENT OF ENERGY				8,834,430	1,683,111
Healthy Marriage Promotion and Responsible Fatherhood Grants 93.086 Father's Support Center St. Louis HHS2015ACFOFAFK0993 233.257 10574 10	DEPARTMENT OF HEALTH AND HUMAN SERVICES					
Child Abuse and Neglect Discretionary Activities 93.679 Administration for Community Living ACL National Institute on Disability, Independent Living, and Rehabilitation Research 93.431 ACL National Institute on Disability, Independent Living, and Rehabilitation Research 93.432 ACL National Institute on Disability, Independent Living, and Rehabilitation Research 93.433 Alze Grants for Protection and Advocacy Services 93.673 Agency for Healthcare Costs, Quality and Outcomes 93.263 Research on Healthcare Costs, Quality and Outcomes 93.264 Research on Healthcare Costs, Quality and Outcomes 93.265 Centers for Disease Control Birth Defects and Developmental Disabilities - Prevention and Surveillance 93.084 Prevention of Disease, Disability, and Death by Infectious Diseases 93.084 Prevention of Disease, Disability, and Death by Infectious Diseases 93.084 Prevention of Disease, Disability, and Death by Infectious Diseases 93.084 Prevention of Disease, Disability, and Death by Infectious Diseases 93.084 Prevention of Disease, Disability, and Death by Infectious Diseases 93.084 Prevention of Disease, Disability, and Death by Infectious Diseases 93.084 Prevention of Disease, Disability, and Death by Infectious Diseases 93.084 Prevention of Disease, Disability, and Death by Infectious Diseases 93.084 Prevention of Disease, Disability, and Death by Infectious Diseases 93.084 Prevention of Disease, Disability, and Death by Infectious Diseases 93.084 Prevention of Disease, Disability, and Death by Infectious Diseases 93.084 Prevention of Disease, Disability, and Death by Infectious Diseases 93.084 Prevention of Disease, Disability, and Death by Infectious Diseases 93.084 Prevention of Disease, Disability, and Death by Infectious Diseases 93.084 Prevention of Disease, Disability, and Death by Infectious Diseases 93.084 Prevention of Disease, Disability, and Death by Infectious Diseases 93.084 Prevention of Disease, Disability, and Death by Infectious Diseases 93.084 Prevention of Disease, Disability	Administration for Children and Families					
Child Abuse and Neglect Discretionary Activities 93.679 Administration for Community Living ACL National Institute on Disability, Independent Living, and Rehabilitation Research 93.431 ACL National Institute on Disability, Independent Living, and Rehabilitation Research 93.432 ACL National Institute on Disability, Independent Living, and Rehabilitation Research 93.433 Alzebiemer's Diseases Initiative State Grants for Protection and Advocacy Services 93.633 Agency for Healthcare Research and Quality Research on Healthcare Costs, Quality and Outcomes 93.226 Research on Disease, Disability, and Death by Infectious Diseases 93.084 Prevention of Disease, Disability, and Death by Infectious Diseases 93.084 Prevention of Disease, Disability, and Death by Infectious Diseases 93.084 Prevention of Disease, Disability, and Death by Infectious Diseases 93.084 Prevention of Disease, Disability, and Death by Infectious Diseases 93.084 Prevention of Disease, Disability, and Death by Infectious Diseases 93.084 Prevention of Disease, Disability, and Death by Infectious Diseases 93.084 Prevention of Disease, Disability, and Death by Infectious Diseases 93.084 Prevention of Disease, Disability, and Death by Infectious Diseases 93.084 Prevention of Disease, Disability, and Death by Infectious Diseases 93.084 Prevention of Disease, Disability, and Death by Infectious Diseases 93.084 Prevention of Disease, Disability, and Death by Infectious Diseases 93.084 Prevention of Disease, Disability, and Death by Infectious Diseases 93.084 Prevention of Disease, Disability, and Death by Infectious Diseases 93.084 Prevention of Disease, Disability, and Death by Infectious Diseases 93.084 Prevention of Disease, Disability, and Death by Infectious Diseases 93.084 Prevention of Disease, Disability, and Death by Infectious Diseases 93.084 Preventi	Healthy Marriage Promotion and Responsible Fatherhood Grants	93.086	Father's Support Center St. Louis	HHS2015ACFOFAFK0993	233,257	-
ACL National Institute on Disability, Independent Living, and Rehabilitation Research ACL National Institute on Disability, Independent Living, and Rehabilitation Research ACL National Institute on Disability, Independent Living, and Rehabilitation Research Alzheimer's Disease Initiative State Grants for Protection and Advocacy Services 39.363 Memory Home Care Solutions 39.473 Memory Home Care Solutions 39.487 Memory Home Care Solu	Child Abuse and Neglect Discretionary Activities	93.670				1,990
ACL National Institute on Disability, Independent Living, and Rehabilitation Research 93.433 Platform STL 90.643 90.6430 11.013 20.873 Platform STL 90.6430 10.000 11.013 20.873	Administration for Community Living					
ACL National Institute on Disability, Independent Living, and Rehabilitation Research 93.433 Platform STL 90.643 90.6430 11.013 20.873 Platform STL 90.6430 10.000 11.013 20.873	ACL National Institute on Disability, Independent Living, and Rehabilitation Research	93.433			503,011	93,461
Alzheimer's Disease Initiative Space Ini			Platform STL	90BISA00150100		-
Agency for Healthcare Research and Quality Research on Healthcare Costs, Quality and Outcomes 93.26 University of Maryland \$60.1450.2545602 13.47.272 31.584 Research on Healthcare Costs, Quality and Outcomes 93.26 University of Maryland \$60.1450.2545602 58.754 59.754	Alzheimer's Disease Initiative		Memory Home Care Solutions	90ALGG00210100	20,872	-
Research on Healthcare Costs, Quality and Outcomes 93.26 University of Maryland 2 1347,272 31,584 8,888 arch on Healthcare Costs, Quality and Outcomes 93.226 University of Maryland 2 158,01450 258,054 58,7	State Grants for Protection and Advocacy Services	93.873	·		38,443	-
Research on Healthcare Costs, Quality and Outcomes 93.26 Research on Healthcare Costs, Quality and Outcomes 93.07 Revention of Disease, Disability, and Death by Infectious Diseases 93.084 Revention of Disease, Disability, and Death by Infectious Diseases 93.084 Revention of Disease, Disability, and Death by Infectious Diseases 93.084 Revention of Disease, Disability, and Death by Infectious Diseases 93.084 Revention of Disease, Disability, and Death by Infectious Diseases 93.084 Rush University 93.084 Rush University 94.094	Agency for Healthcare Research and Quality					
Research on Healthcare Costs, Quality and Outcomes 93.26 University of Maryland 5R01HS02545602 58,754 - Centers for Disease Control Birth Defects and Developmental Disabilities - Prevention and Surveillance 93.07		93.226			1,347,272	31,584
Centers for Disease ControlBirth Defects and Developmental Disabilities - Prevention and Surveillance93.073181,109281,109-6Prevention of Disease, Disability, and Death by Infectious Diseases93.084Uske University5U54CK00048303136,350136,350136,250Prevention of Disease, Disability, and Death by Infectious Diseases93.084Harvard Pilgram Healthcare5U54CK00048402(535)-6Prevention of Disease, Disability, and Death by Infectious Diseases93.084Rush University5U54CK00048103126,940-6Prevention of Disease, Disability, and Death by Infectious Diseases93.084Rush University6U54CK00048103(65)-6Prevention of Disease, Disability, and Death by Infectious Diseases93.084Rush University6U54CK00048103(67)-6Prevention of Disease, Disability, and Death by Infectious Diseases93.084Viniversity6U54CK00048103(67)-6			University of Maryland	5R01HS02545602		-
Prevention of Disease, Disability, and Death by Infectious Diseases Prevention of Disease, Disability, and Death by Infectious Diseases Prevention of Disease, Disability, and Death by Infectious Diseases Prevention of Disease, Disability, and Death by Infectious Diseases Prevention of Disease, Disability, and Death by Infectious Diseases Prevention of Disease, Disability, and Death by Infectious Diseases Prevention of Disease, Disability, and Death by Infectious Diseases Prevention of Disease, Disability, and Death by Infectious Diseases Prevention of Disease, Disability, and Death by Infectious Diseases Prevention of Disease, Disability, and Death by Infectious Diseases Prevention of Disease, Disability, and Death by Infectious Diseases Prevention of Disease, Disability, and Death by Infectious Diseases Prevention of Disease, Disability, and Death by Infectious Diseases Prevention of Disease, Disability, and Death by Infectious Diseases Prevention of Disease, Disability, and Death by Infectious Diseases Prevention of Disease, Disability, and Death by Infectious Diseases Prevention of Disease, Disability, and Death by Infectious Diseases Prevention of Disease, Disability, and Death by Infectious Diseases Prevention of Disease, Disability, and Death by Infectious Diseases Prevention of Disease, Disability, and Death by Infectious Diseases Prevention of Disease, Disability, and Death by Infectious Diseases Prevention of Disease, Disability, and Death by Infectious Diseases Prevention of Disease, Disability, and Death by Infectious Diseases Prevention of Disease, Disability, and Death by Infectious Diseases Prevention of Disease, Disability, and Death by Infectious Diseases Prevention of Disease, Disability, and Death by Infectious Diseases Prevention of Disease, Disability, and Death by Infectious Diseases Prevention of Disease, Disability, and Death by Infectious Diseases Prevention of Disease, Disability, and Death by Infectious Diseases Prevention of Disease, Disability, and Death	Centers for Disease Control					
Prevention of Disease, Disability, and Death by Infectious Diseases Prevention of Disease, Disability, and Death by Infectious Diseases Prevention of Disease, Disability, and Death by Infectious Diseases Prevention of Disease, Disability, and Death by Infectious Diseases Prevention of Disease, Disability, and Death by Infectious Diseases Prevention of Disease, Disability, and Death by Infectious Diseases Prevention of Disease, Disability, and Death by Infectious Diseases Prevention of Disease, Disability, and Death by Infectious Diseases Prevention of Disease, Disability, and Death by Infectious Diseases Prevention of Disease, Disability, and Death by Infectious Diseases Prevention of Disease, Disability, and Death by Infectious Diseases Prevention of Disease, Disability, and Death by Infectious Diseases Prevention of Disease, Disability, and Death by Infectious Diseases Prevention of Disease, Disability, and Death by Infectious Diseases Prevention of Disease, Disability, and Death by Infectious Diseases Prevention of Disease, Disability, and Death by Infectious Diseases Prevention of Disease, Disability, and Death by Infectious Diseases Prevention of Disease, Disability, and Death by Infectious Diseases Prevention of Disease, Disability, and Death by Infectious Diseases Prevention of Disease, Disability, and Death by Infectious Diseases Prevention of Disease, Disability, and Death by Infectious Diseases Prevention of Disease, Disability, and Death by Infectious Diseases Prevention of Disease, Disability, and Death by Infectious Diseases Prevention of Disease, Disability, and Death by Infectious Diseases Prevention of Disease, Disability, and Death by Infectious Diseases Prevention of Disease, Disability, and Death by Infectious Diseases Prevention of Disease, Disability, and Death by Infectious Diseases Prevention of Disease, Disability, and Death by Infectious Diseases Prevention of Disease, Disability, and Death by Infectious Diseases Prevention of Disease, Disability, and Death	Birth Defects and Developmental Disabilities - Prevention and Surveillance	93.073			281,109	-
Prevention of Disease, Disability, and Death by Infectious Diseases 93.084 Duke University 93.084 Prevention of Disease, Disability, and Death by Infectious Diseases 93.084 Harvard Pilgram Healthcare 93.084 Harvard Pilgram Healthcare 93.084 University 93.084 University 93.084 Harvard Pilgram Healthcare 93.084 University 94.084 University 95.084 University 95.08						468,521
Prevention of Disease, Disability, and Death by Infectious Diseases 93.084 Harvard Pilgram Healthcare 5U54CK00048402 (535) - Prevention of Disease, Disability, and Death by Infectious Diseases 93.084 Rush University 5U54CK00048104 126.940 - Prevention of Disease, Disability, and Death by Infectious Diseases 93.084 Rush University 5U54CK00048103 (87) - Prevention of Disease, Disability, and Death by Infectious Diseases 93.084 University 1U54CK00048103 (126.940 - 1U54CK00048103 (126.			Duke University	5U54CK00048303		
Prevention of Disease, Disability, and Death by Infectious Diseases 93.084 Rush University 93.084 University 94.084 University 95.084 Univers			·			-
Prevention of Disease, Disability, and Death by Infectious Diseases 93.084 Rush University 6U54CK00048103 (87) - Prevention of Disease, Disability, and Death by Infectious Diseases 93.084 University of Pennsylvania 1U54CK00048501 112,018 -						=
Prevention of Disease, Disability, and Death by Infectious Diseases 93.084 Univesity of Pennsylvania 1U54CK00048501 112,018 -						-
						-
	Research on Research Integrity	93.085			87,249	=

