Reports on the Audit of Federal Award Programs in Accordance with OMB Uniform Guidance

The Pennsylvania State University Fiscal Year Ended June 30, 2017

University Park, Pennsylvania

THE PENNSYLVANIA STATE UNIVERSITY

REPORTS ON THE AUDIT OF FEDERAL AWARDS IN ACCORDANCE WITH OMB UNIFORM GUIDANCE FISCAL YEAR ENDED JUNE 30, 2017

TABLE OF CONTENTS

Letter of Transmittal	3
Independent Auditors' Report together with Audited Financial Statements of the University	6
Schedule of Expenditures of Federal Awards	41
Notes to Schedule of Expenditures of Federal Awards	100
Independent Auditors' Report on Internal Control over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with <i>Government Auditing Standards</i>	102
Independent Auditors' Report on Compliance for Each Major Federal Program; Report on Internal Control over Compliance; and Report on Schedule Of Expenditures of Federal Awards Required by the Uniform Guidance	104
Schedule of Findings and Questioned Costs	107
Schedule of Status on Prior Year Findings	108



Joseph J. Doncsecz Associate Vice President for Finance and Corporate Controller The Pennsylvania State University 408 Old Main University Park, PA 16802-1505

March 26, 2018

Federal Audit Clearinghouse 1201 E. 10th Street Jeffersonville, IN 47132

To Whom It May Concern:

The Pennsylvania State University's financial, internal control and compliance reports for the fiscal year ended June 30, 2017 are presented on the accompanying pages. The reports have been issued in accordance with the Office of Management and Budget (OMB) Title 2 U.S. Code of Federal Regulations (CFR) Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards*. Also enclosed is The Pennsylvania State University's schedule of findings and questioned costs.

Sincerely,

Joseph J. Doncsecz

Associate Vice President for Finance and Corporate Controller

JJD/kjm

Enclosures



Audited Financial Statements

The Pennsylvania State University Fiscal Year Ended June 30, 2017



Deloitte & Touche LLP 1700 Market Street Philadelphia, PA 19103

Tel: 215-246-2300 Fax: 215-448-2278 www.deloitte.com

INDEPENDENT AUDITORS' REPORT

To the Board of Trustees of The Pennsylvania State University University Park, Pennsylvania

Report on the Financial Statements

We have audited the accompanying consolidated financial statements of The Pennsylvania State University and its subsidiaries (the "University"), which comprise the consolidated statements of financial position as of June 30, 2017 and 2016, and the related consolidated statements of activities and cash flows for the years then ended, and the related notes to the consolidated financial statements.

Management's Responsibility for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of these 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 these consolidated financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States.

The consolidated financial statements of the University include various subsidiaries as outlined in Note 1 to the consolidated financial statements. The Penn State Health subsidiaries, including Saint Joseph's Regional Health Network and Medical Group and Nittany Health, Inc. and The Corporation for Penn State subsidiaries, including Penn State Recycling Markets Center, Research Park Management Corporation, The Pennsylvania State University Philanthropic Fund, Ben Franklin Technology Center of Central & Northern PA, Penn State Research Foundation, Research Park Hotel Corporation, and Nittany Insurance Company, are audited in accordance with generally accepted auditing standards, but were not audited in accordance with *Government Auditing Standards* and, accordingly, are not covered by our reports in accordance with *Government Auditing Standards*. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the 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 financial position of the University as of June 30, 2017 and 2016, and the changes in its net assets and its cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated October 20, 2017 on our consideration of the University's internal control over financial reporting and our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal controls over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with the *Government Auditing Standards* in considering the University's internal control over financial reporting and compliance.

October 20, 2017

Deloitte & Touche LLP

THE PENNSYLVANIA STATE UNIVERSITY CONSOLIDATED STATEMENTS OF FINANCIAL POSITION ASSETS

JUNE 30, 2017 AND 2016

(in thousands)

	June 30, 2017	June 30, 2016
Current assets:		
Cash and cash equivalents	\$ 1,761,703	\$ 1,395,514
Short-term investments	325,758	371,363
Deposits held by bond trustees	138,954	109,739
Deposits held for others	37,031	10,240
Accounts receivable, net of allowances of \$88,731 and \$83,942	542,603	496,100
Contributions receivable, net	60,893	54,565
Loans to students, net of allowances of \$570 and \$419	9,461	9,304
Inventories	48,152	42,472
Prepaid expenses and other assets	105,807	110,995
Total current assets	3,030,362	2,600,292
Noncurrent assets:		
Deposits held by bond trustees	40,000	21,348
Contributions receivable, net	140,165	124,988
Loans to students, net of allowances of \$2,548 and \$2,107	49,121	51,602
Total investment in plant, net	4,921,412	4,590,311
Beneficial interest in perpetual trusts	19,854	14,558
Investments	5,716,986	5,279,950
Other assets	112,391	97,932
Total noncurrent assets	10,999,929	10,180,689

Total assets \$14,030,291 \$12,780,981

THE PENNSYLVANIA STATE UNIVERSITY CONSOLIDATED STATEMENTS OF FINANCIAL POSITION LIABILITIES AND NET ASSETS JUNE 30, 2017 AND 2016

(in thousands)

	June 30, 2017	June 30, 2016
Current liabilities:		
Accounts payable and other accrued expenses	\$ 689,885	\$ 596,027
Deferred revenue	341,261	314,682
Long-term debt	49,432	40,729
Present value of annuities payable	6,574	6,361
Accrued postretirement benefits	56,466	52,665
Total current liabilities	1,143,618	1,010,464
Noncurrent liabilities:		
Deposits held in custody for others	32,724	35,710
Deferred revenue	1,218	1,477
Long-term debt	1,419,961	1,130,547
Present value of annuities payable	51,496	47,498
Accrued postretirement benefits	2,261,996	2,095,857
Refundable United States Government student loans	46,713	47,687
Other liabilities	230,067	204,797
Total noncurrent liabilities	4,044,175	3,563,573
Total liabilities	5,187,793	4,574,037
Net assets:		
Unrestricted -		
Undesignated	1,692	1,658
Designated for specific purposes	3,350,691	3,144,389
Net investment in plant	3,169,239	2,987,299
Total unrestricted - The Pennsylvania State University	6,521,622	6,133,346
Noncontrolling interest	4,609	3,687
Total unrestricted	6,526,231	6,137,033
Temporarily restricted	708,103	551,073
Permanently restricted	1,608,164	1,518,838
Total net assets	8,842,498	8,206,944
Total liabilities and net assets	\$14,030,291	\$12,780,981

THE PENNSYLVANIA STATE UNIVERSITY CONSOLIDATED STATEMENT OF ACTIVITIES FOR THE YEAR ENDED JUNE 30, 2017

(in thousands)

	Unrestricted	Temporarily Restricted	Permanently Restricted	Total
Operating revenues and other support:				* 4 7 00 400
Tuition and fees, net of discounts of \$205,002	\$ 1,786,430	\$ -	\$ -	\$ 1,786,430
Commonwealth of Pennsylvania -	206 764			296,764
Appropriations Special contracts	296,764 68,933	-	-	68,933
Department of General Services projects	47,500	_	-	47,500
United States Government grants and contracts	479,717	_	_	479,717
Private grants and contracts	216,596	_	_	216,596
Gifts and pledges	62,906	24,631	_	87,537
Endowment spending	98,521	- 1,000	-	98,521
Other investment income	140,235	1,046	-	141,281
Sales and services of educational activities	84,508	-	-	84,508
Recovery of indirect costs	171,442	-	-	171,442
Auxiliary enterprises	465,716	-	-	465,716
Health System revenue, net of provision for bad debts of \$46,251	2,073,496	-	-	2,073,496
Other sources	40,628	-	-	40,628
Net assets released from restrictions	2,859	(2,859)		
Total operating revenues and other support	6,036,251	22,818		6,059,069
Operating expenses:				-
Educational and general				
Instruction	1,402,451	-	-	1,402,451
Research	810,985	-	-	810,985
Public service	100,573	-	-	100,573
Academic support	404,098	-	-	404,098
Student services	204,943	-	-	204,943
Institutional support	400,646			400,646
Total educational and general	3,323,696		-	3,323,696
Auxiliary enterprises	426,204	-	-	426,204
Health System expense	1,927,155			1,927,155
Total operating expenses	5,677,055			5,677,055
Increase in net assets from operating				
activities	359,196	22,818	-	382,014
Nonoperating activities:	·	•		
Gifts and pledges	_	_	83,529	83,529
Current year investment returns	160,882	136,561	9,056	306,499
Endowment appreciation utilized	(75,871)	-	-	(75,871)
Changes in funds held by others in perpetuity	-	_	5,204	5,204
Write-offs and disposals of assets	(4,815)	-	-	(4,815)
Nonperiodic change in postretirement benefit plan	(51,116)	_	-	(51,116)
Actuarial adjustment on annuities payable	-	(2,349)	(8,463)	(10,812)
Increase in net assets from nonoperating				
activities	29,080	134,212	89,326	252,618
	20,000	101,212	00,020	202,010
Increase in net assets - The Pennsylvania		457.000		22122
State University	388,276	157,030	89,326	634,632
Noncontrolling interest:				
Excess of revenues over expenses	922			922
Increase in net assets - noncontrolling interest	922			922
Increase in total net assets	389,198	157,030	89,326	635,554
Net assets at the beginning of the year	6,137,033	551,073	1,518,838	8,206,944
Net assets at the end of the year	\$ 6,526,231	\$ 708,103	\$ 1,608,164	\$ 8,842,498

See notes to consolidated financial statements.

THE PENNSYLVANIA STATE UNIVERSITY CONSOLIDATED STATEMENT OF ACTIVITIES FOR THE YEAR ENDED JUNE 30, 2016

(in thousands)

Tuition and fees, net of discounts of \$178,312 \$1,727,826 \$-\$\$ \$-\$\$ \$1,727,826 \$-\$\$ \$-\$\$ \$1,727,828 \$-\$\$ \$-\$\$ \$1,727,828 \$-\$\$ \$-\$\$ \$-\$\$ \$1,727,828 \$-\$\$	
Commonwealth of Pennsylvania - Appropriations 294,949 - 294,949 Special contracts 74,239 - 74,220 Department of General Services projects 41,406 - 41,440 41,4406 - 41,440 41,4406 - 41,440 41,4406 - 41,440 41,4406 - 41,440 41,4406 - 41,440 41,4406 - 41,440	
Appropriations 294,949 - - 294,94 Special contracts 74,239 - - 74,22 Department of General Services projects 41,406 - - 411,4 United States Government grants and contracts 480,463 - - 480,4 Private grants and contracts 169,980 - - 169,9 Gifts and pledges 66,824 11,507 - 78,3 Endowment spending 95,439 - - 95,4 Other investment income 85,336 1,937 - 87,2 Sales and services of educational activities 76,051 - - 76,0 Recovery of indirect costs 163,302 - - 163,3 Auxiliary enterprises 445,562 - - 1,996,5 Health System revenue, net of provision for bad debts of \$62,414 1,996,546 - - 1,996,5 Other sources 33,442 - - 33,4 Net assets released from restrictions 12,220 (12,220) - Total operating revenues and other sup	326
Special contracts 74,239 - - 74,22 Department of General Services projects 41,406 - 41,4 United States Government grants and contracts 480,463 - - 480,4 Private grants and contracts 169,980 - - 169,99 Gifts and pledges 66,824 11,507 - 78,3 Endowment spending 95,439 - - 95,43 Other investment income 85,336 1,937 - 87,2 Sales and services of educational activities 76,051 - - 76,0 Recovery of indirect costs 163,302 - - 163,3 Auxiliary enterprises 445,562 - - 445,5 Health System revenue, net of provision for bad debts of \$62,414 1,996,546 - - 1,996,5 Other sources 33,442 - - 33,4 Net assets released from restrictions 12,220 (12,220) - Total operating revenues and other support 5,763,	
Department of General Services projects 41,406 - - 41,4 United States Government grants and contracts 480,463 - - 480,4 Private grants and contracts 169,980 - - 169,9 Gifts and pledges 66,824 11,507 - 78,3 Endowment spending 95,439 - - 95,4 Other investment income 85,336 1,937 - 87,2 Sales and services of educational activities 76,051 - - 76,0 Recovery of indirect costs 163,302 - - 163,3 Auxiliary enterprises 445,562 - - 445,5 Health System revenue, net of provision for bad debts of \$62,414 1,996,546 - - 1,996,5 Other sources 33,442 - - 33,4 Net assets released from restrictions 12,220 (12,220) - Total operating revenues and other support 5,763,585 1,224 - 5,764,8 Operating expenses: Educational and general - Instruction 1,326,628	
United States Government grants and contracts #80,463 Private grants and contracts 169,980	
Private grants and contracts 169,980 - - 169,99 Gifts and pledges 66,824 11,507 - 78,3 Endowment spending 95,439 - - 95,4 Other investment income 85,336 1,937 - 87,2 Sales and services of educational activities 76,051 - - 76,0 Recovery of indirect costs 163,302 - - 163,3 Auxiliary enterprises 445,562 - - 445,5 Health System revenue, net of provision for bad debts of \$62,414 1,996,546 - - 1,996,5 Other sources 33,442 - - 33,4 Net assets released from restrictions 12,220 (12,220) - Total operating revenues and other support 5,763,585 1,224 - 5,764,8 Operating expenses: Educational and general - Instruction 1,326,628 - - 1,326,6	
Gifts and pledges 66,824 11,507 - 78,3 Endowment spending 95,439 95,4 Other investment income 85,336 1,937 - 87,2 Sales and services of educational activities 76,051 76,0 Recovery of indirect costs 163,302 163,3 Auxiliary enterprises 445,562 445,5 Health System revenue, net of provision for bad debts of \$62,414 1,996,546 1,996,5 Other sources 33,442 33,4 Net assets released from restrictions 12,220 (12,220) 5,764,8 Total operating revenues and other support 5,763,585 1,224 - 5,764,8 Operating expenses: Educational and general - Instruction 1,326,628 1,326,6	
Endowment spending 95,439 - - 95,4 Other investment income 85,336 1,937 - 87,2 Sales and services of educational activities 76,051 - - 76,0 Recovery of indirect costs 163,302 - - 163,3 Auxiliary enterprises 445,562 - - 445,5 Health System revenue, net of provision for bad debts of \$62,414 1,996,546 - - 1,996,5 Other sources 33,442 - - 33,4 Net assets released from restrictions 12,220 (12,220) - Total operating revenues and other support 5,763,585 1,224 - 5,764,8 Operating expenses: Educational and general - Instruction 1,326,628 - - 1,326,6	
Other investment income 85,336 1,937 - 87,2 Sales and services of educational activities 76,051 - - 76,0 Recovery of indirect costs 163,302 - - 163,3 Auxiliary enterprises 445,562 - - 445,5 Health System revenue, net of provision for bad debts of \$62,414 1,996,546 - - 1,996,5 Other sources 33,442 - - 33,4 Net assets released from restrictions 12,220 (12,220) - Total operating revenues and other support 5,763,585 1,224 - 5,764,8 Operating expenses: Educational and general - Instruction 1,326,628 - - 1,326,6	
Sales and services of educational activities 76,051 - - 76,0 Recovery of indirect costs 163,302 - - 163,3 Auxiliary enterprises 445,562 - - 445,5 Health System revenue, net of provision for bad debts of \$62,414 1,996,546 - - 1,996,5 Other sources 33,442 - - 33,4 Net assets released from restrictions 12,220 (12,220) - Total operating revenues and other support 5,763,585 1,224 - 5,764,8 Operating expenses: Educational and general - Instruction 1,326,628 - - 1,326,6	
Recovery of indirect costs 163,302 - - 163,3 Auxiliary enterprises 445,562 - - 445,5 Health System revenue, net of provision for bad debts of \$62,414 1,996,546 - - 1,996,5 Other sources 33,442 - - 33,4 Net assets released from restrictions 12,220 (12,220) - Total operating revenues and other support 5,763,585 1,224 - 5,764,8 Operating expenses: Educational and general - Instruction 1,326,628 - - 1,326,6	
Auxiliary enterprises 445,562 - - 445,5 Health System revenue, net of provision for bad debts of \$62,414 1,996,546 - - 1,996,5 Other sources 33,442 - - 33,4 Net assets released from restrictions 12,220 (12,220) - Total operating revenues and other support 5,763,585 1,224 - 5,764,8 Operating expenses: Educational and general - Instruction 1,326,628 - - 1,326,6	
Health System revenue, net of provision for bad debts of \$62,414 1,996,546 - - 1,996,55 Other sources 33,442 - - 33,4 Net assets released from restrictions 12,220 (12,220) - Total operating revenues and other support 5,763,585 1,224 - 5,764,8 Operating expenses: Educational and general - Instruction 1,326,628 - - 1,326,628	
Other sources 33,442 - - 33,4 Net assets released from restrictions 12,220 (12,220) - Total operating revenues and other support 5,763,585 1,224 - 5,764,8 Operating expenses: Educational and general - Instruction 1,326,628 - - 1,326,6.6	
Net assets released from restrictions 12,220 (12,220) - Total operating revenues and other support 5,763,585 1,224 - 5,764,8 Operating expenses: Educational and general - Instruction 1,326,628 - - 1,326,628	
Total operating revenues and other support 5,763,585 1,224 - 5,764,8 Operating expenses: Educational and general - Instruction 1,326,628 - - 1,326,6.6	142
Operating expenses: Educational and general - Instruction 1,326,628 1,326,6.	-
Educational and general - 1,326,628 - 1,326,6	309
Instruction 1,326,628 - 1,326,6	
\cdot	
Research 799 237 - 799 2	
Public service 87,440 87,4	
Academic support 405,207 - 405,2	
Student services 193,891 - 193,8	
Institutional support 371,203 371,2	
Total educational and general 3,183,606 - 3,183,6	
Auxiliary enterprises 416,600 416,6	300
Health System expense 1,843,196 - - - 1,843,1	196
Total operating expenses 5,443,402 - - 5,443,4	102
Increase in net assets from operating	
activities 320,183 1,224 - 321,4	107
Nonoperating activities:	
Gifts and pledges - 75,317 75,3	217
Current year investment returns (25,789) (114,512) 10,020 (130,2	
Endowment appreciation utilized (69,619) - (69,6	,
• • • • • • • • • • • • • • • • • • • •	928)
Acquisition of restricted net assets - 4,730 10,862 15,5	,
Write-offs and disposals of assets (10,287) (10,002 10	
Nonperiodic change in postretirement benefit plan 41,641 41,641	,
Actuarial adjustment on annuities payable - (986) (10,537) (11,5	
	1231
Increase (decrease) in net assets from nonoperating activities (64,054) (110,765) 84,731 (90,0	188)
	.55)
Increase (decrease) in net assets - The Pennsylvania State University 256,129 (109,541) 84,731 231,3	319
Noncontrolling interest:	
Excess of revenues over expenses 2,127 - - 2,1	127
Increase in net assets - noncontrolling interest 2,127 - 2,1	127
Increase (decrease) in total net assets 258,256 (109,541) 84,731 233,4	146
Net assets at the beginning of the year 5,878,777 660,614 1,434,107 7,973,4	198
Net assets at the end of the year $$$ $6,137,033 $$ $551,073 $$ $1,518,838 $$ $8,206,9$)44

See notes to consolidated financial statements.

THE PENNSYLVANIA STATE UNIVERSITY CONSOLIDATED STATEMENTS OF CASH FLOWS FOR THE YEARS ENDED JUNE 30, 2017 AND 2016

(in thousands)

	June 30, 2017	June 30, 2016
Cash flows from operating activities: Increase in net assets	\$ 635.554	\$ 233.446
	\$ 635,554	\$ 233,446
Adjustments to reconcile change in net assets to net cash provided by operating activities -	10.010	11 500
Actuarial adjustment on annuities payable	10,812	11,523
Contributions restricted for long-term investment	(98,202)	(100,877)
Interest and dividends restricted for long-term investment	(78,598)	(75,605)
Net realized and unrealized (gains) losses on long-term investments	(408,457)	83,251
Depreciation expense	350,531	331,193
Amortization expense	(52)	(371)
Loss on early extinguishment of debt	3,688	6,405
Write-offs and disposals of assets	5,126	11,043
Contributions of land, buildings and equipment	(2,960)	(3,946)
Buildings and equipment provided by Pennsylvania Department of General Services	-	(95)
Contribution to government student loan funds	154	154
Provision for bad debts	63,136	68,655
Increase in deposits held for others	(26,792)	(618)
Increase in receivables	(95,725)	(35,868)
Increase in inventories	(5,679)	(1,317)
Increase in prepaid expenses and other assets	(954)	(44,735)
Increase in accounts payable and other accrued expenses	118,800	39,572
Increase in deferred revenue	26,319	25,390
Increase in accrued postretirement benefits	169,939	57,436
Net cash provided by operating activities	666,640	604,636
Cash flows from investing activities:		
Purchase of land, buildings and equipment	(647,429)	(597,267)
Increase in deposits held by bond trustees	(47,867)	(69,377)
Advances on student loans	(10,652)	(10,766)
Collections on student loans	10,900	10,618
Proceeds from sale of donated financial assets	236	522
Purchase of investments	(3,761,462)	(4,475,766)
Proceeds from sale of investments	3,720,543	4,789,221
Net cash used in investing activities	(735,731)	(352,815)
Cash flows from financing activities:		
Contributions restricted for long-term investment	98,202	100,877
Interest and dividends restricted for long-term investment	78,598	75,605
· · · · · · · · · · · · · · · · · · ·	•	
Payments of annuity obligations	(6,602)	(6,385)
Proceeds from long-term debt	368,213	437,193
Principal payments on long-term debt	(103,303)	(323,335)
Proceeds related to government student loan funds, net of collection costs	172	729
Net cash provided by financing activities	435,280	284,684
Net increase in cash and cash equivalents	366,189	536,505
Cash and cash equivalents at the beginning of the year	1,395,514	859,009
Cash and cash equivalents at the end of the year	\$ 1,761,703	\$ 1,395,514

Supplemental disclosures of cash flow information (Note 2)

THE PENNSYLVANIA STATE UNIVERSITY NOTES TO CONSOLIDATED FINANCIAL STATEMENTS FOR THE YEARS ENDED JUNE 30, 2017 AND 2016

1. THE UNIVERSITY AND RELATED ENTITIES

The Pennsylvania State University ("the University"), which was created as an instrumentality of the Commonwealth of Pennsylvania ("the Commonwealth" or "Pennsylvania"), is organized as a non-profit corporation under the laws of the Commonwealth. As Pennsylvania's land grant university, the University is committed to improving the lives of the people of Pennsylvania, the nation and the world through its integrated, tri-part mission of high-quality teaching, research and outreach.

Basis of Presentation

The financial statements of the University include, on a consolidated basis, the consolidated financial statements of Penn State Health ("the Health System"), a Pennsylvania non-profit corporation, and its wholly owned subsidiaries, including the Milton S. Hershey Medical Center ("TMSHMC" or "the Medical Center"), Saint Joseph's Regional Health Network and Medical Group ("SJRHN/SJMG"), and Nittany Health, Inc. ("Nittany Health"), and the financial statements of The Corporation for Penn State and its subsidiaries ("the Corporation"). See Note 11 for additional information about the Health System. The Corporation is a non-profit member corporation organized in 1985 for the exclusive purpose of benefiting and promoting the interests of the University, the Corporation's sole member. The Corporation's financial statements consist primarily of the assets and revenues of The Pennsylvania College of Technology ("Penn College"), a wholly owned subsidiary of the Corporation. All transactions among the University, the Health System, and the Corporation have been eliminated.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Accounting

The University's consolidated financial statements are prepared on the accrual basis of accounting in conformity with accounting principles generally accepted in the United States of America (GAAP). The Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC) is the source of authoritative GAAP.

The University's consolidated financial statements include statements of financial position, activities and cash flows. In accordance with FASB ASC requirements, net assets and the changes in net assets are classified as permanently restricted, temporarily restricted or unrestricted.

Permanently restricted net assets consist primarily of the historical amounts of endowed gifts. Additionally, contributions receivable and remainder interests, which are required by donors to be permanently retained, are included at their estimated net present values.

Temporarily restricted net assets consist of contributions receivable and remainder interests whose ultimate use is not permanently restricted. In addition, the excess of current market value over the historical cost of permanently restricted endowments is classified as temporarily restricted net assets.

Unrestricted net assets are all the remaining net assets of the University. Net unrealized losses on permanently restricted endowment funds for which historical cost exceeds market value are recorded as a reduction to unrestricted net assets.

Revenue from temporarily restricted sources is reclassified as unrestricted revenue when the circumstances of the restriction have been fulfilled. Donor-restricted revenues whose restrictions are met within the same fiscal year are reported as unrestricted income.

Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts on the financial statements and the disclosure of contingencies and commitments. Actual results could differ from those estimates.

Revenue Recognition

Tuition revenue is recognized in the fiscal year in which the substantial portion of the educational term occurs. Institutional financial aid provided by the University for tuition and fees is reflected as a reduction of tuition and fee revenue. Revenues for auxiliary enterprises are recognized as the related goods and services are delivered and rendered. Grant revenues are recognized as the eligible grant activities are conducted. Payments received in advance for tuition, goods and services are deferred.

Unconditional promises to give are recognized as revenues and receivables in the year made and consist of written or oral promises to contribute to the University in the future. Contributions receivable are recorded with the revenue assigned to the appropriate category of restriction. The amounts are present valued based on timing of expected collections.

The Health System has agreements with third-party payors that provide for payments to its subsidiaries at amounts different from their established rates. Payment arrangements include prospectively determined rates per discharge, reimbursed costs, discounted charges and per diem payments. Net patient service revenue is reported at the estimated net realizable amounts from patients, third-party payors and others for services rendered, including estimated retroactive adjustments under reimbursement agreements with third-party payors. In addition, net patient service revenue is net of provision for bad debts of \$46.3 million and \$62.4 million for the years ended June 30, 2017 and 2016, respectively. Retroactive adjustments are accrued on an estimated basis in the period the related services are rendered and adjusted in future periods as final settlements are determined or such estimates change.

The subsidiaries of the Health System provide care to patients who meet certain criteria under its charity care policy without charge or at amounts less than established rates. The Health System does not pursue collection of amounts determined to qualify as charity care; they are not reported as net patient service revenue. The amounts of direct and indirect costs for services and supplies furnished under the Health System's charity care policy totaled approximately \$27.4 million and \$17.7 million for the years ended June 30, 2017 and 2016, respectively, and is based on a ratio of the Health System's operational costs to its gross charges. The amount of charges foregone for services and supplies furnished under the Health System's charity policy during 2017 and 2016 totaled approximately \$53.2 million and \$53.0 million, respectively.

Fair Value of Financial Instruments

The University has provided fair value estimates for certain financial instruments in the notes to the financial statements. Fair value information presented in the financial statements is based on information available at June 30, 2017 and 2016. The carrying amounts of cash and cash equivalents, accounts receivable and accounts payable and other accrued expenses approximate fair value because of the terms and relatively short maturity of these financial instruments. The carrying values of the University's loans to students are also reasonable estimates of their fair value, as the total outstanding loans to students as of June 30, 2017 and 2016 have been made at the rates available to students for similar loans at such times. Investments are reported at fair value as disclosed in Note 3. The fair value of the University's bonds payable is disclosed in Note 7. See Note 5 for further discussion of fair value measurements.

Cash Flows

The following items are included as supplemental disclosure to the statements of cash flows for the years ended June 30:

(in thousands of dollars)	<u>2017</u>	<u>2016</u>
Interest paid	\$ 42,826	\$ 43,039
Non-cash acquisitions of land, buildings		
and equipment	33.010	131.778

Capitalized costs accrued related to construction are \$73.6 million and \$80.8 million as of June 30, 2017 and 2016, respectively. Taxes paid for 2017 and 2016 are considered immaterial. Cash and cash equivalents include certain investments in highly liquid instruments with initial maturities of 90 days or less, except for such assets held by the University's investment managers as part of their long-term investment strategies. Short-term investments include other current investments held for general operating purposes with maturities greater than 3 months but less than 12 months.

During the year ended June 30, 2016, the Health System finalized the \$113.5 million acquisition of SJRHN/SJMG. Of the \$113.5 million, \$104.4 million relates to property, plant and equipment and is included in 2016 non-cash acquisitions of land, buildings and equipment in the table above. See further discussion related to the acquisition in Note 11.

Accounts Receivable

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

(in thousands of dollars)	<u>2017</u>	<u>2016</u>
Grants and contracts, net of allowance of \$2,214 and \$1,211	\$ 187,903	\$ 173,067
Patient accounts receivable, net of allowance of \$61,448 and \$68,743	197,613	226,381
Student receivables, net of allowance of \$18,500 and \$7,930 Investment and interest receivable	54,162	27,183
Other, net of allowance of \$6,569 and \$6,058	47,197 55,728	12,665 56,804
Total accounts receivable, net	\$ 542,603	\$ 496,100

The University maintains allowances for doubtful accounts to reflect management's best estimate of probable losses inherent in receivable balances. Management determines the allowances for doubtful accounts based on known factors, historical experience, and other currently available evidence. Receivables are written off when management determines they will not be collected.

Related to patient accounts receivable associated with services provided to patients who have third-party coverage, management analyzes contractually due amounts and provides an allowance for doubtful accounts (for example, for expected uncollectible deductibles and copayments or for payors who are known to be having financial difficulties that make the realization of amounts due unlikely). For receivables from self-pay patients, the subsidiaries of the Health System record a provision for bad debts in the period of service on the basis of past experience, which indicates that many patients are unable or unwilling to pay the portion of their bill for which they are financially responsible. In estimating the allowance for doubtful accounts, account age is taken into consideration. The difference between the standard rates (or the discounted rates if negotiated) and the amounts actually collected after all reasonable collection efforts have been exhausted is charged off against the allowance for doubtful accounts.

Loans to Students

Loans to students are disbursed to qualified students based on need and include loans granted by the University from institutional resources and under federal government loan programs. Students have a

grace period until repayment is required based upon the earlier of graduation or no longer achieving at least half-time enrollment status. The grace period varies depending on the type of loan. Loans accrue interest after the grace period and are repaid directly to the University. Loans to students are uncollateralized and carry default risk. At June 30, 2017 and 2016, student loans represent 0.4% and 0.5% of total assets, respectively.

The availability of funds for loans under federal government revolving loan programs is dependent on reimbursements to the pool from repayments of outstanding loans. Funds advanced by the federal government of \$46.7 million and \$47.7 million at June 30, 2017 and 2016, respectively, are ultimately refundable to the government and are classified as liabilities in the consolidated statements of financial position. Outstanding loans cancelled under the program result in a reduction of the funds available to loan and a decrease in the liability to the federal government.

Loans to students consisted of the following at June 30:

(in thousands of dollars)	<u>2017</u>		<u>2016</u>	
Loans to students: Federal government loan programs:				
Perkins loan program Health Professions Student Loans and	\$ 42,772	\$	44,381	
Loans for Disadvantaged Students	 39		49	
Federal government loan programs	42,811		44,430	
Institutional loan programs	 18,889		19,002	
	61,700		63,432	
Less allowance for doubtful accounts:				
Balance, beginning of year	(2,526)		(3,156)	
Provision for doubtful accounts	(592)		630	
Balance, end of year	 (3,118)	-	(2,526)	
Loans to students, net	\$ 58,582	\$	60,906	

Allowances for doubtful accounts are established based on prior collection experience and current economic factors which, in management's judgment, could influence the ability of loan recipients to repay the amounts according to the terms of the loan. Further, the University does not evaluate credit quality of student loans receivable after the initial approval of the loan. Loans to students are considered past due when payment is not received by the due date, and interest continues to accrue until the loan is paid in full or written off. When loans to students are deemed uncollectible, an allowance for doubtful accounts is established. Further, the University does not evaluate the credit quality of the student loans receivable after the initial approval and calculation of the loans.

The University considers the age of the amounts outstanding in determining the collectability of loans to students. The aging of the loans to students based on days delinquent and the related allowance for doubtful accounts at June 30 are as follows:

account at carro co are ac	TOHOWO.	(in	thousands of dollar	rs)	
2047	45 days <u>or less</u>	46-75 days	76-105 <u>days</u>	Over 105 days	<u>Total</u>
2017 Loans to students: Federal government loan programs Institutional loan programs	\$ 36,638 16,056	\$ 31 21	\$ 37 16	\$ 6,105 	\$ 42,811
Total loans to students	52,694	52	53	8,901	61,700
Allowance for doubtful accounts: Federal government loan					
programs Institutional loan programs					(457) (2,661)
Total allowance for doubtful accounts					(3,118)
Total loans to students, net					\$ 58,582
2016 Loans to students:	45 days <u>or less</u>	(in 46-75 days	thousands of dollai 76-105 <u>days</u>	over Over <u>105 days</u>	<u>Total</u>
		·	76-105	Over	Total \$ 44,430 19,002
Loans to students: Federal government loan programs	or less \$ 37,547	46-75 days \$ 28	76-105 <u>days</u> \$ 20	Over 105 days \$ 6,835	\$ 44,430
Loans to students: Federal government loan programs Institutional loan programs Total loans to students Allowance for doubtful accounts: Federal government loan programs Institutional loan programs Total allowance for doubtful	or less \$ 37,547 	\$ 28 27	76-105 days \$ 20 15	Over 105 days \$ 6,835 2,766	\$ 44,430 19,002 63,432 (441) (2,085)
Loans to students: Federal government loan programs Institutional loan programs Total loans to students Allowance for doubtful accounts: Federal government loan programs Institutional loan programs	or less \$ 37,547 	\$ 28 27	76-105 days \$ 20 15	Over 105 days \$ 6,835 2,766	\$ 44,430 19,002 63,432

Inventories

Inventories are stated at the lower of cost or market, generally on the first-in, first-out basis.

<u>Investments</u>

The University's noncurrent investments represent the University's endowment and other investments held for general operating purposes. The University's investments are reported at fair value in the accompanying financial statements. Investments in equity securities with readily determinable fair values and all investments in debt securities are reported at fair values with gains and losses included in the consolidated statements of activities. In the management of investments, the University authorizes certain investment managers to purchase derivative securities to attain a desired market position; and the University may directly invest in derivative securities to attain a desired market position. The University does not trade or issue derivative financial instruments other than through the investment management practices noted above. The University

records derivative securities at fair value with gains and losses reflected in the consolidated statements of activities.

The estimated fair value amounts for marketable debt, equity and fixed income securities held by the University have been reviewed by the University and determined using available market information as supplied by the various financial institutions that act as trustees or custodians for the University. For non-liquid holdings, generally limited partnership investments in private real estate, venture capital, private equity, natural resources, and private debt, estimated fair value is determined based upon financial information provided by the general partner. This financial information includes assumptions and methods that were reviewed by University management. The University believes that the estimated fair value is a reasonable estimate of market value as of June 30, 2017 and 2016. Because the limited partnerships are not readily marketable, the estimated value is subject to uncertainty and, therefore, may differ from the value that would have been used had a ready market existed, and such differences could be material.

Income on operating investments and income used for the annual distribution under the annual spending policy for endowments are reported in operating revenues within the consolidated statement of activities.

Beneficial Interest in Perpetual Trusts

The University is the beneficiary of certain perpetual trusts held and administered by outside trustees. The fair value of these trust assets has been recorded as permanently restricted net assets and related beneficial interest in perpetual trusts in the consolidated financial statements.

Investment in Plant

Total investment in plant as of June 30 is comprised of the following:

(in thousands of dollars)	<u>2017</u>		<u>2016</u>
Land	\$ 134,153	3 \$	133,473
Buildings	6,771,67	7	6,272,904
Improvements other than buildings	678,049	9	650,696
Equipment	1,497,05	<u></u>	1,382,532
Total plant	9,080,932	2	8,439,605
Less accumulated depreciation	(4,159,520	D)	(3,849,294)
Total investment in plant, net	\$ 4,921,412	<u>\$</u>	4,590,311

The value of land, buildings, and equipment is recorded at cost or, if received as gifts, at fair value at date of gift. The University does not capitalize the cost of library books. Depreciation is computed over the estimated useful lives of the assets using the straight-line method. Useful lives range from 4 to 50 years for buildings, 10 to 20 years for improvements other than buildings, and 1 to 20 years for equipment. Depreciation expense was \$350.5 million and \$331.2 million for the fiscal years ended June 30, 2017 and 2016, respectively. The University has certain building and equipment lease agreements in effect which are considered capital leases that are included as long-term debt in the statements of financial position. These leases have been capitalized at the lower of fair market value or net present value of the minimum lease payments. Buildings and equipment held under capital leases are amortized on a straight-line basis over the shorter of the lease terms or the estimated useful lives of the assets. The capitalized cost and accumulated depreciation of the leases at June 30, 2017 and 2016 was \$188.0 million and \$85.4 million, and \$169.2 million and \$72.5 million, respectively.

Accounts Payable and Other Accrued Expenses

Accounts payable and other accrued expenses at June 30 consist of the following:

(in thousands of dollars)	2017		_2	<u>2016</u>
Accounts payable (non-Health System) Health System accounts payable	\$	265,025	\$	248,897
and other accrued expenses		262,722		268,324
Accrued payroll and other related liabilities		143,546		64,690
Accrued bond interest		15,705		9,027
Student deposits		2,887		5,089
Total accounts payable and other				
accrued expenses	\$	689,885	\$	596,027

Impairment of Long-Lived Assets

Long-lived assets, which include investment in plant and definite-lived intangible assets, are assessed for impairment whenever events or changes in circumstances indicate the carrying amount of the asset may not be recoverable. An impairment loss is recognized in change in net assets in the period that the impairment occurs.

Asset Retirement Obligations

The University has recognized liabilities for asset retirement obligations. The University has identified asbestos abatement and the decommissioning of the Breazeale Nuclear Reactor as conditional asset retirement obligations. These obligations are reported as part of other noncurrent liabilities within the consolidated statement of financial position. The following table details the change in liabilities for the years ended June 30:

	(in thousands of dollars)
Balance as of June 30, 2015	\$ 71,585
Adjustment to liability	2,615
Accretion expense	2,924
Liabilities settled	(3,022)
Balance as of June 30, 2016	74,102
Adjustment to liability	12,892
Accretion expense	3,164
Liabilities settled	<u>(6,945</u>)
Balance as of June 30, 2017	\$ 83,213

Annuities Payable

Annuities payable consist of annuity payments currently due and the actuarial amount of annuities payable. The actuarial amount of annuities payable is the present value of the aggregate liability for annuity payments over the expected lives of the beneficiaries.

Net Assets

Net assets consist of the following at June 30:

(in thousands of dollars)	<u>2017</u>	<u>2016</u>
Unrestricted net assets	\$ 6,526,231	\$ 6,137,033
Temporarily restricted net assets: Future contributions Annuity and life income funds Contributions for property, plant and equipment Term endowments and accumulated endowment gains Total temporarily restricted net assets	\$ 146,180 32,070 6,278 523,575 \$ 708,103	21,587 5,876 399,607
Permanently restricted net assets: Future contributions Annuity and life income funds Student loan funds Perpetual trusts and other funds Endowment funds Total permanently restricted net assets	\$ 89,734 36,069 16,890 28,013 1,437,458 \$ 1,608,164	37,356 16,560 22,444 1,341,837
Total net assets	<u>\$ 8,842,498</u>	\$ 8,206,944

Income Taxes

The University files U.S. federal and state tax returns. The statute of limitations on the University's federal returns generally remains open for three years following the year they are filed. In accordance with ASC 740 Income Taxes Topic, the University continues to evaluate tax positions and has determined there is no material impact on the University financial statements.

Recent Accounting Pronouncements

In May 2014, the FASB issued Accounting Standards Update ("ASU") 2014-09, "Revenue from Contracts with Customers." This guidance clarifies the principles for recognizing revenue that (1) removes inconsistencies and weaknesses in revenue requirements, (2) provides a more robust framework for addressing revenue issues, (3) improves comparability of revenue recognition practices across entities, industries, jurisdictions, and capital markets, (4) provides more useful information to users of financial statements through improved disclosure requirements, and (5) simplifies the preparation of financial statements by reducing the number of requirements to which an entity must refer. In August 2015, the FASB issued ASU 2015-14, "Revenue from Contracts with Customers; Deferral of the Effective Date." This guidance defers the effective date of the original ASU. This guidance is now effective for the University beginning July 1, 2018. The University has not yet evaluated the impact this guidance may have on its consolidated financial statements.

In February 2015, the FASB issued ASU 2015-02, "Consolidation; Amendments to the Consolidation Analysis." This update provides enhanced guidance for entities to apply in performing consolidation analyses and was effective for the University beginning July 1, 2016. The adoption of this guidance did not have a material impact on the consolidated financial statements.

In July 2015, the FASB issued ASU 2015-11, "Inventory; Simplifying the Measurement of Inventory." This guidance requires entities to measure inventory within the scope of the update at the lower of cost and net realizable value. This guidance is effective for the University beginning July 1, 2017 with early adoption permitted. The University has not yet evaluated the impact this guidance may have on its consolidated financial statements.

In January 2016, the FASB issued ASU 2016-01, "Financial Instruments - Overall; Recognition and Measurement of Financial Assets and Financial Liabilities." This guidance addresses certain aspects of

recognition, measurement, presentation, and disclosure of financial instruments. This guidance is effective for the University beginning July 1, 2018. The University has not yet evaluated the impact this guidance may have on its consolidated financial statements.

In February 2016, the FASB issues ASU 2016-02, "Leases." This guidance requires substantial changes to lease accounting to increase transparency and comparability among organizations by recognizing lease assets and lease liabilities on the balance sheet and disclosing key information about leasing arrangements. The main difference between previous GAAP and this guidance is the recognition of lease assets and lease liabilities by lessees for those leases classified as operating under previous GAAP. This guidance is effective for the University beginning July 1, 2019 with early adoption permitted. The University has not yet evaluated the impact this guidance may have on its consolidated financial statements.

In August 2016, the FASB issued ASU 2016-14, "Not-for-Profit Entities; Presentation of Financial Statements of Not-for-Profit Entities." This guidance amends the requirements for financial statements and notes in Topic 958, Not-for-Profit Entities. The most significant amendment requires a not-for-profit entity ("NFP") to present on the face of the statement of financial position amounts for two classes of net assets at the end of the period, rather than for the currently required three classes. That is, an NFP will report amounts for net assets with donor restrictions and net assets without donor restrictions, as well as the currently required amount for total net assets. This guidance is effective for the University beginning July 1, 2018 with early adoption permitted. The University has not yet evaluated the impact this guidance may have on its consolidated financial statements.

In August 2016, the FASB issued ASU 2016-15, "Statement of Cash Flows; Classification of Certain Cash Receipts and Cash Payments." This update provides guidance on eight specific cash flows issues with the objective of reducing the existing diversity in practice. This guidance is effective for the University beginning July 1, 2018 with early adoption permitted. The University has not yet evaluated the impact this guidance may have on its consolidated financial statements.

In January 2017, the FASB issued ASU 2017-02, "Not-for-Profit Entities—Consolidation; Clarifying When a Not-for-Profit Entity That Is a General Partner or a Limited Partner Should Consolidate a For-Profit Limited Partnership or Similar Entity." This update amends the consolidation guidance in Subtopic 958-810, Not-for-Profit Entities—Consolidation, to clarify when a NFP that is a general partner or a limited partner should consolidate a for-profit limited partnership or similar legal entity once the amendments in ASU 2015-02 become effective. This guidance is effective for the University beginning July 1, 2017 with early adoption permitted. The University has not yet evaluated the impact this guidance may have on its consolidated financial statements.

In March 2017, the FASB issued ASU 2017-07, "Compensation – Retirement Benefits; Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost." This update requires that an employer report the service cost component in the same line items as other compensation costs arising from services rendered by the pertinent employees during the period. In addition, the other components of net benefit cost are required to be presented in the income statement separately from the service cost component and outside a subtotal of income from operations. This guidance is effective for the University beginning July 1, 2018 with early adoption permitted. The University has not yet evaluated the impact this guidance may have on its consolidated financial statements.

3. INVESTMENTS

Investments by major category as of June 30 are summarized as follows:

(in thousands of dollars)	<u>2017</u>	<u>2016</u>
Money markets Fixed income:	\$ 144,065	\$ 93,741
U.S. government/agency	1,030,281	1,158,474
U.S. corporate	972,121	908,609
Foreign	183,270	199,586
Other	228,070	243,678
Equities	1,911,096	1,566,626
Private capital	 1,573,841	 1,480,599
Total	\$ 6,042,744	\$ 5,651,313

Other fixed income investments consist of collateralized mortgage obligations, mortgage-backed securities and asset-backed securities. Equity investments are comprised of domestic and foreign common stocks. Private capital consists primarily of interests in private real estate, venture capital, private equity, natural resources, private debt, commodities and hedge fund limited partnerships.

Futures contracts, which are fully cash collateralized, comprise the University's beneficially held derivative instruments at June 30, 2017 and 2016, are marked to market daily, and are included in the fair value of the University's investments. The fair value of derivative instruments is included in the fair value of the University's investments within the money market category. Futures contracts have minimal credit risk because the counterparties are the exchanges themselves. Fully cash collateralized derivative securities comprised \$5.2 million, 0.09% of total investments, and \$4.4 million, 0.08% of total investments at June 30, 2017 and 2016, respectively. The University's derivatives consist of S&P 500 futures at June 30, 2016 and are employed as a low cost, passive investment vehicle with daily liquidity which allows the University to maintain desired market exposure in light of irregular cash flows.

