Report on Federal Awards in Accordance with the Uniform Guidance June 30, 2018 EIN: 15-0532082

Cornell University Index June 30, 2018

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Report of Independent Auditors

To the Board of Trustees Cornell University

Report on the Consolidated Financial Statements

We have audited the accompanying consolidated financial statements of Cornell University (the "University"), which comprise the consolidated statements of financial position as of June 30, 2018 and 2017, and the related consolidated statement of activities for the year ended June 30, 2018 and statements of cash flows for the years ended June 30, 2018 and 2017, 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 Cornell University as of June 30, 2018 and 2017 and the changes in its net assets for the year ended June 30, 2018 and its cash flows for the years ended June 30,



2018 and 2017 in accordance with accounting principles generally accepted in the United States of America.

Other Matters

We previously audited the consolidated statement of financial position as of June 30, 2017, and the related consolidated statements of activities and cash flows for the year then ended (not presented herein), and in our report dated October 25, 2017, we expressed an unmodified opinion on those consolidated financial statements. In our opinion, the information set forth in the accompanying summarized financial information as of June 30, 2017 and for the year then ended is consistent, in all material respects, with the audited consolidated financial statements from which it has been derived.

Other Information

Our audit was conducted for the purpose of forming an opinion on the consolidated financial statements as a whole. The accompanying schedule of expenditures of federal awards for the year ended June 30, 2018 is presented for purposes of additional analysis as required by Title 2 U.S. *Code of Federal Regulations* Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance) and is not a required part of the consolidated financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the consolidated financial statements. The information has been subjected to the auditing procedures applied in the audit of the consolidated financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the consolidated financial statements or to the consolidated financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the schedule of expenditures of federal awards is fairly stated, in all material respects, in relation to the consolidated financial statements as a whole.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated November 1, 2018 on our consideration of the University's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts and grant agreements and other matters for the year ended June 30, 2018. 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.

November 1, 2018

Pricewaterhouse Coopers UP

		2018	2017
Assets	3		
1	Cash and cash equivalents	\$ 241,127	\$ 181,265
2	Accounts receivable, net (note 2-A)	444,990	392,435
3	Contributions receivable, net (note 2-B)	826,109	902,846
4	Prepaid expenses and other assets	137,030	136,032
5	Student loans receivable, net (note 2-C)	73,772	<i>7</i> 9,211
6	Investments (note 3)	7,503,029	7,170,535
7	Land, buildings, and equipment, net (note 4)	4,297,047	4,256,807
8	Funds held in trust by others (note 5)	 113,795	 110,917
9	Total assets	\$ 13,636,899	\$ 13,230,048
Liabili	ties		
10	Accounts payable and accrued expenses	\$ 592,141	\$ 637,597
11	Deferred revenue and other liabilities	201,310	190,025
12	Obligations under split interest agreements (note 5)	135,331	133,459
13	Deferred benefits (note 6)	621,348	656,473
14	Funds held for others (note 7)	108,195	137,093
15	Obligations under capital leases (note 9)	122,552	67,842
16	Bonds and notes payable (note 8)	1,305,651	1,332,261
17	Government advances for student loans	 46,048	 50,679
18	Total liabilities	 3,132,576	 3,205,429
Net a	ssets (note 11)		
19	Unrestricted	3,425,131	3,120,525
20	Temporarily restricted	3,381,016	3,329,946
21	Permanently restricted	 3,698,176	 3,574,148
22	Total net assets	 10,504,323	10,024,619
23	Total liabilities and net assets	\$ 13,636,899	\$ 13,230,048

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

CONSOLIDATED STATEMENT OF ACTIVITIES FOR THE YEAR-ENDED JUNE 30, 2018 (in thousands)

(WITH SUMMARIZED INFORMATION FOR THE YEAR-ENDED JUNE 30, 2017)

				Temporarily
_		Unrestricted		Restricted
Opera	iting revenues	1 111 770	•	
1	Tuition and fees	\$ 1,111,779	\$	-
2	Scholarship allowance	 (385,158)		
3	Net tuition and fees	726,621		-
4	State and federal appropriations	150,632		-
5	Grants, contracts and similar agreements			
6	Direct	495,946		-
7	Indirect cost recoveries	159,792		-
8	Contributions	84,622		158,343
9	Investment return, distributed	206,188		140,586
10	Medical Physician Organization	1,103,335		-
11	Auxiliary enterprises	167,391		-
12	Educational activities and other sales and services	798,853		-
13	Net assets released from restrictions	 311,962		(311,962)
14	Total operating revenues	4,205,342		(13,033)
Opero	ating expenses (note 10)			
15	Compensation and benefits	2,736,170		-
16	Purchased services	356,591		-
17	Supplies and general	691,079		-
18	Maintenance and facilities costs	128,935		-
19	Interest expense (note 8)	51,541		-
20	Depreciation	307,109		-
21	Total operating expenses	 4,271,425		-
22	Change in net assets from operating activities	(66,083)		(13,033)
Nonor	perating revenues and (expenses)			
23	State appropriations for capital acquisitions	33,930		-
24	Grants, contracts and similar agreements for capital acquisitions	7,441		-
25	Contributions for capital acquisitions, trusts and endowments	3,095		60,895
26	Investment return, net of amount distributed	71,264		223,647
27	Change in value of split interest agreements	2,589		(3,826)
28	Pension and postretirement changes	45,581		-
29	Swap interest and change in value of interest rate swaps	23,601		-
30	Other	(22,563)		-
31	Net assets released for capital acquisitions and reclassifications	205,751		(216,613)
32	Change in net assets from nonoperating activities	 370,689		64,103
33	Change in net assets	304,606		51,070
34	Net assets, beginning of the year	3,120,525		3,329,946
35	Net assets, end of the year	\$ 3,425,131	\$	3,381,016

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

Pe	ermanently Restricted		2018 Total	2017 Total	
\$	-	\$	1,111,779	\$ 1,044,627	1
			(385,158)	 (367,731)	2
	-		726,621	676,896	3
	-		150,632	150,912	4
					5
	-		495,946	451,023	6
	-		1 <i>5</i> 9 <i>,</i> 792	146,037	7
	-		242,965	297,628	8
	-		346,774	355,904	9
	-		1,103,335	1,050,433	10
	-		167,391	162,433	11
	-		798,853	722,590	12
			<u>-</u>	 	13
	-		4,192,309	 4,013,856	14
	_		2,736,170	2,585,582	15
	-		356,591	315,228	16
	_		691,079	655,409	17
	_		128,935	132,302	18
	_		51,541	52,635	19
	_		307,109	280,176	20
-	_		4,271,425	 4,021,332	21
				 4,021,002	21
	-		(79,116)	 (7,476)	22
	-		33,930	45,096	23
	-		7,441	31,168	24
	115,690		179,680	390,535	25
	(4,296)		290,615	411,133	26
	1,796		559	10,571	27
	-		45,581	58,094	28
	_		23,601	55,560	29
	(24)		(22,587)	(9,056)	30
	10,862		-//	,. ,	31
	124,028	-	558,820	 993,101	32
					22
	124,028		479,704	985,625	33
	3,574,148		10,024,619	 9,038,994	34
\$ 3	3,698,176	\$	10,504,323	\$ 10,024,619	35

FOR THE YEARS-ENDED JUNE 30, 2018 AND JUNE 30, 2017 (in thousands)

	2018	2017
Cash flows from operating activities		
Change in net assets	\$ 479,704	\$ 985,625
Adjustments to reconcile change in net assets		
to net cash provided/(used) by operating activities		
2 Proceeds from contributions for capital acquisitions, trusts and endowments	(204,423)	(464,383)
3 Depreciation and amortization	298,981	271,339
Net realized and unrealized (gain)/loss on investments	(544,723)	(674,063)
5 Pension and postretirement changes	(45,581)	(58,094)
6 Change in value of interest rate swaps	(44,840)	(81,451)
7 Bond call premium	-	18,973
Loss on disposals of land, building, and equipment	1,226	7,470
9 Other adjustments	(2,877)	(10,825)
Change in assets and liabilities		
Accounts receivable, net	(52,555)	11,626
Contributions receivable, net	76,737	83,476
Prepaid expenses and other assets	(3,533)	(4,703)
Accounts payable and accrued expenses	22,335	(1,700)
Deferred revenue and other liabilities	11,285	(5,423)
Obligations under split interest agreements	(1,006)	12,058
Deferred benefits	10,456	18,319
Net cash provided/(used) by operating activities	1,186	108,244
Cash flows from investing activities	1,100	100,244
B. I.C. al. I. and the second	10.042.070	17 220 001
	10,842,078 (10,622,635)	17,338,881 (17,181,628)
Acquisition of land, buildings, and equipment (net)	(312,591)	(453,370)
Student loans granted	(9,744)	(12,655)
Student loans repaid	15,475	14,974
Change in funds held for others, net of unrealized (gain)/loss on investments	(36,114)	(33,636)
Net cash used by investing activities	(123,531)	(327,434)
Cash flows from financing activities		
Proceeds from contributions for capital acquisitions, trusts and endowments		
25 Investment in endowments	1 <i>5</i> 1 <i>,57</i> 1	395,753
Investment in physical plant	50,488	65,202
Investment subject to living trust agreements	2,364	3,428
Principal payments of bonds, notes payable and capital leases	(33,265)	(279,731)
29 Proceeds from issuance of bonds and notes payable	15,680	52,731
Bond call premium, bond premium and issuance costs	-	(18,973)
Government advances for student loans	(4,631)	(51)
Net cash provided by financing activities	182,207	218,359
Net change in cash and cash equivalents	59,862	(831)
Cash and cash equivalents, beginning of year	181,265	182,096
Cash and cash equivalents, end of year	\$ 241,127	\$ 181,265
Supplemental disclosure of cash flow information		
Cash paid for interest	\$ 59,442	\$ 61,497
·		\$ 7,334
·		
Net change in cash and cash equivalents Cash and cash equivalents, beginning of year Cash and cash equivalents, end of year Supplemental disclosure of cash flow information Cash paid for interest Increase/(decrease) in construction payables, non-cash activity Assets acquired under capital leases	59,862 181,265 \$ 241,127	\$ 181,20 \$ 181,20 \$ 61,44 \$ 7,33 \$ 64,20

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

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

1. SIGNIFICANT ACCOUNTING POLICIES

A. Description of the Organization

Founded in 1865, Cornell University ("the University") is dedicated to a mission of learning, discovery, and engagement. Cornell is a private university, the federal land-grant institution of New York State, and a member of the Ivy League. Cornell administers four contract colleges, which are also units of the State University of New York. Described as the first truly American university because of its founders' revolutionary egalitarian and practical vision of higher education, the University is dedicated to its land-grant mission of outreach and public engagement. Cornell's community includes over 24,000 students, 4,000 faculty, and approximately 282,000 alumni who live and work across the globe.

The University comprises colleges and schools in Ithaca, New York (seven undergraduate units and four graduate and professional units), New York City (two medical graduate and professional units, together with its physician organization referred to collectively as "Weill Cornell Medicine" or "WCM"), and Doha, Qatar (the "Weill Cornell Medical College in Qatar"). Also in New York City, the Cornell Tech campus offers graduate programs in applied sciences, including two programs offered jointly with the Technion - Israel Institute of Technology under the auspices of the Joan and Irwin Jacobs Technion-Cornell Institute ("Jacobs Institute").

The University is subject to the common administrative authority and control of the Cornell University Board of Trustees. The University is prohibited from using funds attributable to the contract colleges (i.e., those colleges operated by the University on behalf of New York State) for other units of the University. Except as specifically required by law, the contract and endowed colleges at Ithaca, Cornell Tech, and WCM are, to the extent practicable, governed by common management principles and policies determined at the private discretion of the University. In addition to the activities of the endowed and contract colleges, the University's subsidiaries and certain affiliated organizations are included in the consolidated financial statements. All significant intercompany transactions and balances are eliminated in the accompanying consolidated financial statements.

B. Basis of Presentation

The accompanying consolidated financial statements are prepared in accordance with U.S. generally accepted accounting principles ("GAAP"). Net assets, revenues, gains, and losses are categorized based on the existence or absence of donor-imposed restrictions.

The University's Board of Trustees, with consideration to the actions, reports, information, advice, and counsel provided by its duly constituted committees and appointed officers of the University, including University Counsel, has instructed the University to preserve the historical dollar value of donor-restricted (true) endowment funds, absent explicit donor direction to the contrary. As a result, the University classifies as permanently restricted net assets the original gift value of true endowments, plus any subsequent gifts and accumulations made in accordance with the directions of the applicable gift instruments. In accordance with accounting standards, the portion of the true endowment fund not classified as permanently restricted net assets is classified as temporarily restricted net assets except when the fair value of the endowment fund is less than its historical dollar value. For these "underwater" funds, the difference between historic dollar value and fair value is reflected in unrestricted net assets.

Temporarily restricted net assets also include gifts and appropriations from the endowment that can be expended, but for which the donors' purpose restrictions have not yet been met, as well as net assets with explicit or implied time restrictions, such as pledges and split-interest agreements. Expiration of donor restrictions is reported in the consolidated statement of activities as a reclassification from temporarily restricted net assets to unrestricted net assets on the net assets released from restriction lines.

Unrestricted net assets are the remaining net assets of the University.

(dollars in thousands)

C. Cash and Cash Equivalents

Cash and cash equivalents include cash on hand and in bank accounts, money market funds, and other temporary investments held for working capital purposes with an original maturity term of ninety days or less. The carrying amount of cash equivalents approximates fair value because of their short terms of maturity. Cash that is part of the University's investment portfolio is reported as investments and included in Note 3.

D. Contributions

Contributions, including unconditional promises to give (pledges), are recognized as revenues in the appropriate categories of net assets in the periods received. A pledge is recorded at the present value of estimated future cash flows, based on an appropriate discount rate determined by management at the time of the contribution. Amortization of this discount in subsequent years is included in contribution revenue. A contribution of assets other than cash is recorded at its estimated fair value on the date of the contribution. Contributions for capital projects, endowments, and similar funds are reported as non-operating revenues. Conditional promises to donate to the University are not recognized until the conditions are substantially met.

Temporarily restricted net assets include contributions to the University and to the Cornell University Foundation ("Foundation"), an affiliated entity that is included in the consolidated financial statements. The Foundation maintains a donor-advised fund for which the donors can make recommendations to the fund's trustees regarding distributions to the University or other charitable organizations. Distributions from the Foundation to external charitable organizations are recorded as non-operating expenses.

E. Investments

The University's investments are recorded in the consolidated financial statements at fair value. The values of publicly traded securities are based on quoted market prices and exchange rates, if applicable. The fair value of non-marketable securities is based on valuations provided by external investment managers. These investments are generally less liquid than other investments, and the values reported by the general partner or investment manager may differ from the values that would have been reported, had a ready market for these securities existed. The University exercises due diligence in assessing the policies, procedures, and controls implemented by its external investment managers, and believes the carrying amount of these assets is a reasonable estimate of fair value.

Investment income is recorded on an accrual basis, and purchases and sales of investment securities are reflected on a trade-date basis. Realized gains and losses are calculated using average cost for securities sold.

Investment return included in operating revenues consists of amounts appropriated by the Board of Trustees from the pooled endowment, as well as income and realized gains and losses on investments from working capital and non-pooled endowments and similar funds. Unrealized gains and losses on investments, any difference between total return and amounts appropriated from the pooled endowment, and income and realized gains reinvested per donor restrictions are reported as non-operating activities.

F. Fair-Value Hierarchy

The University values certain financial and non-financial assets and liabilities, on a recurring basis, in accordance with a hierarchy that categorizes and prioritizes the sources used to measure and disclose fair value. Fair value is defined as the price associated with an orderly transaction between market participants at the measurement date. This fair-value hierarchy is broken down into three levels based on inputs that market participants would use in valuing the financial instruments, which is based on market data obtained from sources independent of the University. The hierarchy of inputs used to measure fair value, and the primary valuation methodologies used by the University for assets and liabilities measured at fair value, are disclosed below.

The fair value of Level 1 securities is based upon quoted prices in accessible active markets for identical assets. Market price data is generally obtained from exchange or dealer markets. The University does not adjust the quoted price for such assets.

The fair value of Level 2 securities is based upon 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. Inputs are obtained from various sources, including market participants, dealers, and brokers. In determining fair value of financial instruments, the University considers factors such as interest-rate yield curves, duration of the instrument, and counterparty credit

risk. The fair value of Level 2 securities is determined using multiple valuation techniques including the market approach, income approach, or cost approach.

The fair value of Level 3 securities is based upon valuation techniques that use significant unobservable inputs.

Inputs used in applying the various valuation techniques refer to the assumptions that are used to make valuation decisions. Inputs may include price information, credit data, liquidity statistics, and other factors. A financial instrument's level within the fair-value hierarchy is based on the lowest level of any input that is significant to the fair-value measurement. The University considers observable data to be market data that is readily available and reliable and provided by independent sources. The categorization of a financial instrument within the fair-value hierarchy is, therefore, based upon the pricing transparency of the instrument, and does not correspond to the University's perceived risk of that instrument.

G. Derivative Instruments

The University has approved the use of derivatives by outside investment managers, based on investment guidelines negotiated at the time of a manager's appointment. The derivatives are used to adjust fixed-income durations and rates, to create "synthetic exposures" to certain types of investments, and to hedge foreign currency fluctuations. The University records the fair value of a derivative instrument within the applicable portfolio. The change in the fair value of a derivative instrument held for investment is included in non-operating investment return in the consolidated statement of activities.

In addition, the University holds other derivatives to manage its current and/or future long-term debt. These instruments are recorded at fair value as either prepaid or accrued expenses in the consolidated statement of financial position, and the swap interest and change in fair value is recorded as non-operating activity in the consolidated statement of activities.

Derivatives involve counterparty credit exposure. To minimize this exposure, the University manages counterparty risk by limiting swap exposure for each counterparty and monitoring the financial health of swap counterparties, and has structured swap documents to limit maximum loss in the event of counterparty default.

H. Land, Buildings, and Equipment

Land, buildings, and equipment are stated in the consolidated statement of financial position at cost on the date of acquisition or at fair value on the date of donation, net of accumulated depreciation. Depreciation is computed using the straight-line method over the estimated useful life of the asset, and is reflected as an operating expense. Expenditures associated with the construction of new facilities are recorded as construction in progress until the projects are completed.

The University's collections of art, rare books, and other property have been acquired through purchases and contributions since the University's inception. They are recognized as capital assets and are reflected, net of accumulated depreciation, in the consolidated statement of financial position. A collection received as a gift is recorded at fair value as an increase in net assets in the year in which it is received.

I. Split-Interest Agreements

The University's split-interest agreements with donors consist primarily of charitable gift annuities, pooled income funds, and charitable trusts for which the University serves as trustee. Assets held in trust are either separately invested or included in the University's investment pools in accordance with the agreements. Contributions of split-interest agreements, net of related liabilities, increase temporarily restricted net assets or permanently restricted net assets. Liabilities associated with charitable gift annuities and charitable trusts represent the present value of the expected payments to the beneficiaries based on the terms of the agreements. Pooled income funds are recognized at the net present value of the net assets expected at a future date. Gains or losses resulting from changes in fair value, changes in assumptions, and amortization of discount are recorded as changes in value of split-interest agreements in the appropriate restriction categories in the non-operating section of the consolidated statement of activities.

J. Funds Held in Trust by Others

Funds held in trust by others represent resources that are not in the possession or under the control of the University. These funds are administered by outside trustees, with the University receiving income or residual interest. Funds held in trust by others are recognized at the estimated fair value of assets or the present value of future cash flows due to the University when the irrevocable trust is established or the University is notified of its existence. Gains or losses resulting from changes in fair value are recorded as non-operating activities in the consolidated statement of activities.

(dollars in thousands)

K. Endowments

The responsibility for accepting, preserving, and managing those funds entrusted to the University rests, by law, with the Board of Trustees; however, the Trustees have delegated authority for investment decisions to the Investment Committee of the Board of Trustees. The Investment Committee determines investment policy, objectives, and guidelines, including allocation of assets between classes of investments.

The University's investment objective for its endowment assets is to maximize total return within reasonable risk parameters, specifically to achieve a total return, net of expenses, of at least five percent in excess of inflation, as measured by the Consumer Price Index over rolling five-year periods. The achievement of favorable investment returns enables the University to distribute over time increasing amounts from the endowment so that present and future needs can be treated equitably in inflation-adjusted terms. Diversification is a key component of the University's standard for managing and investing endowment funds, and asset allocation targets are subject to ongoing reviews by the Investment Committee.

The University applies the "prudent person" standard when deciding whether to appropriate or accumulate endowment funds, and considers the following factors: the duration and preservation of the endowment fund, the purposes of the institution and the endowment fund, the general economic conditions including the potential effect of inflation or deflation, the expected total return of the fund, other resources of the University, the needs of the University and the fund to make distributions and preserve capital, and the University's investment policy.

The Board authorizes an annual distribution from endowment funds that is within a target range of 4.4 percent to 5.9 percent of a 12-quarter rolling average of the unit fair value. The Trustees may occasionally make step adjustments, either incremental or decremental, based on prior investment performance, current market conditions, and/or any of the factors for prudent judgment described above. Total distributions, or spending, is presented as investment return, distributed, on the consolidated statement of activities, and includes endowment payout and an administrative fee that supports the investment and stewardship costs of the University endowment.

The New York Prudent Management of Institutional Funds Act ("NYPMIFA") established a requirement related to appropriations from endowments for which the fair value falls below the historic dollar value ("underwater"). The University, in compliance with NYPMIFA, notified available donors who had established endowments prior to September 17, 2010 of the new law, and offered these donors the option of requiring the University to maintain historical dollar value for their endowment funds. A minority of donors requested this option; for those who did, the University has designed procedures to ensure that the University maintains historical dollar value by not expending the payout on any underwater fund.

L. Sponsored Agreements

Revenues under grants, contracts, and similar agreements are recognized at the time expenditures are incurred. These revenues include the recovery of facilities and administrative costs, which are recognized according to the rates defined in the respective sponsored agreement. Amounts received in advance and in excess of incurred expenditures are recorded as deferred revenues.

M. Medical Physician Organization

The Medical Physician Organization ("MPO") provides the management structure for the practice of medicine for all WCM physicians at the main academic medical center and various clinical practice sites throughout New York City. In addition to generating clinical practice income, MPO members may provide instruction and conduct research activities. MPO revenue represents patient care and management service agreement fees. Expenses of the clinical practice, including physician compensation, administrative operations, and provision for uncollectible accounts, are reflected as University expenses.

N. Use of Estimates

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues, and expenses during the reporting period. Management's assumptions are related primarily to the appropriate discount rate for the purposes of fair-value calculations, to allowances for doubtful accounts and contractual allowances, and to self-insured risks. Actual results may differ from those estimates.

O. Comparative Financial Information

The consolidated statement of activities includes prior-year information in summary form rather than by restriction class. Such information does not include sufficient detail to constitute a presentation of prior-year data in conformity with U.S. GAAP. Accordingly, such information should be read in conjunction with the University's consolidated financial statements for the prior fiscal year from which the summarized information was derived.

P. Accounting Pronouncements

In May 2014, the FASB issued ASU 2014-09–Revenue from Contracts with Customers (Topic 606) at the conclusion of a joint effort with the International Accounting Standards Board to create common revenue recognition guidance for U.S. GAAP and international accounting standards. This framework ensures that entities appropriately reflect the consideration to which they expect to be entitled in exchange for goods and services, by allocating transaction price to identified performance obligations, and recognizing that revenue as performance obligations are satisfied. Qualitative and quantitative disclosures will be required to enable users of financial statements to understand the nature, amount, timing, and uncertainty of revenue and cash flows arising from contracts with customers. In August of 2015, FASB issued ASU 2015-14–Revenue from Contracts with Customers (Topic 606): Deferral of the Effective Date, which makes ASU 2014-09 effective for the fiscal year ending June 30, 2019. The University is planning for the implementation of this new standard and reviewing the potential impact on the financial statements, which is not expected to be material.

In February 2016, the FASB issued ASU 2016-02–Leases (Topic 842), which provides accounting guidance for leases from both the lessor's and lessee's perspective. The main difference between previous GAAP and Topic 842 is the recognition of lease assets and lease liabilities by lessees for those leases classified as operating leases; however, the University will evaluate other impacts of the new guidance. The new standard will be effective in the fiscal year ending June 30, 2020. The University has begun its planning for implementation of this new standard and is reviewing the potential impact on the financial statements.

In August 2016, the FASB issued ASU 2016-14–Not-for-Profit Entities (Topic 958): Presentation of Financial Statements for Not-for-Profit Entities to improve the information presented in financial statements and notes about a not-for-profit entity's liquidity, financial performance, and cash flows. The significant changes under the new guidance include the reduction of net asset classifications to two categories based on the existence or absence of donor restrictions, and additional disclosure requirements related to board designation of net assets, and related to the liquidity and availability of the entity's financial assets. ASU 2016-14 is effective for the fiscal year ending June 30, 2019. The University is planning for the implementation of this new standard.

In June 2018, the FASB issued ASU 2018-08-Not-for-Profit Entities (Topic 958): Clarifying the Scope and Accounting Guidance for Contributions Received and Contributions Made. The amendments are intended to assist in evaluating whether transactions should be accounted for as contributions or as exchange transactions subject to other guidance and in determining whether a contribution is conditional. The new standard will be effective for contributions received for the fiscal year ending June 30, 2019. The University has begun its planning for implementation of this new standard and is reviewing the potential impact on the financial statements.

Q. Revisions

The University has revised the consolidated statement of financial position, statement of activities and statement of cash flows for the year ended June 30, 2017 to correct the classification of \$46 million of investments internally designated to fund the WCM post-retirement medical benefits plan. The University has concluded these investments were not effectively restricted and therefore should not have been considered plan assets in accordance with Accounting Standards Codification (ASC) 715, Compensation – Retirement Benefits. The consolidated statement of financial position, statement of activities and statement of cash flows for the year ended June 30, 2017 have been corrected to reflect this and other immaterial revisions between cash flow categories. This misclassification had no impact on net assets on the consolidated statement of activities. The University has evaluated the impact of this misclassification and concluded that it is not material, individually or in the aggregate, to the previously reported June 30, 2017 consolidated financial statements.

The following exhibit shows the impact of this misclassification in the consolidated statement of financial position, statement of activities and statement of cash flows.

REVISIONS

	As previously		
	reported	Adjustment	As revised
Statement of Financial Position			
Investments	\$ 7,124,578	\$ 45,957 \$	7,170,535
Total assets	13,184,091	45,957	13,230,048
Deferred benefits	610,516	45,957	656,473
Total liabilities	3,159,472	45,957	3,205,429
Total liabilities and net assets	13,184,091	45,957	13,230,048
Statement of Activities			
Investment return, net of amount			
distributed	405,014	6,119	411,133
Pension and postretirement changes	64,213	(6,119)	58,094
Statement of Cash Flows			
Net realized and unrealized (gain)/loss			
on investments	(672,248)	(6,119)	(678,367)
Pension and postretirement changes	(64,213)	6,119	(58,094)

To conform to the revised June 30, 2017 balances, revisions were additionally made to Investments and Deferred Benefits disclosures included within note 3 and note 6 of these consolidated financial statements.

R. Income Taxes

The University is a not-for-profit organization as described in Section 501(c)(3) of the Internal Revenue Code and is generally exempt from income taxes on related income pursuant to the appropriate sections of the Internal Revenue Code. In accordance with the accounting standards, the University evaluates its income tax position each fiscal year to determine whether the position is more likely than not to be sustained if examined by the applicable taxing authority. This review had no material impact on the University's consolidated financial statements.

2. RECEIVABLES

A. Accounts Receivable

The University's receivables from the sources identified in the table below are reviewed and monitored for aging and other factors that affect collectability.

Accounts receivable from the following sources were outstanding as of June 30:

SUMMARY OF ACCOUNTS RECEIVABLE

	2018	2017
Grants and contracts	\$ 94,718	\$ 95,361
NewYork-Presbyterian Hospital and other affiliates	51 <i>,</i> 508	40,484
Patients (net of contractual allowances)	128,750	118,608
Reinsurance receivable	122,351	103,726
Student accounts	14,896	13,659
Other	66,344	60,339
Gross accounts receivable	\$ 478,567	\$ 432,177
Less: allowance for doubtful accounts	(33,577)	(39,742)
Net accounts receivable	\$ 444,990	\$ 392,435

The patient accounts receivable for medical services was comprised of the following at June 30, 2018 and 2017, respectively: commercial third parties 68.5 percent and 67.3 percent; federal/state government 17.4 percent and 16.7 percent; and patients 14.1 percent and 16.0 percent. Note 12 provides additional information related to the reinsurance receivable.

Other accounts receivable include receivables from other government agencies, matured bequests, and other operating activities.

B. Contributions Receivable

Unconditional promises to give, or pledges, are recorded in the consolidated financial statements at present value using discount rates ranging from 1.0 percent to 7.0 percent. The methodology for estimating uncollectible amounts is based on an analysis of the historical collectability of contributions receivable. Contributions are expected to be realized as follows:

SUMMARY OF CONTRIBUTIONS RECEIVABLE

	2018		2017
Less than one year	\$ 341,413	\$	372,009
Between one and five years	435,315		413,276
More than five years	164,223		242,001
Gross contributions receivable	\$ 940,951	\$	1,027,286
Less: unamortized discount	(89,292)		(96,517)
Less: allowance for uncollectible amounts	(25,550)		(27,923)
Net contributions receivable	\$ 826,109	\$	902,846

Contributions receivable as of June 30 are intended for the following purposes:

EXPECTED PURPOSE OF CONTRIBUTIONS RECEIVABLE

	 2018		2017
Program support	\$ 420,169		\$ 469,049
Capital purposes	1 <i>57,</i> 839		184,457
Long-term support	248,101		249,340
Net contributions receivable	\$ 826,109	_	\$ 902,846

At June 30, 2018, conditional promises not reflected in the consolidated financial statements, which consist primarily of bequest intentions and conditional promises with significant requirements, were \$502,357.

C. Student Loans Receivable

In keeping with Ezra Cornell's vision, the University has a "need-blind" policy of admission. Many students receive financial aid that consists of scholarship/fellowship grants, work-study opportunities and, when appropriate, student loans.