Cluster Title/Federal Grantor/Program Title	CFDA Number	Pass Through Entity	Pass-through Entity Identification Number	Total Expenditures	Passed to Sub- Recipients
Occupational Safety and Health Program	93.262			619,275	184,363
Occupational Safety and Health Program	93.262	Applied Particle Technology, LLC	1R43OH01149901	5,261	=
Occupational Safety and Health Program	93.262	Center For Construction Research & Training	5U6oOHoo976209	257,856	-
Occupational Safety and Health Program	93.262	University of Iowa	5U19OH00886812	40,578	=
Occupational Safety and Health Program	93.262	University of Iowa	5U19OH00886813	151,646	-
Centers for Disease Control and Prevention, Investigations and Technical Assistance	93.283			945,076	227,631
National Public Health Improvement Initiative	93.292	Center For Construction Research & Training	U60OH009762	15,791	-
Childhood Obesity Research Demonstration	93-349			46,328	
National Organizations for Chronic Disease Prevention and Health Promotion	93.809	National Association For Chronic Disease Director	1NU58DP00651001	114,345	-
National Organizations for Chronic Disease Prevention and Health Promotion	93.809	National Association For Chronic Disease Director	5NU58DP0061280200	62,137	-
Ebola Support: Transmission and Prevention Control, Public Health Preparedness, Vaccine Development	93.823	Emory University	A022895	6,309	-
Capacity Building Assistance for High-Impact HIV Prevention	93.834			47,774	
Preventive Health Services	93.977			345,843	-
Centers for Disease Control	93.RD		16IPA0001611534	132,268	_
Centers for Disease Control	93.RD	Healthcore, Inc.	200201142070004	232,042	_
Centers for Disease Control	93.RD	St. Louis County	DP181817	18,192	-
Centers for Medicare and Medicaid Services	75	y	,	,-,-	
Pre-existing Condition Insurance Program	93.529	University of Colorado, Denver	5R01GM10022506	(1,061)	_
Food and Drug Administration	75-5-7		J	(-))	
Food and Drug Administration Research	93.103	Johns Hopkins University	5R01FD00481903	(108)	_
Food and Drug Administration Research	93.RD	University of Southern California	HHSF223201400115C	40,292	_
Health Resources and Services Administration	93.112	chirelony of boundern cumornia	111012202014001130	40,292	
Grants to Increase Organ Donations	93.134	Johns Hopkins University	1R39OT311030100	76,973	_
Rural Health Research Centers	93.155	University of Iowa	2U1GRH076331-13-00	15,505	_
Rural Health Research Centers	93.155	University of Iowa	5U1CRH2041909	32,863	
Rural Health Research Centers	93.155	University of Iowa	6U1CRH204191001	123,017	
Maternal, Infant and Early Childhood Home Visiting Grant	93.870	University of Arkansas	5R01LM01248202	149,100	
National Institutes of Health	93.070	Chiversity of the Ransas	310112101240202	149,100	
Environmental Health	93.113			3,368,942	760,465
Environmental Health	93.113	Baylor College of Medicine	5U01ES02671904	78,538	/00,405
Environmental Health	93.113	Baylor College of Medicine Baylor College of Medicine	7U01ES02671904 7U01ES02671905	17,148	-
Environmental Health		Johns Hopkins University	5R01ES02696102		-
Environmental Health	93.113			38,206	-
Oral Diseases and Disorders Research	93.113	University of Louisville	1R01ES02984601	49,886	100.000
	93.121	TT	-D. (a.F.Co.co-r.(a.c.	2,139,063	123,200
NIEHS Superfund Hazardous Substances_Basic Research and Education Human Genome Research	93.143	University of Louisville	5P42ES02371602	200,947	19,856
	93.172	C-lifei- I+ittfll	alla di Ganassa	22,178,963	1,420,592
Human Genome Research	93.172	California Institute of Technology	2U24HG0022319	38,812	-
Human Genome Research	93.172	California Institute of Technology	5U41HG00222318	3,753	-
Human Genome Research	93.172	Ecog-Acrin Cancer Research Group	U10CA180820	10,108	-
Human Genome Research	93.172	Geisinger Clinic	1R01HG00967101A1	11,285	=
Human Genome Research	93.172	Nationwide Children's Hospital	3U41HG00763504S1	84,704	=
Human Genome Research	93.172	Nawgen, Llc	5R41HG00856702	528	=
Human Genome Research	93.172	Stanford University	1UM1HG00944201	117,855	=
Human Genome Research	93.172	Stanford University	5UM1HG00944203	58,174	-
Human Genome Research	93.172	The Broad Institute	1U24HG01026201	100,451	
Human Genome Research	93.172	Vanderbilt University	5RM1HG009034	51,826	-
Research Related to Deafness and Communication Disorders	93.173			7,874,449	574,668
Research Related to Deafness and Communication Disorders	93.173	Barron Associates, Inc.	5R44DC01008003	25,852	-
Research Related to Deafness and Communication Disorders	93.173	Father Flanagan's Boys Home	5R01DC01538502	117,137	=
Research Related to Deafness and Communication Disorders	93.173	Gateway Biotechnology, Inc.	1R41DC01740601	21,041	=
Research Related to Deafness and Communication Disorders	93.173	Jackson Laboratory	5R01DC00430118	31,071	=
Research Related to Deafness and Communication Disorders	93.173	Temple University	5R01DC01306305	17,103	=
Research Related to Deafness and Communication Disorders	93.173	University of Alabama	5R01DC01598002	77,794	-
Research Related to Deafness and Communication Disorders	93.173	University of Kansas	5R01DC00180323	41,931	-
Research Related to Deafness and Communication Disorders	93.173	University of Michigan	1R01DC01609901	76,974	=
Research Related to Deafness and Communication Disorders	93.173	University of Nevada, Reno	5P01AG05144302	255,100	101,056

Cluster Title/Federal Grantor/Program Title	CFDA Number	Pass Through Entity	Pass-through Entity Identification Number	Total Expenditures	Passed to Sub- Recipients
Research Related to Deafness and Communication Disorders	93.173	University of Nevada, Reno	5R01DC01513502	55,955	-
Research and Training in Complementary and Integrative Health	93.213			484,044	-
National Center on Sleep Disorders Research	93.233			61,174	-
Mental Health Research Grants	93.242			25,669,316	5,206,209
Mental Health Research Grants	93.242	Duke University	5R01MH11048804	3,061	-
Mental Health Research Grants	93.242	Duke University	7R01MH11048803	11,887	-
Mental Health Research Grants	93.242	Emory University	5R01MH11469202	139,851	-
Mental Health Research Grants	93.242	Indiana University	5R01MH10846704	74,441	-
Mental Health Research Grants	93.242	Kitware, Inc.	1R41MH11884501	84,811	-
Mental Health Research Grants	93.242	Neurolux, Inc.	1R41MH11652501	146,088	-
Mental Health Research Grants	93.242	Neurolux, Inc.	1R44MH11494401	25,155	-
Mental Health Research Grants	93.242	New York University	P50MH11366201A1	21,683	-
Mental Health Research Grants	93.242	Research Foundation Mental Hygiene	1P50MH11584301	24,144	-
Mental Health Research Grants	93.242	Research Foundation Mental Hygiene	5P50MH11584302	59,482	-
Mental Health Research Grants	93.242	Rutgers University	2U24MH06845716	25,735	=
Mental Health Research Grants	93.242	Rutgers University	5U24MH06845715	49,204	-
Mental Health Research Grants	93.242	Rutgers University	7U24MH06845717	140,298	-
Mental Health Research Grants	93.242	Scripps Research Institute	5R01MH10269805	19,675	=
Mental Health Research Grants	93.242	St. Louis College of Pharmacy	7R01MH092769	6,508	-
Mental Health Research Grants	93.242	State University of New York	5U01HL13155202	738,262	-
Mental Health Research Grants	93.242	State University of New York	5U01HL13155203	2,136	-
Mental Health Research Grants	93.242	State University of New York	5U01HL13155204	143,533	-
Mental Health Research Grants	93.242	The Miriam Hospital	1R01MH11465701	44,291	_
Mental Health Research Grants	93.242	Universidad De O'Higgins	1U01MH11550201	332,822	_
Mental Health Research Grants	93.242	University of California, Los Angeles	2R01MH10002711	92,371	=
Mental Health Research Grants	93.242	University of California, San Diego	5R01MH10734504	18,993	_
Mental Health Research Grants	93.242	University of Minnesota	1R01MH116961	121,333	_
Mental Health Research Grants	93.242	University of Missouri, St. Louis	R01MH108559	269,396	_
Mental Health Research Grants	93.242	University of North Carolina at Chapel Hill	3U01MH11092503S1	22,758	_
Mental Health Research Grants	93.242	University of North Carolina at Chapel Hill	5U01MH11092502	68,507	_
Mental Health Research Grants	93.242	University of South Florida	5D43MH10816903	3,408	_
Mental Health Research Grants	93.242	University of Washington	5R01MH10854804	8,728	_
Mental Health Research Grants	93.242	University of Washington	5R01MH11152004	77,822	_
Mental Health Research Grants	93.242	Yale University	5R01MH10859003	29,931	_
Mental Health Research Grants	93.242	Yale University	5R01MH11274602	35,857	_
Alcohol Research Programs	93.273		3	2,033,922	178,574
Alcohol Research Programs	93.273	Research Foundation For The State University of New York	5U10AA00840128	38	-/ -50/ -
Alcohol Research Programs	93.273	Research Foundation For The State University of New York	5U10AA00840129	246,806	_
Alcohol Research Programs	93.273	Research Foundation For The State University of New York	5U10AA00840130	943,754	_
Alcohol Research Programs	93.273	University of Illinois, Urbana-Champaigne	7R01AA02410303	17,726	_
Alcohol Research Programs	93.273	Yale University	5R01AA02354904	42,587	_
Drug Abuse and Addiction Research Programs	93.279	Tale University	31011102334904	7,871,000	210,002
Drug Abuse and Addiction Research Programs	93.279	Duke University	7R01DA04298502	2,328	210,002
Drug Abuse and Addiction Research Programs	93.279	Eastern Virginia Medical School	1R01DA04675701	13,544	
Drug Abuse and Addiction Research Programs	93.279	RTI International	Ro1DA038632	61,486	
Drug Abuse and Addiction Research Programs	93.279	RTI International	1R01DA04209003		
Drug Abuse and Addiction Research Programs	93.279	RTI International	1R01DA04209003	35,133 26,996	-
Drug Abuse and Addiction Research Programs Drug Abuse and Addiction Research Programs		RTI International			-
Drug Abuse and Addiction Research Programs Drug Abuse and Addiction Research Programs	93.279	Southern Illinois University	5R01DA03582502	(117)	-
	93.279	_	5R01DA03603205	27,473	-
Drug Abuse and Addiction Research Programs	93.279	St. Louis University University of California San Diago	1R01DA04381101A1	1,834	-
Drug Abuse and Addiction Research Programs	93.279	University of California, San Diego	3U24DA04114704S2	73,668	-
Drug Abuse and Addiction Research Programs	93.279	University of California, San Diego	5U01DA04108904	5,474	-
Drug Abuse and Addiction Research Programs	93.279	University of Minnesota	5U01DA04112002	(32)	=
Drug Abuse and Addiction Research Programs	93.279	University of Minnesota	5U01DA04112003	(8,677)	-
Drug Abuse and Addiction Research Programs	93.279	University of Minnesota	5U01DA04112004	1,336,543	-
Drug Abuse and Addiction Research Programs	93.279	University of Minnesota	5U01DA04112005	362,352	-

Cluster Title/Federal Grantor/Program Title	CFDA Number	Pass Through Entity	Pass-through Entity Identification Number	Total Expenditures	Passed to Sub- Recipients
Drug Abuse and Addiction Research Programs	93.279	Virginia Commonwealth University	5R01DA02142109	(3,274)	-
Discovery and Applied Research for Technological Innovations to Improve Human Health	93.286			5,116,928	188,919
Discovery and Applied Research for Technological Innovations to Improve Human Health	93.286	Cornell University	5R21EB02436602	56,003	-
Discovery and Applied Research for Technological Innovations to Improve Human Health	93.286	Kitware, Inc.	5R01EB02139602	20,705	=
Discovery and Applied Research for Technological Innovations to Improve Human Health	93.286	Tetraimaging, Llc	1R41EB02640101A1	30,911	-
Discovery and Applied Research for Technological Innovations to Improve Human Health	93.286	University Of Delaware	1R01EB02757701	29,207	-
Discovery and Applied Research for Technological Innovations to Improve Human Health	93.286	University Of Massachusetts	5U01EB02195602	35	-
Discovery and Applied Research for Technological Innovations to Improve Human Health	93.286	University Of Massachusetts	5U01EB02195603	199,813	-
Discovery and Applied Research for Technological Innovations to Improve Human Health	93.286	University Of Pittsburgh	5R01EB01913504	53,243	-
Minority Health and Health Disparities Research	93.307			324,855	-
Minority Health and Health Disparities Research	93.307	University of Pittsburgh	5R01MD000911805	18,647	-
Trans-NIH Research Support	93.310			812,876	101,912
Trans-NIH Research Support	93.310	Brigham and Women's Hospital	4UG3OD02326803	115,897	- " -
Trans-NIH Research Support	93.310	Brigham and Women's Hospital	5UGOD02326802	8,136	_
Trans-NIH Research Support	93.310	California Institute of Technology	7R01CA18656705	8,854	_
Trans-NIH Research Support	93.310	Drexel University	5UG3OD02334202	26,623	_
Trans-NIH Research Support	93.310	Duke University	5U2COD02337502	2,688	_
Trans-NIH Research Support	93.310	Duke University	5U2COD02337503	11,343	_
Trans-NIH Research Support	93.310	Stanford University	1U54HG01042601	30,839	_
Trans-NIH Research Support	93.310	University of California, San Diego	1U54HL14560801		_
Trans-NIH Research Support	93.310	University of North Carolina at Chapel Hill	1U24DK11620401	74,515 5,729	
Trans-NIH Research Support		University of North Carolina at Chapel Hill	5U24DK1162040102		
Trans-NIH Research Support	93.310	University of Wisconsin, Madison	4UG3OD02328203	209,903 225,675	-
Trans-NIH Research Support	93.310	*			-
National Center for Advancing Translational Sciences	93.310	University of Wisconsin, Madison	5UG3OD02328202	40,025	000.015
9	93.350	Portor Marianasia	-He-TDeer Geese	13,310,213	300,917
National Center for Advancing Translational Sciences National Center for Advancing Translational Sciences	93.350	Duke University Dystonia Medical Research Foundation	5U01TR00180303 U54TR001456	8,258	-
	93.350	•		45,473	-
National Center for Advancing Translational Sciences	93.350	Oregon Health And Science University	1U24TR00230601	25,122	10,130
National Center for Advancing Translational Sciences	93.350	Oregon Health And Science University	5U24TR00230602	337,711	13,967
National Center for Advancing Translational Sciences	93.350	Precision Virologics	7R41TR00186902	32,618	=
National Center for Advancing Translational Sciences	93.350	University of Pittsburgh	5UL1TR00185703	38,125	=
National Center for Advancing Translational Sciences	93.350	Vanderbilt University Medical Center	1U01TR00239801	47,902	-
National Center for Advancing Translational Sciences	93.350	Vanderbilt University Medical Center	5U01TR00239802	45,357	-
National Center for Advancing Translational Sciences	93.350	Yale University	ULTR00186302S2	170,105	-
Research Infrastructure Programs	93.351			6,568,078	364,770
Research Infrastructure Programs	93.351	Columbia University	1R21TR00202901A1	65,627	-
Research Infrastructure Programs	93.351	Texas State University	5R24OD01112010	15,875	-
Research Infrastructure Programs	93.351	University of Oregon	5R24OD01855505	4,261	=
21st Century Cures Act - Beau Biden Cancer Moonshot	93.353			3,780,190	500,595
21st Century Cures Act - Beau Biden Cancer Moonshot	93.353	Fred Hutchinson Cancer Research	2UM1CA15496707	1,214	=
Nursing Research	93.361			1,238,064	96,750
Nursing Research	93.361	Barnes Jewish Hospital	1R15NR01682801A1	14,997	=
Nursing Research	93.361	Brightoutcome Inc.	5R44NR01618303	116,993	-
Nursing Research	93.361	University of California, Irvine	Ro1NR105591	32,655	=
Nursing Research	93.361	University of California, San Francisco	5R01NR01522305	84,206	-
Cancer Cause and Prevention Research	93.393			5,067,603	740,633
Cancer Cause and Prevention Research	93.393	Baylor University	1U19CA20365401A1	30,771	-
Cancer Cause and Prevention Research	93.393	Baylor University	7U19CA20365403	12,496	-
Cancer Cause and Prevention Research	93-393	Mayo Clinic	5U01CA19556802	(75)	=
Cancer Cause and Prevention Research	93-393	Mayo Clinic	5U01CA19556804	87,362	=
Cancer Cause and Prevention Research	93-393	Mayo Clinic	5U01CA19556805	2,412	=
Cancer Cause and Prevention Research	93-393	Memorial Sloan Kettering Cancer Center	1R01CA22323101A1	87,264	_
Cancer Cause and Prevention Research	93-393	Memorial Sloan Kettering Cancer Center	5R01CA2232310111	7,634	_
Cancer Cause and Prevention Research	93-393	Northwestern University	1R01CA21843601	26,954	_
Cancer Cause and Prevention Research	93.393	Ohio State University	5P01CA10073013	221,484	_
Cancer Cause and Prevention Research		Ohio State University Ohio State University	5P01CA100/3013 5P01CA10073015	236,056	=
Cancer Cause and revention Research	93-393	Onto State Offiversity	5F01CA100/3015	230,050	-