The following schedules summarize the investment return and its classification in the consolidated statement of activities for the years ended June 30:

(in thousands of dollars) 2017	<u>U</u>	nrestricted		mporarily estricted		ermanently Restricted		<u>Total</u>
Dividends and interest Net realized gains Net unrealized gains Total returns	\$ <u>\$</u>	162,885 82,810 78,072 323,767	\$	1,046 43,339 93,222 137,607	\$ <u>\$</u>	9,056 - - - 9,056	\$	172,987 126,149 171,294 470,430
(in thousands of dollars) 2016	<u>U</u>	nrestricted		mporarily estricted		ermanently Restricted		<u>Total</u>
Dividends and interest Net realized gains (losses) Net unrealized losses Total returns	\$	111,156 62,289 (88,078) 85,367	\$ <u>\$</u>	1,937 (17,965) (96,547) (112,575)	\$ <u>\$</u>	10,020 - - - 10,020	\$ <u>\$</u>	123,113 44,324 (184,625) (17,188)

4. ENDOWMENT NET ASSETS

The University's endowment includes both donor-restricted endowment funds and funds designated to function as endowments. As required by GAAP, net assets associated with endowment funds, including funds designated to function as endowments, are classified and reported based on the existence or absence of donor-imposed restrictions.

The ASC Not-for-Profit Entities Presentation of Financial Statements Subtopic (ASC Subtopic 958-205) provides guidance on the net asset classification of donor-restricted endowment funds for not-for-profit organizations subject to an enacted version of the Uniform Prudent Management of Institutional Funds Act ("UPMIFA") and improves disclosure about an organization's endowment funds regardless of whether the organization is subject to UPMIFA. The Commonwealth of Pennsylvania has not adopted UPMIFA but rather has enacted Pennsylvania Act 141 ("PA Act 141"). PA Act 141 permits an organization's trustees to define income as a stipulated percentage of endowment assets (between 2% and 7% of the fair value of the assets averaged over a period of at least three preceding years) without regard to actual interest, dividend, or realized and unrealized gains.

The University has interpreted PA Act 141 to permit the University to spend the earnings of its endowment based on a total return approach, without regard to the fair value of the original gift. As a result of this interpretation, the University classifies as permanently restricted net assets the original value of gifts donated to the permanent endowment, the original value of subsequent gifts to the permanent endowment, and accumulations to the permanent endowment made in accordance with the direction of the applicable donor gift instrument at the time the accumulation is added to the fund. Funds functioning as endowments are established at the direction of University management and are classified as unrestricted net assets due to the lack of external donor restrictions. Gains and losses attributable to permanent endowments are recorded as temporarily restricted net assets and gains and losses attributable to funds functioning as endowments are recorded as unrestricted net assets.

From time to time, due to unfavorable market fluctuations, the fair value of some assets associated with individual donor-restricted endowment funds may fall below the level that donors require to be retained as a perpetual fund, while other assets are unaffected to the same extent and maintain or exceed the level required. The aggregate amount of deficiencies at June 30, 2017 and 2016 was \$1.3 million and \$7.4 million, respectively, reported in unrestricted net assets on the consolidated statement of activities. Subsequent investment gains will be used to restore the balance up to the fair market value of the original gift. Subsequent gains above that amount will be recorded as temporarily restricted net assets.

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

(in thousands of dollars) 2017	<u>U</u>	nrestricted	emporarily estricted	F	Permanently <u>Restricted</u>	<u>Total</u>
Donor-restricted endowment funds Funds functioning as	\$	(1,299)	\$ 521,602	\$	1,424,224	\$ 1,944,527
endowments		651,647	 	_		 651,647
Total net assets	\$	650,348	\$ <u>521,602</u>	\$	1,424,224	\$ 2,596,174
(in thousands of dollars) 2016	<u>U</u>	nrestricted	emporarily estricted	F	Permanently Restricted	<u>Total</u>
Donor-restricted endowment funds Funds functioning as	\$	(7,353)	\$ 398,384	\$	1,330,966	\$ 1,721,997
endowments		594,587	 <u>-</u>		<u>-</u>	594,587
Total net assets	\$	587,234	\$ 398,384	\$	1,330,966	\$ 2,316,584

Changes in endowment net assets for the years ended June 30:

(in thousands of dollars) 2017	<u>U</u>	Inrestricted		emporarily <u>estricted</u>	I	Permanently <u>Restricted</u>		<u>Total</u>
Endowment net assets, beginning of the year Endowment return:	\$	587,234	\$	398,384	\$	1,330,966	\$	2,316,584
Endowment earnings Net realized gains Net unrealized gains Reclassification of funds		22,650 89,401 27,652		20 41,482 87,277		3,398 - -		26,068 130,883 114,929
with deficiencies Total endowment return Contributions Endowment spending		6,054 145,757 - (98,521)		(6,054) 122,725 493		3,398 89,860	_	271,880 90,353 (98,521)
Transfers to create funds functioning as endowments Endowment net assets, end of the year	<u> </u>	15,878 650,348	<u> </u>	<u>-</u> 521,602	<u> </u>			15,878 2,596,174
end of the year	Φ	030,340	Ψ	321,002	Φ	1,424,224	Ψ	2,390,174
(in thousands of dollars)			т.			D = === = = = +l		
(in thousands of dollars) 2016	<u>U</u>	Inrestricted		emporarily estricted	ı	Permanently <u>Restricted</u>		<u>Total</u>
2016 Endowment net assets, beginning of the year	<u>U</u> \$	Inrestricted 618,419			\$	•	\$	<u>Total</u> 2,368,790
2016 Endowment net assets, beginning of the year Endowment return: Endowment earnings Net realized gains (losses) Net unrealized losses			<u>R</u>	<u>estricted</u>		Restricted	\$	
2016 Endowment net assets, beginning of the year Endowment return: Endowment earnings Net realized gains (losses) Net unrealized losses Reclassification of funds with deficiencies Total endowment return Contributions		618,419 25,820 63,939 (30,090) (5,899) 53,770	<u>R</u>	500,533 19 (17,736)		1,249,838	\$	2,368,790 29,566 46,203 (121,921) - (46,152) 78,901
2016 Endowment net assets, beginning of the year Endowment return: Endowment earnings Net realized gains (losses) Net unrealized losses Reclassification of funds with deficiencies Total endowment return		618,419 25,820 63,939 (30,090) (5,899)	<u>R</u>	500,533 19 (17,736) (91,831) 5,899 (103,649)		1,249,838 3,727	\$	2,368,790 29,566 46,203 (121,921) - (46,152)

Not included above are the endowment net assets of subsidiaries of \$18.1 million and \$14.7 million as of June 30, 2017 and 2016, respectively.

The University has adopted investment and spending policies for endowment assets that attempt to provide a relatively predictable stream of funding to programs supported by its endowment while seeking to maintain, over time, the purchasing power of the endowment assets. The overall management objective for the University's pooled endowment funds is to preserve or grow the real (inflation-adjusted) purchasing power of the assets through a prudent long-term investment strategy. This objective would be achieved on a total return basis. Under these policies, as approved by the Board of Trustees and the Penn State Investment Council, the primary investment objective of the University's pooled endowment is to attain a real total return (net of investment management fees) that at least equals a total annual effective spending rate of 5.25% (program spending of 4.5% plus administrative costs of 0.75%) over the long term.

To satisfy its long-term rate-of-return objectives, the University relies on a total return strategy in which investment returns are achieved through both capital appreciation (realized and unrealized) and current yield (interest and dividends). The University targets diversified asset allocation that places a greater emphasis on equity-based investments to achieve its long-term return objectives within prudent risk constraints. The endowment assets of the University are invested in a broad range of equities and fixed income securities, thereby limiting the market risk exposure in any one institution or individual investment.

The University has a policy of appropriating for distribution each year a certain percentage (4.5% for 2017 and 2016) of its pooled endowment fund's average fair market value over the prior five years preceding the fiscal year in which the distribution is planned. Accordingly, over the long term, the University expects the current spending policy to allow its endowment to provide generous current spending while preserving "intergenerational equity". This is consistent with the University's objective to maintain the purchasing power of the endowment assets held in perpetuity as well as to provide additional real growth through new gifts and investment returns.

5. FAIR VALUE MEASUREMENTS

The University utilizes the following fair value hierarchy, which prioritizes into three broad levels the inputs to valuation techniques used to measure fair value:

- Level 1 Quoted prices (unadjusted) for identical assets or liabilities in active markets as of the measurement date. Such instruments valued at Level 1 primarily consist of securities that are directly held and actively traded in public markets.
- Level 2 Inputs other than unadjusted quoted prices that are observable for the asset or liability, directly or indirectly, including quoted prices for similar assets or liabilities in active markets, inputs other than quoted prices that are observable for the asset or liability, and inputs that are derived from observable market data by correlation or other means.
- Level 3 Unobservable inputs that cannot be corroborated by observable market data.

In instances in which the inputs used to measure fair value fall into different levels of the fair value hierarchy, the fair value measurement has been determined based on the lowest level input that is significant to the fair value measurement in its entirety. The University's assessment of significance of a particular item to the fair value measurement in its entirety requires judgment, including consideration of inputs specific to the asset.

The following table presents information as of June 30, 2017 about the University's financial assets and liabilities that are measured at fair value on a recurring basis:

(in thousands of dollars)	Ad	oted Prices in ctive Markets For Identical Assets Level 1		Significant Other Observable Inputs Level 2		Significant nobservable Inputs Level 3	<u> </u>	Total Fair Value
Assets:								
Long-term Investment Pool:	•	400.000	•		•		•	
Money markets	\$	128,632	\$	-	\$	-	\$	128,632
Fixed income		05 004		00 407				405 400
U.S. government/agency		85,021		80,107		-		165,128
U.S. corporate Foreign		-		243,578 86,431		-		243,578 86,431
Other		_		32,905		_		32,905
Equities		1,102,498		52,905		_		1,102,498
Total	\$	1,316,151	\$	443,021	\$	_	\$	1,759,172
Operating investments:								
Money markets	\$	15,424	\$	9	\$	-	\$	15,433
Fixed income								
U.S. government/agency		633,619		231,535		-		865,154
U.S. corporate		82,513		646,029		-		728,542
Foreign		11,948		84,892		-		96,840
Other		20,031		175,134		<u>-</u>		195,165
Equities		146,726	_	16		4,688		151,430
Total	\$	910,261	\$	1,137,615	\$	<u>4,688</u>	<u>\$</u>	2,052,564
Deposits held by bond trustees:	Φ.	470.054	Φ.		Φ.		Φ.	470.054
Money markets	\$	178,954	\$	-	\$	-	\$	178,954
Fixed income								
U.S. government/agency Total	\$	<u>-</u> 178,954	\$	-	\$	_	\$	178,954
lotai	Ψ	176,934	Ψ	<u>-</u>	Φ		Φ	170,934
Beneficial interest in perpetual								
trusts	\$	-	\$	-	\$	19,854	\$	19,854
<u>Liabilities</u> :								
Present value of annuities								
payable	\$	-	\$	-	\$	58,070	\$	58,070

The following table presents information as of June 30, 2016 about the University's financial assets and liabilities that are measured at fair value on a recurring basis:

(in thousands of dollars)	A	oted Prices in ctive Markets For Identical Assets Level 1		Significant Other Observable Inputs <u>Level 2</u>		Significant nobservable Inputs <u>Level 3</u>		Total <u>Fair Value</u>
Assets: Long-term Investment Pool:								
Money markets	\$	84,516	\$	-	\$	-	\$	84,516
Fixed income				4=004				
U.S. government/agency		284,969		15,881		-		300,850
U.S. corporate		-		190,065		-		190,065
Foreign		-		115,349		-		115,349
Other		922.042		40,035		-		40,035
Equities Total	\$	823,912 1,193,397	\$	102,341 463,671	\$	_	\$	926,253 1,657,068
lotai	Φ	1,193,391	Ψ	403,071	Ψ	<u>-</u>	Ψ	1,007,000
Operating investments:								
Money markets	\$	9,215	\$	10	\$	-	\$	9,225
Fixed income		•						•
U.S. government/agency		615,449		242,175		-		857,624
U.S. corporate		79,241		639,303		-		718,544
Foreign		11,272		72,965		-		84,237
Other		25,114		178,529		-		203,643
Equities		127,318		59		4,214		131,591
Total	\$	867,609	\$	1,133,041	\$	4,214	\$	2,004,864
Deposits held by bond trustees:	Φ	400.000	Φ		Φ		Φ	400.000
Money markets	\$	130,639	\$	-	\$	-	\$	130,639
Fixed income				440				440
U.S. government/agency Total	\$	130,639	\$	448 448	\$	<u>=</u>	\$	448 131,087
lotai	Φ	130,039	Ψ	440	Φ		Φ	131,001
Beneficial interest in perpetual								
trusts	\$	_	\$	_	\$	14,558	\$	14,558
	•		*		•	,	•	,
<u>Liabilities</u> :								
Present value of annuities								
payable	\$	-	\$	-	\$	53,859	\$	53,859

The fair value tables above exclude investments of \$2,231.0 million and \$1,989.4 million as of June 30, 2017 and 2016, respectively, which are measured at NAV and are not classified in the fair value hierarchy.

The Long-term Investment Pool (LTIP) is a mutual fund-like vehicle used for investing the University's endowment funds, funds functioning as endowments, and other operating funds that are expected to be held long-term. A share method of accounting for the LTIP is utilized by the University. Each participating fund enters into and withdraws from the LTIP based on monthly share values. At June 30, 2017 and 2016, fair value of endowment funds and funds functioning as endowments within the LTIP totaled \$2,615.6 million and \$2,362.2 million, respectively. At June 30, 2017 and 2016, fair value of operating funds included in the LTIP totaled \$1,370.9 million and \$1,280.0 million, respectively.

The following tables present information related to changes in Level 3 for each category of financial assets and liabilities for year ended June 30, 2017:

(in thousands of dollars)		Operating		eneficial terest in
	<u> </u>	<u>nvestments</u>	Perpe	etual Trusts
Assets:			<u> </u>	
Beginning balance	\$	4,214	\$	14,558
Total realized and unrealized	•	,	·	,
gains		540		5,296
Sales		(66)		-,
Ending balance	\$	4,688	\$	19,854
	D	resent Value		
	-	of Annuities		
	,			
Lighilities		<u>Payable</u>		
<u>Liabilities:</u>	Φ	50.050		
Beginning balance	\$	53,859		
Actuarial adjustment of liability		3,460		
Gifts		3,144		
Sales		(2,393)		
Ending balance	\$	<u>58,070</u>		

The following tables present information related to changes in Level 3 for each category of financial assets and liabilities for year ended June 30, 2016:

(in thousands of dollars)		Operating vestments	ln	eneficial terest in etual Trusts
Assets: Beginning balance	\$	5,779	\$	15,471
Total realized and unrealized gains (losses)		502		(913)
Purchases		599		-
Sales		(2,666)		- 44.550
Ending balance	<u>\$</u>	<u>4,214</u>	\$	<u>14,558</u>
Lighilitiage	of	esent Value Annuities Payable		
<u>Liabilities:</u> Beginning balance	\$	48,721		
Actuarial adjustment of liability	•	(1,556)		
Gifts		6,886		
Sales Ending balance	Φ	(192 <u>)</u> 53,859		
Lituing balance	Ψ	33,033		

There were no transfers of assets between Level 3 and Level 2 and between Level 1 and Level 2 in 2017 and 2016.

The following table presents the fair value and redemption frequency for those investments whose fair value is not readily determinable and is estimated using the net asset value per share or its equivalent as of June 30, 2017 and 2016:

		Fair	Value	Ð		Infunded mmitments At	Redemption	Redemption
(in thousands of dollars)		<u>2017</u>		<u>2016</u>	<u>Jun</u>	e 30, 2017	<u>Frequency</u>	Notice Period
Commingled Funds: Non-U.S. Equity Subtotal	<u>\$</u>	627,998 627,998	<u>\$</u> \$	508,782 508,782			Quarterly/ Daily/Monthly	5-90 days
Marketable Investment Partnerships:								
Absolute Return	\$	56,471	\$	30,811			Quarterly Quarterly/	60 days
Distressed Debt		60,406		53,557			Semi Annual	60-90 days
Commodities		126,846		94,795			Monthly	30-60 days
Opportunistic		123,387		186,635			Quarterly	30 days
Directional Long/Short		289,472		287,482			Monthly	30 days
Subtotal	\$	656,582	\$	653,280				
Non-Marketable Investment Partnerships:								
Private Real Estate	\$	83,925	\$	97,089	\$	39,566		
Venture Capital		323,408		271,898		168,357		
Private Equity		297,386		248,969		262,795		
Natural Resources		130,146		116,307		66,729		
Private Debt		111,563		93,056		166,911		
Subtotal	\$	946,428	\$	<u>827,319</u>	\$	704,358		
Total	\$	2,231,008	\$	1,989,381	\$	704,358		

Commingled Funds include investments that aggregate assets from multiple investors and are managed collectively following a prescribed strategy. Redemptions vary from daily to quarterly with required notification of 90 days or less. The non-U.S. equity strategy is invested in developed and developing countries outside of the United States, and spans the entire equity capitalization spectrum. These collective portfolios preclude the need to obtain securities registration in foreign countries.

Marketable Investment Partnerships include several hedge funds whose underlying positions are traded via public securities markets. Liquidity terms range from quarterly to annually with advance notification for redemption ranging from 30 to 90 days. The fair values of the investments for each fund in this category have been estimated using the net asset value of the LTIP's share holdings in the fund. Five major investment strategies are included within this category. Absolute Return refers to relative value strategies. Directional refers to equity long/short strategies in both U.S. and non-U.S. markets. Opportunistic refers to global multistrategy. Distressed Debt refers to securities rated below investment grade, along with non-rated debt. Commodities refer to publicly traded commodity instruments primarily including futures and options.

Nonmarketable Investment Partnerships include limited partnership interests in a variety of illiquid investments. The fair values of the investments for each fund in this category have been estimated using the net asset value of the LTIP's ownership interest in partner's capital and cannot be redeemed. Realizations from each fund are received as the underlying investments are liquidated or distributed, typically within 10 years after initial commitment. Unfunded commitments represent remaining commitments of the LTIP's drawdown funds as of June 30, 2017. Five major investment strategies are included within this category. Private Real Estate includes properties primarily located in the U.S. Venture Capital includes non-public startups and enterprises in early stages of growth located globally. Private Equity includes buyouts of previously public companies as well as enterprises that are planning to go public in the near future, including funds focusing on opportunities outside the U.S. Natural Resources largely include companies primarily

involved in oil and natural gas in addition to a variety of other natural resources. Private Debt includes global private credit securities rated below investment grade as well as non-rated debt.

6. CONTRIBUTIONS RECEIVABLE

Contributions receivable are summarized as follows as of June 30:

(in thousands of dollars)	<u>2017</u>	<u>2016</u>
In one year or less	\$ 66,076	\$ 59,567
Between one year and five years	78,025	63,646
More than five years	 112,650	 113,277
Contributions receivable, gross	256,751	236,490
Less allowance	(4,299)	(4,065)
Less discount	 (51,394)	 (52,872)
Contributions receivable, net	\$ 201,058	\$ 179,553

Contributions received during the years ended June 30, 2017 and 2016 are discounted at rates ranging from 1.24% to 2.46% and 0.45% to 1.69%, respectively. The discount rates for prior periods ranged from 0.11% to 6.28%.

At June 30, 2017 and 2016, the University has received bequest intentions and certain other conditional promises to give of \$103.3 million and \$97.7 million, respectively. These intentions and conditional promises to give are not included in the consolidated financial statements.

The following table summarizes the change in contributions receivable, net during the year ended June 30, 2017:

	(in thousands of dollars)		
Balance at the beginning of year	\$	179,553	
New pledges		97,203	
Collections on pledges		(76,942)	
Increase in allowance		(234)	
Decrease in unamortized discounts		1,478	
Balance at the end of year	\$	201,058	

7. LONG-TERM DEBT

The various bond issues, notes payable and capital lease obligations that are included in long-term debt in the statements of financial position consist of the following at June 30:

(in thousands of dollars)	<u>2017</u>	<u>2016</u>	
The Pennsylvania State University Bonds Series 2017A Series 2017B Series 2016A Series 2016B Series 2015A Series 2015B Series 2010 Series 2009B Series 2008B Series 2007B Refunding Series 2002	\$ 157,080 125,000 122,165 229,775 63,780 108,000 131,380 74,235	\$ - 122,165 229,775 65,210 111,580 135,035 74,235 1,050 54,415 4,835	
Pennsylvania Higher Educational Facilities Authority University Revenue Bonds (issued for The Pennsylvania State University) Series 2006 Series 2004 Series 2002	2,655 2,840 2,435	2,890 3,125 2,860	
Lycoming County Authority College Revenue Bonds (issued for Penn College) Series 2016 Series 2015 Series 2012 Series 2011 Series 2008	54,190 6,390 24,275 37,810	7,660 24,685 37,880 55,000	
Total bonds payable Unamortized bond premiums Unamortized deferred bond costs	1,193,075 142,442 (5,952)	932,400 118,332 (5,267)	
Notes payable and capital leases Notes payable Capital lease obligations	26,983 112,845	29,000 96,811	
Total notes payable and capital leases	139,828	125,811	
Total long-term debt	<u>\$ 1,469,393</u>	<u>\$ 1,171,276</u>	

(in the	ment ranges and maturity ousands of dollars)				
The Pennsylvania State University Bonds \$2,400 to \$5,965 through September 2037 with					
	750 and \$44,620 due September 2042 and				
	tember 2047, respectively.				
\$2,01 **Code:	60 to \$3,830 through September 2032 with				
	305 and \$56,595 due September 2037 and				
	ember 2047, respectively				
·	85 to \$6,465 through September 2036 with				
	520 due September 2041				
	65 to \$22,195 through September 2036				
	60 to \$3,445 through September 2035 with				
	000 due September 2040				
	65 to \$8,435 through September 2035				
	00 to \$6,595 through March 2030 with				
	805 and \$44,245 due March 2035 and				
	ch 2040, respectively				
Series 2009B Variable 1.05% June	2031				
Series 2007B Fixed 5.25% \$3,5	20 to \$5,955 through August 2027				
Pennsylvania Higher Educational Facilities Authority ("PHEFA") University Revenue Bonds \$245 to \$280 through September 2020 with					
	10 due September 2025				
	to \$325 through September 2019 with				
	05 due September 2024				
	35 due March 2022				
*Annual interest costs to the University for interest rates greater the					
7 tillidal interest oosts to the offiversity for interest rates greater to	narr 6.00% are substated by Trief A.				
Lycoming County Authority College Revenue Bonds					
	45 to \$3,615 through October 2032 with				
	345 due October 2037				
	5 to \$1,590 through January 2025				
	20 to \$1,170 through May 2020 with \$2,565,				
	95 and \$12,045 due May 2022, May 2026				
Series 2012 Fixed 2.00% - 5.00% and	May 2032, respectively				
	65 to \$1,850 through July 2021 with				
\$1,50					

The Series 2017A Bonds are general obligation bonds issued in April 2017 for the purpose of financing various construction and renovation projects. The Series 2017A Bonds are subject to early redemption provisions, at the option of the University, beginning September 2027. The bonds maturing in September 2042 are subject to mandatory sinking fund redemption.

The Series 2017B Bonds are taxable general obligation bonds issued in April 2017 for the purpose of financing the general corporate purposes of the University. The Series 2017B Bonds are subject to early redemption provisions, at the option of the University, in order of their maturity, at the make-whole redemption price. The bonds maturing in September 2037 are subject to mandatory sinking fund redemption.

The Series 2016 Bonds are Lycoming County Authority (the "Authority") College Revenue Bonds issued by Penn College in August 2016 for the purpose of refunding \$55.0 million of the Authority's College Revenue Bond Series 2008. The Series 2008 Bonds were paid in full during the year ended June 30, 2017.

The Series 2009B Bonds are currently paying interest on a variable rate basis at a long term rate for the period June 1, 2017 through May 31, 2018. The University has the option to convert to another variable rate (daily,

weekly, monthly or flexible) or to a fixed rate basis (such rates are generally determined on a market basis) at respective conversion dates. The bonds currently pay interest at 1.05% with adjustment on the respective date to the rate the remarketing agent believes will cause the bonds to have a market value equal to the principal. The 2009B bondholders have the right to tender bonds on the purchase dates while such bonds bear interest at the daily, weekly or monthly rate. The 2009B Bonds were issued subject to the self-liquidity program established by the University on the date of issuance pursuant to which the University will provide liquidity for the 2009B Bonds from its general funds in the event of insufficient remarketing proceeds.

The University has complied with all financial debt covenants for the years ended June 30, 2017 and 2016.

Maturities and sinking fund requirements on bonds payable for each of the next five fiscal years and thereafter are summarized as follows:

<u>Year</u>	<u>Ins</u>	Annual Installments (in thousands of dollars)		
2018 2019 2020 2021 2022 Thereafter	\$	28,490 35,825 37,785 39,455 41,315 1,010,205		
	\$ 1	1,193,075		

The fair value of the University's bonds payable is estimated based on current rates offered for similar issues with similar security, terms and maturities using available market information as supplied by the various financial institutions who act as trustees or custodians for the University. At June 30, 2017, the carrying value and estimated fair value of the University's bonds payable, including issuance premiums and deferred bond costs, are \$1,329.6 million and \$1,337.5 million, respectively. At June 30, 2016, the carrying value and estimated fair value of the University's bonds payable, including issuance premiums and deferred bond costs, were \$1,045.5 million and \$1,102.6 million, respectively. Certain bond issues have associated issuance premiums; these issuance premiums total \$142.4 million and \$118.3 million at June 30, 2017 and 2016, respectively and are presented within the statement of financial position as long-term debt. These issuance premiums will be amortized over the term of the respective outstanding bonds. Certain bond issues have associated deferred bond costs; these deferred bond costs total \$6.0 million and \$5.3 million at June 30, 2017 and 2016, respectively and are presented within the statement of financial position as a reduction in long-term debt. These deferred bond costs will be amortized over the term of the respective outstanding bonds.

Notes payable and capital leases

The University has three notes payable included within the consolidated statements of financial position at June 30, 2017 with balances of \$8.0 million, \$9.0 million, and \$10.0 million. These notes have payments due annually through June 2024, June 2025, and March 2026 and bear interest at 2.60%, 2.85%, and 2.80%, respectively. The current portion of payments due under these notes totals \$2.4 million at June 30, 2017.

The University has certain building and equipment lease agreements in effect which are considered capital leases. Future minimum lease payments under capital leases together with the present value of the net minimum lease payments as of June 30, 2017 are as follows:

<u>Year</u>	(in thou	(in thousands of dollars)		
2018	\$	19,521		
2019		17,824		
2020		14,723		
2021		12,361		
2022		10,192		
Thereafter		139,571		
Total minimum lease payments		214,192		
Less imputed interest		(101,347)		
Capital lease obligation		112,845		
Current portion		12,325		
Long-term portion	\$	100,520		

8. OPERATING LEASES

The University has certain lease agreements in effect which are considered operating leases. During the year ended June 30, 2017, the University recorded expenses of \$23.6 million for leased equipment and \$30.5 million for leased building space. During the year ended June 30, 2016, the University recorded expenses of \$22.0 million for leased equipment and \$27.7 million for leased building space.

Future minimum lease payments under operating leases as of June 30, 2017 are as follows:

<u>Year</u>	(in thousands of dollars)		
2018 2019	\$	27,306 22,141	
2020		17,277	
2021 2022		11,884 9,835	
Thereafter		34,901	
Total minimum lease payments	\$	123,344	

9. RETIREMENT BENEFITS

The University provides retirement benefits for substantially all regular employees, primarily through either contributory defined benefit plans administered by the Commonwealth of Pennsylvania State Employees' Retirement System ("SERS") and The Public School Employees' Retirement System or defined contribution plans administered by the Teachers Insurance and Annuity Association – College Retirement Equity Fund and Fidelity Investments. The University is billed for its share of the estimated actuarial cost of the defined benefit plans (\$104.9 million and \$85.9 million for the years ended June 30, 2017 and 2016, respectively). The University's total cost for retirement benefits, included in expenses, is \$246.3 million and \$219.4 million for the years ended June 30, 2017 and 2016, respectively.

The SERS is the administrator of a cost-sharing, multi-employer retirement system established by the Commonwealth of Pennsylvania to provide pension benefits for employees of state government and certain independent agencies. As provided by statute, the SERS Board of Trustees has exclusive control and management responsibility of the funds and full power to invest the funds. The SERS funding policy provides for periodic member contributions at statutory rates and employer contributions at actuarially determined rates (expressed as a percentage of annual gross pay) that are sufficient to accumulate assets to pay benefits when due. The University's contributions to this plan for the years ended June 30, 2017 and 2016 were \$102.6 million and \$84.1 million, respectively, and represent approximately 5.7% of total contributions to the plan

based on projections for fiscal year 2017. The plan is funded at less than 65% with the funded ratio of the plan at 58.1% as of December 31, 2016.

10. POSTRETIREMENT BENEFITS

The University sponsors a retiree medical plan covering eligible retirees and eligible dependents. This program includes a Preferred Provider Organization ("PPO") plan (both a traditional and a qualified high deductible option) for retirees and their dependents who are not eligible for Medicare, and a Medicare Advantage PPO plan. In addition, the University provides certain retiree life insurance benefits to the retiree.

Employees who were hired prior to January 1, 2010 are eligible for medical coverage after they retire if either of the following requirements are satisfied:

- they are at least age 60 and have at least 15 years of regular full-time employment and participation in a University-sponsored medical plan immediately preceding the retirement date
- regardless of age, if they have at least 25 years of regular full-time service. The last 10 of those 25 years of University service must be continuous and they must participate in a University-sponsored medical plan during the last 10 years immediately preceding the retirement date.

Effective January 1, 2016, any non-union employee who retires on or before December 31, 2020 will receive a \$5,000 term life insurance policy benefit at no cost to the employee. If a non-union employee retires after December 31, 2020, no life insurance benefit is provided. For union employees, a \$5,000 term life insurance policy is provided at no cost to the employee regardless of their retirement date.

The retiree PPO medical plan and the life insurance coverage are self-funded programs, and all medical claims, death benefits and other expenses are paid from the unrestricted net assets of the University. The Medicare Advantage PPO plan is fully-insured. The retirees pay varying amounts for coverage under the medical plan.

For those employees who were hired after December 31, 2009, the University will contribute funds each month on their behalf to a Retirement Healthcare Savings Plan. This plan is designed to help pay for qualified medical and health-related expenses in retirement, including the purchase of a health insurance policy.

Retirees will be eligible to access their Retirement Healthcare Savings Plan account when they are no longer actively employed at Penn State and have satisfied either of the following requirements:

- completed 25 years of continuous full-time service and are age 60 or older
- completed a minimum of 15 years of continuous full-time service and are age 65 or older.

Included in unrestricted net assets at June 30, 2017 and 2016 are the following amounts that have not yet been recognized in net periodic postretirement cost: unrecognized prior service cost (benefit) of (\$8.5) million and (\$21.0) million and unrecognized actuarial loss of \$707.6 million and \$669.1 million, respectively.

The following sets forth the plan's benefit obligation, plan assets and funded status reconciled with the amounts recognized in the University's consolidated statements of financial position at June 30:

(in thousands of dollars)	<u>2017</u>		<u>2016</u>
Benefit obligation at beginning of year Service cost Interest cost Actuarial loss (gain) Benefits paid Plan amendment Plan assumptions	\$ 2,148,522 50,368 90,719 33,287 (51,860) (6,845) 54,271	\$	2,091,086 44,524 88,671 (199,832) (45,490) - 169,563
Benefit obligation at end of year	\$ 2,318,462	\$	2,148,522
Change in plan assets: (in thousands of dollars)	<u>2017</u>		<u>2016</u>
Fair value of plan assets at beginning of year Employer contributions Benefits paid	\$ 51,860 (51,860)	\$	- 45,490 (45,490)
Fair value of plan assets at end of year	\$ 	<u>\$</u>	<u> </u>
Funded status Unrecognized prior service cost (benefit) Unrecognized net actuarial loss Accrued postretirement benefit expense	\$ (2,318,462) - - (2,318,462)	\$	(2,148,522) - - - (2,148,522)

Net periodic postretirement cost includes the following components for the years ended June 30: (in thousands of dollars)

	<u>2017</u>	<u>2016</u>
Service cost	\$ 50,368	\$ 44,524
Interest cost	90,719	88,671
Amortization of prior service cost	(19,392)	(21,849)
Amortization of unrecognized net loss	 48,990	 33,222
Net periodic postretirement cost	\$ 170,685	\$ 144,568

The assumed healthcare cost trend rate used in measuring the accumulated postretirement benefit obligation was 7.50% and 7.00% for the years ended June 30, 2017 and 2016, respectively, reduced each year to an ultimate level of 5.00%. The postretirement benefit obligation discount rate was 4.21% for the years ended June 30, 2017 and 2016.

If the healthcare cost trend rate assumptions were increased by 1% in each year, the accumulated postretirement benefit obligation would be increased by \$498.4 million and \$461.2 million as of June 30, 2017 and 2016, respectively. The effect of this change on the sum of the service cost and interest cost components of the net periodic postretirement benefit cost would be an increase of \$35.5 million and \$32.4 million as of June 30, 2017 and 2016, respectively. If the healthcare cost trend rate assumptions were decreased by 1% in each year, the accumulated postretirement benefit obligation would be decreased by \$384.9 million and \$360.2 million as of June 30, 2017 and 2016, respectively. The effect of this change on the sum of the service cost and interest cost components of the net periodic postretirement benefit cost would be a decrease of \$26.6 million and \$24.4 million as of June 30, 2017 and 2016, respectively.

Gains and losses in excess of 10% of the accumulated postretirement benefit obligation are amortized over the average future service to assumed retirement of active participants.

Postretirement benefits expected to be paid for the years ended June 30 are as follows:

	(in thousands of dollars)
2018	\$ 56,467
2019	61,610
2020	66,645
2021	77,020
2022	77,599
2023-27	477,063

11. PENN STATE HEALTH

Penn State Health was organized exclusively for the charitable, educational, and scientific purposes as defined and limited by Section 501(c)(3) of the Internal Revenue Code of 1986. The Health System's purpose is to promote, support and further the charitable, educational, and scientific purposes of the University. The Health System is controlled by and affiliated with the University. During 2015, the Health System was organized, with the University as the sole owner, to provide oversight and governance of an expanded health enterprise. The Health System will own, in whole or in part, health care facilities which could include hospitals, surgery centers, home health providers and similar organizations.

Medical Center

In May 2016, the ownership of TMSHMC transferred from the University to the Health System. TMSHMC is a 532-bed, not-for-profit acute care academic medical center located in Hershey, Pennsylvania. The University retains ownership of the buildings and land occupied by TMSHMC, which is co-located with the University's College of Medicine. The clinical facilities of the Medical Center complex are leased to TMSHMC. TMSHMC makes certain payments to support the College of Medicine.

Nittany Health

In January 2016, the ownership of Nittany Health transferred from the University to the Health System. Nittany Health is a corporate investor in healthcare joint ventures, which are supportive of the missions of the Health System. Nittany Health's objectives are consistent with the strategic objective to extend the range of healthcare services offered by and through the Health System over a broader geographic region. Nittany Health was organized in 1995 for the purpose of organizing components of an integrated health care delivery system. Nittany Health recorded non-controlling interest related to the acquisition of additional ownership interest in a joint venture. This non-controlling interest is recorded in net assets within the consolidated statements of financial position with a value at June 30, 2017 and 2016 of \$4,609,000 and \$3,687,000, respectively.

Saint Joseph's Regional Health Network and Medical Group

In July 2015, the Health System acquired SJRHN/SJMG. SJRHN/SJMG is a 144-bed, not-for-profit acute care hospital that provides inpatient, outpatient, and emergency care services to the Berks County Region.

Pursuant to the Health System's purchase accounting for acquisitions policy, the total purchase for SJRHN/SJMG was allocated to both tangible/intangible assets and liabilities based upon their estimated fair values. There was no goodwill associated with this transaction.

The following represents the allocation of the purchase price for the acquisition, as described above (in thousands):

Net accounts receivable	\$ 26,042
Property, plant & equipment	104,446
Intangible assets	1,489
Other assets	21,975
Liabilities assumed	(24,812)
Temporarily restricted net assets	(4,730)
Permanently restricted net assets	(10,862)
Total net assets acquired	\$113,548

Total purchase price \$113,548

Penn State Community Medical Group

In February 2017, the Health System established the Penn State Community Medical Group, LLC ("PSCMG"). The purpose of PSCMG is to extend the ambulatory clinical footprint of the Health System into broader geographic regions. PSCMG became active on October 1, 2017.

12. CONTINGENCIES AND COMMITMENTS

Contractual Obligations

The University has contractual obligations for the construction of new buildings and for additions to existing buildings in the amount of \$1,313.8 million of which \$951.7 million has been paid or accrued as of June 30, 2017. The contract costs are being financed from available resources and from borrowings.

Letters of Credit

The University has available letters of credit in the amount of \$25.7 million and \$23.9 million as of June 30, 2017 and 2016, respectively. These letters of credit are used primarily to comply with minimum state and federal regulatory laws that govern various University activities. The fair value of these letters of credit approximates contract values based on the nature of the fee arrangements with the issuing banks.

Guarantees

The University has a contract with a third party whereby the third party acts as an agent of the University in connection with procurement of electricity. The University guarantees the payment of the obligations of the third party incurred on behalf of the University to counterparties. No liabilities related to guarantees have been recorded as of June 30, 2017.

Self-Insurance

The University has a coordinated program of commercial and self-insurance for medical malpractice claims at TMSHMC through the use of a qualified trust and a domestic captive insurance company in combination with a self-insured retention layer and is supplementing this program through participation in the Pennsylvania Medical Care Availability and Reduction of Error Fund ("MCARE Fund"), in accordance with Pennsylvania law. An estimate of the present value, discounted at 2% for the years ended June 30, 2017 and 2016, of the medical malpractice claims liability in the amount of \$120.4 million and \$107.4 million is recorded as of June 30, 2017 and 2016, respectively.

The subsidiaries of the Health System are self-insured for all medical malpractice claims asserted on or after July 1, 2003, for all amounts that are below the coverage of excess insurance policies and not included in the insurance coverage of the MCARE Fund. Under the self-insurance program, the Health System is required to maintain a malpractice trust fund in an amount at least equal to the expected loss of known claims. The balance of this trust fund was \$27.4 million and \$21.5 million at June 30, 2017 and 2016, respectively. The Health System intends to fund any claims due during the next year from cash flows from operations.

With approval from the Pennsylvania Department of Labor and Industry ("PA-DLI"), the University elected to self-insure potential obligations applicable to Pennsylvania workers' compensation. Certain claims under the program are contractually administered by a private agency. The University purchased insurance coverage for excess obligations over \$600,000 per incident. An estimate of the self-insured workers' compensation claims liability in the amount of \$7.0 million and \$8.1 million, discounted at 1.89% and 1.00%, respectively, is recorded as of June 30, 2017 and 2016, respectively. The University has established a trust fund, in the amount of \$13.2 million and \$13.3 million at June 30, 2017 and 2016, respectively, as required by PA-DLI, to provide for the payment of claims under this self-insurance program. TMSHMC and SJRHN/SJMG are self-insured for workers' compensation claims and have purchased excess policies through commercial insurers which cover individual claims in excess of \$750,000 and \$575,000 per incident, respectively, for workers' compensation claims.

The University and the Health System are self-insured for certain health care benefits provided to employees. The University, TMSHMC and SJRHN/SJMG have purchased excess policies which cover employee health benefit claims in excess of \$600,000, \$575,000 and \$375,000 per employee per year, respectively. The University and the Health System provide for reported claims and claims incurred but not reported.

Litigation and Contingencies

In November 2011, the University was made aware of certain allegations in a Commonwealth of Pennsylvania Grand Jury presentment. Various legal proceedings and investigations have arisen as a result of such allegations, including criminal proceedings against former officers and employees of the University. Certain claims and civil litigation have been filed against the University with anticipation that other complaints could be filed. The University has accrued \$16.0 million and \$0.2 million for the years ended June 30, 2017 and 2016, respectively, with such amounts included in institutional support within the consolidated statement of activities. Additional claims could be paid in the future but without having knowledge of the number and nature of such claims the University is unable to predict the outcome of these matters or the ultimate legal and financial liability and at this time cannot reasonably estimate the possible loss or range of loss. Accordingly, no amounts have been accrued in the financial statements for these claims.

In addition to the settlement costs, the University has incurred costs for the fiscal years ended June 30, 2017 and 2016 totaling \$4.9 million and \$6.6 million, respectively, for internal investigation, legal, communications and other related costs. These costs are included in institutional support within the consolidated statement of activities.

By jury verdict and court orders in October and November 2016 and March 2017, the University was found liable for compensatory and punitive damages of \$12.3 million and was ordered to pay attorney's fees and costs of \$1.7 million in a lawsuit brought by a former employee alleging whistleblower liability, defamation and misrepresentation. In October 2017, the University agreed to settle with the plaintiff for a lesser amount pursuant to a confidential settlement agreement. The amount per the settlement agreement is accrued as of June 30, 2017 and included in institutional support within the consolidated statement of activities.

The University has submitted claims to insurance carriers related to the claims that have been settled or paid. Some insurance claims have been paid and other insurance claims remain outstanding.

Based on its operation of the Health System (see Note 11), the University, like the rest of the healthcare industry, is subject to numerous laws and regulations of federal, state and local governments. Compliance with these laws and regulations can be subject to government review and interpretation, as well as regulatory actions. Recently, government reviews of healthcare providers for compliance with regulations have increased. Although the University believes it has done its best to comply with these numerous regulations, such government reviews could result in significant repayments of previously billed and collected revenues from patient services.

On July 12, 2013, the University received a preliminary report from the U.S. Department of Education based on the program review of the University's compliance with the Clery Act, a federal law related to campus safety. A final program review determination was made in November 2016, which assessed a fine in the

amount of \$2.4 million. The fine has been paid and the Department of Education's program review is now closed.

Various other legal proceedings have arisen in the normal course of conducting University business. The outcome of such litigation is not expected to have a material effect on the financial position of the University.

13. SUBSEQUENT EVENTS

The University has evaluated subsequent events through October 20, 2017, the date on which the consolidated financial statements were issued. It did not identify any subsequent events to be disclosed other than those below or previously noted.