Student loan programs are funded by donor contributions, other institutional sources, and governmental programs, primarily the Federal Perkins Loan Program. The amounts received from the federal government's portion of the Perkins program are ultimately refundable to the federal government and are reported as a liability on the University's consolidated statement of financial position as government advances for student loans. The Federal Perkins Loan Program ended as of June 30, 2018. Existing loans will be serviced throughout the repayment term.

Student loans are often subject to unique restrictions and conditions and, therefore, it is not practical to determine their fair values. The allowance for doubtful accounts is for all loans, whether in repayment status or not.

The table below provides additional information about the student loan receivables and the allowances associated with federal and institutional loan programs.

SUMMARY OF STUDENT LOANS RECEIVABLE

		2018						2017		
		Receivable		Receivable Allo		Allowance	ance Net receivable		e Net rece	
Federal revolving loans	\$	40,291	\$	(1,074)	\$	39,217	\$	47,969		
Institutional loans		37,476		(2,921)		34,555		31,242		
Total student loans receivable	\$	77,767	\$	(3,995)	\$	73,772	\$	79,211		

3. INVESTMENTS

A. General Information

The University's investments are overseen by the Investment Committee of the Board of Trustees. The University's investment strategy incorporates a diversified asset allocation approach and maintains, within defined limits, exposure to the

movements of the world equity, fixed income, commodities, real estate, and private equity markets. Based on guidelines established by the Investment Committee, the University's Investment Office directs the investment of endowment and trust assets, certain working capital, and temporarily invested expendable funds.

The University maintains a number of investment pools or categories for specific purposes as follows:

INVESTMENT POOLS/CATEGORIES AT FAIR VALUE

	2018	2017
Long-term investments (LTI)		
Long-term investment pool (LTIP)	\$ 6,781,595	\$ 6,363,271
Other LTI	448,695	394,477
Total LTI	\$ 7,230,290	\$ 6,757,748
Separately invested and other assets	272,739	412,787
Total investments	\$ 7,503,029	\$ 7,170,535

Total earnings on the University's investment portfolio for the fiscal years ended June 30 is presented in the following table:

SUMMARY OF INVESTMENT RETURN

	2018		2017
Interest and dividends, net of investment fees	\$ 85,450	•	\$ 75,310
Net realized gain/(loss)	430,245		324,195
Net unrealized gain/(loss)	 121,694		367,532
Total investment return	\$ 637,389	•	\$ 767,037

B. Fair Value

The University's investment holdings as of June 30, categorized in accordance with the fair-value hierarchy, are summarized in the following tables:

INVESTMENTS AT FAIR VALUE

		Level 1 fair value	Level 2 fair value		Level 3 fair value	Net asset value		2018 Total	2017 Tota
Cash and cash equivalents	\$	142,849	\$ 20,272	\$	-	\$ -	\$	163,121	\$ 349,592
Derivatives		-	(5,961)		-	-		(5,961)	(2,260)
Equity									
Domestic equity		284,020	315,090		1,654	-		600,764	709,560
Foreign equity		386,998	538,044		849	610,424		1,536,315	1,260,740
Hedged equity		-	-		2,788	-		2,788	435,754
Private equity		-	-		61,974	1,572,494		1,634,468	1,380,558
Fixed income									
Asset backed fixed income		-	21,282		844	-		22,126	27,575
Corporate bonds		-	132,214		2,070	-		134,284	224,985
Equity partnership		-	31		-	531,869		531,900	459,181
International		2,970	28,632		469	-		32,071	93,168
Municipals		-	3,003		-	-		3,003	11,005
Mutual funds (non-equity)		196	14,854		-	-		15,050	19,921
Preferred/convertible		-	1,380		4,929	-		6,309	20,117
Other fixed income		-	495		-	-		495	105
US government		109,562	59,470		-	-		169,032	130,575
Marketable alternatives		-	279		-	1,324,224		1,324,503	878,982
Real assets		-	62,694		19,997	1,242,818		1,325,509	1,185,786
Receivable for investments sold		31,701	-		-	-		31,701	20,038
Payable for investments purchased		(49,126)	-		-	-		(49,126)	(58,923)
Other		-	-		24,677	-		24,677	24,076
Total investments	\$	909,170	\$ 1,191,779	\$	120,251	\$ 5,281,829	\$	7,503,029	\$ 7,170,535
Securities not included in investment p	oortfol	io							
Cash and cash equivalents	\$	118,905	\$	¢		¢	¢	118,905	\$ 69,963

Level 1 investments consist of cash and cash equivalents, equity, and fixed-income securities with observable market prices. Fair value is readily determinable based on quoted prices in active markets. Unsettled trade receivable and payable valuations are reflective of cash settlements subsequent to the fiscal year-end and are also categorized as Level 1. The University does not adjust the quoted price for such instruments, even in situations where the University holds a large position and a sale of all its holdings could reasonably impact the quoted price.

Investments that are classified as Level 2 include domestic and foreign equities, as well as fixed income securities that trade in markets that are not considered to be active. Fair value is based on observable inputs for similar instruments in the market, and obtained by various sources including market participants, dealers, and brokers; the University's custodian secures pricing for these assets. The fair value of derivative investments is based on market prices from the financial institution that is the counterparty to the derivative.

Level 3 investments have significant unobservable inputs, as they trade infrequently or not at all. The inputs into the determination of fair value are based upon the best information in the circumstance and may require significant management judgment. Investments included in Level 3 consist primarily of the University's ownership in real estate, oil and mineral rights, limited partnerships, and equity positions in private companies.

C. Investments Using Net Asset Value

The net asset value ("NAV") column above represents the University's ownership interest in certain alternative investments. As a practical expedient, the University uses its ownership interest in the NAV to determine the fair value of all alternative investments that do not have a readily determinable fair value, and have financial statements consistent with the measurement principles of an investment company or have the attributes of an investment company. The NAV of these investments is determined by the general partner and is based upon appraisal or other estimates that require varying degrees of judgment. If no public market exists for the investment securities, the general partner will take into consideration, among other things, the cost of the securities, prices of recent significant placements of securities of the same issuer, and subsequent developments concerning the companies to which the securities relate. The University has performed significant due diligence around these investments to ensure that NAV is an appropriate measure of fair value as of June 30.

The following table provides additional information about alternative investments measured at NAV:

SUMMARY OF ALTERNATIVE INVESTMENTS MEASURED USING NET ASSET VALUE

Asset class	NAV in funds	Unfunded commitments	Timing to draw commitments	Redemption terms*
Private equity	\$ 1,572,494	\$ 696,741	1 to 10 years	These funds are in a private equity structure, with no ability to be redeemed
Real assets	1,242,818	521,851	1 to 10 years	These funds are in a private equity structure, with no ability to be redeemed
Fixed income	531,869	258,577	1 to 10 years	No redemptions available for funds in a private equity structure; balance includes 5% within 7 days, 11% with rolling 2-year redemptions with 90- days notice, and 8% within 5 years **
Foreign equity	610,424	n/a	n/a	Ranges between thrice-monthly redemption with 2-days notice, to rolling 3-year redemption with 90-days notice
Marketable alternatives	1,324,224	n/a	n/a	Ranges between quarterly redemption with 30-days notice, to 33% redemption per year with 60-days notice
Total for alternative investments using NAV	\$ 5,281,829	\$ 1,477,169		

^{*} Represents initial investment lock up restriction. No other material redemption restrictions, such as redemption gates, were in place at year end.

^{** 76%} of NAV is in a private equity structure, with no ability to be redeemed. Redemption provisions for the remaining 24% are shown above.

D. Level 3 Investments

The table below presents a summary of Level 3 investment activity. All net realized and unrealized gains/(losses) in the table are reflected in the accompanying consolidated statement of activities. Net unrealized gains/(losses) relate to those financial instruments held by the University at June 30, 2018. There were no significant transfers into or out of Level 3 during the fiscal year ended June 30, 2018.

SUMMARY OF LEVEL 3 INVESTMENT ACTIVITY

	Fo	June 30,		Realized		Inrealized		- 1	ransfers (out) of	Fo	air value at June 30,
		2017	9	jain/(loss)	9	ain/(loss)	 Purchases	 Sales	 Level 3		2018
Equity											
Domestic equity	\$	1,656	\$	-	\$	(2)	\$ -	\$ -	\$ -	\$	1,654
Foreign equity		6,744		(681)		591	-	(5,805)	-		849
Hedged equity		4,945		(140)		70	1 <i>7</i>	(2,104)	-		2,788
Private equity		47,822		(352)		1,205	13,305	(6)	-		61,974
Fixed income											
Asset backed fixed income		929		33		(40)	-	(78)	-		844
Corporate bonds		2,888		21		25	248	(1,112)	-		2,070
International		-		-		(22)	491	-	-		469
Preferred/convertible		5,014		-		(85)	-	-	-		4,929
Real assets		23,953		(59)		(6,375)	3,363	(885)	-		19,997
Other		24,076		147		698	1,164	(1,408)	-		24,677
Total level 3 investments	\$	118,027	\$	(1,031)	\$	(3,935)	\$ 18,588	\$ (11,398)	\$ -	\$	120,251

Level 3 equities not priced by qualified third parties (e.g., brokers, pricing services, etc.) are valued using discounted cash flows, taking into account various factors including nonperformance risk, counterparty risk, and marketability. Investment value is also derived using a market approach through comparison to recent and relevant market multiples of comparable companies. Start-up assets, held by the University's student-run venture fund or other similar programs, are maintained at or near initial investment amounts due to the nature of the activity.

Level 3 asset-backed fixed income investments are valued using discounted cash flows. Preferred/convertible fixed income investments are valued using discounted cash flows or a market approach using a dividend multiplier. Investments in start-up companies, as described above, are valued at or near initial investment amounts.

Level 3 real assets represent directly owned real estate, and oil or mineral rights. To the extent feasible, third-party appraisals are used to value real estate directly owned by the University. If current appraisals are not available, fair value is based on the capitalization rate valuation model or discounted cash flow, corroborated by local market data, if available. Oil and mineral rights are valued based on industry standard revenue multiplier methodologies or discounted cash flows.

The following table provides additional information related to the valuation of the investments classified by the University as Level 3.

QUANTITATIVE INFORMATION ABOUT LEVEL 3 FAIR VALUE MEASUREMENT

	Level 3 fair value	Valuation technique(s)	Unobservable inputs	Range (weighted average)
Equity Domestic equity	\$ 1,654	Start-up valuation		
Foreign equity	849	Third-party valuation		
Hedged equity	2,788	Third-party valuation		
Private equity	1,082	Discounted cash flow	Discount rate Discount for lack of marketability	13% 20%
	5,165 55,727	Start-up valuation Third-party valuation		
Fixed income				
Asset backed fixed	844	Discounted cash flow	Discount rate	3.9% - 4.7% (4.6%)
Corporate bonds	2,070	Third-party valuation		
International	469	Third-party valuation		
Preferred/convertible	4,929	Market comparable	Dividend multiple	17.1x - 20.7x (20.0x)
Real assets	166	Discounted cash flow	Discount rate Years to maturity	15% 12
	972 18,859	Sales comparison approach Third-party valuation	Recent transactions	
Other	9,286	Discounted cash flow	Discount rate Years to maturity	3.0% - 5.3% (3.5%) 4 - 14 (7)
	1,291 14,100	Start-up valuation Third-party valuation	· · · · ·	,,
Total Level 3 investments	\$ 120,251			

The methods described above may produce a fair-value calculation that is not 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.

E. Derivative Holdings

The use of certain financial derivative instruments is governed by either the University's written investment policy, specific manager guidelines, or partnership/fund agreement documents. Specifically, financial derivative instruments may be used to manage foreign currency exposure, to obtain commodity exposure, to create synthetic exposure, or to obtain protection against increases in interest rates. These derivatives, based on definitions in GAAP, are not designated as hedging instruments. As part of its overall diversification strategy, the University allocates a percentage of its assets to investment managers specializing in securities whose prices are denominated in foreign currencies. The investment guidelines provide discretion to these managers to adjust the foreign currency exposure of their investment portfolios by using derivative instruments. A derivative is used for buying or selling foreign currency under a short-term contract to lock in the dollar cost of a specific pending purchase or sale of a foreign security, or for selling foreign currency under a longer-term contract to hedge against a general decline in the dollar value of foreign security holdings.

Some investment managers have discretion, limited by overall investment guidelines, to use derivative instruments to create investment exposures that could not be created as efficiently with other types of investments. These synthetic exposures in the University's portfolio consist of four types: 1) forward contracts used to increase exposure to a foreign currency beyond the level of underlying security investments in that currency; 2) futures contracts used to create exposures to assets where the futures market provides a more efficient investment than the underlying securities; 3) swap contracts, also used to provide a more efficient means to gain exposure than the underlying securities; and 4) option contracts used to adjust the exposure of the long-term portfolio to interest rate volatility.

The University entered into option contracts on interest-rate swaps as a way to mitigate the impact of a significant rise in interest rates in the future. Under the terms of certain option contracts on interest-rate swaps, the University is obligated to make future premium payments. At June 30, 2018 and 2017, the University had unfunded premium payment commitments of \$3,072 and \$4,097 respectively. The University's premium payment schedule is as follows: \$1,024 for the years ending June 30, 2019, 2020 and 2021.

The following table provides detailed information on the derivatives included in the investment portfolio as of June 30.

FAIR VALUE OF DERIVATIVE HOLDINGS IN STATEMENT OF FINANCIAL POSITION

		 2018					2017						
Location	Derivative type	Notional amount	# of Contracts		Fair value		Notional amount	# of Contracts		Fair value			
Investments													
	Foreign currency	\$ -	28	\$	426	\$	-	43	\$	(341)			
	Commodity	130,826	55		(1 <i>,</i> 735)		-	-		-			
	Synthetic	174,941	16		(2,951)		(3,464)	2		(1)			
	Interest rate	301,004	3		(1 <i>,7</i> 01)		301,004	3		(1,918)			
Total fair v	alue	\$ 606,771	102	\$	(5,961)	\$	297,540	48	\$	(2,260)			

4. LAND, BUILDINGS, AND EQUIPMENT

A. General Information

Land, buildings, and equipment are detailed as follows:

LAND, BUILDINGS, AND EQUIPMENT

	Book value at	Book value at
	June 30, 2018	June 30, 2017
Land, buildings, and equipment	\$ 6,232,741	\$ 5,745,468
Furniture, equipment, books, and collections	1,371,173	1,310,794
Capital leases	125,059	68,708
Construction in progress	211,039	488,652
Total before accumulated depreciation	\$ 7,940,012	\$ 7,613,622
Accumulated depreciation	(3,642,965)	(3,356,815)
Net land, buildings, and equipment	\$ 4,297,047	\$ 4,256,807

Certain properties, for which the University has possession and beneficial use for an indefinite period and which other entities may also record as assets, are included in the consolidated statement of financial position, as follows: (1) land, buildings, and equipment of the Contract Colleges aggregating \$741,078 and \$742,876 at June 30, 2018 and 2017, respectively, the acquisition cost of which was borne primarily by New York State and (2) land, buildings, and equipment for which titles rest with government and corporate agencies aggregating \$1,338 and \$2,438 at June 30, 2018 and 2017, respectively.

The future commitments on capital projects in progress, excluding projects funded by New York State, are approximately \$98,768 at June 30, 2018.

B. Cornell Tech Campus

In December 2011, the University, in partnership with Technion-Israel Institute of Technology, won the Applied Sciences NYC competition to build and operate a new applied sciences and engineering campus in New York City. The city committed, through the New York City Economic Development Corporation (NYCEDC), a location and seed funding for the initial construction of the new campus. Under the terms of the agreement with the NYCEDC and the ninety-nine year ground lease for Roosevelt Island, the University made the commitment to create the new applied sciences campus in three phases, with milestones in 2017, 2027, and 2037. In addition, the University has enrollment, faculty, and other operational commitments as part of the agreement.

In 2014, the University broke ground on Roosevelt Island, taking the first steps toward the completion of the Phase I development commitments, which include the first academic building, a residential building, a corporate co-location space,

and an executive education facility. The total cost of demolition of the existing structures on the site is considered to be a prepaid cost of the ground lease, and will be amortized over the term of the lease. At June 30, 2018, the unamortized amount of the demolition costs is \$55,364.

On March 31, 2016, the University entered into a joint venture with the Hudson Companies through its subsidiary H/R Tech Residential LLC. The purpose of the new joint venture, called Hudson Cornell Residential JV LLC, is to construct and operate the new residential facility on the Cornell Tech campus. The University has an equity interest of 86.59 percent and controlling financial interest and, therefore, consolidates the joint venture. This consolidation resulted in \$128,149 included in land, buildings, and equipment, net attributed to the joint venture at June 30, 2018. In addition, Hudson Cornell Tech LLC, a subsidiary of Hudson Cornell Residential JV LLC, held bonds and notes payable related the construction of the residential building ("The House") (see Note 8A). Unrestricted net assets of \$4,509 and \$5,625, representing the non-controlling interest of H/R Tech Residential LLC, is also consolidated into the University's net assets at June 30, 2018 and 2017, respectively. Operating activity related to the joint venture is immaterial in the current fiscal year.

The Tata Innovation Center (formerly "The Bridge") is a corporate co-location building and condominium association comprised of a "Cornell Unit" and one or more other units initially owned by the developer and/or its affiliates. The University has entered into a lease agreement for the Cornell Unit for a term of thirty-five years. As part of the lease agreement, the University has made a commitment in the form of gap rent for the developer's unit(s) in an amount not to exceed \$2,982 annually, or \$44,731 over twenty years. The annual amount of gap rent is adjusted based upon the occupancy level in the developer's unit(s). During the year ended June 30, 2018, a gap rent payment of \$2,982 was made.

Cornell Tech met its first milestone when faculty, staff, and researchers moved into the first academic building (Bloomberg Center) on Roosevelt Island during the summer of 2017, and students, faculty, and researchers moved into the House in advance of the fall semester. In addition, programs and operations in both the Bloomberg Center and The Tata Innovation Center began during the 2017-2018 academic year, rounding out the University's operational commitments.

5. OBLIGATIONS UNDER SPLIT-INTEREST AGREEMENTS AND FUNDS HELD IN TRUST BY OTHERS

The University reports its obligations under split-interest agreements at fair value. The fair value of the obligation is calculated annually and considered Level 3 in the fair-value hierarchy. The discount rate is based on average return of investment-grade corporate bonds, weighted using a schedule of actuarial estimates of the lives of the income beneficiaries and the relative value of the agreements.

The University's interest in funds held in trust by others is considered Level 3 in the fair-value hierarchy. Trusts in which the University has an income interest are valued annually using estimated cash flows based on average actual income over three years. Remainder interests are determined using present value calculations based on annual valuation reports received from the funds' trustees. The discount rates used to estimate present value are based on the average return of investment-grade corporate bonds, weighted according to a schedule of actuarial estimates.

The following tables summarize the fair values and activity of funds held in trust by others and obligations under split interest agreements.

SPLIT-INTEREST AGREEMENTS AT FAIR VALUE AND LEVEL 3 QUANTITATIVE INFORMATION

	2018 Total	Valuation methodologies	Unobservable inputs	Range (weighted average)
Funds held in trust by others Remainder	\$ 53,682	Present value calculation	Discount rate Years to maturity	4.00% 0-55 (11)
Lead and perpetual Total funds held in trust by others	\$ 113,795	Discounted cash flows	Discount rate	4.60%
Obligations under split interest agreements	\$ 135,331	Discounted cash flows	Discount rate Years to maturity	4.20% 0-62 (16)

SUMMARY OF LEVEL 3 SPLIT-INTEREST AGREEMENT ACTIVITY

	Fair value at June 30, 2017	Realized ain/(loss)	-	nrealized ain/(loss)	ı	Purchases	Sales	Transfers (out) of Level 3	Fa	uir value at June 30, 2018
Funds held in trust by others				,						
Remainder	\$ 50,067	\$ 1,638	\$	(2,053)	\$	5,099	\$ (1,069)	\$ -	\$	53,682
Lead and perpetual	60,850	(3,725)		(16)		3,004	-	-		60,113
Total funds held in trust by others	\$ 110,917	\$ (2,087)	\$	(2,069)	\$	8,103	\$ (1,069)	\$ -	\$	113,795
Obligations under split-interest agreements	\$ 133,459	\$ -	\$	1,872	\$	-	\$ -	\$ -	\$	135,331

6. DEFERRED BENEFITS

A. General Information

Accrued employee benefit obligations as of June 30 include:

SUMMARY OF DEFERRED BENEFITS

	 2018	 2017
Postemployment benefits	\$ 26,034	\$ 27,526
Pension and other postretirement benefits	406,852	441,200
Other deferred benefits	188,462	187,747
Total deferred benefits	\$ 621,348	\$ 656,473

Accrued postemployment benefits include workers' compensation and medical continuation benefits for those on long-term disability. Other deferred benefits include primarily vacation accruals, deferred compensation, and medical benefit claims incurred but not reported. Additionally, the University provides various benefits to former or inactive employees after employment, but before retirement, that are recognized when they are earned.

B. Pension and Postretirement Plans

The University's employee retirement plan coverage is provided by two basic types of plans: one based on a predetermined level of funding (defined contribution), and the other based on a years-of-service calculation to determine the level of benefit to be provided (defined benefit).

The primary defined contribution plans for endowed colleges at Ithaca and for exempt employees (those not subject to the overtime provisions of the Fair Labor Standards Act) at WCM are carried by the Teachers Insurance and Annuity Association; the College Retirement Equities Fund; the Vanguard Group (WCM only); and Fidelity Investments (the endowed colleges at Ithaca only), all of which permit employee contributions within the tax deferred annuity plans. Total contributions of the endowed colleges at Ithaca and WCM plans for the fiscal years ended June 30, 2018 and 2017 amounted to \$115,051 and \$111,336 respectively.

WCM maintains the University's only defined benefit pension plan. The participants include non-exempt employees at WCM who meet the eligibility requirements for participation. The plan was frozen in 1976 for exempt employees at WCM and the accrued benefits were merged with the active non-exempt retirement plan in 1989. In accordance with Employee Retirement Income Security Act (ERISA) requirements for the defined benefit plans, the University must fund annually with an independent trustee an actuarially determined amount.

Additionally, the University provides health and life insurance benefits for eligible retired employees and their dependents, based on the attainment of a set of defined service and age requirements. The cost of providing these benefits is accrued during the service lives of employees.

C. Obligations and Funded Status

The following table sets forth the defined benefit pension and postretirement plans' obligations and funded status as of June 30:

SUMMARY OF OBLIGATIONS AND FUNDED STATUS

	Pension benefits			ts	Other postretirement				
		2018		2017		2018		2017	
Change in plan assets									
Fair value of plan assets at beginning of year	\$	111,530	\$	96,109	\$	255,181	\$	217,866	
Actual return on plan assets		9,186		13,147		19 <i>,</i> 753		32,315	
Employer contribution		6,500		6,000		26,781		23,052	
Benefits paid		(4,331)		(3,726)		(21,781)		(18,052)	
Fair value of plan assets at end of year	\$	122,885	\$	111,530	\$	279,934	\$	255,181	
Change in benefit obligation									
Benefit obligation at beginning of year	\$	175,870	\$	160,601	\$	632,041	\$	638,835	
Service cost (benefits earned during the period)		10,824		9,509		30 <i>,757</i>		30,535	
Interest cost		7,658		6,758		26,250		24,734	
Actuarial (gain)/loss		(1,736)		2,728		(48,814)		(46,851)	
Gross benefits paid		(4,331)		(3,726)		(20,212)		(16,614)	
Less: federal subsidy on benefits paid		-				1,364		1,402	
Projected benefit obligation at end of year	\$	188,285	\$	175,870	\$	621,386	\$	632,041	
Funded status	\$	(65,400)	\$	(64,340)	\$	(341,452)	\$	(376,860)	
Amounts recognized in the consolidated									
statement of financial position	\$	(65,400)	\$	(64,340)	\$	(341,452)	\$	(376,860)	
Amounts recorded in unrestricted net assets not yet amortized as co	mpone	nts of net perio	dic be	nefit cost					
Prior service cost	\$	(324)	\$	(416)	\$	-	\$	-	
Net actuarial (gain)/loss	-	38,887		44,933		40,557		93,844	
Amount recognized as reduction in unrestricted net assets	\$	38,563	\$	44,517	\$	40,557	\$	93,844	
Amounts recorded in nonoperating pension and postretirement cha	nges								
Change in amounts not yet amortized as components of net									
periodic benefit cost	\$	5,954	\$	7,282	\$	53,287	\$	78,000	
Other components of net periodic benefit cost		(2,690)		(3,621)		(10,970)		(23,567)	
Total nonoperating pension and postretirement changes	\$	3,264	\$	3,661	\$	42,317	\$	54,433	

The accumulated benefit obligation for the pension plans was \$160,410 and \$150,761 at June 30, 2018 and 2017, respectively. The accumulated benefit obligation differs from the projected benefit obligation in the table above in that it includes no assumptions about future compensation levels. It represents the actuarial present value of future payments to plan participants using current and past compensation levels. For postretirement plans other than pensions, the accumulated benefit obligation is the same as the projected benefit obligations because the liabilities are not compensation-related.

D. Net Periodic Benefit Cost

Net benefit expense related to the pension and postretirement plans for the fiscal years ended June 30 includes the following components:

NET PERIODIC BENEFIT COST

	Pension	benefits			tretirement		
	2018		2017		2018		2017
Service cost (benefits earned during the period)	\$ 10,824	\$	9,509	\$	30,757	\$	30,535
Interest cost	7,658		6,758		26,250		24,734
Expected return on plan assets	(7,818)		(6,621)		(18,773)		(16,067)
Amortization of prior service cost	(92)		(92)		-		-
Amortization of net (gain)/loss	2,942		3,576		3,493		7,283
Net periodic benefit cost	\$ 13,514	\$	13,130	\$	41,727	\$	46,485

The amounts of prior service costs and actuarial gains/losses that will be amortized into net periodic benefit cost for the year ending June 30, 2019 are estimated as follows:

ESTIMATED COMPONENTS OF NET PERIODIC BENEFIT COST

	 Pension benefits	Other	postretirement
Prior service cost	\$ (92)	\$	-
Net actuarial (gain)/loss	 1,812		<u>-</u>
Total	\$ 1,720	\$	-

E. Actuarial Assumptions

Assumptions used in determining the pension and postretirement plans' benefit obligations and net periodic costs are:

SUMMARY OF ACTUARIAL ASSUMPTIONS

	Pension be	nefits	Other post	retirement
	2018	2017	2018	2017
Used to calculate benefit obligations at June 30				•
Discount rate	4.31%	4.04%	4.30% / 4.29%	3.97% / 3.96%
Rate of compensation increase	3.00%	3.00%		
Used to calculate net periodic cost at July 1				
Discount rate	4.04%	3.94%	3.97% / 3.96%	3.83% / 3.79%
Expected return on plan assets	7.00%	7.00%	7.30%	7.30%
Rate of compensation increase	3.00%	3.00%		
Assumed health care cost trend rates				
Health care cost trend rate assumed for next year	n/a	n/a	5.50% / 6.00%	6.00% / 6.50%
Ultimate trend rate	n/a	n/a	4.50%	4.50%
Years to reach ultimate trend rate	n/a	n/a	3 / 4	4/5

The health care cost trend rate assumption has a significant effect on the amounts reported for postretirement health care plans. Increasing the health care cost trend rate by one percent in each future year would increase the benefit obligation by \$124,281 and the annual service and interest cost by \$15,004. Decreasing the health care cost trend rate by one percent in each future year would decrease the benefit obligation by \$88,256 and the annual service and interest cost by \$10,780.

F. Plan Assets

The University's Retirement Plan Oversight Committee ("RPOC") is chaired by the Vice President and Chief Human Resources Officer, with committee members selected from across multiple disciplines at the University. Its primary purpose is to assist the University in fulfilling its fiduciary responsibilities by providing guidance and oversight for the University's retirement plans, including oversight of the custodial bank. The RPOC, in accordance with an Investment Policy Statement, and in conjunction with its outside consultant, regularly reviews the investment strategies, along with evolving institutional objectives, and will make recommendations regarding possible changes to asset allocation and investment managers accordingly.

The University's overall investment objectives for the pension plan and postretirement healthcare plan assets are broadly defined to include an inflation-adjusted rate of return that seeks growth commensurate with a prudent level of risk. To achieve this objective, the University has established fully discretionary trusts with a custodial bank as trustee and investment manager for WCM's defined benefit pension plan and the postretirement medical benefit plan for the University's endowed employees on the Ithaca campus. Under those trust agreements the custodial bank implements investment allocations through various investment funds in order to carry out the investment objectives established by the RPOC.

Risk mitigation is achieved by diversifying investments across multiple asset classes, investing in high quality securities, and permitting flexibility in the balance of investments in the recommended asset classes. Market risk is inherent in any portfolio, but the investment policies and strategies are designed to avoid concentration of risk in any one entity, industry, country, or commodity. The funds in which the plan assets are invested are well-diversified and managed to avoid concentration of risk. The expected rate of return assumptions are based on the expertise provided by investment managers at the custodial bank. The factors that impact the expected rates of return for various asset types includes assumptions about inflation, historically based real returns, anticipated value added by investment managers, and expected average asset allocations.

The fair values of the pension plan assets and postretirement medical benefit plan assets are categorized according to the fair-value hierarchy. Both the pension plan and postretirement medical benefit plans invest in funds to meet their investment objectives. The asset allocation is based on the underlying assets of the various funds. The fair-value level is based upon each fund as the unit of measure. The fair value of the plans' assets as of June 30 and the rollforward for Level 3 assets are disclosed in the tables below.