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Cancer Cause and Prevention Research	93.393	Opencell Technologies	1R43CA23315301	61,300	=
Cancer Cause and Prevention Research	93.393	Research Foundation For The State University of New York	5R01CA19735103	42,669	=
Cancer Cause and Prevention Research	93.393	Stanford University	5R01CA19369403	35,352	=
Cancer Cause and Prevention Research	93.393	Stanford University	5R01CA19369404	6,661	-
Cancer Cause and Prevention Research	93.393	University of California, San Francisco	5R01CA18568704	13,630	-
Cancer Cause and Prevention Research	93.393	University of Iowa	5R01CA19324904	138,683	-
Cancer Cause and Prevention Research	93.393	University of North Carolina at Chapel Hill	1P01CA22559701	470,249	-
Cancer Cause and Prevention Research	93-393	University of Utah	5U01CA20611002	48,053	=
Cancer Cause and Prevention Research	93.393	University of Utah	5U01CA20611003	282,533	-
Cancer Cause and Prevention Research	93-393	Vanderbilt University	1R01CA22500501A1	16,368	_
Cancer Cause and Prevention Research	93.393	Wake Forest University	1R01CA226078	119,220	_
Cancer Detection and Diagnosis Research	93-394			7,488,320	1,737,406
Cancer Detection and Diagnosis Research	93.394	Boston University	5R01CA20859903	47,205	-5/3/54**
Cancer Detection and Diagnosis Research	93.394	Lasmed LLC	1R43CA20679601A1	63,814	_
Cancer Detection and Diagnosis Research	93.394	New York University School of Medicine	5U24CA21097202	32,805	_
Cancer Detection and Diagnosis Research	93.394	New York University School of Medicine	5U24CA21097203	230,256	_
Cancer Detection and Diagnosis Research	93.394	Princeton University	5U24CA21100002	2,620	_
Cancer Detection and Diagnosis Research	93.394	Princeton University	5U24CA21100003	2,403	
Cancer Detection and Diagnosis Research		University of Arkansas	U24CA215109	25,342	
Cancer Detection and Diagnosis Research	93-394	University of Arkansas Health Sciences	5U01CA18701305		-
Cancer Detection and Diagnosis Research	93-394	University of California, San Francisco	5R01CA21214803	35,874	-
<u> </u>	93-394			265,551	-
Cancer Detection and Diagnosis Research	93-394	University of Illinois	4R01CA02583636	52,296	-
Cancer Detection and Diagnosis Research	93-394	University of Pittsburgh Medical Centr	5U01CA20046603	89,679	-
Cancer Detection and Diagnosis Research	93-394	Vanderbilt University Medical Center	5U01CA15266207	35,407	-0-(-(
Cancer Treatment Research	93-395	All Diricing and	D - C1	10,263,735	385,606
Cancer Treatment Research	93-395	Altor Bioscience Corporation	1R44CA19581201A1	19,710	-
Cancer Treatment Research	93.395	American College Of Radiology	U24CA180803	233,136	-
Cancer Treatment Research	93.395	Brigham & Women's Hospital	3U10CA18082103	(7,196)	=
Cancer Treatment Research	93.395	Brigham & Women's Hospital	3U10CA18082105S1	122,248	=
Cancer Treatment Research	93.395	Brigham & Women's Hospital	U10CA180821	14,042	=
Cancer Treatment Research	93.395	Children's Hospital Of Philadelphia	1U10CA18088601	19,939	-
Cancer Treatment Research	93.395	Children's Hospital Of Philadelphia	1UG1CA18995501	18,256	-
Cancer Treatment Research	93.395	Children's Hospital Of Philadelphia	U10CA180886	143,089	-
Cancer Treatment Research	93.395	Children's Hospital Of Philadelphia	UM1CA097452	41,907	-
Cancer Treatment Research	93.395	Doseimaging	1R41CA20298001A1	15	-
Cancer Treatment Research	93.395	Duke University	3UM1CA186704	68,979	=
Cancer Treatment Research	93.395	Duke University	5UM1CA18670402	(47,212)	=
Cancer Treatment Research	93.395	Duke University	5UM1CA18670403	35,204	=
Cancer Treatment Research	93.395	Duke University	5UM1CA18670404	477,504	=
Cancer Treatment Research	93.395	Duke University	5UM1CA18670704S1	28,857	-
Cancer Treatment Research	93.395	Ecog-Acrin Medical Research Foundation	U10CA180820	79,227	-
Cancer Treatment Research	93.395	Illinois Institute of Technology	5R01CA11250308	2,231	-
Cancer Treatment Research	93.395	Johns Hopkins University	5UM1CA13744307	(7,100)	-
Cancer Treatment Research	93.395	Johns Hopkins University	5UM1CA13744309	12,014	=
Cancer Treatment Research	93.395	Massachusetts General Hospital	2U19CA02123939	366,828	=
Cancer Treatment Research	93.395	Massachusetts General Hospital	5U01NS9366302	3,147	-
Cancer Treatment Research	93.395	Mayo Clinic	5UG1CA18982303	2,000	-
Cancer Treatment Research	93.395	Medical Guidance Systems	1R43CA21068701	(11)	-
Cancer Treatment Research	93.395	NRG Oncology Foundation	1U10CA1808601	47,103	-
Cancer Treatment Research	93.395	NRG Oncology Foundation	5U10CA18086805	64,941	-
Cancer Treatment Research	93-395	NRG Oncology Foundation	U10CA180868	8,836	=
Cancer Treatment Research	93-395	Protexase	1R43CA22483201A1	82,712	_
Cancer Treatment Research	93.395	University of California, Los Angeles	1568GTA552	100,345	_
Cancer Treatment Research	93.395	University of California, Los Angeles	2UM1CA12194709	37,914	_
Cancer Treatment Research	93.395	University of Minnesota	5P01CA11141214	26,472	_
Cancer Treatment Research	93-395	University of Rochester	1R01CA21489001A1	936	-
Cancer Treatment Research	93.395	Chiversity of Rothester	indicazi40900iai	930	-