									Amo	ount Passed		
CFDA	Additional Award			Federal Program		Direct		Identifying number assigned	Th	nrough to		
Number	Identification	Name of Federal Award	Cluster Name	Total	Cluster Total	Award	Name of Pass-through Entity	by the Pass-through Entity	Sub	precipients	Amo	ount Expended
10 001		AGRICULTURAL RESEARCH BASIC AND APPLIED RESEARCH	RESEARCH AND DEVELOPMENT	\$ 1,345,455	\$ 544,486,028	Y			\$	2,321	\$	1,202,051
10 001		AGRICULTURAL RESEARCH BASIC AND APPLIED RESEARCH	RESEARCH AND DEVELOPMENT	\$ 1,345,455	\$ 544,486,028	N	GEISINGER HEALTH SYSTEM	59-1950-4-002			\$	47,466
		DI ANTE AND ANDAM DISEASE DEST CONTROL AND ANDAM CARE	DECEARCH AND DEVELOPMENT			١						005.640
10 025		PLANT AND ANIMAL DISEASE, PEST CONTROL, AND ANIMAL CARE	RESEARCH AND DEVELOPMENT	\$ 987,085	\$ 544,486,028	Y	COLUMNET LENOR		\$	144,101	\$	825,642
10 025		PLANT AND ANIMAL DISEASE, PEST CONTROL, AND ANIMAL CARE	RESEARCH AND DEVELOPMENT	\$ 987,085	\$ 544,486,028	N	COMMONWEALTH OF PENNSYLVANIA	44166167			e	162,790
10 023		TEANT AND ANIMAE DISEASE, TEST CONTROL, AND ANIMAE CARE	RESEARCH AND DEVELOT MENT	\$ 987,083	\$ 344,460,026	IN	COMMONWEALTH OF	44100107			a .	102,790
10 170		SPECIALTY CROP BLOCK GRANT PROGRAM - FARM BILL	RESEARCH AND DEVELOPMENT	\$ 305,146	\$ 544,486,028	N	PENNSYLVANIA	44113182			s	1
10 170				303,110	\$ 311,100,020	- 1	COMMONWEALTH OF				4	
10 170		SPECIALTY CROP BLOCK GRANT PROGRAM - FARM BILL	RESEARCH AND DEVELOPMENT	\$ 305,146	\$ 544,486,028	N	PENNSYLVANIA	44155555			\$	34,478
							COMMONWEALTH OF					
10 170		SPECIALTY CROP BLOCK GRANT PROGRAM - FARM BILL	RESEARCH AND DEVELOPMENT	\$ 305,146	\$ 544,486,028	N	PENNSYLVANIA	44155556			\$	28,934
							COMMONWEALTH OF					
10 170		SPECIALTY CROP BLOCK GRANT PROGRAM - FARM BILL	RESEARCH AND DEVELOPMENT	\$ 305,146	\$ 544,486,028	N	PENNSYLVANIA	44155557			\$	29,868
		ODE CLASSIC OD CONTROL OF CONTROL	DEGE - DOWN - LVD DELVEY ON COLUM				COMMONWEALTH OF	N			_	
10 170		SPECIALTY CROP BLOCK GRANT PROGRAM - FARM BILL	RESEARCH AND DEVELOPMENT	\$ 305,146	\$ 544,486,028	N	PENNSYLVANIA	ME 44155618			\$	72,000
10 170		SPECIALTY CROP BLOCK GRANT PROGRAM - FARM BILL	RESEARCH AND DEVELOPMENT	\$ 305,146	\$ 544,486,028	N	COMMONWEALTH OF PENNSYLVANIA	ME# 44144952			e	8,837
10 170		SPECIALITI CROF BLOCK GRANT FROGRAM - PARM BILL	RESEARCH AND DEVELOPMENT	\$ 303,146	\$ 344,480,028	IN	PENNSYLVANIA CO-OPERATIVE	NIE# 44144932			\$	8,837
10 170		SPECIALTY CROP BLOCK GRANT PROGRAM - FARM BILL	RESEARCH AND DEVELOPMENT	\$ 305,146	\$ 544,486,028	N	POTATO GROWERS, INC.	ME#44155561			¢	28,528
10 170		STEELETT CROT BEGOR GREAT TROOTE IN THICK BIEE	RESERVED BEVELSTIMENT	303,140	\$ 544,400,020	- ''	To Title Gite WEIG, I're.	111111111111111111111111111111111111111			Ψ	20,320
10 200		GRANTS FOR AGRICULTURAL RESEARCH, SPECIAL RESEARCH GRANTS	RESEARCH AND DEVELOPMENT	\$ 3,484,032	\$ 544,486,028	Y			\$	144,330	\$	3,237,067
										,		
10 200		GRANTS FOR AGRICULTURAL RESEARCH, SPECIAL RESEARCH GRANTS	RESEARCH AND DEVELOPMENT	\$ 3,484,032	\$ 544,486,028	N	COLORADO STATE UNIVERSITY	2014-48757-22607O			\$	17,869
10 200		GRANTS FOR AGRICULTURAL RESEARCH, SPECIAL RESEARCH GRANTS	RESEARCH AND DEVELOPMENT	\$ 3,484,032	\$ 544,486,028	N	KANSAS STATE UNIVERSITY	2015-39575-24367			\$	17,898
10 200		GRANTS FOR AGRICULTURAL RESEARCH, SPECIAL RESEARCH GRANTS	RESEARCH AND DEVELOPMENT	\$ 3,484,032	\$ 544,486,028	N	KANSAS STATE UNIVERSITY	N/A			\$	181,984
		CDANIES FOR A CRICILI TURAL RESEARCH SPECIAL RESEARCH CRANIES	DECEARCH AND DEVELOPMENT				DUTCEDG LDINGEDGITY	2015 24202 22012				4
10 200		GRANTS FOR AGRICULTURAL RESEARCH, SPECIAL RESEARCH GRANTS	RESEARCH AND DEVELOPMENT	\$ 3,484,032	\$ 544,486,028	N	RUTGERS UNIVERSITY	2015-34383-23812			2	17,999
10 200		GRANTS FOR AGRICULTURAL RESEARCH, SPECIAL RESEARCH GRANTS	RESEARCH AND DEVELOPMENT	\$ 3,484,032	\$ 544,486,028	N	UNIVERSITY OF MAINE, THE	2014-34141-22266			\$	1,720
10 200		GREAT STORE TO THE RESERVENCE OF THE RESERVENCE OF THE STORE THE S	RESERVED BEVELSTIMENT	5,404,032	\$ 544,400,020	- 11	CHANGE TO SHIP LEATING	2011 31111 22200			Ψ	1,720
10 200		GRANTS FOR AGRICULTURAL RESEARCH, SPECIAL RESEARCH GRANTS	RESEARCH AND DEVELOPMENT	\$ 3,484,032	\$ 544,486,028	N	UNIVERSITY OF MAINE, THE	2015-34141-23964			\$	9,495
		,					,					
10 210		HIGHER EDUCATION - GRADUATE FELLOWSHIPS GRANT PROGRAM	RESEARCH AND DEVELOPMENT	\$ 84,694	\$ 544,486,028	Y					\$	84,694
10 215		SUSTAINABLE AGRICULTURE RESEARCH AND EDUCATION	RESEARCH AND DEVELOPMENT	\$ 475,899	\$ 544,486,028	N	UNIVERSITY OF MARYLAND	LNE14-338-29001			\$	2,695
10 215		SUSTAINABLE AGRICULTURE RESEARCH AND EDUCATION	RESEARCH AND DEVELOPMENT	\$ 475,899	\$ 544,486,028	N	UNIVERSITY OF NEW HAMPSHIRE	LNE 13-323			\$	(353)
10 215			RESEARCH AND DEVELOPMENT	\$ 475,899	\$ 544,486,028	N	UNIVERSITY OF VERMONT, THE	2013-38640-20895			\$	81,911
10 215 10 215		SUSTAINABLE AGRICULTURE RESEARCH AND EDUCATION SUSTAINABLE AGRICULTURE RESEARCH AND EDUCATION	RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	\$ 475,899 \$ 475,899	\$ 544,486,028	N N	UNIVERSITY OF VERMONT, THE UNIVERSITY OF VERMONT, THE	2014-3840-22161 2014-38640-22161			\$	3,367 74,373
10 215		SUSTAINABLE AGRICULTURE RESEARCH AND EDUCATION SUSTAINABLE AGRICULTURE RESEARCH AND EDUCATION	RESEARCH AND DEVELOPMENT	\$ 475,899 \$ 475,899	\$ 544,486,028 \$ 544,486,028	N N	UNIVERSITY OF VERMONT, THE	2014-38640-22161			\$	12,826
10 215			RESEARCH AND DEVELOPMENT	\$ 475,899	\$ 544,486,028	N	UNIVERSITY OF VERMONT, THE	20153864023777			\$	23,037
10 215		SUSTAINABLE AGRICULTURE RESEARCH AND EDUCATION	RESEARCH AND DEVELOPMENT	\$ 475,899	\$ 544,486,028	N	UNIVERSITY OF VERMONT, THE	2015-38640-23777			\$	62,304
10 215		SUSTAINABLE AGRICULTURE RESEARCH AND EDUCATION	RESEARCH AND DEVELOPMENT	\$ 475,899	\$ 544,486,028	N	UNIVERSITY OF VERMONT, THE	2016-38640-25380			\$	96,300
								U.S. DEPARTMENT OF				
10 215		SUSTAINABLE AGRICULTURE RESEARCH AND EDUCATION	RESEARCH AND DEVELOPMENT	\$ 475,899	\$ 544,486,028	N	UNIVERSITY OF VERMONT, THE	AGRICULTURE			\$	5,003
10 217		HIGHER EDUCATION - INSTITUTION CHALLENGE GRANTS PROGRAM	RESEARCH AND DEVELOPMENT	\$ 43,140	\$ 544,486,028	Y					\$	43,140
		DEPARTMENT OF A CRICILITATIVE NON CRECIFIED	DESCRIPCH AND DEVELOPMENT			,,	NORTH CAROLINA STATE	2014 20502 22500			_	2.5
10 230		DEPARTMENT OF AGRICULTURE - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,996	\$ 544,486,028	N	UNIVERSITY	2014-38502-22598			\$	3,996
10 250		AGRICULTURAL AND RURAL ECONOMIC RESEARCH, COOPERATIVE AGREEMENTS AND COLLABORATIONS	RESEARCH AND DEVELOPMENT	\$ 138,386	£ 544 496 029	N/				53,335	e e	128,792
10 250		AGRICULTURAL AND RURAL ECONOMIC RESEARCH, COOPERATIVE	RESEARCH AND DEVELOFMENT	3 138,386	\$ 544,486,028	Y			3	23,333	Ф	128,/92
10 250		AGREEMENTS AND COLLABORATIONS	RESEARCH AND DEVELOPMENT	\$ 138,386	\$ 544,486,028	N	MIAMI UNIVERSITY	58-30000-5-0037			\$	9,594
10 253			RESEARCH AND DEVELOPMENT	\$ 5,608	\$ 544,486,028	Y					\$	5,608
		RESEARCH INNOVATION AND DEVELOPMENT GRANTS IN ECONOMIC		2,000								2,500
10 255		(RIDGE)	RESEARCH AND DEVELOPMENT	\$ 6,938	\$ 544,486,028	N	PURDUE UNIVERSITY	59-5000-5-0011			\$	6,938
10 290		AGRICULTURAL MARKET AND ECONOMIC RESEARCH	RESEARCH AND DEVELOPMENT	\$ 23,268	\$ 544,486,028	Y					\$	23,268
10 303		INTEGRATED PROGRAMS	RESEARCH AND DEVELOPMENT	\$ 548,588	\$ 544,486,028	Y					\$	476,403
10 303		INTEGRATED PROGRAMS	RESEARCH AND DEVELOPMENT	\$ 548,588	\$ 544,486,028	N	CORNELL UNIVERSITY	2014-51106-22080			\$	47,466

									Amoun	t Passed	
CFDA	Additional Award			Federal Program		Direct		Identifying number assigned	Throu	ıgh to	
Number	Identification	Name of Federal Award	Cluster Name	Total	Cluster Total	Award	Name of Pass-through Entity	by the Pass-through Entity	Subrec	ipients	Amount Expended
10 304		HOMELAND SECURITY AGRICULTURAL	RESEARCH AND DEVELOPMENT	\$ 11,610	\$ 544,486,028	N	CORNELL UNIVERSITY	2012-37620-19697			\$ 1,376
10 304		HOMELAND SECURITY AGRICULTURAL	RESEARCH AND DEVELOPMENT	\$ 11,610	\$ 544,486,028	N	CORNELL UNIVERSITY	2016-37620-25852			\$ 10,234
10 307		ORGANIC AGRICULTURE RESEARCH AND EXTENSION INITIATIVE	RESEARCH AND DEVELOPMENT	\$ 784,606	\$ 544,486,028	Y			\$	2,068	\$ 784,606
10 309		SPECIALTY CROP RESEARCH INITIATIVE	RESEARCH AND DEVELOPMENT	0 1,127,510	\$ 544,486,028	Y					\$ 467,735
10 309		SPECIALTY CROP RESEARCH INITIATIVE	RESEARCH AND DEVELOPMENT	\$ 1,127,516		N	MICHIGAN STATE UNIVERSITY	2012-51181-20105			\$ 119,227
10 309		SPECIALTY CROP RESEARCH INITIATIVE	RESEARCH AND DEVELOPMENT	\$ 1,127,516	\$ 544,486,028	N	MICHIGAN STATE UNIVERSITY	2014-51181-22380			\$ 125,892
10 309		SPECIALTY CROP RESEARCH INITIATIVE	RESEARCH AND DEVELOPMENT	\$ 1,127,516	\$ 544,486,028	N	MICHIGAN STATE UNIVERSITY	N/A			\$ 110,137
10 309		SPECIALTY CROP RESEARCH INITIATIVE	RESEARCH AND DEVELOPMENT	\$ 1,127,516	\$ 544,486,028	N	NORTH CAROLINA STATE UNIVERSITY	2016-51181-25409			\$ 4.357
10 309		SPECIALTY CROP RESEARCH INITIATIVE	RESEARCH AND DEVELOPMENT	\$ 1,127,516	\$ 544,486,028	N	NORTH CAROLINA STATE	2010-31181-23409			\$ 4,357
10 309		SPECIALTY CROP RESEARCH INITIATIVE	RESEARCH AND DEVELOPMENT	\$ 1,127,516	\$ 544,486,028	N	UNIVERSITY	N/A			\$ 24,590
10 309		SI ECIAETT CROI RESEARCH INTIATIVE	RESEARCH AND DEVELOT MENT	\$ 1,127,510	3 344,460,026	IN	NORTH CAROLINA STATE	USDA NATIONAL			\$ 24,390
10 309		SPECIALTY CROP RESEARCH INITIATIVE	RESEARCH AND DEVELOPMENT	\$ 1,127,516	\$ 544,486,028	N	UNIVERSITY	INSTITUTE OF FOO			\$ 25,261
10 309		SPECIALTY CROP RESEARCH INITIATIVE	RESEARCH AND DEVELOPMENT	\$ 1,127,516	\$ 544,486,028	N	PURDUE UNIVERSITY	2012-51181-19878			\$ 128,384
10 309		SPECIALTY CROP RESEARCH INITIATIVE	RESEARCH AND DEVELOPMENT		\$ 544,486,028	N	RUTGERS UNIVERSITY	2016-51181-235399			\$ 39,717
10 309		SPECIALTY CROP RESEARCH INITIATIVE	RESEARCH AND DEVELOPMENT	\$ 1,127,516		N	UNIVERSITY OF GEORGIA	20145118122383			\$ 57,998
10 310		AGRICULTURE AND FOOD RESEARCH INITIATIVE (AFRI)	RESEARCH AND DEVELOPMENT	\$ 8,645,724	, ,	Y			\$ 2	,672,154	\$ 7,213,365
					, , , ,		AMERICAN CHESTNUT FOUNDATION,				, , , , , ,
10 310		AGRICULTURE AND FOOD RESEARCH INITIATIVE (AFRI)	RESEARCH AND DEVELOPMENT	\$ 8,645,724	\$ 544,486,028	N	THE	2016-67013-24581			\$ 14,148
10 310		AGRICULTURE AND FOOD RESEARCH INITIATIVE (AFRI)	RESEARCH AND DEVELOPMENT	\$ 8,645,724	\$ 544,486,028	N	BRIGHAM YOUNG UNIVERSITY	2011-67009-20366			\$ 2,830
10 310		AGRICULTURE AND FOOD RESEARCH INITIATIVE (AFRI)	RESEARCH AND DEVELOPMENT	\$ 8,645,724	\$ 544,486,028	N	KANSAS STATE UNIVERSITY	2013-68004-20378			\$ 99,598
10 310		AGRICULTURE AND FOOD RESEARCH INITIATIVE (AFRI)	RESEARCH AND DEVELOPMENT	\$ 8,645,724	\$ 544,486,028	N	MICHIGAN STATE UNIVERSITY	N/A			\$ 203,432
10 310		AGRICULTURE AND FOOD RESEARCH INITIATIVE (AFRI)	RESEARCH AND DEVELOPMENT	\$ 8,645,724	\$ 544,486,028	N	MONTANA STATE UNIVERSITY	2015-68006-22850			\$ 54,799
10 310		AGRICULTURE AND FOOD RESEARCH INITIATIVE (AFRI)	RESEARCH AND DEVELOPMENT	\$ 8,645,724	\$ 544,486,028	N	PURDUE UNIVERSITY	2016-67019-25014			\$ 29,611
10 310		AGRICULTURE AND FOOD RESEARCH INITIATIVE (AFRI)	RESEARCH AND DEVELOPMENT	\$ 8,645,724	\$ 544,486,028	N	SYRACUSE UNIVERSITY	2016-68006-24739			\$ 26,146
10 310		AGRICULTURE AND FOOD RESEARCH INITIATIVE (AFRI)	RESEARCH AND DEVELOPMENT	\$ 8,645,724	\$ 544,486,028	N	UNIVERSITY OF ARIZONA, THE	2016-67014-24805			\$ 10,972
10 310		AGRICULTURE AND FOOD RESEARCH INITIATIVE (AFRI)	RESEARCH AND DEVELOPMENT	\$ 8,645,724	\$ 544,486,028	N	UNIVERSITY OF MINNESOTA	2011-67003-30343	\$	2,959	\$ 95,858
10 310		AGRICULTURE AND FOOD RESEARCH INITIATIVE (AFRI)	RESEARCH AND DEVELOPMENT	\$ 8,645,724	\$ 544,486,028	N	UNIVERSITY OF MINNESOTA	2016-67015-24457			\$ 26,416
10 310		AGRICULTURE AND FOOD RESEARCH INITIATIVE (AFRI)	RESEARCH AND DEVELOPMENT	\$ 8,645,724	\$ 544,486,028	N	UNIVERSITY OF NEW HAMPSHIRE	2017-67013-26594			\$ 1,432
10 310		AGRICULTURE AND FOOD RESEARCH INITIATIVE (AFRI)	RESEARCH AND DEVELOPMENT	\$ 8,645,724	\$ 544,486,028	N	UNIVERSITY OF VERMONT, THE	2014-68006-21873			\$ 9,994
10 310		AGRICULTURE AND FOOD RESEARCH INITIATIVE (AFRI)	RESEARCH AND DEVELOPMENT	\$ 8,645,724	\$ 544,486,028	N	UNIVERSITY OF VERMONT, THE	2015-68006-22929			\$ 5,023
		A CRICHI THEE AND FOOD RECEARCH BUTLATING (A FRE	DEGE A DOLL AND DEVEL OR WENT	0.545.504			UNIVERSITY OF WISCONSIN -	2012 68002 20525			
10 310		AGRICULTURE AND FOOD RESEARCH INITIATIVE (AFRI)	RESEARCH AND DEVELOPMENT	\$ 8,645,724	\$ 544,486,028	N	MADISON	2012-68002-20525			\$ 242,232
10 312		BIOMASS RESEARCH AND DEVELOPMENT INITIATIVE COMPETITIVE	DECEARCH AND DEVELOPMENT	\$ 83,670	\$ 544,486,028	NT.	DARTMOUTH COLLEGE	LICDA			\$ 83,670
10 312		GRANTS PROGRAM (BRDI)	RESEARCH AND DEVELOPMENT	3 83,070	3 344,460,026	N	DARTMOUTH COLLEGE	USDA			\$ 65,070
10 320		SUN GRANT PROGRAM	RESEARCH AND DEVELOPMENT	\$ 24,827	\$ 544.486.028	N	SOUTH DAKOTA STATE UNIVERSITY	2014-38502-22598			\$ 24.827
10 320		CROP PROTECTION AND PEST MANAGEMENT COMPETITIVE GRANTS	RESEARCH AND BEVELOT MENT	\$ 24,027	\$ 544,460,026	11	SOCIII BAROTA STATE CHIVERSHIT	2014-30302-22370			φ 24,02 <i>1</i>
10 329		PROGRAM	RESEARCH AND DEVELOPMENT	\$ 336,991	\$ 544,486,028	Y			s	19,335	\$ 88,848
10 525		CROP PROTECTION AND PEST MANAGEMENT COMPETITIVE GRANTS		330,551	\$ 711,100,020				-	17,555	ψ 00,0 to
10 329		PROGRAM	RESEARCH AND DEVELOPMENT	\$ 336,991	\$ 544,486,028	N	CORNELL UNIVERSITY	2015-70006-24274			\$ 9,113
		CROP PROTECTION AND PEST MANAGEMENT COMPETITIVE GRANTS			+ + + + + + + + + + + + + + + + + + + +			U.S. DEPARTMENT OF			7,720
10 329		PROGRAM	RESEARCH AND DEVELOPMENT	\$ 336,991	\$ 544,486,028	N	CORNELL UNIVERSITY	AGRICULTURE			\$ 16,047
		CROP PROTECTION AND PEST MANAGEMENT COMPETITIVE GRANTS									
10 329		PROGRAM	RESEARCH AND DEVELOPMENT	\$ 336,991	\$ 544,486,028	N	UNIVERSITY OF MARYLAND	2014-70006-22484			\$ 4,204
		CROP PROTECTION AND PEST MANAGEMENT COMPETITIVE GRANTS									
10 329		PROGRAM	RESEARCH AND DEVELOPMENT	\$ 336,991	\$ 544,486,028	N	UNIVERSITY OF MARYLAND	2015-70006-24277			\$ 10,680
10 500		COOPERATIVE EXTENSION SERVICE	RESEARCH AND DEVELOPMENT		\$ 544,486,028	Y			\$	275,874	\$ 13,598,772
10 500		COOPERATIVE EXTENSION SERVICE	RESEARCH AND DEVELOPMENT	\$ 26,469,711	\$ 544,486,028	N	KANSAS STATE UNIVERSITY	N/A			\$ 358,674
10 500		COOPERATIVE EXTENSION SERVICE	RESEARCH AND DEVELOPMENT		\$ 544,486,028	N	MICHIGAN STATE UNIVERSITY	2013-48765-21544			\$ 10,475
10 500		COOPERATIVE EXTENSION SERVICE	RESEARCH AND DEVELOPMENT	\$ 26,469,711	\$ 544,486,028	N	MICHIGAN STATE UNIVERSITY	USDA-NIFA			\$ 27,242
10 500		COOPERATIVE EXTENSION SERVICE	RESEARCH AND DEVELOPMENT	\$ 26,469,711	\$ 544,486,028	N	UNIVERSITY OF MINNESOTA	2013-41520-21529	\$	258,101	\$ 477,408
10 500		COOPERATIVE EXTENSION SERVICE	RESEARCH AND DEVELOPMENT	\$ 26,469,711	\$ 544,486,028	N	UTAH STATE UNIVERSITY	2016-70022-25565			\$ 10,000
10 55		TE AMAILITEITION OF ANITO	DEGE A DOM AND DOVER ON TO				COMMONWEALTH OF	4200407126			
10 574		TEAM NUTRITION GRANTS	RESEARCH AND DEVELOPMENT	\$ 392,391	\$ 544,486,028	N	PENNSYLVANIA	4300487126		10.5::	\$ 240,541
10 678		FOREST STEWARDSHIP PROGRAM	RESEARCH AND DEVELOPMENT	\$ 228,462	\$ 544,486,028	Y			\$	19,011	\$ 32,383
10 680		FOREST HEALTH PROTECTION	RESEARCH AND DEVELOPMENT	\$ 69,978	\$ 544,486,028	Y					\$ 69,978
1 1 1		NORMAN E. BORLAUG INTERNATIONAL AGRICULTURAL SCIENCE AND TECHNOLOGY FELLOWSHIP	RESEARCH AND DEVELOPMENT	\$ 78,514	\$ 544,486,028	Y					\$ 7,485
10 777											

CFDA	Additional Award	V 65 1 14 1	GL + N	Federal Program	Cl T I	Direct	Y CD d LEG	Identifying number assigned	Amount Passed Through to	A (F 1.1
Number	Identification	Name of Federal Award NORMAN E. BORLAUG INTERNATIONAL AGRICULTURAL SCIENCE AND	Cluster Name	Total	Cluster Total	Award	Name of Pass-through Entity	by the Pass-through Entity	Subrecipients	Amount Expended
0 777		TECHNOLOGY FELLOWSHIP	RESEARCH AND DEVELOPMENT	\$ 78,514	\$ 544,486,028	N	MICHIGAN STATE UNIVERSITY	N/A		\$ 48,902
0 777		NORMAN E. BORLAUG INTERNATIONAL AGRICULTURAL SCIENCE AND TECHNOLOGY FELLOWSHIP	RESEARCH AND DEVELOPMENT	\$ 78,514	\$ 544,486,028	N	WORLD COCOA FOUNDATION	58-3148-2-126		\$ 22,127
0 903		SOIL SURVEY	RESEARCH AND DEVELOPMENT	\$ 52,718	\$ 544,486,028	Y	WORLD COCOA FOUNDATION	38-3148-2-120		\$ 52,718
0 903		ENVIRONMENTAL QUALITY INCENTIVES PROGRAM	RESEARCH AND DEVELOPMENT		\$ 544,486,028	Y			\$ 38,870	\$ 52,203
0 912		ENVIRONMENTAL CONDITT INCLINITY ESTROGRAM	RESEARCH AND BE VEED IMENT	3 202,478	3 344,460,026	1		USDA NATURAL	3 38,870	5 52,20.
0 912		ENVIRONMENTAL QUALITY INCENTIVES PROGRAM	RESEARCH AND DEVELOPMENT	\$ 202,478	\$ 544,486,028	N	CORNELL UNIVERSITY	RESOURCES CONSERV		\$ 26,045
0 960		TECHNICAL AGRICULTURAL ASSISTANCE	RESEARCH AND DEVELOPMENT	\$ 65,066	\$ 544,486,028	Y				\$ 65,060
0 961		SCIENTIFIC COOPERATION AND RESEARCH	RESEARCH AND DEVELOPMENT	\$ 20,032	\$ 544,486,028	Y			\$ 14,250	\$ 18,262
		COCHRAN FELLOWSHIP PROGRAM-INTERNATIONAL TRAINING-			, , , , , , , ,				, , , ,	
0 962		FOREIGN PARTICIPANT	RESEARCH AND DEVELOPMENT	\$ 35,527	\$ 544,486,028	Y				\$ 35,52
	03-JV-11242328-001/TO15-									
0 RD	JV-112	DEPARTMENT OF AGRICULTURE - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 901,475	\$ 544,486,028	Y				\$ 12,32
0 RD	11-JV-11111129-121	DEPARTMENT OF AGRICULTURE - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 901,475	\$ 544,486,028	Y				\$ 13,04
0 RD	11-JV-11111151-136	DEPARTMENT OF AGRICULTURE - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 901,475		Y				\$ 19,449
0 RD		DEPARTMENT OF AGRICULTURE - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 901,475		Y				\$ 29,949
) RD	14-JV-11242302-144	DEPARTMENT OF AGRICULTURE - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 901,475	\$ 544,486,028	Y				\$ 3,79
) RD	14-JV-11272167-037	DEPARTMENT OF AGRICULTURE - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 901,475		Y				\$ 33,28
0 RD	15-CR11242302-023	DEPARTMENT OF AGRICULTURE - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 901,475		Y				\$ 4,400
0 RD	15-JV-11242309-108	DEPARTMENT OF AGRICULTURE - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 901,475		Y				\$ 9,442
0 RD	16-8130-0370-CA	DEPARTMENT OF AGRICULTURE - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 901,475	\$ 544,486,028	Y				\$ 36,77
0 RD	2015-67011-22802 2015-68001-23233	DEPARTMENT OF AGRICULTURE - NON-SPECIFIED DEPARTMENT OF AGRICULTURE - NON-SPECIFIED	RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	0 701,175	\$ 544,486,028	Y				\$ 8,022
0 RD 0 RD	2016-46100-25845	DEPARTMENT OF AGRICULTURE - NON-SPECIFIED DEPARTMENT OF AGRICULTURE - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 901,475 \$ 901,475	\$ 544,486,028 \$ 544,486,028	Y				\$ 167,319 \$ 42,760
) RD	2016-67011-24710	DEPARTMENT OF AGRICULTURE - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 901,475	\$ 544,486,028	Y				\$ 40,02
0 RD	2016-70006-25833	DEPARTMENT OF AGRICULTURE - NON-SPECIFIED	RESEARCH AND DEVELOPMENT		\$ 544,486,028 \$ 544,486,028	Y				\$ 40,02 \$ 59,242
0 RD	2017-36100-06042	DEPARTMENT OF AGRICULTURE - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 901,475	\$ 544,486,028	Y				\$ 49,983
) RD	2017-67015-26455	DEPARTMENT OF AGRICULTURE - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 901,475	\$ 544,486,028	Y				\$ 8,358
) RD		DEPARTMENT OF AGRICULTURE - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 901,475	\$ 544,486,028	Y				\$ 11,562
RD	58-5000-3-0047	DEPARTMENT OF AGRICULTURE - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 901,475	\$ 544,486,028	Y				\$ 3,673
0 RD	AG-6395-B-11-0049	DEPARTMENT OF AGRICULTURE - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 901,475	\$ 544,486,028	Y				\$ 12,506
RD	TA-CR-16-028	DEPARTMENT OF AGRICULTURE - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 901,475	\$ 544,486,028	Y				\$ 202,015
) RD	USDA ANIMAL HEALTH	DEPARTMENT OF AGRICULTURE - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 901,475	\$ 544,486,028	Y				\$ (6,42)
							COMMONWEALTH OF			
0 RD	ME 44112431	DEPARTMENT OF AGRICULTURE - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 901,475	\$ 544,486,028	N	PENNSYLVANIA	ME 44112431		\$ 14,338
0 RD	64325-9856	DEPARTMENT OF AGRICULTURE - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 901,475		N	CORNELL UNIVERSITY	N/A		\$ 8,268
0 RD	70395-10155	DEPARTMENT OF AGRICULTURE - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 901,475	\$ 544,486,028	N	CORNELL UNIVERSITY	N/A		\$ 13,88
	17 02011711	DED A DEM CENTE OF A CRICKLE TUBE. MON CRECUEED	DECEARCH AND DEVELOPMENT				DEL AWARE CTATE IN INVENCITY	27/4		
0 RD 0 RD	17-020HEH 6665573 AMEND 2	DEPARTMENT OF AGRICULTURE - NON-SPECIFIED DEPARTMENT OF AGRICULTURE - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 901,475 \$ 901,475	\$ 544,486,028	N	DELAWARE STATE UNIVERSITY GEISINGER HEALTH SYSTEM	N/A 59-1950-4-002		\$ 27,144 \$ 14,568
0 KD	0003373 AMEND 2	DEFARTMENT OF AGRICULTURE - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 901,475	\$ 544,486,028	N	PENNSYLVANIA CO-OPERATIVE	39-1930-4-002		\$ 14,300
RD	ME 44144956	DEPARTMENT OF AGRICULTURE - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 901,475	\$ 544,486,028	N N	POTATO GROWERS, INC.	ME#44144956		\$ 5,486
0 RD	GNE16-138-29994	DEPARTMENT OF AGRICULTURE - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 901,475		N	UNIVERSITY OF VERMONT, THE	20153864023777		\$ 87
J KD	GRETO 130 2555	DEFINITION OF ROME OF FORD THE STREET	RESERVED BEVERSTIMENT	3 701,473	\$ 544,400,020	- 11	UNIVERSITY OF WISCONSIN -	20133001023777		9 0
RD	PO# 0000000667	DEPARTMENT OF AGRICULTURE - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 901,475	\$ 544,486,028	N	EXTENSION	AG-3151-P-15-0228		\$ 25,64
0 RD	115808 G002980	DEPARTMENT OF AGRICULTURE - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 901,475	\$ 544,486,028	N	WASHINGTON STATE UNIVERSITY	2011-68005-30416		\$ 29,904
RD	05-683-PSU-2	DEPARTMENT OF AGRICULTURE - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 901,475	\$ 544,486,028	N	WEST VIRGINIA UNIVERSITY	2010-CR-11062759-030		\$ 638
1 303		ECONOMIC DEVELOPMENT TECHNICAL ASSISTANCE	RESEARCH AND DEVELOPMENT	\$ 13,414		Y				\$ 13,414
1 417		SEA GRANT SUPPORT	RESEARCH AND DEVELOPMENT	\$ 1,702,647		Y			\$ 623,713	
417		SEA GRANT SUPPORT	RESEARCH AND DEVELOPMENT	\$ 1,702,647	\$ 544,486,028	N	UNIVERSITY OF MINNESOTA	NA14OAR4170291		\$ 22,463
							UNIVERSITY OF WISCONSIN -			
1 417		SEA GRANT SUPPORT	RESEARCH AND DEVELOPMENT	\$ 1,702,647	\$ 544,486,028	N	MADISON	NA14OAR4170092		\$ 5,000
1 431		CLIMATE AND ATMOSPHERIC RESEARCH	RESEARCH AND DEVELOPMENT		\$ 544,486,028	Y				\$ 183,63
1 431		CLIMATE AND ATMOSPHERIC RESEARCH	RESEARCH AND DEVELOPMENT	\$ 197,079	\$ 544,486,028	N	RAND CORPORATION	NA16OAR4310179		\$ 13,442
		NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA)								
1 432		COOPERATIVE INSTITUTES	RESEARCH AND DEVELOPMENT	\$ 159,724	\$ 544,486,028	N	COLORADO STATE UNIVERSITY	N/A		\$ 159,724
1 459		WEATHER AND AIR QUALITY RESEARCH	RESEARCH AND DEVELOPMENT	\$ 25,480	\$ 544,486,028	Y				\$ 25,480

									Amount Passed		
CFDA	Additional Award			Federal Program		Direct		Identifying number assigned	Through to		
Number	Identification	Name of Federal Award	Cluster Name	Total	Cluster Total	Award	Name of Pass-through Entity	by the Pass-through Entity	Subrecipients	Amo	unt Expended
							UNIVERSITY CORPORATION FOR				
11 462		HYDROLOGIC RESEARCH	RESEARCH AND DEVELOPMENT	\$ 9,002	\$ 544,486,028	N	ATMOSPHERIC RESEARCH	NA16NWS4620043		\$	9,002
							UNIVERSITY CORPORATION FOR				
11 467		METEOROLOGIC AND HYDROLOGIC MODERNIZATION DEVELOPMENT	RESEARCH AND DEVELOPMENT	\$ 9,628	\$ 544,486,028	N	ATMOSPHERIC RESEARCH	NA11NWS4670004		\$	9,628
11 468		APPLIED METEOROLOGICAL RESEARCH	RESEARCH AND DEVELOPMENT	\$ 404,439	\$ 544,486,028	Y				\$	404,439
		CENTER FOR SPONSORED COASTAL OCEAN RESEARCH COASTAL	DESCRIPTION OF THE COLUMN				VIRGINIA INSTITUTE OF MARINE				
11 478		OCEAN PROGRAM	RESEARCH AND DEVELOPMENT	\$ 27,719	\$ 544,486,028	N	SCIENCE	NA16NOS478027		\$	27,719
11 481 11 482		EDUCATIONAL PARTNERSHIP PROGRAM CORAL REEF CONSERVATION PROGRAM	RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	\$ 7,495 \$ 2,186	\$ 544,486,028 \$ 544,486,028	_	HOWARD UNIVERSITY	NA16SEC4810006		\$	7,495 2,186
11 482		CORAL REEF CONSERVATION FROGRAM	RESEARCH AND DEVELOPMENT	\$ 2,180	\$ 344,486,028	Y				2	2,180
11 609		MEASUREMENT AND ENGINEERING RESEARCH AND STANDARDS	RESEARCH AND DEVELOPMENT	\$ 1,294,405	\$ 544,486,028	Y			\$ 7,889		1,294,405
11 009		ARRANGEMENTS FOR INTERDISCIPLINARY RESEARCH	RESEARCH AND BE VEED IMENT	3 1,294,403	3 344,460,026	1			3 7,00	Φ	1,294,403
11 619		INFRASTRUCTURE	RESEARCH AND DEVELOPMENT	\$ 98,188	\$ 544,486,028	N	YOUNGSTOWN STATE UNIVERSITY	70NANB15H070		s	98,188
11 RD	YA1323-16-SE-0112	DEPARTMENT OF COMMERCE - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 313,649		Y				S	49,536
		NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY - NON-			, , , , , , ,						. ,,,,,,,
11 RD	70NANB16H115	SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 313,649	\$ 544,486,028	Y				\$	2,728
	INTERNAL SUBAWARD	NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION - NON-									
11 RD	FROM ERIE	SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 313,649	\$ 544,486,028	Y				\$	124,896
		NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION - NON-									
11 RD	NA14OAR4310190	SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 313,649	\$ 544,486,028	Y				\$	2,999
		NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION - NON-								1.	
11 RD	RA-133E-15-SE-1640	SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 313,649	\$ 544,486,028	Y				\$	27,928
	D 4 122E 16 CE 1465	NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION - NON-	DEGE A DOLL AND DEVEL OR WENT								44.000
11 RD	RA-133E-16-SE-1457	SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 313,649	\$ 544,486,028	Y		NAME OF TAXABLE PARTY.		\$	41,200
	9/01 CLID02	NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION - NON-	DECEARCH AND DEVELOPMENT	0 212 640	£ 544.496.039		ERT DIC	NATIONAL OCEANIC			20.251
11 RD	8601-SUB03	SPECIFIED NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION - NON-	RESEARCH AND DEVELOPMENT	\$ 313,649	\$ 544,486,028	N	ERT, INC.	AND ATMOSPHER NATIONAL OCEANIC		2	29,351
11 RD	S2017-0119	SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 313,649	\$ 544,486,028	N	SYNOPTIC DATA	AND ATMOSPHER		e	35.011
12 300	32017-0119	BASIC AND APPLIED SCIENTIFIC RESEARCH	RESEARCH AND DEVELOPMENT	\$ 10,153,978	\$ 544,486,028	Y	STROITIC DATA	AND ATMOSPHER	\$ 292,547	\$	9,724,258
12 300				0 10,123,570	\$ 711,100,020	•	MASSACHUSETTS INSTITUTE OF		2,2,5 1	1	>,721,230
12 300		BASIC AND APPLIED SCIENTIFIC RESEARCH	RESEARCH AND DEVELOPMENT	\$ 10,153,978	\$ 544,486,028	N	TECHNOLOGY	N/A		\$	284,528
							NORTH CAROLINA AGRICULTURAL				
12 300		BASIC AND APPLIED SCIENTIFIC RESEARCH	RESEARCH AND DEVELOPMENT	\$ 10,153,978	\$ 544,486,028	N	AND TECHNICAL STATE UNIVERSITY	N/A		\$	5,572
12 300		BASIC AND APPLIED SCIENTIFIC RESEARCH	RESEARCH AND DEVELOPMENT	\$ 10,153,978		N	PRINCETON UNIVERSITY	N00014-12-1-0875		\$	54,982
12 300		BASIC AND APPLIED SCIENTIFIC RESEARCH	RESEARCH AND DEVELOPMENT	\$ 10,153,978			PRINCETON UNIVERSITY	N00014-12-1-0962		\$	15,704
12 300		BASIC AND APPLIED SCIENTIFIC RESEARCH	RESEARCH AND DEVELOPMENT	\$ 10,155,770	\$ 544,486,028	N	UNIVERSITY OF CONNECTICUT	N00014-10-1-0944		\$	(958)
12 300		BASIC AND APPLIED SCIENTIFIC RESEARCH	RESEARCH AND DEVELOPMENT	\$ 10,153,978	\$ 544,486,028	N	UNIVERSITY OF MINNESOTA	N00014-12-1-1030		\$	64,562
12 300		BASIC AND APPLIED SCIENTIFIC RESEARCH	RESEARCH AND DEVELOPMENT	0 10 152 070	6 544 496 029	N	UNIVERSITY OF TENNESSEE, KNOXVILLE, THE	N00014-15-1-2269			5,330
12 300		DAGICAND ATTEIN SCIENTIFIC RESEARCH	ALDEARCH AND DEVELOPMENT	\$ 10,153,978	\$ 544,486,028	N	AMERICAN LIGHTWEIGHT	1100014-13-1-2209		Φ	3,330
		SCIENCE, TECHNOLOGY, ENGINEERING & MATHEMATICS (STEM)					MATERIALS MANUFACTURING		1	1	
12 330		EDUCATION, OUTREACH AND WORKFORCE PROGRAM	RESEARCH AND DEVELOPMENT	\$ 110,514	\$ 544,486,028	N	INNOVATION INSTITUTE	N00014-14-2-0002	I	s	110,514
- 550		SCIENTIFIC RESEARCH - COMBATING WEAPONS OF MASS		. 110,514						Ť	.10,017
12 351						Y			\$ 459,894	\$	1,771,561
		DESTRUCTION	RESEARCH AND DEVELOPMENT	\$ 1,793,454	\$ 544,486,028						
12 331		DESTRUCTION SCIENTIFIC RESEARCH - COMBATING WEAPONS OF MASS	RESEARCH AND DEVELOPMENT	\$ 1,793,454	\$ 544,486,028				,		
12 351		SCIENTIFIC RESEARCH - COMBATING WEAPONS OF MASS DESTRUCTION	RESEARCH AND DEVELOPMENT	\$ 1,793,454	\$ 544,486,028	N	COLUMBIA UNIVERSITY	HDTRA-11-0027		\$	21,893
12 351 12 360		SCIENTIFIC RESEARCH - COMBATING WEAPONS OF MASS DESTRUCTION RESEARCH ON CHEMICAL AND BIOLOGICAL DEFENSE	RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	\$ 1,793,454 \$ 400,068	\$ 544,486,028 \$ 544,486,028	N N	COLUMBIA UNIVERSITY RAYTHEON COMPANY	HDTRA-11-0027 W911NF-09-2-0053N		\$	400,068
12 351 12 360 12 420		SCIENTIFIC RESEARCH - COMBATING WEAPONS OF MASS DESTRUCTION RESEARCH ON CHEMICAL AND BIOLOGICAL DEFENSE MILITARY MEDICAL RESEARCH AND DEVELOPMENT	RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	\$ 1,793,454 \$ 400,068 \$ 932,312	\$ 544,486,028 \$ 544,486,028 \$ 544,486,028	N N Y	RAYTHEON COMPANY	W911NF-09-2-0053N		\$ \$ \$	400,068 884,955
12 351 12 360		SCIENTIFIC RESEARCH - COMBATING WEAPONS OF MASS DESTRUCTION RESEARCH ON CHEMICAL AND BIOLOGICAL DEFENSE	RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	\$ 1,793,454 \$ 400,068 \$ 932,312	\$ 544,486,028 \$ 544,486,028	N N Y				\$ \$ \$	400,068
12 351 12 360 12 420 12 420		SCIENTIFIC RESEARCH - COMBATING WEAPONS OF MASS DESTRUCTION RESEARCH ON CHEMICAL AND BIOLOGICAL DEFENSE MILITARY MEDICAL RESEARCH AND DEVELOPMENT MILITARY MEDICAL RESEARCH AND DEVELOPMENT	RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	\$ 1,793,454 \$ 400,068 \$ 932,312 \$ 932,312	\$ 544,486,028 \$ 544,486,028 \$ 544,486,028 \$ 544,486,028	N N Y	RAYTHEON COMPANY JOHNS HOPKINS UNIVERSITY	W911NF-09-2-0053N W81XWH-09-2-0108	,	\$ \$ \$	400,068 884,955 4,634
12 351 12 360 12 420		SCIENTIFIC RESEARCH - COMBATING WEAPONS OF MASS DESTRUCTION RESEARCH ON CHEMICAL AND BIOLOGICAL DEFENSE MILITARY MEDICAL RESEARCH AND DEVELOPMENT	RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	\$ 1,793,454 \$ 400,068 \$ 932,312	\$ 544,486,028 \$ 544,486,028 \$ 544,486,028	N N Y	RAYTHEON COMPANY JOHNS HOPKINS UNIVERSITY UNIVERSITY OF COLORADO	W911NF-09-2-0053N	,	\$ \$ \$ \$	400,068 884,955
12 351 12 360 12 420 12 420		SCIENTIFIC RESEARCH - COMBATING WEAPONS OF MASS DESTRUCTION RESEARCH ON CHEMICAL AND BIOLOGICAL DEFENSE MILITARY MEDICAL RESEARCH AND DEVELOPMENT MILITARY MEDICAL RESEARCH AND DEVELOPMENT	RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	\$ 1,793,454 \$ 400,068 \$ 932,312 \$ 932,312	\$ 544,486,028 \$ 544,486,028 \$ 544,486,028 \$ 544,486,028	N N Y	RAYTHEON COMPANY JOHNS HOPKINS UNIVERSITY UNIVERSITY OF COLORADO UNIVERSITY OF TEXAS HEALTH	W911NF-09-2-0053N W81XWH-09-2-0108		\$ \$ \$ \$	400,068 884,955 4,634
12 351 12 360 12 420 12 420 12 420		SCIENTIFIC RESEARCH - COMBATING WEAPONS OF MASS DESTRUCTION RESEARCH ON CHEMICAL AND BIOLOGICAL DEFENSE MILITARY MEDICAL RESEARCH AND DEVELOPMENT MILITARY MEDICAL RESEARCH AND DEVELOPMENT MILITARY MEDICAL RESEARCH AND DEVELOPMENT	RESEARCH AND DEVELOPMENT	\$ 1,793,454 \$ 400,068 \$ 932,312 \$ 932,312 \$ 932,312	\$ 544,486,028 \$ 544,486,028 \$ 544,486,028 \$ 544,486,028 \$ 544,486,028	N N Y N	RAYTHEON COMPANY JOHNS HOPKINS UNIVERSITY UNIVERSITY OF COLORADO UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT SAN ANTONIO,	W911NF-09-2-0053N W81XWH-09-2-0108 W81XWH-12-1-0090_NCE		\$ \$ \$ \$ \$ \$	400,068 884,955 4,634 (170)
12 351 12 360 12 420 12 420 12 420 12 420		SCIENTIFIC RESEARCH - COMBATING WEAPONS OF MASS DESTRUCTION RESEARCH ON CHEMICAL AND BIOLOGICAL DEFENSE MILITARY MEDICAL RESEARCH AND DEVELOPMENT	RESEARCH AND DEVELOPMENT	\$ 1,793,454 \$ 400,068 \$ 932,312 \$ 932,312 \$ 932,312 \$ 932,312	\$ 544,486,028 \$ 544,486,028 \$ 544,486,028 \$ 544,486,028 \$ 544,486,028 \$ 544,486,028	N N Y N	RAYTHEON COMPANY JOHNS HOPKINS UNIVERSITY UNIVERSITY OF COLORADO UNIVERSITY OF TEXAS HEALTH	W911NF-09-2-0053N W81XWH-09-2-0108		\$ \$ \$ \$	400,068 884,955 4,634 (170) 42,893
12 351 12 360 12 420 12 420 12 420 12 420 12 420 12 431		SCIENTIFIC RESEARCH - COMBATING WEAPONS OF MASS DESTRUCTION RESEARCH ON CHEMICAL AND BIOLOGICAL DEFENSE MILITARY MEDICAL RESEARCH AND DEVELOPMENT BASIC SCIENTIFIC RESEARCH AND DEVELOPMENT BASIC SCIENTIFIC RESEARCH	RESEARCH AND DEVELOPMENT	\$ 1,793,454 \$ 400,068 \$ 932,312 \$ 932,312 \$ 932,312 \$ 932,312 \$ 2,651,689	\$ 544,486,028 \$ 544,486,028 \$ 544,486,028 \$ 544,486,028 \$ 544,486,028 \$ 544,486,028 \$ 544,486,028	N N Y N N	RAYTHEON COMPANY JOHNS HOPKINS UNIVERSITY UNIVERSITY OF COLORADO UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT SAN ANTONIO, THE	W911NF-09-2-0053N W81XWH-09-2-0108 W81XWH-12-1-0090_NCE W81XWH1320065	\$ 17,192	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	400,068 884,955 4,634 (170) 42,893 1,676,179
12 351 12 360 12 420 12 420 12 420 12 420		SCIENTIFIC RESEARCH - COMBATING WEAPONS OF MASS DESTRUCTION RESEARCH ON CHEMICAL AND BIOLOGICAL DEFENSE MILITARY MEDICAL RESEARCH AND DEVELOPMENT BASIC SCIENTIFIC RESEARCH BASIC SCIENTIFIC RESEARCH BASIC SCIENTIFIC RESEARCH	RESEARCH AND DEVELOPMENT	\$ 1,793,454 \$ 400,668 \$ 932,312 \$ 932,312 \$ 932,312 \$ 932,312 \$ 2,651,689 \$ 2,651,689	\$ 544,486,028 \$ 544,486,028 \$ 544,486,028 \$ 544,486,028 \$ 544,486,028 \$ 544,486,028 \$ 544,486,028	N N Y N N N	RAYTHEON COMPANY JOHNS HOPKINS UNIVERSITY UNIVERSITY OF COLORADO UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT SAN ANTONIO, THE BOSTON UNIVERSITY	W911NF-09-2-0053N W81XWH-09-2-0108 W81XWH-12-1-0090_NCE W81XWH1320065		\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	400,068 884,955 4,634 (170) 42,893 1,676,179 104,652
12 351 12 360 12 420 12 420 12 420 12 420 12 431 12 431		SCIENTIFIC RESEARCH - COMBATING WEAPONS OF MASS DESTRUCTION RESEARCH ON CHEMICAL AND BIOLOGICAL DEFENSE MILITARY MEDICAL RESEARCH AND DEVELOPMENT BASIC SCIENTIFIC RESEARCH AND DEVELOPMENT BASIC SCIENTIFIC RESEARCH	RESEARCH AND DEVELOPMENT	\$ 1,793,454 \$ 400,068 \$ 932,312 \$ 932,312 \$ 932,312 \$ 932,312 \$ 2,651,689	\$ 544,486,028 \$ 544,486,028 \$ 544,486,028 \$ 544,486,028 \$ 544,486,028 \$ 544,486,028 \$ 544,486,028 \$ 544,486,028	N N Y N N N	RAYTHEON COMPANY JOHNS HOPKINS UNIVERSITY UNIVERSITY OF COLORADO UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT SAN ANTONIO, THE	W911NF-09-2-0053N W81XWH-09-2-0108 W81XWH-12-1-0090_NCE W81XWH1320065		\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	400,068 884,955 4,634 (170) 42,893 1,676,179