SUMMARY OF PLAN ASSETS

	Target	Pension ber	efits	Other postretirement		
	allocation	2018	2017	2018	2017	
Percentage of plan assets						
Equity securities	39-85%	64%	65%	77%	77%	
Fixed income securities	15-55%	30%	29%	23%	23%	
Real estate	0-10%	6%	6%	0%	0%	
Total		100%	100%	100%	100%	

PENSION PLAN ASSETS AT FAIR VALUE

		Level 1 fair value	Level 2 fair value	Level 3 fair value	2018 Total	2017 Total
Cash and cash equivalents	-			 		
Money market	\$	3	\$ -	\$ -	\$ 3	\$ 342
Equity securities						
U.S. small cap		-	8,463	-	8,463	7,629
U.S. large cap		-	35,989	-	35,989	32,008
U.S. multi cap		-	7,364	-	7,364	6,798
U.S. REITS		-	3,082	-	3,082	2,695
Emerging markets		-	8,075	-	8,075	8,053
International equity		-	16,347	-	16,347	15,371
Fixed income securities						
U.S. high yield bonds		-	5,263	-	5,263	6,140
Corporate bonds		-	23,528	-	23,528	20,557
Mortgage-backed securities		-	3,441	-	3,441	3,015
International fixed income		-	1,225	-	1,225	2,176
Floating-rate debt instruments			2,457		2,457	-
Other types of investments						
Real estate		-	-	7,278	7,278	6,746
Receivable for investments sold		2,097	-	-	2,097	-
Payable for investments purchased		(1,727)	-	-	(1,727)	-
Total assets	\$	373	\$ 115,234	\$ 7,278	\$ 122,885	\$ 111,530

SUMMARY OF LEVEL 3 PENSION PLAN ACTIVITY

	F	air value,									Transfers		
		June 30,	Re	ealized	Un	realized				i	n/(out) of	F	air value,
		2017	gain	/(loss)	ga	in/(loss)	Pı	urchases	Sales		Level 3	June	30, 2018
Mortgage-backed securities	\$	2,985	\$	-	\$	2	\$	454	\$ -	\$	(3,441)	\$	-
Real estate		6,746		-		532		-	-		-		7,278
Total Level 3 assets	\$	9,731	\$	-	\$	534	\$	454	\$ -	\$	(3,441)	\$	7,278

POSTRETIREMENT PLAN ASSETS AT FAIR VALUE

	Level 1 fair value	Level 2 fair value	Level 3 fair value	2018 Total	2017 Total
Cash and cash equivalents					
Money market	\$ 1,563	\$ -	\$ -	\$ 1,563	\$ 3,921
Equity securities					
U.S. small cap	-	26,586	-	26,586	25,061
U.S. large cap	-	90,548	-	90,548	82,011
Emerging markets	-	35,464	-	35,464	30,063
International equity	-	55,961	-	55,961	51,544
U.S. REITS	-	6,210	-	6,210	6,609
Fixed income securities					
U.S. high yield bonds	-	15,351	-	15,351	16,084
Corporate bonds	-	44,100	-	44,100	34,740
Emerging markets debt	-	4,150	-	4,150	5,133
Receivable for investments sold	3,649	-	-	3,649	1,928
Payable for investments purchased	(3,648)	-	-	(3,648)	(1,913)
Total assets	\$ 1,564	\$ 278,370	\$ -	\$ 279,934	\$ 255,181

G. Expected Contributions and Benefit Payments

The expected annual contributions and benefit payments that reflect anticipated service are as follows:

EXPECTED CONTRIBUTIONS AND BENEFIT PAYMENTS

			 Other posti	retirement
	Pe	ension benefits	 Employer paid	Government subsidy
University contributions	•		 	
2019	\$	7,000	\$ 25,052	n/a
Future benefit payments				
2019		5,698	21,314	1,817
2020		6,165	23,090	1,999
2021		7,067	24,748	2,183
2022		7,406	26,180	2,386
2023		7,778	27,769	2,602
2024-2028		52,616	168,540	16,767

The Medicare Prescription Drug, Improvement and Modernization Act of 2003 established a prescription drug benefit known as "Medicare Part D" that also established a federal subsidy to sponsors of retiree healthcare benefit plans. The estimated future government subsidy amounts are reflected in the table above.

H. Contract College Employees

Employees of the Contract Colleges are covered under the New York State pension plans. Contributions to the state retirement system and other employee benefit costs are paid directly by the state. The amounts of direct payments made by the state on behalf of Contract College employees are not currently determinable and are not included in the consolidated financial statements. The University reimburses the state for employee benefit costs on certain salaries, principally those associated with externally sponsored programs. The amounts reimbursed to the state during the fiscal years ended June 30, 2018 and 2017 were \$17,306 and \$16,834, respectively, and were included in operating expenses.

7. FUNDS HELD FOR OTHERS

The University, in limited instances, invests funds on behalf of related parties. Independent trustees are responsible for the designation of income distribution. The value of the funds included on the investment line in the consolidated statement of financial position was \$222,006 and \$259,275 for the fiscal years ended June 30, 2018 and 2017, respectively. The University recognizes an offsetting liability for funds held for others, with one adjustment described below.

The New York Hospital-Cornell Medical Center Fund, Inc. ("Center Fund"), which benefits WCM and the New York-Presbyterian Hospital, is the major external organization invested in the University's long-term investment portfolio with assets of \$184,225 and \$174,655 for the fiscal years ended June 30, 2018 and 2017, respectively. WCM holds a significant beneficial interest in the assets of the Center Fund of \$113,811 and \$122,182, for the fiscal years ended June 30, 2018 and 2017, respectively. The liability related to New York-Presbyterian's interest is \$70,414 and \$52,473 for the fiscal years ended June 30, 2018 and 2017, respectively.

The Boyce Thompson Institute for Plant Research ("BTI") is an independent, non-profit organization whose mission is to advance and communicate scientific knowledge in plant biology to improve agriculture, protect the environment, and enhance human health. In 2017, BTI elected to withdraw its assets, with a fair value of \$44,881 as of June 30, 2017 and an offsetting liability on the University's consolidated statement of financial position, from the University's long-term investment portfolio. The withdrawal was completed in July 2017.

8. BONDS AND NOTES PAYABLE

A. General Information

Bonds and notes payable are reported at carrying value, which is the par amount net of unamortized issuance costs, premiums, and discounts. Bonds and notes payable as of June 30 are summarized as follows:

SUMMARY OF BONDS AND NOTES PAYABLE

	2018	2017	Interest rates	Final maturity
Dormitory Authority of the State of New York (DASNY)				
Revenue Bond Series				
1990B-fixed rate	\$ 27,870	\$ 31,150	4.50 to 5.00%	2025
2000A-variable rate/monthly	35,355	37,875	1.29 to 2.29	2029
2000B-variable rate/monthly	49,085	52,805	1.29 to 2.29	2030
2004A&B-variable rate/weekly	62,825	65,850	0.74 to 1.79	2033
2008B&C-fixed rate	106,035	109,210	5.00	2037
2009A-fixed rate	261,050	268,155	4.00 to 5.00	2039
2010A-fixed rate	285,000	285,000	4.00 to 5.00	2040
2016A-fixed rate	117,205	121,920	3.00 to 5.00	2035
Tax-exempt commercial paper	52,890	52,890	0.79 to 1.67	2037
Tompkins County Industrial Development Agency (TCIDA)				
2002A-variable rate/monthly	30,365	32,245	1.29 to 2.29	2030
2008A-fixed rate	57,320	59,155	3.00 to 5.00	2037
Empire State Development	1,375	1,500	-	2029
2007A Taxable commercial paper	83,890	83,890	1.15 to 2.10	-
Hudson Cornell Residential JV LLC	96,630	80,949	3.48 to 3.85	2019
Other	6,027	6,271	4.90 to 6.63	2039
Outstanding bonds and notes payable	\$ 1,272,922	\$ 1,288,865		
Unamortized premium and issuance costs	32,729	43,396		
Total bonds and notes payable	\$ 1,305,651	\$ 1,332,261		

Debt and related debt service for borrowings by New York State for the construction and renovation of facilities of the Contract Colleges are not included in the consolidated financial statements because they are not liabilities of the University.

Under the DASNY Revenue Bond Series 1990B and tax-exempt commercial paper notes agreements, these are general obligations of the University and are secured by a pledge of revenue. The University has not granted a pledge of revenue on other debt.

(dollars in thousands)

During the fiscal year ended June 30, 2017, the University redeemed Series 2009 taxable bonds with a maturity date in January 2019. The University incurred a \$18,973 make-whole call premium on the early redemption, reported as non-operating other in the consolidated statement of activities.

Hudson Cornell Tech LLC, a subsidiary of Hudson Cornell Residential JV LLC (see Note 4B), contracted with Wells Fargo Bank, N.A. for a variable-rate building and equipment loan up to \$105,000. The University has consolidated \$96,630 and \$80,949 of debt attributable to the subsidiary at June 30, 2018 and 2017, respectively. The loan is secured by a security interest in the building and equipment.

The University maintains tax-exempt and taxable commercial paper programs. Tax-exempt commercial paper is used to finance qualified capital projects and equipment purchases. Taxable commercial paper is also used for these purposes, and can be used to finance short-term working capital needs. The maximum authorized amount of each commercial paper program is \$200,000.

Scheduled principal and interest payments on bonds and notes for the next five fiscal years and thereafter are shown below:

ANNUAL DEBT SE	ANNUAL DEBT SERVICE REQUIREMENTS											
Year		Principal		Interest		Total						
2019	\$	128,984	\$	45,718	\$	174,702						
2020		33,715		39,947		73,662						
2021		35,267		44,916		80,183						
2022		36,949		43,460		80,409						
2023		38,598		42,014		80,612						
Thereafter		999,409		433,551		1,432,960						
Total	\$	1.272.922	\$	649.606	\$	1.922.528						

The University estimates future interest payments on variable-rate debt based on the Securities Industry and Financial Markets Association (SIFMA) rate for tax-exempt debt and the London Interbank Offered Rates (LIBOR) rate for taxable debt.

B. Interest-Rate Swaps

The University approved the use of interest-rate swaps to mitigate interest-rate risk in the debt portfolio. Interest-rate swaps are derivative instruments; however, their use by the University is not considered to be hedging activity, based on definitions in generally accepted accounting principles.

Through the use of interest-rate swap agreements, the University is exposed to the risk that counterparties will fail to meet their contractual obligations. To mitigate counterparty risk, the University limits swap exposure for each counterparty. Master agreements with counterparties include netting arrangements that permit the University to net amounts due to the counterparty with amounts due from the counterparty. Utilizing netting arrangements reduces the maximum loss in the event of counterparty default.

The University's swap agreements contain a credit-rating-contingent feature in which the counterparties can request collateral on agreements in net liability positions. At June 30, 2018 and 2017, the University did not have collateral on deposit with any counterparty.

The University's interest-rate swaps are valued as of June 30 by an independent third party that uses the mid-market levels, as of the close of business, to value each agreement. The valuations provided are derived from proprietary models based upon well-recognized financial principles and estimates about relevant future market conditions and the University's credit worthiness. The University's interest-rate swaps are classified as Level 2 in the fair-value hierarchy.

At June 30, 2018, the University had five interest-rate swap agreements to exchange variable-rate cash flows for fixed-rate cash flows without the exchange of the underlying principal amount. Net payments or receipts of the swap agreements are recorded as adjustments to the swap interest and change in value of interest-rate swaps line in the consolidated statement of activities. In all agreements in effect at June 30, 2018, the counterparty pays a variable interest rate equal to a percentage of the one-month LIBOR.

The following table provides detailed information on the interest-rate swaps at June 30, 2018, with comparative fair values for June 30, 2017. The swaps are reported based on notional amount.

FAIR VALUE OF INTEREST-RATE SWAPS IN STATEMENT OF FINANCIAL POSITION

Location	Notional amount	Interest rate	Termination date	Basis	2018 Level 2 fair value	2017 Level 2 fair value
Swap interest and change in value of interest-rate swaps						
·	\$ 32,245	4.52	July 1, 2030	LIBOR	\$ (5,012)	\$ (6,939)
	87,557	3.92	July 1, 2038	LIBOR	(16,131)	(21,289)
	275,000	3.88	July 1, 2040	LIBOR	(79,298)	(95,715)
	188,465	3.48	July 1, 2041	LIBOR	(30,153)	(40,574)
	190,510	3.77	July 1, 2044	LIBOR	 (39,819)	 (50,735)
Total fair value					\$ (170,413)	\$ (215,252)

C. Standby Bond Purchase Agreements

The University has a standby bond purchase agreement with BNY Mellon (expiring January 2019) to purchase the DASNY Series 2004 bonds in the event that these bonds cannot be remarketed. In the event that the bonds cannot be remarketed and the agreement is not otherwise renewed, the University will be required to redeem the bonds or refinance the bonds in a different interest rate mode. In the event that the bonds cannot be remarketed and the University did not redeem, the University will have a current obligation to purchase the bonds tendered.

D. Lines of Credit

The University maintains two \$100 million lines of credit with annual expiration dates of January 31 and April 1. As of June 30, 2018 and 2017, the University had not borrowed against either line of credit. The University records the working capital lines of credit activity and outstanding balances as other liabilities in the consolidated statement of financial position.

9. LEASES

The University enters into lease agreements for the use of real property, machinery, and equipment. Total operating lease expenses were \$43,227 and \$35,829 for the fiscal years ended June 30, 2018 and 2017, respectively. The future annual minimum lease payments in the following table are payments under operating leases expiring at various dates through June 30, 2068, and payments under capital leases expiring at various dates through September 30, 2051. The capital lease balance is primarily related to building leases for the Breazzano Family Center for Business Education at Ithaca and the Tata Innovation Center at Cornell Tech.

ANNUAL MINIMUM LEASE PAYMENTS

Year	Capital		Operating
2019	\$ 8,846	\$	46,430
2020	8,773		45,488
2021	8,669		45,009
2022	8,570		41,277
2023	9,118		39,268
Thereafter	294,990		340,289
Total minimum lease payments	\$ 338,966	\$	<i>557,7</i> 61
Less: Amount representing interest	(216,414)		
Present value of net minimum lease payments	\$ 122,552		

10. FUNCTIONAL EXPENSES AND STUDENT AID

Total expenses by functional categories for the fiscal years ended June 30 are as follows:

FUNCTIONAL EXPENSES

	 2018		2017
Instruction	\$ 900,894	\$	872,383
Research	649,322		599,178
Public service	130,017		128,674
Academic support	318,291		293,823
Student services	206,429		174,661
Medical services	1,363,249		1,300,558
Institutional support	434,830		420,409
Enterprises and subsidiaries	 282,053		258,834
Total expenses	\$ 4,285,085	\$	4,048,520

The expenses for operations and maintenance of facilities, depreciation, and interest related to capital projects are allocated to functional categories based on square footage. The amounts allocated for operations and maintenance were approximately \$150,994 and \$150,379 for the fiscal years ended June 30, 2018 and 2017, respectively.

Student financial assistance is shown as a component of instruction expense unless the assistance is for tuition and mandatory fees. If the assistance is for tuition and mandatory fees, the amounts are recorded as scholarship allowance, which reduces tuition revenue. Total financial assistance amounts classified as instruction expense were \$49,394 and \$45,262 for the fiscal years ended June 30, 2018 and 2017, respectively.

Functional expenses include other components of net periodic benefit cost, recorded in nonoperating revenues and expenses, totaling \$13,660 and \$27,188 for the years ended June 30, 2018 and 2017, respectively.

Certain prior-year amounts for Institutional support have been reclassified to Medical services to conform to the current year presentation.

11. NET ASSETS

A. General Information

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

SUMMARY OF NET ASSETS

	Unrestricted	Temporarily restricted	Permanently restricted	2018 Total	2017 Total
Endowment					
True endowment	\$ (12,155)	\$ 1,766,257	\$ 3,173,462	\$ 4,927,564	\$ 4,554,894
Funds functioning as endowment (FFE)	1,422,855	351,752		1,774,607	1,780,625
Total true endowment and FFE	\$ 1,410,700	\$ 2,118,009	\$ 3,173,462	\$ 6,702,171	\$ 6,335,519
Funds held by others, perpetual			169,310	169,310	180,925
Total University endowment	\$ 1,410,700	\$ 2,118,009	\$ 3,342,772	\$ 6,871,481	\$ 6,516,444
Other net assets					
Operations	(246,163)	<i>4</i> 71 <i>,</i> 590	-	225,427	139,666
Student loans	9,033	-	50,253	59,286	53,776
Facilities and equipment	2,939,859	103,772	-	3,043,631	2,972,055
Split interest agreements	-	67,455	40,882	108,337	10 <i>7,7</i> 31
Funds held by others, other than perpetual	-	29,399	28,951	58,350	52,357
Contributions receivable, net	-	<i>5</i> 90 <i>,</i> 791	235,318	826,109	902,846
Long-term accruals	(688,298)			(688,298)	(720,256)
Total net assets	\$ 3,425,131	\$ 3,381,016	\$ 3,698,176	\$ 10,504,323	\$ 10,024,619

Unrestricted net asset balances for operations are affected primarily by operating activities and strategic decisions to invest expendable balances in funds functioning as endowment and capital projects. Long-term accruals represent longer-term liabilities including the unfunded amount of pension and postretirement benefits, vacation accruals, conditional asset retirement obligations for asbestos remediation, and fair-value adjustment on interest-rate swaps.

B. Endowment

The University endowment net assets at June 30 were held in support of the following purposes:

SUMMARY OF ENDOWMENT PURPOSE

	2018	2017
Academic programs and research	\$ 1,966,874	\$ 1,840,470
Financial aid	1,733,832	1,601,140
Professorships	1,447,617	1,362,084
General purpose and other	1,275,690	1,249,398
Facilities support	108,708	103,893
CU Foundation	169,450	178,534
Total true endowment and FFE, end of year	\$ 6,702,171	\$ 6,335,519

Of the endowment assets held at the University, 98 percent was invested in the LTIP at June 30, 2018 and 96 percent at June 30, 2017. The LTIP is a mutual-fund-like vehicle used for investing the University's true endowments, funds functioning as endowment, and other funds that are not expected to be expended for at least five years. The University employs a unit method of accounting for the LTIP. Each participating fund enters into and withdraws from the pooled investment account based on monthly unit fair values. Participation in the LTIP using unrestricted funds requires a minimum investment of one hundred thousand dollars and a commitment of at least five years.

At June 30, 2018, 291 of 7,147 true endowment funds invested in the LTIP had a total historic dollar value of \$150,991 and a fair value of \$138,836, resulting in these endowments being underwater by a total of \$12,155. The University holds significant appreciation on endowments to offset these temporary decreases in value. The University has maintained these true endowment funds at their historical book value.

Changes in the endowment net assets, exclusive of funds held in trust by others, for the fiscal years ended June 30 are presented below:

SUMMARY OF ENDOWMENT ACTIVITY

	ι	Inrestricted	Temporarily restricted	F	Permanently restricted		2018 Total	2017 Total
True endowment and FFE, beginning of year	\$ 1	,395,479	\$ 1,909,832	\$:	3,030,208	\$ (6,335,519	\$ 5,584,197
Investment return								
Net investment income		12,618	37,578		1		50,197	41,734
Net realized and unrealized gain/(loss)		173,320	417,932		(1,714)		589,538	641,486
Total investment return	\$	185,938	\$ 455,510	\$	(1,713)	\$	639,735	\$ 683,220
New gifts		5,703	20,917		115,975		142,595	387,247
Amounts appropriated for expenditure/reinvestment		(78,925)	(234,799)		2,368		(311,356)	(317,054)
Other changes and reclassifications		(97,495)	(33,451)		26,624		(104,322)	(2,091)
Total true endowment and FFE, end of year	\$ 1	,410,700	\$ 2,118,009	\$:	3,173,462	\$ 6	6,702,171	\$ 6,335,519

12. SELF-INSURANCE

The University retains self-insurance for property, general liability, student health insurance, and certain health benefits. In addition, the University has an equity interest in a multi-provider captive insurance company for medical malpractice.

A. Medical Malpractice

The University obtains medical malpractice insurance through MCIC Vermont ("MCIC"). MCIC is a reciprocal risk retention group that provides medical malpractice insurance coverage and risk management services to its subscribers.

MCIC is owned by the University, New York-Presbyterian Hospital, and four other institutions of higher education and their respective teaching hospitals. All of WCM's faculty physicians are enrolled in MCIC. The medical malpractice incurred but not reported liability is calculated annually on an actuarial basis.

WCM has recorded medical malpractice liabilities of \$170,633 and \$151,006 at June 30, 2018 and 2017, respectively, as other liabilities in the consolidated statement of financial position. In addition, WCM maintains a reinsurance program with MCIC with anticipated recoveries of \$122,351 and \$103,726, respectively, recorded as accounts receivable (Note 2A).

B. Student Health Plan

The University has established a self-funded student health plan under Section 1124 of the New York State Insurance Law ("NYSIL"). The Student Health Plan ("SHP") provides health insurance coverage to students at the University's Ithaca-based campuses. The table below presents a summary of SHP operations occurring during the University's fiscal years ended June 30.

SUMMARY OF STUDENT HEALTH PLAN OPERATIONS

		July 1 - August 1 - July 31 June 30 (prior plan (current plan year) year)		2018 Fiscal year total		July 1 - August 16 (prior plan year)		August 17 - June 30 (current plan year)		2017 Fiscal year total		
Total premium revenue	\$	2,475	\$	29,897	\$	32,372	\$	3,693	\$	26,965	\$	30,658
Expenses												
Medical and prescription drug expense		2,819		21,000		23,819		2,976		14,264		17,240
Health center capitation		523		5,847		6,370		786		5,299		6,085
Administrative fees		381		3,240		3,621		82		2,387		2,469
Total expenses	\$	3,723	\$	30,087	\$	33,810	\$	3,844	\$	21,950	\$	25,794
Net income from health plan operations	\$	(1,248)	\$	(190)	\$	(1,438)	\$	(151)	\$	5,015	\$	4,864

The University has established reserves with the amounts necessary to satisfy obligations of the plan. Based on an analysis and recommendation of a qualified actuary, and with the approval of New York State, the reserve for medical claims incurred but not reported ("IBNR") and claims reported but not paid ("RBNP") is maintained at an amount not less than 14.5 percent of expected medical claims and 5 percent of expected pharmacy drug claims. In addition, a separate contingency reserve has been established for the purpose of satisfying unexpected obligations in the event of termination of the plan. The contingency reserve is maintained at an amount not less than 5 percent of the total current plan year premiums and is invested in the University's endowment. NYS requires that the assets of the contingency reserve consist of certain investments of the types specified in Section 1404 of NYSIL. The specified types of investments include U.S. government securities categorized in fair-value hierarchy Level 1, of which the University holds \$109,562 and \$42,897 in its investment portfolio as of June 30, 2018 and 2017, respectively (Note 3B). Premium revenue is billed in advance of the plan year (unearned) and recognized as revenue on a monthly basis as coverage is provided. The changes in the unearned premiums and SHP reserves during the fiscal years ended June 30 are presented below.

SUMMARY OF STUDENT HEALTH PLAN UNEARNED PREMIUMS

SUMMARY OF STUDENT HEALT	IT PLAIN UINEA	RINED PREMIUMS)									
		20	18		2017							
		Unearned	premiums		Unearned premiums							
	2016-2017			201 <i>7</i> -2018		2015-2016		2016-2017				
		plan year		plan year		plan year	plan year					
Balance as of July 1	\$	2,270	\$	-	\$	3,625	\$	-				
Balance as of June 30		-		2,764		-		2,270				
Net change	\$	(2,270)	\$	2,764	\$	(3,625)	\$	2,270				

SUMMARY OF STUDENT HEALTH PLAN RESERVES

	 IBNR/RBNP_reserve				Contingency reserve					
	2018		2017	<u> </u>	2018	2017				
Balance as of July 1	\$ 3,203	\$	2,500	\$	1,723	\$	1,547			
Balance as of June 30	3,275		3,203		1,863		1,723			
Net change	\$ 72	\$	703	\$	140	\$	176			

13. CONTINGENT LIABILITIES

The University is a defendant in various legal actions, some for substantial monetary amounts, that arise out of the normal course of its operations. Although the final outcome of the actions cannot be foreseen, the University's administration is of the opinion that eventual liability, if any, will not have a material effect on the University's financial position.

14. SUBSEQUENT EVENTS

In August 2018, the University issued \$150 million taxable 30-year fixed-rate debt to finance capital projects. Based on the University's evaluation of subsequent events through November 1, 2018, the date on which the consolidated financial statements were issued, there were no other events with material impact on the University's consolidated financial statements.

Schedule of Expenditures of Federal Awards Year Ended June 30, 2018

		Additional Award		Pass-		Pass-Through Entity	Total	Passed to
Federal Program	CFDA	Identification	Direct	Through	Pass-Through Entity	Identifying Number	Expenditures	Sub-Recipients
Student Financial Assistance Cluster								
Department of Education								
Federal Work-Study Program	84.033		\$ 3,346,882 \$			-	3,346,882	-
Federal Supplemental Educational Opportunity Grants	84.007		2,699,856			-	2,699,856	-
Federal Perkins Loan Program - New Loans Issued in 2018	84.038		750,494			-	750,494	-
Federal Perkins Loan Program - Administrative Cost Allowance	84.038		345,000			-	345,000	-
Federal Perkins Loan Program - Outstanding Loans as of July 1, 2017	84.038		43,944,885			-	43,944,885	-
Federal Pell Grant Program	84.063		11,438,921			-	11,438,921	-
Federal Direct Student Loans-PLUS	84.268		53,869,954			-	53,869,954	-
Federal Direct Student Loans-Subsidized	84.268		15,096,243			-	15,096,243	-
Federal Direct Student Loans-Unsubsidized	84.268		46,895,250			-	46,895,250	
Department of Education Total			178,387,485	<u> </u>			178,387,485	
Department of Health and Human Services								
Health Professions Student Loans, Including Primary Care Loans/Loans for Disadvantaged Students - New Loans Issued in 2018	93.342		729,247			-	729,247	-
Health Professions Student Loans, Including Primary Care Loans/Loans for Disadvantaged Students - Outstanding Loans as of July 1, 2017	93.342		5,176,147			-	5,176,147	-
Department of Health and Human Services Total			5,905,394	-			5,905,394	-
Student Financial Assistance Cluster Total			184,292,879	_			184,292,879	_
Research & Development Cluster							-	
Department of Agriculture								
National Institute of Food and Agriculture, Other	10.RD	83846		8 University	Of Minnesota	83846	8	
Agriculture Marketing Service, Other	10.RD	SCB15066	_	153,546 Center For		SCB15066	153,546	_
Agriculture Marketing Service, Other	10.RD	SCG 16 010			Farm Viability Institute	SCG 16 010	46,035	5,401
Agricultural Marketing Service				<u> </u>	•			
Federal-State Marketing Improvement Program	10.156		22,956			_	22,956	_
Inspection Grading and Standardization	10.162		526,394				526,394	
Specialty Crop Block Grant Program - Farm Bill	10.170		520,551	147,969 Center For	Produce Safety	16-SCBGP-CA-0035	147,969	65,270
Specialty Crop Block Grant Program - Farm Bill	10.170			52,333 Center For	•	USDA-AMS-TM-SCBGP-G-17-003	52,333	-
Specialty Crop Block Grant Program - Farm Bill	10.170		_		Farm Viability Institute	AM170100XXXXG006	116,444	_
Specialty Crop Block Grant Program - Farm Bill	10.170		_		Farm Viability Institute	SCB 15 003	21,638	_
Specialty Crop Block Grant Program - Farm Bill	10.170				Farm Viability Institute	SCG 15 002	54,751	-
Specialty Crop Block Grant Program - Farm Bill	10.170		_		Farm Viability Institute	SCG 15 012	36,048	_
Specialty Crop Block Grant Program - Farm Bill	10.170				Farm Viability Institute	SCG 15 015	32,509	4,532
Specialty Crop Block Grant Program - Farm Bill	10.170			35,748 New York	Farm Viability Institute	SCG 15 020	35,748	· -
Specialty Crop Block Grant Program - Farm Bill	10.170			40,570 New York	Farm Viability Institute	SCG 16 004	40,570	-
Specialty Crop Block Grant Program - Farm Bill	10.170			70,866 New York	Farm Viability Institute	SCG 16 008	70,866	_
Specialty Crop Block Grant Program - Farm Bill	10.170		-		Farm Viability Institute	SCG 16 011	34,684	-
Specialty Crop Block Grant Program - Farm Bill	10.170		-		Farm Viability Institute	SCG 16 012	23,467	-
Specialty Crop Block Grant Program - Farm Bill	10.170		-	71,967 NYS Dept		14-SCBGP-NY-0036	71,967	-
Specialty Crop Block Grant Program - Farm Bill	10.170		-	60,260 NYS Dept		16SCBGPNY0030	60,260	-
Specialty Crop Block Grant Program - Farm Bill	10.170			219,416 NYS Dept	of Ag & Markets	16-SCCM-NY-0002	219,416	46,297
Agricultural Marketing Service Subtotal			549,350	1,018,670			1,568,020	116,099

The accompanying notes are an integral part of the Schedule of Expenditures of Federal Awards.