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Cancer Treatment Research	93-395	University of Rochester	1R01CA21489001A1	14,454	-
Cancer Biology Research	93.396			7,842,800	228,011
Cancer Biology Research	93.396	Dana-Farber Cancer Institute	5R01CA13098809	63,727	=
Cancer Biology Research	93.396	Nupeak Theraputics	1R41CA23594301	110,858	-
Cancer Biology Research	93.396	University of Iowa	5R01CA17474306	22,858	-
Cancer Biology Research	93.396	University of Texas	5R01CA17265204	7,035	=
Cancer Biology Research	93.396	University of Virginia	7R21CA21272603	9,507	-
Cancer Biology Research	93.396	University of Wisconsin	1R01CA18729901A1	14,526	=
Cancer Center Support Grants	93-397			12,206,481	600,828
Cancer Center Support Grants	93-397	Case Western Reserve University	2U54CA16306007	35,661	=
Cancer Center Support Grants	93.397	Case Western Reserve University	2U54CA16306008	6,965	-
Cancer Center Support Grants	93.397	John Hopkins University	5U54CA21017302	8,512	-
Cancer Center Support Grants	93-397	John Hopkins University	U54CA210173	109,790	-
Cancer Center Support Grants	93-397	Sarcoma Alliance	U54CA16851204	65	-
Cancer Center Support Grants	93.397	Sarcoma Alliance	U54CA16851205	4,695	-
Cancer Research Manpower	93.398		*, *	3,894,356	_
Cancer Control	93.399			(315)	_
Cardiovascular Diseases Research	93.837			21,227,753	1,226,230
Cardiovascular Diseases Research	93.837	Albert Einstein College Of Medicine	5R01HL12807105	114,834	, ., ., .
Cardiovascular Diseases Research	93.837	APT Theraputics	1R43HL14069901	38,887	_
Cardiovascular Diseases Research	93.837	Auxagen, Inc.	1R43HL13267901	(259)	-
Cardiovascular Diseases Research	93.837	Boston Children's Hospital	5R01HL10810706	33,047	_
Cardiovascular Diseases Research	93.837	Brigham & Women's Hospital	5P50HL11234905	21,440	_
Cardiovascular Diseases Research	93.837	Brigham & Women's Hospital	5U01HL10142203	8,369	_
Cardiovascular Diseases Research	93.837	Brigham & Women's Hospital	5U01HL13016304	29,827	_
Cardiovascular Diseases Research	93.837	Capella Imaging Llc	4R42HL13934202	433,608	_
Cardiovascular Diseases Research	93.837	Children's Hospital Of Philadelphia	5R01HL13154403	23,394	
Cardiovascular Diseases Research	93.837	Duke University	U10HL084904	6,151	
Cardiovascular Diseases Research	93.837	Emory University	5U01HL12856602	19,309	
Cardiovascular Diseases Research	93.837	Emory University	5U01HL12856603	16,841	
Cardiovascular Diseases Research	93.837	Etiometry Inc	2R44HL1173405	47,619	_
Cardiovascular Diseases Research		•			-
	93.837	Johns Hopkins University	3R34HL10875602S1	(135)	-
Cardiovascular Diseases Research	93.837	Lam Foundation	U54HL127672	673	-
Cardiovascular Diseases Research Cardiovascular Diseases Research	93.837	Massachusetts General Hospital Medical College of Wisconsin	5R01HL13864603 5R01HL12558004	133,522	-
	93.837	5		61,337	-
Cardiovascular Diseases Research	93.837	Medical College of Wisconsin	5R01HL12558009	83,093	-
Cardiovascular Diseases Research	93.837	National Marrow Donor Program	1U24HL138660	2,915	-
Cardiovascular Diseases Research	93.837	New England Research Institutes	1U24HL13569101	20,038	=
Cardiovascular Diseases Research	93.837	New England Research Institutes	4U10HL06827015	(6,866)	=
Cardiovascular Diseases Research	93.837	New York University School Of Medicine	5R01HL04509528	20,036	=
Cardiovascular Diseases Research	93.837	Northwestern University	5R01HL13694203	51,118	-
Cardiovascular Diseases Research	93.837	Ohio State University	60064759	15,533	=
Cardiovascular Diseases Research	93.837	Pennsylvania State University	5U10HL09811506	10	-
Cardiovascular Diseases Research	93.837	Pennsylvania State University	5U10HL09811507	14,593	14,593
Cardiovascular Diseases Research	93.837	Rightcare Solutions, Inc	4R44HL12492303	(3,126)	=
Cardiovascular Diseases Research	93.837	Sentiar, Inc	1R44HL14089601	55,331	-
Cardiovascular Diseases Research	93.837	Sentiar, Inc	5R44HL14089602	77,483	=
Cardiovascular Diseases Research	93.837	St. Louis University	5R01HL12542403	104,130	-
Cardiovascular Diseases Research	93.837	University of Alabama	5P2CHD08685104	24,522	-
Cardiovascular Diseases Research	93.837	University of Alabama	5U01HL12033804	21,479	-
Cardiovascular Diseases Research	93.837	University of Alabama	5U01HL12033805	23	-
Cardiovascular Diseases Research	93.837	University of California, Davis	1UG3HL14180001	48,465	=
Cardiovascular Diseases Research	93.837	University of California, Davis	3UG3HL14180002S1	137,875	-
Cardiovascular Diseases Research	93.837	University of California, Davis	5UG3HL14180002	614,141	=
Cardiovascular Diseases Research	93.837	University of Chicago	5R01HL12689204	60,044	=
Cardiovascular Diseases Research	93.837	University of Cincinnati	1U01HL13175501A1	(3,132)	=
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Cluster Title/Federal Grantor/Program Title	CFDA Number	Pass Through Entity	Pass-through Entity Identification Number	Total Expenditures	Passed to Sub- Recipients
Cardiovascular Diseases Research	93.837	University of Florida	1R01HL13675901A1	29,807	=
Cardiovascular Diseases Research	93.837	University of Kentucky	5R01HL09135708	105,411	=
Cardiovascular Diseases Research	93.837	University of Kentucky	7R01HL05567320	93,742	=
Cardiovascular Diseases Research	93.837	University of North Carolina - Chapel Hill	5U54HL09645814	22,002	=
Cardiovascular Diseases Research	93.837	University of Pennsylvania	5R01HL13490503	48,123	=
Cardiovascular Diseases Research	93.837	University of Rochester	5R34HL13352602	32,680	=
Cardiovascular Diseases Research	93.837	Versiti Wisconsin Inc	2R01HL06883513	9,947	=
Cardiovascular Diseases Research	93.837	Wayne State University	5R01HL10909005	197	=
Lung Diseases Research	93.838			8,708,957	280,256
Lung Diseases Research	93.838	Brigham & Women's Hospital	5P01HL13282502	(20,184)	=
Lung Diseases Research	93.838	Children's Hospital Medical Center	5U01HL13474502	1,871	=
Lung Diseases Research	93.838	Children's Hospital Medical Center	5U01HL13474503	33,577	=
Lung Diseases Research	93.838	Children's Hospital Medical Center	U01HL134745	300	-
Lung Diseases Research	93.838	Johns Hopkins University	UM1HL134590	47,109	-
Lung Diseases Research	93.838	Pennsylvania State University	3U10HL10908606S1	23,922	-
Lung Diseases Research	93.838	Pennsylvania State University	4U10HL10908606	5,014	-
Lung Diseases Research	93.838	Seattle Children's Hospital	1U01HL11462301A1	2,628	-
Lung Diseases Research	93.838	University of Arizona	1U01HL3004501	(6)	=
Lung Diseases Research	93.838	University of Arizona	5U01HL3004502	172	=
Lung Diseases Research	93.838	University of Arizona	5U01HL3004503	542,189	=
Lung Diseases Research	93.838	University of North Carolina at Chapel Hill	5U24HL13899802	3,012	=
Lung Diseases Research	93.838	University of North Carolina at Chapel Hill	5U54HL09645815	51,857	=
Lung Diseases Research	93.838	University of Pittsburgh	5R01HL12512803	13,495	-
Lung Diseases Research	93.838	University of Pittsburgh	5U01HL1995203	(141)	-
Lung Diseases Research	93.838	University of Pittsburgh	5U01HL1995204	161,852	-
Blood Diseases and Resources Research	93.839			10,075,555	1,178,586
Blood Diseases and Resources Research	93.839	APT Theraputics	1R44HL13599301	198,198	-
Blood Diseases and Resources Research	93.839	Children's Hospital of Philadelphia	U10HL069294	16,924	-
Blood Diseases and Resources Research	93.839	Emory University	1R01HL14379401	102,856	=
Blood Diseases and Resources Research	93.839	Kalocyte	1R42HL13596501A1	258,798	=
Blood Diseases and Resources Research	93.839	Kalocyte	5R42HL13596502	147,279	=
Blood Diseases and Resources Research	93.839	Medical College of Wisconsin	1U01HL14347701	6,955	=
Blood Diseases and Resources Research	93.839	Medical University of South Carolina	5R01HL13389601A102R	13,339	=
Blood Diseases and Resources Research	93.839	Rutgers University	5U01HL13381703	18,868	-
Blood Diseases and Resources Research	93.839	University of North Carolina at Chapel Hill	3U54HI09645815S1	1,484	=
Translation and Implementation Science Research for Heart, Lung, Blood Diseases and Sleep Disorders	93.840			537,329	434,454
Translation and Implementation Science Research for Heart, Lung, Blood Diseases and Sleep Disorders	93.840	RASD Rwanda	1U24HL13979002	52,072	-
Arthritis, Musculoskeletal and Skin Diseases Research	93.846			12,859,662	545,213
Arthritis, Musculoskeletal and Skin Diseases Research	93.846	Brigham & Women's Hospital	5U01AR06804302	18,385	-
Arthritis, Musculoskeletal and Skin Diseases Research	93.846	Children's Hospital Corporation	5R34AR06663102	3,547	_
Arthritis, Musculoskeletal and Skin Diseases Research	93.846	Cleveland Clinic	R01AR07413101	9,455	_
Arthritis, Musculoskeletal and Skin Diseases Research	93.846	Columbia University	2R01AR05783606A1	93,691	_
Arthritis, Musculoskeletal and Skin Diseases Research	93.846	Columbia University	5R01AR062947407	223,040	_
Arthritis, Musculoskeletal and Skin Diseases Research	93.846	Johns Hopkins University	5R01AR06406601	(100)	-
Arthritis, Musculoskeletal and Skin Diseases Research	93.846	Northwestern University	1U19AR06952601	24,122	-
Arthritis, Musculoskeletal and Skin Diseases Research	93.846	St. Louis College Of Pharmacy	7R01AR06928003	31,194	_
Arthritis, Musculoskeletal and Skin Diseases Research	93.846	St. Louis University	5R01AR06482105	11,413	_
Arthritis, Musculoskeletal and Skin Diseases Research	93.846	St. Louis University	5R01AR06843803	4,768	
Arthritis, Musculoskeletal and Skin Diseases Research	93.846	Steadman Philippon Research Institute	7R21AR07287003	17,107	
Arthritis, Musculoskeletal and Skin Diseases Research	93.846	University of Colorado	5R01AR06479305	36,954	
Arthritis, Musculoskeietal and Skin Diseases Research	93.846	University of Pennsylvania	1R01AR004/9305 1R01AR07087301A1	5,124	-
Arthritis, Musculoskeletal and Skin Diseases Research	93.846	University of Pennsylvania University of Pennsylvania	5R01AR06906203		=
				19,757	-
Arthritis, Musculoskeletal and Skin Diseases Research Arthritis, Musculoskeletal and Skin Diseases Research	93.846	University of Pennsylvania	5R01AR06906204	4,456	-
,	93.846	University of Rochester	4P50AR05404110	(535)	-
Arthritis, Musculoskeletal and Skin Diseases Research	93.846	University of Southern California	5R01AR07221202	195,968	-
Arthritis, Musculoskeletal and Skin Diseases Research	93.846	University of Texas Houston	1R21AR07287001	47,892	-