CFDA Number	Additional Award Identification	Name of Federal Award	Cluster Name	Fe	deral Program Total	Cluster Total	Direct Award	Name of Pass-through Entity	Identifying number assigned by the Pass-through Entity	Amount Passed Through to Subrecipients	Ame	ount Expended
12 431		BASIC SCIENTIFIC RESEARCH	RESEARCH AND DEVELOPMENT	\$	2,651,689	\$ 544,486,028	N	NATIONAL INSTITUTE OF AEROSPACE, THE	U.S. ARMY RESEARCH LABORATORY		\$	43,093
12 431		BASIC SCIENTIFIC RESEARCH	RESEARCH AND DEVELOPMENT	\$	2,651,689	\$ 544,486,028	N	NORTHEASTERN UNIVERSITY	W911NF-10-2-0098		\$	7,415
12 431		BASIC SCIENTIFIC RESEARCH	RESEARCH AND DEVELOPMENT	\$	2,651,689	\$ 544,486,028	N	PRINCETON UNIVERSITY	W911NF-12-1-0461		\$	132,884
12 431		BASIC SCIENTIFIC RESEARCH	RESEARCH AND DEVELOPMENT	\$	2,651,689	\$ 544,486,028	N	RICE UNIVERSITY	W911NF-11-1-0632		\$	406,075
12 431		BASIC SCIENTIFIC RESEARCH	RESEARCH AND DEVELOPMENT	s	2,651,689	\$ 544,486,028	N	UNIVERSITY OF CALIFORNIA, BERKELEY	W911NF-12-1-0541		\$	70,966
12 432		U.S. MILITARY ACADEMY ATHLETIC PROGRAMS AT WEST POINT	RESEARCH AND DEVELOPMENT	\$	155,099	\$ 544,486,028	Y				\$	155,099
		BASIC, APPLIED, AND ADVANCED RESEARCH IN SCIENCE AND		١.								
12 630		ENGINEERING	RESEARCH AND DEVELOPMENT	\$	4,888,078	\$ 544,486,028	Y			\$ 1,697,704	\$	2,975,195
12 630		BASIC, APPLIED, AND ADVANCED RESEARCH IN SCIENCE AND ENGINEERING	RESEARCH AND DEVELOPMENT	\$	4,888,078	\$ 544,486,028	N	DIGITAL MANUFACTURING AND DESIGN INNOVATION INSTITUTE	U.S. ARMY CONTRACTING COMMAND	\$ 29,056	\$	79,855
12 630		BASIC, APPLIED, AND ADVANCED RESEARCH IN SCIENCE AND ENGINEERING	RESEARCH AND DEVELOPMENT	\$	4,888,078	\$ 544,486,028	N	GENERAL ELECTRIC	W31P4Q-14-2-0001		\$	387,766
12 630		BASIC, APPLIED, AND ADVANCED RESEARCH IN SCIENCE AND ENGINEERING	RESEARCH AND DEVELOPMENT	\$	4,888,078	\$ 544,486,028	N	GREEN DYNAMICS INC.	W31P4Q-14-2-0001		\$	59,371
12 630		BASIC, APPLIED, AND ADVANCED RESEARCH IN SCIENCE AND ENGINEERING	RESEARCH AND DEVELOPMENT	\$	4,888,078	\$ 544,486,028	N	IBM	U.S. ARMY RESEARCH LABORATORY		\$	116,184
12 630		BASIC, APPLIED, AND ADVANCED RESEARCH IN SCIENCE AND ENGINEERING	RESEARCH AND DEVELOPMENT	s	4,888,078	\$ 544,486,028	N	IBM	W911NF-16-3-0001		s	7,985
12 630		BASIC, APPLIED, AND ADVANCED RESEARCH IN SCIENCE AND ENGINEERING	RESEARCH AND DEVELOPMENT	s	4,888,078	\$ 544,486,028	N	IOWA STATE UNIVERSITY	W31P4Q-14-2-0001		s	269,171
12 630		BASIC, APPLIED, AND ADVANCED RESEARCH IN SCIENCE AND ENGINEERING	RESEARCH AND DEVELOPMENT	s	4,888,078	\$ 544,486,028		ROLLS-ROYCE	W31P4Q-14-2-0001		\$	491,606
12 630		BASIC, APPLIED, AND ADVANCED RESEARCH IN SCIENCE AND ENGINEERING	RESEARCH AND DEVELOPMENT	s	4,888,078	\$ 544,486,028	N	STEP TOOLS, INC.	W31P4Q-14-2-0001		s	69,466
12 630		BASIC, APPLIED, AND ADVANCED RESEARCH IN SCIENCE AND ENGINEERING	RESEARCH AND DEVELOPMENT	S	4,888,078	\$ 544,486,028	N	UI LABS	W31P4Q-14-2-0001	\$ 39,323	S	431,479
12 800		AIR FORCE DEFENSE RESEARCH SCIENCES PROGRAM	RESEARCH AND DEVELOPMENT	S	6,813,330	\$ 544,486,028	Y	OT EX LIDS	W3114Q-14-2-0001	\$ 1,291,574	\$	4,276,653
12 800		AIR FORCE DEFENSE RESEARCH SCIENCES PROGRAM	RESEARCH AND DEVELOPMENT	\$	6,813,330	\$ 544,486,028		EWI	FA8650-12-2-7230	U 1,271,374	\$	31,301
12 800		AIR FORCE DEFENSE RESEARCH SCIENCES PROGRAM	RESEARCH AND DEVELOPMENT	9	6,813,330	\$ 544,486,028	N	HONEYWELL INTERNATIONAL INC.	FA8650-12-2-7230			120,351
12 800		AIR FORCE DEFENSE RESEARCH SCIENCES PROGRAM	RESEARCH AND DEVELOPMENT	\$		\$ 544,486,028		NATIONAL CENTER FOR DEFENSE MANUFACTURING AND MACHINING	FA8650-12-2-7230	\$ 277,567	\$	1,027,445
12 800		AIR FORCE DEFENSE RESEARCH SCIENCES PROGRAM	RESEARCH AND DEVELOPMENT	\$	6,813,330	\$ 544,486,028	N	NATIONAL CENTER FOR DEFENSE MANUFACTURING AND MACHINING	FA8650-16-2-5700		\$	115,420
12 800		AIR FORCE DEFENSE RESEARCH SCIENCES PROGRAM	RESEARCH AND DEVELOPMENT	5	6,813,330	\$ 544,486,028	N	NORTH CAROLINA STATE UNIVERSITY	N/A		8	236,569
12 800		AIR FORCE DEFENSE RESEARCH SCIENCES PROGRAM AIR FORCE DEFENSE RESEARCH SCIENCES PROGRAM	RESEARCH AND DEVELOPMENT	\$	6,813,330	\$ 544,486,028	N	RICE UNIVERSITY	FA9550-12-1-0035		\$	93,991
12 800		AIR FORCE DEFENSE RESEARCH SCIENCES PROGRAM	RESEARCH AND DEVELOPMENT	9	6,813,330	\$ 544,486,028	N	RICE UNIVERSITY	FA9550-14-1-0268		φ •	149,094
12 800		AIR FORCE DEFENSE RESEARCH SCIENCES PROGRAM	RESEARCH AND DEVELOPMENT	\$	6,813,330	\$ 544,486,028	N	STANFORD UNIVERSITY	FA9550-14-10317		S	212,360
12 800		AIR FORCE DEFENSE RESEARCH SCIENCES PROGRAM	RESEARCH AND DEVELOPMENT	s	6,813,330	\$ 544,486,028	N	TEXAS A&M RESEARCH FOUNDATION	FA9550-15-1-0149		\$	135,436
12 800		AIR FORCE DEFENSE RESEARCH SCIENCES PROGRAM	RESEARCH AND DEVELOPMENT	\$	6,813,330	\$ 544,486,028	N	UNIVERSITY OF DAYTON RESEARCH INSTITUTE	FA8650-10-2-2934		\$	(7,385)
12 800		AIR FORCE DEFENSE RESEARCH SCIENCES PROGRAM	RESEARCH AND DEVELOPMENT	\$	6,813,330	\$ 544,486,028	N	UNIVERSITY OF ILLINOIS	FA9550-12-1-0471		\$	153,466
12 800		AIR FORCE DEFENSE RESEARCH SCIENCES PROGRAM	RESEARCH AND DEVELOPMENT	\$	6,813,330	\$ 544,486,028	N	UNIVERSITY OF MARYLAND	FA95501310126		\$	37,952
12 800		AIR FORCE DEFENSE RESEARCH SCIENCES PROGRAM	RESEARCH AND DEVELOPMENT	\$	6,813,330	\$ 544,486,028	N	YOUNGSTOWN BUSINESS INCUBATOR	FA8650-12-2-7230		\$	43,755
12 800		AIR FORCE DEFENSE RESEARCH SCIENCES PROGRAM	RESEARCH AND DEVELOPMENT	\$	6,813,330	\$ 544,486,028	N	YOUNGSTOWN STATE UNIVERSITY	FA8650-16-2-5700		\$	186,922
12 901		MATHEMATICAL SCIENCES GRANTS	RESEARCH AND DEVELOPMENT	\$	8,744	\$ 544,486,028	Y				\$	8,744
12 903		GENCYBER GRANTS PROGRAM	RESEARCH AND DEVELOPMENT	\$	5,937	\$ 544,486,028	Y				\$	5,937
12 910		RESEARCH AND TECHNOLOGY DEVELOPMENT	RESEARCH AND DEVELOPMENT	\$	862,740	\$ 544,486,028	Y			\$ 96,361	\$	342,247
12 910		RESEARCH AND TECHNOLOGY DEVELOPMENT	RESEARCH AND DEVELOPMENT	\$	862,740	\$ 544,486,028	N	CARNEGIE INSTITUTION FOR SCIENCE	W31P4Q-13-1-0005		\$	193,980
12 910		RESEARCH AND TECHNOLOGY DEVELOPMENT	RESEARCH AND DEVELOPMENT	\$	862,740	\$ 544,486,028	N	CARNEGIE MELLON UNIVERSITY	N66001-13-2-4040		\$	249,209

CFDA Number	Additional Award	Name of Federal Award	Cluster Name	Federal Program Total	Cluster Total	Direct Award	Name of Pass-through Entity	Identifying number assigned by the Pass-through Entity	Amount Pa Through t Subrecipier	о	Amount Expended
910		RESEARCH AND TECHNOLOGY DEVELOPMENT	RESEARCH AND DEVELOPMENT	\$ 862,740		N	PRINCETON UNIVERSITY	N66001-11-1-4110		\$	9,917
910		RESEARCH AND TECHNOLOGY DEVELOPMENT	RESEARCH AND DEVELOPMENT	\$ 862,740	\$ 544,486,028	N	UNIVERSITY OF COLORADO	W31P4Q-13-1-0015		\$	67,38
RD	D14AP00042_AMEND 0001		RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	64,012
RD		ADVANCED RESEARCH PROJECTS AGENCY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161		Y				,387 \$	77,771
RD		ADVANCED RESEARCH PROJECTS AGENCY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161		Y			\$ 90	,460 \$	1,723,008
RD.	W911NF-15-1-0084	ADVANCED RESEARCH PROJECTS AGENCY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	126,908
								DEFENSE ADVANCED			
RD		ADVANCED RESEARCH PROJECTS AGENCY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	ACTUATED MEDICAL, INC.	RESEARCH PROJ		\$	5,793
RD		ADVANCED RESEARCH PROJECTS AGENCY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	GEORGE MASON UNIVERSITY	HR0011-16-C-0055		\$	111,635
	124818 TASK ORDER									- I.	
RD.	#126491	ADVANCED RESEARCH PROJECTS AGENCY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	JOHNS HOPKINS UNIVERSITY	HR0011-12-D-0001		- \$	52
RD	136490	ADVANCED RESEARCH PROJECTS AGENCY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	JOHNS HOPKINS UNIVERSITY	HR0011-16-C-0011		\$	196,587
										- I.	
RD.		ADVANCED RESEARCH PROJECTS AGENCY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	NEYA SYSTEMS LLC	W31P4Q-08-C-0123		\$	11,421
RD		ADVANCED RESEARCH PROJECTS AGENCY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	,,	\$ 544,486,028	N	UNIVERSITY OF MINNESOTA	2013-MA-2381		\$	175,894
RD	202092-PENN	ADVANCED RESEARCH PROJECTS AGENCY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	UNIVERSITY OF NOTRE DAME	2013-MA-2383		\$	642,304
	AEDI 1700425 DC DW	ADVANCED BEGGA DOLL BROLLECTO A CENOW NON OPPOSITION	DECEARCH AND DEVELOR OF				WONTEL BIG	DEFENSE ADVANCED			
RD		ADVANCED RESEARCH PROJECTS AGENCY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	VOXTEL, INC.	RESEARCH PROJ		\$	1,005
RD		DEFENSE INTELLIGENCE AGENCY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161		Y				- \$	15,938
RD		DEFENSE THREAT REDUCTION AGENCY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161		Y				\$	417,957
RD.	HDTRA1-13-C-0076	DEFENSE THREAT REDUCTION AGENCY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	4,000,000	\$ 544,486,028	Y				,518) \$	(5,518
RD.	HDTRA1-16-1-0005	DEFENSE THREAT REDUCTION AGENCY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y			\$ 133	,798 \$	433,975
							APPLIED RESEARCH ASSOCIATES,			- I.	
RD	PO14-1135	DEFENSE THREAT REDUCTION AGENCY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	INC.	HDTRA1-14-D-0003 TO 008		- \$	(1,538
RD		DEFENSE THREAT REDUCTION AGENCY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161		N	GENERAL ELECTRIC	246819		\$	293,150
RD		DEPARTMENT OF DEFENSE - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161		Y				\$	(145
RD	HQ0147-16-C-6006	DEPARTMENT OF DEFENSE - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	26,901
RD	22941	DEPARTMENT OF DEFENSE - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	BRIMROSE TECHNOLOGY CORPORATION	HQ0147-15-C-7401		\$	34,901
RD		DEPARTMENT OF DEFENSE - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028		DELAWARE STATE UNIVERSITY	N/A		\$	134,896
RD	4500063383	DEPARTMENT OF DEFENSE - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	GENERAL ATOMICS	W15P7T-06-D-E402		\$	61,209
	CRFR-008 TO CRFR-008-										
RD	002-01	DEPARTMENT OF DEFENSE - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	MATRIX RESEARCH INC.	N/A		\$	66,191
RD	18912 PO#29976M	DEPARTMENT OF DEFENSE - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	MEDICO INDUSTRIES, INC.	N/A		\$	(154
							NORTH CAROLINA STATE				
RD	2011-2800-01	DEPARTMENT OF DEFENSE - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	UNIVERSITY	N/A		\$	(3,760
RD.	72977-1926-46	DEPARTMENT OF DEFENSE - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	PHYSICAL SCIENCES INC.	HQ0147-16-C-7808		\$	27,066
RD	5003408031	DEPARTMENT OF DEFENSE - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	ROLLS-ROYCE	N/A		\$	15,154
RD.	PO 2941 CLIN 1	DEPARTMENT OF DEFENSE - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	SRI INTERNATIONAL	090051SC-SRI-01		\$	212,290
RD	PO 2941 CLIN 2	DEPARTMENT OF DEFENSE - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	SRI INTERNATIONAL	090051SC-SRI-01		\$	236,210
RD	PO 2942	DEPARTMENT OF DEFENSE - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	SRI INTERNATIONAL	2014-SC-4-0188		\$	167,495
RD	2102620-03 TO 0060	DEPARTMENT OF DEFENSE - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	STEVENS INSTITUTE OF TECHNOLOGY	HQ0034-13-D-0004		\$	38,451
	C064-PSU SP4701-15-C-				<u> </u>						
RD	0108	DEPARTMENT OF DEFENSE - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	STRATONICS, INC.	SP4701-15-C-0108		\$	3,845
RD	PO 13292	DEPARTMENT OF DEFENSE - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	ULTRAMET	N00014-16-P-1026		\$	25,000
	2015-328 TO3 NRTC-FY15-										
RD	R-01	DEPARTMENT OF DEFENSE - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	VERTICAL LIFT CONSORTIUM	NRTC-FY15-R-01	\$ 84	,284 \$	146,667
		DEPARTMENT OF THE AIR FORCE, MATERIEL COMMAND - NON-									
RD	FA8650-12-C-7225	SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y			\$ 71	,138 \$	119,207
		DEPARTMENT OF THE AIR FORCE, MATERIEL COMMAND - NON-									
RD	FA8650-15-C-5625	SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				s	371,351
		DEPARTMENT OF THE AIR FORCE, MATERIEL COMMAND - NON-		//	, ,						
RD	FA9453-15-C-0064	SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				S	82,295
		DEPARTMENT OF THE AIR FORCE, MATERIEL COMMAND - NON-		,,,,,,,,,	,,.20					Ť	,27
RD	FA9550-12-1-0270	SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				s	55,427
		DEPARTMENT OF THE AIR FORCE, MATERIEL COMMAND - NON-		,,101	,,020					Ť	23,127
RD	FA9550-15-1-0239	SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	91,273
		DEPARTMENT OF THE AIR FORCE, MATERIEL COMMAND - NON-									<u> </u>
RD	FA9550-15-1-0306	SPECIFIED	RESEARCH AND DEVELOPMENT	102 005 101	\$ 544,486,028	Y	İ	1	I	1 6	169,892

CFDA Numbe		Name of Federal Award	Cluster Name	Federal Program	Cluster Total	Direct Award	Name of Pass-through Entity	Identifying number assigned by the Pass-through Entity	Amount Pa Through Subrecipie	to	Amount Expended
12 RD		DEPARTMENT OF THE AIR FORCE, MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y	,	, g ,			\$ 3,580
12 RD	FA9550-17-1-0173	DEPARTMENT OF THE AIR FORCE, MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y					\$ 6,269
12 RD	200036173	DEPARTMENT OF THE AIR FORCE, MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	AEROJET ROCKETDYNE	FA8650-14-2-5214			\$ 1,995
12 RD	20160278	DEPARTMENT OF THE AIR FORCE, MATERIEL COMMAND - NON- SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	CFD RESEARCH CORPORATION	FA8650-16-M-6737			\$ 21,239
12 RD	10130	DEPARTMENT OF THE AIR FORCE, MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	DEFENSE ENGINEERING CORPORATION	N/A			\$ 81,014
12 RD		DEPARTMENT OF THE AIR FORCE, MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	DEFENSE ENGINEERING CORPORATION	FA8650-12-D-1376 0004			\$ 7,097
12 RD	DSD-SC-15-009 TO- 08ESM786292	DEPARTMENT OF THE AIR FORCE, MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	GENERAL DYNAMICS CORPORATION	FA8650-11-D-5702 TO-0009			\$ 52,049
12 RD	162084	DEPARTMENT OF THE AIR FORCE, MATERIEL COMMAND - NON- SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	KYMA TECHNOLOGIES	FA8650-11-D-5800			\$ 13,179
12 RD	P010176330	DEPARTMENT OF THE AIR FORCE, MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	LEIDOS	FA8650-12-D-1377/001			\$ 13,592
12 RD	4102518771	DEPARTMENT OF THE AIR FORCE, MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	LOCKHEED MARTIN CORPORATION	FA8219-15-C-0008			\$ 5,370
12 RD	PSU02WP32	DEPARTMENT OF THE AIR FORCE, MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	METROLASER, INC.	FA8650-15-C-2556			\$ 463
12 RD	22167	DEPARTMENT OF THE AIR FORCE, MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	ОРТОМЕС	FA8650-12-2-7230			\$ 25,872
12 RD	24296 PO 1041.PSU	DEPARTMENT OF THE AIR FORCE, MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	SABRE SYSTEMS, INC.	FA8750-16-C-0216			\$ 34,752
12 RD	SPG-FD-16-C-001 CLIN 01	DEPARTMENT OF THE AIR FORCE, MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	SP GLOBAL INC.	FA8726-16-C-0016			\$ 41,659
12 RD	SPG-FD-16-C-001 CLIN 02	DEPARTMENT OF THE AIR FORCE, MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	SP GLOBAL INC.	FA8726-16-C-0016			\$ 3,121
12 RD	T2016-118	DEPARTMENT OF THE AIR FORCE, MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	TELAZTEC LLC	FA9451-15-D-0019			\$ 30,802
12 RD	SC16-5995-1	DEPARTMENT OF THE AIR FORCE, MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	TOYON RESEARCH CORPORATION	FA8650-16-C-1769			\$ 76,030
12 RD	S-925-03A-001	DEPARTMENT OF THE AIR FORCE, MATERIEL COMMAND - NON- SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	UES, INC.	FA8650-11-D-5400 TO-003			\$ 52,777
12 RD		DEPARTMENT OF THE AIR FORCE, MATERIEL COMMAND - NON- SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028		UES, INC.	FA8650-14-C-5193			\$ 16,058
12 RD		DEPARTMENT OF THE AIR FORCE, MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	ULTRAMET	FA9300-12-C-2003			\$ (464)
12 RD	2604302	DEPARTMENT OF THE AIR FORCE, MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	UNITED TECHNOLOGIES RESEARCH CENTER	FA8650-12-2-7230			\$ 12
12 RD	A001650203	DEPARTMENT OF THE AIR FORCE, MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	UNIVERSITY OF MINNESOTA	FA9550-10-1-0563	\$ 119	,583	\$ 119,583
12 RD	UTA14-001124	DEPARTMENT OF THE AIR FORCE, MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	UNIVERSITY OF TEXAS AT AUSTIN, THE	FA95601410089			\$ 131,146
12 RD	10028801-PENN-APP PO 174167	DEPARTMENT OF THE AIR FORCE, MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	UNIVERSITY OF UTAH, THE	W911NF-12-2-0023			\$ 158,113
12 RD	N00014-05-G-0106 DO 0005	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y			\$ (10),310)	\$ (10,310)
12 RD	N00014-05-G-0106 DO 0061	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y			\$,010	\$ 7,600
12 RD	N00014-10-D-0145 DO 0004	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y			\$ 1,764	1,931	\$ 3,450,822
12 RD	N00014-10-D-0145 DO 0005		RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y			\$ 53	3,067	\$ 95,925
12 RD	N00014-10-D-0145 DO 0007	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y			\$ 10),432	\$ 77,274
12 RD	N00014-10-D-0145 DO 0008		RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y			\$ 57	,120	\$ 77,824
12 RD	N00014-10-D-0145 DO 0009	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y			\$ 50),316	\$ 50,316

CFD.		Name of Federal Award	Cluster Name	Federal Program Total	Cluster Total	Direct Award	Name of Pass-through Entity	Identifying number assigned by the Pass-through Entity	Amount Passe Through to Subrecipients		amount Expended
12 RI		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y	3	, ,	1	\$	165,944
12 RI	N00014-10-G-0259 DO 0034	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	718,713
12 RI	N00014-12-C-0124	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	(932)
12 RI	N00014-13-1-0220	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	6,326
12 RI	N00014-14-1-0847	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	21,941
12 RI	N00014-14-C-0004	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y			\$ 88,77	3 \$	165,421
12 RI	N00014-14-C-0020	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	90,753
12 RI	N00014-14-C-0157	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y			\$ 61,63	\$1 \$	278,327
12 RI	N00014-15-1-2364	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	29,926
12 RI	N00014-15-1-2930	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	398,398
12 RI	N00014-15-D-5003 DO 0001	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	490,108
12 RI	N00014-15-D-5003 DO 0002	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	409,768
12 RI	N00014-15-G-0001 DO 0001	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	1,292,907
12 RI	N00014-15-G-0001 DO 0002	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	1,647,129
12 RI	N00014-15-G-0001 DO 0003	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	75,094
12 RI	N00014-15-G-0001 DO 0004	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	431,873
12 RI	N00014-15-G-0001 DO 0005	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	864,459
12 RI		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	267,123
12 RI		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	192,750
12 RI	N00014-15-G-0001/17-F- 2015	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	208,803
12 RI	N00014-16-1-2082	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	100,326
12 RI	N00014-16-1-2186	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	176,335
12 RI	N00014-16-1-2383	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	22,587
12 RI	N00014-16-1-2790	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	8,090
12 RI	N00014-16-1-2816	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	42,401
12 RI	N00014-16-1-2912	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	97,335
12 RI	N00014-16-1-2952	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	52,429
12 RI	N00014-16-F-M010	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED REPARTMENT OF THE NAVY OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y			\$ 267,92	26 \$	422,718
12 RI	N00014-17-1-2088	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	68,776
12 RI	N00014-17-1-2361	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	5,881
12 RI	N00014-17-1-2526	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	162,526

CFDA Numbe	Additional Award Identification	Name of Federal Award	Cluster Name	Federal Program Total	Cluster Total	Direct Award	Name of Pass-through Entity	Identifying number assigned by the Pass-through Entity	Amount Passed Through to Subrecipients	Amount Expended
12 RD		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161		Y	Name of Lass-through Linky	by the Pass-through Entity	Buorecipients	\$ 5,978
12 RD		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 13,280
12 RD	N00024-02-D-6604 DO 0324	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ (369)
12 RD	N00024-02-D-6604 DO 0358	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ (105)
12 RD	N00024-02-D-6604 DO 0415	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y			\$ (7,20)	\$ (7,201)
12 RD		RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ (148)
12 RD		RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y			\$ 11,649	
12 RD	N00024-02-D-6604 DO 0541	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	\$ 182,865,161 \$ 182,865,161	\$ 544,486,028 \$ 544,486,028	Y			\$ (11,265	\$ (3,929)) \$ (11,265)
12 RD		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y			\$ 7,173	\$ 7,531
12 RD	N00024-02-D-6604 DO 0654	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ (186)
12 RD	N00024-02-D-6604 DO 0655	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 227
12 RD	N00024-02-D-6604 DO 0660	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ (325)
12 RD		RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ (36)
12 RD		RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	\$ 182,865,161 \$ 182,865,161	\$ 544,486,028	Y				\$ (3,251)
12 RD		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028 \$ 544,486,028	Y			\$ 6,252	\$ 47,652 \$ 6,565
12 RD		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161		Y			0,231	\$ (2,646)
12 RD	N00024-12-D-6402 DO 0062	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y			\$ 1,174	\$ 1,233
12 RD	N00024-12-D-6404 DO 0002	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ (2,209)
12 RD	N00024-12-D-6404 DO 0003	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 1,354
12 RD		RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161		Y			\$ 3,925	
12 RD		RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161		Y			\$ 221,431	
12 RD		RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	\$ 182,865,161 \$ 182,865,161	\$ 544,486,028 \$ 544,486,028	Y			\$ 5,000 \$ 3,168	
12 RD		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y			5,100	\$ 319
12 RD	N00024-12-D-6404 DO 0066	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 264,859
12 RD	N00024-12-D-6404 DO 0069	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y			\$ 62,784	\$ 2,665,447
12 RD	N00024-12-D-6404 DO 0070	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 159,437
12 RD	N00024-12-D-6404 DO 0075	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 275
12 RD	N00024-12-D-6404 DO 0078	RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 577

CFDA Numbe	Additional Award Identification	Name of Federal Award	Cluster Name	Federal Program Total	Cluster Total	Direct Award	Name of Pass-through Entity	Identifying number assigned by the Pass-through Entity	Amount Passed Through to Subrecipients	Amount Expended
		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL				Y	ranc of rass-through Entity	by the Pass-through Entity	Buorecipients	,
12 RD		RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	\$ 182,865,161 \$ 182,865,161	\$ 544,486,028 \$ 544,486,028	Y				\$ 89,327 \$ 125,179
12 RD	N00024-12-D-6404 DO 0095	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y			\$ 72,381	\$ 761,230
12 RD		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y			72,301	\$ 334
12 RD		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 281,794
12 RD	N00024-12-D-6404 DO 0109	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 1,264
12 RD	N00024-12-D-6404 DO 0116	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 1,697
12 RD	N00024-12-D-6404 DO 0119	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ (6,361)
12 RD	N00024-12-D-6404 DO 0120	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 22,405
12 RD	N00024-12-D-6404 DO 0121	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 359,622
12 RD	N00024-12-D-6404 DO 0130	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ (2,850)
12 RD	N00024-12-D-6404 DO 0131	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 908
12 RD	N00024-12-D-6404 DO 0135	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 258
12 RD	N00024-12-D-6404 DO 0136	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ (50)
12 RD	N00024-12-D-6404 DO 0140	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 36,682
12 RD	N00024-12-D-6404 DO 0141	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ (4,706)
12 RD	N00024-12-D-6404 DO 0143	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 37,207
12 RD	N00024-12-D-6404 DO 0145	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 883
12 RD	N00024-12-D-6404 DO 0146	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 109
12 RD	N00024-12-D-6404 DO 0153	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 717,018
12 RD	N00024-12-D-6404 DO 0154	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 310,589
12 RD	N00024-12-D-6404 DO 0158	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 159,657
12 RD	N00024-12-D-6404 DO 0159	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ (2,334)
12 RD	N00024-12-D-6404 DO 0160	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 2,262,369
12 RD	N00024-12-D-6404 DO 0162	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 85,466
12 RD	N00024-12-D-6404 DO 0165	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 50,331
12 RD	N00024-12-D-6404 DO 0166	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ (58,463)
12 RD	N00024-12-D-6404 DO 0167	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 605,770
12 RD	N00024-12-D-6404 DO 0171	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 120
12 RD	N00024-12-D-6404 DO 0173	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y			\$ 153,725	\$ 453,031
12 RD	N00024-12-D-6404 DO 0180	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 40

CFDA Number	Additional Award Identification	Name of Federal Award	Cluster Name	Federal Program Total	Cluster Total	Direct Award	Name of Pass-through Entity	Identifying number assigned by the Pass-through Entity	Amount Passed Through to Subrecipients	Amount Expended
12 RD		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161		Y	Name of Lass-through Entry	by the Fass-through Entity	Buorecipients	\$ 67,371
12 RD	N00024-12-D-6404 DO 0184	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 2,030
12 RD	N00024-12-D-6404 DO 0185	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 150,189
12 RD	N00024-12-D-6404 DO 0187	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 1,092
12 RD	N00024-12-D-6404 DO 0190	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 309,893
12 RD	N00024-12-D-6404 DO 0191	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y			\$ 110,499	\$ 570,561
12 RD	N00024-12-D-6404 DO 0193	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ (770)
12 RD	N00024-12-D-6404 DO 0194	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ (1,062)
12 RD	N00024-12-D-6404 DO 0195	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 269,253
12 RD	N00024-12-D-6404 DO 0196	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 362,615
12 RD		RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y			\$ 51,918	\$ 1,888,232
12 RD		RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 2,828
12 RD		RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 119,058
12 RD		RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	\$ 182,865,161 \$ 182,865,161	\$ 544,486,028 \$ 544,486,028	Y				\$ (10,126) \$ 476
12 RD		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 28,897
12 RD		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 6,268
12 RD		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161		Y				\$ (118)
12 RD	N00024-12-D-6404 DO 0217	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 665
12 RD	N00024-12-D-6404 DO 0218	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 6
12 RD	N00024-12-D-6404 DO 0219	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 160,154
12 RD	N00024-12-D-6404 DO 0221	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ (319)
12 RD	N00024-12-D-6404 DO 0224	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 80,104
12 RD	N00024-12-D-6404 DO 0225	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 232,644
12 RD	N00024-12-D-6404 DO 0227	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 190,624
12 RD	N00024-12-D-6404 DO 0228	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ (9,213)
12 RD	N00024-12-D-6404 DO 0229	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 91,748
12 RD	N00024-12-D-6404 DO 0235	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ (3,345)
12 RD		RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ (5,308)
12 RD		RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ (19)
12 RD	N00024-12-D-6404 DO 0244	RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 13,259

CFE Numi	- 1	Additional Award Identification	Name of Federal Award	Cluster Name	Federal Program Total	Cluster Total	Direct Award	Name of Pass-through Entity	Identifying number assigned by the Pass-through Entity	Amount Passed Through to Subrecipients	Amount Expended
П	\neg		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y	Tune of Fuss through Entry	oy the rass through Emily		
12 R			DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y			\$ 35,438	\$ 35,438 \$ (123)
П			DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL								, ,
12 R			RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161		Y				\$ (2,100)
12 R			RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ (1,803)
12 R	D :	N00024-12-D-6404 DO 0255	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y			\$ 500	\$ 4,744
12 R	D :	N00024-12-D-6404 DO 0258	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ (3,430)
12 R	D :	N00024-12-D-6404 DO 0260	RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 2,948,056
12 R	D :	N00024-12-D-6404 DO 0265	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 48
12 R	D.	N00024-12-D-6404 DO 0266	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ (787)
12 R	D.	N00024-12-D-6404 DO 0267	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 4,045
12 R			DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 17,761
12 R			DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 472,826
12 R			DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT			Y				
			DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL		\$ 182,865,161	\$ 544,486,028					\$ 48,752
12 R			RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 92,780
12 R	D :	N00024-12-D-6404 DO 0278	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 10,503,736
12 R	D :	N00024-12-D-6404 DO 0279	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y			\$ 1,000	\$ 80,443
12 R	D :	N00024-12-D-6404 DO 0280	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 179,048
12 R	D :	N00024-12-D-6404 DO 0283	RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ (525)
12 R	D :	N00024-12-D-6404 DO 0287	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 145,964
12 R	D :	N00024-12-D-6404 DO 0290	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ (660)
12 R	D :	N00024-12-D-6404 DO 0292	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ (1,921)
12 R	D.		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 480,676
12 R			DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 4
			DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161		Y				\$ 510,959
12 R			DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL			\$ 544,486,028	-				
12 R			RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 190
12 R	D	N00024-12-D-6404 DO 0298	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 118,065
12 R	D :	N00024-12-D-6404 DO 0299	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 48,919
12 R	D :	N00024-12-D-6404 DO 0300	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ (396)
12 R	D :	N00024-12-D-6404 DO 0302	RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 264,881
12 R	D :	N00024-12-D-6404 DO 0303	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ (296)
12 R	D.	N00024-12-D-6404 DO 0304	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ (166)

CFDA Numbe	Additional Award Identification	Name of Federal Award	Cluster Name	Federal Program Total	Cluster Total	Direct Award	Name of Pass-through Entity	Identifying number assigned by the Pass-through Entity	Amount Passed Through to Subrecipients	Amount	Expended
12 RD		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y		- y		\$	271,652
12 RD	N00024-12-D-6404 DO 0307	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	58,675
12 RD	N00024-12-D-6404 DO 0308	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	(62)
12 RD	N00024-12-D-6404 DO 0309	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	1,003,710
12 RD	N00024-12-D-6404 DO 0310	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	421,222
12 RD	N00024-12-D-6404 DO 0312	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	49,985
12 RD	N00024-12-D-6404 DO 0313	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	478,417
12 RD	N00024-12-D-6404 DO 0314	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	285,241
12 RD	N00024-12-D-6404 DO 0316	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	(2,247)
12 RD	N00024-12-D-6404 DO 0317	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	171,722
12 RD	N00024-12-D-6404 DO 0319	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	338,370
12 RD	N00024-12-D-6404 DO 0320	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	(182)
12 RD	N00024-12-D-6404 DO 0321	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	171,968
12 RD	N00024-12-D-6404 DO 0322	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	419,589
12 RD	N00024-12-D-6404 DO 0323	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	93,928
12 RD	N00024-12-D-6404 DO 0325	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	10,958
12 RD	N00024-12-D-6404 DO 0326	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	18,358
12 RD	N00024-12-D-6404 DO 0329	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	(6,680)
12 RD	N00024-12-D-6404 DO 0330	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	(2,383)
12 RD	N00024-12-D-6404 DO 0331		RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	1,222,177
12 RD	N00024-12-D-6404 DO 0333	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	3
12 RD	N00024-12-D-6404 DO 0334	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	322,930
12 RD		RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	287,164
12 RD		RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	1,405,358
12 RD		RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	147,845
12 RD		RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT			Y				\$	136,206
12 RD		RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161		Y				\$	668,482
12 RD		RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161		Y				\$	(5,393)
12 RD		RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161		Y				\$	2,089
12 RD		RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161		Y				\$	270,082
12 RD	N00024-12-D-6404 DO 0343	RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	4,095

CFD.		Additional Award Identification	Name of Federal Award	Cluster Name	Federal Program Total	Cluster Total	Direct Award	Name of Pass-through Entity	Identifying number assigned by the Pass-through Entity	Amount Passed Through to Subrecipients	Amount Expended
Nullio	č1		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	Cluster Name	Total	Cluster Total	Awaiu	Name of Fass-through Entity	by the rass-through Entity	Subrecipients	Amount Expended
12 RI	N000		RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 624,328
12 RI	N000		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 290,074
12 RI	N000	024-12-D-6404 DO 0346	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 987,762
12	7 11000		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESERVENT AND BEVELOT MENT	3 182,803,101	3 344,480,028	1				3 987,702
12 RI	N000		RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 714,854
12 RI	N000	024-12-D-6404 DO 0349	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y			\$ 48,742	\$ 295,870
12 RI	N000		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 8,090
12 RI	N000	024-12-D-6404 DO 0351	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 29,784
12 RI			DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 88,794
12	7 11000		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESERVENT AND BE VEED INEXT	3 162,803,101	\$ 544,460,028	1				\$ 66,724
12 RI	N000	024-12-D-6404 DO 0353	RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ (4,165)
12 RI	N000		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 638,707
12	7 11000		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESERVENT AND BE VEED INEXT	3 162,803,101	\$ 544,460,026	1				\$ 038,707
12 RI	N000	024-12-D-6404 DO 0355	RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 58,961
12 RI	N000		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 37,498
12 RI	N000		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 10,024
12 DI	NIOOO		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	DESCARCH AND DEVELOPMENT	0 102 075 171	£ 544 497 029	_Y				¢ 22.797
12 RI	N000		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 32,786
12 RI	N000		RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 31,382
12 RI	N000	024-12-D-6404 DO 0360	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 32,432
12 RI	N000	024-12-D-6404 DO 0361	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 223,238
12	7 11000		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESERVENT AND BEVELOTIVE VI	3 182,803,101	3 344,480,028	1				\$ 223,236
12 RI	N000	024-12-D-6404 DO 0362	RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 1,154,857
12 RI	N000		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 359,864
12 DI	Ninno		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 512,678
12	7 11000		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESERVENT AND BE VEED INEXT	3 162,803,101	\$ 544,460,026	1				3 312,076
12 RI	N000	024-12-D-6404 DO 0365	RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ (73)
12 RI	N000		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 277,823
12 RI	N000		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 50,114
12 RI	N000	024-12-D-6404 DO 0369	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 206,742
12 RI	N000	024-12-D-6404 DO 0370	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 2,306,765
12 RI	N000		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 1,224,264
12 RI	N000		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 176,294
12 RI	N000		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 140,767
12 RI			DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161		Y				\$ 197,506
12 RI	N000		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 56,904
12 RI	N000	024-12-D-6404 DO 0376	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 198,811

CFDA	Additional Award			Federal Program		Direct		Identifying number assigned	Amount Passed Through to		
Numbe	Identification	Name of Federal Award DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	Cluster Name	Total	Cluster Total	Award	Name of Pass-through Entity	by the Pass-through Entity	Subrecipients	Amount E	xpended
12 RD	N00024-12-D-6404 DO 0377	RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	102,509
12 RD	N00024-12-D-6404 DO 0378	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	2,503
12 RD	N00024-12-D-6404 DO 0379	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	200,968
12 RD	N00024-12-D-6404 DO 0380	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	362,686
12 RD	N00024-12-D-6404 DO 0382	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	656,797
12 RD	N00024-12-D-6404 DO 0383	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	95
12 RD	N00024-12-D-6404 DO 0384	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	128,385
12 RD		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				s	48,175
12 RD		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				¢	90,609
		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161		Y				6	253,519
12 RD		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL				-				5	
12 RD		RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	679,401
12 RD		RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	193
12 RD		RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	895,398
12 RD	N00024-12-D-6404 DO 0393	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	20,992
12 RD	N00024-12-D-6404 DO 0394	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	744,810
12 RD	N00024-12-D-6404 DO 0395	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	(12)
12 RD	N00024-12-D-6404 DO 0396	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	15,295
12 RD	N00024-12-D-6404 DO 0397	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	288,457
12 RD	N00024-12-D-6404 DO 0398	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	127,294
12 RD	N00024-12-D-6404 DO 0399	RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	522,526
12 RD	N00024-12-D-6404 DO 0401	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	202,705
12 RD	N00024-12-D-6404 DO 0402	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	181,204
12 RD	N00024-12-D-6404 DO 0403	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	197
12 RD	N00024-12-D-6404 DO 0404	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	92,773
12 RD	N00024-12-D-6404 DO 0405	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	202,311
12 RD	N00024-12-D-6404 DO 0406	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	46,073
12 RD		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161		Y			\$ 191,663	\$ 1	1,653,728
12 RD		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161		Y				\$	7,253
12 RD		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161		Y				s	5,659
12 RD		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161		Y				s	23,868
		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL				V				6	
12 RD	N00024-12-D-6404 DO 0412	RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				2	950,137

CFD.		Name of Federal Award	Cluster Name	Federal Program Total	Cluster Total	Direct Award	Name of Pass-through Entity	Identifying number assigned by the Pass-through Entity	Thi	unt Passed rough to recipients	Amou	nt Expended
12 RI		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y	2 7	, ,		1	\$	497,524
12 RI	N00024-12-D-6404 DO 0414	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y					\$	49,622
12 RI	N00024-12-D-6404 DO 0415	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y					\$	119,822
12 RI	N00024-12-D-6404 DO 0416	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y					\$	22,620
12 RI	N00024-12-D-6404 DO 0417	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y					\$	827,972
12 RI	N00024-12-D-6404 DO 0418	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y					\$	1,162,833
12 RI	N00024-12-D-6404 DO 0419	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y					\$	99,631
12 RI	N00024-12-D-6404 DO 0420	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y					\$	128
12 RI	N00024-12-D-6404 DO 0421	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y					\$	475,834
12 RI	N00024-12-D-6404 DO 0422	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y					\$	516,444
12 RI	N00024-12-D-6404 DO 0423	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y			\$	283,322	\$	3,329,712
12 RI	N00024-12-D-6404 DO 0424	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y					\$	69,559
12 RI	N00024-12-D-6404 DO 0425	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y			\$	116,330	\$	2,983,899
12 RI	N00024-12-D-6404 DO 0426	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y			\$	27,764	\$	3,355,751
12 RI	N00024-12-D-6404 DO 0427	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y					\$	983,007
12 RI	N00024-12-D-6404 DO 0428	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y					\$	1,048,861
12 RI	N00024-12-D-6404 DO 0429	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y					\$	901,085
12 RI	N00024-12-D-6404 DO 0431	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y					\$	898,035
12 RI	N00024-12-D-6404 DO 0432	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y					\$	218,411
12 RI	N00024-12-D-6404 DO 0433	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y					\$	120,949
12 RI	N00024-12-D-6404 DO 0434	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y					\$	909,660
12 RI	N00024-12-D-6404 DO 0435	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y					\$	183,591
12 RI	N00024-12-D-6404 DO 0436	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y					\$	290,393
12 RI	N00024-12-D-6404 DO 0437	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y					\$	461,346
12 RI	N00024-12-D-6404 DO 0438	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y					\$	282,448
12 RI	N00024-12-D-6404 DO 0439	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y					\$	276,333
12 RI	N00024-12-D-6404 DO 0440	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y					\$	454,880
12 RI	N00024-12-D-6404 DO 0442	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y					\$	436,379
12 RI	N00024-12-D-6404 DO 0443	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y					\$	(3,854)
12 RI	N00024-12-D-6404 DO 0444	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y					\$	206,226
12 RI	N00024-12-D-6404 DO 0445	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y					\$	562,447