Schedule of Expenditures of Federal Awards Year Ended June 30, 2018

Additional Award Pass- Federal Program CFDA Identification Direct Through Pass-Through Entity Identifying N	= -	sed to Recipients
Agricultural Research Service		
Agricultural Research Basic and Applied Research 10.001 3,029,492	3,029,492	-
Agricultural Research Basic and Applied Research 10.001 - 14,855 U.S. Highbush Blueberry Council 78936	14,855	
Agricultural Research Service Subtotal 3,029,492 14,855	3,044,347	-
Animal and Plant Health Inspection Service		
Plant and Animal Disease, Pest Control, and Animal Care 10.025 587,940	587,940	45
Plant and Animal Disease, Pest Control, and Animal Care 10.025 - 100,481 American Public Gardens Association 16-8100-1519-CA	100,481	-
Plant and Animal Disease, Pest Control, and Animal Care 10.025 - 763,055 NYS Dept of Ag & Markets 16-8236-0245-CA	763,055	-
Plant and Animal Disease, Pest Control, and Animal Care 10.025 - 15,722 NYS Dept of Ag & Markets 16-8236-0857-CA	15,722	-
Plant and Animal Disease, Pest Control, and Animal Care 10.025 - 62,185 NYS Dept of Ag & Markets AP17PPQF0000C460		-
Plant and Animal Disease, Pest Control, and Animal Care 10.025 - 3,426 Rutgers, The State University of New Jersey 1681300270CA	3,426	-
Plant and Animal Disease, Pest Control, and Animal Care 10.025 - 4,066 Rutgers, The State University of New Jersey 16-8130-0274-CA	4,066	-
Plant and Animal Disease, Pest Control, and Animal Care 10.025 - 7,991 Virginia Polytechnic Institute & State University AP17PPQS&T00C094	7,991	
Animal and Plant Health Inspection Service Subtotal 587,940 956,926	1,544,866	45
Economic Research Service		
Agricultural and Rural Economic Research, Cooperative Agreements and Collaborations 10.250 50,839	50,839	-
Agricultural and Rural Economic Research, Cooperative Agreements and Collaborations 10.250 - 23,335 University of Delaware 59-6000-4-0064	23,335	-
Consumer Data and Nutrition Research 10.253 948,333	948,333	63,929
Consumer Data and Nutrition Research 10.253 - 7.474 Duke University 59-5000-4-0062	7,474	-
Economic Research Service Subtotal 999,172 30,809	1,029,981	63,929
Foreign Agricultural Service		
Norman E. Borlaug International Agricultural Science and Technology Fellowship 10.777 33,647 -	33,647	-
Foreign Agricultural Service Subtotal 33,647 -	33,647	
Forest Service		
Forestry Research 10.652 52,589	52,589	_
Forest Health Protection 10.680 97,526	97,526	375
Forest Health Protection 10.680 - 14,574 The Gypsy Moth Slow The Spread Foundation Inc. 15-DG-11420004-034		_
National Fish and Wildlife Foundation 15-CA-11132422-241		_
Partnership Agreements 10.699 14,250	14,250	_
Forest Service Subtotal 164,365 42,710	207,075	375
National Institute of Food and Agriculture		
Grants for Agricultural Research, Special Research Grants 10.200 235,337	235,337	23,260
Grants for Agricultural Research, Special Research Grants 10.200 - 420 Colorado State University 1499-UVMRP	420	_
Grants for Agricultural Research, Special Research Grants 10.200 - 688 University Of Maine 2015-34141-23964	688	_
Grants for Agricultural Research, Special Research Grants 10.200 - 119.589 University Of Maine 2016-34141-25708	119,589	_
Grants for Agricultural Research, Special Research Grants 10.200 - 45,532 University Of Maryland College Park 2016-38500-25754	45,532	_
Cooperative Forestry Research 10.202 205,987	205,987	_
Payments to Agricultural Experiment Stations Under the Hatch Act 10.203 7.222.468 -	7,222,468	_
Animal Health and Disease Research 10.207 118.899	118,899	_
Higher Education - Graduate Fellowships Grant Program 10.210 108	108	_
Small Business Innovation Research 10.212 125	125	_

The accompanying notes are an integral part of the Schedule of Expenditures of Federal Awards.

Schedule of Expenditures of Federal Awards Year Ended June 30, 2018

		Additional Award	Pass-		Pass-Through Entity	Total	Passed to
Federal Program	CFDA	Identification Direct	Through	Pass-Through Entity	Identifying Number	Expenditures	Sub-Recipients
Small Business Innovation Research	10.212	-	22,134	Florapulse Co.	2017-33610-26741	22,134	-
Small Business Innovation Research	10.212	-		3 I2 Air Fluid Innovations	72938	55,028	-
Small Business Innovation Research	10.212	-	19,992	2 Zymtronix Catalytic Systems, Inc.	2017-33610-26746	19,992	-
Sustainable Agriculture Research and Education	10.215	-		Farmers Market Federation Of New York	84877	3,023	-
Sustainable Agriculture Research and Education	10.215	-	44,529	University Of Maryland College Park	2015-38640-23777	44,529	-
Sustainable Agriculture Research and Education	10.215	-		University Of Maryland College Park	LNE18-366-32231/2017-38640-2	2,814	-
Sustainable Agriculture Research and Education	10.215	-	2,908	University Of Vermont	2013-38640-20895	2,908	-
Sustainable Agriculture Research and Education	10.215	-	28,077	University Of Vermont	2014-38640-22161	28,077	-
Sustainable Agriculture Research and Education	10.215	-	43,657	University Of Vermont	2015-38640-23777	43,657	-
Sustainable Agriculture Research and Education	10.215	-	95,346	University Of Vermont	2016-38640-25380	95,346	-
Higher Education - Institution Challenge Grants Program	10.217	303,020			-	303,020	49,184
Biotechnology Risk Assessment Research	10.219	94,623			-	94,623	-
Higher Education - Multicultural Scholars Grant Program	10.220	(22,175)		-	(22,175)	-
Secondary and Two-Year Postsecondary Agriculture Education Challenge Grants	10.226	35,860			-	35,860	30,160
Integrated Programs	10.303	264,064			-	264,064	46,539
Homeland Security Agricultural	10.304	531,820			-	531,820	225,832
Organic Agriculture Research and Extension Initiative	10.307	1,343,356			-	1,343,356	596,316
Organic Agriculture Research and Extension Initiative	10.307	-	84,451	Oregon State University	2014-51300-22223	84,451	-
Organic Agriculture Research and Extension Initiative	10.307	-	58,877	Oregon State University	2017-51300-26809	58,877	-
Organic Agriculture Research and Extension Initiative	10.307	-	47,096	Washington State University	2015-51300-24155	47,096	-
Organic Agriculture Research and Extension Initiative	10.307	-	28,840	West Virginia University Research Corporation	2012-51300-20320	28,840	-
Specialty Crop Research Initiative	10.309	5,238,171			-	5,238,171	2,953,658
Specialty Crop Research Initiative	10.309	-	13,230	Michigan State University	2014-51181-22380	13,230	-
Specialty Crop Research Initiative	10.309	-	32,138	Michigan State University	2014-51181-23378	32,138	-
Specialty Crop Research Initiative	10.309	-	91,057	Michigan State University	2015-51181-24285	91,057	-
Specialty Crop Research Initiative	10.309	-	196,992	North Carolina State University	2015-51181-24252	196,992	-
Specialty Crop Research Initiative	10.309	-	155,386	North Carolina State University	2016-51181-25409	155,386	-
Specialty Crop Research Initiative	10.309	-	83,953	University Of California Riverside	2017-70016-26053	83,953	-
Specialty Crop Research Initiative	10.309	-	33,425	University Of Florida	2014-51181-22377	33,425	-
Specialty Crop Research Initiative	10.309	-	88,971	University Of Florida	2015-51181-24312	88,971	-
Specialty Crop Research Initiative	10.309	-	74,712	2 Washington State University	2014-51181-22381	74,712	18,341
Agriculture and Food Research Initiative (AFRI)	10.310	8,214,150			-	8,214,150	1,256,391
Agriculture and Food Research Initiative (AFRI)	10.310	-	17,235	Archbold Expeditions	2016-67019-24988	17,235	-
Agriculture and Food Research Initiative (AFRI)	10.310	-	39,935	Arizona State University	2016-67023-24809	39,935	-
Agriculture and Food Research Initiative (AFRI)	10.310	-	53,875	Boyce Thompson Institute	2015-67013-23281	53,875	-
Agriculture and Food Research Initiative (AFRI)	10.310	=	29,200	Colorado State University	2013-68004-25322	29,200	-
Agriculture and Food Research Initiative (AFRI)	10.310	=	98,425	Michigan State University	2016-68004-24931	98,425	=
Agriculture and Food Research Initiative (AFRI)	10.310	-	3,976	Montana State Univ	2015-68006-22850	3,976	-
Agriculture and Food Research Initiative (AFRI)	10.310	-	12,544	Ohio State University	2014-67013-22410	12,544	-
Agriculture and Food Research Initiative (AFRI)	10.310	-	5,557	Pennsylvania State Univ	2011-68004-30057	5,557	-

The accompanying notes are an integral part of the Schedule of Expenditures of Federal Awards.

Cornell University Schedule of Expenditures

Schedule of Expenditures of Federal Awards Year Ended June 30, 2018

		Additional Award		Pass-		Pass-Through Entity	Total	Passed to
Federal Program	CFDA		Direct	Through	Pass-Through Entity	Identifying Number	Expenditures	Sub-Recipients
Agriculture and Food Research Initiative (AFRI)	10.310		-		Pennsylvania State Univ	2012-68005-19703	16,773	-
Agriculture and Food Research Initiative (AFRI)	10.310		_		Pennsylvania State Univ	2014-67019-21636	32,173	_
Agriculture and Food Research Initiative (AFRI)	10.310		_		Pennsylvania State Univ	2015-87015-23177	5,576	_
Agriculture and Food Research Initiative (AFRI)	10.310		_		Pennsylvania State Univ	2017-67013-26258	65,115	_
Agriculture and Food Research Initiative (AFRI)	10.310		_		Pennsylvania State Univ	2018-67023-27646	28,330	_
Agriculture and Food Research Initiative (AFRI)	10.310		_		Rockefeller University	2016-67015-24765	327,943	-
Agriculture and Food Research Initiative (AFRI)	10.310		-		Texas A&M University	2016-67015-24923	38,950	-
Agriculture and Food Research Initiative (AFRI)	10.310		-	7,774	Texas A&M University	2016-68003-24607	7,774	-
Agriculture and Food Research Initiative (AFRI)	10.310		-	47,557	Tufts University	2016-68006-24744	47,557	-
Agriculture and Food Research Initiative (AFRI)	10.310		-	97,335	U Of Georgia Research Foundation	2016-67013-24608	97,335	-
Agriculture and Food Research Initiative (AFRI)	10.310		-	78,130	University Of Buffalo	2016-68003-24601	78,130	-
Agriculture and Food Research Initiative (AFRI)	10.310		-	23,246	University Of California Davis	2012-68004-20166	23,246	-
Agriculture and Food Research Initiative (AFRI)	10.310		-	5,193	University Of California Davis	2016-67023-24902	5,193	-
Agriculture and Food Research Initiative (AFRI)	10.310		-	129,870	University Of California Davis	2017-67007-25939	129,870	-
Agriculture and Food Research Initiative (AFRI)	10.310		-	27,271	University Of California, San Diego	2015-67013-23006	27,271	-
Agriculture and Food Research Initiative (AFRI)	10.310		-	4,971	University Of Idaho	2015-69004-23634	4,971	-
Agriculture and Food Research Initiative (AFRI)	10.310		-	139,328	University Of Massachusetts Amherst	2013-67017-21273	139,328	-
Agriculture and Food Research Initiative (AFRI)	10.310		-	9,512	University Of Massachusetts Amherst	2015-68006-23110	9,512	-
Agriculture and Food Research Initiative (AFRI)	10.310		-	109,140	University Of Missouri	2016-57019-25278	109,140	=
Agriculture and Food Research Initiative (AFRI)	10.310		-	10,127	University Of Nebraska	2013-67015-21239	10,127	=
Agriculture and Food Research Initiative (AFRI)	10.310		-	46,041	University Of New Hampshire	2013-67014-21318	46,041	=
Agriculture and Food Research Initiative (AFRI)	10.310		-	18,383	University Of Notre Dame	2015-67013-23289	18,383	-
Agriculture and Food Research Initiative (AFRI)	10.310		-	92,231	University Of Wisconsin Madison	2013-68002-20525	92,231	-
Agriculture and Food Research Initiative (AFRI)	10.310		-	19,979	University Of Wyoming	2011-68004-30074	19,979	-
Agriculture and Food Research Initiative (AFRI)	10.310		-	99,617	Virginia Polytechnic Institute & State University	2015-67003-23485	99,617	-
Beginning Farmer and Rancher Development Program	10.311		321,721	-	-	-	321,721	28,000
Farm Business Management and Benchmarking Competitive Grants Program	10.319		64,465	-	-	-	64,465	23,936
Farm Business Management and Benchmarking Competitive Grants Program	10.319		-	1,814	Ohio State University	2.01739E+13	1,814	-
Sun Grant Program	10.320		-	132,411	Pennsylvania State Univ	2014-38502-22598	132,411	-
National Food Safety Training, Education, Extension, Outreach,	10.328		4,089	-	-	-	4,089	2,863
and Technical Assistance Competitive Grants Program								
Crop Protection and Pest Management Competitive Grants Program	10.329		322,261	-	-	-	322,261	49,935
Crop Protection and Pest Management Competitive Grants Program	10.329		-		Rutgers, The State University of New Jersey	2015-70006-24152	35,371	-
Crop Protection and Pest Management Competitive Grants Program	10.329		-		University Of Florida	2015-70006-24165	3,438	-
Crop Protection and Pest Management Competitive Grants Program	10.329		-		University Of Maryland College Park	2015-70006-24277	10,681	-
Crop Protection and Pest Management Competitive Grants Program	10.329		-		University Of Vermont	2014-70006-22484	2,568	-
Crop Protection and Pest Management Competitive Grants Program	10.329		-		University Of Vermont	2016-70006-25830	21,835	-
Alfalfa and Forage Research Program	10.330		21,379		-	-	21,379	17,488
Alfalfa and Forage Research Program	10.330		-	10,384	University Of California Davis	2014-70005-22552	10,384	-
Cooperative Extension Service	10.500		391,674	-	<u>-</u>	-	391,674	9,919
National Institute of Food and Agriculture Subtotal			24,911,402	3,432,679	-		28,344,081	5,331,822

Schedule of Expenditures of Federal Awards Year Ended June 30, 2018

Federal Program	CFDA	Additional Award Identification	Direct	Pass- Through	Pass-Through Entity	Pass-Through Entity Identifying Number	Total Expenditures	Passed to Sub-Recipients
reuerai i rogram	CIDA	identification	Direct	Tintough	1 ass-1 in ough Entity	ruentrying runnber	Expenditures	Sub-Recipients
Natural Resources Conservation Service								
Soil and Water Conservation	10.902		-	49,045 IUP Research Institut		68-3A75-17-337	49,045	-
Soil and Water Conservation	10.902			3,074 IUP Research Institut	te	68-7482-15-501	3,074	-
Soil Survey	10.903		42,622			-	42,622	
Environmental Quality Incentives Program	10.912		362,168			-	362,168	74,146
Environmental Quality Incentives Program	10.912			35,360 Pennsylvania State U	Jniv	69-2D37-18-007	35,360	
Natural Resources Conservation Service Subtotal		•	404,790	87,479			492,269	74,146
Departmental Management								
Outreach and Assistance for Socially Disadvantaged and Veteran Farmers and Ranchers	10.443		-	7,020 Center For Transform	native Action	AO172501X443G007	7,020	
The Office of the Chief Economist	10.200		10.201				40.204	
Agricultural Market and Economic Research	10.290	•	49,284			-	49,284	
Department of Agriculture Total			30,729,442	5,790,737			36,520,179	5,591,817
Department of Commerce								
Department of Commerce, Other	11.RD	83864	-	1,657 New York Sea Grant		83864	1,657	=
Department of Commerce, Other	11.RD	83872	-	18,064 New York Sea Grant	Institute, Stony Brook	83872	18,064	
National Institute of Standards and Technology (NIST)								
Measurement and Engineering Research and Standards	11.609	•	663,220			-	663,220	-
National Oceanic and Atmospheric Administration (NOAA)								
Sea Grant Support	11.417		-	258,843 New York Sea Grant		NA14OAR4170069	258,843	-
Sea Grant Support	11.417		-	73,202 Woods Hole Oceanog	graphic Institute	NA14OAR4170074	73,202	-
Climate and Atmospheric Research	11.431		80,512			-	80,512	-
Climate and Atmospheric Research	11.431		-	10,866 Columbia University		NA15OAR4310147	10,866	-
National Oceanic and Atmospheric Administration (NOAA) Cooperative Institutes	11.432	•	-	20,568 Woods Hole Oceanog	graphic Institute	NA14OAR4320158	20,568	
National Oceanic and Atmospheric Administration (NOAA) Subtotal			80,512	363,479			443,991	
Department of Commerce Total			743,732	383,200			1,126,932	
Department of Defense								
Advanced Research Projects Agency, Other	12.RD	HR001118C0014	230,843			-	230,843	=
Department of Defense, Other	12.RD	87073	64			-	64	=
Department of Defense, Other	12.RD	20174-17042800006	-	268,167 University Of Mempi		20174-17042800006	268,167	-
Department of Defense, Other	12.RD	D16PC00003	-	489,476 Baylor College Of M	ledicine	D16PC00003	489,476	-
Department of Defense, Other	12.RD	FA8650-14-C-7402	-	58,530 Honeywell Inc		FA8650-14-C-7402	58,530	-
Department of Defense, Other	12.RD	FA8651-16-D-0311	-	93,071 University Of Daytor	n	FA8651-16-D-0311	93,071	-
Department of Defense, Other	12.RD	FA8702-15-D-0001	-	159,482 Lincoln Lab, Mit		FA8702-15-D-0001	159,482	-
Department of Defense, Other	12.RD	GSO4TO9DBCOO 17	-	14,775 Engility LLC		GSO4TO9DBCOO 17	14,775	-
Department of Defense, Other Department of Defense, Other	12.RD 12.RD	HDTRA1-13-C-0003 HR0011-18-C0049	-	219,102 Flir Systems 57,944 Applied Physics Labo	orstory	HDTRA1-13-C-0003 HR0011-18-C0049	219,102 57,944	-
Department of Defense, Other	12.RD 12.RD	N66001-12-C-2009	793,203	57,544 Applied Filysics Labo	oratory	FIX.0011-10-C0049	793,203	-
Department of Defense, Other	12.RD	N6833518C0217	793,203	7,074 Weidlinger Technolo	ogy Ventures I Ic	N6833518C0217	7,074	-
Department of Defense, Other	12.RD	W15QKN17C0005	-	55,221 Lionano Inc.	-gj , cardios Lac	W15QKN17C0005	55,221	-
Department of Defense, Other	12.RD	W81XWH-17-C-0176	-	2,390 Vitascan Technolgies	s Inc.	W81XWH-17-C-0176	2,390	-
the state of the s				_,			2,570	

Schedule of Expenditures of Federal Awards Year Ended June 30, 2018

		Additional						
		Award		Pass-		Pass-Through Entity	Total	Passed to
Federal Program	CFDA	Identification	Direct	Through	Pass-Through Entity	Identifying Number	Expenditures	Sub-Recipients
Department of Defense, Other	12.RD	W911NF-09-2-0053	-	115,346 Raytheon Compa	any	W911NF-09-2-0053	115,346	-
Department of Defense, Other	12.RD	W911NF-14-C-0089	-	275,386 Raytheon Compa	any	W911NF-14-C-0089	275,386	-
Department of Defense, Other	12.RD	W911NF-14-C-0113	-	(165,000) Applied Optroni	cs	W911NF-14-C-0113	(165,000)	-
Department of Defense, Other	12.RD	W911NF-15-C-0236	-	115,458 International Bu	siness Machines	W911NF-15-C-0236	115,458	-
Department of Defense, Other	12.RD	W911QY-15-C-0026	-	133,619 University Of Ca	alifornia, Santa Barbara	W911QY-15-C-0026	133,619	-
Department of Defense, Other	12.RD	W912HQ-12-C-0073	-	(914) University Of No	otre Dame	W912HQ-12-C-0073	(914)	-
Department of Defense, Other	12.RD	W912HQ18C0052	21,703	<u> </u>		-	21,703	<u>-</u>
Advanced Research Projects Agency								
Research and Technology Development	12.910		1,948,435			-	1,948,435	91,340
Research and Technology Development	12.910		-	2,671 Princeton Univer	rsity	FA8650-18-2-7852	2,671	-
Research and Technology Development	12.910		-	10,320 Raytheon Compa	any	HR0011-14-C-0009	10,320	-
Research and Technology Development	12.910		-	111,998 Sydor Instrumen	its	HDTRA118C0002	111,998	-
Research and Technology Development	12.910		-	132,162 Teledyne Scienti	ific And Imaging, Llc	FA8650-18-C-7807	132,162	-
Research and Technology Development	12.910		-	50,000 UES Inc.		FA8650-16-D-5403	50,000	-
Research and Technology Development	12.910		-	82,358 University Of Ca	alifornia Berkeley	N66001-15-C-4066	82,358	-
Research and Technology Development	12.910		-	22,680 University Of Ca	alifornia, San Diego	HR0011-16-C-0037	22,680	-
Research and Technology Development	12.910		-	10,794 University Of Cl	hicago	HR0011-18-2-0024	10,794	-
Research and Technology Development	12.910		-	72,742 University Of Ill	inois At Urbana-Champaign	2013-MA-2385	72,742	-
Research and Technology Development	12.910		-	48,425 University Of No	otre Dame	2013-MA-2383	48,425	-
Research and Technology Development	12.910		-	3,703 Virginia Polytec	hnic Institute & State University	D17AC00003	3,703	-
Advanced Research Projects Agency Subtotal			1,948,435	547,853			2,496,288	91,340
Defense Threat Reduction Agency								
Scientific Research - Combating Weapons of Mass Destruction	12.351		-	455,885 Northwestern Ur	niversity	HDTRA1-15-1-0052	455,885	-
Scientific Research - Combating Weapons of Mass Destruction	12.351		-	44,230 University Of M	laryland College Park	HDTRA1-13-1-0037	44,230	-
Defense Threat Reduction Agency Subtotal			-	500,115			500,115	=
Department of the Air Force, Materiel Command								
Air Force Defense Research Sciences Program	12.800		5,571,215			=	5,571,215	913,406
Air Force Defense Research Sciences Program	12.800		-	46,892 Emory Universit	tv	FA9550-18-1-0420	46,892	-
Air Force Defense Research Sciences Program	12.800		_	83,729 California Institu		FA9550-18-1-0095	83,729	_
Air Force Defense Research Sciences Program	12.800		_	291,517 Massachusetts Ir	0.0	FA9550-15-1-0038	291,517	_
Air Force Defense Research Sciences Program	12,800		_	62,474 Princeton Univer	23	FA9550-16-1-0046	62,474	_
Air Force Defense Research Sciences Program	12.800		_	17,762 University Of Te	•	FA9550-15-1-0075	17,762	
Department of the Air Force, Materiel Command Subtotal			5,571,215	502,374			6,073,589	913,406
Department of the Army, Office of the Chief of Engineers								
Aquatic Plant Control	12.100			70,635 University Of Ha	awaii	W912HQ-14-C-0017	70,635	-
Department of the Navy, Office of the Chief of Naval Research								
Basic and Applied Scientific Research	12.300		7,581,012			-	7,581,012	2,153,655
Basic and Applied Scientific Research	12.300		-	57,198 Duke University	•	N00014-13-1-0561	57,198	-
Basic and Applied Scientific Research	12.300		-	(34,943) Georgia State Ur		N00014-13-1-0649	(34,943)	-
Basic and Applied Scientific Research	12.300		-	201,702 Georgia State Ur		N00014-17-1-2588	201,702	-
Basic and Applied Scientific Research	12.300		-	22,616 International Per	sonnel Protection Inc.	41756-16-C-4511	22,616	-

Schedule of Expenditures of Federal Awards Year Ended June 30, 2018

		Additional						
		Award		Pass-		Pass-Through Entity	Total	Passed to
Federal Program	CFDA	Identification	Direct	Through	Pass-Through Entity	Identifying Number	Expenditures	Sub-Recipients
Basic and Applied Scientific Research	12.300		-		New York University	FA8750-14-2-0236	8,943	-
Basic and Applied Scientific Research	12.300		-		Oregon State University	N00014-15-1-2297	34,207	-
Basic and Applied Scientific Research	12.300		-	61,780	San Diego State University Research Foundation	N00014-17-1-2867	61,780	-
Basic and Applied Scientific Research	12.300		-	182,011	Stanford University	N00014-14-1-0551	182,011	-
Basic and Applied Scientific Research	12.300		-		University Of California, Santa Barbara	N00014-16-1-2233	16,979	-
Basic and Applied Scientific Research	12.300		-	180,014	University Of California, Santa Barbara	N00014-16-1-2982	180,014	-
Basic and Applied Scientific Research	12.300		-		Brain Trauma Foundation	BTW W911QY-12-C-0005	23,938	-
Basic and Applied Scientific Research	12.300		-	74,658	University Of Notre Dame	N00014-16-1-2686	74,658	-
Basic and Applied Scientific Research	12.300			38,911	University Of St. Andrews	N00014-15-1-2142	38,911	-
Department of the Navy, Office of the Chief of Naval Research Subtotal			7,581,012	868,014			8,449,026	2,153,655
National Security Agency								
Mathematical Sciences Grants	12.901		25,195	-		-	25,195	
Office of the Secretary of Defense								
Basic, Applied, and Advanced Research in Science and Engineering	12.630		508,184	-		-	508,184	-
U.S. Army Materiel Command								
Basic Scientific Research	12.431		4,596,533	-	-	-	4,596,533	1,761,159
Basic Scientific Research	12.431		-		Georgia Institute Of Technology	W911NF-15-1-0609	30,895	-
Basic Scientific Research	12.431		-	,	Tufts University	W911F-16-1-0095	(68,700)	-
Basic Scientific Research	12.431		-		University Of Chicago	W911NF-14-1-0003	220,276	-
Basic Scientific Research	12.431			129,344	University Of Pennsylvania	W911NF-12-1-0509	129,344	-
U.S. Army Materiel Command Subtotal			4,596,533	311,815			4,908,348	1,761,159
U.S. Army Medical Command								
Military Medical Research and Development	12.420		7,568,800	-	-	-	7,568,800	371,330
Military Medical Research and Development	12.420		-	42,244	Duke University	W81XWH-17-1-0372-CA1	42,244	-
Military Medical Research and Development	12.420		-		Memorial Sloan Kettering Cancer Center	W81XWH-16-1-0315-01(11,222	-
Military Medical Research and Development	12.420		-		New York University	NYU W81XWH15-2-0036	20,601	-
Military Medical Research and Development	12.420		-		New York University	W81WXH15-2-0036	105,057	-
Military Medical Research and Development	12.420		-		University Of Michigan	UMich W81XWH-14-1-04	11,017	-
Military Medical Research and Development	12.420		-		University Of Southern California	USC WEI1675-1915(LIN	13	-
Military Medical Research and Development	12.420		-		Memorial Sloan-Kettering Cancer Center	W81XWH-13-1-0199	2,643	-
Military Medical Research and Development	12.420		-		Cedars Sinai Medical Center	W81XWH-16-1-0397	4,515	-
Military Medical Research and Development	12.420		-		University Of Alabama - Birmngham	UAB W81XWH-15-1-0705	119,988	31,571
Military Medical Research and Development	12.420		-		Harvard School Of Public Health	W81XWH-17-PRMRP-FPA	418,463	-
Military Medical Research and Development	12.420		-		Massachusetts Eye And Ear Infirmary	MEEI #W81XWH-12-2-01	23,794	-
Military Medical Research and Development	12.420		-		University Of California, San Diego	UCSD #W81XWH-12-2-00	(5,156)	-
Military Medical Research and Development	12.420			26,257	University Of Vermont & State Agricultural College	UV W81XWH-14-1-0199(26,257	
U.S. Army Medical Command Subtotal			7,568,800	780,658			8,349,458	402,901
Uniformed Services University Of The Health Sciences								
Uniformed Services University Medical Research Projects	12.750			22,817	Henry M. Jackson Foundation	HU0001-15-2-0024	22,817	
Department of Defense Total			28,845,187	5,503,408			34,348,595	5,322,461
Department of the Interior								
Department of the Interior, Other	15.RD	D17PC00287		7,201	General Electric Global Research	D17PC00287	7,201	<u>-</u>

Schedule of Expenditures of Federal Awards Year Ended June 30, 2018

Federal Program	CFDA	Additional Award Identification	Direct	Pass- Through	Pass-Through Entity	Pass-Through Entity Identifying Number	Total Expenditures	Passed to Sub-Recipients
Bureau of Ocean Energy Management								
Bureau of Ocean Energy Management (BOEM) Environmental Studies (ES)	15.423		184,750		-	=	184,750	-
Bureau of Ocean Energy Management (BOEM) Environmental Studies (ES)	15.423			398,926	University Of Maryland Center For Environmental Science	14-17-2241BOEM	398,926	-
Bureau of Ocean Energy Management Subtotal			184,750	398,926			583,676	<u> </u>
Fish and Wildlife Service								
African Elephant Conservation Fund	15.620		45,231		-	-	45,231	-
Cooperative Ecosystem Studies Units	15.678		23,500	 :	-	-	23,500	<u> </u>
Fish and Wildlife Service Subtotal			68,731				68,731	
National Park Service								
Cooperative Research and Training Programs & Resources of the National Park System	15.945		155,748	<u> </u>	-	-	155,748	<u> </u>
U.S. Geological Survey								
Assistance to State Water Resources Research Institutes Earthquake Hazards Program Assistance	15.805 15.807		95,606 108,517		-	-	95,606 108,517	43,896
U.S. Geological Survey Research and Data Collection	15.808		63,775			-	63,775	-
Cooperative Research Units	15.812		121,630		- -	=	121,630	_
National Climate Change and Wildlife Science Center	15.820		278,095		-	-	278,095	165,343
U.S. Geological Survey Subtotal			667,623				667,623	209,239
Department of the Interior Total			1,076,852	406,127			1,482,979	209,239
Department of Justice								
Bureau of Justice Statistics, Other	16.RD	2014-BJ-CX-K043	44,992		-	-	44,992	-
National Institute Of Justice								
National Institute of Justice Research, Evaluation, and Development Project Grants	16.560		86,465		-	-	86,465	
Department of Justice Total			131,457	<u> </u>			131,457	<u> </u>
Department of Labor								
Departmental Management								
Department of Labor Chief Evaluation Office	17.791		215,637		-	-	215,637	
Department of Transportation								
Office of the Secretary (OST) Administration Secretariate	20.701		742,454				742,454	304,523
University Transportation Centers Program University Transportation Centers Program	20.701		742,434		- City University Of New York	- C030794 & DTRT13-G-UTC32	14,532	304,323
University Transportation Centers Program	20.701		-		City University Of New York	DTRT13-G-UTC32	38,946	=
Office of the Secretary (OST) Administration Secretariate Subtotal			742,454	53,478			795,932	304,523
Federal Highway Administration (FHWA)								
Highway Training and Education	20.215		4,047	<u> </u>	-	-	4,047	<u> </u>
Department of Transportation Total			746,501	53,478			799,979	304,523
National Aeronautics and Space Administration								
National Aeronautics and Space Administration, Other	43.RD	1525402	=		Jet Propulsion Laboratory	1525402	42,763	-
National Aeronautics and Space Administration, Other	43.RD	1536803	-		Jet Propulsion Laboratory	1536803	23,809	-
National Aeronautics and Space Administration, Other	43.RD	1565245	-		Jet Propulsion Laboratory	1565245	57,962	-
National Aeronautics and Space Administration, Other National Aeronautics and Space Administration, Other	43.RD 43.RD	1530822 80MSFC18C0034	133,818		Applied Physics Laboratory	1530822	66,632 133,818	64,980
National Actoriations and Space Administration, Other	43.KD	00M3FC10C0034	133,018		-	-	133,818	04,780