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Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847			40,995,631	2,257,218
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	Augusta University	U24DK11525501	91,526	=
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	Baylor Research Institute	1R21DK11136902	31,923	=
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	Boston Unviersity	5R01DK10150104	23,766	-
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	Brigham & Women's Hospital	5U01DK10430805	17,319	-
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	California Institute Of Technology	5R01DK07893808	35,519	-
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	Case Western Reserve University	2U01DK09415707	3,616	=
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	Case Western Reserve University	5U01DK09415708	178,752	-
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	Case Western Reserve University	DK11481201	37,204	-
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	Cedars-Sinai Medical Center	2U01DK06241316	39,139	=
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	Cedars-Sinai Medical Center	3U01DK06241317	79,922	=
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	Children's Mercy Hospital	2U01DK06614316	1,450	-
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	Children's Mercy Hospital	5U01DK06614315	827	_
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	Children's Mercy Hospital	Uo1DK066143	1,954	_
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	George Washington University	2U01DK09824606	17,293	_
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	George Washington University	5U01DK061230	169,662	_
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	George Washington University	5U01DK09824607	179,686	_
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	Henry M Jackson Foundation for the Advancement Of Military Medicine,	1R01DK10411501	2,796	_
		Inc			
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	Icahn School of Medicine Mt. Sinai	2U24DK06242918	68,199	=
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	Icahn School of Medicine Mt. Sinai	5U24DK06242919	90,675	-
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	Joslin Diabetes Center, Inc	1UC4DK10110801	(26)	-
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	Joslin Diabetes Center, Inc	2UC4DK10110802	88,327	=
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	Massachusetts General Hospital	5R01DK10135404	13,033	=
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	Massachusetts General Hospital	5R01DK10135405	239,709	=
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	Mcgill University	5R01DK11073702	12,473	-
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	Medical University of South Carolina	5U01DK10483304	46,733	=
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	Nationwide Children's Hospital	5UM1DK10086602	(3,402)	=
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	Nationwide Children's Hospital	5UM1DK10086605	18,663	=
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	Nationwide Children's Hospital	5UM1DK10086606	17,442	=
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	Northwestern University	2R01DK09221705	(39,366)	=
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	Northwestern University	5R01DK09221406	138,043	=
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	Platform STL	1R41DK12025301	43,784	=
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	Remd Biotherapeutics, Inc.	4R42DK10830503	499,987	-
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	St. Louis University	1R01DK11040603	174,768	=
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	St. Louis University	5U01DK08287111	62,836	=
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	St. Louis University	5U01DK08287112	1,696	-
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	State University of New York	1R01DK11448501A1	19,319	-
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	State University of New York	5R01DK11045602	372	-
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	University of California, San Diego	1UG3DK11493301	515	-
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	University of California, San Diego	5UG3DK11493302	199,182	=
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	University of California, San Francisco	1R01DK11598701	12,189	=
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	University of Chicago	1U54DK11861201	22,499	=
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	University of Chicago	2P01DK05678816A1	20,643	=
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	University of Houston	R21DK113525	60,341	=
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	University of Illinois	5R01DK11308002	31,422	=
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	University of Iowa	3U01DK10832803S1	1,123	-
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	University of Iowa	3U01DK10833404S1	26,791	-
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	University of Iowa	5R01DK11875202	14,033	-
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	University of Iowa	5U01DK10832804S1	2,642	=
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	University of Iowa	R01DK118752	2,717	-
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	University of Michigan	2U01DK06237015	25,967	-
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	University of Michigan	5R01DK106621005	1,825	-
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	University of Michigan	5R01DK10662102	26,300	-
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	University of Michigan	5R01DK10790403	32,846	-
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	University of Pennsylvania	1R01DK11843101	11,834	-
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Cluster Title/Federal Grantor/Program Title	CFDA Number	Pass Through Entity	Pass-through Entity Identification Number	Total Expenditures	Passed to Sub- Recipients
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	University of Pennsylvania	5U01DK10322505	7,205	-
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	University of Pittsburgh	5U01DK07214610	5,991	-
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	University of South Florida	5R01DK10269104	12,229	-
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	University of South Florida	7R01DK10269103	10,175	-
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	University of Southern California	3U01DK10735004	93,628	-
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	University of Southern California	5U01DK10735003	24,761	=
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	University of Southern California	5U01DK10735004	16,577	=
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	University of Virginia	5R01DK11186102	31,896	-
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	Vanderbilt University	1R01DK11921201	10,392	=
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	Virginia Commonwealth University	4R01DK09481804	3,954	-
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	Virginia Commonwealth University	5R01DK09481802	7,055	-
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	Virginia Commonwealth University	5R01DK09481805	44,926	-
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853			37,951,461	2,592,017
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	Albert Einstein College Of Medicine	2K12NS08022306	61,775	-
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	Boston University	5U01NS09333403	26,115	=
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	Boston University	5U01NS09333404	7,752	_
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	California Institute Of Technology	5R01NS10221302	171,708	=
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	Children'S Research Institute	7U01NS10768105	16,309	_
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	Cincinnati Children's Hospital Medical Center	5R01NS06280609	103,052	_
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	Cincinnati Children's Hospital Medical Center	5R01NS09605304	4,247	_
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	Collaborations Pharmaceuticals	1R43NS10707901	30,491	_
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	Columbia University	1R211NS11306301	3,316	_
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	Cornell University	7U54NS10071703	1,377	
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	Emory University	5U54TR00145608	123,807	
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	Jackson Laboratory	1R01NS10263301	(133)	-
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	Johns Hopkins University	5U01NS08082405		-
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	Kennedy Krieger	5K12NS09848203	9,954 100,010	-
Extramural Research Programs in the Neurosciences and Neurological Disorders		LA Biomedical Research Institute	7		-
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	LA Biomedical Research Institute LA Biomedical Research Institute	1R01NS10227901A1	69,326	-
	93.853		4R33NS09604403	15,187	-
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	LA Biomedical Research Institute	5R01NS10081502	14,160	-
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	LA Biomedical Research Institute	5R01NS10081503	3,724	-
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	LA Biomedical Research Institute	5R01NS10227902	3,589	=
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	Loyola University Chicago	4R01NS0739675	60,000	=
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	Massachusetts General Hospital	1U01NS09025901A1	47,244	=
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	Massachusetts General Hospital	4K12NS08022305	1,745	-
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	Massachusetts General Hospital	4U44NS09061602	17,445	=
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	Massachusetts General Hospital	U01NS082329	(2,436)	=
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	Massachusetts General Hospital	U01NS095388	9,673	-
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	Massachusetts General Hospital	U01NS096767	21,118	-
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	Mayo Clinic	5R01NS10321202	2,871	=
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	Mount Sinai School Of Medicine	5R01NS09952702	57,142	-
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	Northwestern University	5U01NS0808185	15,450	=
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	Phoenix Nest, Inc.	2R44NS08906104	44,893	=
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	Rutgers University	5U24MS09591404	153,504	=
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	Rutgers University	5U24NS09591403	23	-
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	Seattle Children's Hospital	5R01NS09597903	44,646	-
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	University of Alabama, Birmingham		(566)	-
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	University of Alabama, Birmingham	5U01NS09259504	35,966	=
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	University of California, Los Angeles	5R01NS08876604	5,286	=
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	University of California, San Diego	1R21NS099766	15,084	-
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	University of California, San Francisco	1R01NS09429201	1,165	-
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	University of California, San Francisco	5R01NS09429203	131,803	-
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	University of California, San Francisco	5U01NS09276402	13,329	-
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	University of California, San Francisco	5U01NS09276403	122,652	=
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	University of California, San Francisco	5U54NS09208903	2,746	=
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	University of Cincinnati	1U01NS09904301A1	1,373	-
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Cluster Title/Federal Grantor/Program Title	CFDA Number	Pass Through Entity	Pass-through Entity Identification Number	Total Expenditures	Passed to Sub- Recipients
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	University of Cincinnati	1U01NS10235301A1	2,631	
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	University of Cincinnati	5U01NS09586902	2,001	-
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	University of Pittsburgh	5R01NS09671402	3,320	=
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	University of Southern California	5R01NS03446720	106,370	-
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	University of Texas Austin	7R01NS09061703	30,849	-
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	University of Virginia	5R01NS09965302	6	-
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	University of Virginia	5U01NS08803405	5,009	-
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	University of Washington	5R01NS09161803	55,089	=
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	Wayne State University	5R01NS09457002	77,616	-
Allergy and Infectious Diseases Research	93.855			50,521,084	10,688,118
Allergy and Infectious Diseases Research	93.855	Albert Einstein College of Medicine	5R21AI12809002	97,136	-
Allergy and Infectious Diseases Research	93.855	Arizona State University	5R33AI10132905	(401)	=
Allergy and Infectious Diseases Research	93.855	Arrevus	1R41AI14078201	73,018	-
Allergy and Infectious Diseases Research	93.855	Baylor College of Medicine	5R01AI09871505	(998)	-
Allergy and Infectious Diseases Research	93.855	Boston Children's Hospital	5U01AI12661403	219,918	-
Allergy and Infectious Diseases Research	93.855	Brigham & Women's Hospital	5UM1AI06863612	95,337	-
Allergy and Infectious Diseases Research	93.855	Brigham & Women's Hospital	5UM1AI06863613	249,338	-
Allergy and Infectious Diseases Research	93.855	Case Western Reserve University	5R01AI2520203	158,312	-
Allergy and Infectious Diseases Research	93.855	Children's Hospital Los Angeles	5U54AI08297307	6,800	-
Allergy and Infectious Diseases Research	93.855	Children's Hospital of Philadelphia	5R01AI13023102	219,536	=
Allergy and Infectious Diseases Research	93.855	Columbia University	2P01AI10669706	15,975	=
Allergy and Infectious Diseases Research	93.855	Drexel University	1U19AI12891001	5,278	-
Allergy and Infectious Diseases Research	93.855	Drexel University	5U19AI12891002	103,075	-
Allergy and Infectious Diseases Research	93.855	Duke University	5UM1AI10468106	41,823	-
Allergy and Infectious Diseases Research	93.855	George Washington University	5R01AI12343303	64,767	-
Allergy and Infectious Diseases Research	93.855	George Washington University	5R01AI12343304	36,775	-
Allergy and Infectious Diseases Research	93.855	Georgia State University	5R01AI11465403	122,483	-
Allergy and Infectious Diseases Research	93.855	Georgia State University	5U19AI10944505	386,145	-
Allergy and Infectious Diseases Research	93.855	Icbiome, Inc	1R43AI13194401A1	2,891	-
Allergy and Infectious Diseases Research	93.855	Jackson Laboratory	1U19AI14273301	21,068	-
Allergy and Infectious Diseases Research	93.855	Michigan State University	5U01AI12661002	116,110	-
Allergy and Infectious Diseases Research	93.855	Michigan State University	5U01AI12661003	99,847	-
Allergy and Infectious Diseases Research	93.855	Microbiotix, Inc	R41AI27009	34,991	-
Allergy and Infectious Diseases Research	93.855	Mount Sinai School of Medicine	5U01AI06359414	10,123	=
Allergy and Infectious Diseases Research	93.855	Mount Sinai School of Medicine	5U01AI06359415	66,039	=
Allergy and Infectious Diseases Research	93.855	Mount Sinai School of Medicine	HHSN272201400008C	(18,264)	=
Allergy and Infectious Diseases Research	93.855	Newventureiq, Llc	1R41AI14291901	40,606	-
Allergy and Infectious Diseases Research	93.855	Oregon Health And Science University	4R01AI09872305	(1,597)	-
Allergy and Infectious Diseases Research	93.855	Oregon Health And Science University	5R01AI13218602	251,266	-
Allergy and Infectious Diseases Research	93.855	Salk Institute	2R01AI10140005	(347)	-
Allergy and Infectious Diseases Research	93.855	Salk Institute	5R01AI10140006	544,126	-
Allergy and Infectious Diseases Research	93.855	San Jose State University	1R15AI13814601A1	14,664	-
Allergy and Infectious Diseases Research	93.855	The Benaroya Research Institute	5UM1AI10956506	3,951	-
Allergy and Infectious Diseases Research	93.855	The George Washington University	1R21AI13777101	6,129	-
Allergy and Infectious Diseases Research	93.855	The Scripps Research Institute	1R56AI13251501	85,898	-
Allergy and Infectious Diseases Research	93.855	University of Alabama	1U19AI14275901	68,006	-
Allergy and Infectious Diseases Research	93.855	University of Alabama	5U19AI0968003	(1,202)	=
Allergy and Infectious Diseases Research	93.855	University of Alabama	5U19AI0968004	(347)	=
Allergy and Infectious Diseases Research	93.855	University of Alabama	5U19AI0968005	168,603	=
Allergy and Infectious Diseases Research	93.855	University of Arizona	1R01IA12994501A1	53,203	=
Allergy and Infectious Diseases Research	93.855	University of Arizona	5R01AI12994502	7,937	=
Allergy and Infectious Diseases Research	93.855	University of Arizona	5R21AI13291002	21,306	-
Allergy and Infectious Diseases Research	93.855	University of California, Berkeley	5P01AI10669502	(5,000)	-
Allergy and Infectious Diseases Research	93.855	University of California, Berkeley	5P01AI10669503	5,071	_
Allergy and Infectious Diseases Research	93.855	University of California, Berkeley	5P01AI10669504	88,795	_
Allergy and Infectious Diseases Research	93.855	University of California, Los Angeles	1U01AI11640001A1	464,759	-
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Allergy and Infectious Diseases Research	93.855	University of California, Los Angeles	7UM1AI06863613	1,214	
Allergy and Infectious Diseases Research	93.855	University of California, San Francisco	4U01AI10080705	2,942	-
Allergy and Infectious Diseases Research	93.855	University of California, San Francisco	5U54AI8297309	1,730	-
Allergy and Infectious Diseases Research	93.855	University of Chicago	5R01AI12777403	213,373	=
Allergy and Infectious Diseases Research	93.855	University of Colorado	5R01AI06252013	42,503	=
Allergy and Infectious Diseases Research	93.855	University of Colorado, Denver	1R01AII4143601A1	42,333	=
Allergy and Infectious Diseases Research	93.855	University of Florida	1R01AI14147801	52,942	-
Allergy and Infectious Diseases Research	93.855	University of Kentucky	1R01AI14075801	238,825	-
Allergy and Infectious Diseases Research	93.855	University of Michigan	5R01AI11262605	80,086	-
Allergy and Infectious Diseases Research	93.855	University of North Carolina at Chapel Hill	5U19AI10996503	(601)	=
Allergy and Infectious Diseases Research	93.855	University of North Carolina at Chapel Hill	5U19AI10996504	(15,562)	=
Allergy and Infectious Diseases Research	93.855	University of North Carolina at Chapel Hill	5U19AI10996505	182,111	=
Allergy and Infectious Diseases Research	93.855	University of Pennsylvania	1R01AI14053901	181,360	=
Allergy and Infectious Diseases Research	93.855	University of Pittsburgh	5R01AI12334805	281,090	-
Allergy and Infectious Diseases Research	93.855	University of South Florida	5R01AI06447809	1,183	-
Allergy and Infectious Diseases Research	93.855	University of Texas Austin	1R21AI12950501	58,752	-
Allergy and Infectious Diseases Research	93.855	University of Texas Health Center San Antonio	5U19AI07041210	1,192	=
Allergy and Infectious Diseases Research	93.855	University of Texas Southwestern Medical Center	1U19AI14278401	199,812	-
Allergy and Infectious Diseases Research	93.855	University of Vermont	2R01AI05145411A1	23,574	-
Allergy and Infectious Diseases Research	93.855	University of Washington	1R01AI1459601	28,360	-
Allergy and Infectious Diseases Research	93.855	University of Washington, Seattle	5R01AI10400205	144,315	-
Allergy and Infectious Diseases Research	93.855	University of Washington, Seattle	5U19AI08301908	(962)	-
Allergy and Infectious Diseases Research	93.855	University of Washington, Seattle	5U19AI08301909	(347)	-
Allergy and Infectious Diseases Research	93.855	University of Washington, Seattle	5U19AI08301910	387,951	-
Allergy and Infectious Diseases Research	93.855	University of Wisconsin	1P01AI13213201A1	20,259	-
Allergy and Infectious Diseases Research	93.855	University of Wisconsin, Madison	1R01AI13251901A1	36,731	-
Allergy and Infectious Diseases Research	93.855	University of Wisconsin, Madison	1R01AI13864701A1	32,529	-
Allergy and Infectious Diseases Research	93.855	University of Wisconsin, Madison	4U19AI10677204	(643)	-
Allergy and Infectious Diseases Research	93.855	University of Wisconsin, Madison	5U19AI10677205	244,913	-
Allergy and Infectious Diseases Research	93.855	University of Wisconsin, Madison	5UM1AI11427103	320	-
Allergy and Infectious Diseases Research	93.855	University of Wisconsin, Madison	5UM1AI11427104	60,820	-
Allergy and Infectious Diseases Research	93.855	University of Wisconsin, Madison	5UM1AI11427105	655,234	-
Allergy and Infectious Diseases Research	93.855	Vanderbilt University	3U01AI10433606S1	16,501	-
Allergy and Infectious Diseases Research	93.855	Vanderbilt University	5R01AI11481606	97,613	-
Allergy and Infectious Diseases Research	93.855	Vanderbilt University	5U01AI10433606	(9,844)	-
Allergy and Infectious Diseases Research	93.855	Vanderbilt University Medical Center	501AI12782803	318,786	-
Allergy and Infectious Diseases Research	93.855	Vanderbilt University Medical Center	5R01AI11481604	(208)	-
Allergy and Infectious Diseases Research	93.855	Vanderbilt University Medical Center	5R01AI11481605	157,591	=
Allergy and Infectious Diseases Research	93.855	Vanderbilt University Medical Center	5UM1AI06861912	615,085	-
Allergy and Infectious Diseases Research	93.855	Vanderbilt University Medical Center	5UM1AI06943913	191,235	=
Allergy and Infectious Diseases Research	93.855	Vanderbilt University Medical Center	5UM1AI06943914	350,954	=
Allergy and Infectious Diseases Research	93.855	Vanderbilt University Medical Center	6R01AI11481603	(88)	-
Allergy and Infectious Diseases Research	93.855	Vaxnewmo	1R41AI13623301	36,288	-
Microbiology and Infectious Diseases Research	93.856			107,459	=
Biomedical Research and Research Training	93.859			27,862,386	791,958
Biomedical Research and Research Training	93.859	Arch Innotek, LLC	1R41GM13027701	69,577	-
Biomedical Research and Research Training	93.859	Cell Microsystems, Inc	1R41GM13147501	9,570	_
Biomedical Research and Research Training	93.859	Cell Microsystems, Inc	5R44GM11988803	69,810	_
Biomedical Research and Research Training	93.859	Drug Design Methodologies	1R43GM12657901	35,966	_
Biomedical Research and Research Training	93.859	Jackson Laboratory	1R01GM12573601A1	47,993	=
Biomedical Research and Research Training	93.859	Nationwide Children'S Hospital	5R01GM09420305	2,040	_
Biomedical Research and Research Training	93.859	Nawgen, Llc	1R41GM12668201A1	6,195	_
Biomedical Research and Research Training	93.859	Protein Metrics	1R41GM12113301A1	40,914	_
Biomedical Research and Research Training	93.859	Radiologics	1R44GM12543801	54,208	_
Biomedical Research and Research Training	93.859	University of Alabama	1R25GM13051701	18,902	_
Biomedical Research and Research Training	93.859	University of Colorado, Denver	5R01GM12374602	43,497	_
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Cluster Title/Federal Grantor/Program Title	CFDA Number	Pass Through Entity	Pass-through Entity Identification Number	Total Expenditures	Passed to Sub- Recipients
Biomedical Research and Research Training	93.859	University of Michigan	2U54GM10329706	33,202	=
Biomedical Research and Research Training	93.859	University of Michigan	5U54GM10329707	172,416	-
Biomedical Research and Research Training	93.859	University of Michigan	7R01GM12243403	32,654	-
Biomedical Research and Research Training	93.859	University of Pittsburgh	5R01GM10038705	14,120	=
Biomedical Research and Research Training	93.859	University of Texas, Austin	5R01GM11423704	285,282	=
Biomedical Research and Research Training	93.863	University Of Connecticut	R01NS102633	171,614	-
Child Health and Human Development Extramural Research	93.864			125,317	17,446
Child Health and Human Development Extramural Research	93.865			14,163,431	2,485,658
Child Health and Human Development Extramural Research	93.865	Boston Medical Center	1R01HD09506001A1	27,600	-
Child Health and Human Development Extramural Research	93.865	Boston University	1R01HD09113001A1	28,581	-
Child Health and Human Development Extramural Research	93.865	Boston University	1R01HD09244401A1	139,430	-
Child Health and Human Development Extramural Research	93.865	Boston University	5R01HD7281506A1	3,997	=
Child Health and Human Development Extramural Research	93.865	Children'S Medical Health Center	7R01HD07191506	65,638	_
Child Health and Human Development Extramural Research	93.865	Cincinnati Children'S Hospital Medical Center	2K12HD00085003	25,249	_
Child Health and Human Development Extramural Research	93.865	Cincinnati Children'S Hospital Medical Center	5R01HD08601103	40,529	-
Child Health and Human Development Extramural Research	93.865	Columbia University	5R01HD09100302	16,841	_
Child Health and Human Development Extramural Research	93.865	Lurie Childrens Hospital	1R21HD09640201A1	4,266	-
Child Health and Human Development Extramural Research	93.865	Nationwide Children'S Hospital	1R01HD09134701A1	30,398	_
Child Health and Human Development Extramural Research	93.865	Nemours Children'S Clinic	5R01HD07846303	26,916	_
Child Health and Human Development Extramural Research	93.865	Nemours Children'S Clinic	5R01HD07846305	170,767	
Child Health and Human Development Extramural Research	93.865	Newventureiq, Llc	1R41HD09783301	85,100	
Child Health and Human Development Extramural Research	93.865	Oklahoma State University	2R01HD074579	13,637	
Child Health and Human Development Extramural Research	93.865	Pennsylvania State University	5DP1HD08607104	1,841	-
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Child Health and Human Development Extramural Research Child Health and Human Development Extramural Research	93.865	Pennsylvania State University Preemie Pacer Llc	5DP1HD08607105 R43HD032210WU	848 (76)	-
•	93.865	Research Foundation For The State University Of New York		., .	-
Child Health and Human Development Extramural Research Child Health and Human Development Extramural Research	93.865	University Of Alabama	5R01HD08029203	55,892	-
•	93.865		5K01HD07958204	13,050	-
Child Health and Human Development Extramural Research	93.865	University Of California, Los Angeles	5R01HD09247103	15,937	-
Child Health and Human Development Extramural Research	93.865	University Of California, Los Angeles	5R01HS09247103	694	-
Child Health and Human Development Extramural Research	93.865	University Of California, San Francisco	5R01HD09241902	137,718	=
Child Health and Human Development Extramural Research	93.865	University Of Indiana	7R01HD08600704	86,717	=
Child Health and Human Development Extramural Research	93.865	University Of Massachussets Amherst	1R01HD09249902	10,307	=
Child Health and Human Development Extramural Research	93.865	University Of Michigan	7R01HD08523303	39,104	-
Child Health and Human Development Extramural Research	93.865	University Of North Carolina At Chapel Hill	2R01HD05574112	315,958	=
Child Health and Human Development Extramural Research	93.865	University Of North Carolina At Chapel Hill	3R01HD05574112	153,370	-
Child Health and Human Development Extramural Research	93.865	University Of Southern California	5R01HD08134605	15,484	-
Child Health and Human Development Extramural Research	93.865	University Of Texas Galveston	5P2CHD06570209	5,134	-
Child Health and Human Development Extramural Research	93.865	University Of Texas Health Science Center At Houston	1R01HD09766901	23,643	-
Child Health and Human Development Extramural Research	93.865	University Of Texas Southwestern Medical Center	1P01HD08438701A1	394,354	-
Child Health and Human Development Extramural Research	93.865	University Of Virginia	2R01HD07207104A1	109,213	=
Child Health and Human Development Extramural Research	93.865	University Of Wisconsin-Madison	5R01HD08300104	189,632	-
Child Health and Human Development Extramural Research	93.865	Yale University	5R21HD08913102	10,517	=
Child Health and Human Development Extramural Research	93.865	Yale University	5R21HD08913105	2,443	-
Child Health and Human Development Extramural Research	93.865	Yale University	5U01HD05592510	(246)	-
Aging Research	93.866			59,561,876	9,487,390
Aging Research	93.866	Cognition Therapeutics, Inc	1RF1AG05778001	405,860	=
Aging Research	93.866	Columbia University	1U24AG05627001	2,275	-
Aging Research	93.866	Columbia University	3U01AG02374913S1	44,349	-
Aging Research	93.866	Columbia University	4R01AG04179705	(6,592)	-
Aging Research	93.866	Columbia University	5U24AG0562702	101,553	-
Aging Research	93.866	Columbia University	5U24AG0562703	16,456	=
Aging Research	93.866	Duke University	5U24AG04712103	2,482	_
Aging Research	93.866	Duke University	7R24AG05435503	13,450	_
Aging Research	93.866	Hebrew Rehabilitation Center	3R24AG05425903S1	4,447	_
Aging Research	93.866	Hebrew Rehabilitation Center	5R24AG05425904	23,417	
Aging Research	93.866	Icahn School Of Medicine Mt. Sinai	5K24AG05425904 5U01AG05241103	23,41/ 175,211	=
Aging Research	93.800	icann school of Medicine Mt. Sinai	5001AG05241103	1/5,211	-