									Amount Passed		
CFDA		V. CELLA	CI . V	Federal Program	CI . T. I	Direct	N. CD d. LEC	Identifying number assigned	Through to		· F 1.1
Numbe	r Identification	Name of Federal Award DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	Cluster Name	Total	Cluster Total	Award	Name of Pass-through Entity	by the Pass-through Entity	Subrecipients	Amou	int Expended
12 RE	N00024-12-D-6404 DO 0446	RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	1,504,552
	N000024 12 D (404 DO 0447	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	DESCEADOU AND DEVELOPMENT								40.400
12 RL	N00024-12-D-6404 DO 044/	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	48,103
12 RE	N00024-12-D-6404 DO 0448	RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y			\$ 68,746	\$	2,152,013
\prod	Nana 1 12 B (101 B 0 0 110	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	DESCRIPTION OF THE								
12 RE	N00024-12-D-6404 DO 0449	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	198,249
12 RE	N00024-12-D-6404 DO 0450	RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	95,852
	N00024 12 D (404 DO 0451	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	DECEARCH AND DEVELOPMENT								500 405
12 RL	N00024-12-D-6404 DO 0451	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	690,486
12 RE	N00024-12-D-6404 DO 0452	RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	118,443
la DE	N00024 12 D (404 DO 0452	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	DECEARCH AND DEVELOPMENT	6 102.065.161	£ 544.406.020	37					160.657
12 RE	N00024-12-D-6404 DO 0453	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				2	169,657
12 RE	N00024-12-D-6404 DO 0454	RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	103,347
12 DE	N00024 12 D 6404 DO 0455	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				6	278,089
12 KL	N00024-12-D-0404 DO 0433	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,803,101	\$ 344,480,028	Y				2	2/8,089
12 RE	N00024-12-D-6404 DO 0456	RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	364,305
la DE	N00024-12-D-6404 DO 0457	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544.486.028	v					04.167
12 KL	N00024-12-D-0404 DO 0437	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,803,101	\$ 544,486,028	Y				2	94,167
12 RE	N00024-12-D-6404 DO 0458	RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	1,095,518
12 DE	N00024 12 D 6404 DO 0450	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	DESEARCH AND DEVELOPMENT	6 192 975 171	\$ 544.486.028	Y				6	106.074
12 KL	N00024-12-D-6404 DO 0439	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				2	196,074
12 RE	N00024-12-D-6404 DO 0460	RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	8,211,184
12 DE	N00024-12-D-6404 DO 0461	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y					193,055
12 KL	100024-12-D-0404 DO 0401	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOT MENT	3 182,803,101	3 344,480,028	1				3	193,033
12 RE	N00024-12-D-6404 DO 0462	RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	159,640
12 RE	N00024-12-D-6404 DO 0463	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y					1,750
12 KL	100024-12-D-0404 DO 0403	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOT MENT	3 182,803,101	3 344,480,028	1				D.	1,730
12 RE	N00024-12-D-6404 DO 0464	RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	226,662
12 PF	N00024-12-D-6404 DO 0465	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y					824,541
12 KL	1100024-12-D-0404 DO 0403	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND BE VEED MENT	3 182,803,101	3 344,460,028	1				9	624,541
12 RE	N00024-12-D-6404 DO 0466	RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	60,000
12 RT	N00024-12-D-6404 DO 0467	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y			\$ 6,308	s	45,505
12 KL	1.3002 1 12 D-0101 DO 0407	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	THE SEVEROI WENT	102,000,101	\$ 577,700,028	1			0,308	<u> </u>	-5,505
12 RE	N00024-12-D-6404 DO 0468	RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	3,563
12 RT	N00024-12-D-6404 DO 0469	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				s	3,618,439
12 141		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL		102,003,101	2 211,100,020	•				Ť	3,010,137
12 RE	N00024-12-D-6404 DO 0470	RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	195,540
12 RE	N00024-12-D-6404 DO 0471	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y			\$ 13,200	s	822,043
1		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL							13,200		,
12 RE	N00024-12-D-6404 DO 0472	RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	693,586
12 RE	N00024-12-D-6404 DO 0473	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				s	467,971
12 342		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL									
12 RE	N00024-12-D-6404 DO 0474	RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	22,950
12 RE	N00024-12-D-6404 DO 0475	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	186,946
		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL									
12 RE	N00024-12-D-6404 DO 0476	RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	70,112

CFDA Numbe	Additional Award Identification	Name of Federal Award	Cluster Name	Federal Program Total	Cluster Total	Direct Award	Name of Pass-through Entity	Identifying number assigned by the Pass-through Entity	Amount Throug Subrecip	h to	Amount Expended
12 RD		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y	Name of Lass through Entry	by the rate through Entry	Buoreen	, cats	\$ 62,120
12 RD	N00024-12-D-6404 DO 0478	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y					\$ 249,705
12 RD	N00024-12-D-6404 DO 0479	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y					\$ 27,933
12 RD	N00024-12-D-6404 DO 0480	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y					\$ 51,987
12 RD	N00024-12-D-6404 DO 0481	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y					\$ 137,423
12 RD	N00024-12-D-6404 DO 0482	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED NEW ATTENDATION OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y					\$ 235,724
12 RD	N00024-12-D-6404 DO 0483	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y					\$ 148,873
12 RD	N00024-12-D-6404 DO 0484	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y					\$ 202,237
12 RD	N00024-12-D-6404 DO 0485	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y					\$ 33,058
12 RD	N00024-12-D-6404 DO 0486	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y					\$ 1,035,830
12 RD	N00024-12-D-6404 DO 0487	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y					\$ 463,810
12 RD	N00024-12-D-6404 DO 0488	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y					\$ 181,868
12 RD		RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y					\$ 99,282
12 RD		RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161		Y					\$ 1,666,196
12 RD		RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161		Y					\$ 275,548
12 RD		RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	\$ 182,865,161		Y					\$ 81,815
12 RD		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161 \$ 182,865,161		Y					\$ 1,885,064 \$ 8,557
12 RD		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161		Y					\$ 21,641
12 RD		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161		Y					\$ 716,794
12 RD	N00024-12-D-6404 DO 0499	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161		Y					\$ 619,927
12 RD	N00024-12-D-6404 DO 0500	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y					\$ 129,923
12 RD	N00024-12-D-6404 DO 0502	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y			s	47,064	\$ 135,130
12 RD	N00024-12-D-6404 DO 0503	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y			\$ 2	80,054	\$ 957,690
12 RD	N00024-12-D-6404 DO 0504	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y					\$ 343,525
12 RD	N00024-12-D-6404 DO 0505	RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y					\$ 168,201
12 RD	N00024-12-D-6404 DO 0506	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y					\$ 2,499,401
12 RD	N00024-12-D-6404 DO 0507	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y					\$ 636,585
12 RD	N00024-12-D-6404 DO 0508	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y					\$ 361,365
12 RD	N00024-12-D-6404 DO 0509	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y					\$ 441,207
12 RD	N00024-12-D-6404 DO 0510	RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y					\$ 245,853

CFDA Number	Additional Award Identification	Name of Federal Award	Cluster Name	Federal Program Total	Cluster Total	Direct Award	Name of Pass-through Entity	Identifying number assigned	Amount Passed Through to Subrecipients	Amount Expended
12 RD		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y	Name of Fass-through Entity	by the Pass-through Entity	Subrecipients	\$ 809,738
12 RD		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 116,081
12 RD		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 318,805
12 RD	N00024-12-D-6404 DO 0514	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 208,946
12 RD	N00024-12-D-6404 DO 0515	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y			\$ 146,632	\$ 2,023,297
12 RD	N00024-12-D-6404 DO 0516	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 2,440,123
12 RD	N00024-12-D-6404 DO 0518	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 473,677
12 RD	N00024-12-D-6404 DO 0519	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 82,385
12 RD	N00024-12-D-6404 DO 0520	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y			\$ 127,995	\$ 243,519
12 RD	N00024-12-D-6404 DO 0521	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 86,317
12 RD	N00024-12-D-6404 DO 0522	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 468,250
12 RD	N00024-12-D-6404 DO 0523	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 167,025
12 RD	N00024-12-D-6404 DO 0524	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 12,561
12 RD	N00024-12-D-6404 DO 0526	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 104,951
12 RD	N00024-12-D-6404 DO 0527	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y			\$ 26,919	\$ 134,779
12 RD	N00024-12-D-6404 DO 0529	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 734,726
12 RD	N00024-12-D-6404 DO 0530	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 19,628
12 RD	N00024-12-D-6404 DO 0531	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 620,305
12 RD	N00024-12-D-6404 DO 0532	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 2,030,078
12 RD	N00024-12-D-6404 DO 0533	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 184,549
12 RD	N00024-12-D-6404 DO 0534	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y			\$ 9,000	\$ 280,017
12 RD		RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 131,709
12 RD		RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161		Y				\$ 158,459
12 RD		RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 47,746
12 RD		RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL DEPERAPORATION OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161		Y				\$ 466,686
12 RD		RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	\$ 182,865,161 \$ 182,865,161		Y				\$ 1,115,268 \$ 194,670
12 RD		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161		Y				\$ 626,422
12 RD		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161		Y				\$ 426,916
12 RD		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT			Y				\$ 43,354
12 RD		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT		\$ 544,486,028	Y				\$ 143,092

	DA mber	Additional Award Identification	Name of Federal Award	Cluster Name	Federal Program Total	Cluster Total	Direct Award	Name of Pass-through Entity	Identifying number assigned by the Pass-through Entity	Amount Passed Through to Subrecipients	Amount Expended
Nu	ilibei		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	Cluster Ivanic	Total	Cluster Total	Awaiu	Name of Lass-though Entity	by the rass-through Entity	Subrecipients	Amount Expended
12	RD	N00024-12-D-6404 DO 0549	RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 28,982
12	RD	N00024-12-D-6404 DO 0550	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 37,509
12	DD.	N00024 12 D 6404 DO 0551	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 62,219
12	KD	1100024-12-D-0404 DO 0331	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESERVENT AND BEVELOT MENT	3 182,803,101	3 344,480,028	1				5 02,219
12	RD	N00024-12-D-6404 DO 0552	RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 46,214
12	RD	N00024-12-D-6404 DO 0553	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 7,386,350
12	RD	N00024-12-D-6404 DO 0555	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 46,785
			DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL								
12	RD	N00024-12-D-6404 DO 0556	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 373,746
12	RD	N00024-12-D-6404 DO 0557	RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 366,475
12	RD	N00024-12-D-6404 DO 0558	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 17,199
12	RD	N00024-12-D-6404 DO 0559	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 224,719
12	RD	N00024-12-D-6404 DO 0560	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 29,078
12	RD	N00024-12-D-6404 DO 0561	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 291,128
12	RD	N00024-12-D-6404 DO 0562	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 111,623
			DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL								
12	RD	N00024-12-D-6404 DO 0564	RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 10,733
12	RD	N00024-12-D-6404 DO 0567	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 14,604
12	RD	N00024-12-D-6404 DO 0568	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 104,998
12	RD	N00024-12-D-6404 DO 0569	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 27,477
12	RD	N00024-12-D-6404 DO 0571	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 49,378
12	RD	N00024-12-D-6404 DO 0572	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 45,537
12	RD	N00024-12-D-6404 DO 0576	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 276,621
			DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL								
12	RD		RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 77,403
12	RD		RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 147,034
12	RD	N00024-12-D-6404 DO 0579	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 16,942
12	RD	N00024-12-D-6404 DO 0580	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 375,860
12	RD	N00024-12-D-6404 DO 0581	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 17,180
12	RD	N00024-12-D-6404 DO 0582	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 143,595
12	RD	N00024-12-D-6404 DO 0583	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 23,327
			DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL								
12			RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 37,626
12			RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 3,195
12	RD	N00024-12-D-6404 DO 0593 N00024-12-D-6404 DO	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 64,540
12	RD	17F8300	RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 83,764

FDA umber	Additional Award Identification	Name of Federal Award	Cluster Name	Federal Program Total	Cluster Total	Direct Award	Name of Pass-through Entity	Identifying number assigned by the Pass-through Entity	Amount Passed Through to Subrecipients	Amount Exp	nended
uniber	N00024-12-D-6404 DO	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	Ciustei Ivaine	Total	Cluster Fotar	Awaiu	Name of Fass-through Entity	by the rass-through Entity	Subrecipients	Amount Exp	Jended
RD	17F8302	RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	36,87
RD	N00024-12-D-6404 DO 17F8306	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$ 1	121,74
RD	N00024-12-D-6404 DO 17F8311	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	2,48
RD	N00024-12-D-6404 DO 17F8314	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161		Y				s	12,75
RD	N00024-12-D-6404 DO 17F8316	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	1,53
RD	N00024-12-D-6404 DO 17F8318	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				s	14,07
RD	N00024-12-D-6404 DO 17F8326	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y					78,62
RD	N00173-16-P-0349	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161		Y					14,45
RD	N00173-16-P-3079	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161		Y					24,71
RD	N00173-17-1-G004	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT			Y					53,98
RD	N0024-12-D-6404 DO 17F8303	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y					16,70
RD	N0024-12-D-6404 DO 17F8310	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT			Y					12,63
RD		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161		Y					(1,34
RD		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161		Y				s	(-)-
RD		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161		Y				\$ 2	200,36
RD		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161		Y					(1,87
RD	N66596-15-IPA-0003	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	10,28
RD	3118-SC001	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	ADAPTIVE METHODS	N00024-16-C-4032		\$ 1	116,19
RD	26268	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161			ADVANCED COOLING TECHNOLOGIES, INC.	N68335-16-C-0173			24,00
RD	2012-532 DO-005	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161		N	ADVANCED TECHNOLOGY INTERNATIONAL	N00014-11-D-0504 DO-004		s	90
RD	2012-532 TO 0004	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161		N	ADVANCED TECHNOLOGY INTERNATIONAL	N00014-11-D-0504, DO 04		s	4,08
RD	2012-532 TO-0002	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161		N	ADVANCED TECHNOLOGY INTERNATIONAL	N00014-11-D-0504		s	17,00
RD	2012-532 TO-006	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161			ADVANCED TECHNOLOGY INTERNATIONAL	N00014-11-D-0504			53,44
RD	2013-454	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161		N	ADVANCED TECHNOLOGY INTERNATIONAL	N/A	\$ 60,639		75,21
RD	2015-460 TO-01	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161		N	ADVANCED TECHNOLOGY INTERNATIONAL	N00014-14-D-0377 DO- 0002			20,35
RD	2017-422	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	ADVANCED TECHNOLOGY INTERNATIONAL	N/A			20,00
RD	2017-430	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161			ADVANCED TECHNOLOGY INTERNATIONAL	NAVSEA			25,24
RD	SC 2015-437	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161		N	ADVANCED TECHNOLOGY INTERNATIONAL	N/A		\$	90
RD		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161		N	ANALYSIS, DESIGN & DIAGNOSTICS, INC.	N00014-15-P-1170		\$	22,81
RD	N68335-17-C-0037/1	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	ANALYSIS, DESIGN & DIAGNOSTICS, INC.	N68335-17-C-0037		\$	11,73
RD	2016-1117-N-PSU	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	APPLIED OPTIMIZATION, INC.	N68335-17-C-008		\$	30,33

CFDA Numbe		Name of Federal Award	Cluster Name	Federal Program Total	Cluster Total	Direct Award	Name of Pass-through Entity	Identifying number assigned by the Pass-through Entity	Amount Passed Through to Subrecipients	Amour	nt Expended
12 RD	22997	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	APPLIED PHYSICAL SCIENCES CORPORATION	N66001-14-C-4031	Î	\$	3,484
12 RD	APS-14-05	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	APPLIED PHYSICAL SCIENCES CORPORATION	N00014-14-C-0041		\$	275
12 RD		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	ASSURANCE TECHNOLOGY CORPORATION	GS00Q140ADS402/N00173- 15-F2002		\$	161,489
12 RD		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	ATI, INC.	N68335-15-C-0291		s	(17)
12 RD		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028		BAE SYSTEMS	N66604-17-C-0005		\$	27,287
12 RD	SUBC 23977	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	BNNT, LLC	N00014-16-C-2058		\$	21,742
12 RD	106417SB3K TO 2	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	BOOZ ALLEN HAMILTON INC.	N00178-04-D-4024		\$	15,117
12 RD		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161			BOOZ ALLEN HAMILTON INC.	N00178-04-D-4024		\$	4,155
12 RD	SC1505001	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	CHARLES RIVER ANALYTICS INC.	N/A		\$	17,841
12 RD		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	CHARLES RIVER ANALYTICS INC.	N00014-12-D-0583		\$	22,485
12 RD	S160600115	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	CONCURRENT TECHNOLOGIES CORPORATION	N00014-10-D-0062		c	13,192
12 RD		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028		CORTANA	N68335-14-C-0180		\$	1,154
12 RD		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	CORTANA	N68335-15-C-0142		\$	107,139
12 RD	14-C-0073/C591	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	CRAFT TECH	N/A		\$	66,228
12 RD	25148 PO #500254	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	CURTISS-WRIGHT CORPORATION	N00406-15-D-5021		\$	87,729
12 RD		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	CURTISS-WRIGHT CORPORATION	N00406-15-D-5021		\$	87,729
12 RD	491786	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	CURTISS-WRIGHT CORPORATION	N00406-13-C-3012		\$	(522)
12 RD	492295	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	CURTISS-WRIGHT CORPORATION	N00406-13-C-3012		\$	(1,276)
12 RD		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	CURTISS-WRIGHT CORPORATION	N00406-13-C-3012		\$	92,516
12 RD		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	DRS CONSOLIDATED CONTROLS, INC.	N00024-08-C-2103		\$	59,969
12 RD		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	ENGILITY CORPORATION	N00178-04-D-4143 DO- 4Y02		\$	(2,108)
12 RD		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	GEAR RESEARCH INSTITUTE	N68335-13-C-0225		\$	299
12 RD		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	GENERAL DYNAMICS CORPORATION	B11-2011076G005		\$	6,319
12 RD		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	GENERAL DYNAMICS CORPORATION	B11-2011076G005		\$	6,347
12 RD	G11W5791	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	GENERAL DYNAMICS CORPORATION	N61331-11-C-0017		\$	285,735
12 RD		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028		GENERAL DYNAMICS ELECTRIC BOAT	N/A		\$	25,341
12 RD		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161		N	GENERAL DYNAMICS ELECTRIC BOAT	N00014-02-C-2101		\$	315,003
12 RD		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	GENERAL DYNAMICS ELECTRIC BOAT	N/A		\$	97,148
12 RD	FFP-2016-PSU-0426	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	GLOBAL ENGINEERING & MATERIALS, INC.	N68335-16-C-0197		\$	32,000
12 RD		DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	H.C. MATERIALS CORPORATION	N00014-12-C-0368		\$	630
12 RD	424568	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	HARRIS CORPORATION	N00173-12-D-2023 DO31		\$	446,425

CFDA Number	Additional Award Identification	Name of Federal Award	Cluster Name	Federal Program Total	Cluster Total	Direct Award	Name of Pass-through Entity	Identifying number assigned by the Pass-through Entity	Amount Passed Through to Subrecipients	Amount Expended
RD	2015-446-PSUARL	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	HEPBURN AND SONS, LLC	TIA 2015-446	Buorecipienes	\$ 9,365
RD	4500471313	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161		N	HUNTINGTON INGALLS INDUSTRIES, INC.	CLASSIFIED		\$ (12
RD	3251	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	INTELLIGENT OPTICAL SYSTEMS, INC.	N68335-15-0260		\$ 14,594
RD	SUBC IOS 3263 NAVY - LUT AM II	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	INTELLIGENT OPTICAL SYSTEMS, INC.	N68335-17-C-0148		\$ 81,504
RD	117643 TO 119377	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	JOHNS HOPKINS UNIVERSITY	N00024-13-D-6400		\$ (1
RD	117643 TO 133521	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	JOHNS HOPKINS UNIVERSITY	N00024-13-D-6400		\$ 119,21:
RD	117643/TO 133817	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	JOHNS HOPKINS UNIVERSITY	N00024-13-D-6400		\$ (5,078
RD	134026 MSA 117643	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	JOHNS HOPKINS UNIVERSITY	N00024-13-D-6400		\$ 74,941
RD	MSA 117643/ 24961 TO 138016	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	JOHNS HOPKINS UNIVERSITY	N00024-13-D-6400		\$ 223,19
RD	2015-4525	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	KCF TECHNOLOGIES, INC.	N00024-15-P-4525		\$ 23,346
RD	25294/17-4037	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	KCF TECHNOLOGIES, INC.	N00024-17-C-4037		\$ 243
RD	20856 PO 160005	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	L3 BRASHEAR	N/A		\$ 93,193
RD	DWY-16-100 TO2	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	L3 BRASHEAR	MIT LINCOLN LABS		\$ 220,20
RD	P010168364	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	LEIDOS	N00173-13-F-2007		\$ 22,892
RD	P0 4102690612	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	LOCKHEED MARTIN CORPORATION	SNC043-014		\$ 85,962
RD	PO 4102690612	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	LOCKHEED MARTIN CORPORATION	N/A		\$ 54,440
RD	PO 4102690612	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	LOCKHEED MARTIN CORPORATION	SNC043-014		\$ 134,913
RD	NAV-088II	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	LYNNTECH INC.	N00014-15-C-0088		\$ 108,884
RD	6E89-004	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	METRON, INC.	N00014-12-D-0586		\$ (:
RD	F7112-04 IB000025007	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	NEW YORK UNIVERSITY NORTHROP GRUMMAN	N00014-12-1-0912		\$ 3,706
RD	4501910489	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	CORPORATION NORTHROP GRUMMAN	N/A		\$ 27,874
RD	7500148620	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	CORPORATION NORTHROP GRUMMAN	N00178-04-D-4091/N410		\$ 42,317
RD	8180077727	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	CORPORATION	30062448		\$ (159
RD	OASIS14-SC-06	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	OASIS, INC.	N00014-14-C-0315		\$ 103,512
RD	23238 PO BU0TM-54047	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	OCEANEERING INTERNATIONAL, INC.	SNY088-001		\$ 3,214
RD	23404	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	OCEANEERING INTERNATIONAL, INC.	SNY088-001		\$ (2,730
RD	23773	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	OCEANEERING INTERNATIONAL, INC.	SNY088-001		\$ (683
RD	23775	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	OCEANEERING INTERNATIONAL, INC.	SNY088-001		\$ (1,365
RD	24578	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	OCEANEERING INTERNATIONAL, INC.	N00173-14-D-2017		\$ 62,584
RD	25227 (25580 AMEND 1)	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	OCEANEERING INTERNATIONAL, INC.	UNNUMBERED		\$ 259,009
RD	BUGPV-1241	RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	OCEANEERING INTERNATIONAL, INC.	N00024-13-C-6403		\$ 4,144

ı	DA	Additional Award			Federal Program		Direct		Identifying number assigned	Amount Passed Through to		
	nber	Identification	Name of Federal Award DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	Cluster Name	Total	Cluster Total	Award	Name of Pass-through Entity	by the Pass-through Entity	Subrecipients	Amoun	t Expended
12	RD	BUOTM-58119 RSA 23894	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	OCEANEERING INTERNATIONAL, INC.	N00173-14-D-2017/0004		\$	11,108
12	RD	BUOVN-63995	RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	OCEANEERING INTERNATIONAL, INC.	N00024-13-C-6403		\$	(18)
12	RD	RSA 23670	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	OCEANEERING INTERNATIONAL, INC.	SNY088-001		\$	(1,366)
12	RD	RSA 23671	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	OCEANEERING INTERNATIONAL, INC.	SNY088-001		s	(2,729)
12		163146	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028		POLYK TECHNOLOGIES	N00014-14-C-0205		s	160,017
12			DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028		PROGENY SYSTEMS CORPORATION	N00024-11-C-6296		\$	54,830
			DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL									
12	RD	4509-02	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	PROMETHEUS INNOVATIONS LLC	N00024-12-C-4509	\$ (6,015)	\$	(6,015
12	RD	1548/ 25432	RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	QUESTEK INNOVATIONS LLC	N68335-17-C-0318		\$	370
12	RD	498565	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	ROLLS-ROYCE	N00014-09-D-0680		\$	3,716
12	PD	694376	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	ROLLS-ROYCE	N00014-16-C-2031		\$	105,135
12	KD	094370	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,863,161	\$ 344,480,028	IN	ROLLS-ROTCE	N00178-05-D-4546 DO-		3	105,155
12	RD	5004-PSU DO-6	RESEARCH - NON-SPECIFIED DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	SABRE SYSTEMS, INC.	4Y02		\$	(440)
12	RD	PO 2943	RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	SRI INTERNATIONAL	N00173-16-F0251		\$	96,147
12	RD	5603FC0213 TO 03 20837	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	STIMULUS ENGINEERING SERVICES, INC.	N00178-08-D-5603		\$	14,921
12	RD	S009	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	TECHNOSOFT, INC.	N00014-13-P-1199		\$	27,513
12		S-126-000-001	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	UES, INC.	N68335-17-C-0010		\$	25,142
12		2839-10-SK-0006/PU-0744- 2839	DEPARTMENT OF THE NAVY, OFFICE OF THE CHIEF OF NAVAL RESEARCH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	WR SYSTEMS, LTD	N65236-10-D-2839		\$	(172)
12	_	M0008816WRPC702 M67854-11-C-9040	MARINE CORPS SYSTEMS COMMAND - NON-SPECIFIED MARINE CORPS SYSTEMS COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	\$ 182,865,161 \$ 182,865,161	\$ 544,486,028 \$ 544,486,028	Y				\$	67,192
12		H98230-12-C-1130	NATIONAL SECURITY AGENCY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	(163
12	RD	H98230-14-1-0153, MOD 1	NATIONAL SECURITY AGENCY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				•	1,701
12		H98230-15-1-0008	NATIONAL SECURITY AGENCY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	15,185
12	RD	H98230-15-1-0253	NATIONAL SECURITY AGENCY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	22,639
12	RD	H98230-15-1-0253, MOD P01	NATIONAL SECURITY AGENCY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				s	3,007
12	RD	H98230-15-1-0289	NATIONAL SECURITY AGENCY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161		Y				\$	98,324
12	RD	H98230-16-D-0022 DO 0001	NATIONAL SECURITY AGENCY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	290,678
12	RD	H98230-16-D-0022 DO 0004	NATIONAL SECURITY AGENCY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	207,614
12	RD	H98230-16-D-0022/0001	NATIONAL SECURITY AGENCY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	757,811
12	RD	H98230-16-D-0022/0002	NATIONAL SECURITY AGENCY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	248,277
12	RD	H98230-16-D-0022/0003	NATIONAL SECURITY AGENCY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	6,216
12	RD	H98230-16-D-0022/0005	NATIONAL SECURITY AGENCY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				s	12,211
12		9/15/2016-9/14/2017	U.S. ARMY MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	140,440
12		W81XWH-12-1-0256	U.S. ARMY MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	177,156
12		W81XWH-14-1-0283 W81XWH-16-1-0117	U.S. ARMY MATERIEL COMMAND - NON-SPECIFIED U.S. ARMY MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	\$ 182,865,161 \$ 182,865,161	\$ 544,486,028 \$ 544,486,028	Y				\$	362,307 204,412
12	KD	W911NF-11-D-0002 DO	C.S. AKWI WATERIEE COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	3 182,803,161	\$ 344,480,028	Y				Φ	204,412
	KD	0003	U.S. ARMY MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y			\$ 722,929	\$	827,003
12		W911NF-14-1-0475	U.S. ARMY MATERIEL COMMAND - NON-SPECIFIED U.S. ARMY MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161 \$ 182,865,161	\$ 544,486,028	Y			\$ 103,538	\$	119,141
12	RD	W911NF-14-2-0084	U.S. ARM 1 MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y	L			\$	2,16

									Amount		
CFDA	Additional Award Identification	Name of Faderal Assessed	Charter Name	Federal Program	Charter Tetal	Direct	Name of Base disease h English	Identifying number assigned	Throu	-	A a Town and a d
Number 2 RD		Name of Federal Award U.S. ARMY MATERIEL COMMAND - NON-SPECIFIED	Cluster Name RESEARCH AND DEVELOPMENT	Total \$ 182,865,161	Cluster Total \$ 544,486,028	Award	Name of Pass-through Entity	by the Pass-through Entity	Subreci	115,770	Amount Expended \$ 195,395
2 RD	W911NF-15-1-0376	U.S. ARMY MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028 \$ 544,486,028				3	115,770	
12 RD		U.S. ARMY MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161 \$ 182,865,161	\$ 544,486,028 \$ 544,486,028	Y					\$ 136,248 \$ 301,160
2 RD	W911NF-17-1-0155	U.S. ARMY MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y			6	0.201	\$ 31,812
12 RD	W911W6-11-2-0011	U.S. ARMY MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y			2	8,391	\$ 532,944
.	W911W6-11-2-0011 MOD	V. G. A. D. GUALANTER PER GOLD ALAND AND ADDRESS OF THE PER GOLD AND ADDRESS OF THE PE	BEGE A DOMESTIC ON COME								
2 RD		U.S. ARMY MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y					\$ 4,476
12 RD		U.S. ARMY MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y			\$	52,551	\$ 588,503
	W911W6-17-2-0003 TASK A-			1.							
2 RD	1.1	U.S. ARMY MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y					\$ 6,693
	W911W6-17-2-0003 TASK A-										
12 RD	1.12	U.S. ARMY MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y					\$ 5,148
2 RD	W9128F-16-2-0005	U.S. ARMY MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161		Y					\$ 62,764
12 RD		U.S. ARMY MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y			\$	5,764	\$ 8,348
12 RD	W912HQ-15-C-0063	U.S. ARMY MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y					\$ 64,928
12 RD	W912HQ-16-C-0006	U.S. ARMY MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y			\$	87,019	\$ 632,564
12 RD	W91CRB-16-C-0051	U.S. ARMY MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y					\$ 102,256
							ADVANCED TECHNOLOGY				
12 RD	2014-309	U.S. ARMY MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	INTERNATIONAL	N/A			\$ 116,486
	2014-309 OT INITIATIVE						ADVANCED TECHNOLOGY				
2 RD	NO 1	U.S. ARMY MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	INTERNATIONAL	N/A	\$	39,183	\$ 77,421
				, ,,,,,	, , , , , , ,		ADVANCED TECHNOLOGY			. ,	
12 RD	2014-309-002	U.S. ARMY MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	INTERNATIONAL	DOTC-17-01-INIT0453	s	43,500	\$ 145,256
12 KD	2011 309 002	CONTROL SETTEMBE COMMENTS THON OF BOILED	RESEARCH THE BEVELOT MENT	\$ 102,003,101	φ 544,400,020	- 11	ADVANCED TECHNOLOGY	Bote I, of Editors	Ψ	75,500	J 143,230
12 RD	2015-328 TASK 01	U.S. ARMY MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	INTERNATIONAL	W15QKN-10-9-0003		70,647	\$ 180,914
12 KD	NRTC-FY15-C-02/BASE	C.S. ARMT MATERIEE COMMAND - NON-SI ECITIED	RESEARCH AND DEVELOT MENT	\$ 102,000,101	\$ 344,460,026	IN	ADVANCED TECHNOLOGY	W15QR14-10-9-0005	٥	/0,04/	3 100,914
12 DD		U.S. ARMY MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	6 102.065.161	£ 544.406.000		INTERNATIONAL	W1QKN-10-9-0003		10.625	0 71 440
12 RD				\$ 182,865,161	\$ 544,486,028				2	19,625	\$ 71,446
2 RD		U.S. ARMY MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161		N	AVX AIRCRAFT COMPANY	W911W6-16-C-0005			\$ 98,227
		U.S. ARMY MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	CFD RESEARCH CORPORATION	W81XWH-14-C-0003			\$ 65,528
2 RD	CFD RES CORP	U.S. ARMY MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161		N	CFD RESEARCH CORPORATION	W81XWH-14-C-0045			\$ 97,105
12 RD	177966	U.S. ARMY MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	CYTOSORBENTS CORPORATION	W81XWH-16-C-0025			\$ 3,147
							DIGITAL SOLID STATE PROPULSION	DEFENSE ADVANCED			
2 RD		U.S. ARMY MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028		INC.	RESEARCH PROJ			\$ 2,282
		U.S. ARMY MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	DYNETICS, INC.	W9113M-14-D-0002			\$ 46,877
2 RD		U.S. ARMY MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	GEAR RESEARCH INSTITUTE	W911QX-14-C-0071			\$ 87,877
12 RD	4500063383	U.S. ARMY MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	GENERAL ATOMICS	W15P7T-06-D-E402			\$ 36,401
2 RD	E2030473	U.S. ARMY MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	GEORGE MASON UNIVERSITY	N/A			\$ 88,657
12 RD	52609/ 25242	U.S. ARMY MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	IAP RESEARCH, INC.	N/A			\$ 511
	W911NF-06-3-0001 PO										
2 RD	5004776783	U.S. ARMY MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	IBM	N/A			\$ (1
12 RD	2015-0132	U.S. ARMY MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161		N	KCF TECHNOLOGIES, INC.	W81XWH-13-C-0132			\$ 42,420
2 RD	PO10188059	U.S. ARMY MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT		\$ 544,486,028	N	LEIDOS	W15QKN-14-9-1001			\$ 78,784
							MASSACHUSETTS INSTITUTE OF				
12 RD	5710003781	U.S. ARMY MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	TECHNOLOGY	W911NF-13-D-0001, T.O. 8			\$ 15,154
				,,				U.S. DEPARTMENT OF			
12 RD	MATSYS SA-16-08	U.S. ARMY MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	MATSYS INC.	THE ARMY			\$ 25,000
12 RD		U.S. ARMY MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161			NAMMO TALLEY INC	W911QY-17-C-00300			\$ 4,046
Z KD		THE POPULATION OF BUILDING	The state of the s	02,005,101	ψ J+1,100,020	-11	The state of the s				4,040
12 RD	15-04 CHANGE ORDER 03	U.S. ARMY MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	NEXTGEN AERONAUTICS	W15QKN-15-C-0029			\$ 198,191
12 RD		U.S. ARMY MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161			QUESTEK INNOVATIONS LLC	W011W6-16-C-0011			\$ 6,547
12 KD		C.O. AKMIT MATERIED COMMAND - NON-SI ECIFIED	RESEARCH AND DEVELOT MENT	\$ 102,000,101	\$ 344,400,028	IN	RAYTHEON BBN TECHNOLOGIES	WOTTWO-10-C-0011			0,347
2 PD	W911NF-09-2-0053 MOD 0026	U.S. ARMY MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N.T	CORPORATION	N/A			e 00.763
2 RD	0020	U.S. AKWI I WATERIEL COMMAND - NUN-SPECIFIED	RESEARCH AND DEVELOPMENT	a 182,865,161	a 344,486,028	N	CORTORATION	IVA			\$ 98,763
	170427 DO 4500 127227	HIG ADMINIATEDIES COMMAND MONORPORTED	DEGE A DOLL AND DESIGN OF THE				GIVODGEN A IDOD ATT GODDON .	WILSOND TO C 2002			
12 RD	170427 PO 4500427227	U.S. ARMY MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	SIKORSKY AIRCRAFT CORPORATION	W15QKN-10-9-0003			\$ 84,077
				1.				L	1		
2 RD	23823 PO 4500426062	U.S. ARMY MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	SIKORSKY AIRCRAFT CORPORATION	W911W6-11-2-0008			\$ 17,412
							STRUCTURED MATERIALS				
	41980-100114-01	U.S. ARMY MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	INDUSTRIES, INC.	W911NF-14-C-0163			\$ 74,051
2 RD	328662	U.S. ARMY MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	UNIVERSITY OF ARIZONA, THE	W912HQ-12-C-0060			\$ 11,311
2 100						ľ	WORCESTER POLYTECHNIC				
2 102			The state of the s				WORCESTERTOETTECHNIC				

CFDA	Additional Award			Federal Program		Direct		Identifying number assigned	Amount Passed Through to		
Number	Identification	Name of Federal Award	Cluster Name	Total	Cluster Total	Award	Name of Pass-through Entity WORCESTER POLYTECHNIC	by the Pass-through Entity	Subrecipients	Am	ount Expended
12 RD	16-TMP-01-215461/ 215465	U.S. ARMY MATERIEL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	N	INSTITUTE	W911NF-15-2-0024		\$	258,147
12 RD	W81XWH-15-1-0339	U.S. ARMY MEDICAL COMMAND - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 182,865,161	\$ 544,486,028	Y				\$	43,388
		HUDDICANE CANDY DICACTED BELIEF COACTAL BEGINDING CRANTS	DECEARCH AND DEVELOPMENT	0.647	£ 544.406.020		DELAWARE VALLEY REGIONAL	NT/A			0.647
15 153 15 225		HURRICANE SANDY DISASTER RELIEF - COASTAL RESILIENCY GRANTS RECREATION RESOURCE MANAGEMENT	RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	\$ 8,647 \$ 21,627	\$ 544,486,028 \$ 544,486,028	N Y	PLANNING COMMISSION	N/A		\$	8,647 21,627
15 232		WILDLAND FIRE RESEARCH AND STUDIES	RESEARCH AND DEVELOPMENT	\$ 115,317		Y				S	115,317
		SCIENCE AND TECHNOLOGY PROJECTS RELATED TO COAL MINING			4 011,100,020	-				1	
15 255		AND RECLAMATION	RESEARCH AND DEVELOPMENT	\$ 85,718	\$ 544,486,028	Y				\$	85,718
15 560		SECURE WATER ACT - RESEARCH AGREEMENTS	RESEARCH AND DEVELOPMENT	\$ 66,184	\$ 544,486,028	Y				\$	66,184
15 608		FISH AND WILDLIFE MANAGEMENT ASSISTANCE	RESEARCH AND DEVELOPMENT	\$ 41,786	\$ 544,486,028	N	COMMONWEALTH OF PENNSYLVANIA	4100053520		\$	(1)
							COMMONWEALTH OF				
15 608		FISH AND WILDLIFE MANAGEMENT ASSISTANCE FISH AND WILDLIFE MANAGEMENT ASSISTANCE	RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	\$ 41,786	\$ 544,486,028 \$ 544,486,028	N N	PENNSYLVANIA UNIVERSITY OF MARYLAND	4100075144 F12AP01037		\$	11,178 29,633
15 608		FISH AND WILDLIFE MANAGEMENT ASSISTANCE	RESEARCH AND DEVELOPMENT	\$ 41,786	\$ 544,486,028	N	UNIVERSITY OF MARYLAND	F12AP01037		2	29,633
							UNIVERSITY OF MARYLAND CENTER	1	1		
15 608		FISH AND WILDLIFE MANAGEMENT ASSISTANCE	RESEARCH AND DEVELOPMENT	\$ 41,786	\$ 544,486,028	N	FOR ENVIRONMENTAL SCIENCE	F12AP01037	\$ 355	\$	976
							COMMONWEALTH OF				
15 634		STATE WILDLIFE GRANTS	RESEARCH AND DEVELOPMENT	\$ 125,284	\$ 544,486,028	N	PENNSYLVANIA	4100061794		\$	4,320
		CTATE WILDLIFE CDANES	DEGE A DOM AND DEVEL OBJECT				COMMONWEALTH OF	41,000,72,456			
15 634		STATE WILDLIFE GRANTS	RESEARCH AND DEVELOPMENT	\$ 125,284	\$ 544,486,028	N	PENNSYLVANIA COMMONWEALTH OF	4100072456		\$	5,720
15 634		STATE WILDLIFE GRANTS	RESEARCH AND DEVELOPMENT	\$ 125,284	\$ 544,486,028	N	PENNSYLVANIA	ME 231121 4100067192		\$	104,010
15 634		STATE WILDLIFE GRANTS	RESEARCH AND DEVELOPMENT	s 125.284	\$ 544,486,028	N	FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION	N/A			11,234
15 662		GREAT LAKES RESTORATION	RESEARCH AND DEVELOPMENT		\$ 544,486,028	Y	CONSERVATION COMMISSION	IVA	\$ 54,628	\$	80,947
15 002				120,550	\$ 311,100,020	-	COMMONWEALTH OF		5 1,020	Ψ	00,5 17
15 662		GREAT LAKES RESTORATION	RESEARCH AND DEVELOPMENT	\$ 120,530	\$ 544,486,028	N	PENNSYLVANIA	4000019958		\$	19,881
		CDF AT A AVERA DESTENDATION	DESCRIPTION AND DESCRIPTION OF STREET				COMMONWEALTH OF	4000040050			
15 662		GREAT LAKES RESTORATION	RESEARCH AND DEVELOPMENT	\$ 120,530	\$ 544,486,028	N	PENNSYLVANIA	4000019959		\$	19,702
15 691		DEPARTMENT OF THE INTERIOR - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 11,831	\$ 544,486,028	N	WILDLIFE MANAGEMENT INSTITUTE	N/A		s	11,831
15 805		ASSISTANCE TO STATE WATER RESOURCES RESEARCH INSTITUTES	RESEARCH AND DEVELOPMENT	\$ 142,791	\$ 544,486,028	Y			\$ 41,195	\$	93,917
15 805		ASSISTANCE TO STATE WATER RESOURCES RESEARCH INSTITUTES	RESEARCH AND DEVELOPMENT	\$ 142,791	\$ 544,486,028	N	UNIVERSITY OF ILLINOIS	G16AP00001		\$	48,874
15 807		EARTHQUAKE HAZARDS PROGRAM ASSISTANCE	RESEARCH AND DEVELOPMENT	\$ 47,049	\$ 544,486,028	Y				\$	47,049
15 808		U.S. GEOLOGICAL SURVEY RESEARCH AND DATA COLLECTION	RESEARCH AND DEVELOPMENT	\$ 72,969	\$ 544,486,028	Y				8	72,969
15 812		COOPERATIVE RESEARCH UNITS	RESEARCH AND DEVELOPMENT	\$ 364,356		Y				\$	364,356
		NATIONAL LAND REMOTE SENSING EDUCATION OUTREACH AND					CALIFORNIA UNIVERSITY OF				
15 815		RESEARCH	RESEARCH AND DEVELOPMENT	\$ 4,000	\$ 544,486,028	N	PENNSYLVANIA	AV13-PA01 1314ES008		\$	4,000
		NATIONAL GENITED FOR REGERNATION TEGINNOLOGY AND TRANSPOR	DECEARCH AND DEVELOPMENT								
15 923 15 944		NATIONAL CENTER FOR PRESERVATION TECHNOLOGY AND TRAINING NATURAL RESOURCE STEWARDSHIP	RESEARCH AND DEVELOPMENT	\$ 7,054 \$ 17,125	\$ 544,486,028 \$ 544,486,028	Y				\$	7,054 17,125
13 944		COOPERATIVE RESEARCH AND TRAINING PROGRAMS - RESOURCES OF	RESEARCH AND DEVELOT WENT	0 17,123	g 344,400,028	1				a a	17,123
15 945		THE NATIONAL PARK SYSTEM	RESEARCH AND DEVELOPMENT	\$ 375,175	\$ 544,486,028	Y				\$	375,175
15 RD	E14PC00002	DEPARTMENT OF THE INTERIOR - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 595,095		Y				\$	163,756
15 RD	P14AC01354 P11AC30805	DEPARTMENT OF THE INTERIOR - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 595,095	\$ 544,486,028	Y				\$	31,529
							COMMONWEALTH OF				
15 RD	1434-03HQRU1548	DEPARTMENT OF THE INTERIOR - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 595,095	\$ 544,486,028	N	PENNSYLVANIA	1434-03HQRU1548		\$	98,671
15 RD	23033	DEPARTMENT OF THE INTERIOR - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 595,095	\$ 544,486,028	N	HADAL, INC.	D16PC00210		\$	136,771
15 RD	0404.16.053525	DEPARTMENT OF THE INTERIOR - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 595,095	\$ 544,486,028	N	NATIONAL FISH AND WILDLIFE FOUNDATION	N/A		\$	28,857
	SA75281310-N M/INV-3N						UNIVERSITY OF MARYLAND CENTER				
15 RD	PO38989	DEPARTMENT OF THE INTERIOR - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 595,095	\$ 544,486,028	N	FOR ENVIRONMENTAL SCIENCE	F12AP01037		\$	1,414
15 RD	P13AC00802	NATIONAL PARK SERVICE - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 595,095	\$ 544,486,028	Y			\$ 52,981	\$	70,613
15 RD		NATIONAL PARK SERVICE - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 595,095	\$ 544,486,028	Y				\$	(2,002)
15 RD	P14AC00209	NATIONAL PARK SERVICE - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 595,095	\$ 544,486,028	Y		L	L	\$	14,314