Schedule of Expenditures of Federal Awards Year Ended June 30, 2018

		Additional						
		Award		Pass-		Pass-Through Entity	Total	Passed to
Federal Program	CFDA	Identification	Direct	Through	Pass-Through Entity	Identifying Number	Expenditures	Sub-Recipients
National Aeronautics and Space Administration, Other	43.RD	NAS5-26555	-	16,843 Spa	ce Telescope Science Inst.	NAS5-26555	16,843	-
National Aeronautics and Space Administration, Other	43.RD	NAS7-03001	-	(736) Jet	Propulsion Laboratory	NAS7-03001	(736)	-
National Aeronautics and Space Administration, Other	43.RD	NM0710846	-	28,406 Jet	Propulsion Laboratory	NM0710846	28,406	-
National Aeronautics and Space Administration, Other	43.RD	NM0711123	-	886,710 Jet	Propulsion Laboratory	NM0711123	886,710	98,488
National Aeronautics and Space Administration, Other	43.RD	NM071112312	-	258,088 Jet	Propulsion Laboratory	NM071112312	258,088	-
National Aeronautics and Space Administration, Other	43.RD	NMO710846	-	153,237 Mai	in Space Science Systems	NMO710846	153,237	-
National Aeronautics and Space Administration, Other	43.RD	NMO711043	-	(428) Jet	Propulsion Laboratory	NMO711043	(428)	-
National Aeronautics and Space Administration, Other	43.RD	NNG07EK00C	-	5,171 Ari:	zona State University	NNG07EK00C	5,171	-
National Aeronautics and Space Administration, Other	43.RD	NNG17FC90C	813,332			-	813,332	-
National Aeronautics and Space Administration, Other	43.RD	NNN12AA01C	-	1,406,805 Jet	Propulsion Laboratory	NNN12AA01C	1,406,805	624,600
National Aeronautics and Space Administration, Other	43.RD	NNN13D496T	-	70,173 Ari:	zona State University	NNN13D496T	70,173	-
Science	43.001		4,126,507			-	4,126,507	714,985
Science	43.001		-	15,826 App	olied Physics Laboratory	NNX15AM57G	15,826	-
Science	43.001		-	56,563 Dar	tmouth College	NNX14AH07G	56,563	-
Science	43.001		-	72,795 Gat	s Inc.	NNX14AN51G	72,795	-
Science	43.001		-	19,336 Mai	lin Space Science Systems	16-0693	19,336	-
Science	43.001		-	11,091 Smi	thsonian Astrophysical Observatory	NAS8-03060	11,091	-
Science	43.001		-	48,498 Sou	thwest Research Institute	NNM06AA75C	48,498	-
Science	43.001		-	142 Tex	as A&M University	NNX14AD52G	142	-
Science	43.001		-	15,277 Uni	versities Space Research Assoc	NNA17BF53C	15,277	-
Science	43.001		-	5,662 Uni	versities Space Research Assoc	NNX13AQ46G/NNX12AF24G	5,662	-
Science	43.001		-	6,797 Uni	versity Of Central Florida	NNX17AB62G	6,797	-
Science	43.001		-	14,449 Uni	versity Of Nevada, Las Vegas	80NSSC17K0477	14,449	-
Aeronautics	43.002		338,175			-	338,175	-
Exploration	43.003		85,303			-	85,303	17,907
Space Operations	43.007		83,278			-	83,278	-
Education	43.008		896,864			-	896,864	398,623
Education	43.008		-	23,092 Scie	encenter	NNX16AM22G	23,092	-
Education	43.008		-	18,405 Jet	Propulsion Laboratory California Institute Of Technology	NASA 1588230	18,405	-
Cross Agency Support	43.009		12,209			-	12,209	-
Space Technology	43.012		601,143			-	601,143	-
Space Technology	43.012			766 Uni	versity Of Louisville	NNX16AC59G	766	-
National Aeronautics and Space Administration Total			7,090,629	3,324,134			10,414,763	1,919,583
National Science Foundation								
National Science Foundation, Other	47.RD	84959	7,004			-	7,004	-
Engineering Grants	47.041		11,260,547			-	11,260,547	450,410
Engineering Grants	47.041		-	181,528 Col	umbia University	EFMA-1641100	181,528	-
Engineering Grants	47.041		-		nensional Energy, Inc.	1720824	87,976	-
Engineering Grants	47.041		-	27,155 Flor	23.	1721708	27,155	-
Engineering Grants	47.041		-	(2,458) Nor	folk State University	DGE-0986188	(2,458)	-

Schedule of Expenditures of Federal Awards Year Ended June 30, 2018

Pase
Engineering Grants
Engineering Grants 47.041 98.487 University Of Delaware 1331269 98.487
Engineering Grants 47.041 - 163.315 University Of Ponnsylvania EFRI-1433490 163.315 Engineering Grants 47.041 - 6.947 University Of Pennsylvania EFRI-133153 66.947 - 2.840,263 Mathematical and Physical Sciences 47.049 45.631,229 45.63,129 2.840,263 Mathematical and Physical Sciences 47.049 - 2.05.06 John Machina
Engineering Grants 47.04 47.04 45.631.22 47.04 45.631.22 47.04 45.631.22 47.04 45.631.22 47.04 45.631.22 47.04 47.
Mathematical and Physical Sciences 47.049 45.631,229 45.631,229 2,840,263 Mathematical and Physical Sciences 47.049 21.346 Howard University DMR-1205608 21.346 Mathematical and Physical Sciences 47.049 27.726 Nal Radio Astronomy Observ AST-0836064 27.736 21,195 Mathematical and Physical Sciences 47.049 17.959 Nal Radio Astronomy Observ AST-0836064 27.726 21,195 Mathematical and Physical Sciences 47.049 14.094 Pinceton University AST-1519126 17.959 Mathematical and Physical Sciences 47.049 87.619 Pinceton University AST-1440226 87.619 Mathematical and Physical Sciences 47.049 87.619 Pinceton University AST-1440226 87.619 Mathematical and Physical Sciences 47.049 85.967 University Of Minnesota CHE-141362 87.619 Mathematical and Physical
Mathematical and Physical Sciences 47.049 - 21,346 Howard University DMR-1205608 21,346 - 3 Mathematical and Physical Sciences 47.049 - 26,506 Johns Hopkins University PHY-1419008 26,506 - 6 Mathematical and Physical Sciences 47.049 - 27,726 Nat Radio Astronomy Observ AST-1519126 17,959 - 21,195 Mathematical and Physical Sciences 47.049 - 14,049 Pensylvania State Univ DMR-1420620 144,094 - 6 Mathematical and Physical Sciences 47.049 - 87,619 Princeton University AST-1440226 87,619 - 6 Mathematical and Physical Sciences 47.049 - 87,619 Princeton University AST-1440226 87,619 - 6 Mathematical and Physical Sciences 47.049 - 87,619 Princeton University PhY-1624356 2,419,90 387,193 Mathematical and Physical Sciences 47.049 - 87,619 University of Niencesta CHE-1413862 859,647 6 Mathematical and Physical Sciences 47.049 - 52,078 University of Noebraska
Mathematical and Physical Sciences 47.049 - 26,506 Johns Hopkins University PHY-1419008 26,506 - 26,506 Anthematical and Physical Sciences - 26,506 Johns Hopkins University PHY-1419008 26,506 - 26,506 - 26,506 Johns Hopkins University AST-083604 27,726 21,105 21,105 Ast Radio Astronomy Observ AST-0836064 27,726 21,105 22,119,105 Ast Radio Astronomy Observ AST-084064 27,26 21,105 22,119,105 <
Mathematical and Physical Sciences 47.049 - 27.726 Natl Radio Astronony Observ AST-0836064 27.726 21,195 Mathematical and Physical Sciences 47.049 - 17.959 Natl Radio Astronony Observ AST-1519126 17.959 Mathematical and Physical Sciences 47.049 - 144.094 Pinceton University DMR-140026 87.619 Mathematical and Physical Sciences 47.049 - 24.19,990 Pinceton University AST-04356 24.19,990 387.193 Mathematical and Physical Sciences 47.049 - 24.19,990 Pinceton University PHY-1624356 24.19,990 387.193 Mathematical and Physical Sciences 47.049 - 24.19,990 Pinceton University Of Minnesota CHE-1413862 859,647 Mathematical and Physical Sciences 47.049 - 25,007 University Of Nobraska PHY-1343486 1,363 Mathematical and Physical Sciences 47.049 - 52,078 University Of Southern California DMS-1748166 52,078 Mathematical and Physical Sciences 47.049 4,454,874
Mathematical and Physical Sciences 47.049 - 17.959 Natl Radio Astronomy Observ AST-1519126 17.959 - 18.059 - 1
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Geosciences 47.050 - 43,502 City University Of New York ICER-1615560 43,502 -
Geosciences 47.050 - 9,300 Columbia University EAR-1110921 9,300 -
Geosciences 47.050 - 249,244 Pennsylvania State Univ GEO-1240507 249,244 -
Geosciences 47.050 - 52,906 Stanford University OCE-1434325 52,906 -
Computer and Information Science and Engineering 47.070 17,419,851 - 17,419,851 1,743,844
Computer and Information Science and Engineering 47.070 - 8,947 Arizona State University 1320065 8,947 -
Computer and Information Science and Engineering 47.070 - 17,350 Carnegie-Mellon University 1563887 17,350 -
Computer and Information Science and Engineering 47.070 - 4.971 Computing Research Association 1136966 4.971 -
Computer and Information Science and Engineering 47.070 - 45.473 Indiana University ACI-1445604 45.473 -
Computer and Information Science and Engineering 47.070 - (3,141) Massachusetts Institute Of Technology CCF-1231216 (3,141) -
Computer and Information Science and Engineering 47.070 - 181,454 Stanford University IIS-1139161 181,454 -
Computer and Information Science and Engineering 47.070 - 572,386 University Of Illinois At Urbana-Champaign ACI-1548562 572,386 -
Computer and Information Science and Engineering 47.070 - 22,789 University Of Maryland College Park 1514261 22,789 -
Computer and Information Science and Engineering 47.070 - 68,604 University Of North Carolina Chapel Hill 1639268 68,604 -
Computer and Information Science and Engineering 47.070 - 120,309 University Of North Carolina Chapel Hill CNS-1330599 120,309 -
Computer and Information Science and Engineering 47.070 - 204,369 University Of Texas At Austin 1663578 204,369 -
Computer and Information Science and Engineering 47.070 - 216,675 University Of Wisconsin Madison CNS-1330308 216,675 -
Biological Sciences 47.074 17,596,816 17,596,816 4,965,031
Biological Sciences 47.074 - 113,141 Boyce Thompson Institute 1645256 113,141 -
Biological Sciences 47.074 - 44.011 Boyce Thompson Institute IOS-1354421 44.011 -
Biological Sciences 47.074 - 161,979 Boyce Thompson Institute IOS-1546625 161,979 -
Biological Sciences 47.074 - 52,004 Boyce Thompson Institute IOS 1653021 52,004 -
Biological Sciences 47.074 - 75,093 Cary Institute Of Ecosystem Studies 1637685 75,093 -

Schedule of Expenditures of Federal Awards Year Ended June 30, 2018

Pass Pass
Biological Sciences 47,074 - 201,952 Donald Danforth Plant Science Center IOS-1546882 201,952 - Biological Sciences 47,074 - 93,014 Kansas State University 1543958 93,014 - Biological Sciences 47,074 - 54,854 Kansas State University IOS-1238187 54,854 - Biological Sciences 47,074 - 90,702 Michigan State University MCB-1650040 101,845 - Biological Sciences 47,074 - 11,565 Varcuse University DEB-1655840 11,565 - Biological Sciences 47,074 - 18,656 University Of Arizona IOS-146882 20,795 18,656 - Biological Sciences 47,074 - 18,656 University Of Arizona IOS-146882 20,795 18,656 - Biological Sciences 47,074 - 20,3988 University Of Buffalo Dill 24,4507 293,988 - Biological Sciences 47,074 - 293
Biological Sciences 47.074 - 93,014 Kansas State University 1543958 93,014 - 80,014 - 80,016 Sciences 154,854 MCB-1238187 93,014 - 80,014 - 80,016 Sciences 47.074 - 80,012 Sciences MCB-156067 97,02 - 80,012 - 80,012 Sciences MCB-1650040 101,845 - 80,012
Biological Sciences 47.074 - 54,854 Kansas State University IOS-1238187 54,854 - 54,854
Biological Sciences 47.074 - 90,702 Michigan State University IOS-1546657 90,702 - Biological Sciences 47.074 - 101,845 Northwestern University MCB-1650040 101,845 - Biological Sciences 47.074 - 14,565 Syracus University DEB-1655840 14,565 - Biological Sciences 47.074 - 18,656 University Of Airzona IOS-1457092 18,656 - Biological Sciences 47.074 - 203,786 University Of Buffalo DBI1331306 220,786 - Biological Sciences 47.074 - 293,985 University Of California, San Diego 1444507 293,985 - Biological Sciences 47.074 - 19,187 University Of Delaware 1127076 19,187 -
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Biological Sciences 47.074 - 19,187 University Of Delaware 1127076 19,187 -
Biological Sciences 47.074 - 85.953 University Of Missouri IOS-1456047 85.953 -
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Biological Sciences 47.074 - 815 University Of North Carolina Chapel Hill IOS-1343020 815 -
Biological Sciences 47.074 - 44,264 University Of Wyoming DEB-1457070 44,264 -
Biological Sciences 47.074 - 20,337 Woods Hole Research Center EF-1638560 20,337 -
Social, Behavioral, and Economic Sciences 47.075 1,805,317 1,805,317 86,821
Social, Behavioral, and Economic Sciences 47.075 - 29,742 Chief Dull Knife College BCS-1664462 29,742 -
Social, Behavioral, and Economic Sciences 47.075 - 21,115 George Washington University CNS-1421373 21,115 -
Social, Behavioral, and Economic Sciences 47.075 - 77,325 University Of California Berkeley 1650589 77,325 -
Social, Behavioral, and Economic Sciences 47.075 - 32,043 University Of Georgia 1727802 32,043 -
Education and Human Resources 47.076 9,925,255 9,925,255 274,700
Education and Human Resources 47.076 - 7,799 Rochester Inst Of Technology HRD-1127955 7,799 -
Education and Human Resources 47.076 - 79,429 Sciencenter DRL-1610039 79,429 -
Education and Human Resources 47.076 - 98,425 Stanford University DUE-1611482 98,425 -
Education and Human Resources 47.076 - 35,982 Syracuse University 1712733 35,982 -
Education and Human Resources 47.076 - 37,470 Syracuse University HRD-1202480 37,470 -
Education and Human Resources 47.076 - 33,445 Tuskegee University HRD-1137681 33,445 -
Education and Human Resources 47.076 - 4,906 University Of Maine 1322556 4,906 -
Education and Human Resources 47.076 - 21,368 University Of Rochester HRD-1649228 21,368 -
Education and Human Resources 47.076 - 6,044 University Of Wisconsin Madison DUE-1231286 6,044 -
Education and Human Resources 47.076 - 846 Western Kentucky University DRL-1223908 846 -
Office of International Science and Engineering 47.079 101,079 - 101,079 - 101,079
Office of International Science and Engineering 47.079 - 15,853 CRDF Global OISE-9531011 15,853 -
Office of Cyberinfrastructure 47.080 - 177,972 University Of Texas At Austin OCI-1134872 177,972 -
National Science Foundation Total 108,201,972 9,094,350 117,296,322 12,607,315
Environmental Protection Agency
Office of Research and Development (ORD)
Science To Achieve Results (STAR) Fellowship Program 66.514 3,162 3,162 - 3,162 -
P3 Award: National Student Design Competition for Sustainability 66.516 22,189 22,189
Office of Research and Development (ORD) Subtotal 25,351 -
Office of Water
Great Lakes Program 66.469 932,755 932,755 265,293

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Post	Federal Program	CFDA	Award Identification	Direct	Pass- Through Pa	ass-Through Entity	Pass-Through Entity Identifying Number	Total Expenditures	Passed to Sub-Recipients
Post	Great Lakes Program	66,469		_	46,502 Minnesota Department O	f Health	00E01283	46,502	-
Pages Page	e e e e e e e e e e e e e e e e e e e	66.469		-	-		GL-00E02226		-
Pagament of Energy (Office of Water Subtotal		•	932,755	143,852			1,076,607	265,293
Popumenter of Energy, Oher	Environmental Protection Agency Total			958,106	143,852			1,101,958	265,293
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Popement of Energy, Other SLR	Department of Energy, Other	81.RD	65603	-	147,940 Arizona State University		65603	147,940	-
Department of Energy, Other \$1,800 Dis-ACCU-SCHILL'S -11,855 Fermi Marional Lactomatory Dis-ACCU-SCHILL'S 11,855 Fermi Marional Accelerator Laboratory Dis-ACCU-SCHILL'S -11,855 Fermi Marional Accelerator Laboratory Dis-ACCU-SCHILL'S 66,101 -12,900 Dis-ACCU-SCHILL'S -12,900	Department of Energy, Other	81.RD	83417	-	47,905 Woods Hole Oceanograph	hic Institute	83417	47,905	-
Department of Energy, Other	Department of Energy, Other	81.RD	181649	35,988			-	35,988	-
Department of Energy, Other	Department of Energy, Other	81.RD	DE-AC02-05CH11231	-	55,299 Lawrence Berkeley Natio	nal Laboratory	DE-AC02-05CH11231	55,299	-
Department of Energy, Other	Department of Energy, Other	81.RD	DE-AC02-07CH11359	-	114,554 Fermi National Accelerat	or Laboratory	DE-AC02-07CH11359	114,554	-
Department of Energy, Other	Department of Energy, Other	81.RD	DE-AC02-76SF00515	-	66,101 Slac National Accelerator	Laboratory	DE-AC02-76SF00515	66,101	-
Department of Energy, Other	Department of Energy, Other	81.RD	DE-AC02-98CH10886	-	6,885,423 Brookhaven National Lab	ooratory	DE-AC02-98CH10886	6,885,423	-
Department of Energy, Other	Department of Energy, Other	81.RD	DE-AC04-94AL85000	-	12,393 Sandia National Laborato	ory	DE-AC04-94AL85000	12,393	-
Department of Energy, Other SIRD DE-ACS-OFNACFF544 120,78 20-00-20-0	Department of Energy, Other	81.RD	DE-AC05-00OR22725	-	79,700 Ut-Battelle Llc		DE-AC05-00OR22725	79,700	-
Department finergy, Other SLRD De-NA0003525 4.9.02 SAndia National Laboratory De-NA0003525 4.9.02 4.9.02 5.0.02	Department of Energy, Other	81.RD	DE-AC05-76RL01830	-	19,420 Pacific Northwest Nation	al Laboratory	DE-AC05-76RL01830	19,420	-
Department of Energy, Other SLRD DESCO015727 60,081 Ultrament of Energy, Other Department of Energy, Other SLRD SESSOS 70,04 SesSOS 70,04	Department of Energy, Other	81.RD	DE-AC52-07NA27344	-	120,778 Lawrence Livermore Nati	onal Laboratory	DE-AC52-07NA27344	120,778	-
Department of Energy, Other Series	Department of Energy, Other	81.RD	DE-NA0003525	-	42,902 Sandia National Laborato	ry	DE-NA0003525	42,902	-
Office of Science Financial Assitance Program 81.049 6.901.954 - 6.901.954 72.196 Office of Science Financial Assitance Program 81.049 - 82.099 Faraday Technology Inc. DE-SC0011235 82.999 - Office of Science Financial Assistance Program 81.049 - 88.702 Faraday Technology Inc. DE-SC0011832 88.702 - Office of Science Financial Assistance Program 81.049 - 4.566 H Fidelity Genetics DE-SC001638 15.620 - Office of Science Financial Assistance Program 81.049 - 15.200 Kitwate Inc DE-SC0011835 1,800 - Office of Science Financial Assistance Program 81.049 - 1,550 Kitwate Inc DE-SC0011835 1,800 - Office of Science Financial Assistance Program 81.049 - 1,550 Kitwate Inc DE-SC0011835 1,500 - Office of Science Financial Assitance Program 81.049 - 1,500 Remarkate University DE-SC0017202 1,500 - Office of Science Financia	Department of Energy, Other	81.RD	DE-SC0015727	-	60,081 Ultramet		DE-SC0015727	60,081	-
Office of Science Financial Assistance Program 81.049 82.999 Fanday Technology Inc. DE-SC0011235 82.999 - Office of Science Financial Assistance Program 81.049 - 88.702 Fanday Technology Inc. DE-SC0011832 82.909 Office of Science Financial Assistance Program 81.049 - 4.56 Hi Fidelity Genetics DE-SC0018572 4.566 Office of Science Financial Assistance Program BL-SC0018783 156.200 Office of Science Financial Assistance Program BL-SC001888 156.200 Office of Science Financial Assistance Program BL-049 - 5.176 Michigan State University DE-SC0017883 55.176 Office of Science Financial Assistance Program BL-049 - 4.308 Pennsylvania State University DE-SC0017883 55.176 Office of Science Financial Assistance Program BL-049 - 4.308 Pennsylvania State University DE-SC0017833 55.176 Office of Science Financial Assistance Program BL-049 - 15.000 Relation Monitoring Devices, Inc. DE-SC0017833 15.000 All	Department of Energy, Other	81.RD	85655	-	7,004 West Virginia University		85655	7,004	-
Office of Science Financial Assistance Program 81,049 88,702 Faraday Technology Inc. DE-SC001142 88,702 -1 Office of Science Financial Assistance Program 81,049 - 4,566 1 Hieldity Genetics DE-SC0016438 15,626 - 3 Office of Science Financial Assistance Program 81,049 - 1,809 Kinwa Inc. DE-SC0011385 1,890 - 3 Office of Science Financial Assistance Program 81,049 - 5,176 Michigan State University DE-SC0017883 55,176 - 6 Office of Science Financial Assistance Program 81,049 - 15,000 Remsylvania State University DE-SC0017020 15,000 - 3 Office of Science Financial Assistance Program 81,049 - 18,000 Remsylvania State University DE-SC0017020 15,000 - 6 Office of Science Financial Assistance Program 81,049 - 18,000 State of Institution For Science Financial Assistance Program BL-SC0017139 68,162 - 6 Office of Science Financial Assistance Program 81,049 - 8,214 University Of Minnesota DE-SC00018370 28,696 64,521 <tr< td=""><td>Office of Science Financial Assistance Program</td><td>81.049</td><td></td><td>6,901,954</td><td></td><td></td><td>-</td><td>6,901,954</td><td>72,196</td></tr<>	Office of Science Financial Assistance Program	81.049		6,901,954			-	6,901,954	72,196
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Office of Science Financial Assistance Program 81.049 - 1,890 Kitware Inc DE-SC0011385 1,890 Office of Science Financial Assistance Program 81.049 - 3,5176 4.308 Pennsylvanic Businer DE-SC0017883 51,76 Office of Science Financial Assistance Program 81.049 - 15,000 Rediation Monitoring Devices, Inc. DE-SC0017202 15,000 Office of Science Financial Assistance Program 81.049 - 18,000 Rediation Monitoring Devices, Inc. DE-SC001622 15,000 Office of Science Financial Assistance Program 81.049 - 18,000 Stoffice of Science Financial Assistance Program DE-SC0016234 131,600 Office of Science Financial Assistance Program 81.049 - 8,162 Stoffice of Science Financial Assistance Program DE-SC0016234 131,600 Office of Science Financial Assistance Program 81.049 - 64,512 University Of Instruments DE-SC0000578 208,096 Office of Science Financial Assistance Program 81.049 - 64,512 University Of New Mexico DE-SC00005878 208,506	Office of Science Financial Assistance Program	81.049		-	4,566 Hi Fidelity Genetics		DE-SC0018572	4,566	-
Office of Science Financial Assistance Program 81.049 - 55,176 Michigan State University DE-SC0017883 55,176 Office of Science Financial Assistance Program 81.049 - 4,308 Pennsylvania State Univ 26487740-49105-B 4,308 Office of Science Financial Assistance Program 81.049 - 148,086 - 1 - 1 - 2 <th< td=""><td>Office of Science Financial Assistance Program</td><td>81.049</td><td></td><td>_</td><td>156,260 Iowa State University</td><td></td><td>DE-SC0016438</td><td>156,260</td><td>_</td></th<>	Office of Science Financial Assistance Program	81.049		_	156,260 Iowa State University		DE-SC0016438	156,260	_
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Office of Science Financial Assistance Program 81.049 - 64,521 University Of Minnesota DE-SC0008688 64,521 - Office of Science Financial Assistance Program 81.049 - 23,145 University Of New Mexico DE-SC0018370 23,145 - Office of Science Financial Assistance Program 81.049 - 115,782 University Of New Mexico DE-SC0007889 115,782 - Conservation Research and Development 81.086 230,445 - - 200,445 39,518 Renewable Energy Research and Development 81.087 444,756 - <	Office of Science Financial Assistance Program	81.049		_	68,162 Sydor Instruments		DE-SC0017139	68,162	_
Office of Science Financial Assistance Program 81.049 - 23.145 University Of New Mexico DE-SC0018370 23,145 - Office of Science Financial Assistance Program 81.049 - 115,782 University Of Texas At Austin DE-SC0007889 115,782 - Conservation Research and Development 81.086 230,445 - - - 20,445 39,518 Renewable Energy Research and Development 81.087 444,756 - - - - - 444,756 25,784 Renewable Energy Research and Development 81.087 444,756 - <td>Office of Science Financial Assistance Program</td> <td>81.049</td> <td></td> <td>_</td> <td>208,696 The Carnegie Institution</td> <td>For Science</td> <td>DE-SC0001057</td> <td>208,696</td> <td>_</td>	Office of Science Financial Assistance Program	81.049		_	208,696 The Carnegie Institution	For Science	DE-SC0001057	208,696	_
Office of Science Financial Assistance Program 81.049 - 115.782 University Of Exas At Austin DE-SC0007889 115,782 - Conservation Research and Development 81.086 230,445 - - - 230,445 39,518 Renewable Energy Research and Development 81.087 444,756 - - - - 444,756 20,355 Renewable Energy Research and Development 81.087 444,756 - 173 Duke University DE-EE000791 147,620 24,021,06 746,260 Stewardship Science Grant Program 81.112 2,402,106 - - - - 1,402,206 746,260 Electricity Delivery and Energy Reliability, Research, Development and Analysis 81.122 61,907 - - - - - - - - 25,894	Office of Science Financial Assistance Program	81.049		_	64,521 University Of Minnesota		DE-SC0008688	64,521	_
Conservation Research and Development 81.086 230,445 230,445 39,518 Renewable Energy Research and Development 81.087 444,756 - 444,756 20,355 Renewable Energy Research and Development 81.087 173 Duke University DE-EB007091 173 - Stewardship Science Grant Program 81.112 2,402,106 - 2,402,106 746,260 Electricity Delivery and Energy Reliability, Research, Development and Analysis 81.122 61,907 - - 61,907 25,894	Office of Science Financial Assistance Program	81.049		_	23,145 University Of New Mexic	00	DE-SC0018370	23,145	_
Conservation Research and Development 81.086 230,445 230,445 39,518 Renewable Energy Research and Development 81.087 444,756 - 444,756 20,355 Renewable Energy Research and Development 81.087 173 Duke University DE-EB007091 173 - Stewardship Science Grant Program 81.112 2,402,106 - 2,402,106 746,260 Electricity Delivery and Energy Reliability, Research, Development and Analysis 81.122 61,907 - - 61,907 25,894	e e e e e e e e e e e e e e e e e e e			_					_
Renewable Energy Research and Development 81.087 444,756 444,756 20,355 Renewable Energy Research and Development 81.087 173 Duke University DE-EB007091 173 Stewardship Science Grant Program 81.112 2,402,106 2,402,106 746,260 Electricity Delivery and Energy Reliability, Research, Development and Analysis 81.122 61,907 - - 61,907 25,894	· · · · · · · · · · · · · · · · · · ·			230,445			-		39,518
Renewable Energy Research and Development 81.087 - 173 Duke University DE-E0007091 173 - Stewardship Science Grant Program 81.112 2,402,106 - - - 2,402,106 746,260 Electricity Delivery and Energy Reliability, Research, Development and Analysis 81.122 61,907 - - - - 61,907 25,894	*						=		
Stewardship Science Grant Program 81.112 2,402,106 - - 2,402,106 746,260 Electricity Delivery and Energy Reliability, Research, Development and Analysis 81.122 61,907 - - 61,907 25,894				-	173 Duke University		DE-EE0007091		-
Electricity Delivery and Energy Reliability, Research, Development and Analysis 81.122 61,907 61,907 25,894	**			2,402,106	· · · · · · · · · · · · · · · · · · ·		-		746,260
							-		
	National Nuclear Security Administration (NNSA) Minority Serving Institutions (MSI) Program	81.123		-	25,579 Lawrence Livermore Nati	ional Laboratory	UoC LLL 181752-01		-