Cluster Title/Federal Grantor/Program Title	CFDA Number	Pass Through Entity	Pass-through Entity Identification Number	Total Expenditures	Passed to Sub- Recipients
Aging Research	93.866	Indiana University	1U01AG05719501A1	69,050	-
Aging Research	93.866	Johns Hopkins University	1RF1AG05986901	30,137	-
Aging Research	93.866	Mayo Clinic	5U01AG04539003	(1,046)	-
Aging Research	93.866	Mayo Clinic	5U01AG04539005	123,552	-
Aging Research	93.866	Ncire - Nih	5U19AG02490412	91,542	-
Aging Research	93.866	Ncire-Nih	U19AG02490413	105,270	-
Aging Research	93.866	Northwestern University	5R01AG04741604	12,439	-
Aging Research	93.866	Northwestern University	5R01AG04741605	1,219	=
Aging Research	93.866	Parabon Nanolabs - Nih	5R44AG05036603	51,947	-
Aging Research	93.866	Regenerative Research Foundation	5R01AG05629303	127,257	-
Aging Research	93.866	St. Louis University	5K01AG04907505	7,484	-
Aging Research	93.866	Sutter Bay	1R01AG05941601	34,297	-
Aging Research	93.866	University Of California, San Diego	3U19AG010483-26S1	36,763	=
Aging Research	93.866	University Of California, San Diego	5U19AG010483	7,467	=
Aging Research	93.866	University Of California, San Francisco	1R01AG06235902	90,011	=
Aging Research	93.866	University Of California, San Francisco	1RF1AG05900901	73,626	=
Aging Research	93.866	University Of California, San Francisco	2R01AG03879106A1	6,794	-
Aging Research	93.866	University Of California, San Francisco	5R01AG04561105	21,713	=
Aging Research	93.866	University Of Nevada Reno	3P01AG05144303S1	27,306	1,482
Aging Research	93.866	University Of Pennsylvania	5R01AG04150205	(1,411)	-
Aging Research	93.866	University Of Pennsylvania	5R01AG05443502	373,869	-
Aging Research	93.866	University Of Pittsburgh	1R01AG06049901	279,874	-
Aging Research	93.866	University Of Pittsburgh	3U01AG05140604S2	24,104	-
Aging Research	93.866	University Of Pittsburgh	5U01AG05140603	116,761	-
Aging Research	93.866	University Of Pittsburgh	5U01AG05140604	106,868	-
Aging Research	93.866	University Of Pittsburgh	5U01AG05140605	4,279	-
Aging Research	93.866	University Of Southern California	1R01AG05379802	8,048	=
Aging Research	93.866	University Of Southern California	2U19AG02490413	42,769	=
Aging Research	93.866	University Of Southern California	5P01AG05235002	409,396	=
Aging Research	93.866	University Of Southern California	5P01AG05235003	169,097	_
Aging Research	93.866	University Of Southern California	5U19AG01048325	6,064	_
Aging Research	93.866	University Of Southern California	5U24AG05743702	22,436	_
Aging Research	93.866	University Of Texas Austin	1R21AG052060	19,878	_
Aging Research	93.866	University Of Texas Southwestern Medical Center	5R01AG04867805	215,758	_
Aging Research	93.866	University Of Texas Southwestern Medical Center	5R01AG04974903S1	455,806	=
Aging Research	93.866	University Of Washington	5U01AG01697619	590	=
Aging Research	93.866	University Of Washington	5U01AG01697620	69,448	_
Vision Research	93.867		3,/	12,485,844	2,140,979
Vision Research	93.867	Boston University	5R21EY02759002	75,536	
Vision Research	93.867	Case Western Reserve University	5R24EY02728302	13,141	_
Vision Research	93.867	Case Western Reserve University	5U01EY02545104	12,903	_
Vision Research	93.867	Duke University	1R21EY02938401	11,375	_
Vision Research	93.867	Duke University	5R01EY02500903	29,811	_
Vision Research	93.867	Duke University	5R01IY02500904	2,788	_
Vision Research	93.867	Johns Hopkins University	5U10EY02452702	4,874	_
Vision Research	93.867	University Of California, Irvine	5R24EY02728304	112,129	_
Vision Research	93.867	University Of California, Irvine	5U01EY02545106	10,602	
Vision Research	93.867	University Of California, Irvine	7U01EY02545105	37,097	
Vision Research	93.867	University Of Illinois	R21EY02761202	85,931	
Vision Research	93.867	University Of Massachusetts	1R01EY02860201A1	57,106	-
Vision Research	93.867	University Of Michigan	5R01Y02664103	5,813	=
Medical Library Assistance	93.867	Chiveleny Of Michigan	5K01102004103		204 741
Medical Library Assistance Medical Library Assistance	93.879	California Institute of Technology	5U01LM01267202	584,928	224,741
· · · · · · · · · · · · · · · · · · ·		Asociaion Benefica Prisma	,	17,396	-
Global Health Research and Research Training Global Health Research and Research Training	93.989	Asociaion Benefica Prisma Regional Allicance for Sustainable Development (RASD) Rwanda	1D71TW01120501 5D43TW01033504	9,422	-
9	93.989	• • • • • • • • • • • • • • • • • • • •	0 10 000 1	77,669	-
Global Health Research and Research Training	93.989	Vanderbilt University Medical Center	5UM1AI06861911	1,952	-

Cluster Title/Federal Grantor/Program Title	CFDA Number	Pass Through Entity	Pass-through Entity Identification Number	Total Expenditures	Passed to Sub- Recipients
National Center for Advancing Translational Sciences (NCATS)	93.RD	St. Louis University	CTRFP121	6,069	
National Cancer Institute (NCI)	93.RD	Arvis Technologies LLC	HHSN261201500054C	(10,789)	
National Cancer Institute (NCI)	93.RD	Massachusetts General Hospital	218211	(1,393)	-
National Cancer Institute (NCI)	93.RD	Massachusetts General Hospital	220778	122,919	=
National Cancer Institute (NCI)	93.RD	NRG Oncology Foundation	LPMO011	209,061	6,071
National Cancer Institute (NCI)	93.RD	Westat	HHSN261201600007I	13,540	=
National Cancer Institute (NCI)	93.RD	Westat	6426S10	7,671	
National Heart, Lung and Blood Institute (NHLBI)	93.RD	University of Michigan	HHSN268201100026C	7,932	-
National Institute of Allergy and Infectious Diseases (NIAID)	93.RD		HHSN272201400018C	2,536,727	601,381
National Institute of Allergy and Infectious Diseases (NIAID)	93.RD	Ichan School of Medicine at Mt. Sinai	HHSN272201400018C	135,946	=
National Institute of Allergy and Infectious Diseases (NIAID)	93.RD	Northwestern University	HHSN272201700060C	623,510	-
National Institute of Allergy and Infectious Diseases (NIAID)	93.RD	Rutgers University	HHSN271201400020C	80,002	-
National Institute of Allergy and Infectious Diseases (NIAID)	93.RD	Rutgers University	HHSN271201800023I	290,002	
National Institute of Allergy and Infectious Diseases (NIAID)	93.RD	St. Jude Children's Research Institute	HHSN272201400006C	384,552	=
National Institute of Allergy and Infectious Diseases (NIAID)	93.RD	University of Alabama, Birmingham	HHSN272201100035C	5,912	=
National Institute of Allergy and Infectious Diseases (NIAID)	93.RD	University of Alabama, Birmingham	HHSN272201100037C	19,820	=
National Institute of Allergy and Infectious Diseases (NIAID)	93.RD	University of Rochester	HHSN272201200005C	2,982	=
National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK)	93.RD	George Washington Univesity	TRIALNET	14,816	-
National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK)	93.RD	Children's Mercy Hospital	5U01DK06614302	294	-
National Institute of Health Clinical Research Center	93.RD		78026619	10,675	=
National Institutes of Health (NIH)	93.RD	Amercian College of Radiology	ACRIN6664	(40)	-
National Institutes of Health (NIH)	93.RD	Case Western Reserve University	CTN0801	69	-
National Institutes of Health (NIH)	93.RD	Case Western Reserve University	CTN0802	9,545	-
National Institutes of Health (NIH)	93.RD	ICF Macro Inc.	HHSN26120140002B	10,067	-
National Institutes of Health (NIH)	93.RD	Mathmatica	HHSP233201500035I/HHSP233	33,401	-
National Institutes of Health (NIH)	93.RD	NSABP Foundation	COSTAR	3,775	-
National Institutes of Health (NIH)	93.RD	University of Iowa	4000508191	1,096	-
Substance Abuse and Mental Health Services Administration	20		,,	, , , , ,	
Projects of Regional and National Significance	93.243			78,352	_
Substance Abuse and Mental Health Services Administration	93.RD	St. Louis County	SAMHSA	15,879	_
TOTAL DEPARTMENT OF HEALTH AND HUMAN SERVICES	70			502,235,008	49,859,431
NATIONAL AERONAUTICS AND SPACE ADMINSTRATION National Aeronautics and Space Administration					_
Science	43.001			5,326,295	156,937
Science	43.001	Bay Area Environmental Research	NASA80NSSC18K1082	26,281	-
Science	43.001	Bay Area Environmental Research	NNX17ACo2G	63,799	-
Science	43.001	Brown University	NNX16AG49G	32,932	=
Science	43.001	California Institute of Technology	80NSSC18K0223	77,364	-
Science	43.001	Cornell University	JPL1536058	41,549	-
Science	43.001	Johns Hopkins University	80NSSC17K0418	1,267	-
Science	43.001	Planetary Science Institute	8ONSSC17K0343	14,780	-
Science	43.001	Smithsonian Astrophysical Observatory	GO718018A	4,183	_
Science	43.001	Smithsonian Astrophysical Observatory	GO819022X	19,728	_
Science	43.001	University of New Mexico	NNH18ZDA001N	3,122	_
Science	43.001	University of New Mexico	NNX17AE25G	39,069	_
Science	43.001	University of Washington	NNA13AA39A	17,982	_
Space Operations	43.007	om clony of viadinington	1111110111109911	283,524	_
Education	43.008	Missouri University of Science and Technology	NNX14AN17A	(7,850)	_
Education	43.008	Missouri University of Science and Technology	NNX15AK03H	35,366	-
Space Technology	43.012	missouri omversity of science and reciniology	MATOROJII		=
NASA		Arizona State University	NNG07EK00C	211,274	-
	43.RD	ž	,	128,606	-
NASA	43.RD	Cornell University	JPL1536058	124,510	-
NASA	43.RD	Jet Propulsion Laboratory	NM0710630	44,548	=
NASA	43.RD	Jet Propulsion Laboratory	NMO710805	107,440	=
NASA	43.RD	Jet Propulsion Laboratory	NNN12AA01C	316,040	-
NASA	43.RD	Johns Hopkins University	1277793	74,745	-