									Am	ount Passed		
CFDA	Additional Award			Federal Program		Direct		Identifying number assigned		hrough to		
Number	Identification	Name of Federal Award	Cluster Name	Total	Cluster Total	Award	Name of Pass-through Entity	by the Pass-through Entity	Sub	orecipients	Amou	unt Expended
15 RD	P14AC00924	NATIONAL PARK SERVICE - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 595,095	\$ 544,486,028	Y					\$	6,817
15 RD	P14AC01495	NATIONAL PARK SERVICE - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 595,095	\$ 544,486,028	Y					\$	44,355
16 560		NATIONAL INSTITUTE OF JUSTICE RESEARCH, EVALUATION, AND DEVELOPMENT PROJECT GRANTS	RESEARCH AND DEVELOPMENT	\$ 230,386	\$ 544,486,028	Y			\$	83,048	\$	227,643
16 560		NATIONAL INSTITUTE OF JUSTICE RESEARCH, EVALUATION, AND DEVELOPMENT PROJECT GRANTS	RESEARCH AND DEVELOPMENT	\$ 230,386	\$ 544,486,028	N	RTI INTERNATIONAL	2011-RY-BX-0003			\$	2,743
16 566		NATIONAL INSTITUTE OF JUSTICE W.E.B. DUBOIS FELLOWSHIP PROGRAM	RESEARCH AND DEVELOPMENT	\$ 12,496	\$ 544,486,028	N	TOWSON UNIVERSITY	NATIONAL INSTITUTE OF JUSTICE			\$	12,496
16 817		DVDNE CDIMINAL HICTICE INNOVATION BROCKAM	DECEARCH AND DEVELOPMENT	21.505	£ 544.406.020		TRI COUNTY COMMUNITY ACTION	NI/A				21.505
10 017	2016 DI D 1075	BYRNE CRIMINAL JUSTICE INNOVATION PROGRAM	RESEARCH AND DEVELOPMENT	\$ 21,595 \$ 633,380	\$ 544,486,028	N	TRI COUNTY COMMUNITY ACTION	N/A			\$	21,595
16 RD 16 RD	2016-BJ-R-1975 2014-DN-BX-K007	BUREAU OF JUSTICE STATISTICS - NON-SPECIFIED NATIONAL INSTITUTE OF JUSTICE - NON-SPECIFIED	RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	\$ 633,380	\$ 544,486,028 \$ 544,486,028	Y			6	68,876	\$	92,640 146,926
16 RD	2014-DN-BX-K022	NATIONAL INSTITUTE OF JUSTICE - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 633,380	\$ 544,486,028	Y			3	00,070	\$	148,597
16 RD	2015-DN-BX-K025	NATIONAL INSTITUTE OF JUSTICE - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 633,380	\$ 544,486,028	Y					\$	191,314
16 RD	2015-IJ-CX-0002	NATIONAL INSTITUTE OF JUSTICE - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 633,380	\$ 544,486,028	Y					S	20,784
16 RD	2015-R2-CX-K032	NATIONAL INSTITUTE OF JUSTICE - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 633,380	\$ 544,486,028	Y					S	33,119
17 RD	BS-26355-14-60-R-42	DEPARTMENT OF LABOR - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 19,634	\$ 544,486,028	Y			S	19,061	S	19,634
19 RD	S-LMAQM-15-CA-1112	DEPARTMENT OF STATE - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 233,644	\$ 544,486,028	Y			1	,	\$	233,644
20 109	·	AIR TRANSPORTATION CENTERS OF EXCELLENCE	RESEARCH AND DEVELOPMENT	\$ 372,681	\$ 544,486,028	Y					\$	372,681
20 205		HIGHWAY PLANNING AND CONSTRUCTION	RESEARCH AND DEVELOPMENT	\$ 664,459	\$ 544,486,028	N	WASHINGTON STATE DEPARTMENT OF TRANSPORTATION	N/A			\$	118,125
20 701		UNIVERSITY TRANSPORTATION CENTERS PROGRAM	RESEARCH AND DEVELOPMENT	\$ 94,220	\$ 544,486,028	Y			\$	94,220	\$	94,220
20 RD	188059	DEPARTMENT OF TRANSPORTATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 5,966,525		Y					\$	1,255
20 RD	DTFH61-12-C-00032	DEPARTMENT OF TRANSPORTATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	4 + 7, - 0, - 0	\$ 544,486,028	Y			\$	54,103	\$	112,726
20 RD	DTFH6114CO0012	DEPARTMENT OF TRANSPORTATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 5,966,525	, ,	Y				02.500	\$	62,915
20 RD	PA 24-7011	DEPARTMENT OF TRANSPORTATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 5,966,525	\$ 544,486,028	Y			\$	92,509	\$	162,697
20 RD	PA 24-7012	DEPARTMENT OF TRANSPORTATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 5,966,525		Y					\$	1,612,739
20 RD	PA-24-2017-007-00	DEPARTMENT OF TRANSPORTATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 5,966,525	\$ 544,486,028	Y	COMMONWEALTH OF				2	2,009,722
20 RD	4300544869	DEPARTMENT OF TRANSPORTATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 5,966,525	\$ 544,486,028	N	COMMONWEALTH OF PENNSYLVANIA	4300544869			\$	15,129
20 RD	4600000890 CO 7	DEPARTMENT OF TRANSPORTATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 5,966,525	\$ 544,486,028	N	NORFOLK SOUTHERN CORPORATION	N/A			\$	8,600
20 RD	RF01346346	DEPARTMENT OF TRANSPORTATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 5,966,525	\$ 544,486,028	N	OHIO STATE UNIVERSITY, THE	N/A			\$	(2,132)
20 RD	23510	DEPARTMENT OF TRANSPORTATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 5,966,525	\$ 544,486,028	N	TECHKNOWSERV	DTRT5715C10046			\$	69,902
20 RD	13-C-AJFE-PSU	FEDERAL AVIATION ADMINISTRATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 5,966,525	\$ 544,486,028	Y					\$	220,572
20 RD		FEDERAL AVIATION ADMINISTRATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 5,966,525	\$ 544,486,028	Y			\$	26,619	\$	100,067
20 RD	13-C-AJFE-PSU AMEND 009 & 18	FEDERAL AVIATION ADMINISTRATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 5,966,525	\$ 544,486,028	Y					\$	14,823
20 RD	13-C-AJFE-PSU AMENDMENT 014	FEDERAL AVIATION ADMINISTRATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 5,966,525	\$ 544,486,028	Y					\$	68,736
20 RD	13-C-AJFE-PSU AMENDMENT 016	FEDERAL AVIATION ADMINISTRATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 5,966,525	\$ 544,486,028	Y					\$	15,160
20 RD	13-C-AJFE-PSU AMENDMENT 017	FEDERAL AVIATION ADMINISTRATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 5,966,525	\$ 544,486,028	Y					\$	35,299
20 RD	13-C-AJFE-PSU AMENDMENT 12	FEDERAL AVIATION ADMINISTRATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 5,966,525	\$ 544,486,028	Y			\$	39,953	\$	69,517
20 RD	DTFH6416G00039	FEDERAL AVIATION ADMINISTRATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 5,966,525	\$ 544,486,028	Y					\$	4,785
							UNITED TECHNOLOGIES CORPORATION - PRATT & WHITNEY					
20 RD	22205 TO 94	FEDERAL AVIATION ADMINISTRATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 5,966,525	\$ 544,486,028	N	DIVISION	DTFAWA-15-A-80010			\$	1,207,940
20 RD	38049-02 TO T-11-008	FEDERAL HIGHWAY ADMINISTRATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 5,966,525	\$ 544,486,028	N	VHB	DTFH61-10-D-00022			\$	43,084
20 RD	38110-04 TASK A	FEDERAL HIGHWAY ADMINISTRATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 5,966,525		N	VHB	DTFH61-13-D-00001	6	(11.620)	\$	65,677
20 RD	DTFR53-12-C-00029	FEDERAL RAILROAD ADMINISTRATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 5,966,525	, ,	Y			2	(11,630)	\$	(11,630)
20 RD	DTFR5316C00023	FEDERAL RAILROAD ADMINISTRATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 5,966,525	\$ 544,486,028	Y			2	18,260	5	78,942
21 RD	161420	DEPARTMENT OF THE TREASURY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 59,863	\$ 544,486,028	Y					\$	19,342
21 RD	ASSIGNMENT AGREEMENT	DEPARTMENT OF THE TREASURY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 59,863	\$ 544,486,028	Y					\$	40,521
39 RD	GS-00P-13-CY-0020	GENERAL SERVICES ADMINISTRATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 821,168	\$ 544,486,028	Y			-	1.015.27	\$	821,168
43 001		SCIENCE	RESEARCH AND DEVELOPMENT	\$ 7,887,642	\$ 544,486,028	Y	1		2	1,015,262	\$	6,868,968

CFDA Number	Additional Award Identification	Name of Federal Award	Cluster Name	Federal Program Total	Cluster Total	Direct Award	Name of Pass-through Entity	Identifying number assigned by the Pass-through Entity	Amount Passed Through to Subrecipients	Amour	nt Expended
001		SCIENCE	RESEARCH AND DEVELOPMENT	\$ 7,887,642	\$ 544,486,028	N	BOISE STATE UNIVERSITY	NNX16AT71G		\$	32,050
001		SCIENCE	RESEARCH AND DEVELOPMENT	\$ 7,887,642	\$ 544,486,028	N	CORNELL UNIVERSITY	NNX16AK876		\$	47,750
001		SCIENCE	RESEARCH AND DEVELOPMENT	\$ 7,887,642	\$ 544,486,028	N	I.M. SYSTEMS GROUP, INC.	NNX15AF38G		\$	59,626
							MICHIGAN TECHNOLOGICAL				
001		SCIENCE	RESEARCH AND DEVELOPMENT	\$ 7,887,642	\$ 544,486,028	N	UNIVERSITY	NNX14AN78G		\$	(222)
001		SCIENCE	RESEARCH AND DEVELOPMENT	\$ 7,887,642	\$ 544,486,028	N	MONTANA STATE UNIVERSITY	NNX16AJ62G		\$	2,072
001		SCIENCE	RESEARCH AND DEVELOPMENT	\$ 7,887,642	\$ 544,486,028	N	SMITHSONIAN	NNX13AD46G		\$	12,301
							SMITHSONIAN ASTROPHYSICAL				
001		SCIENCE	RESEARCH AND DEVELOPMENT	\$ 7,887,642	\$ 544,486,028	N	OBSERVATORY	N/A		\$	77,795
							SMITHSONIAN ASTROPHYSICAL				
001		SCIENCE	RESEARCH AND DEVELOPMENT	\$ 7,887,642	\$ 544,486,028	N	OBSERVATORY	NAS8-03060		\$	545,371
							SMITHSONIAN ASTROPHYSICAL				
001		SCIENCE	RESEARCH AND DEVELOPMENT	\$ 7,887,642	\$ 544,486,028	N	OBSERVATORY	NNX15AC44G		\$	15,599
							SMITHSONIAN ASTROPHYSICAL				
001		SCIENCE	RESEARCH AND DEVELOPMENT	\$ 7,887,642	\$ 544,486,028	N	OBSERVATORY	NNZ15AC44G		\$	25,000
001		SCIENCE	RESEARCH AND DEVELOPMENT	\$ 7,887,642	\$ 544,486,028	N	SOUTH DAKOTA STATE UNIVERSITY	NNX15AP81G		s	58,086
				.,,	, , , , , , , , , , , , ,		SPACE TELESCOPE SCIENCE				,
001		SCIENCE	RESEARCH AND DEVELOPMENT	\$ 7,887,642	\$ 544,486,028	N	INSTITUTE	NAS5-26555		s	71,755
001		SCIENCE	RESEARCH AND DEVELOPMENT	\$ 7,887,642		N	UNIVERSITY OF CHICAGO, THE	NNX16AB44G		\$	18,815
001		SCIENCE	RESEARCH AND DEVELOPMENT	\$ 7,887,642		N	UNIVERSITY OF WASHINGTON	NNA13AA93A		S	42,596
002		AERONAUTICS	RESEARCH AND DEVELOPMENT	\$ 937,257		Y			\$ 32,635	S	253,299
002				9 931,231	\$ 711,100,0 <u>2</u> 0			NATIONAL	52,033	Ψ	200,200
								AERONAUTICS AND			
002		AERONAUTICS	RESEARCH AND DEVELOPMENT	\$ 937,257	\$ 544,486,028	N	BAYLOR COLLEGE OF MEDICINE	SPACE		6	326,046
002		AERONACTICS	RESEARCH AND DEVELOT MENT	\$ 931,231	\$ 344,460,026	IN	BATEOR COLLEGE OF MEDICINE	SI ACE		3	320,040
002		AERONAUTICS	RESEARCH AND DEVELOPMENT	\$ 937,257	\$ 544,486,028	N	BAYLOR COLLEGE OF MEDICINE	NCC9-58-168		6	268,893
002		AERONAUTICS	RESEARCH AND DEVELOPMENT	\$ 931,231	\$ 344,480,028	IN		NCC9-38-108		3	208,893
002		AERONAUTICS	RESEARCH AND DEVELOPMENT	6 027.257	£ 544.406.020	.,	GEORGIA INSTITUTE OF TECHNOLOGY	NNX16AK24A			07.500
002		AERONAUTICS	RESEARCH AND DEVELOPMENT	\$ 937,257	\$ 544,486,028	N		NNATOAK24A		13	87,500
		LED ON LETTING	DESCRIPTION OF THE COLUMN				WORCESTER POLYTECHNIC			4. 1	
002		AERONAUTICS	RESEARCH AND DEVELOPMENT	\$ 937,257	\$ 544,486,028		INSTITUTE	NNC14AA01A		\$	1,519
003		EXPLORATION	RESEARCH AND DEVELOPMENT	\$ 27,210		Y				\$	27,210
007		SPACE OPERATIONS	RESEARCH AND DEVELOPMENT		\$ 544,486,028	Y				\$	261,271
008		EDUCATION	RESEARCH AND DEVELOPMENT	.,,	\$ 544,486,028	Y			\$ 184,082	\$	1,013,191
009		CROSS AGENCY SUPPORT	RESEARCH AND DEVELOPMENT	\$ 10,097	\$ 544,486,028	Y				\$	10,097
012		SPACE TECHNOLOGY	RESEARCH AND DEVELOPMENT	\$ 181,265	\$ 544,486,028	Y				\$	181,265
RD	4/30/2017-6/30/2018	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON- SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	Y				\$	10,877
		NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON-									
RD	NAS5-00136	SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	Y			\$ 608,303	\$	1,698,223
		NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON-								1	
RD	NNA09DA76A	SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	Y				\$	13
		NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON-									
RD	NNC16MG24P	SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	Y				\$	11,861
		NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON-									
RD	NNL16AB44P	SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	Y				\$	7,632
		NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON-								T	
RD	NNM13AA06G	SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	Y				\$	760
		NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON-									
RD	NNX09AL65G	SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	Y			\$ 22,413	\$	24,001
		NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON-			, , , , , , , ,				, , ,		, , , , , ,
RD	NNX13AR34A	SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	Y				s	743
		NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON-		,,/2/	,,020						
RD	NNX15AJ53G	SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	Y				s	16,300
		NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON-		. 3,703,121						+	
RD	NNX15AR44G	SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	Y				l s	22,623
, KD	TATA DAIGHO	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON-	RESEARCH AND DEVELOT MENT	9 0,765,727	φ 344,400,028	1				10	22,023
DD.	NNX15AR50G	SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	Y				0	10,687
RD	DUCARCIANI		RESEARCH AND DEVELOPMENT	3 0,985,727	\$ 344,486,028	Y				3	10,687
1	ADJV15 ATCOC	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON-	DESCRIPCH AND DESCRIPTION OF THE								
		SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	Y				\$	8,444
RD	NNX15AT68G										
	NNX15AT08G NNX16AE64G	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON- SPECIFIED	RESEARCH AND DEVELOPMENT		\$ 544,486,028	v					17,000

										Amount Passed		
CFD/ Numb		Additional Award Identification	Name of Federal Award	Cluster Name	Federal Program Total	Cluster Total	Direct Award	Name of Pass-through Entity	Identifying number assigned by the Pass-through Entity	Through to Subrecipients	Amo	ount Expended
43 RI	ヿ	NNX16AE66G	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON- SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	Y	,	, ,	•	\$	6,449
43 RI	D	NNX16AF33G	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON- SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	Y				\$	74,076
43 RI	D	NNX17AB07G	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON- SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	Y			\$ 12,805	\$	138,666
43 RE	_D	AGNC160519	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON- SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	AMERICAN GNC CORPORATION	NNX16CJ06C		s	20,174
43 RI	\neg	APS-15-07	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON- SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	APPLIED PHYSICAL SCIENCES CORPORATION	NNL15AA00C		\$	11
43 RI	D	APS-15-07 MOD 01	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON- SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	APPLIED PHYSICAL SCIENCES CORPORATION	NNL15AA00C		\$	82,035
43 RI	D	US001-0000367538	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON- SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	BATTELLE PACIFIC NORTHWEST NATIONAL LABORATORY	NNH13CH25C		\$	13,207
43 RE	D	MA02701 NCC9-58-168	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON- SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	BAYLOR COLLEGE OF MEDICINE	NCC9-58-168		\$	25,000
43 RE	D	44A-1092750	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON- SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	CALIFORNIA INSTITUTE OF TECHNOLOGY	NASA		s	41,641
43 RE			NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON- SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028		FIBERTEK, INC.	NNX16CL43P		\$	39,521
43 RI	D	24704	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON- SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	GLOBAL TECHNOLOGY ENTERPRISES	NNX16CM24P		\$	31,279
43 RE	D	18331	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON- SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	HYPERTHERM INC.	NNX11CG62P		\$	226
43 RI	D	15N0511 EMAIL DATED 12/8/15	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON- SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	JACOBS ESSSA GROUP	NNM12AA41C		\$	86
43 RE	D	15N0511 REV 3	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON- SPECIFIED NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON-	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	JACOBS ESSSA GROUP	NNM12AA41C		\$	8,000
43 RE	D	1416202	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON- NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON-	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	JET PROPULSION LABORATORY	N/A		\$	10
43 RE	D	1459238	SPECIFIED NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON-	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	JET PROPULSION LABORATORY	NNN12AA01C		\$	81,622
43 RI	D	1525870	SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	JET PROPULSION LABORATORY	NNN12AA01C		\$	19,045
43 RE	D	1527416	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON- SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	JET PROPULSION LABORATORY	N/A		\$	9,991
43 RE	D	1531994	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON- SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	JET PROPULSION LABORATORY	N/A NATIONAL		\$	92,426
43 RE	D	1537000	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON- SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	JET PROPULSION LABORATORY	AERONAUTICS AND SPACE		\$	3,896
43 RE	D	1542445	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON- SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	JET PROPULSION LABORATORY	NNN12AA01C		\$	140,338
43 RE	D	1544619	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON- SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	JET PROPULSION LABORATORY	N/A		\$	7,336
43 RE	D	1544641	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON- SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	JET PROPULSION LABORATORY	N/A		\$	5,000
43 RI	D	1546516 PO 1546529	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON- SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	JET PROPULSION LABORATORY	NNN12AA01C		\$	10,000
43 RE	D	1547296	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON- SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	JET PROPULSION LABORATORY	NNN12AA01C		\$	56,552
43 RE	D	1547612	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON- SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	JET PROPULSION LABORATORY	NNN12AA01C	\$ 224,726	\$	2,886,860
43 RI	D	1549273	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON- SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	JET PROPULSION LABORATORY	NNN12AA01C		\$	123,492
43 RE	D	1561319	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON- SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	JET PROPULSION LABORATORY	N/A NATIONAL		\$	10,300
43 RI	D	6574002326	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON- SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	LOCKHEED MARTIN CORPORATION	AERONAUTICS AND SPACE		\$	56,436

CFDA Numbe		Name of Federal Award	Cluster Name	Federal Program Total	Cluster Total	Direct Award	Name of Pass-through Entity	Identifying number assigned by the Pass-through Entity	Amount Passed Through to Subrecipients	Amour	nt Expended
43 RD		NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON- SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	MICROENGINEERED METALS, INC.	NNX16CC40P		\$	34,784
43 RD	REMS.201605 TO NNA17BF39T	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON- SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	MONTEREY TECHNOLOGIES, INC.	NNA13AA84B		\$	11,807
43 RD	24189	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON- SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	QORTEK	NNX16CC11C		\$	67,079
43 RD	AR3-14015X	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON- SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	SMITHSONIAN ASTROPHYSICAL OBSERVATORY	NAS8-03060		\$	27,676
43 RD	GO3-14100X	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON- SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	SMITHSONIAN ASTROPHYSICAL OBSERVATORY	NAS8-03060		\$	47,697
43 RD	GO5-16003X	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON- SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	SMITHSONIAN ASTROPHYSICAL OBSERVATORY	NAS8-03060		\$	21,232
43 RD	GO5-16015X	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON- SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	SMITHSONIAN ASTROPHYSICAL OBSERVATORY	NAS8-03060		\$	18,306
43 RD	SV4-74018	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON- SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	SMITHSONIAN ASTROPHYSICAL OBSERVATORY	NAS8-03060		\$	344,408
43 RD	189712	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON- SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	SOLID STATE CERAMICS INC.	NNX16CS16C		\$	57,737
43 RD	HST-GO-12296.010-A	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON- SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	SPACE TELESCOPE SCIENCE INSTITUTE	NAS5-26555		\$	10,371
43 RD	HST-GO-12586.016-A	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON- SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	SPACE TELESCOPE SCIENCE INSTITUTE	NAS5-26555		\$	3,499
43 RD	HST-GO-12594.004-A	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON- SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	SPACE TELESCOPE SCIENCE INSTITUTE	NAS5-26555		\$	7,258
43 RD	HST-GO-12595.01-A	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON- SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	SPACE TELESCOPE SCIENCE INSTITUTE	N/A		\$	6,977
43 RD	HST-GO-12866.01-A	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON- SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	SPACE TELESCOPE SCIENCE INSTITUTE	NAS5-26555		\$	27,449
43 RD	HST-GO-13115.01-A	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON- SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	SPACE TELESCOPE SCIENCE INSTITUTE	NAS5-26555		\$	15,987
43 RD	HST-GO-13308.005-A	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON- SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	SPACE TELESCOPE SCIENCE INSTITUTE	NAS5-26555		\$	12,806
43 RD	HST-GO-13369.002-A	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON- SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	SPACE TELESCOPE SCIENCE INSTITUTE	NAS5-26555		\$	(14)
43 RD	HST-GO-13398.02-A	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON- SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	SPACE TELESCOPE SCIENCE INSTITUTE	NAS5-26555		\$	43,796
43 RD	HST-GO-13457.02-A	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON- SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	SPACE TELESCOPE SCIENCE INSTITUTE	NAS5-26555		\$	3,991
43 RD	HST-GO-13468.001-A	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON- SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	SPACE TELESCOPE SCIENCE INSTITUTE	NAS5-26555		\$	19,486
43 RD	HST-GO-13469.001-A	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON- SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	SPACE TELESCOPE SCIENCE INSTITUTE	NAS5-26555		\$	31,999
43 RD	HST-GO-13516.001-A	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON- SPECIFIED NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON-	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	SPACE TELESCOPE SCIENCE INSTITUTE SPACE TELESCOPE SCIENCE	NAS5-26555		\$	24,994
43 RD	HST-GO-13660.005-A	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON- SPECIFIED NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON-	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	INSTITUTE SPACE TELESCOPE SCIENCE	NAS5-26555		\$	45,723
43 RD	HST-GO-13783.001-A	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON- SPECIFIED NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON-	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	INSTITUTE SPACE TELESCOPE SCIENCE	NAS5-26555		\$	22,947
43 RD	HST-GO-13802.001-A	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON- SPECIFIED NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON-	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	INSTITUTE SPACE TELESCOPE SCIENCE	NASS-26555		\$	24,431
43 RD	HST-GO-13811.004-A	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON- SPECIFIED NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON-	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	INSTITUTE SPACE TELESCOPE SCIENCE	NAS5-26555		\$	10,986
43 RD	HST-GO-13935-001-A	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON- SPECIFIED NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON-	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	INSTITUTE SPACE TELESCOPE SCIENCE	NAS5-26555		\$	21,016
43 RD	HST-GO-14157.001-A	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON- SPECIFIED NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON-	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	INSTITUTE SPACE TELESCOPE SCIENCE	NAS5-26555		\$	597
43 RD	HST-GO-14227.012-A	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON- NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON-	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	INSTITUTE SPACE TELESCOPE SCIENCE	NAS5-26555		\$	5,694
43 RD	HST-GO-14249.002-A	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON- SPECIFIED NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON-	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	INSTITUTE SPACE TELESCOPE SCIENCE	NAS5-26555		\$	1,891
43 RD	HST-GO-14258.001-A	SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	INSTITUTE	NAS5-26555		\$	690

									Amount Passed	
CFDA	Additional Award			Federal Program		Direct		Identifying number assigned	Through to	
lumber	Identification	Name of Federal Award	Cluster Name	Total	Cluster Total	Award	8 7	by the Pass-through Entity	Subrecipients	Amount Expended
	TICT CO 14664 001 4	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON-	DECEARCH AND DEVELOPMENT				SPACE TELESCOPE SCIENCE	21.05.2655		
RD	HST-GO-14664.001-A	SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	INSTITUTE	NAS5-26555		\$ 2,98
RD	HST-GO-14729.003-A	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON- SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	SPACE TELESCOPE SCIENCE INSTITUTE	NAS5-26555		\$ 20,04
KD	1131-GO-14/29.003-A	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON-	RESEARCH AND DEVELOT MENT	\$ 0,965,727	\$ 344,460,026	IN	SPACE TELESCOPE SCIENCE	NA33-20333		5 20,04
RD	HST-GO-14745.001-A	SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	INSTITUTE	NAS5-26555		\$ 7,08
ICD	HST-HF2-51330.001-A	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON-	TESES INCITATION DE VEESTIMENT	0,703,727	\$ 544,400,020	.,	SPACE TELESCOPE SCIENCE	14100 20000		7,00
RD	AMEND 2	SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	INSTITUTE	NAS5-26555		\$ 13,20
		NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON-		.,,	, , , , , , ,		SPACE TELESCOPE SCIENCE			
RD	HST-HF2-51335.001-A	SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	INSTITUTE	NAS5-26555		\$ 22,66
		NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON-								
RD	186061 PO 45408	SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	SYSTIMA TECHNOLOGIES, INC.	NNX16CC27P		\$ 25,00
		NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON-								
RD	176076	SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	TERVES INC.	NNX15CK16P		\$ (33
		NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON-								
RD	FP060761-C AMEND 1	SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	UNIVERSITY OF CHICAGO, THE	NNX16AB44G		\$ 13,79
D. D.	WCCC00027	NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON-	DECEARCH AND DEVELOR SET				WAYLE INC	NINIDIE A AOSC		
RD	WSCS00037	PROMOTION OF THE ARTS GRANTS TO ORGANIZATIONS AND	RESEARCH AND DEVELOPMENT	\$ 6,983,727	\$ 544,486,028	N	WYLE, INC.	NND15AA05C		\$ 93,15
024		INDIVIDUALS	RESEARCH AND DEVELOPMENT	\$ 10,675	\$ 544,486,028	Y				\$ 66
130		PROMOTION OF THE HUMANITIES CHALLENGE GRANTS	RESEARCH AND DEVELOPMENT	\$ 7,628		Y				\$ 7,62
161		PROMOTION OF THE HUMANITIES CHALLENGE GRANTS PROMOTION OF THE HUMANITIES RESEARCH	RESEARCH AND DEVELOPMENT	\$ 44,238	\$ 544,486,028	Y				\$ 44,23
301		MUSEUMS FOR AMERICA	RESEARCH AND DEVELOPMENT	\$ 13,657		Y				\$ 13,65
312		NATIONAL LEADERSHIP GRANTS	RESEARCH AND DEVELOPMENT	\$ 150,670		Y			\$ 10,818	\$ 150,67
					, , , , , , ,				.,.	
RD	HK-50070-13	NATIONAL ENDOWMENT FOR THE HUMANITIES - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 83,915	\$ 544,486,028	Y				\$ 6,21
RD	RQ-230555-15	NATIONAL ENDOWMENT FOR THE HUMANITIES - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 83,915	\$ 544,486,028	Y				\$ 77,70
041		ENGINEERING GRANTS	RESEARCH AND DEVELOPMENT	\$ 10,708,721		Y			\$ 565,452	\$ 9,670,97
041		ENGINEERING GRANTS	RESEARCH AND DEVELOPMENT	\$ 10,708,721		N	ACTUATED MEDICAL, INC.	IIP-1353176		\$ 45,09
041		ENGINEERING GRANTS	RESEARCH AND DEVELOPMENT	,,,,,,,		N	ATOPTIX, LLC	1648892		\$ 39,02
041		ENGINEERING GRANTS	RESEARCH AND DEVELOPMENT	\$ 10,708,721	\$ 544,486,028	N	COACHSAFE PLAYSAFE LLC	1622894		\$ 116,01
l		ENIGN FEED NIG ON LIVE	DESCRIPTION ON THE PROPERTY OF STREET				LICATE LA PROPERTA DE PROPERTA DE LA PROPERTA DEL PROPERTA DE LA PROPERTA DEPURBBATA DE LA PROPERTA DE LA PROP	27/4		
041		ENGINEERING GRANTS	RESEARCH AND DEVELOPMENT	\$ 10,708,721 \$ 10,708,721	\$ 544,486,028	N	HONEYWELL INTERNATIONAL INC.	N/A 1238335		\$ 50,68 \$ 43,26
041		ENGINEERING GRANTS ENGINEERING GRANTS	RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	4,,,,,,,,		N N	IOWA STATE UNIVERSITY IOWA STATE UNIVERSITY	N/A		\$ 43,26
041		ENGINEERING GRANTS ENGINEERING GRANTS	RESEARCH AND DEVELOPMENT	\$ 10,708,721		N	LIGNOLINK, INC.	IIP-1353109		\$ 36,78
041		ENGINEERING GREATS	RESEARCH AND BEVELOT MENT	3 10,700,721	\$ 344,460,028	18	MICHIGAN TECHNOLOGICAL	III -133310)		φ 15,45
041		ENGINEERING GRANTS	RESEARCH AND DEVELOPMENT	\$ 10,708,721	\$ 544,486,028	N	UNIVERSITY	CBET-1639342		\$ 29,28
***				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						
041		ENGINEERING GRANTS	RESEARCH AND DEVELOPMENT	\$ 10,708,721	\$ 544,486,028	N	MOBILE SLEEP TECHNOLOGIES LLC	1622766		\$ 74,24
							RENSSELAER POLYTECHNIC			
041		ENGINEERING GRANTS	RESEARCH AND DEVELOPMENT	\$ 10,708,721	\$ 544,486,028	N	INSTITUTE	EFRI-1433311		\$ 196,95
							RENSSELAER POLYTECHNIC	NATIONAL SCIENCE		
041		ENGINEERING GRANTS	RESEARCH AND DEVELOPMENT	\$ 10,708,721	, ,	N	INSTITUTE	FOUNDATION		\$ 5,61
041		ENGINEERING GRANTS	RESEARCH AND DEVELOPMENT	\$ 10,708,721		N	SOLID STATE CERAMICS INC.	IIIP-1632476		\$ 93,50
041		ENGINEERING GRANTS	RESEARCH AND DEVELOPMENT	\$ 10,708,721	\$ 544,486,028	N	UNIVERSITY OF NOTRE DAME	2016-NE-2698		\$ 27,96
04:		ENCHIEFDING OF ANTE	DECEARCH AND DEVELOPMENT	6 10 700 721		.,	LININ/EDGITY OF DENINGVI VANDA	1542707		d 120.02
041		ENGINEERING GRANTS	RESEARCH AND DEVELOPMENT	\$ 10,708,721	\$ 544,486,028	N	UNIVERSITY OF PENNSYLVANIA	1542707		\$ 138,82
							VIRGINIA POLYTECHNIC INSTITUTE			
041		ENGINEERING GRANTS	RESEARCH AND DEVELOPMENT	\$ 10,708,721	\$ 544,486,028	N	AND STATE UNIVERSITY	IIP-1160977		\$ 107,04
049		MATHEMATICAL AND PHYSICAL SCIENCES	RESEARCH AND DEVELOPMENT	\$ 19,720,413		Y	DITTE CHI EROTT		\$ 727,404	\$ 18,917,74
1047			DE LEGITALITA	2 17,720,713	2 3.1,400,020	<u> </u>	CALIFORNIA INSTITUTE OF		727,404	- 10,717,74
049		MATHEMATICAL AND PHYSICAL SCIENCES	RESEARCH AND DEVELOPMENT	\$ 19,720,413	\$ 544,486,028	N	TECHNOLOGY	1305124		\$ 138,79
049		MATHEMATICAL AND PHYSICAL SCIENCES	RESEARCH AND DEVELOPMENT	\$ 19,720,413		N	OHIO STATE UNIVERSITY, THE	DMR-1420451		\$ 41,92
049		MATHEMATICAL AND PHYSICAL SCIENCES	RESEARCH AND DEVELOPMENT	\$ 19,720,413	\$ 544,486,028	N	UNIVERSITY OF CALIFORNIA, IRVINE	CHE-1414466		\$ 152,93
1							UNIVERSITY OF NORTH CAROLINA			
049		MATHEMATICAL AND PHYSICAL SCIENCES	RESEARCH AND DEVELOPMENT	\$ 19,720,413	\$ 544,486,028	N	AT CHAPEL HILL, THE	1127914	1	\$ 70.86

		1					I		Amount Passe	1	
CFDA	Additional Award			Federal Program		Direct		Identifying number assigned	Through to	·	
Number	Identification	Name of Federal Award	Cluster Name	Total	Cluster Total	Award	Name of Pass-through Entity	by the Pass-through Entity	Subrecipients	Amo	ount Expended
							UNIVERSITY OF WISCONSIN -				
47 049		MATHEMATICAL AND PHYSICAL SCIENCES	RESEARCH AND DEVELOPMENT	\$ 19,720,413	\$ 544,486,028	N	MADISON	DMR-1234096		\$	69,795
							UNIVERSITY OF WISCONSIN -				
47 049		MATHEMATICAL AND PHYSICAL SCIENCES	RESEARCH AND DEVELOPMENT	\$ 19,720,413	\$ 544,486,028	N	MILWAUKEE	PHY-1104371		\$	144,733
47 040		MATHEMATICAL AND DUVCICAL CCIENCES	DECEARCH AND DEVELORMENT	6 10 720 412	Ø 544 406 020		WACHINGTON CTATE INIVERSITY	1626566			52.271
47 049 47 049		MATHEMATICAL AND PHYSICAL SCIENCES MATHEMATICAL AND PHYSICAL SCIENCES	RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	\$ 19,720,413 \$ 19,720,413	\$ 544,486,028 \$ 544,486,028	N	WASHINGTON STATE UNIVERSITY YALE UNIVERSITY	1616086		\$	52,271 18,351
47 050		GEOSCIENCES	RESEARCH AND DEVELOPMENT	\$ 9,520,878	\$ 544,486,028	Y	TABLE CHIVERSTIT	1010000	\$ 668,89) \$	8,730,603
47 050		GEOSCIENCES	RESEARCH AND DEVELOPMENT	\$ 9,520,878		N	COLUMBIA UNIVERSITY	N/A	000,05	\$	30,933
								NATIONAL SCIENCE			
47 050		GEOSCIENCES	RESEARCH AND DEVELOPMENT	\$ 9,520,878	\$ 544,486,028	N	COLUMBIA UNIVERSITY	FOUNDATION		\$	46,575
47 050		GEOSCIENCES	RESEARCH AND DEVELOPMENT	\$ 9,520,878	\$ 544,486,028	N	COLUMBIA UNIVERSITY	OCE-1202632		\$	114,805
47 050		GEOSCIENCES	RESEARCH AND DEVELOPMENT	\$ 9,520,878	\$ 544,486,028	N	CORNELL UNIVERSITY	N/A		\$	99,082
47 050		GEOSCIENCES	RESEARCH AND DEVELOPMENT	\$ 9,520,878	\$ 544,486,028	N	HARVARD UNIVERSITY	N/A		\$	37,179
47 050		GEOSCIENCES	RESEARCH AND DEVELOPMENT	\$ 9,520,878	\$ 544,486,028	N	KANSAS STATE UNIVERSITY	1639734		\$	10,004
47 050		GEOSCIENCES	RESEARCH AND DEVELOPMENT	\$ 9,520,878	\$ 544,486,028	N	UNIVERSITY CORPORATION FOR ATMOSPHERIC RESEARCH	AGS-1344155			10,726
		GEOSCIENCES	RESEARCH AND DEVELOPMENT	\$ 9,520,878 \$ 9,520,878	\$ 544,486,028 \$ 544,486,028	N	UNIVERSITY OF COLORADO	AGS-1344155 AGS1135446		\$	234,050
47 050 47 050		GEOSCIENCES	RESEARCH AND DEVELOPMENT	\$ 9,520,878 \$ 9,520,878	\$ 544,486,028 \$ 544,486,028		UNIVERSITY OF COLORADO	EAR-1331906		S	20,125
., 330				3 7,320,076	\$ 5.7,400,020	1				-	20,123
47 050		GEOSCIENCES	RESEARCH AND DEVELOPMENT	\$ 9,520,878	\$ 544,486,028	N	UNIVERSITY OF NEW HAMPSHIRE	EAR-1331841		\$	47,463
					, , , , , , ,		UNIVERSITY OF WISCONSIN -				.,
47 050		GEOSCIENCES	RESEARCH AND DEVELOPMENT	\$ 9,520,878	\$ 544,486,028	N	MADISON	PLR-1600823		\$	29,025
							VIRGINIA POLYTECHNIC INSTITUTE				
47 050		GEOSCIENCES	RESEARCH AND DEVELOPMENT	\$ 9,520,878	\$ 544,486,028	N	AND STATE UNIVERSITY	479483-19079		\$	101,856
47 070		COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	RESEARCH AND DEVELOPMENT	\$ 8,297,348	\$ 544,486,028	Y			\$ 394,69) \$	7,982,567
4.5		COMPLETED AND DIFFORMATION COLENCE AND ENCORPERING	DESCRIPCH AND DEVELOPMENT				NORTH DAVOTA CTATE IN INCENSITY	CDIG 1514621			40.005
47 070 47 070		COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	\$ 8,297,348 \$ 8,297,348	\$ 544,486,028 \$ 544,486,028	N	NORTH DAKOTA STATE UNIVERSITY RUTGERS UNIVERSITY	CNS-1544621 1640834		\$	40,005 22,688
47 070		COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	RESEARCH AND DEVELOPMENT	\$ 8,297,348	\$ 344,486,028	N	UNIVERSITY OF CALIFORNIA,	1040834		2	22,088
47 070		COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	RESEARCH AND DEVELOPMENT	\$ 8,297,348	\$ 544,486,028	l N	BERKELEY	1550488		9	2,042
17 070				0,257,510	\$ 511,100,020		UNIVERSITY OF CALIFORNIA, SANTA			Ψ	2,012
47 070		COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	RESEARCH AND DEVELOPMENT	\$ 8,297,348	\$ 544,486,028	N	BARBARA	CCF-1500848		\$	114,922
							UNIVERSITY OF NORTH CAROLINA				
47 070		COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	RESEARCH AND DEVELOPMENT	\$ 8,297,348	\$ 544,486,028	N	AT CHAPEL HILL, THE	1331813		\$	135,098
47 074		BIOLOGICAL SCIENCES	RESEARCH AND DEVELOPMENT	\$ 9,383,901	, ,	Y			\$ 681,40	3 \$	9,009,808
47 074		BIOLOGICAL SCIENCES	RESEARCH AND DEVELOPMENT	\$ 9,383,901	\$ 544,486,028	N	IOWA STATE UNIVERSITY	1558071		\$	7,078
47 074 47 074		BIOLOGICAL SCIENCES BIOLOGICAL SCIENCES	RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	\$ 9,383,901 \$ 9,383,901	\$ 544,486,028 \$ 544,486,028	N N	LOUISIANA STATE UNIVERSITY STANFORD UNIVERSITY	DEB-1316334 1518681		\$	25,594 108,332
47 074		BIOLOGICAL SCIENCES BIOLOGICAL SCIENCES	RESEARCH AND DEVELOPMENT	\$ 9,383,901	\$ 544,486,028	N	UNIVERSITY OF MARYLAND	MCB-1244303		9	24,286
47 074		BIOLOGICAL SCIENCES	RESEARCH AND BE VEED IMENT	\$ 9,363,901	3 344,400,028	IN	CHIVERSHIT OF MERCLESHID	NATIONAL SCIENCE		Φ.	24,200
47 074		BIOLOGICAL SCIENCES	RESEARCH AND DEVELOPMENT	\$ 9,383,901	\$ 544,486,028	N	UNIVERSITY OF MARYLAND	FOUNDATION		s	11,102
											,
47 074		BIOLOGICAL SCIENCES	RESEARCH AND DEVELOPMENT	\$ 9,383,901	\$ 544,486,028	N	UNIVERSITY OF SOUTH FLORIDA	I0S-1146882		\$	12,220
47 074		BIOLOGICAL SCIENCES	RESEARCH AND DEVELOPMENT	\$ 9,383,901	\$ 544,486,028	N	UNIVERSITY OF VIRGINIA	DEB-1237733		\$	19,187
							VIRGINIA POLYTECHNIC INSTITUTE			1.	
47 074		BIOLOGICAL SCIENCES	RESEARCH AND DEVELOPMENT	\$ 9,383,901	\$ 544,486,028	N	AND STATE UNIVERSITY	IOS-1238057		\$	54,578
47 074		DIOLOGICAL SCIENCES	DECEADOU AND DEVELORMENT	0.202.021	6 544 496 920	N.	WASHINGTON UNIVERSITY IN ST.	MCD 1221104		6	60.440
47 074		BIOLOGICAL SCIENCES	RESEARCH AND DEVELOPMENT	\$ 9,383,901	\$ 544,486,028	N	LOUIS WASHINGTON UNIVERSITY IN ST.	MCB-1331194		\$	60,442
47 074		BIOLOGICAL SCIENCES	RESEARCH AND DEVELOPMENT	\$ 9,383,901	\$ 544,486,028	N	LOUIS	MCB1546840		8	17,345
47 074		SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	RESEARCH AND DEVELOPMENT	\$ 3,772,281	\$ 544,486,028	Y			\$ 389,08	1 \$	3,505,072
47 075		SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	RESEARCH AND DEVELOPMENT	\$ 3,772,281	\$ 544,486,028	N	BOISE STATE UNIVERSITY	N/A	557,00	\$	1,420
47 075		SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	RESEARCH AND DEVELOPMENT	\$ 3,772,281	\$ 544,486,028	N	FORDHAM UNIVERSITY	N/A		\$	38,189
47 075		SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	RESEARCH AND DEVELOPMENT	\$ 3,772,281	\$ 544,486,028	N	NORTHWESTERN UNIVERSITY	N/A		\$	21,006
47 075		SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	RESEARCH AND DEVELOPMENT	\$ 3,772,281	\$ 544,486,028	N	UNIVERSITY OF COLORADO	SES 11-32008		\$	53,269
_		and the province of the provin					UNIVERSITY OF MASSACHUSETTS	ara			[
47 075		SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	RESEARCH AND DEVELOPMENT	\$ 3,772,281	\$ 544,486,028	N	AMHERST	SES 14-24210		\$	150,858