Schedule of Expenditures of Federal Awards Year Ended June 30, 2018

		Additional						
		Award		Pass-		Pass-Through Entity	Total	Passed to
Federal Program	CFDA	Identification	Direct	Through	Pass-Through Entity	Identifying Number	Expenditures	Sub-Recipients
Advanced Research Projects Agency - Energy	81.135		1,518,498		-	-	1,518,498	226,346
Advanced Research Projects Agency - Energy	81.135		-	78,661	Eaton (US) LLC	DE-AR0000703	78,661	-
Advanced Research Projects Agency - Energy	81.135		-		Syracuse University	DE-AR0000526	96,402	-
Advanced Research Projects Agency - Energy	81.135		-		University Of Illinois At Urbana-Champaign	DE-AR0000598	167,943	-
Advanced Research Projects Agency - Energy	81.135		-		University Of Illinois At Urbana-Champaign	DE-AR0000661	141,181	-
Advanced Research Projects Agency - Energy	81.135		-	75,509	University Of Illinois At Urbana-Champaign	DE-AR0000714	75,509	<u>-</u> _
Department of Energy Total			11,595,654	9,413,841	_		21,009,495	1,130,569
Department of Education								
Institute of Education Sciences								
Education Research, Development and Dissemination	84.305	-	220,625	-		-	220,625	
Office of Postsecondary Education								
Overseas Programs - Doctoral Dissertation Research Abroad	84.022		36,114	-	-	-	36,114	-
Graduate Assistance in Areas of National Need	84.200	_	325,136	=	_=	=	325,136	<u>-</u>
Office of Postsecondary Education Subtotal			361,250	-	_		361,250	
Office of Special Education and Rehabilitative Services								
Rehabilitation Services Vocational Rehabilitation Grants to States	84.126		-	146,756	NYS Dept Of Education	016-038	146,756	-
Promoting Readiness of Minors in Supplemental Security Income	84.418		-	4,712,533	Research Foundation For Mental Hygiene Inc.	H418P130011	4,712,533	2,364,171
Promoting Readiness of Minors in Supplemental Security Income	84.418		=	5,289	Research Foundation For Mental Hygiene, Inc.	H418P130011	5,289	
Office of Special Education and Rehabilitative Services Subtotal		. <u>-</u>	-	4,864,578	_		4,864,578	2,364,171
Department of Education Total			581,875	4,864,578	_		5,446,453	2,364,171
Department of Health and Human Services								
Administration For Children and Families, Other	93.RD	HHSP233201550076A	250,563	-	=	=	250,563	-
Centers for Disease Control And Prevention, Other	93.RD	200-2016-91970	386,377	-	-	=	386,377	-
Department of Health and Human Services, Other	93.RD	82705	864	-	-	=	864	-
Department of Health and Human Services, Other	93.RD	84830	5,381	-	-	=	5,381	-
National Institutes of Health, Other	93.RD	14-1908	1,311	-	-	-	1,311	-
National Institutes of Health, Other	93.RD	1R44TR001326-01A1	-	167,698	Hesperos LLC	1R44TR001326-01A1	167,698	-
National Institutes of Health, Other	93.RD	80898	242,671	-	-	-	242,671	-
National Institutes of Health, Other	93.RD	HHSN261201700005C	-	200,072	Youv Labs, Inc.	HHSN261201700005C	200,072	-
National Institutes of Health, Other	93.RD	N02CA097024	-	2,623	Calgb Foundation	N02CA097024	2,623	-
National Institutes of Health, Other	93.RD	M38CO0650910-4(G	-	3,990	Inst. For Clinical Research, Inc.	M38CO0650910-4(G	3,990	-
National Institutes of Health, Other	93.RD	HHSN261201	-	72,491	University Of Texas, Md Anderson Center	HHSN261201	72,491	-
Administration for Children and Families		•			_			
Social Services Research and Demonstration	93.647		(455)	-		-	(455)	<u> </u>
Administration for Community Living								
ACL National Institute on Disability, Independent Living, and Rehabilitation Research	93.433		601,888	-	=	=	601,888	-
Developmental Disabilities Basic Support and Advocacy Grants	93.630		-	58,513	NYS Developmental Disabilities Planning Council	C024328	58,513	-
Developmental Disabilities Basic Support and Advocacy Grants	93.630		-	17,660	NYS Developmental Disabilities Planning Council	T024332	17,660	-
Elder Abuse Prevention Interventions Program	93.747		-	66,142	Commonwealth Of Massachusetts	90EJGS0009-01-00	66,142	<u>-</u>
Administration for Community Living Subtotal			601,888	142,315			744,203	-

Schedule of Expenditures of Federal Awards Year Ended June 30, 2018

Federal Program	CFDA	Additional Award Identification	Direct	Pass- Through	Pass-Through Entity	Pass-Through Entity Identifying Number	Total Expenditures	Passed to Sub-Recipients
Agency for Healthcare Research and Quality								
National Research Service Awards_Health Services Research Training	93.225		459,180			_	459,180	_
Research on Healthcare Costs, Quality and Outcomes	93.226		371,178			_	371,178	_
Research on Healthcare Costs, Quality and Outcomes	93.226		-	20,291 Columbia University		R01HS024915	20,291	_
Research on Healthcare Costs, Quality and Outcomes	93,226		_	34.222 Columbia University		R01HS024262	34,222	_
Research on Healthcare Costs, Quality and Outcomes	93.226		_	127,810 Columbia University		R01HS022903	127,810	_
Research on Healthcare Costs, Quality and Outcomes	93.226		_	1 University Of Pittsbur	·9h	R18HS018167-03	1	_
Research on Healthcare Costs, Quality and Outcomes	93.226		_	35,842 Indiana University: M	-	R01HS024556	35,842	_
Research on Healthcare Costs, Quality and Outcomes	93.226		_	27,134 Indiana University: M		R21HS024717	27,134	_
Research on Healthcare Costs, Quality and Outcomes	93.226		_		Cuny-Hunter College Brookdale Center	41951-A	11,697	_
Research on Healthcare Costs, Quality and Outcomes	93.226		_	8,508 Albert Einstein Colleg	, .	R01HS024432	8,508	_
Research on Healthcare Costs, Quality and Outcomes	93.226		-	(8,946) Agency For Healthcare		R21HS024117	(8,946)	-
Agency for Healthcare Research and Quality Subtotal			830,358	256,559			1,086,917	-
Centers for Disease Control and Prevention								
Global AIDS	93.067		_	22,756 Les Centres Gheskio		NU2GGH001924-01	22,756	_
Global AIDS	93.067		_	65.082 Les Centres Gheskio		5 NU2GGH001924-02	65,082	_
Global AIDS	93.067		_	14,078 Les Centres Gheskio		NU2GGH001969-01	14,078	_
Global AIDS	93.067		_	38,715 Les Centres Gheskio		5 NU2GGH001969-02	38,715	_
Chronic Diseases: Research, Control, and Prevention	93.068		224,389			-	224,389	55,773
Chronic Diseases: Research, Control, and Prevention	93.068			15,476 University Of Alabam	a - Birmngham	U01DP006302	15,476	-
Blood Disorder Program: Prevention, Surveillance, and Research	93.080		_	7,130 Icahn School Of Medi	2	ISMMS NU27DD001155-0	7,130	_
Blood Disorder Program: Prevention, Surveillance, and Research	93.080		_	21,566 Icahn School Of Medi		5 U27 DD001155-03-00	21,566	_
Prevention of Disease, Disability, and Death by Infectious Diseases	93.084		534,699			-	534,699	299,855
Injury Prevention and Control Research and State and Community Based Programs	93.136		-	267,758 Health Research Inc		1U01CE002834-01	267,758	-
Centers for Disease Control and Prevention Investigations and Technical Assistance	93.283		_	228,340 University Of South C	Carolina	5U01DD001007-05	228,340	205,587
Emerging Infections Programs	93.317		-	54,872 Department Of Health	And Human Services	CDC IPA FY17(HUPERT)	54,872	-
Epidemiology and Laboratory Capacity for Infectious Diseases (ELC)	93.323		-	7,194 Health Research Inc		6NU50CK000423-04-01	7,194	-
Centers for Disease Control and Prevention Subtotal			759,088	742,967			1,502,055	561,215
Centers For Medicare And Medicaid Services								
Health Care Innovation Awards (HCIA)	93.610		_	25,464 Fund For Public Healt	th In New York Inc.	PH CMS331330-03(SHAC	25,464	_
Health Care Innovation Awards (HCIA)	93.610		_	23,124 Fund For Public Healt		5 C1 CMS331330-04	23,124	_
Centers For Medicare And Medicaid Services Subtotal				48,588			48,588	
Food and Drug Administration				<u> </u>			-	,
Food and Drug Administration Research	93.103		1,614,111			_	1,614,111	555,174
Food and Drug Administration Research	93.103		1,014,111	19,991 National Farmers Unio	on Foundation	1U01FD005770	19,991	333,174
Food and Drug Administration Research	93.103		_	79,278 National Farmers Unio		U01FD005770	79,278	_
Food and Drug Administration Research	93.103		_	11,295 University Of Vermon		R01FD005686	11,295	_
Food and Drug Administration_Research	93.103		-	(10) Pennsylvania State Un		R01FD003410	(10)	_
Food and Drug Administration Subtotal			1,614,111	110,554			1,724,665	555,174
9			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					,
Health Resources And Services Administration Maternal and Child Health Federal Consolidated Programs	93.110		136.110				136.110	
iviatemai and Child riealth Federal Consolidated Programs	95.110		136,110			-	136,110	-

Schedule of Expenditures of Federal Awards Year Ended June 30, 2018

		Additional					
		Award		Pass-	Pass-Through Entity	Total	Passed to
Federal Program	CFDA	Identification	Direct	Through Pass-Through Entity	Identifying Number	Expenditures	Sub-Recipients
Maternal and Child Health Federal Consolidated Programs	93.110		-	23,673 Icahn School Of Medicine At Mount Sinai	6 H30 MC24048-06	23,673	-
Maternal and Child Health Federal Consolidated Programs	93.110		-	(3) Icahn School Of Medicine At Mount Sinai	IS 5H3 MC24048-05(MC	(3)	-
HIV-Related Training and Technical Assistance	93.145			257,950 Columbia University	U10HA29291	257,950	
Health Resources And Services Administration Subtotal			136,110	281,620		417,730	
National Institutes of Health							
Family Smoking Prevention and Tobacco Control Act Regulatory Research	93.077		1,319,903		-	1,319,903	-
Environmental Health	93.113		1,066,486		-	1,066,486	133,299
Environmental Health	93.113		-	2,723 Binghamton University	1R15ES022828-01	2,723	-
Environmental Health	93.113		-	64,124 Northeastern University	5P50ES026049-03	64,124	-
Environmental Health	93.113		-	15,461 Pennsylvania State Univ	1R35ES028244-01	15,461	-
Oral Diseases and Disorders Research	93.121		632,440		=	632,440	-
NIEHS Superfund Hazardous Substances_Basic Research and Education	93.143		-	15,328 Cyclopure Inc.	1R43ES029401-01	15,328	-
Human Genome Research	93.172		1,601,586		-	1,601,586	-
Human Genome Research	93.172		-	123,396 Washington University In St. Louis	5U01HG009391-02	123,396	-
Human Genome Research	93.172		-	198,979 Yale University	5R01HG008126-03	198,979	-
Human Genome Research	93.172		-	25,744 Yale University	R01HG008126	25,744	14,791
Research Related to Deafness and Communication Disorders	93.173		387,422		-	387,422	-
Research Related to Deafness and Communication Disorders	93.173		-	29,319 Binghamton University	R01DC006914	29,319	-
Research Related to Deafness and Communication Disorders	93.173		-	270,232 Stowers Institute For Medical Research	5R01DC014701-02	270,232	-
Research Related to Deafness and Communication Disorders	93.173		-	102,050 University Of Chicago	R01DC014367	102,050	-
Research and Training in Complementary and Integrative Health	93.213		6,964		-	6,964	-
National Center on Sleep Disorders Research	93.233		-	27,053 Columbia University	R01HL128226	27,053	-
Mental Health Research Grants	93.242		7,594,373		-	7,594,373	846,901
Mental Health Research Grants	93.242		-	6,047 Dartmouth College	4R01MH103148-04	6,047	-
Mental Health Research Grants	93.242		-	96,856 Dartmouth College	T32MH073553	96,856	-
Mental Health Research Grants	93.242		-	89,548 Exocytronics Llc	1R43MH109212-01A1	89,548	-
Mental Health Research Grants	93.242		-	10,173 University Of Pittsburgh	U01MH062565	10,173	-
Mental Health Research Grants	93.242		-	206,010 University Of Washington	R61MH110509	206,010	45,652
Mental Health Research Grants	93.242		-	2,037 Wayne State University	R01MH099557	2,037	-
Mental Health Research Grants	93.242		-	1,509 Brigham And Women'S Hospital	R34MH114739	1,509	-
Mental Health Research Grants	93.242		-	34,093 University Of Texas, Health Science Center	R21MH110110	34,093	-
Mental Health Research Grants	93.242		-	10,340 Icahn School Of Medicine At Mount Sinai	5 R01 MH10479-04	10,340	-
Mental Health Research Grants	93.242		-	53,026 Feinstein Institue For Med Reseach	R01MH108654	53,026	-
Mental Health Research Grants	93.242		-	57,574 Research Fdn For Mental Hygiene Riverview Center	5 R01 MH054137-22	57,574	-
Mental Health Research Grants	93.242		-	4,579 Research Fdn For Mental Hygiene Riverview Center	4 R01 MH054137-21	4,579	-
Mental Health Research Grants	93.242		-	38,120 University Of Connecticut	R01MH112148	38,120	-
Mental Health Research Grants	93.242		-	53,350 University Of California, Berkeley	U19MH114830	53,350	-
Mental Health Research Grants	93.242		-	86,971 New York University School Of Medicine	R01MH105506	86,971	-
Mental Health Research Grants	93.242		-	1,529 Florida State University Sponsored Research Services	FSU 5R01MH104423-03(1,529	-
Mental Health Research Grants	93.242		-	191,895 Florida State University Sponsored Research Services	5 R01 MH104423-04	191,895	-
Mental Health Research Grants	93.242		-	(92) Centre For Addiction And Mental Health	CAMH 5R01MH099167-04	(92)	-

		Additional						
		Award		Pass-		Pass-Through Entity	Total	Passed to
Federal Program	CFDA	Identification	Direct	Through	Pass-Through Entity	Identifying Number	Expenditures	Sub-Recipients
Alcohol Research Programs	93.273		844,686	-	-	-	844,686	205,820
Alcohol Research Programs	93.273		-	(4,276)	University Of Rochester	URoch C024964-01	(4,276)	-
Alcohol Research Programs	93.273		-	13,529	Washington State University	R01AA020248	13,529	-
Alcohol Research Programs	93.273		-	(10,817)	National Institute Of Health/Nih	K99AA023559	(10,817)	-
Alcohol Research Programs	93.273		-	1,635	Research Fdn For Mental Hygiene Riverview Center	5R01AA023163-03(SCHA	1,635	-
Alcohol Research Programs	93.273		-	39,823	Research Fdn For Mental Hygiene Riverview Center	5 R01 AA023163-04	39,823	-
Alcohol Research Programs	93.273		-	678	University Of North Carolina	U01AA021908	678	-
Drug Abuse and Addiction Research Programs	93.279		4,769,343	-	-	-	4,769,343	1,238,189
Drug Abuse and Addiction Research Programs	93.279		-	27,486	Brain Solutions Llc	1R42DA043977-01	27,486	-
Drug Abuse and Addiction Research Programs	93.279		-	90,055	Columbia University	R01DA043130	90,055	-
Drug Abuse and Addiction Research Programs	93.279		-	212,252	Columbia University	R01DA041510	212,252	-
Drug Abuse and Addiction Research Programs	93.279		-	71,772	Columbia University	R01DA045713	71,772	-
Drug Abuse and Addiction Research Programs	93.279		-	177,311	Columbia University	R01DA035280	177,311	-
Drug Abuse and Addiction Research Programs	93.279		-	59,294	National Development And Research Inst	R01DA041298	59,294	-
Drug Abuse and Addiction Research Programs	93.279		-	2,821	National Bureau Of Economic Research	R01DA039968	2,821	-
Drug Abuse and Addiction Research Programs	93.279		-	44,447	Albert Einstein College	R01DA044878	44,447	-
Drug Abuse and Addiction Research Programs	93.279		-	10,322	Albert Einstein College	R01DA034086	10,322	-
Drug Abuse and Addiction Research Programs	93.279		-	28,534	Research Fdn For Mental Hygiene Riverview Center	R03DA039989	28,534	-
Drug Abuse and Addiction Research Programs	93.279		-	98,509	University Of Miami	UG1DA013720	98,509	-
Drug Abuse and Addiction Research Programs	93.279		-	4,395	Mediomics, Llc	R43DA042468	4,395	-
Drug Abuse and Addiction Research Programs	93.279		-	61,826	Simon Fraser University	R01DA041747	61,826	-
Drug Abuse and Addiction Research Programs	93.279		-	(1)	Pete Marttinen The Rockefeller University	RU #3P60DA005130-25S	(1)	-
Drug Abuse and Addiction Research Programs	93.279		-	(2,079)	Pete Marttinen The Rockefeller University	RU#3 P60 DA005130-25	(2,079)	-
Discovery and Applied Research for Technological Innovations to Improve Human Health	93.286		2,587,894	-	-	-	2,587,894	272,769
Discovery and Applied Research for Technological Innovations to Improve Human Health	93.286		-	33,063	University Of Memphis	5U54EB020404-04	33,063	-
Discovery and Applied Research for Technological Innovations to Improve Human Health	93.286		-	314,010	The University Of Kansas	P41EB020594	314,010	-
Minority Health and Health Disparities Research	93.307		355,143	-	=	-	355,143	152,496
Minority Health and Health Disparities Research	93.307		-	7,410	University Of Virginia	5R01MD007702-05	7,410	-
Minority Health and Health Disparities Research	93.307		-	121,083	Research Foundation Cuny-Hunter College Brookdale Center	R25MD011713	121,083	-
Minority Health and Health Disparities Research	93.307		-	51,799	Oregon Health And Science University	R01MD011403	51,799	-
Minority Health and Health Disparities Research	93.307		-	(1,997)	Georgia Southern University	5P20MD006901-04(VEST	(1,997)	-
Trans-NIH Research Support	93.310		4,504,627	-	=	=	4,504,627	62,263
Trans-NIH Research Support	93.310		-	227,913	Boyce Thompson Institute	64847	227,913	-
Trans-NIH Research Support	93.310		-	1,208,793	Columbia University	OT2OD026556	1,208,793	-
Trans-NIH Research Support	93.310		-	66,144	Northwestern University	DP2GM110838	66,144	-
Trans-NIH Research Support	93.310		-	226,743	Rockefeller University	UH3TR000933	226,743	-
Trans-NIH Research Support	93.310		-	5,400	Icahn School Of Medicine At Mount Sinai	R25EB020393	5,400	-
Trans-NIH Research Support	93.310		-	2,329,736	Columbia University Sponsored Projects Administration	UG3OD023183	2,329,736	-
Trans-NIH Research Support	93.310		-	154,559	President And Fellows Of Harvard College	R01EB018659	154,559	-
National Center for Advancing Translational Sciences	93.350		9,921,748	-	-	-	9,921,748	1,295,606
National Center for Advancing Translational Sciences	93.350		-	1,995	Research Foundation Cuny-Hunter College Brookdale Center	UL1TR002384	1,995	-

		Additional		_				
Federal Program	CFDA	Award Identification Dir	oct	Pass- Through	Pass-Through Entity	Pass-Through Entity Identifying Number	Total Expenditures	Passed to Sub-Recipients
<u> </u>				o .	r ass-1 in ough Entity	Identifying Number	•	•
Research Infrastructure Programs	93.351 93.353	,	702,022 141,627			-	1,702,022 141,627	28,063
21st Century Cures Act - Beau Biden Cancer Moonshot				 22 221 Mi-l El	Wattania - Carran Cantan	- H01CA224175		-
21st Century Cures Act - Beau Biden Cancer Moonshot 21st Century Cures Act - Beau Biden Cancer Moonshot	93.353 93.353		-		n Kettering Cancer Center	U01CA224175 1U01CA224153-01	23,221 61.208	-
Nursing Research	93.361		161,671	61,208 Tufts Universi	ty	1001CA224153-01	161,671	-
Nursing Research	93.361		101,0/1	44,600 Georgetown U		R21NR016905	44,600	-
National Center for Research Resources	93.389		107	44,600 Georgetown U	niversity	K21NK016905	107	-
Cancer Cause and Prevention Research	93.393	1.3	709,793			-	1,709,793	272,106
Cancer Cause and Prevention Research	93.393	1,	109,193	117,056 Columbia Uni	itv	R01CA205028	117,056	272,100
Cancer Cause and Prevention Research	93.393		-	2,047 Columbia Uni	-	R01CA200795	2,047	-
Cancer Cause and Prevention Research	93.393		-		n Kettering Cancer Center	R21CA209533	16.713	-
Cancer Cause and Prevention Research	93.393		-		n Kettering Cancer Center	R03CA193986	848	-
Cancer Cause and Prevention Research	93.393		-	42,619 University Of	2	R01CA168387	42,619	-
Cancer Cause and Prevention Research	93.393		-	150,179 Mayo Clinic	Rochester	U01CA108387	150,179	-
Cancer Cause and Prevention Research	93.393		-		Texas, Md Anderson Center	R01CA207216	36.204	-
Cancer Cause and Prevention Research	93.393		-	•	iversity School Of Medicine	R01CA187060	12,905	-
Cancer Detection and Diagnosis Research	93.394	2.4	593,287	12,905 New Tolk Oll	versity school of wedicine	R01CA107000	3,693,287	559,902
Cancer Detection and Diagnosis Research	93.394	5,0	373,207		n Kettering Cancer Center	5R01 CA161280-04	2,196	339,902
Cancer Detection and Diagnosis Research	93.394		-		in Kettering Cancer Center	R21CA220144	29,922	-
Cancer Detection and Diagnosis Research	93.394		-		n Kettering Cancer Center	R01CA172546	60.643	-
Cancer Detection and Diagnosis Research	93.394		-	41,954 University Of	2	5U01CA199792-03	41.954	-
Cancer Detection and Diagnosis Research	93.394		-		aconess Medical Center	BID 5U01 CA113913-07	41,934	-
Cancer Detection and Diagnosis Research	93.394		-		aconess Medical Center	BID 5001 CA113913-07 BID 5U01 CA113913-08	(5,328)	-
Cancer Detection and Diagnosis Research	93.394		-	118,439 Research Fdn		R01CA195506	118,439	-
Cancer Detection and Diagnosis Research	93.394				Of Medicine At Mount Sinai	R01CA163772	79,550	
Cancer Detection and Diagnosis Research	93.394				Nebraska Medical Center	U01CA210240	189,807	
Cancer Detection and Diagnosis Research	93.394			•	geting Technologies Inc	R43CA224579	9,442	
Cancer Detection and Diagnosis Research	93.394			6,246 The Broad Ins		U24CA210978	6,246	
Cancer Detection and Diagnosis Research	93.394		-		lege Of Radiology Imaging Network	ACRIN	11,570	-
Cancer Treatment Research	93.395	5.5	865,902		iege of Radiology imaging fetwork	ACKIN	5,865,902	764,331
Cancer Treatment Research	93.395	5,0	305,502	26,268 Children'S Ho	enital Of Philadelphia	U10CA180886	26,268	704,551
Cancer Treatment Research	93.395		-	2,722 Children'S Ho		UG1CA189955	2,722	-
Cancer Treatment Research	93.395		-	113 Emory Univer		EMORY UNIV.: TARGETI	113	_
Cancer Treatment Research	93.395			(422) Emory Univer	-	EMORY UNIVERSITY	(422)	
Cancer Treatment Research	93.395			49,112 University Of	-	5 UM1 CA121947-10	49,112	
Cancer Treatment Research	93.395		_	47,917 University Of		5 UM1 CA121947-10	47,917	
Cancer Treatment Research	93.395		_	262,007 University Of	. 6	UCLA 2U01CA121947-05	262,007	
Cancer Treatment Research	93.395		_	28,164 University Of		UCLA 5UM1CA121947-03	28,164	
Cancer Treatment Research	93.395		_	63,095 University Of		UCLA 5UM1CA121947-10	63,095	
Cancer Treatment Research	93.395		_		California, Los Angeles	UCLA UM1 CA121947-11	1,756	
Cancer Treatment Research	93.395		_	•	California, Los Angeles	5UM1CA121947-11CHAIR	7.807	
Canon Tradition resourch	13.373		-	7,007 Chrysley Of	Cantonna, Los raigores	JOHN CHILITAN	7,807	-

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Federal Program	CFDA	Award Identification I	Direct	Pass- Through	Pass-Through Entity	Pass-Through Entity Identifying Number	Total Expenditures	Passed to Sub-Recipients
Cancer Treatment Research	93,395	racinincation	лиси		University Of California, Los Angeles	5UM1CA121947-11 ANCH	329.483	Sub-Recipients
Cancer Treatment Research	93.395		-		University Of California, Los Angeles	UM1CA121947-11 ANCH	64,876	-
Cancer Treatment Research	93.395		-		University Of Chicago	UNIVERSITY OF CHICAG	5,351	_
Cancer Treatment Research	93.395		-		University Of Michigan	R01CA160467	19,004	_
Cancer Treatment Research	93.395				University Of Michigan	R01CA207272	48.489	
Cancer Treatment Research	93.395				University Of Rochester	R01CA214890	17,998	
Cancer Treatment Research	93.395		_		The Medical College Of Wisconsin	R01CA184798	4.484	_
Cancer Treatment Research	93.395		_		Teamedon International, Llc	R43CA203172	(213)	_
Cancer Treatment Research	93.395		_		Brigham And Women'S Hospital	U10CA180821	76.514	_
Cancer Treatment Research	93.395		_		City Of Hope Beckman Research Institute	R01CA102031	114,103	_
Cancer Treatment Research	93,395		-		The Emmes Corporation	EMMES #5U01CA121947-	5,149	_
Cancer Treatment Research	93.395		_		Dana-Farber Cancer Institute, Inc.	R01CA182736	214,788	_
Cancer Treatment Research	93,395		_		Montefiore Medical Center	U10CA180827	72,875	_
Cancer Biology Research	93.396		6,514,831	-	=	=	6,514,831	815,574
Cancer Biology Research	93.396		-	4,480	Memorial Sloan Kettering Cancer Center	R01CA228216	4,480	-
Cancer Biology Research	93.396		-	130,559	Memorial Sloan Kettering Cancer Center	R01CA195787	130,559	-
Cancer Biology Research	93.396		-	92,476	The Cleveland Clinic Foundation	U01CA214300-01A1	92,476	-
Cancer Biology Research	93.396		-	(8,709)	University Of Rochester	UR 5R01 CA138249 415	(8,709)	-
Cancer Biology Research	93.396		-	21,639	Memorial Sloan-Kettering Cancer Center	R01CA173636	21,639	-
Cancer Biology Research	93.396		-	345,289	Trustees Of The University Of Pennsylvania	R01CA198089	345,289	-
Cancer Biology Research	93.396		-	105,514	Childrens Hospital Los Angeles	R01CA207983	105,514	-
Cancer Biology Research	93.396		-	187,029	University Of Texas, Md Anderson Center	P01CA117969	187,029	-
Cancer Biology Research	93.396		-	22,223	Brigham And Women'S Hospital	P01CA120964	22,223	-
Cancer Biology Research	93.396		-	285,018	Methodist Hospital Research Institute	U01CA188388	285,018	-
Cancer Centers Support Grants	93.397		3,986,936	-	-	-	3,986,936	484,036
Cancer Centers Support Grants	93.397		-	34,234	Columbia University	U54CA193313	34,234	-
Cancer Centers Support Grants	93.397		-	180,828	Memorial Sloan Kettering Cancer Center	1U54CA199081-01	180,828	-
Cancer Centers Support Grants	93.397		-	417,831	Memorial Sloan Kettering Cancer Center	5U54CA199081-03	417,831	-
Cancer Centers Support Grants	93.397		-		Memorial Sloan Kettering Cancer Center	U54CA199081-03	28,952	-
Cancer Centers Support Grants	93.397		-		Memorial Sloan Kettering Cancer Center	P50CA192937	133,058	-
Cancer Centers Support Grants	93.397		-		Memorial Sloan Kettering Cancer Center	SKI 5P50CA172012-02	84	-
Cancer Centers Support Grants	93.397		-		Roswell Park Cancer Institute	3P30CA016056-39S5	22,940	=
Cancer Centers Support Grants	93.397		-		University Of Michigan	P50CA186786	(6)	-
Cancer Centers Support Grants	93.397		-		Memorial Sloan-Kettering Cancer Center	P50CA192937	9,418	-
Cancer Centers Support Grants	93.397		-		Memorial Sloan-Kettering Cancer Center	P30CA008748	12,268	-
Cancer Centers Support Grants	93.397		-		University Of Nebraska Medical Center	U54CA163120	4,009	-
Cancer Centers Support Grants	93.397		-		Childrens Hospital Los Angeles	U54CA163117	4,145	-
Cancer Centers Support Grants	93.397		-		Sarcoma Alliance For Research Through Collaboration	5 U24 CA168512-05	10,498	-
Cancer Centers Support Grants	93.397		-	12,155	Sarcoma Alliance For Research Through Collaboration	5 U24 CA168512-06	12,155	-
Cancer Research Manpower	93.398		2,485,476	-	-	-	2,485,476	-
Cancer Research Manpower	93.398		-	(19)	Columbia University	COLUMBIA: 5K07 CA132	(19)	-