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NASA	43.RD	Southwest Research Institute	H99063CT	20,804	=
NASA	43.RD	Southwest Research Institute	NASW02008	33,987	-
NASA	43.RD	University of Texas Austion	NNM16AA26C	25,681	-
TOTAL NATIONAL AERONAUTICS AND SPACE ADMINSTRATION				7,067,026	156,937
NATIONAL SCIENCE FOUNDATION					
National Science Foundation					
Engineering Grants	47.041			3,314,367	288,662
Engineering Grants	47.041	Arch Innotek, LLC	1722313	11,471	-
Engineering Grants	47.041	Rensselaer Polytechnic Institute	EFRI1433311	(23,158)	-
Engineering Grants	47.041	University of Illinois	1512043	38,477	-
Engineering Grants	47.041	University of Illinois	1740737	49,468	-
Engineering Grants	47.041	University of Pennsylvania	CMMI1548571	884,251	=
Engineering Grants	47.041	University of Texas at Austin	1710922	34,015	-
Engineering Grants	47.041	Wichita State University	1162819	5,738	-
Engineering Grants	47.041	Yale University	1542815	94,573	=
Mathematic and Physical Sciences	47.RD		CHE1661696	8,224	-
Mathematic and Physical Sciences	47.049	P	1/0/000	3,249,986	-
Mathematic and Physical Sciences Mathematic and Physical Sciences	47.049	Barnard College Oregon State University	1606982 1606982	62,677	-
Mathematic and Physical Sciences Mathematic and Physical Sciences	47.049	University of Minnesota	CHE1413862	81,942	-
Geosciences	47.049 47.050	University of Minnesota	CHE1413002	175,139 1,177,796	25,010
Geosciences	47.050	Columbia University	OPP1743310	12,849	25,010
Geosciences	47.050	Cornell University	1654568	149,761	
Computer and Information Science and Engineering	47.070	Cornell Chiversity	1034300	2,786,882	35,080
Computer and Information Science and Engineering	47.070	University of California, Berkely	NSF1640899	240,282	118,028
Computer and Information Science and Engineering	47.070	Virginia Polytech Institute	ACI4547580	16,165	110,020
Biological Sciences	47.074	8/		5,360,787	377,008
Biological Sciences	47.074	Michigan State University	1644965	5,136	5//,
Biological Sciences	47.074	Michigan State University	CNS1405273	39,999	-
Biological Sciences	47.074	University of Wisconsin, Madison	1818040	22,805	-
Biological Sciences	47.074	University of Wisconsin, Madison	1840687	15,966	-
Biological Sciences	47.074	University of Wisconsin, Madison	IOS-1339325	79,583	-
Social, Behavioral, and Economic Sciences	47.RD		BCS1660345	171,514	=
Social, Behavioral, and Economic Sciences	47.075			780,019	35,562
Social, Behavioral, and Economic Sciences	47.075	Georgia State University	1740201	17,774	=
Social, Behavioral, and Economic Sciences	47.075	University of Texas at Austin	1638822	1,704	-
Education and Human Resources	47.076			1,998,463	-
Education and Human Resources	47.076	Business-Higher Education Forum	DUE1331063	36,363	-
Education and Human Resources	47.076	Harris-Stowe State University	1619639	110,296	-
Education and Human Resources	47.076	Indiana University	DUE1534014	42,521	-
Education and Human Resources	47.076	Northwestern University	DUE1836657	6,325	
Education and Human Resources	47.076	University of Wisconsin	1726625	65,640	=
Office of International Science and Engineering	47.079	University of Missouri	IIA1430428NSF	14,105	=
Office of Integrative Activities	47.083	University of Missouri	OIA-1355406	265,456	
TOTAL NATIONAL SCIENCE FOUNDATION				21,405,361	879,350
AGENCY FOR INTERNATIONAL DEVELOPMENT					
Agency for International Development					
Agency for International Development Foreign Assistance for Programs Overseas	98.001	Michigan State University	7200AA18LE0003	4,465	=
Agency for International Development Foreign Assistance for Programs Overseas	98.001	Task Force for Global Health	AIDOAAG1400008	48,045	=
Agency for International Development	98.RD	Drugs for Neglected Diseases	AIDOAAG1400010	214,398	-
Agency for International Development	98.RD	Mississippi State University	7200AA18CA00030	5,634	-
Agency for International Development	98.RD	Mississippi State University	NA160AR4320199	19,049	-
Agency for International Development	98.RD	National Academy of Sciences	ESPA00050000100	15,967	-
Agency for International Development	98.RD	Tufts University	AIDOAAC1600020	821,775	181,133
DEPARTMENT OF AGRICULTURE					

Cluster Title/Federal Grantor/Program Title	CFDA Number	Pass Through Entity	Pass-through Entity Identification Number	Total Expenditures	Passed to Sub- Recipients
Agricultural Research Service					
Agricultural Research - Basic and Applied Research	10.001			10,450	-
National Institute of Food and Agriculture					
Biotechnology Risk Assessment Research	10.219			123,814	-
Agriculture and Food Research Initiative (AFRI)	10.310			68,045	-
Agriculture and Food Research Initiative (AFRI)	10.310	University of Rhode Island	20158701622942	763	-
DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT					
Department of Housing and Urban Development					
Office of Healthy Homes and Lead Hazard Control	14.RD		MOHHU002414	6,868	=
Office of Healthy Homes and Lead Hazard Control	14.RD		MOHHU004017	242,140	46,097
DEPARTMENT OF THE INTERIOR					
U.S. Geological Survey					
Research & Data Collection	15.808			16,782	=
DEPARTMENT OF JUSTICE					
Violence Against Women Office					
OVW Research and Evaluation Program	16.026			173,957	=
Department of Justice	16.123	City of St. Louis	18-51	15,129	=
Department of Justice	16.830	Annie Malone Children & Family Services	2016GJFXK006	17,307	=
DEPARTMENT OF TRANSPORTATION					
Federal Highway Administration					
Police Traffic Services	20.600	Missouri Dept of Transportation	18DL02002	33,654	=
Police Traffic Services	20.600	Missouri Dept of Transportation	19DL02002	84,083	=
DEPARTMENT OF THE TREASURY					
DEPARTMENT OF VETERANS AFFAIRS					
Department of Veterans Affairs	64.RD		PDS124683	(12,620)	=
Department of Veterans Affairs	64.RD		PDS124624	(13,594)	-
Department of Veterans Affairs	64.RD		Io1BX003648-01	50,969	-
Department of Veterans Affairs	64.RD		VA24017C0012	15,942	-
Department of Veterans Affairs	64.RD		VA24016D0017	15,737	-
ENVIRONMENTAL PROTECTION AGENCY					
Office of Research and Development					
Environmental Protection Agency	66.RD	Applied Energy Group	01313134000	19,236	-
Environmental Protection Agency	66.RD	Applied Energy Group	01312734000	14,218	-
NATIONAL ENDOWMENT FOR THE HUMANITIES					
Promotion of the Humanities - Fellowships and Stipends	45.160			50,400	<u> </u>
Total Research & Development Cluster				557,641,256	53,911,732
Other Sponsored Programs					
AGENCY FOR INTERNATIONAL DEVELOPMENT					
Foreign Assistance to American Schools and Hospitals Abroad	98.006			880,000	_
	90.000			000,000	
DEPARTMENT OF DEFENSE					
U.S. Army Medical Command					
Military Medical Research and Development	12.420	Boston Children's Hospital	W81XWH1710532	34,627	-
Military Medical Research and Development	12.420	Neumedicines, Inc.		59,795	-
Military Medical Research and Development	12.420	John Hopkins University	W81XWH1020134	10,154	
Military Medical Research and Development	12.420	Sarcoma Alliance	W81XWH1310072	4,596	=
Military Medical Research and Development	12.420	University of Alabama, Birmingham	W81XHW0510615	(1,424)	=
Military Medical Research and Development	12.420	University of Alabama, Birmingham	W81XWH1210155	(8,377)	=
Military Medical Research and Development	12.420	University of Alabama, Birmingham	W81XWH1720037	1,170	-
Military Medical Research and Development	12.420	University of Colorado	W81XWH1510504	52,994	-
TOTAL MILITARY MEDICAL RESEARCH AND DEVELOPMENT				153,535	=
DEPARTMENT OF HEALTH AND HUMAN SERVICES					
Administration for Children and Families					
Healthy Marriage Promotion and Responsible Fatherhood Grants	93.086	Fathers Support Center St. Louis	HHS2015ACFOFAFK0993	82,862	-
Affordable Care Act Personal Responsibility Education Program	93.092		5H97HA288970400	212,227	-
Agency for Healthcare Research and Quality					

Cluster Title/Federal Grantor/Program Title	CFDA Number	Pass Through Entity	Pass-through Entity Identification Number	Total Expenditures	Passed to Sub- Recipients
Research on Healthcare Costs, Quality and Outcomes	93.226		5R13HS02344603	2,285	-
Centers for Disease Control					
Autism and Other Developmental Disabilities	93.998		1NU53DD0000050100	196,139	=
Assistance Programs for Chronic Disease Prevention and Control	93-945	State of Missouri	DH1716A0006	45,196	-
Blood Disorder Program: Prevention, Surveillance, and Research	93.080	University of Texas Health Science Center	5NU27DD0011550300	8,578	=
Blood Disorder Program: Prevention, Surveillance, and Research	93.080	University of Texas Health Science Center	5NU27DD00115504	11,788	=
TOTAL BLOOD DISORDER PROGRAM: PREVENTION, SURVEILLANCE, AND RESEARCH				20,366	-
Centers for Disease Control and Prevention	93.U01		200201587568	482,126	-
Epidemiology and Laboratory Capacity for Infectious Diseases (ELC)	93.323	State of Missouri	1807	27,271	-
Epidemiology and Laboratory Capacity for Infectious Diseases (ELC)	93.323	Missouri Department of Health and Senior Services	HD1912A00001	86,698	=
TOTAL FOR EPIDEMIOLOGY AND LABORATORY CAPACITY FOR INFECTIOUS DISEASES (ELC)				113,969	-
HIV Prevention Activities_Non-Governmental Organization Based	93.939	University of Missouri, Kansas City	5U65PS00448105	16,703	-
HIV Prevention Activities_Health Department Based	93.940	City of St. Louis Department of Health	HRSA1166	75,103	
HIV Prevention Activities_Health Department Based	93.940	City of St. Louis Department of Health	1919	65,433	
HIV Prevention Activities_Health Department Based	93.940	Missouri Department of Health and Senior Services	RFP30034901700449	97,525	-
TOTAL HIV PREVENTION ACTIVITIES_HEALTH DEPARTMENT BASED				238,061	<u> </u>
State and Local Public Health Actions to Prevent Obesity, Diabetes, Heart Disease and Stroke (PPHF)	93.757	State of Missouri	5NU58DP00481705	873	=
Centers for Medicare and Medicaid Services Medical Assistance Program	93.778	State of Missouri	ER100160099	240,412	
	93.//6	State of Missouri	EKIOOIOOO99	240,412	
Department of Health and Human Services Department of Health and Human Services	93.U02		201901HP	55.64Q	
Department of Health and Human Services Department of Health and Human Services	93.U02 93.U03	St. Louis Effort for AIDS	DH1713A0001	57,648 62,221	-
Department of Health and Human Services	93.U04	St. Louis Effort for AIDS	PDS156548	143,858	_
TOTAL DEPARTMENT OF HEALTH AND HUMAN SERVICES	93.004	ou Boulo Ellott for Files	1 20130340	263,727	-
Food and Drug Administration					
Food and Drug Administration_Research	93.103	Johns Hopkins University	5R01FD00481903	(108)	=
Food and Drug Administration_Research	93.103	Johns Hopkins University	5R01FD00481904	135	=
TOTAL FOOD AND DRUG ADMINISTRATION_RESEARCH				27	=
Health Resources and Services Administration					
Health Resources and Services Administration	93.Uo5	Health Research Inc.	HRSA15-0899-01	2,952	=
Health Resources and Services Administration	93.U06	Health Research Inc.	15-0898-02	4,115	-
TOTAL HEALTH RESOURCES AND SERVICES ADMINISTRATION				7,067	
Trans-NIH Research Support	93.110	University of Texas Health Science Center At San Antonio	2H30MC2405106	=	=
Trans-NIH Research Support	93.110	University of Texas Health Science Center At San Antonio	5H30MC240510700	21,494	-
TOTAL TRANS-NIH RESEARCH SUPPORT				21,494	-
Emergency Medical Services for Children	93.127	Cincinnati Children's Hospital Medical Center	5U03MC2268408	96,848	=
Emergency Medical Services for Children	93.127	Cincinnati Children's Hospital Medical Center	6U03MC226840701	25,168	-
TOTAL EMERGENCY MEDICAL SERVICES FOR CHILDREN				122,016	-
Grants to Increase Organ Donations	93.134	University of Arizona	5U13HS305860200	1,607	-
Grants to Increase Organ Donations	93.134	University of Arizona	5U13HS3058603	8,813	=
TOTAL GRANTS TO INCREASE ORGAN DONATIONS				10,420	-
Coordinated Services and Access to Research for Women, Infants, Children, and Youth	93.153		5H12HA248420500	(4,106)	(411)
Coordinated Services and Access to Research for Women, Infants, Children, and Youth	93.153		2H12HA248420600	119,709	25,612
Coordinated Services and Access to Research for Women, Infants, Children, and Youth	93.153		5H12HA248420700	1,106,963	95,836
TOTAL COORDINATED SERVICES AND ACCESS TO RESEARCH FOR WOMEN, INFANTS, CHILDERN, AND YOUTH				1,222,566	121,037
Sickle Cell Treatment Demonstration Program	93.365		2U1EMC278650400	302,679	225,107
Sickle Cell Treatment Demonstration Program	93.365		6U1EMC278650502	337,786	177,379
TOTAL SICKLE CELL TREATMENT DEMONSTRATION PROGRAM				640,465	402,486
				1-71-0	1. 1400