CFDA	Additional Award			Federal Program		Direct		Identifying number assigned	Amount Passed Through to	
umber	Identification	Name of Federal Award	Cluster Name	Total	Cluster Total	Award	Name of Pass-through Entity	by the Pass-through Entity	Subrecipients	Amount Expended
							UNIVERSITY OF TEXAS AT AUSTIN,			
075		SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES	RESEARCH AND DEVELOPMENT	\$ 3,772,281	\$ 544,486,028	N	THE	BCS-0964596		\$ 2,46
076		EDUCATION AND HUMAN RESOURCES	RESEARCH AND DEVELOPMENT	\$ 7,837,993	\$ 544,486,028	Y			\$ 436,321	\$ 6,819,35
							ASTRONOMICAL SOCIETY OF THE			
076		EDUCATION AND HUMAN RESOURCES	RESEARCH AND DEVELOPMENT	\$ 7,837,993	\$ 544,486,028	N	PACIFIC	DRL-1217441		\$ 15,18
076		EDUCATION AND HUMAN RESOURCES	RESEARCH AND DEVELOPMENT	\$ 7,837,993	\$ 544,486,028	N	CARLETON COLLEGE	DUE-1125331		\$ 13,47
076		EDUCATION AND HUMAN RESOURCES	RESEARCH AND DEVELOPMENT	\$ 7,837,993	\$ 544,486,028	N	CARLETON COLLEGE	N/A		\$ 75,44
076		EDUCATION AND HUMAN RESOURCES	RESEARCH AND DEVELOPMENT	\$ 7,837,993	\$ 544,486,028	N	COLUMBIA UNIVERSITY	N/A		\$ 45,51
076		EDUCATION AND HUMAN RESOURCES	RESEARCH AND DEVELOPMENT	\$ 7,837,993	\$ 544,486,028	N	CONCORD CONSORTIUM, THE	293.01		\$ 24,16
076		EDUCATION AND HUMAN RESOURCES	RESEARCH AND DEVELOPMENT	\$ 7,837,993	\$ 544,486,028	N	HARVARD UNIVERSITY	DRL-1503395		\$ 112,71
076		EDUCATION AND HUMAN RESOURCES	RESEARCH AND DEVELOPMENT	\$ 7,837,993	\$ 544,486,028	N	MUSEUM OF SCIENCE, BOSTON	N/A		\$ 10,04
076		EDUCATION AND HUMAN RESOURCES	RESEARCH AND DEVELOPMENT	\$ 7,837,993	\$ 544,486,028	N	NEW ENGLAND AQUARIUM	N/A		\$ 69,58
076		EDUCATION AND HUMAN RESOURCES	RESEARCH AND DEVELOPMENT	\$ 7,837,993	\$ 544,486,028	N	UNIVERSITY OF CENTRAL FLORIDA	DUE-1161228		\$ 5,36
076		EDUCATION AND HUMAN RESOURCES	RESEARCH AND DEVELOPMENT	\$ 7,837,993	\$ 544,486,028	N	UNIVERSITY OF OKLAHOMA, THE	1561660		\$ 2,19
078		POLAR PROGRAMS	RESEARCH AND DEVELOPMENT	\$ 241,797	\$ 544,486,028	Y				\$ 233,33
078		POLAR PROGRAMS	RESEARCH AND DEVELOPMENT	\$ 241,797	\$ 544,486,028	N	UNIVERSITY OF KANSAS, THE	ANT0424589		\$ 8,46
079		OFFICE OF INTERNATIONAL SCIENCE AND ENGINEERING	RESEARCH AND DEVELOPMENT	\$ 663,910		Y				\$ 639,3
079		OFFICE OF INTERNATIONAL SCIENCE AND ENGINEERING	RESEARCH AND DEVELOPMENT	\$ 663,910	\$ 544,486,028	N	OREGON STATE UNIVERSITY	N/A		\$ 16,69
079		OFFICE OF INTERNATIONAL SCIENCE AND ENGINEERING	RESEARCH AND DEVELOPMENT	\$ 663,910	\$ 544,486,028	N	OREGON STATE UNIVERSITY	OISE-0968391		\$ 7,83
080		OFFICE OF CYBERINFRASTRUCTURE	RESEARCH AND DEVELOPMENT	\$ 93,547	\$ 544,486,028	Y			\$ 4,550	\$ 93,54
083		OFFICE OF INTEGRATIVE ACTIVITIES	RESEARCH AND DEVELOPMENT	\$ 188,515	\$ 544,486,028	Y			\$ 27,931	\$ 131,63
								NATIONAL SCIENCE		
083		OFFICE OF INTEGRATIVE ACTIVITIES	RESEARCH AND DEVELOPMENT	\$ 188,515	\$ 544,486,028	N	BOISE STATE UNIVERSITY	FOUNDATION		\$ 56,8
RD	3/1/2017-2/28/2018	NATIONAL SCIENCE FOUNDATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 4,491,532	\$ 544,486,028	Y				\$ 1.3
RD	ACI 16-26251	NATIONAL SCIENCE FOUNDATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 4,491,532	\$ 544,486,028	Y				\$ 920,68
RD	AGS 12-63225	NATIONAL SCIENCE FOUNDATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 4,491,532		Y				\$ 23,8
RD	AGS 13-45250	NATIONAL SCIENCE FOUNDATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 4,491,532		Y				\$ 76,63
RD	AST 12-11756,A02	NATIONAL SCIENCE FOUNDATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 4,491,532	\$ 544,486,028	Y				\$ 84
RD	BCS 15-33625	NATIONAL SCIENCE FOUNDATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 4,491,532	\$ 544,486,028	Y				\$ 70,67
RD	BCS 15-54834	NATIONAL SCIENCE FOUNDATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 4,491,532		Y				\$ 16.78
RD	BCS 16-50824	NATIONAL SCIENCE FOUNDATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 4,491,532		Y				\$ 12,9
RD	BCS 16-60707	NATIONAL SCIENCE FOUNDATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 4,491,532		v				\$ 25,6
RD	CMMI 16-35437	NATIONAL SCIENCE FOUNDATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 4,491,532		Y				\$ 23,8
RD	CMMI 16-43146	NATIONAL SCIENCE FOUNDATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 4,491,532		Y				\$ 40.8
RD	CNS 11-16626	NATIONAL SCIENCE FOUNDATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 4,491,532	. , , , , , , , , ,	Y				\$ 40,8
RD	DBI 14-55658	NATIONAL SCIENCE FOUNDATION - NON-SPECIFIED NATIONAL SCIENCE FOUNDATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 4,491,532		Y				\$ 210,4
RD	DBI 16-25473	NATIONAL SCIENCE FOUNDATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 4,491,532	\$ 544,486,028	Y				\$ 649.20
RD	DEB 15-56444	NATIONAL SCIENCE FOUNDATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 4,491,532		Y				\$ 110,72
RD										
RD	DGE 15-26006 DMR 16-54625	NATIONAL SCIENCE FOUNDATION - NON-SPECIFIED NATIONAL SCIENCE FOUNDATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	\$ 4,491,532 \$ 4,491,532		Y				\$ 83,30 \$ 36,4
RD	DMR 16-54625 DMS 16-15457	NATIONAL SCIENCE FOUNDATION - NON-SPECIFIED NATIONAL SCIENCE FOUNDATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 4,491,532 \$ 4,491,532		Y				\$ 36,4
RD	DUE 13-48218	NATIONAL SCIENCE FOUNDATION - NON-SPECIFIED NATIONAL SCIENCE FOUNDATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	\$ 4,491,532 \$ 4,491,532	, ,					\$ 4,0
RD	DUE 13-48218 DUE 15-25367	NATIONAL SCIENCE FOUNDATION - NON-SPECIFIED NATIONAL SCIENCE FOUNDATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 4,491,532 \$ 4,491,532		Y				
RD	DUE 15-25367 DUE 16-50620	NATIONAL SCIENCE FOUNDATION - NON-SPECIFIED NATIONAL SCIENCE FOUNDATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	\$ 4,491,532 \$ 4,491,532		Y				\$ (8: \$ 6,7
RD	EAR 16-06738 EAR 16-42498	NATIONAL SCIENCE FOUNDATION - NON-SPECIFIED NATIONAL SCIENCE FOUNDATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	\$ 4,491,532 \$ 4,491,532		Y				\$ 120,1 \$ 43.1
RD	1 1 1					Y				
RD	EFRI 14-33378	NATIONAL SCIENCE FOUNDATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 4,491,532	, ,	Y				\$ 55,1
RD	IIS 12-11059	NATIONAL SCIENCE FOUNDATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 4,491,532		Y				\$ 6,6
RD	IIS 16-36899	NATIONAL SCIENCE FOUNDATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 4,491,532		Y				\$ 42,2
RD	IOS 11-46182,A03	NATIONAL SCIENCE FOUNDATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 4,491,532	, ,	Y				\$ 10,0
RD	MCB 15-16999	NATIONAL SCIENCE FOUNDATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 4,491,532	, ,	Y				\$ 146,6
RD	MCB 15-23353	NATIONAL SCIENCE FOUNDATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 4,491,532		Y				\$ 294,60
RD	PHY 16-07517	NATIONAL SCIENCE FOUNDATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 4,491,532	, ,	Y				\$ 17,2
RD	PHY 16-07648	NATIONAL SCIENCE FOUNDATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 4,491,532		Y				\$ 114,4
RD	PHY 16-13939	NATIONAL SCIENCE FOUNDATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 4,491,532		Y				\$ 121,7
RD	PHY 16-20777	NATIONAL SCIENCE FOUNDATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 4,491,532	, ,	Y				\$ 32,5
RD	SES 13-58598	NATIONAL SCIENCE FOUNDATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 4,491,532	, ,	Y				\$ 50,4
RD	SES 15-58661	NATIONAL SCIENCE FOUNDATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 4,491,532		Y				\$ 68,52
RD	SES 16-25073	NATIONAL SCIENCE FOUNDATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 4,491,532		Y				\$ 12,00
RD	SES 16-47505	NATIONAL SCIENCE FOUNDATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 4,491,532	\$ 544,486,028	Y				\$ 44.2

									Amount Passed	
CFDA Numbe		Name of Federal Award	Cluster Name	Federal Program Total	Cluster Total	Direct Award	Name of Pass-through Entity	Identifying number assigned by the Pass-through Entity	Through to Subrecipients	Amount Expended
47 RD		NATIONAL SCIENCE FOUNDATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 4,491,532	\$ 544,486,028	Y		- yy		\$ 73,01
47 RD	68D-1094585	NATIONAL SCIENCE FOUNDATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 4,491,532	\$ 544,486,028	N	CALIFORNIA INSTITUTE OF TECHNOLOGY	N/A		\$ 27,54
47 RD	PSU231221	NATIONAL SCIENCE FOUNDATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 4,491,532	\$ 544,486,028	N	CALIFORNIA STATE UNIVERSITY, LOS ANGELES	DMR-1523588		\$ 32,36
47 RD	172914	NATIONAL SCIENCE FOUNDATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 4,491,532	\$ 544,486,028	N	DORDT COLLEGE	N/A		\$ 13,91
47 RD	420-62-25 PROJ GS134579	NATIONAL SCIENCE FOUNDATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 4,491,532	\$ 544,486,028	N	IOWA STATE UNIVERSITY NANOELECTRONICS RESEARCH	N/A		\$ 30,00
47 RD	2016-NE-2699	NATIONAL SCIENCE FOUNDATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 4,491,532	\$ 544,486,028	N	CORPORATION	P29819		\$ 28,70
47 RD	181223 PO081721	NATIONAL SCIENCE FOUNDATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 4,491,532	\$ 544,486,028	N	NORTH CAROLINA CENTRAL UNIVERSITY	N/A		\$ 41,00
47 RD	2012-1067-01 AMEND 4	NATIONAL SCIENCE FOUNDATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 4,491,532	\$ 544,486,028	N	NORTH CAROLINA STATE UNIVERSITY	EEC-1160483		\$ 424,05
47 RD	2012-1067-01 AMEND 4	NATIONAL SCIENCE FOUNDATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 4,491,532	\$ 544,486,028	N	NORTH CAROLINA STATE UNIVERSITY	N/A		\$ 115,99
47 RD	2013-1690-02 MOD 1	NATIONAL SCIENCE FOUNDATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 4,491,532	\$ 544,486,028	N	NORTH CAROLINA STATE UNIVERSITY	EEC-1160483		\$ 65,39
47 RD 64 RD	60039515/GRT00030866 VA69D-16-C-0150	NATIONAL SCIENCE FOUNDATION - NON-SPECIFIED DEPARTMENT OF VETERANS AFFAIRS - NON-SPECIFIED	RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	\$ 4,491,532 \$ 7,500	\$ 544,486,028 \$ 544,486,028	N	OHIO STATE UNIVERSITY, THE	N/A		\$ 121,71 \$ 7,50
04 KD	VA09D-10-C-0190	DEFINITION OF VETERANDATIANS - NOIS-SEER IED	RESERVED AND BEVELOT MENT	3 7,500	3 344,400,028	1	COMMONWEALTH OF			7,50
66 001		AIR POLLUTION CONTROL PROGRAM SUPPORT	RESEARCH AND DEVELOPMENT	\$ 144,690	\$ 544,486,028	N	PENNSYLVANIA	4300513281		\$ 144,69
66 034		SURVEYS, STUDIES, RESEARCH, INVESTIGATIONS, DEMONSTRATIONS, AND SPECIAL PURPOSE ACTIVITIES RELATING TO THE CLEAN AIR ACT	RESEARCH AND DEVELOPMENT	\$ 51,147	\$ 544,486,028	N	COMMONWEALTH OF PENNSYLVANIA	4100074732		\$ 41,14
		CLIDATENC CTUDICS DESCRADON INVESTIGATIONS DEMONSTRATIONS								
66 034		SURVEYS, STUDIES, RESEARCH, INVESTIGATIONS, DEMONSTRATIONS, AND SPECIAL PURPOSE ACTIVITIES RELATING TO THE CLEAN AIR ACT	RESEARCH AND DEVELOPMENT	\$ 51,147	\$ 544,486,028	N	KANSAS STATE UNIVERSITY	N/A		\$ 9,99
66 419		WATER POLLUTION CONTROL STATE, INTERSTATE, AND TRIBAL PROGRAM SUPPORT	RESEARCH AND DEVELOPMENT	\$ 34,390	\$ 544,486,028	N	COMMONWEALTH OF PENNSYLVANIA	4300534408		\$ 34,39
66 461		REGIONAL WETLAND PROGRAM DEVELOPMENT GRANTS	RESEARCH AND DEVELOPMENT	\$ 116,620	\$ 544,486,028	Y				\$ 112,74
							STATE OF NEW JERSEY DEPARTMENT			
66 461 66 466		REGIONAL WETLAND PROGRAM DEVELOPMENT GRANTS	RESEARCH AND DEVELOPMENT	\$ 116,620	\$ 544,486,028		OF ENVIRONMENTAL PROTECTION	CD-962843-15		\$ 3,87
66 466		CHESAPEAKE BAY PROGRAM CHESAPEAKE BAY PROGRAM	RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	\$ 476,253 \$ 476,253	\$ 544,486,028 \$ 544,486,028	Y N	COMMONWEALTH OF PENNSYLVANIA	4300536553		\$ 233,01 \$ 11,97
66 466		CHESAPEAKE BAY PROGRAM	RESEARCH AND DEVELOPMENT	\$ 476,253	\$ 544,486,028		COMMONWEALTH OF PENNSYLVANIA	4300538064		\$ 46,99
		CHICA DE LUE DA LA DECENTA DE LA COMPANIA DEL COMPANIA DEL COMPANIA DE LA COMPANI	DEGE - DOLL - NED DELIEV - ON ATME				NATIONAL FISH AND WILDLIFE	ED 0440		
66 466		CHESAPEAKE BAY PROGRAM	RESEARCH AND DEVELOPMENT	\$ 476,253	\$ 544,486,028	N	FOUNDATION SUSQUEHANNA RIVER BASIN	FR.2413		\$
66 466		CHESAPEAKE BAY PROGRAM	RESEARCH AND DEVELOPMENT	\$ 476,253	\$ 544,486,028	N	COMMISSION	N/A		\$ 16,59
66 469 66 509		GREAT LAKES PROGRAM	RESEARCH AND DEVELOPMENT	\$ 24,567	\$ 544,486,028	N	UNIVERSITY OF MINNESOTA	GL-00E01900	0 75055	\$ 24,56
66 509		SCIENCE TO ACHIEVE RESULTS (STAR) RESEARCH PROGRAM	RESEARCH AND DEVELOPMENT	\$ 417,377	\$ 544,486,028	Y			\$ 75,855	\$ 417,37
66 514		SCIENCE TO ACHIEVE RESULTS (STAR) FELLOWSHIP PROGRAM	RESEARCH AND DEVELOPMENT	\$ 10,327	\$ 544,486,028	Y	MARYLAND DEPARTMENT OF THE			\$ 10,32
66 605		PERFORMANCE PARTNERSHIP GRANTS	RESEARCH AND DEVELOPMENT	\$ 89,575	\$ 544,486,028	N	ENVIRONMENT	N/A		\$ 89,57
66 RD	RD 83514201	ENVIRONMENTAL PROTECTION AGENCY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 440,262	\$ 544,486,028	Y		ENIVIDONIMENTAL	\$ 7,933	\$ 47,87
66 RD	PW2016-007	ENVIRONMENTAL PROTECTION AGENCY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 440,262	\$ 544,486,028	N	AMEC FOSTER WHEELER	ENVIRONMENTAL PROTECTION AGENC		\$ 4,67
66 RD	4100077088	ENVIRONMENTAL PROTECTION AGENCY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 440,262	\$ 544,486,028	N	COMMONWEALTH OF PENNSYLVANIA	4100077088		\$ 3,51
66 RD	4300489658	ENVIRONMENTAL PROTECTION AGENCY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 440,262	\$ 544,486,028	N	COMMONWEALTH OF PENNSYLVANIA	4300489658	\$ 38,675	\$ 52,97
66 RD		ENVIRONMENTAL PROTECTION AGENCY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 440,262	\$ 544,486,028		COMMONWEALTH OF PENNSYLVANIA	4300507465	. 30,313	\$ 99,60
00 KD	1300307403	ENVIRONMENTAL FROTECTION AGENCT - NON-SPECIFIED	ALOLANCII AND DEVELOFWENT	9 440,202	9 344,480,028	IN	TEMOTEVANIA	1300307403		99,60

CFDA Numbe	Additional Award Identification	Name of Federal Award	Cluster Name	Federal Program Total	Cluster Total	Direct Award	Name of Pass-through Entity	Identifying number assigned by the Pass-through Entity	Amount Passed Through to Subrecipients	Amount Expended
66 RD	4300507713	ENVIRONMENTAL PROTECTION AGENCY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 440,262	\$ 544,486,028	N	COMMONWEALTH OF PENNSYLVANIA	4300507713	Subrecipients	\$ 50,000
66 RD		ENVIRONMENTAL PROTECTION AGENCY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 440,262	\$ 544,486,028	N	COMMONWEALTH OF PENNSYLVANIA	4300513788		\$ 29,938
66 RD	4300526767	ENVIRONMENTAL PROTECTION AGENCY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 440,262	\$ 544,486,028	N	COMMONWEALTH OF PENNSYLVANIA	4300526767		\$ 39,663
66 RD		ENVIRONMENTAL PROTECTION AGENCY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 440,262	\$ 544,486,028	N	COMMONWEALTH OF PENNSYLVANIA	4300533338		\$ 49,905
66 RD	EP-W-09-028-SITEOP-106 WO 6	ENVIRONMENTAL PROTECTION AGENCY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 440,262	\$ 544,486,028	N	MACTEC ENGINEERING AND CONSULTING PARTNERSHIP FOR THE DELAWARE	N/A		\$ (1
66 RD	187734 1120383 TC#34945-04 WA 3-	ENVIRONMENTAL PROTECTION AGENCY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 440,262	\$ 544,486,028	N	ESTUARY	CE99398513		\$ 9,978
66 RD	04	ENVIRONMENTAL PROTECTION AGENCY - NON-SPECIFIED U.S. NUCLEAR REGULATORY COMMISSION SCHOLARSHIP AND	RESEARCH AND DEVELOPMENT	\$ 440,262	\$ 544,486,028	N	TETRA TECH, INC.	EP-C-12-060		\$ 52,132
77 008		FELLOWSHIP PROGRAM U.S. NUCLEAR REGULATORY COMMISSION OFFICE OF RESEARCH	RESEARCH AND DEVELOPMENT	\$ 302,488	\$ 544,486,028	Y				\$ 302,488
77 009 77 RD		FINANCIAL ASSISTANCE PROGRAM NUCLEAR REGULATORY COMMISSION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	\$ 145,211 \$ 761,828	\$ 544,486,028 \$ 544,486,028	Y				\$ 145,211 \$ 331,695
77 RD	NRCHQ12C040086/NRCHQ 6016T NRC-HQ-13-G-38-0003	NUCLEAR REGULATORY COMMISSION - NON-SPECIFIED NUCLEAR REGULATORY COMMISSION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	\$ 761,828 \$ 761,828	\$ 544,486,028 \$ 544,486,028	Y				\$ 251,907 \$ 178,226
81 041	NRC-11Q-13-G-30-0003	STATE ENERGY PROGRAM	RESEARCH AND DEVELOPMENT	\$ 674,038	\$ 544,486,028	N	COMMONWEALTH OF PENNSYLVANIA	4300462077		\$ (928
81 041		STATE ENERGY PROGRAM	RESEARCH AND DEVELOPMENT	\$ 674,038	\$ 544,486,028	N	COMMONWEALTH OF PENNSYLVANIA	4300512830		\$ 149,677
31 041		STATE ENERGY PROGRAM	RESEARCH AND DEVELOPMENT	\$ 674,038	\$ 544,486,028	N	COMMONWEALTH OF PENNSYLVANIA	4300513167		\$ 53,208
81 049 81 049		OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM - ARRA OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM	RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	\$ 10,888,617 \$ 10,888,617		Y Y			\$ (4,731) \$ 1,559,218	\$ (4,731 \$ 8,425,920
81 049		OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM	RESEARCH AND DEVELOPMENT	\$ 10,888,617	\$ 544,486,028	N	ALTEX TECHNOLOGIES	DE-SC0013823 U.S. DEPARTMENT OF	1,000,000	\$ 66,282
81 049 81 049		OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM	RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	\$ 10,888,617 \$ 10,888,617	\$ 544,486,028 \$ 544,486,028	N N	ARIZONA STATE UNIVERSITY COLUMBIA UNIVERSITY	ENERGY DE-SC0016579		\$ 104,796 \$ 34,576
31 049		OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM	RESEARCH AND DEVELOPMENT	\$ 10,888,617	\$ 544,486,028	N	DRS RESEARCH	DE-SC0010164 NATIONAL ENERGY TECHNOLOGY LAB		\$ 108,269
81 049 81 049		OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM	RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	\$ 10,888,617 \$ 10,888,617	\$ 544,486,028 \$ 544,486,028	N N	GENERAL ELECTRIC GEORGIA INSTITUTE OF TECHNOLOGY	DE-SC0012577	\$ 53,029	\$ 70,231 \$ 137,584
31 049		OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM	RESEARCH AND DEVELOPMENT	\$ 10,888,617	\$ 544,486,028	N	H QUEST VANGUARD, INC.	U.S. DEPARTMENT OF ENERGY		\$ 44,204
81 049 81 049		OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM	RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	\$ 10,888,617 \$ 10,888,617	\$ 544,486,028 \$ 544,486,028	N N	MIKROS SYSTEMS CORPORATION NORTHWESTERN UNIVERSITY	DE-SC0010175 N/A		\$ 14,638 \$ 4,105
81 049		OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM	RESEARCH AND DEVELOPMENT	\$ 10,888,617	\$ 544,486,028	N	OHIO STATE UNIVERSITY, THE REACTION ENGINEERING	DE-SC0016584		\$ 132,802
81 049 81 049		OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM	RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	\$ 10,888,617 \$ 10,888,617		N N	INTERNATIONAL RUTGERS UNIVERSITY	DE-SC0013217 DE-SC0001780	0.00.777	\$ 72,928 \$ 76,687
81 049 81 049 81 049		OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM	RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	\$ 10,888,617 \$ 10,888,617 \$ 10,888,617		N N N	STANFORD UNIVERSITY STANFORD UNIVERSITY UES, INC.	DE-SC0005171 DE-SC0016162 DE-SC0004356	\$ 262,830	\$ 714,569 \$ 164,141 \$
81 049 81 049		OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM	RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	\$ 10,888,617 \$ 10,888,617	\$ 544,486,028	N N	UES, INC. UES, INC.	DE-SC0004356 0004 DE-SC0011335		\$ 35,508 \$ 148,612
81 049 81 049		OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM	RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	\$ 10,888,617 \$ 10,888,617	\$ 544,486,028	N N	UES, INC. UNIVERSITY OF ARKANSAS	DE-SC0013215 DE-SC0016529		\$ 236,152 \$ 43,321
81 049 81 049		OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM	RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	\$ 10,888,617 \$ 10,888,617	\$ 544,486,028 \$ 544,486,028	N N	UNIVERSITY OF CALIFORNIA, DAVIS UNIVERSITY OF ILLINOIS	DE-SC0016605 DE-SC0010778		\$ 26,428 \$ 37,648
81 049		OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM	RESEARCH AND DEVELOPMENT		\$ 544,486,028	N	UNIVERSITY OF OKLAHOMA, THE	DE-SC0008811		\$ 17,197

		1							Amor	ant Passed		
CFDA	Additional Award			Federal Program		Direct		Identifying number assigned		ough to		
Number	Identification	Name of Federal Award	Cluster Name	Total	Cluster Total	Award	Name of Pass-through Entity	by the Pass-through Entity	Subre	ecipients	Amou	nt Expended
							UNIVERSITY OF TEXAS AT DALLAS,					
81 049		OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM	RESEARCH AND DEVELOPMENT	\$ 10,888,617	\$ 544,486,028	N	THE	DE-SC0010697			\$	3,385
81 049		OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM	RESEARCH AND DEVELOPMENT	6 10 999 (17	£ 544.497.029	NT.	WASHINGTON UNIVERSITY IN ST. LOUIS	DESC0001035				14.068
81 049		OFFICE OF SCIENCE FINANCIAL ASSISTANCE FROGRAM	RESEARCH AND DEVELOPMENT	\$ 10,888,617	\$ 544,486,028	N	WASHINGTON UNIVERSITY IN ST.	DESC0001055			\$	14,068
81 049		OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM	RESEARCH AND DEVELOPMENT	\$ 10,888,617	\$ 544,486,028	N	LOUIS	DE-SC0001035			\$	110,221
01 047		office of Science Financial Model Income in	RESEARCH THE BEVELOTIMENT	\$ 10,000,017	Ψ 344,400,020	- 11	WASHINGTON UNIVERSITY IN ST.	BE 500001033			Ψ	110,221
81 049		OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM	RESEARCH AND DEVELOPMENT	\$ 10,888,617	\$ 544,486,028	N	LOUIS	DE-SC0012722			\$	36,339
81 086		CONSERVATION RESEARCH AND DEVELOPMENT	RESEARCH AND DEVELOPMENT	\$ 1,371,735	\$ 544,486,028	Y			\$	718,698	\$	1,325,476
81 086		CONSERVATION RESEARCH AND DEVELOPMENT	RESEARCH AND DEVELOPMENT	\$ 1,371,735	\$ 544,486,028	N	FORD MOTOR COMPANY	DE-EE0005764			\$	24,800
81 086		CONSERVATION RESEARCH AND DEVELOPMENT	RESEARCH AND DEVELOPMENT	\$ 1,371,735	\$ 544,486,028	N	MICHIGAN STATE UNIVERSITY	DE-EE0007803			\$	21,459
81 087		RENEWABLE ENERGY RESEARCH AND DEVELOPMENT	RESEARCH AND DEVELOPMENT	\$ 1,777,994	\$ 544,486,028	Y			\$	152,820	\$	1,472,950
0.4		DENEWARK FAIRNOV DEGEAROU AND DEVELORMENT	DECEARCH AND DEVELOPMENT				ANITA DES CROUP NICODDOR ATED	U.S. DEPARTMENT OF				50.044
81 087		RENEWABLE ENERGY RESEARCH AND DEVELOPMENT	RESEARCH AND DEVELOPMENT	\$ 1,777,994	\$ 544,486,028	N	ANTARES GROUP INCORPORATED COMPOSITE TECHNOLOGY	ENERGY			\$	59,361
81 087		RENEWABLE ENERGY RESEARCH AND DEVELOPMENT	RESEARCH AND DEVELOPMENT	\$ 1,777,994	\$ 544,486,028	N	DEVELOPMENT, INC.	DE-EE0007248			•	106,776
81 087		RENEWABLE ENERGY RESEARCH AND DEVELOPMENT	RESEARCH AND DEVELOPMENT	\$ 1,777,994	\$ 544,486,028		PROTON ONSITE	DE-EE0006958			\$	32,106
81 087		RENEWABLE ENERGY RESEARCH AND DEVELOPMENT	RESEARCH AND DEVELOPMENT	\$ 1,777,994	\$ 544,486,028		SAPPHIRE ENERGY, INC.	DE-EE0006315			\$	30,172
01 007				1,777,551	\$ 511,100,020	- 1	UNIVERSITY CORPORATION FOR					30,172
81 087		RENEWABLE ENERGY RESEARCH AND DEVELOPMENT	RESEARCH AND DEVELOPMENT	\$ 1,777,994	\$ 544,486,028	N	ATMOSPHERIC RESEARCH	DE-EE0006016			\$	1
81 089		FOSSIL ENERGY RESEARCH AND DEVELOPMENT	RESEARCH AND DEVELOPMENT	\$ 2,896,240	\$ 544,486,028	Y			\$	784,681	\$	2,649,817
81 089		FOSSIL ENERGY RESEARCH AND DEVELOPMENT	RESEARCH AND DEVELOPMENT	\$ 2,896,240	\$ 544,486,028	N	LIQUID ION SOLUTIONS LLC	DE-FE026464			\$	236,055
							MASSACHUSETTS INSTITUTE OF					
81 089		FOSSIL ENERGY RESEARCH AND DEVELOPMENT	RESEARCH AND DEVELOPMENT	\$ 2,896,240	\$ 544,486,028	N	TECHNOLOGY	DOE			\$	10,368
		ENERGY EFFICIENCY AND RENEWABLE ENERGY INFORMATION										
		DISSEMINATION, OUTREACH, TRAINING AND TECHNICAL										
81 117			RESEARCH AND DEVELOPMENT	\$ 698,866	\$ 544,486,028	Y			\$	236,917	\$	695,899
		ENERGY EFFICIENCY AND RENEWABLE ENERGY INFORMATION										
		DISSEMINATION, OUTREACH, TRAINING AND TECHNICAL					CITIZENS FOR PENNSYLVANIA'S					
81 117		ANALYSIS/ASSISTANCE	RESEARCH AND DEVELOPMENT	\$ 698,866	\$ 544,486,028	N	FUTURE	N/A			\$	2,967
81 121		NILICI E AD ENIED CV DECEADOU DEVELODMENT AND DEMONICED ATION	DECEARCH AND DEVELOPMENT	0 2557,000	¢ 544.497.029	v				724 904	6	2 269 704
81 121		NUCLEAR ENERGY RESEARCH, DEVELOPMENT AND DEMONSTRATION	RESEARCH AND DEVELOPMENT	\$ 2,557,008	\$ 544,486,028	Y	MACCACHLICETTC INCTITLITE OF		2	734,804	2	2,368,704
81 121		NUCLEAR ENERGY RESEARCH, DEVELOPMENT AND DEMONSTRATION	DESEADOH AND DEVELOPMENT	\$ 2,557,008	\$ 544,486,028	N	MASSACHUSETTS INSTITUTE OF TECHNOLOGY	DE-NE0008413			¢	27,905
01 121		NOCEEAR ENERGY RESEARCH, DEVELOUMENT AND DEMONSTRATION	RESEARCH AND DEVELOT MENT	\$ 2,337,008	\$ 344,460,026	IN	MASSACHUSETTS INSTITUTE OF	DE-NE0000415			J.	27,903
81 121		NUCLEAR ENERGY RESEARCH, DEVELOPMENT AND DEMONSTRATION	RESEARCH AND DEVELOPMENT	\$ 2,557,008	\$ 544,486,028	N	TECHNOLOGY	DE-NE0008416			\$	59,636
01 121				2,557,000	\$ 711,100,020						Ψ	37,030
81 121		NUCLEAR ENERGY RESEARCH, DEVELOPMENT AND DEMONSTRATION	RESEARCH AND DEVELOPMENT	\$ 2,557,008	\$ 544,486,028	N	PURDUE UNIVERSITY	DE-NE0000696			\$	17,437
				,,,,,,,	, , , , , , , ,							.,
81 121		NUCLEAR ENERGY RESEARCH, DEVELOPMENT AND DEMONSTRATION	RESEARCH AND DEVELOPMENT	\$ 2,557,008	\$ 544,486,028	N	PURDUE UNIVERSITY	DE-NE0008259			\$	33,548
							RENSSELAER POLYTECHNIC					
81 121		NUCLEAR ENERGY RESEARCH, DEVELOPMENT AND DEMONSTRATION	RESEARCH AND DEVELOPMENT	\$ 2,557,008	\$ 544,486,028	N	INSTITUTE	DE-NE0008440			\$	24,073
81 121		NUCLEAR ENERGY RESEARCH, DEVELOPMENT AND DEMONSTRATION	RESEARCH AND DEVELOPMENT	\$ 2,557,008	\$ 544,486,028	N	UNIVERSITY OF MICHIGAN	DE-NE0000639			\$	(22,128)
		NUCLEAR ENERGY RESEARCH, DEVELOPMENT AND DEMONSTRATION.	DEGE A DOLL AND DEVEL ON WENT				UNIVERSITY OF WISCONSIN -	DE ME0000410				45.000
81 121		NUCLEAR ENERGY RESEARCH, DEVELOPMENT AND DEMONSTRATION	RESEARCH AND DEVELOPMENT	\$ 2,557,008	\$ 544,486,028	N Y	MADISON	DE-NE0008418	6	200.552	\$	47,833
81 135		ADVANCED RESEARCH PROJECTS AGENCY - ENERGY	RESEARCH AND DEVELOPMENT	\$ 2,168,395	\$ 544,486,028	Y	OCEAN RENEWABLE POWER		3	290,553	Ф	1,692,606
81 135		ADVANCED RESEARCH PROJECTS AGENCY - ENERGY	RESEARCH AND DEVELOPMENT	\$ 2,168,395	\$ 544,486,028	N	COMPANY	DE-AR0000658			\$	475,789
81 RD	DE-AR0000801	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 2,168,393	\$ 544,486,028	Y	COMPANI	DE 1110000000			\$	144,723
81 RD	DE-EE0006447	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	Y			S	74,300	\$	187,754
81 RD	DE-EE0007625	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	Y			S	113,295	\$	431,878
81 RD	DE-EE0007655	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	Y					\$	184,764
81 RD	DE-FE0024261	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	Y					\$	102,280
81 RD	DE-FE0026825 0004	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	Y					\$	66,273
81 RD	DE-FG02-06ER15803	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	Y					\$	104,343
81 RD	DE-FG02-93ER40771	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	Y					\$	48,736
81 RD	189646	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	3M	N/A			\$	21,665
81 RD	4410012550 GTI S602	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	AEROJET ROCKETDYNE	N/A			\$	11,966
04	DILA 7 70002 01	DEBARTMENT OF ENERGY MONORPOSTERS	DECEA DOLLAND DEVELOPMENT				ALLIANCE FOR SUSTAINABLE	DE 4 024 00 00 0000				
81 RD	RHA-7-70083-01	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	ENERGY, LLC	DE-AC36-08GO28308			\$	4,698

CFDA Number	Additional Award Identification	Name of Federal Award	Cluster Name	Federal Program Total	Cluster Total	Direct Award	Name of Pass-through Entity	Identifying number assigned by the Pass-through Entity	Amount Passed Through to Subrecipients	Amount Expended
81 RD	DE-FE0023663 PSU-001	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	ALTEX TECHNOLOGIES	N/A	*	\$ 111,929
81 RD	SC-17-442	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	AMES LABORATORY	DE-AC02-07CH11358		\$ 163,090
81 RD	7F-30076	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	ARGONNE NATIONAL LABORATORY	DE-AC02-06CH11357		\$ 28,594
81 RD	163662 AMEND 2	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	BATTELLE ENERGY ALLIANCE, LLC	N/A		\$ 138,076
81 RD	165929 AMEND 1	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	BATTELLE ENERGY ALLIANCE, LLC	DE-AC07-05ID14517		\$ 123,834
81 RD	176960	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	BATTELLE ENERGY ALLIANCE, LLC	DE-AC07-05ID14517		\$ 12,742
81 RD	111923 TASK ORDER 267980	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	BATTELLE MEMORIAL INSTITUTE	DE-AC05-76RL01830		\$ 39,605
81 RD	120237	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	BATTELLE MEMORIAL INSTITUTE	DE-AC07-05ID14517		\$ (4)
81 RD	4000105709 MOD 15	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	BATTELLE MEMORIAL INSTITUTE	DE-AC05-00OR22725		\$ 75,156
81 RD	4000105709 MODIFICATION 13	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	BATTELLE MEMORIAL INSTITUTE	DE-AC05-00OR22725		\$ 8,730
81 RD	4000114140 MODIFICATION 10	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	BATTELLE MEMORIAL INSTITUTE	N/A		\$ (609)
81 RD	4000123466, MOD 10	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	BATTELLE MEMORIAL INSTITUTE	N/A		\$ 5,527
81 RD	B619169	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	BATTELLE MEMORIAL INSTITUTE	DE-AC52-07NA27344		\$ 19,997
81 RD	111923 TASK ORDER 265388	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	BATTELLE PACIFIC NORTHWEST NATIONAL LABORATORY	DE-AC05-76RL01830		\$ 424
81 RD	111923 TASK ORDER 265388	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	BATTELLE PACIFIC NORTHWEST NATIONAL LABORATORY	N/A		\$ 29,016
81 RD	111923 TO 265388 MOD 4	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	BATTELLE PACIFIC NORTHWEST NATIONAL LABORATORY	DE-AC05-76RL01830		\$ 22,722
81 RD	163554	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	BATTELLE PACIFIC NORTHWEST NATIONAL LABORATORY	DE-AC05-76RL01830		\$ 41,279
81 RD	324781 REVISION 3	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	BATTELLE PACIFIC NORTHWEST NATIONAL LABORATORY	DE-AC05-76RL01830		\$ 38,388
81 RD	334640	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	BATTELLE PACIFIC NORTHWEST NATIONAL LABORATORY	DE-AC05-76RL01830		\$ 32,280
81 RD	4000123466	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	BATTELLE PACIFIC NORTHWEST NATIONAL LABORATORY	6400012296		\$ 29,732
81 RD	103595	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	BECHTEL BETTIS, INC.	U.S. DEPARTMENT OF ENERGY		\$ 42,579
81 RD	C119808 AMENDMENT 1	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	BECHTEL PLANT MACHINERY, INC.	DE-NR0000031		\$ 15,792
81 RD	100492	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	BETTIS ATOMIC POWER LABORATORY	DE-NR0000031		\$ 51,157
81 RD	270065 AMEND 2	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	BROOKHAVEN NATIONAL LABORATORY	DE-AC02-98CH10886		\$ 16,732
81 RD	270065, A01	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	BROOKHAVEN NATIONAL LABORATORY	N/A		\$ 11,465
81 RD	300324	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	BROOKHAVEN NATIONAL LABORATORY	U.S. DEPARTMENT OF ENERGY		\$ 66,457
81 RD	317797	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	BROOKHAVEN NATIONAL LABORATORY	N/A		\$ 75,370
81 RD	2015-141-12	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	CARDINAL ENGINEERING LLC	N/A		\$ 9,162

CFD/	Additional Award			Federal Program		Direct		Identifying number assigned	Amount Passed Through to		
Numbe	r Identification	Name of Federal Award	Cluster Name	Total	Cluster Total	Award	Name of Pass-through Entity	by the Pass-through Entity	Subrecipients	Amount I	Expended
81 RE	101490 LINE 3	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	KNOLLS ATOMIC POWER LABORATORY	DE-NR0000031		\$	148,928
81 RE	101490 LINE 4	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	KNOLLS ATOMIC POWER LABORATORY	DE-NR000031		\$	81,872
81 RE	7104713	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	LAWRENCE BERKELEY NATIONAL LABORATORY	DE-AC02-05CH11231		\$	44,151
81 RE	7216964	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	LAWRENCE BERKELEY NATIONAL LABORATORY	DE-AC02-05CH11231		s	1,474
81 RE		DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	LAWRENCE BERKELEY NATIONAL LABORATORY	U.S. DEPARTMENT OF ENERGY		\$	22,470
81 RE	B614063	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	LAWRENCE LIVERMORE NATIONAL LABORATORY	DE-AC52-07NA27344		\$	(283)
81 RE	293402	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	LOS ALAMOS NATIONAL LABORATORY	DE-AC52-06NA25396		\$	47,562
81 RE	293402 SUBCONTRACT 343839	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	LOS ALAMOS NATIONAL LABORATORY	DE-AC52-06NA25396		\$	16,041
81 RE	364067 293402	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	LOS ALAMOS NATIONAL LABORATORY	DE-AC52-06NA25396		\$	55,732
81 RE		DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	NATIONAL RENEWABLE ENERGY LABORATORY	U.S. DEPARTMENT OF ENERGY		\$	11,307
81 RE	AFC-5-52004-04	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	NATIONAL RENEWABLE ENERGY LABORATORY	DE-AC36-08GO28308		\$	2,029
81 RE	AFC-5-52004-04 MODIFICATION 3	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	NATIONAL RENEWABLE ENERGY LABORATORY	DE-AC36-08GO28308		\$	5,000
81 RE	AGZ-6-62014-01	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	NATIONAL RENEWABLE ENERGY LABORATORY	DE-AC36-08GO28308		\$	13,988
81 RE	XDJ-7-70106-01	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	NATIONAL RENEWABLE ENERGY LABORATORY	DE-AC36-08GO28308 - NREL		\$	15,668
81 RE	ZAM-0-40876-05	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	NATIONAL RENEWABLE ENERGY LABORATORY NATIONAL RENEWABLE ENERGY	DE-AC36-08GO28308		\$	(359)
81 RE	ZFA-5-52002-01	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	LABORATORY	DE-AC36-08G028308 U.S. DEPARTMENT OF		\$	162,191
81 RE	4000145264	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	OAK RIDGE NATIONAL LABORATORY	ENERGY U.S. DEPARTMENT OF		\$	77,013
81 RE	4000150843	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	OAK RIDGE NATIONAL LABORATORY			\$	30,723
81 RE	4000153016	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	OAK RIDGE NATIONAL LABORATORY	DE-AC05-00OR22725 U.S. DEPARTMENT OF		\$	45,058
81 RE		DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	OAK RIDGE NATIONAL LABORATORY			\$	28,818
81 RE	4105-59369 AMENDMENT 02	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	PURDUE UNIVERSITY	DE-NE0000696		\$	3,390
81 RE	1356879 PO 1725047	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	SANDIA NATIONAL LABORATORIES	N/A		\$	43,176
81 RE	1356879 TO 1676671	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	SANDIA NATIONAL LABORATORIES	N/A		\$	34,232
81 RE	1356879 TO 1969551	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	SANDIA NATIONAL LABORATORIES	N/A		\$	49,015
81 RE	1735699 MASTER 1356879	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	SANDIA NATIONAL LABORATORIES	DE-AC04-94-AL85000		\$	22,892
81 RE	1744827 MA 1356879	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	SANDIA NATIONAL LABORATORIES	N/A		\$	21,179
81 RE	775396 1320846	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	SANDIA NATIONAL LABORATORIES	N/A		\$	(13)
81 RE	775396 PO 1513831 REV 3	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	SANDIA NATIONAL LABORATORIES	N/A		\$	35,000
81 RE	775396 PO 1518242	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	SANDIA NATIONAL LABORATORIES	N/A		\$	16,239
81 RE	775396 PO 1526522	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	SANDIA NATIONAL LABORATORIES	N/A		\$	43,093

CFDA Number	Additional Award Identification	Name of Federal Award	Cluster Name	Federal Program Total	Cluster Total	Direct Award	Name of Pass-through Entity	Identifying number assigned by the Pass-through Entity	Amount Passed Through to Subrecipients	Amount Expended
81 RD	775396 PO 1578792	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	SANDIA NATIONAL LABORATORIES	N/A		\$ 36,079
81 RD	195333	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	TETRAMER TECHNOLOGIES, LLC	U.S. DEPARTMENT OF ENERGY		\$ 23,828
81 RD	15C1391200	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	THOMAS JEFFERSON NATIONAL ACCELERATOR FACILITY	N/A		\$ 96,404
01 DD	A13-0708-S003	DEPARTMENT OF ENERGY - NON-SPECIFIED	DECEARCH AND DEVELORMENT	0 2 761 507	£ 544.406.000	N	UNIVERSITY OF TENNESSEE, KNOXVILLE, THE	DE A COZ 05ID14517		e 2.000
81 RD 81 RD	RES1000026 2.651.058.001	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	\$ 3,761,507 \$ 3,761,507	\$ 544,486,028 \$ 544,486,028	N N	URS CORPORATION	DE-AC07-05ID14517 U.S. DEPARTMENT OF ENERGY		\$ 2,699 \$ 5,424
81 RD	RES1000026 2.651.058.002 104	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028		URS CORPORATION	U.S. DEPARTMENT OF ENERGY		\$ 309
81 RD	RES1000026 3.621.054.002 T75	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	URS CORPORATION	N/A		\$ (1)
81 RD	RES1000026 6.670.998.001 103	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	URS CORPORATION	U.S. DEPARTMENT OF ENERGY		\$ 1,000
81 RD	RES1000026 6.670.998.003	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	URS CORPORATION	U.S. DEPARTMENT OF ENERGY		\$ 4,330
81 RD	RES1000026.2.600.220.001 T47	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	URS CORPORATION	N/A		\$ (18)
81 RD	134089	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	VOLVO POWERTRAIN NORTH AMERICA	DE-EE0004232		\$ (5,095)
81 RD	111896 ITO 0033 LINE ITEM 1	DEPARTMENT OF ENERGY - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,761,507	\$ 544,486,028	N	WESTINGHOUSE ELECTRIC COMPANY LLC	DE-NE0008222		\$ 660
84 027		SPECIAL EDUCATION GRANTS TO STATES	RESEARCH AND DEVELOPMENT	\$ 484,791	\$ 544,486,028	N	COMMONWEALTH OF PENNSYLVANIA	062-160042		\$ 7,595
84 229		LANGUAGE RESOURCE CENTERS	RESEARCH AND DEVELOPMENT	\$ 97,972						\$ 97,972
84 305		EDUCATION RESEARCH, DEVELOPMENT AND DISSEMINATION	RESEARCH AND DEVELOPMENT	\$ 600,548	\$ 544,486,028	Y			\$ 29,401	\$ 78,099
84 305		EDUCATION RESEARCH, DEVELOPMENT AND DISSEMINATION	RESEARCH AND DEVELOPMENT	\$ 600,548	\$ 544,486,028	N	TEXAS A&M UNIVERSITY	R305A150057		\$ 303,851
84 305		EDUCATION RESEARCH, DEVELOPMENT AND DISSEMINATION	RESEARCH AND DEVELOPMENT	\$ 600,548	\$ 544,486,028	N	UNIVERSITY OF VIRGINIA VIRGINIA COMMONWEALTH	N/A		\$ 141,745
84 305		EDUCATION RESEARCH, DEVELOPMENT AND DISSEMINATION	RESEARCH AND DEVELOPMENT	\$ 600,548	\$ 544,486,028	N	UNIVERSITY VIRGINIA COMMONWEALTH	R305A110079		\$ (4,161)
84 305		EDUCATION RESEARCH, DEVELOPMENT AND DISSEMINATION	RESEARCH AND DEVELOPMENT	\$ 600,548	\$ 544,486,028	N	UNIVERSITY	R305A140434		\$ (8,369)
84 305		EDUCATION RESEARCH, DEVELOPMENT AND DISSEMINATION	RESEARCH AND DEVELOPMENT	\$ 600,548	\$ 544,486,028	N	WILLIAM & MARY	R305A160398		\$ 89,383
84 327 84 365		SPECIAL EDUCATION EDUCATIONAL TECHNOLOGY MEDIA, AND MATERIALS FOR INDIVIDUALS WITH DISABILITIES ENGLISH LANGUAGE ACQUISITION STATE GRANTS	RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	\$ 19,016 \$ 206,215	\$ 544,486,028	Y				\$ 19,016 \$ 106,225
84 367		SUPPORTING EFFECTIVE INSTRUCTION STATE GRANTS	RESEARCH AND DEVELOPMENT	\$ 206,215 \$ 285,231		N	NATIONAL WRITING PROJECT	U367D15004		\$ 1,831
84 378		COLLEGE ACCESS CHALLENGE GRANT PROGRAM	RESEARCH AND DEVELOPMENT	\$ 1		N	PROJECT GRAD USA	N/A		\$ 1
84 411 84 RD	P015A140138 ACT 3	EDUCATION INNOVATION AND RESEARCH DEPARTMENT OF EDUCATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	\$ 657,336 \$ 3,735,302		Y			\$ 631,553	\$ 657,336 \$ 13,596
84 RD	P015A140138 ACT 5	DEPARTMENT OF EDUCATION - NON-SPECIFIED DEPARTMENT OF EDUCATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,735,302 \$ 3,735,302	\$ 544,486,028 \$ 544,486,028	Y				\$ 158,661
84 RD	P015B140138	DEPARTMENT OF EDUCATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,735,302		Y				\$ (7,500)
84 RD	P015B140138 ACTION 4	DEPARTMENT OF EDUCATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,735,302	\$ 544,486,028	Y				\$ 315,367
84 RD 84 RD	P042A150744 P042A150744-16	DEPARTMENT OF EDUCATION - NON-SPECIFIED DEPARTMENT OF EDUCATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	\$ 3,735,302 \$ 3,735,302		Y				\$ 46,172 \$ 222,698
84 RD	P042A150744-16 P042A150955	DEPARTMENT OF EDUCATION - NON-SPECIFIED DEPARTMENT OF EDUCATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,735,302		Y				\$ 222,698
84 RD	P042A150955_ACTION 2	DEPARTMENT OF EDUCATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,735,302	\$ 544,486,028	Y				\$ 236,826
84 RD	P229A140026-15 ACTION 2	DEPARTMENT OF EDUCATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,735,302	\$ 544,486,028	Y				\$ 22,077
84 RD	R305A140113-15 ACT 2	DEPARTMENT OF EDUCATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,735,302	\$ 544,486,028	Y				\$ 9,149
84 RD	R305A140113-15 ACTION 2	DEPARTMENT OF EDUCATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 3,735,302	\$ 544,486,028	Y				\$ 473,192