		Additional						
		Award		Pass-		Pass-Through Entity	Total	Passed to
Federal Program	CFDA	Identification	Direct	Through	Pass-Through Entity	Identifying Number	Expenditures	Sub-Recipients
Cancer Research Manpower	93.398		-	11,788 H. I	Lee Moffitt Cancer Center & Research Institute	R25CA142519	11,788	_
Trans-NIH Recovery Act Research Support	93.701		-	6,864 Uni	iversity Of Florida	UF 1U24 RR29822-01	6,864	-
Cardiovascular Diseases Research	93.837		11,568,285			-	11,568,285	2,097,744
Cardiovascular Diseases Research	93.837		-	236,649 Colo	lumbia University	R01HL113136	236,649	-
Cardiovascular Diseases Research	93.837		-	28,086 Nev	w York University	NYU 5U01 HL105907-05	28,086	-
Cardiovascular Diseases Research	93.837		-	95,103 Nev	w York University	5 U01 HL105907-06	95,103	-
Cardiovascular Diseases Research	93.837		-	7,133 Uni	iversity Of North Texas	R01HL140562	7,133	-
Cardiovascular Diseases Research	93.837		-	16,318 Uni	iversity Of Pittsburgh	5R01HL122144-03	16,318	-
Cardiovascular Diseases Research	93.837		-	109,523 Yale	le University	5R01HL128602-03	109,523	-
Cardiovascular Diseases Research	93.837		-	111,658 Mas	ssachusetts General Hospital	U01HL123336	111,658	-
Cardiovascular Diseases Research	93.837		-	84,454 Chil	ildren'S Hospital Boston	R35HL135821	84,454	-
Cardiovascular Diseases Research	93.837		-	259,922 Icah	hn School Of Medicine At Mount Sinai	U01HL136297	259,922	-
Cardiovascular Diseases Research	93.837		-	6,361 Icah	hn School Of Medicine At Mount Sinai	R01HL140273	6,361	-
Cardiovascular Diseases Research	93.837		-	12,383 Uni	iversity Of Alabama - Birmngham	U01HL120338	12,383	-
Cardiovascular Diseases Research	93.837		-	304,957 Uni	iversity Of Alabama - Birmngham	UH2HL130691	304,957	-
Cardiovascular Diseases Research	93.837		-	10,616 Uni	iversity Of Alabama - Birmngham	UAB 5R01 HL55673-15	10,616	-
Cardiovascular Diseases Research	93.837		-	538 Was	shington University	P20HL113444	538	-
Cardiovascular Diseases Research	93.837		-	140,680 Res	search Foundation Cuny-Hunter College Brookdale Center	T32HL135465	140,680	-
Cardiovascular Diseases Research	93.837		-	14,473 Feir	nstein Institue For Med Reseach	R01HL139778	14,473	-
Cardiovascular Diseases Research	93.837		-	18,334 Alb	ert Einstein College	R33HL120782	18,334	-
Cardiovascular Diseases Research	93.837		-	(34) Uni	iversity Of Connecticut	UCHC 5P01 HL70694-08	(34)	-
Cardiovascular Diseases Research	93.837		-	32,282 Uni	iversity Of South Florida	R33HL120782	32,282	-
Cardiovascular Diseases Research	93.837		-	904 Brig	gham And Women'S Hospital	U01HL101422	904	-
Cardiovascular Diseases Research	93.837		-	10,195 Uni	iversity Of Kansas Medical Center	R01HL129875	10,195	-
Cardiovascular Diseases Research	93.837		-	39,348 Van	nderbilt University	R01HL127499	39,348	-
Cardiovascular Diseases Research	93.837		-	11,479 Icon	n Clinical Research, Llc	ICON #1 U01 HL117006	11,479	-
Lung Diseases Research	93.838		9,378,031			-	9,378,031	3,167,405
Lung Diseases Research	93.838		-	76,463 Alle	egheny Singer Research Institute	R01HL134673	76,463	-
Lung Diseases Research	93.838		-	121,793 Colo	lumbia University	U01HL125218	121,793	-
Lung Diseases Research	93.838		-	226,151 Uni	iversity Of Michigan	R01HL122438	226,151	-
Lung Diseases Research	93.838		-	9,818 Uni	iversity Of North Carolina Chapel Hill	5R01HL122711-03	9,818	-
Lung Diseases Research	93.838		-	255 Uni	iversity Of Pittsburgh	U01HL128954	255	-
Lung Diseases Research	93.838		-	53,651 Uni	iversity Of Virginia	R01HL131565	53,651	-
Lung Diseases Research	93.838		-	2,283 Brig	gham And Women'S Hospital	P01HL108801	2,283	-
Lung Diseases Research	93.838		-	24,656 Clev	veland Clinic	U01HL125177	24,656	-
Lung Diseases Research	93.838		-	70,534 Uni	iversity Of California, San Francisco	U01HL137880	70,534	-
Blood Diseases and Resources Research	93.839		1,552,755			-	1,552,755	29,252
Blood Diseases and Resources Research	93.839		-	3,419 Colo	lumbia University	R01HL139489	3,419	-
Blood Diseases and Resources Research	93.839		-	109,110 Uni	iversity Of Florida	R01HL131093	109,110	-
Blood Diseases and Resources Research	93.839		-	6,866 Uni	iversity Of Washington	U01HL088476	6,866	-
Blood Diseases and Resources Research	93.839		-	(26,387) Free	d Huchinson Cancer Research Center	R01HL115128	(26,387)	-

		Additional Award		Pass-		Pass-Through Entity	Total	Passed to
Federal Program	CFDA		Direct	Through	Pass-Through Entity	Identifying Number	Expenditures	Sub-Recipients
Blood Diseases and Resources Research	93.839		-	1,557 New	York Blood Center, Inc.	NYBC #NIH00017 (4/_)	1,557	-
Arthritis, Musculoskeletal and Skin Diseases Research	93.846		2,520,949			-	2,520,949	92,126
Arthritis, Musculoskeletal and Skin Diseases Research	93.846		-	27,347 Artico	ulate Biomedical Llc	1 R41 AR 068183 - 01	27,347	-
Arthritis, Musculoskeletal and Skin Diseases Research	93.846		-	162,897 Colur	mbia University	5R01AR065023-03	162,897	-
Arthritis, Musculoskeletal and Skin Diseases Research	93.846		-	58,521 Hosp	ital For Special Surgery	1 R21AR071534-01	58,521	-
Arthritis, Musculoskeletal and Skin Diseases Research	93.846		-	107,104 Hosp	ital For Special Surgery	5R01 AR041325-24	107,104	-
Arthritis, Musculoskeletal and Skin Diseases Research	93.846		-	11,786 Mour	nt Sinai Hospital	R01AR069537	11,786	_
Arthritis, Musculoskeletal and Skin Diseases Research	93.846		-	66,834 Mour	nt Sinai School Of Medicine	R01AR068579	66,834	_
Arthritis, Musculoskeletal and Skin Diseases Research	93.846		-	34,254 North	western University	R21AR069867	34,254	-
Arthritis, Musculoskeletal and Skin Diseases Research	93.846		-	6,833 Unive	ersity Of California Davis	5R01AR043052-14	6,833	-
Arthritis, Musculoskeletal and Skin Diseases Research	93.846		-	18,094 Healt	h Research, Inc.	U01AR069869	18,094	-
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847		8,579,996			=	8,579,996	886,333
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847		-	32,981 Colur	mbia University	P30DK063608	32,981	-
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847		-	30,999 Louis	siana State University	2R01DK087800-06A1	30,999	-
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847		-	2,501 Brigh	am And Women'S Hospital	R01DK108438	2,501	-
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847		-	34,057 Icahn	School Of Medicine At Mount Sinai	P01DK072201	34,057	-
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847		-	56,336 Icahn	School Of Medicine At Mount Sinai	U01DK116100	56,336	-
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847		-	5,181 Alber	t Einstein College	UC4DK101108	5,181	-
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847		-	125,743 Fred	Huchinson Cancer Research Center	RC2DK114777	125,743	-
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847		-	286,636 Case	Western Reserve University	U01DK094157	286,636	-
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847		-	(28,933) New	York Medical College Jeanette Jordan	NYMC 5R01 DK045462-1	(28,933)	-
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847		-	8,176 Texas	s Biomedical Research Institute	R01DK110096	8,176	-
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853		17,601,335			-	17,601,335	1,659,715
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853		-	143,877 Colur	mbia University	R01NS100850	143,877	-
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853		-	37,293 Colur	mbia University	U01NS095869	37,293	-
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853		-	134,348 Mem	orial Sloan Kettering Cancer Center	R01NS099270	134,348	-
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853		-	881 North	western University	U01NS080818	881	-
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853		-	103,719 Rock	efeller University	R01NS097184	103,719	-
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853		-	17,532 Unive	ersity Of California San Francisco	R01NS067420	17,532	-
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853		-	(183,598) Unive	ersity Of Pennsylvania	R01NS093120	(183,598)	-
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853		-	71,465 Unive	ersity Of Pittsburgh	2R01NS032385-21	71,465	-
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853		-		ersity Of Virginia	U01NS069498	(71)	-
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853		-	269,328 Yale	University	R01NS102267	269,328	-
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853		-	96,774 Yale	University	NS085136	96,774	-
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853		-	189 John	Hopkins University	U01NS080824	189	-
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853		-	13,116 Beth	Israel Deaconess Medical Center	U01NS074425	13,116	-
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853		-		achusetts General Hospital	U01NS084495	3,038	3,038
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853		-	95,734 Mass	achusetts General Hospital	U01NS090259	95,734	-
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853		-		School Of Medicine At Mount Sinai	R01NS084486	223,701	-
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853		-	.,	School Of Medicine At Mount Sinai	R01NS060809	47,403	-
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853		-	4,129 Trust	ees Of The University Of Pennsylvania	R21NS100182	4,129	-

		Additional Award		Pass-		Pass-Through Entity	Total	Passed to
Federal Program	CFDA	Identification	Direct	Through	Pass-Through Entity	Identifying Number	Expenditures	Sub-Recipients
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853		-	(1,018)	University Of Cincinnati	U01NS092076	(1,018)	-
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853		-	103,399	University Of Cincinnati	U01NS069763	103,399	86,024
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853		-	3,319	Mayo Clinic	U01NS080168	3,319	-
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853		-	102,226	Washington University	R01NS090934	102,226	-
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853		-	149,105	Washington University	R01NS092653	149,105	-
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853		-	40,632	Cleveland Clinic	UH3NS100543	40,632	-
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853		-	12,833	Kennedy Krieger, Inc.	K12NS098482	12,833	-
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853		-	1,464	St. Joseph'S Hospital	5U01 NS52478-04	1,464	-
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853		-	139,854	Columbia University Sponsored Projects Administration	U10NS086728	139,854	-
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853		-	3,665	The Emmes Corporation	EMMES #1 U01 NS02683	3,665	-
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853		-	143,984	Regents Of The University Of Minnesota	U54NS065768	143,984	-
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853		-	17,331	Columbia University Taub Institute & G.H. Sergievsky Center	U10NS077267	17,331	-
Allergy and Infectious Diseases Research	93.855		29,279,856	-	-	-	29,279,856	6,399,506
Allergy and Infectious Diseases Research	93.855		-	182,038	Columbia University	R01AI119762	182,038	-
Allergy and Infectious Diseases Research	93.855		-	564,424	Columbia University	P01AI106697	564,424	-
Allergy and Infectious Diseases Research	93.855		-	1,000	Duke University	R01AI103315	1,000	-
Allergy and Infectious Diseases Research	93.855		-	154,248	Duke University	R01AI125416	154,248	-
Allergy and Infectious Diseases Research	93.855		-	105	Duke University	UM1AI104681	105	-
Allergy and Infectious Diseases Research	93.855		-	34,639	Harvard University	1R01AI124165	34,639	-
Allergy and Infectious Diseases Research	93.855		-	28,420	Imperial College Of London	1R21AI118593-01A1	28,420	-
Allergy and Infectious Diseases Research	93.855		-	5,540	Michigan State University	U19AI089683	5,540	-
Allergy and Infectious Diseases Research	93.855		-	(3,946)	Princeton University	R21AI117213	(3,946)	-
Allergy and Infectious Diseases Research	93.855		-	125,373	Rockefeller University	U01AI118536	125,373	-
Allergy and Infectious Diseases Research	93.855		-	22,460	University Of Massachusetts Medical School	1R21AI111173-02	22,460	-
Allergy and Infectious Diseases Research	93.855		-	(32)	University Of Miami School Of Medicine	R01AI091521	(32)	-
Allergy and Infectious Diseases Research	93.855		-	16,622	University Of Michigan	R01AI119446	16,622	-
Allergy and Infectious Diseases Research	93.855		-	40,737	University Of Pennsylvania	R01AI082292	40,737	-
Allergy and Infectious Diseases Research	93.855		-	101,347	Washington State University	U01AI095542	101,347	-
Allergy and Infectious Diseases Research	93.855		-	59,703	Massachusetts General Hospital	R01AI042006	59,703	-
Allergy and Infectious Diseases Research	93.855		-	437,977	Brigham And Women'S Hospital	UM1AI068636	437,977	-
Allergy and Infectious Diseases Research	93.855		-	17,565	Brigham And Women'S Hospital	R01AI131998	17,565	-
Allergy and Infectious Diseases Research	93.855		-	12,291	Brigham And Women'S Hospital	R01AI134842	12,291	-
Allergy and Infectious Diseases Research	93.855		-	420,086	Les Centres Gheskio	UM1AI069421	420,086	-
Allergy and Infectious Diseases Research	93.855		-	165,193	Children'S Hospital Boston	R01AI099204	165,193	-
Allergy and Infectious Diseases Research	93.855		-	1,766,565	Family Health International Hivnet	UM1AI068619	1,766,565	1,766,121
Allergy and Infectious Diseases Research	93.855		-	43,988	John Hopkins University Bsph - International Health	UM1AI068632	43,988	-
Allergy and Infectious Diseases Research	93.855		-	29,051	Vanderbilt University Medical Center	U01AI069923	29,051	9,040
Allergy and Infectious Diseases Research	93.855		-	17,357	Albert Einstein College	U01AI035004	17,357	-
Allergy and Infectious Diseases Research	93.855		-	7,973	Seattle Biomedical Research Institute Dba Cidr	U19AI135976	7,973	-
Allergy and Infectious Diseases Research	93.855		-	18,490	Rutgers, The State University of New Jersey	R33AI111647	18,490	-
Allergy and Infectious Diseases Research	93.855		-	40,402	Rutgers, The State University of New Jersey	R01AI106398	40,402	-

		Additional Award		Pass-		Pass-Through Entity	Total	Passed to
Federal Program	CFDA	Identification	Direct	Through	Pass-Through Entity	Identifying Number	Expenditures	Sub-Recipients
Allergy and Infectious Diseases Research	93.855		_	140,43	1 Texas A&M	R21AI121689	140,431	-
Allergy and Infectious Diseases Research	93.855		-	4,71	6 Fundação De Apoio A Pesquisa E A Extens	P50AI030639	4,716	-
Allergy and Infectious Diseases Research	93.855		-	4,51	2 Boston Medical Center	U19AI111276	4,512	-
Allergy and Infectious Diseases Research	93.855		-	90,07	9 University Of Maryland	R01AI121146	90,079	-
Allergy and Infectious Diseases Research	93.855		-	3,92	9 Brighan & Women'S Hospital	R01AI123001	3,929	-
Allergy and Infectious Diseases Research	93.855		-	(8	8) Biovinc, Llc	R43AI125060	(88)	-
Allergy and Infectious Diseases Research	93.855		-	(8) Vanderbilt University	VU 5R01 AI77505-03	(8)	-
Allergy and Infectious Diseases Research	93.855		-	289,70	5 Research Fdn Of Suny University Of Buffalo	R01AI111990	289,705	-
Allergy and Infectious Diseases Research	93.855		-	(Social And Scientific Systems	SSS 1U01 AI068636-05	(1)	-
Allergy and Infectious Diseases Research	93.855		-	(1	Social And Scientific Systems	SSS #BRS-ACURE-Q-06-	(11)	-
Allergy and Infectious Diseases Research	93.855		-	150,23	8 The Research Institute Of Mcgill University Health Centre	R01AI124349	150,238	-
Allergy and Infectious Diseases Research	93.855		-	301,83	6 Brigham And Women'S Hospital	UM1AI068636	301,836	-
Allergy and Infectious Diseases Research	93.855		-	714,82	2 President And Fellows Of Harvard College	U19AI107774	714,822	-
Allergy and Infectious Diseases Research	93.855		-	19,75	4 Montefiore Medical Center	U01AI035004	19,754	-
Allergy and Infectious Diseases Research	93.855		-	(6	7) Brentwd Biomed Ri: Outer Membrane P	BRENTWD BIOMED RI: O	(67)	-
Allergy and Infectious Diseases Research	93.855		-	6,40	8 Institute For Clinical Research	ICR #M38-CO-065-0910	6,408	-
Allergy and Infectious Diseases Research	93.855		-	5,21	8 Institute For Clinical Research	M38-CO-065-0910-4(Fl	5,218	-
Microbiology and Infectious Diseases Research	93.856		-	77,81	1 Mount Sinai School Of Medicine	HHSN272201400008C	77,811	-
Microbiology and Infectious Diseases Research	93.856		-	(Social And Scientific Systems	SSS CRB-DCR01-S-09-0	(2)	-
Biomedical Research and Research Training	93.859		36,558,726			-	36,558,726	1,369,336
Biomedical Research and Research Training	93.859		-	14,02	6 Children'S Hospital Of Philadelphia	5R01GM108716-04	14,026	-
Biomedical Research and Research Training	93.859		-	6,54	0 Cold Spring Harbor Laboratory	5R01GM102192-06	6,540	-
Biomedical Research and Research Training	93.859		-	42,75	7 Cold Spring Harbor Laboratory	R01GM102192	42,757	-
Biomedical Research and Research Training	93.859		-	(27	8) Glycobia Inc.	2R44GM093483-02	(278)	-
Biomedical Research and Research Training	93.859		-	294,59	9 Memorial Sloan Kettering Cancer Center	R01GM052470	294,599	-
Biomedical Research and Research Training	93.859		-	58,09	4 Memorial Sloan Kettering Cancer Center	R01GM120570	58,094	-
Biomedical Research and Research Training	93.859		-	37,80	2 Oklahoma Medical Research Foundation	5R01GM121703-02	37,802	-
Biomedical Research and Research Training	93.859		-	119,96	1 Tetragenetics Inc.	1R44GM116236-01A1	119,961	-
Biomedical Research and Research Training	93.859		-	101,74	2 University Of Arizona	1R01GM116113-01A1	101,742	-
Biomedical Research and Research Training	93.859		-	28,29	4 University Of Chicago	U54GM087519	28,294	-
Biomedical Research and Research Training	93.859		-	54,09	2 University Of Utah	5R01GM059290-16	54,092	-
Biomedical Research and Research Training	93.859		-	102,02	1 University Of Utah	R01GM064664	102,021	-
Biomedical Research and Research Training	93.859		-	22,83	4 Virginia Polytechnic Institute & State University	R01GM105245	22,834	-
Biomedical Research and Research Training	93.859		-	30,34	3 Washington University In St. Louis	5R01BM108811-05	30,343	-
Biomedical Research and Research Training	93.859		-	19,71	5 Yale University	R01GM116654	19,715	-
Biomedical Research and Research Training	93.859		-	49,87	5 Yale University	5 P01 GM056550-21	49,875	-
Biomedical Research and Research Training	93.859		-	33,29	8 Yale University	YALE 5P01GM056550-20	33,298	-
Biomedical Research and Research Training	93.859		-	8,44	9 University Of Nebraska-Lincoln	R01GM124310	8,449	-
Biomedical Research and Research Training	93.859		-	189,25	6 Vanderbilt University Medical Center	R01GM103859	189,256	-
Biomedical Research and Research Training	93.859		-	(40,09	2) University Of Colorado	R01GM111902	(40,092)	-
Child Health and Human Development Extramural Research	93.865		9,972,887			-	9,972,887	1,119,777

		Additional Award		Pass-		Pass-Through Entity	Total	Passed to
Federal Program	CFDA	Identification	Direct	Through	Pass-Through Entity	Identifying Number	Expenditures	Sub-Recipients
Child Health and Human Development Extramural Research	93.865		-	151,004	Children's Hospital Of Philadelphia	R01HD0911585	151,004	-
Child Health and Human Development Extramural Research	93.865		-	136,401	Columbia University	P01HD080642	136,401	-
Child Health and Human Development Extramural Research	93.865		-	6,203	Duke University	U01HD073984	6,203	_
Child Health and Human Development Extramural Research	93.865		-	3,361	Johns Hopkins University	U54HD070725-05	3,361	-
Child Health and Human Development Extramural Research	93.865		-	55,747	Johns Hopkins University	R01HD081929	55,747	-
Child Health and Human Development Extramural Research	93.865		-	(1)	Pennsylvania State Univ	5R01HD074605-03	(1)	-
Child Health and Human Development Extramural Research	93.865		-	14,565	Syracuse University	1R21HD088910-01A1	14,565	-
Child Health and Human Development Extramural Research	93.865		-	33,250	University Of Michigan	1R01HD088506-01	33,250	-
Child Health and Human Development Extramural Research	93.865		-	151,168	University Of Texas Medical Branch	5P2CHD065702-08	151,168	-
Child Health and Human Development Extramural Research	93.865		-	26,466	Washington University	5 R01 HD078641-03(SC	26,466	-
Child Health and Human Development Extramural Research	93.865		-	33,049	Washington University	5 R01 HD078641-04	33,049	-
Child Health and Human Development Extramural Research	93.865		-	(135)	Washington University	U01HD079065	(135)	-
Child Health and Human Development Extramural Research	93.865		-	(19)	University Of California, San Francisco	UCA 5K12 HD849-23 (M	(19)	-
Child Health and Human Development Extramural Research	93.865		-	(9)	University Of California, San Francisco	UCA 5K12 HD849-24 (M	(9)	-
Child Health and Human Development Extramural Research	93.865		-	7,175	University Of Oklahoma	R01HD074579	7,175	-
Child Health and Human Development Extramural Research	93.865		-	(892)	University Of California, Los Angeles	R01HD073975	(892)	-
Aging Research	93.866		4,930,453	-	-	-	4,930,453	161,565
Aging Research	93.866		-	86,864	Hebrew Home At Riverdale	R01AG057389	86,864	-
Aging Research	93.866		-	13,285	National Research Opinion Center	1R01AG050605-01A1	13,285	-
Aging Research	93.866		-	995	New York University	R01AG055624	995	-
Aging Research	93.866		-	(1)	Rockefeller University	1R21 AG39850-01	(1)	-
Aging Research	93.866		-	95,527	Suny Binghamton	R21AG052860	95,527	-
Aging Research	93.866		-	478,830	University Of Arizona	P01AG026572	478,830	-
Aging Research	93.866		-	48,928	University Of Michigan	R01AG047932	48,928	-
Aging Research	93.866		-	996	University Of Southern California	U19AG010483	996	-
Aging Research	93.866		-	102,715	Winifred Masterson Burke Medical Research Institu	2P01AG14930-15A1	102,715	-
Aging Research	93.866		-	490,552	John Hopkins University	R01AG050514	490,552	184,843
Aging Research	93.866		-	117,956	Memorial Sloan-Kettering Cancer Center	R01AG054720	117,956	-
Aging Research	93.866		-	7,229	Albert Einstein College	R01AG052286	7,229	-
Aging Research	93.866		-	9,414	Rutgers, The State University of New Jersey	R01AG052286	9,414	-
Aging Research	93.866		-	5,413	Brown University	R01AG047180	5,413	-
Aging Research	93.866		-		University Of Colorado	UCLD 5R01 AG012423-0	(25)	-
Aging Research	93.866		-	1,182,995	Winifred Masterson Burke Medical Research Institute	P01AG014930	1,182,995	110,000
Vision Research	93.867		5,039,130	-	-	-	5,039,130	838,587
Vision Research	93.867		-	7,485	Boston University	R01EY018363	7,485	-
Vision Research	93.867		-	31,094	University Of Rochester	R01EY018363	31,094	-
Vision Research	93.867		-		University Of Illinois At Chicago	R01EY027912	19,242	-
Vision Research	93.867		-	6,939	Jaeb Center For Health Research	JAEB #U10 EY14231	6,939	-
Medical Library Assistance	93.879		112,291	-		-	112,291	-
Medical Library Assistance	93.879		-		Washington University In St. Louis	1R21LM012395-01A1	13,648	-
Medical Library Assistance	93.879		-	58,108	Trustees Of The University Of Pennsylvania	R01LM012607	58,108	-

Highway Safety Cluster Department of Transportation

Schedule of Expenditures of Federal Awards Year Ended June 30, 2018

		Additional Award		Pass-		Pass-Through Entity	Total	Passed to
Federal Program	CFDA	Identification	Direct	Through	Pass-Through Entity	Identifying Number	Expenditures	Sub-Recipients
International Research and Research Training	93.989		813,350	-	-	-	813,350	329,099
International Research and Research Training	93.989		-	93,124	Vanderbilt University Medical Center	D43TW009337	93,124	30,240
International Research and Research Training	93.989		-		Vanderbilt University Medical Center	R25TW009337	154,666	136,997
International Research and Research Training	93.989		-	21,661	Kilimanjaro Christian Medical College	D43TW010138	21,661	=
National Institutes of Health Subtotal			199,762,311	28,111,915	_		227,874,226	27,668,546
Office of Minority Health								
Family and Community Violence Prevention Program	93.910			7,542	_ Lutheran Family Health Centers	73899	7,542	
Office of the Secretary								
ASPR Science Preparedness and Response Grants	93.081		-		Department Of Public Health	DHHS IPA 2016(HUPERT	(5,515)	-
Teenage Pregnancy Prevention Program	93.297				_Oswego County	1 TP1AH000086-01-00	40,297	-
Office of the Secretary Subtotal				34,782	-		34,782	-
Department of Health and Human Services Total			204,590,578	30,183,716	_		234,774,294	28,784,935
Department of Homeland Security								
Science and Technology (S&T)								
Centers for Homeland Security	97.061			65,504	_University Of North Carolina Chapel Hill	2015-ST-061-ND0001-01	65,504	-
Agency for International Development								
Agency for International Development, Other	98.RD	16258	-		University Of California Davis	16258	13,075	-
Agency for International Development, Other	98.RD	207495	-		Purdue University	207495	15,352	-
Agency for International Development, Other	98.RD	208452	-		Purdue University	208452	10,330	=
Agency for International Development, Other	98.RD	209673	-		Purdue University	209673	20,158	-
Agency for International Development, Other	98.RD	016258-164	-	12,877	University Of California Davis	016258-164	12,877	-
USAID Foreign Assistance for Programs Overseas	98.001		1,413,704	-	-	-	1,413,704	980,275
USAID Foreign Assistance for Programs Overseas	98.001		-		Kansas State University	AID-OAA-A-13-00051	115,615	-
USAID Foreign Assistance for Programs Overseas	98.001		-		Kansas State University	AID-OAA-LA-16-00003	204,377	=
USAID Foreign Assistance for Programs Overseas	98.001		-) Michigan State University	RC102095-M1002	(585)	=
Global Development Alliance	98.011		-		International Food Policy Rsch Inst	AID-OAA-A-14-00022	29,304	-
USAID Development Partnerships for University Cooperation and Development	98.012				University Of Florida	AIDECGA000700001	(10)	
Agency for International Development Total			1,413,704	420,493	_		1,834,197	980,275
Total Research & Development Cluster			396,921,326	69,647,418	_		466,568,744	59,480,181
Fish and Wildlife Cluster								
Department of the Interior								
Wildlife Restoration and Basic Hunter Education	15.611		-	17,737	Suny College Of Environmental Science And Forestry	W-173-G	17,737	=
Fish and Wildlife Cluster Total				17,737	_		17,737	
Highway Planning and Construction Cluster								
Department of Transportation								
Highway Planning and Construction	20.205		-	201,414	City University Of New York	C030793	201,414	64,154
Highway Planning and Construction	20.205			172,056	_City University Of New York	C030794 & DTRT13-G-UTC32	172,056	
Department of Transportation Total			-	373,470	_		373,470	64,154
Highway Planning and Construction Cluster Total			-	373,470	_		373,470	64,154
					=			

Schedule of Expenditures of Federal Awards Year Ended June 30, 2018

Federal Program	CFDA	Additional Award Identification	Direct	Pass- Through	Pass-Through Entity	Pass-Through Entity Identifying Number	Total Expenditures	Passed to Sub-Recipients
State and Community Highway Safety	20.600		_	119 NYS Do	ept Of Motor Vehicles	HS1-2017	119	
Highway Safety Cluster Total				119			119	-
TRIO Cluster Department of Education TRIO Upward Bound TRIO McNair Post-Baccalaureate Achievement	84.047 84.217		387,131 228,727	 		1	387,131 228,727	- -
Department of Education Total			615,858	<u>-</u>			615,858	
TRIO Cluster Total			615,858				615,858	
TANF Cluster Department of Health and Human Services Temporary Assistance for Needy Families Department of Health and Human Services Total	93.558			154,643 NYS On	fice Of Children And Family Services	C027777	154,643 154,643	
TANF Cluster Total				154,643			154,643	
				134,043			134,643	-
CCDF Cluster Department of Health and Human Services Child Care and Development Block Grant CCDF Cluster Total	93.575			16,662 NYS Of	fice Of Children And Family Services	C027959	16,662 16,662	<u>-</u>
Medicaid Cluster Department of Health and Human Services Medical Assistance Program Medicaid Cluster Total	93.778			2,528 NYS Of	fice Of Children And Family Services	C027959	2,528 2,528	<u>-</u>
Other Awards Department of Agriculture Agricultural Marketing Service, Other Agricultural Research Basic and Applied Research	10.U01 10.001	79297	2,430	22,399 Northea	st Organic Farming Association Of New York	79297 -	22,399 2,430	- -
Plant and Animal Disease, Pest Control, and Animal Care Plant and Animal Disease, Pest Control, and Animal Care Plant and Animal Disease, Pest Control, and Animal Care	10.025 10.025 10.025		423,601		ept Of Ag & Markets ept Of Ag & Markets	- 87173 13-9636-1268CA	423,601 2,410 142,851 568,862	- - - -
Market Protection and Promotion Wholesale Farmers and Alternative Market Development	10.163 10.164		934,924 39,100	 		- -	934,924 39,100	91,882
Local Food Promotion Program Local Food Promotion Program	10.172 10.172		40,944	2,901 Cornell 2,901	Cooperative Extension Erie County	- 81030	40,944 2,901 43,845	
Create for Agricultural Decorate Special Decorate Create	10.200				University	2015-48770-24368	82,484	<u>-</u>
Grants for Agricultural Research, Special Research Grants Sustainable Agriculture Research and Education Sustainable Agriculture Research and Education	10.200 10.215 10.215			82,484 Auburn 533 Univers 2,766 Univers	ity Of Massachusetts Amherst	2015-38640-23777 2013-38640-20895	533 2,766	