Cluster Title/Federal Grantor/Program Title	CFDA Number	Pass Through Entity	Pass-through Entity Identification Number	Total Expenditures	Passed to Sub- Recipients
HIV Emergency Relief Project Grants	93.914	City of St. Louis Department of Health	2H89HA000332400	10,541	=
HIV Emergency Relief Project Grants	93.914	City of St. Louis Department of Health	HRSA1166CTR7113549	(53)	=
HIV Emergency Relief Project Grants	93.914	City of St. Louis Department of Health	USDHHS-RYANWHITE	1,194,063	-
TOTAL HIV EMERGENCY RELIEF PROJECT GRANTS				1,204,551	-
HIV Care Formula Grants	93.917	St. Clair County	75780031E-3	22,799	-
HIV Care Formula Grants	93.917	State of Missouri	DH1907A0002	90,113	-
HIV Care Formula Grants	93.917	State of Missouri	RFA1706	325,010	58,929
HIV Care Formula Grants	93.917	St. Clair County	RYANWHITEHIV/AIDS	64,945	=
TOTAL HIV CARE FORMULA GRANTS				502,867	58,929
Grants to Provide Outpatient Early Intervention Services with Respect to HIV Disease	93.918		2H76HA078491200	304,511	22,546
Grants to Provide Outpatient Early Intervention Services with Respect to HIV Disease	93.918		5H76HA078491300	270,291	-
TOTAL GRANTS TO PROVIDE OUTPATIENT EARLY INTERVENTION SERVICES WITH RESPECT TO HIV DISEASE				574,802	22,546
Special Projects of National Significance	93.928		1H97HA318110100	177,607	_
Special Projects of National Significance	93.928		5H97HA288970300	87,204	_
TOTAL SPECIAL PROJECTS OF NATIONAL SIGNIFIGANCE	93.920		3119/1112009/0300	264,811	
Maternal and Child Health Services Block Grant to the States	00.004	State of Missouri	B04MC30623	(21)	
Office of Minority Health	93-994	State of Missouri	во4мс30623	(21)	-
Community Programs to Improve Minority Health	93.137	St. Louis Integrated Health	1CPIMP1611360200	441	-
Community Programs to Improve Minority Health	93.137	St. Louis Integrated Health	1CPIMP1611360300	58,535	-
TOTAL COMMUNITY PROGRAMS TO IMPOVE MINORITY HEALTH	, o · o ,		00	58,976	_
Office of Population Affairs				0.777	
Family Planning Services	93.217	Missouri Family Health Council	DHHSTITLEX	22,301	=
Family Planning Services	93.217	Missouri Family Health Council	FPHPA076285	145,403	-
Family Planning Services	93.217	Missouri Family Health Council	FPHPA006455	65,251	-
TOTAL FAMILY PLANNING SERVICES		·		232,955	-
Office of the Secretary of Health and Human Services					
Research on Research Integrity	93.085		5ORIIR1700300200	131,458	-
Substance Abuse and Mental Health Services Administration					
Substance Abuse and Mental Health Services_Projects of Regional and National Significance	93.243		5H79SP02123603	66,217	-
Substance Abuse and Mental Health Services_Projects of Regional and National Significance	93.243		6H79SP08021001	56,957	-
Substance Abuse and Mental Health Services_Projects of Regional and National Significance	93.243		5H79SP02123604	221,794	
Substance Abuse and Mental Health Services_Projects of Regional and National Significance	93.243		5H79SP08021002	143,651	=
TOTAL SUBSTANCE ABUSE AND MENTAL HEALTH SERVICES_PROJECTS OF REGIONAL AND NATIONAL SIGNIFIGANCE				488,619	-
State Targeted Response to the Opiod Crisis Grants	93.788	University of Missouri, St. Loius	1H79TI0816701	84,358	<u> </u>
Substance Abuse and Mental Health Services Administration	93.U07	St. Louis County		6,836	
TOTAL DEPARTMENT OF HEALTH AND HUMAN SERVICES				7,489,213	604,998
OTHER FEDERAL PROGRAMS					
DEPARTMENT OF JUSTICE					
Office of Juvenile Justice and Delinquency Prevention					
Community-Based Violence Prevention Program	16.123	United Way of Greater St. Louis	2016MUMUK012	31,032	-
Second Chance Act Reentry Initiative	16.812	Soulfisher Minsitry	2018CYBX0018	10,042	=
DEPARTMENT OF THE TREASURY					
Internal Revenue Service				0 .	
Low Income Taxpayer Clinics INSTITUTE OF MUSEUM AND LIBRARY SERVICE	21.008			95,382	-
Museums for America	45.301			48,139	21,384
National Leadership Grants	45.312			51,859	21,304
NATIONAL ARCHIVES AND RECORDS ADMINISTRATION	40.012			31,039	_
National Archives and Records Administration					
National Historical Publications and Records Grants	89.003			28,170	_
National Archives and Records Administration	89.U01	National Film Preservation Foundation	FED17029	3,122	_
	- / 01		/	3,122	

Cluster Title/Federal Grantor/Program Title	CFDA Number	Pass Through Entity	Pass-through Entity Identification Number	Total Expenditures	Passed to Sub- Recipients
National Archives and Records Administration	89.Uo2	National Film Preservation Foundation	FED18022	2,815	
Total Other Sponsored Programs from Other Federal Agencies				270,561	21,384
Total Other Sponsored Programs				8,793,309	626,382
Student Financial Assitance Cluster					
DEPARTMENT OF EDUCATION					
Federal Supplemental Educational Opportunity Grant	84.007			1,088,338	-
Federal Work-Study Program	84.033			1,857,225	-
Federal Pell Grant Program	84.063			4,792,825	=
Teacher Education Assistance for College and Higher Education Grants	84.379			11,256	=
Federal Direct Student Loans					
New Loans Issued during 2019	84.268			85,320,407	=
Administrative Cost Allowance	84.268			=	=
Federal Perkins Loans					
Outstanding Loans as of July 1, 2018	84.038			32,688,558	=
New Loans Issued during 2019	84.038			=	=
Administrative Cost Allowance	84.038			=	=
DEPARTMENT OF HEALTH AND HUMAN SERVICES					
Health Professions Student Loans including Primary Care Loans/					
Loans for Disadvantaged Students					
Outstanding Loans as of July 1, 2018	93.342			158,174	-
New Loans Issued during 2019	93.342			-	-
Administrative Cost Allowance	93.342				-
Total Student Financial Assistance Cluster				125,916,783	-
TRIO Cluster					
DEPARTMENT OF EDUCATION					
TRIO - Student Support Services	84.042			321,880	-
Total Federal Award Expenditures				\$692,673,228	\$54,538,114

1. Summary of Significant Accounting Policies

Basis of Presentation

The accompanying Schedule of Expenditures of Federal Awards (the "Schedule") summarizes the expenditures of Washington University (the "university") under programs of the Federal Government for the year ended June 30, 2019. Expenditures of direct awards to the university are reported in total by program. The information in this schedule is presented in accordance with the requirements of Title 2 U.S. Code of Federal Regulation Part 200, *Uniform Administrative Requirements, Cost Principals, and Audit Requirements for Federal Awards* (Uniform Guidance). Therefore, some amounts presented in this schedule may differ from amounts presented in, or used in the preparation of, the basic financial statements. The university includes the amounts in the Schedule in the net assets without donor restriction of the university's Consolidated Statement of Activities for the year ended June 30, 2019.

The Schedule is prepared on the accrual basis of accounting. Catalog of Federal Domestic Assistance ("CFDA") and pass-through numbers are provided when available. Negative amounts presented as expenditures represent subsequent period adjustments, transfers, or vendor credits. Expenditures are recognized following the cost accounting principles contained in the Uniform Guidance wherein certain types of expenditures are not allowable or are limited to reimbursement. Moreover, expenditures include a portion of costs associated with general university activities which are allocated to awards under negotiated formulas commonly referred to as facilities and administrative cost rates.

Federal Awards

For purposes of the Schedule, federal awards include all grants, contracts and similar agreements entered into directly by the university with agencies and departments of the Federal Government and all awards received as a subrecipient from nonfederal organizations pursuant to federal grants, contracts and similar agreements.

2. Facilities and Administrative Costs

The university recovers facilities and administrative costs under federal financial assistance programs using predetermined rates ranging from 25.5% to 55.5%. The university does not use the 10% de minimis cost rate but instead has negotiated the rates above with the Department of Health and Human Services through June 30, 2021.

3. Federal Student Loan Programs

The following schedule includes the SFA loan balances outstanding as of June 30, 2019:

Student Financial Aid	Federal CFDA Number	Outsta Balaı	U
U.S. Department of Education			
Federal Perkins Loan Program	84.038	\$ 25	,519,303
U.S. Department of Health and Human Services			
Health Profession Student Loans, Primary Care Loans	93.342	\$	114,564





Report of Independent Auditors on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with Government Auditing Standards

To the Board of Trustees of Washington University

We have audited, in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States, the consolidated financial statements of Washington University (the "University"), which comprise the consolidated statement of financial position as of June 30, 2019 and the related consolidated changes in its net assets and its cash flows for the year then ended, and the related notes to the financial statements, and have issued our report thereon dated September 25, 2019.

Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered the university's internal control over financial reporting ("internal control") to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the university's internal control. Accordingly, we do not express an opinion on the effectiveness of the university's internal control.

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

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

Compliance and Other Matters

As part of obtaining reasonable assurance about whether the university's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.



Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

St. Louis, Missouri September 25, 2019

Pricevaterhouse Coopers LLP



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

To the Board of Trustees of Washington University

Report on Compliance for Each Major Federal Program

We have audited Washington University's (the "University") compliance with the types of compliance requirements described in the *OMB Compliance Supplement* that could have a direct and material effect on each of the university's major federal programs for the year ended June 30, 2019. The university's major federal programs are identified in the summary of auditors' results section of the accompanying schedule of findings and questioned costs.

Management's Responsibility

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

Auditors' Responsibility

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

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

Opinion on Each Major Federal Program

In our opinion, the university complied, in all material respects, with the types of compliance requirements referred to above that could have a direct and material effect on each of its major federal programs for the year ended June 30, 2019.



Report on Internal Control Over Compliance

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

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

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

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

St. Louis, Missouri February 19, 2020

Priceraterhouse Coopes LLP



Washington University EIN# 43-0653611 Schedule of Findings and Questioned Costs Year Ended June 30, 2019

Part I - Summary of Auditors' Results

<u>Financial Statements</u>	
Type of auditors' report issued:	Unmodified
Internal control over financial reporting:	
Material weakness (es) identified?	YesX No
Significant deficiency (ies) identified not considered to be material weaknesses?	Yes <u>X</u> None reported
Noncompliance material to financial statements noted?	YesX No
Federal Awards	
Type of auditors' report issued on compliance for major programs:	Unmodified
Internal control over major programs:	
Material weakness (es) identified?	YesX No
Significant deficiency (ies) identified not considered to be material weaknesses?	YesX None reported
Any audit findings disclosed that are required to be reported in accordance with Uniform Guidance Section 200.516(a)?	Yes <u>X</u> No
<u>Identification of Major Programs</u> :	
CFDA Number(s)	Name of Federal Program or Cluster
Various	Research and Development Cluster
98.006	Foreign Assistance to American Schools and Hospitals Abroad
Dollar threshold used to distinguish between Type A and Type B programs:	\$3,000,000
Auditee qualified as low-risk auditee?	X Yes No

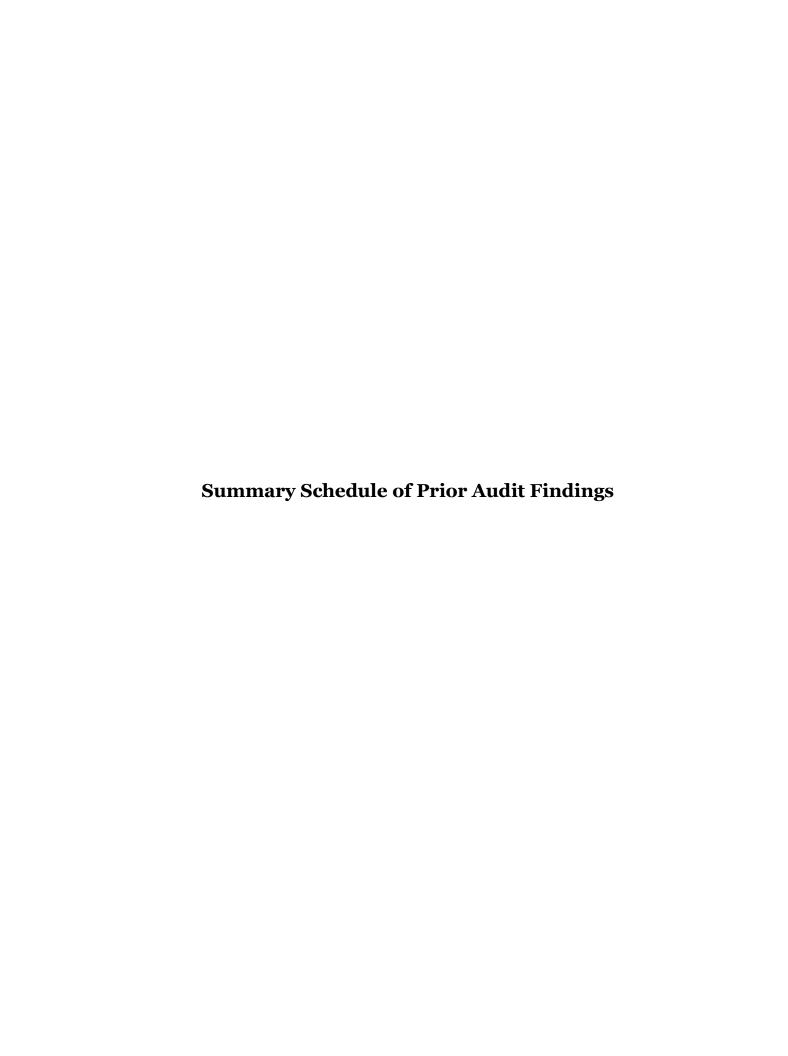
Washington University EIN# 43-0653611 Schedule of Findings and Questioned Costs Year Ended June 30, 2019

Part II – Financial Statement Findings

There are no financial statement findings to report.

Part III - Federal Award Findings and Questioned Costs

There are no federal award findings and questioned costs to report.



Washington University Summary Schedule of Prior Audit Findings Year Ended June 30, 2019

Part IV – Federal Award Findings

There were no federal award findings and questioned costs in the prior year.