Schedule of Expenditures of Federal Awards Year Ended June 30, 2018

		Additional Award		Pass-		Pass-Through Entity	Total	Passed to
Federal Program	CFDA	Identification	Direct	Through	Pass-Through Entity	Identifying Number		Sub-Recipients
Sustainable Agriculture Research and Education	10.215		=	25,690 Univers	ity Of Vermont	2014-38640-22161	25,690	-
Sustainable Agriculture Research and Education	10.215		-	140,798 Univers	ity Of Vermont	2016-38640-25380	140,798	9,719
Sustainable Agriculture Research and Education	10.215		-	41,522 Univers	ity Of Vermont	2017-38640-26915	41,522	-
			-	211,309			211,309	9,719
Higher Education - Institution Challenge Grants Program	10.217		51,493			-	51,493	-
Agriculture and Food Research Initiative (AFRI)	10.310	•	176,489			-	176,489	27,091
Agriculture and Food Research Initiative (AFRI)	10.310		_	10,767 Kansas	State University	2017-67007-25932	10,767	-
Agriculture and Food Research Initiative (AFRI)	10.310		-	28,921 North C	arolina State University	2015-68004-23179	28,921	=
			176,489	39,688			216,177	27,091
Beginning Farmer and Rancher Development Program	10.311		47,747			-	47,747	2,367
National Food Safety Training, Education, Extension, Outreach,	10.328	•	12,514			=	12,514	-
and Technical Assistance Competitive Grants Program								
National Food Safety Training, Education, Extension, Outreach,	10.328		-	42,683 Northea	st Organic Farming Association Of New York	2016-70020-25792	42,683	-
and Technical Assistance Competitive Grants Program								
			12,514	42,683			55,197	<u> </u>
Crop Protection and Pest Management Competitive Grants Program	10.329		1,227,955			-	1,227,955	282,447
Crop Protection and Pest Management Competitive Grants Program	10.329		-	10,066 Univers	ity Of Vermont	2014-70006-22525	10,066	=
			1,227,955	10,066			1,238,021	282,447
Crop Insurance Education in Targeted States	10.458		390,492	<u> </u>		-	390,492	<u>-</u>
Cooperative Extension Service	10,500		12,550,826			_	12,550,826	132,687
Cooperative Extension Service	10.500		-	37,472 Univers	ity Of Delaware	2015-49200-24225	37,472	-
Cooperative Enterision Service	10.500	•	12,550,826	37,472	ny or bearmine	2013 19200 21223	12,588,298	132,687
WIC Farmers' Market Nutrition Program (FMNP)	10.572	•	, ,		ept Of Ag & Markets	86584	1,623	
WIC Farmers' Market Nutrition Program (FMNP)	10.572		-		ept Of Ag & Markets	LOA0129	10.000	
Wie Fainers Market Nathon Frogram (FMA)	10.572	•			profrig & Markets	EO/1012)		
			-	11,623			11,623	-
Emerging Markets Program	10.603		250,714			-	250,714	-
Agricultural Statistics Reports	10.950	•	383,466			-	383,466	
Department of Agriculture Total			16,532,695	605,886			17,138,581	546,193
Department of Commerce								
U.s. Census Bureau, Other	11.U01	0090-FY16-IPA-0016	578,070			-	578,070	-
NOAA Mission-Related Education Awards	11.008		-	6,638 Brookly	n College	NA16SEC0080004	6,638	-
Cluster Grants	11.020		82,246			-	82,246	<u> </u>
Sea Grant Support	11.417		80,220			-	80,220	-
Sea Grant Support	11.417		-	41,667 New Yo	ork Sea Grant Institute, Stony Brook	84630	41,667	-
Sea Grant Support	11.417		-	1,126,431 New Yo	ork Sea Grant Institute, Stony Brook	NA14OAR4170069	1,126,431	-
Sea Grant Support	11.417		-	(2) Univers	ity Of Wisconsin Madison	NA14OAR4170092	(2)	
			80,220	1,168,096			1,248,316	
Coastal Zone Management Administration Awards	11.419		_	378 Brookly	n College	CM00000515	378	_
National Oceanic and Atmospheric Administration (NOAA) Cooperative Institutes	11.432		-		ity Of Illinois At Urbana-Champaign	NA17OAR4320152	2,548	-

Schedule of Expenditures of Federal Awards Year Ended June 30, 2018

		Additional						
Federal Program	CFDA	Award Identification	Direct	Pass- Through	Pass-Through Entity	Pass-Through Entity Identifying Number	Total Expenditures	Passed to Sub-Recipients
G		identification		· ·		Identifying Number	•	Sub-Recipients
Center for Sponsored Coastal Ocean Research Coastal Ocean Program	11.478	-	13,498	-	-	-	13,498	
Department of Commerce Total		_	754,034	1,177,660			1,931,694	-
Department of the Interior								
Great Lakes Restoration Great Lakes Restoration	15.662 15.662		-		Oswego County Soil And Water Conservation District	F15AP00737 F17AP00243	(3) 41,966	-
Great Lakes Restoration	13.002	_			Oswego County Soil And Water Conservation District	F1/AP00243		
		-	-	41,963			41,963	<u> </u>
Assistance to State Water Resources Research Institutes	15.805	_	-	41,832	University Of Illinois At Urbana-Champaign	G16AP00001	41,832	
Department of the Interior Total		_	-	83,795			83,795	-
Department of Justice								
Juvenile Mentoring Program	16.726		-		National 4-H Council	2016-JU-FX-0022	379,166	282,627
Juvenile Mentoring Program	16.726	_	=	27,195	National 4-H Council	2017-JU-FX-0016	27,195	12,141
Department of Justice Total		_	-	406,361			406,361	294,768
Department of State								
Academic Exchange Programs - Hubert H. Humphrey Fellowship Program	19.010		-		Institute Of International Education	S-ECAGD-16-CA-1014	(10,228)	-
Academic Exchange Programs - Hubert H. Humphrey Fellowship Program	19.010	_	-	216,633	Institute Of International Education	S-ECAGD-17-CA-1020	216,633	
Department of State Total		_	-	206,405			206,405	-
Department of the Treasury								
Department of the Treasury, Other	21.U01	TFSA-OFR-16-IA-0011	78,980	-	-	-	78,980	
National Endowment for the Arts								
Promotion of the Arts Partnership Agreements	45.025		-		Mid Atlantic Arts Foundation	85778	466	-
Promotion of the Arts Partnership Agreements	45.025	_	-		Mid Atlantic Arts Foundation	17-6100-2052	2,614	
			-	3,080			3,080	-
Promotion of the Humanities Federal/State Partnership	45.129		-	3,097	Humanities New York	3144602	3,097	-
Promotion of the Humanities Division of Preservation and Access	45.149		126,264	-		-	126,264	-
Promotion of the Humanities Office of Digital Humanities	45.169		252,425	-		-	252,425	-
National Leadership Grants	45.312	_	2,824		-	-	2,824	
National Endowment for the Arts Total		_	381,513	6,177			387,690	
Environmental Protection Agency								
National Estuary Program	66.456		151,783			-	151,783	-
Great Lakes Program Research, Development, Monitoring, Public Education, Outreach, Training, Demonstrations, and Studies	66.469 66.716		-		Sea Grant U Of Minnesota Extension Foundation	GL-00E01900 83698001	18,762 24,360	-
Solid Waste Management Assistance Grants	66.808		6.284	24,300	- Extension Foundation	-	6.284	-
Environmental Protection Agency Total	00.000	-	158,067	43,122			201,189	
Nuclear Regulatory Commission		-	130,007	13,122			201,109	
Nuclear Regulatory Commission Nuclear Regulatory Commission, Other	77.U01	NRC-HQ-12-C-37-0039	(347)	_	_	_	(347)	_
Nuclear Regulatory Commission, Other		NRC-HQ-7B-17-C-0001	79,074	_		-	79,074	-
Nuclear Regulatory Commission Total		-	78,727	-			78,727	-
Department of Energy		_	•					
Office of Science Financial Assistance Program	81.049		-	20,168	Massachusetts Institute Of Technology	83186	20,168	-

Schedule of Expenditures of Federal Awards Year Ended June 30, 2018

Federal Program	CFDA	Additional Award Identification	Direct	Pass- Through Pass-Through Entit	Pass-Through Entity y Identifying Number	Total Expenditures	Passed to Sub-Recipients
Department of Education Department of Education, Other National Resource Centers Program for Foreign Language and Area Studies or Foreign Language	84.U01 84.015	015-047	1,336,481	569,071 NYS Dept Of Education	015-047	569,071 1,336,481	348,847
and International Studies Program and Foreign Language and Area Studies Fellowship Program Overseas Programs - Group Projects Abroad	84.021		81,482		-	81,482	41,935
Rehabilitation Services Vocational Rehabilitation Grants to States Rehabilitation Services Vocational Rehabilitation Grants to States Rehabilitation Services Vocational Rehabilitation Grants to States Rehabilitation Services Vocational Rehabilitation Grants to States	84.126 84.126 84.126 84.126			1,628 NYS Office Of Children And Family Service 281,893 NYS Dept Of Education 60,066 NYS Dept Of Education 47,051 NYS Dept Of Education 390,638	C027959 68217 018-010 MOU#015-012	1,628 281,893 60,066 47,051 390,638	-
Rehabilitation Training Continuing Education Twenty-First Century Community Learning Centers Department of Education Total	84.264 84.287		1,417,963	345,638 Institute For Educational Leadership 3,408 Odessa-Montour Central School District 1,308,755	H264H150006 86620	345,638 3,408 2,726,718	<u> </u>
National Archives and Records Administration National Historical Publications and Records Grants Department of Health and Human Services	89.003		53,804		-	53,804	-
Department of Health and Human Services, Other Guardianship Assistance Affordable Care Act (ACA) Personal Responsibility Education Program	93.U01 93.090 93.092	C027777	- - -	96,606 NYS Office Of Children And Family Service 51 NYS Office Of Children And Family Service 81,241 NYS Dept Of Health		96,606 51 81,241	- - -
Food and Drug Administration Research Food and Drug Administration Research	93.103 93.103		47,672 - 47,672	57,729 NYS Dept Of Ag & Markets	- T200875	47,672 57,729 105,401	
Title V State Sexual Risk Avoidance Education (Title V State SRAE) Program Epidemiology and Laboratory Capacity for Infectious Diseases (ELC)	93.235 93.323		-	157,673 NYS Dept Of Health 116,304 Health Research Inc	DOH01-C33137GG-3450000 6NU50CK000423-04-01	157,673 116,304	-
ACL National Institute on Disability, Independent Living, and Rehabilitation Research ACL National Institute on Disability, Independent Living, and Rehabilitation Research	93.433 93.433		1,085,564 - 1,085,564	3,544 Independent Living Research Utilization Pro	ogram 90DPAD0001	1,085,564 3,544 1,089,108	-
Pregnancy Assistance Fund Program Pregnancy Assistance Fund Program	93.500 93.500			10,391 Health Research Inc 213,265 Health Research Inc 223,656	5SP1AH000025-04-00 6SP1AH0000410101	10,391 213,265 223,656	- -
Developmental Disabilities Basic Support and Advocacy Grants	93.630 93.630 93.630 93.630			8,437 NYS Developmental Disabilities Planning C 264,989 NYS Developmental Disabilities Planning C 53,143 NYS Developmental Disabilities Planning C 44,322 NYS Developmental Disabilities Planning C	Council C024312 Council C024324	8,437 264,989 53,143 44,322	27,867 -
Foster Care Title IV-E	93.658		-	370,891 45,820 NYS Office Of Children And Family Service	es C027777	370,891 45,820	27,867
Foster Care Title IV-E	93.658		-	9,598 NYS Office Of Children And Family Service 55,418	C027959	9,598 55,418	

Schedule of Expenditures of Federal Awards Year Ended June 30, 2018

Federal Program	CFDA	Additional Award Identification	Direct	Pass- Through	Pass-Through Entity	Pass-Through Entity Identifying Number	Total Expenditures	Passed to Sub-Recipients
Adoption Assistance	93.659		-	269,194	NYS Office Of Children And Family Services	C027777	269,194	-
Assistance for Oral Disease Prevention and Control	93.875		<u>-</u>	19,026	Health Research Inc	5 NU58DP002005-02-00	19,026	
Maternal and Child Health Services Block Grant to the States Maternal and Child Health Services Block Grant to the States	93.994 93.994		-		NYS Dept Of Health NYS Dept Of Health	DOH01-C33137GG-3450000 C028219	106,277 583,213 689,490	120,062 120,062
Department of Health and Human Services Total			1,133,236	2,140,823	-		3,274,059	147,929
Social Security Administration Social Security - Work Incentives Planning and Assistance Program Department of Homeland Security Disaster Grants - Public Assistance (Presidentially Declared Disasters)	96.008 97.036		132,476	<u>-</u>		C021242	201,366	
Total Other Awards			20,721,495	6,200,518	_		26,922,013	1,379,672
Total Federal Award Expenditures			\$ 602,551,558 \$	76,413,095	-		678,964,653	60,924,007

1. Significant Accounting Policies

The accompanying Schedule of Expenditures of Federal Awards includes the federal grant, contract, and cooperative agreement activity of Cornell University (the "University") and is presented on the accrual basis of accounting. Negative amounts represent current year adjustments of amounts reported in prior years. CFDA and pass-through entity numbers are included when available. The information in the schedule is presented in accordance with the requirements of Title 2 U.S. Code of Federal Awards (Uniform Guidance). Therefore, some amounts presented in this schedule may differ from amounts presented in, or used in the preparation of, the consolidated financial statements.

2. Facilities and Administrative Costs

The University applies its predetermined approved facilities and administrative rate ("F&A") when charging indirect costs to federal awards rather than the 10% de minimis cost rate as described in Section 200.414 of the Uniform Guidance.

Ithaca Campus: F&A cost rates for the Ithaca campus have been finalized through fiscal year 2021 as predetermined rates pursuant to the Department of Health and Human Services (DHHS) rate agreement dated July 10, 2017. Provisional rates have been established for fiscal year 2022 and beyond.

Weill Cornell Medicine: F&A cost rates for Weill Cornell Medicine (WCM) have been finalized through fiscal year 2020 as predetermined rates pursuant to the DHHS rate agreement dated May 9, 2017. Provisional rates have been established for fiscal year 2021 and beyond.

3. Student Loan Programs

The federal student loan programs are administered directly by the University and balances and transactions relating to these programs are included in the University's consolidated financial statements. Included within the Schedule of Expenditures of Federal Awards are loan beginning balances, new loans and administrative cost allowance from the Perkins Loan Program and Health Professions Student Loans. Included below are the loan balances for the year ended June 30, 2018.

	CFDA	Amount Outstanding	
	Number		
Federal Perkins Loan Program	84.038	\$ 35,204,843	
Health Professions Student Loan Program, including Primary Care Loans and Loans for Disadvantaged Students	93.342	4,837,059	
Grand Total		\$ 40,041,902	



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 Cornell 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 Cornell University (the "University"), which comprise the consolidated statements of financial position as of June 30, 2018, and the related consolidated statement of activities and statement of cash flows for the year then ended, and the related notes to the financial statements, and have issued our report thereon dated November 1, 2018.

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 University'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

Pricewaterhouse Coopers UP

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.

November 1, 2018



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 Cornell University

Report on Compliance for Each Major Federal Program

We have audited Cornell 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, 2018. The University's major federal programs are identified in the summary of auditor's results section of the accompanying schedule of findings and questioned costs.

Management's Responsibility

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

Auditors' Responsibility

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

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

Opinion on Each Major Federal Program

In our opinion, 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, 2018.



Other Matters

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

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

Report on Internal Control Over Compliance

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

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

Our consideration of internal control over compliance was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control over compliance that might be material weaknesses or significant deficiencies and therefore, material weaknesses or significant deficiencies may exist that were not identified. We did not identify any deficiencies in internal control over compliance that we consider to be material weaknesses. However, we identified a certain deficiency in internal control over compliance, as described in the accompanying schedule of findings and questioned costs as item 2018-002 that we consider to be a significant deficiency.



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

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

March 15, 2019

Pricewaterhouse Coopers UP

Cornell University Schedule of Findings and Questioned Costs Year Ended June 30, 2018

Section I – Summary of Auditor's Results

Financial Statements				
Type of auditor's report issued:	Unmodified			
Internal control over financial reporting:				
• Material weakness(es) identified?		Yes	X	No
• Significant deficiency(ies) identified that are not considered to be material weaknesses?		Yes	X	None reported
• Noncompliance material to financial statements noted?		Yes	X	_ No
Federal Awards				
Internal control over major programs:				
• Material weakness(es) identified?		Yes	X	_ No
 Significant deficiency(ies) identified that are not considered to be material weaknesses? 	X	Yes		_ None reported
Type of auditor's report issued on compliance for major programs:	Unmodified			
Any audit findings disclosed that are required to be reported in accordance with 2 CFR 200.516(a)?	X	_ Yes		_ No
Identification of major programs:				
CFDA Number(s) or Grantor ID No.	Name of	^r Federal Pr	ogram or	Cluster
Various	Research and Development Cluster			
Various	Student Financial Assistance Cluster			
10.500	Department of Agriculture – Cooperative Extension Service			
Dollar threshold used to distinguish between Type A and Type B programs:		\$3,00	0,000	
Auditee qualified as low-risk auditee?	X	Ves		No

Cornell University Schedule of Findings and Questioned Costs Year Ended June 30, 2018

Section II – Financial Statement Findings

None noted.

Schedule of Findings and Questioned Costs

Year Ended June 30, 2018

Section III - Federal Award Findings and Questioned Costs

2018 - 001 Non-Compliance with Maximum Direct Loan Eligibility Requirements

Grantor: U.S. Department of Education

Program Name: Student Financial Assistance Cluster

Award Name: Federal Direct Loan Program

Award Year: Fiscal Year 2018 **Award Number:** Not applicable

CFDA Number: 84.268

Criteria:

Per 34 CFR 685.203, the total amount of Federal Direct Unsubsidized Loans, excluding the amount of capitalized interest, for a dependent undergraduate student may not exceed \$31,000 minus any Direct Subsidized Loan, unless the student qualifies for additional eligibility.

Condition:

We reviewed a sample of 40 students from the Ithaca campus who received student financial assistance during the fiscal year. One of the 40 received an aggregate of \$33,000 in Federal Direct Subsidized and Federal Direct Unsubsidized Loans. Of the \$33,000 received, \$25,500 was received in previous years and \$7,500 was received in the current year.

Questioned Costs:

\$2,000

Cause:

The University tracked aggregate Direct Loan eligibility using a PeopleSoft query rather than using National Student Loan Data System (NSLDS) data fields from the Institutional Student Information Report (ISIR). The PeopleSoft query did not include complete and accurate information on the aggregate loans provided to this student.

Effect:

Awarding aid in excess of the maximum loan limit resulted in disbursement of excess federal aid to this student.

Recommendation:

We recommend the University use the source NSLDS information from the ISIR populated within PeopleSoft for all students who received federal aid to appropriately review aggregate limits for Direct Loans.

Management's Response:

Management Views and Corrective Action Plan is included at the end of this report after the summary schedule of prior audit findings and status.

Schedule of Findings and Questioned Costs

Year Ended June 30, 2018

2018 – 002 Non-Compliance with Timely and Accurate Student Enrollment Change Submissions to the National Student Loan Data System (NSLDS) – Significant Deficiency

Grantor: U.S. Department of Education

Program Name: Student Financial Assistance Cluster

Award Names: Federal Supplemental Education Opportunity Grants, Federal Perkins Loan Program, Federal Pell

Grant Program and Federal Direct Loan Program

Award Year: Fiscal Year 2018 **Award Number:** Not applicable

CFDA Numbers: 84.007, 84.038, 84.063 and 84.268

Criteria:

In accordance with 34 CFR sections 674.19(f), 685.309(b), and 690.83(b)(2), "upon receipt of an enrollment report from the Secretary (U.S. Department of Education, Secretary of Education), a school must update all information included in the report and return the report to the Secretary, in the manner and format prescribed by the Secretary and within the timeframe prescribed by the Secretary. Unless it expects to submit its next updated enrollment report to the Secretary within the next 60 days, a school must notify the Secretary within 30 days after the date the school discovers that a loan under Title IV of the Act was made to or on behalf of a student who was enrolled or accepted for enrollment at the school, and the student has ceased to be enrolled on at least a half-time basis or failed to enroll on at least a half-time basis for the period for which the loan was intended."

Condition:

We noted the following:

- In the summer of 2017, management determined that all students enrolled at the University's Ithaca campus were reported to NSLDS as full-time, regardless of their level of attendance (full-time, three-quarter-time, half-time or less-than-half-time). Beginning in the spring 2018 semester, management updated the NSLDS reporting process to include the appropriate level of attendance for each student. This was also noted in our testing as we reviewed a sample of four students whose level of attendance (full-time, three-quarter-time, half-time or less-than half-time) changed from the beginning of the spring 2018 semester to the end of the fiscal year and did not have any exceptions.
- We reviewed a sample of 61 students enrolled at the University's Ithaca campus who graduated or withdrew from the University either prior to or after the student began attendance. Of the 61 students tested, two students (one in Graduate School and one in Johnson Graduate School of Management) were reported to NSLDS either inaccurately or untimely. Of the two students, one student was input using an incorrect effective date which was reported to NSLDS 281 days late. One student, who had an accurate effective date, was reported to NSLDS 286 days late. This is a repeat of the prior year finding (2017-004).

Questioned Costs:

None

Cause:

As part of the prior year corrective action plan, the University was in the process of formally documenting policies and procedures specific to their National Student Clearinghouse (NSC)/NSLDS enrollment reporting practices to ensure all involved in the processing of such records had a full and detailed understanding of reporting processes

Cornell University Schedule of Findings and Questioned Costs Year Ended June 30, 2018

and requirements. As part of this process, in February 2018, the University redirected University Audit Office resources to the Office of Financial Aid and Student Employment and the Office of the University Registrar to review enrollment reporting changes and practices. Both of the exceptions noted had a status change date in August 2017 prior to the execution of the prior year corrective action plan and the redirection of resources. However, as the corrective action plan was not fully implemented during the fiscal year and given the finding is a repeat of prior year, it is deemed a significant deficiency.

Effect:

A student's enrollment status determines eligibility for in-school status, deferment, and grace periods, as well as for the payment of interest subsidies all of which are impacted by inaccurate and late reporting.

Recommendation:

We recommend the University continue to execute its prior year corrective action plan, process improvements and IT system enhancements, and to provide adequate training to the individuals responsible for updating students' electronic files to ensure status changes are reported accurately and timely to NSLDS.

Management's Response:

Management Views and Corrective Action Plan is included at the end of this report after the summary schedule of prior audit findings and status.

Summary Schedule of Prior Audit Findings and Status

Year Ended June 30, 2018

2017 - 001 - Non-Compliance with Master Promissory Note Requirements prior to Disbursement

Grantor: U.S. Department of Education

Program Name: Student Financial Assistance Cluster

Award Name: Federal Perkins Loan Program

Award Year: Fiscal Year 2017 **Award Number:** Not applicable

CFDA Number: 84.038

Condition:

PwC reviewed a sample of 34 students who were disbursed Federal Perkins Loans. One student from the Law School of the 34 did not have evidence of an executed master promissory note prior to disbursement. The University disbursed a total of \$8,000 of Federal Perkins Loans to this student during the 2017 fiscal year. This student first received Federal Perkins Loans in the fall semester of 2014.

Status:

• A review of all 2017-18 Perkins borrowers was completed by management to confirm that a Master Promissory note was on file.

2017 – 002 – Non-Compliance with Borrower Data Transmission and Reconciliation (Direct Loan) Requirements

Grantor: U.S. Department of Education

Program Name: Student Financial Assistance Cluster

Award Name: Federal Direct Loan Program

Award Year: Fiscal Year 2017 **Award Number:** Not applicable

CFDA Number: 84.268

Condition:

PwC reviewed a sample of three monthly Direct Loan reconciliations. Two of the three reconciliations were not performed on a timely basis, between two to four months after the month in which the institution was to reconcile the records.

Status:

- The Associate Director for Compliance and Regulation is currently designated as the responsible individual for these reconciliations on a monthly basis.
- Financial Aid and Student Employment (FASE) has formalized a process control that automatically documents the user name and date/ time stamp of when the reconciliation was completed to ensure timeliness and to document completion of this control.

Summary Schedule of Prior Audit Findings

Year Ended June 30, 2018

2017 - 003 - Non-Compliance with Return of Title IV Requirements - Significant Deficiency

Grantor: U.S. Department of Education

Program Name: Student Financial Assistance Cluster

Award Names: Federal Supplemental Education Opportunity Grants, Federal Pell Grant Program and Federal

Direct Loan Program

Award Year: Fiscal Year 2017 **Award Number:** Not applicable

CFDA Numbers: 84.007, 84.063 and 84.268

Condition:

Out of a total population of 429 students who withdrew from the University and received Title IV funding, PwC examined a sample of 40 students.

PwC noted five instances (two in Law School and three in Undergraduate) in which the calculation of unearned funds to be returned was incorrect. The calculations excluded the 5 day consecutive Thanksgiving break which resulted in an over return of funds to the ED. Management identified the error towards the end of the fall semester, corrected the calculation and contacted students to have the portion over returned disbursed to their account. As the error was not identified by management in a timely manner, funds were not accurately calculated and returned within 45 days in accordance with 34 CFR section 668.173(b).

Status:

- Prior to the start of each academic year, the Office of the University Registrar (OUR) and Financial Aid and Student Employment (FASE) staff involved in Return of Title IV funds calculations met to review the Academic Calendar as published on the Cornell University website and determine if there are changes to the length of scheduled breaks.
- OUR continues to collect holiday break information from schools/colleges and documents them on the "Term Start and End Date" document. This document is stored on SharePoint and is accessible to FASE.
- OUR determined it was not feasible to maintain all university holiday dates in PeopleSoft.

2017 – 004 – Non-Compliance with Timely and Accurate Student Enrollment Change Submissions to the National Student Loan Data System (NSLDS) – Significant Deficiency

Grantor: U.S. Department of Education

Program Name: Student Financial Assistance Cluster

Award Names: Federal Supplemental Education Opportunity Grants, Federal Perkins Loan Program, Federal Pell

Grant Program and Federal Direct Loan Program

Award Year: Fiscal Year 2017 **Award Number:** Not applicable

CFDA Numbers: 84.007, 84.038, 84.063 and 84.268

Condition:

PwC reviewed a sample of 60 students from the Ithaca campus who had a status change during the fiscal year. Of the 60 students requiring notification of the enrollment change to NSLDS, six students (one in Graduate School and five in Undergraduate) were reported to NSLDS either inaccurately or untimely. Of the six students, two students were input using incorrect effective dates of withdrawal which resulted in students not being reported to NSLDS within the required timeframe. Four students had accurate effective dates, however, they were not reported to NSLDS within the required timeframe. The reporting occurred from 61 days to 200 days after the institution determined date. This is a repeat finding of the prior year, 2016-003.

Cornell University Summary Schedule of Prior Audit Findings Year Ended June 30, 2018

Status:

- As part of the Title IV compliance program, a detailed business process document was developed as a result
 of OUR staff responsible for National Student Clearinghouse (NSC) processing undertaking a detailed review
 of the process flow.
- The NSC enrollment reporting schedule was extended to two weeks after the end of the term.
- The OUR withdrawal date process document was updated. As part of the Title IV compliance program, the process document was formalized and codified in University Policy 7.3 Processing and Reporting Student Enrollment Status Under Title IV.
- PeopleSoft queries were developed to identify students whose degrees were posted to a semester in which
 they were on leave of absence, and students whose degrees were posted after the end of the NSC enrollment
 period. OUR staff responsible for NSC processing run queries monthly and, if necessary, manually update
 NSLDS and NSC.
- Schools/Colleges place on leave of absence or withdraw students who fail to graduate after their expected graduation term.



Division of Financial Affairs

William Sibert
Associate Vice President and
University Controller
341 Pine Tree Road
Ithaca, New York 14850-2820
607.255.3581
william.sibert@cornell.edu

Management Views and Corrective Action Plan Year Ended June 30, 2018

The following findings were noted during the audit of Federal programs in accordance with 2 CFR 200. Management of Cornell University agrees with these findings and proposes the following Corrective Action Plans:

Finding Number 2018 – 001: Non-Compliance with Maximum Direct Loan Eligibility Requirements

Corrective Action Plan:

Management agrees with the importance of monitoring student Direct Loan eligibility and appropriately awarding students based on established aggregate loan limits. The root cause of this issue was the reliance on PeopleSoft aggregate data to monitor combined aggregate loan limits between Subsidized and Unsubsidized Direct Loans instead of National Student Loan Data System (NSLDS) aggregate loan data.

To address this specific finding, the Office of Financial Aid and Student Employment (FASE) has canceled the excess aid and replaced it with institutional funds. FASE has also taken the following remediation steps:

- A review of all 2017-18 NSLDS aggregate loan limits was completed in November 2018 to ensure compliance for the remaining population.
- In November 2018, FASE updated their secondary query control for monitoring combined aggregate over awards.
- FASE researched, tested, and implemented alternate system functionality that looks directly at NSLDS data within PeopleSoft populated by the most recent Institutional Student Information Record and record of transfer monitoring. This will be closely monitored and validated by June 2019.

Responsible individuals: Director of Financial Aid and Student Employment, Diane Corbett

Interim Vice Provost for Enrollment, Jason Locke

Due date: June 30, 2019

Finding Number 2018 – 002 Non-Compliance with Timely and Accurate Student Enrollment Change Submissions to the National Student Loan Data System (NSLDS)

Corrective Action Plan:

Management agrees that timely and accurate reporting of Enrollment status changes to NSLDS is critical to maintaining compliance with Title IV.

• Several design and process improvements have been implemented that have allowed the Office of the University Registrar (OUR) to enhance the Title IV compliance activities, including:

- To streamline communications related to student withdrawals OUR is utilizing an email ticketing system. In August 2018, College Registrars were directed to send communications related to withdrawals to the ticketing system. Multiple individuals in the office are managing the ticketing system queue, and individuals are assigned responsibility for acting upon and responding to the messages.
- OUR is identifying students who were on leave of absence immediately prior to their degree being posted by their college. The office is comparing the list of degree recipients to the data that was reported to NSLDS and is updating gradation status to National Student Clearinghouse (NSC) and NSLDS as necessary. The process was put in place beginning with the May 2018 degree cohort and is ongoing for each degree date.
- In October 2018, an enhancement to PeopleSoft was implemented that allows OUR to upload NSLDS enrollment data to PeopleSoft. By having NSLDS data in PeopleSoft, the office is able to directly compare and validate students' enrollment data. Reports allow for easier identification of data discrepancies and therefore more timely updates to NSLDS.
- OUR is tracking the withdrawal notification date provided by the college registrar. If the
 notification date is more than 30 days after the date of institutional knowledge, the office
 is evaluating the dates against the NSLDS reporting schedule and is manually updating
 NSLDS if necessary. Beginning in November 2018 automated notifications from
 PeopleSoft alert the office to these withdrawals.
- OUR is tracking degrees that are posted after the agreed upon deadline. Beginning in November 2018, automated notifications from PeopleSoft alert the office when degrees are posted after the deadline. The office is comparing the list of degree recipients to the data that was reported to NSLDS and is updating gradation status to NSC and NSLDS as necessary.
- OUR engaged a consultant to develop documentation for all of its Title IV compliance activities. The documentation is in progress and a final version is expected in late March 2019. The documentation will be updated and maintained as necessary. It will be available to and reviewed with all individuals involved in NSLDS reporting activities on a regular basis.

Responsible individuals: Interim University Registrar, Lisa Clark

Interim Vice Provost for Enrollment, Jason Locke

Due date: June 30, 2019

Signed,

William Sibert
Associate Vice President and

University Controller