R. R. R. R. R. R. R. R.	ssed	
BOARD BOAR		Amount Expended
15 20	\$	208,690
18 D. D. D. D. D. D. D. D	\$	2,835
REAL PROPERTY OF PERCENTION NON-SPECIFIED RESERVER AND DEVELOPMENT \$ 3,755.20 \$ 5,444.60.05 Y \$ 5 0.000		
18 18 18 18 18 18 18 18	5	742,538
READ REPORT REP		349,489 407,193
R.	,507 \$	204,922
10 2 NINTITUTE OF EDUCATION NEIDERS NON-SPECIFIED RESIARCH AND DEVELOPMENT \$.3755.00 \$.544486.028 V	507 \$	204,922
10 10 10 10 10 10 10 10	,500 \$	307,975
Parameter Para	\$	71,907
FAMILY MANGENCY PREVENTION AND TORACCO CONTROL ACT RESEARCH AND DEVELOPMENT \$2,061,454 \$5,544,86,005 N. INVERSITY \$790 DABBelloS-04		
10 10 10 10 10 10 10 10	,123 \$	1,097,495
FAMILY SMOKNON PREVENTION AND TOBACCO CONTROL ACT		
Page	\$	787,546
HEALTH MARRIAGE PROMOTION AND RESPONSIBLE FATHERHOOD		176 412
Second Grants	2	176,413
RESTACH AND DEVELOPMENT S 25.91 S 544,486,028 N TEXAS STATE UNIVERSITY 90FM0067-02-00	8	14,406
ADVANCING SYSTEM IMPROVEMENTS FOR KEY ISSUES IN WOMENS ADVANCING SYSTEM IMPROVEMENTS FOR KEY ISSUES IN WOMENS ADVANCING SYSTEM IMPROVEMENTS FOR KEY ISSUES IN WOMENS RESEARCH AND DEVELOPMENT \$ 2,500 \$ 5,44,86,028	Ť	2.,100
93 088 HEALTH RESEARCH AND DEVELOPMENT S 2,00 S 544,88,0028 N MMIGRANTS I ASTWINGOH7-01-00	\$	11,525
AFFORDABLE CARE ACT (ACA) PERSONAL RESPONSIBILITY EDUCATION PROGRAM RESEARCH AND DEVELOPMENT S 83,397 \$ 544,486,028 N DEVELOPMENT N 100000981 S 54,000000000000000000000000000000000000		
10 MATERNAL AND CHILD HEALTH FEDERAL CONSOLIDATED PROGRAMS RESEARCH AND DEVELOPMENT S 34,488,6028 N PENNSTVANIA 4100070981 S 54,488,028 N PENNSTVANIA 4100070981 S 54,488,028 N NIVERSITY OF VERMONT, THE R01F005586 S 187	\$	2,500
103	770	05.207
10 MATERNAL AND CHILD HEALTH FEDERAL CONSOLIDATED PROGRAMS RESEARCH AND DEVELOPMENT S 340,428 S S 544,866,028 Y UNIVERSITY OF CALIFORNIA, SAN S 540,000 S 840,000 S 840,	1/9 \$	85,397 4,648
Nate National Na		4,048
Nation N	,105 \$	258,790
13		
13 ENVIRONMENTAL HEALTH RESEARCH AND DEVELOPMENT S 2,122,886 S 44,486,028 N BOSTON UNIVERSITY ROIES025791-01A1	\$	81,638
S 113 ENVIRONMENTAL HEALTH RESEARCH AND DEVELOPMENT S 2,122,886 S 544,486,028 N UNIVERSITY OF CALIFORNIA, DAVIS POIES011269	,602 \$	1,948,829
3 113	\$	91,753
93 113 ENVIRONMENTAL HEALTH RESEARCH AND DEVELOPMENT S 2,122,886 S 544,86,028 N UNIVERSITY OF NORTH CAROLINA 113 ENVIRONMENTAL HEALTH RESEARCH AND DEVELOPMENT S 2,122,886 S 544,86,028 N AT CHAPEL HILL, THE R01ES020836-05 114 RESEARCH AND DEVELOPMENT S 2,122,886 S 544,86,028 N AT CHAPEL HILL, THE R01ES020836-05 115 RESEARCH AND DEVELOPMENT S 4,378 S 544,86,028 N RUTGERS UNIVERSITY S U52PS004090-05 116 TUBERCULOSIS CONTROL PROGRAMS RESEARCH AND DEVELOPMENT S 1,439,071 S 544,86,028 Y 117 RESEARCH AND DEVELOPMENT S 1,439,071 S 544,86,028 Y 118 RESEARCH AND DEVELOPMENT S 1,439,071 S 544,86,028 Y 119 RESEARCH AND DEVELOPMENT S 62,090 S 544,86,028 Y 119 RESEARCH AND DEVELOPMENT S 662,090 S 544,86,028 Y 119 RESEARCH AND DEVELOPMENT S 662,090 S 544,86,028 N DIEGO 110 RESEARCH AND DEVELOPMENT S 662,090 S 544,86,028 N DIEGO S U41HG007517-04 110 RESEARCH AND DEVELOPMENT S 662,090 S 544,86,028 N DIEGO S U41HG007517-05 110 RESEARCH AND DEVELOPMENT S 662,090 S 544,86,028 N DIEGO S U41HG007517-05 111 RESEARCH AND DEVELOPMENT S 662,090 S 544,86,028 N DIEGO S U41HG007517-04 111 RESEARCH AND DEVELOPMENT S 662,090 S 544,86,028 N DIEGO S U41HG007517-04 111 RESEARCH AND DEVELOPMENT S 662,090 S 544,86,028 N DIEGO S U41HG007517-04 111 RESEARCH AND DEVELOPMENT S 662,090 S 544,86,028 N DIEGO S U41HG007517-04 111 RESEARCH AND DEVELOPMENT S 662,090 S 544,86,028 N DIEGO S U41HG007517-04 111 RESEARCH AND DEVELOPMENT S 662,090 S 544,86,028 N DIEGO S U41HG007517-05 111 RESEARCH AND DEVELOPMENT S 662,090 S 544,86,028 N DIEGO S U41HG007517-05 111 RESEARCH AND DEVELOPMENT S 662,090 S 544,86,028 N DIEGO S U41HG007517-05 111 RESEARCH AND DEVELOPMENT S 662,090 S 544,86,028 N DIEGO S U41HG007517-05 111 RESEARCH AND DEVELOPMENT S 662,090 S 544,86		(278)
S 113 ENVIRONMENTAL HEALTH RESEARCH AND DEVELOPMENT S 2,122,886 S 544,486,028 N AT CHAPEL HILL, THE ROIES020836-05	\$	(2/8)
S 113 ENVIRONMENTAL HEALTH RESEARCH AND DEVELOPMENT S 2,122,886 S 544,486,028 N AT CHAPEL HILL, THE R01ES020836-05	-	(2)
PROJECT GRANTS AND COOPERATIVE AGREEMENTS FOR TUBERCULOSIS CONTROL PROGRAMS RESEARCH AND DEVELOPMENT \$ 4,378 \$ 544,486,028 N RUTGERS UNIVERSITY \$ 5052P5004090-05		
93 116 TUBERCULOSIS CONTROL PROGRAMS RESEARCH AND DEVELOPMENT \$ 4,378 \$ 544,486,028 N RUTGERS UNIVERSITY \$ 5052P\$004090-05 93 121 ORAL DISEASES AND DISORDERS RESEARCH RESEARCH AND DEVELOPMENT \$ 1,439,071 \$ 544,486,028 Y	\$	51,487
93 121 ORAL DISEASES AND DISORDERS RESEARCH RESEARCH RESEARCH AND DEVELOPMENT \$ 1,439,071 \$ 544,486,028 Y		
NIEHS SUPERFUND HAZARDOUS SUBSTANCES_BASIC RESEARCH AND EDUCATION RESEARCH AND DEVELOPMENT S 52,260 S 544,486,028 N OREGON STATE UNIVERSITY SP42ES016465-07 S 362,990 S 34,486,028 Y S 362,990 S 34,486,028 N OREGON STATE UNIVERSITY SP42ES016465-07 S 362,990 S 34,486,028 N OREGON STATE UNIVERSITY SP42ES016465-07 S 362,990 S 34,486,028 N OREGON STATE UNIVERSITY SP42ES016465-07 S 362,990 S 34,486,028 N OREGON STATE UNIVERSITY SP42ES016465-07 S 362,990 S 364,486,028 N OREGON STATE UNIVERSITY SP42ES016465-07 S 362,990 S 364,486,028 N OREGON STATE UNIVERSITY SP42ES016465-07 S 362,990 S 364,486,028 N OREGON STATE UNIVERSITY SP42ES016465-07 S 362,990 S 364,486,028 N OREGON STATE UNIVERSITY SP42ES016465-07 S 362,990 S 364,486,028 N OREGON STATE UNIVERSITY SP42ES016465-07 S 362,990 S 364,486,028 N OREGON STATE UNIVERSITY SP42ES016465-07 S 362,990 S 364,486,028 N OREGON STATE UNIVERSITY SP42ES016465-07 S 362,990 S 364,486,028 N OREGON STATE UNIVERSITY SP42ES016465-07 S 362,990 S 364,486,028 N OREGON STATE UNIVERSITY SP42ES016465-07 S 362,990 S 364,486,028 N OREGON STATE UNIVERSITY SP42ES016465-07 S 362,990 S 364,486,028 N OREGON STATE UNIVERSITY SP42ES016465-07 S 362,990 S 364,486,028 N OREGON STATE UNIVERSITY SP42ES016465-07 S 362,990 S 364,486,028 N OREGON STATE UNIVERSITY SP42ES016465-07 S 362,990 S 364,486,028 N OREGON STATE UNIVERSITY SP42ES016465-07 S 362,990 S 364,486,028 N OREGON STATE UNIVERSITY SP42ES016465-07 S 362,990 S 364,486,028 N OREGON STATE UNIVERSITY SP42ES016465-07 S 362,990 S 364,486,028 N OREGON STATE UNIVERSITY SP42ES016465-07 S 362,990 S 364,486,028 N OREGON STATE UNIVERSITY SP42ES016465-07 S 362,990 S 364,486,028 N OREGON STATE UNIVERSITY SP42ES016465-07	\$	4,378
93 143 EDUCATION RESEARCH AND DEVELOPMENT \$ 52,260 \$ 544,486,028 N OREGON STATE UNIVERSITY 5P42ES016465-07 93 172 HUMAN GENOME RESEARCH RESEARCH RESEARCH AND DEVELOPMENT \$ 662,090 \$ 544,486,028 N GEISINGER HEALTH SYSTEM IU01HG008679-01 93 172 HUMAN GENOME RESEARCH RESEARCH RESEARCH AND DEVELOPMENT \$ 662,090 \$ 544,486,028 N GEISINGER HEALTH SYSTEM IU01HG008679-01 93 172 HUMAN GENOME RESEARCH RESEARCH RESEARCH AND DEVELOPMENT \$ 662,090 \$ 544,486,028 N BIOTECHNOLOGY 5U54HG006988-04S1 93 172 HUMAN GENOME RESEARCH RESEARCH RESEARCH AND DEVELOPMENT \$ 662,090 \$ 544,486,028 N DIEGO 5U41HG007517-04 93 174 HUMAN GENOME RESEARCH RESEARCH RESEARCH AND DEVELOPMENT \$ 662,090 \$ 544,486,028 N DIEGO 5U41HG007517-04 94 175 HUMAN GENOME RESEARCH RESEARCH RESEARCH AND DEVELOPMENT \$ 662,090 \$ 544,486,028 N DIEGO 5U41HG007517-05	852 \$	1,439,071
93 172 HUMAN GENOME RESEARCH RESEARCH RESEARCH AND DEVELOPMENT \$ 662,090 \$ 544,486,028 Y		52,260
93 172 HUMAN GENOME RESEARCH 94 172 HUMAN GENOME RESEARCH 95 175 HUMAN GENOME RESEARCH 96 176 HUMAN GENOME RESEARCH 97 177 HUMAN GENOME RESEARCH 98 178 HUMAN GENOME RESEARCH 99 179 HUMAN GENOME RESEARCH 99 170 HUMAN GENOME RESEARCH 99 170 HUMAN GENOME RESEARCH 99 171 HUMAN GENOME RESEARCH 99 172 HUMAN GENOME RESEARCH 99 170 HUMAN GEN	,262 \$	581,192
93 172 HUMAN GENOME RESEARCH 94 172 HUMAN GENOME RESEARCH 95 175 HUMAN GENOME RESEARCH 96 175 HUMAN GENOME RESEARCH 97 176 HUMAN GENOME RESEARCH 98 177 HUMAN GENOME RESEARCH 98 178 HUMAN GENOME RESEARCH 99 179 HUMAN GENOME RESEARCH 99 170 HUMAN GEN	\$	(1,654)
93 172 HUMAN GENOME RESEARCH RESEARCH AND DEVELOPMENT \$ 662,090 \$ 544,486,028 N DIEGO 5U41HG007517-04 HUMAN GENOME RESEARCH RESEARCH AND DEVELOPMENT \$ 662,090 \$ 544,486,028 N DIEGO 5U41HG007517-05		())
93 172 HUMAN GENOME RESEARCH RESEARCH AND DEVELOPMENT \$ 662,090 \$ 544,486,028 N DIEGO 5U41HG007517-04 93 172 HUMAN GENOME RESEARCH RESEARCH AND DEVELOPMENT \$ 662,090 \$ 544,486,028 N DIEGO 5U41HG007517-05 UNIVERSITY OF CALIFORNIA, SAN DIEGO 5U41HG007517-05	\$	49,566
93 172 HUMAN GENOME RESEARCH RESEARCH AND DEVELOPMENT \$ 662,090 \$ 544,486,028 N DIEGO 5U41HG007517-05		
93 172 HUMAN GENOME RESEARCH RESEARCH AND DEVELOPMENT \$ 662,090 \$ 544,486,028 N DIEGO 5U41H6007517-05	\$	26,043
		6,943
93 173 RESEARCH RELATED TO DEAFNESS AND COMMUNICATION DISORDERS RESEARCH AND DEVELOPMENT \$ 468,764 \$ 544,486,028 Y	2	0,943
	,506 \$	355,083
93 173 RESEARCH RELATED TO DEAFNESS AND COMMUNICATION DISORDERS RESEARCH AND DEVELOPMENT \$ 468,764 \$ 544,486,028 N UNIVERSITY OF GEORGIA 5R01DC013904-03	\$	23,484
93 173 RESEARCH RELATED TO DEAFNESS AND COMMUNICATION DISORDERS RESEARCH AND DEVELOPMENT \$ 468,764 \$ 544,486,028 N UNIVERSITY OF GEORGIA 5ROIDC013904-02	\$	90,197
93 184 DISABILITIES PREVENTION RESEARCH AND DEVELOPMENT \$ 6,781 \$ 544,486,028 N PHILADELPHIA N/A		6,781
73 164 DISABILITIES PREVENTION RESEARCH AND DEVELOPMENT \$ 0,781 \$ 344,460,026 N FILLADELPHIA NA RESEARCH AND TRAINING IN COMPLEMENTARY AND INTEGRATIVE	3	0,/81
93 213 HEALTH RESEARCH AND DEVELOPMENT \$ 722,184 \$ 544,486,028 Y	s	705,551
RESEARCH AND TRAINING IN COMPLEMENTARY AND INTEGRATIVE		
93 213 HEALTH RESEARCH AND DEVELOPMENT \$ 722,184 \$ 544,486,028 N CARNEGIE MELLON UNIVERSITY 5R01AT008685-02	\$	8,234

CFDA Number	Additional Award Identification	Name of Federal Award	Cluster Name	Federal Program Total	Cluster Total	Direct Award	Name of Pass-through Entity	Identifying number assigned by the Pass-through Entity	Thi	unt Passed rough to recipients	Amou	nt Expended
93 213	Table 1 Table	RESEARCH AND TRAINING IN COMPLEMENTARY AND INTEGRATIVE HEALTH	RESEARCH AND DEVELOPMENT	\$ 722,184	\$ 544,486,028	N	MOUNT SINAI MEDICAL CENTER	4 UH3 AT009149-01	Buo	corprents	\$	2,923
93 213		RESEARCH AND TRAINING IN COMPLEMENTARY AND INTEGRATIVE HEALTH	RESEARCH AND DEVELOPMENT	\$ 722,184	\$ 544,486,028	N	RUTGERS UNIVERSITY	1K01AT008829-01A1			\$	5,476
93 226		RESEARCH ON HEALTHCARE COSTS, QUALITY AND OUTCOMES	RESEARCH AND DEVELOPMENT	\$ 888,095	\$ 544,486,028	Y			\$	230,935	\$	599,745
93 226		RESEARCH ON HEALTHCARE COSTS, QUALITY AND OUTCOMES	RESEARCH AND DEVELOPMENT	\$ 888,095	\$ 544,486,028	N	RAND CORPORATION	U19HS024067			\$	288,350
93 233		NATIONAL CENTER ON SLEEP DISORDERS RESEARCH	RESEARCH AND DEVELOPMENT	\$ 25,171	\$ 544,486,028	Y			\$	22,648	\$	25,171
93 242		MENTAL HEALTH RESEARCH GRANTS	RESEARCH AND DEVELOPMENT	\$ 4,650,266	\$ 544,486,028	Y			\$	309,658	\$	3,876,948
		VENUE A VIE A TIVA DE CEL DE CANADA LA VIENA	DESCRIPTION OF STREET									
93 242 93 242		MENTAL HEALTH RESEARCH GRANTS MENTAL HEALTH RESEARCH GRANTS	RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	\$ 4,650,266 \$ 4,650,266	\$ 544,486,028 \$ 544,486,028	N N	COLD SPRING HARBOR LABORATORY GEISINGER HEALTH SYSTEM	1R01MH105971			\$	85,420 241,809
93 242		MENTAL HEALTH RESEARCH GRANTS	RESEARCH AND DEVELOPMENT	\$ 4,030,200	\$ 344,480,028	IN	MASSACHUSETTS GENERAL	1K01MH10/431-01			3	241,809
93 242		MENTAL HEALTH RESEARCH GRANTS	RESEARCH AND DEVELOPMENT	\$ 4,650,266	\$ 544,486,028	l N	HOSPITAL	NIH			\$	62,104
93 242		MENTAL HEALTH RESEARCH GRANTS	RESEARCH AND DEVELOPMENT	\$ 4,650,266	\$ 544,486,028	N	UNIVERSITY OF MINNESOTA	3R24MH106049-03S1			\$	38,832
93 242		MENTAL HEALTH RESEARCH GRANTS	RESEARCH AND DEVELOPMENT	\$ 4,650,266	\$ 544,486,028	N	UNIVERSITY OF MINNESOTA	5R24MH106049-02			\$	6,609
93 242		MENTAL HEALTH RESEARCH GRANTS	RESEARCH AND DEVELOPMENT	\$ 4,650,266		N	UNIVERSITY OF MINNESOTA	5R24MH106049-03			\$	186,308
93 242		MENTAL HEALTH RESEARCH GRANTS	RESEARCH AND DEVELOPMENT	\$ 4,650,266	\$ 544,486,028	N	UNIVERSITY OF ROCHESTER	5R01MH097293-05			\$	58,279
93 242		MENTAL HEALTH RESEARCH GRANTS	RESEARCH AND DEVELOPMENT	\$ 4,650,266	\$ 544,486,028	N	UNIVERSITY OF ROCHESTER	R01MH097293			\$	62,176
93 262		OCCUPATIONAL SAFETY AND HEALTH PROGRAM	RESEARCH AND DEVELOPMENT	\$ 416,965	\$ 544,486,028	Y					\$	56,904
93 262		OCCUPATIONAL SAFETY AND HEALTH PROGRAM	RESEARCH AND DEVELOPMENT	\$ 416,965	\$ 544,486,028	N	BASSETT HEALTHCARE NETWORK	5U54OH007542-15			\$	37,448
93 262		OCCUPATIONAL SAFETY AND HEALTH PROGRAM	RESEARCH AND DEVELOPMENT	\$ 416,965	\$ 544,486,028	N	BASSETT HEALTHCARE NETWORK	NATIONAL INSTITUTE FOR OCCUPAT			\$	18,342
93 262		OCCUPATIONAL SAFETY AND HEALTH PROGRAM	RESEARCH AND DEVELOPMENT	\$ 416,965	\$ 544,486,028	N	JOHNS HOPKINS BLOOMBERG SCHOOL OF PUBLIC HEALTH	5T42OH008428-11			\$	9,955
93 262		OCCUPATIONAL SAFETY AND HEALTH PROGRAM	RESEARCH AND DEVELOPMENT	\$ 416,965	\$ 544,486,028	N	MARSHFIELD CLINIC RESEARCH INSTITUTE	5U54OH009568-08			\$	19,951
							RENSSELAER POLYTECHNIC					
93 262		OCCUPATIONAL SAFETY AND HEALTH PROGRAM	RESEARCH AND DEVELOPMENT	\$ 416,965	\$ 544,486,028	N	INSTITUTE	1R01OH010165-01A1			\$	139,190
93 273		ALCOHOL RESEARCH PROGRAMS - ARRA	RESEARCH AND DEVELOPMENT	\$ 2,968,111		Y			\$	8,598	\$	57,594
93 273		ALCOHOL RESEARCH PROGRAMS	RESEARCH AND DEVELOPMENT	\$ 2,968,111	\$ 544,486,028	Y	OV D DOV (D WOV V D W V D OV D V	1 701 1 1022107 0111	S	668,239	\$	2,727,770
93 273 93 273		ALCOHOL RESEARCH PROGRAMS ALCOHOL RESEARCH PROGRAMS	RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	\$ 2,968,111 \$ 2,968,111	\$ 544,486,028 \$ 544,486,028	N N	OLD DOMINION UNIVERSITY OLD DOMINION UNIVERSITY	1 R01 AA023197-01A1 1R01AA023197-01A1			\$	6,080 50,076
93 273		ALCOHOL RESEARCH PROGRAMS ALCOHOL RESEARCH PROGRAMS	RESEARCH AND DEVELOPMENT	\$ 2,968,111	\$ 544,486,028	N	UNIVERSITY OF TENNESSEE HEALTH SCIENCE CENTER, THE	1R01AA023197-01A1			\$	5,423
93 273		ALCOHOL RESEARCH PROGRAMS	RESEARCH AND DEVELOPMENT	\$ 2,968,111	\$ 544,486,028	N	UNIVERSITY OF TENNESSEE HEALTH SCIENCE CENTER, THE	5R01AA021951-03			\$	29,593
93 273		ALCOHOL RESEARCH PROGRAMS	RESEARCH AND DEVELOPMENT	\$ 2,968,111	\$ 544,486,028	N	WASHINGTON STATE UNIVERSITY	7R21AA024321			\$	38,275
93 279		DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	RESEARCH AND DEVELOPMENT	\$ 6,646,265	\$ 544,486,028	Y			\$	1,171,285	\$	6,075,889
								NATIONAL INSTITUTES				
93 279		DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	RESEARCH AND DEVELOPMENT	\$ 6,646,265	\$ 544,486,028		DUKE UNIVERSITY	OF HEALTH			\$	14,732
93 279		DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	RESEARCH AND DEVELOPMENT	\$ 6,646,265			IOWA STATE UNIVERSITY	4R01DA0137909-15			\$	55,886
93 279		DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	RESEARCH AND DEVELOPMENT	\$ 6,646,265	\$ 544,486,028	N	IOWA STATE UNIVERSITY	R01DA13709			\$	23,811
93 279		DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	RESEARCH AND DEVELOPMENT	\$ 6,646,265	\$ 544,486,028	N	NEW YORK UNIVERSITY	1R01DA040480-01A1			\$	47,712
93 279		DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	RESEARCH AND DEVELOPMENT	\$ 6,646,265	\$ 544,486,028		UNIVERSITY OF COLORADO	NATIONAL INSTITUTES OF HEALTH			\$	135,344
93 279		DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	RESEARCH AND DEVELOPMENT	\$ 6,646,265	, ,		UNIVERSITY OF MARYLAND	7R01DA025047			\$	20,000
93 279		DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	RESEARCH AND DEVELOPMENT	\$ 6,646,265	\$ 544,486,028	N	UNIVERSITY OF MICHIGAN	1R01DA039901-01			\$	43,765
93 279		DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	RESEARCH AND DEVELOPMENT	\$ 6,646,265		N	UNIVERSITY OF MICHIGAN	4R01DA001411-42			\$	34,924
93 279		DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	RESEARCH AND DEVELOPMENT	\$ 6,646,265		N	UNIVERSITY OF MICHIGAN	5R01DA035183-03			\$	88,358
93 279		DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	RESEARCH AND DEVELOPMENT	\$ 6,646,265		N	UNIVERSITY OF MICHIGAN	5R01DA037902-02			\$	41,398
93 279		DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS DISCOVERY AND ADDI IED DESEARCH FOR TECHNIQUEGICAL	RESEARCH AND DEVELOPMENT	\$ 6,646,265	\$ 544,486,028	N	UNIVERSITY OF MICHIGAN	5R01DA037902-03			3	29,038
93 286		DISCOVERY AND APPLIED RESEARCH FOR TECHNOLOGICAL INNOVATIONS TO IMPROVE HUMAN HEALTH	RESEARCH AND DEVELOPMENT	\$ 1,082,657	\$ 544,486,028	Y			s	45,758	\$	904,876
93 286		DISCOVERY AND APPLIED RESEARCH FOR TECHNOLOGICAL INNOVATIONS TO IMPROVE HUMAN HEALTH	RESEARCH AND DEVELOPMENT	\$ 1,082,657	\$ 544,486,028	N	UNIVERSITY OF SOUTHERN CALIFORNIA	5P41E8002182			\$	30,493

		I	I			1			1 .	(D 1		
CFDA	Additional Award			Federal Program		Direct		Identifying number assigned		nt Passed ough to		
Number	Identification	Name of Federal Award	Cluster Name	Total	Cluster Total	Award	Name of Pass-through Entity	by the Pass-through Entity		cipients	Amount	Expended
rumber	racinification	DISCOVERY AND APPLIED RESEARCH FOR TECHNOLOGICAL	Craster France	10.00	Craster Total	71,11111	UNIVERSITY OF SOUTHERN	by the Pass through Entity	Buon	respients	Timount	Expended
93 286		INNOVATIONS TO IMPROVE HUMAN HEALTH	RESEARCH AND DEVELOPMENT	\$ 1,082,657	\$ 544,486,028	N	CALIFORNIA	5P41EB002182-19			\$	147,288
93 301		SMALL RURAL HOSPITAL IMPROVEMENT GRANT PROGRAM	RESEARCH AND DEVELOPMENT	\$ 45,455	\$ 544,486,028	Y					\$	45,455
93 310		TRANS-NIH RESEARCH SUPPORT	RESEARCH AND DEVELOPMENT	\$ 1,503,753	\$ 544,486,028	Y			\$	15,777	\$	988,591
93 310		TRANS-NIH RESEARCH SUPPORT	RESEARCH AND DEVELOPMENT	\$ 1,503,753	\$ 544,486,028	N	DUKE CLINICAL RESERCH INSTITUTE	1U2OD023375-01 REVISED			\$	31,024
							HARVARD PILGRIM HEALTH CARE,					
93 310		TRANS-NIH RESEARCH SUPPORT	RESEARCH AND DEVELOPMENT	\$ 1,503,753	\$ 544,486,028	N	INC.	1 U01 EB023683-01			\$	110,223
		TRANS AND PER AR ON GUIDADE	DESCRIPTION OF THE ORIGINAL STATES				NEW YORK INSTITUTE OF	4114000000400004				
93 310		TRANS-NIH RESEARCH SUPPORT	RESEARCH AND DEVELOPMENT	\$ 1,503,753	\$ 544,486,028	N	TECHNOLOGY	1U18EB021789-01			\$	5,296
93 310		TRANCAUL DECEARCH CURDORT	DECEARCH AND DEVELORMENT	6 1 502 752	\$ 544 486 028		NEW YORK INSTITUTE OF	2 1110 ED021700 0201			¢.	2.674
93 310		TRANS-NIH RESEARCH SUPPORT	RESEARCH AND DEVELOPMENT	\$ 1,503,753	\$ 544,486,028	N	TECHNOLOGY NEW YORK INSTITUTE OF	3 U18 EB021789-02S1			\$	3,674
93 310		TRANS-NIH RESEARCH SUPPORT	RESEARCH AND DEVELOPMENT	\$ 1,503,753	\$ 544,486,028	N	TECHNOLOGY	5 U18 EB021789-02			\$	56,930
93 310		TRANS-NIH RESEARCH SUPPORT	RESEARCH AND DEVELOPMENT		\$ 544,486,028	N	NEW YORK UNIVERSITY	1UG30D023332-01			\$	110,984
93 310		TRANS-NIH RESEARCH SUPPORT	RESEARCH AND DEVELOPMENT	\$ 1,503,753			UNIVERSITY OF OREGON	1UG3OD023389			\$	197,031
				,,	,,			U.S. DEPARTMENT OF				
93 343		PUBLIC HEALTH SERVICE EVALUATION FUNDS	RESEARCH AND DEVELOPMENT	\$ 18,146	\$ 544,486,028	N	ETR ASSOCIATES	HEALTH AND	1		\$	18,146
93 350		NATIONAL CENTER FOR ADVANCING TRANSLATIONAL SCIENCES	RESEARCH AND DEVELOPMENT	\$ 5,045,155	\$ 544,486,028	Y					\$	4,944,218
93 350		NATIONAL CENTER FOR ADVANCING TRANSLATIONAL SCIENCES	RESEARCH AND DEVELOPMENT	\$ 5,045,155	\$ 544,486,028	N	UNIVERSITY OF PENNSYLVANIA	1UL1TR001878-01			\$	18,996
93 351		RESEARCH INFRASTRUCTURE PROGRAMS	RESEARCH AND DEVELOPMENT	\$ 569,833	\$ 544,486,028	Y	ACTUATED MEDICAL DIG	1D440D022024.01	\$	36,905	\$	553,978
93 351		RESEARCH INFRASTRUCTURE PROGRAMS	RESEARCH AND DEVELOPMENT	\$ 569,833	\$ 544,486,028	N	ACTUATED MEDICAL, INC.	1R44OD023024-01			\$	12,032
								NATIONAL INSTITUTES				
93 351		RESEARCH INFRASTRUCTURE PROGRAMS	RESEARCH AND DEVELOPMENT	\$ 560 822	\$ 544,486,028	N	ACTUATED MEDICAL, INC.	OF HEALTH			¢	3,823
93 361		NURSING RESEARCH	RESEARCH AND DEVELOPMENT	\$ 644,012		Y	ACTORTED MEDICAL, INC.	OI HEALIH	S	97,665	\$	459,812
93 361		NURSING RESEARCH	RESEARCH AND DEVELOPMENT	,	\$ 544,486,028		UNIVERSITY OF MARYLAND	R01NR015982	S	35,260	\$	167,097
93 361		NURSING RESEARCH	RESEARCH AND DEVELOPMENT	\$ 644,012	\$ 544,486,028		UNIVERSITY OF MIAMI	5R01NR014851-03	-	,	\$	6,035
93 361		NURSING RESEARCH	RESEARCH AND DEVELOPMENT	\$ 644,012	\$ 544,486,028		YALE UNIVERSITY	1R01NR016191-02			\$	11,068
93 393		CANCER CAUSE AND PREVENTION RESEARCH	RESEARCH AND DEVELOPMENT	\$ 1,821,166	\$ 544,486,028	Y			\$	71,158	\$	1,616,674
93 393		CANCER CAUSE AND PREVENTION RESEARCH	RESEARCH AND DEVELOPMENT	\$ 1,821,166		N	NORTHWESTERN UNIVERSITY	R21CA182725			\$	362
93 393		CANCER CAUSE AND PREVENTION RESEARCH	RESEARCH AND DEVELOPMENT	\$ 1,821,166		N	OHIO STATE UNIVERSITY, THE	U01CA188250			\$	16,761
93 393		CANCER CAUSE AND PREVENTION RESEARCH	RESEARCH AND DEVELOPMENT	\$ 1,821,166		N	UNIVERSITY OF ILLINOIS	1R01CA172726-01A1			\$	13,863
93 393		CANCER CAUSE AND PREVENTION RESEARCH	RESEARCH AND DEVELOPMENT	\$ 1,821,166			UNIVERSITY OF VIRGINIA	N/A			\$	19,150
93 393		CANCER CAUSE AND PREVENTION RESEARCH	RESEARCH AND DEVELOPMENT	\$ 1,821,166	\$ 544,486,028	N	UNIVERSITY OF WISCONSIN	5P01CA180945-03			\$	44,537
93 393		CANCER CAUSE AND PREVENTION RESEARCH	RESEARCH AND DEVELOPMENT	\$ 1,821,166	\$ 544,486,028	N	UNIVERSITY OF WISCONSIN - MADISON	5P01CA180945-02			e	28,544
93 393		CANCER CAUSE AND TREVENTION RESEARCH	RESEARCH AND DEVELOT WENT	3 1,821,100	\$ 344,460,026	IN	WASHINGTON UNIVERSITY IN ST.	3101CA100943-02			J.	20,344
93 393		CANCER CAUSE AND PREVENTION RESEARCH	RESEARCH AND DEVELOPMENT	\$ 1,821,166	\$ 544,486,028	N	LOUIS	1 U01 CA20060-01			\$	9,369
75 575				1,021,100	\$ 311,100,020	- 1	WASHINGTON UNIVERSITY IN ST.				Ψ	7,507
93 393		CANCER CAUSE AND PREVENTION RESEARCH	RESEARCH AND DEVELOPMENT	\$ 1,821,166	\$ 544,486,028	N	LOUIS	5U01CA200060-02			\$	71,906
93 394		CANCER DETECTION AND DIAGNOSIS RESEARCH	RESEARCH AND DEVELOPMENT	\$ 363,466	\$ 544,486,028	Y			\$	24,679	\$	169,997
93 394		CANCER DETECTION AND DIAGNOSIS RESEARCH	RESEARCH AND DEVELOPMENT	\$ 363,466	\$ 544,486,028	N	NORTHWESTERN UNIVERSITY	2R01CA154908-06A1			\$	193,469
93 395		CANCER TREATMENT RESEARCH	RESEARCH AND DEVELOPMENT	\$ 2,196,818	\$ 544,486,028	Y			\$	29,772	\$	714,481
							JOHN WAYNE CANCER INSTITUTE AT		1	П		
		GANGED TREATMENT PROPERTY	near an ave and new reasons are				PROVIDENCE SAINT JOHN'S HEALTH	201 0102000			_	_ !
93 395		CANCER TREATMENT RESEARCH	RESEARCH AND DEVELOPMENT	\$ 2,196,818	\$ 544,486,028	N	CENTER	P01 CA029605			\$	519
02 205		CANCED TREATMENT DESCARCH	DESCRIPCH AND DEVELOPMENT	6 21000:0	6 544 407 000	N	MEDICAL UNIVERSITY OF SOUTH	1 DO1 CA202629 01			¢	214.455
93 395		CANCER TREATMENT RESEARCH	RESEARCH AND DEVELOPMENT	\$ 2,196,818	\$ 544,486,028	N	CAROLINA, THE	1 P01 CA203628-01			Þ	214,457
							UNIVERSITY OF TEXAS SOUTHWESTERN MEDICAL CENTER,					
93 395		CANCER TREATMENT RESEARCH	RESEARCH AND DEVELOPMENT	\$ 2,196,818	\$ 544,486,028	N	THE	N/A			\$	170,043
93 395		CANCER TREATMENT RESEARCH	RESEARCH AND DEVELOPMENT	\$ 2,196,818	\$ 544,486,028	N	UNIVERSITY OF VIRGINIA	5P01CA171983-04			\$	804,343
93 395		CANCER TREATMENT RESEARCH	RESEARCH AND DEVELOPMENT		\$ 544,486,028		UNIVERSITY OF VIRGINIA	7P01CA17193-03			\$	54,866
93 395		CANCER TREATMENT RESEARCH	RESEARCH AND DEVELOPMENT	\$ 2,196,818	\$ 544,486,028	N	UNIVERSITY OF VIRGINIA	7P01CA171983-03	\$	84,669	\$	197,990
93 395		CANCER TREATMENT RESEARCH	RESEARCH AND DEVELOPMENT	\$ 2,196,818	\$ 544,486,028		WASHINGTON STATE UNIVERSITY	4R01CA164366-05			\$	40,119
93 396		CANCER BIOLOGY RESEARCH	RESEARCH AND DEVELOPMENT	\$ 1,590,025	\$ 544,486,028	Y					\$	1,165,093
				1		1	GEORGE WASHINGTON UNIVERSITY,	1	1			,
93 396		CANCER BIOLOGY RESEARCH	RESEARCH AND DEVELOPMENT		\$ 544,486,028	N	THE	R01CA169070		I		7,730

									Am	ount Passed		
CFDA	Additional Award			Federal Program		Direct		Identifying number assigned		hrough to		
Number	Identification	Name of Federal Award	Cluster Name	Total	Cluster Total	Award	Name of Pass-through Entity	by the Pass-through Entity		brecipients	Amou	nt Expended
93 396		CANCER BIOLOGY RESEARCH	RESEARCH AND DEVELOPMENT	\$ 1,590,025	\$ 544,486,028	N	LOMA LINDA UNIVERSITY	R01CA209829			\$	166,564
93 396		CANCER BIOLOGY RESEARCH	RESEARCH AND DEVELOPMENT	\$ 1,590,025	\$ 544,486,028	N	UNIVERSITY OF MISSOURI	7R01CA164335-05			\$	25,988
93 396		CANCER BIOLOGY RESEARCH	RESEARCH AND DEVELOPMENT	\$ 1,590,025	\$ 544,486,028	N	UNIVERSITY OF VIRGINIA	1R01CA178393-01A1			\$	205,703
93 396		CANCER BIOLOGY RESEARCH	RESEARCH AND DEVELOPMENT	\$ 1,590,025	\$ 544,486,028	N	UNIVERSITY OF VIRGINIA	5 R01 CA098472-13			\$	18,950
93 396		CANCER BIOLOGY RESEARCH	RESEARCH AND DEVELOPMENT	\$ 1,590,025	\$ 544,486,028	N	UNIVERSITY OF VIRGINIA	5R01CA018138-38			\$	(1)
93 396		CANCER BIOLOGY RESEARCH	RESEARCH AND DEVELOPMENT	\$ 1,590,025	\$ 544,486,028	N	UNIVERSITY OF VIRGINIA	5R01CA098472-12			\$	(2)
93 397		CANCER CENTERS SUPPORT GRANTS	RESEARCH AND DEVELOPMENT	\$ 89,993	\$ 544,486,028	Y			\$	17,217	\$	61,398
93 397		CANCER CENTERS SUPPORT GRANTS	RESEARCH AND DEVELOPMENT	\$ 89,993	\$ 544,486,028	N	UNIVERSITY OF KENTUCKY	5 U54 CA153604-05	\$	2,922	\$	28,595
93 398		CANCER RESEARCH MANPOWER	RESEARCH AND DEVELOPMENT	\$ 332,565	\$ 544,486,028	Y					\$	236,237
93 398		CANCER RESEARCH MANPOWER	RESEARCH AND DEVELOPMENT	\$ 332,565	\$ 544,486,028	N	VANDERBILT UNIVERSITY	5K07CA172294-02			\$	(1,570)
93 398		CANCER RESEARCH MANPOWER	RESEARCH AND DEVELOPMENT	\$ 332,565	\$ 544,486,028	N	VANDERBILT UNIVERSITY	6 K07 CA172294-04			\$	1,014
93 433		ACL NATIONAL INSTITUTE ON DISABILITY, INDEPENDENT LIVING, AND REHABILITATION RESEARCH	RESEARCH AND DEVELOPMENT	\$ 1,025,851	\$ 544,486,028	Y			s	627,765	\$	1,025,851
93 575		CHILD CARE AND DEVELOPMENT BLOCK GRANT	RESEARCH AND DEVELOPMENT	\$ 1,104,472	\$ 544,486,028	N	CHILD CARE CONSULTANTS, INC.	N/A			\$	17,227
		VICA D COLOR	DESCRIPTION OF THE OWNER.				COMMUNITY SERVICES FOR					6.050
93 600		HEAD START	RESEARCH AND DEVELOPMENT	\$ 6,950	\$ 544,486,028	N	CHILDREN	03HP0008-01-03		2 40 4 0 50	\$	6,950
93 837 93 837		CARDIOVASCULAR DISEASES RESEARCH	RESEARCH AND DEVELOPMENT	\$ 9,344,315	\$ 544,486,028	Y	A FACCURIC	5D 421H 00 4000 02	\$	2,404,950	\$	8,905,180
93 837		CARDIOVASCULAR DISEASES RESEARCH	RESEARCH AND DEVELOPMENT	\$ 9,344,315	\$ 544,486,028	N	AFASCI, INC.	5R42HL084990-03			\$	6,576
								NATIONAL INCTITUTES				
02 027		CARDIOVASCULAR DISEASES RESEARCH	RESEARCH AND DEVELOPMENT	\$ 9,344,315	¢ 544.496.029	N	BRIGHAM AND WOMEN'S HOSPITAL	NATIONAL INSTITUTES OF HEALTH			6	845
93 837		CARDIOVASCULAR DISEASES RESEARCH	RESEARCH AND DEVELOPMENT	\$ 9,344,315	\$ 544,486,028	N	CHILDREN'S HOSPITAL OF	OF REALTH			2	845
93 837		CARDIOVASCULAR DISEASES RESEARCH	RESEARCH AND DEVELOPMENT	\$ 9,344,315	\$ 544,486,028	N	PHILADELPHIA	N/A			e	15,933
93 837		CARDIOVASCULAR DISEASES RESEARCH CARDIOVASCULAR DISEASES RESEARCH	RESEARCH AND DEVELOPMENT	\$ 9,344,315	\$ 544,486,028	N	MINNETRONIX, INC.	5R44HL108415-03			\$	81,967
93 837		CARDIOVASCULAR DISEASES RESEARCH	RESEARCH AND DEVELOPMENT	\$ 9,344,315		N	UNIVERSITY OF DELAWARE	1R01HL128388-01A1			\$	69,931
93 837		CARDIOVASCULAR DISEASES RESEARCH	RESEARCH AND DEVELOPMENT		\$ 544,486,028	N	UNIVERSITY OF FLORIDA	5 U01 HL119178-03			\$	19,531
93 837		CARDIOVASCULAR DISEASES RESEARCH	RESEARCH AND DEVELOPMENT	\$ 9,344,315		N	UNIVERSITY OF FLORIDA	U01 HL119178-04			S	29,037
93 837		CARDIOVASCULAR DISEASES RESEARCH	RESEARCH AND DEVELOPMENT	\$ 9,344,315	\$ 544,486,028	N	UNIVERSITY OF MICHIGAN	U01 HL094345			S	1,524
93 837		CARDIOVASCULAR DISEASES RESEARCH	RESEARCH AND DEVELOPMENT	\$ 9,344,315	\$ 544,486,028	N	UNIVERSITY OF MINNESOTA	1R01HL130099-01A1			S	47,262
70 007				7,011,010			UNIVERSITY OF TEXAS AT				,	,
93 837		CARDIOVASCULAR DISEASES RESEARCH	RESEARCH AND DEVELOPMENT	\$ 9,344,315	\$ 544,486,028	N	ARLINGTON, THE	R01HL118498			s	141,605
93 838		LUNG DISEASES RESEARCH	RESEARCH AND DEVELOPMENT		\$ 544,486,028	Y			s	644,505	S	2,405,355
93 838		LUNG DISEASES RESEARCH	RESEARCH AND DEVELOPMENT		\$ 544,486,028	N	BOSTON CHILDREN'S HOSPITAL	1U01HL107681-02		,	\$	15,220
				, , , , ,	, , , , , , ,							
93 838		LUNG DISEASES RESEARCH	RESEARCH AND DEVELOPMENT	\$ 2,492,727	\$ 544,486,028	N	SEATTLE CHILDREN'S HOSPITAL	1U01HL114623-01A1			\$	20,988
							UNIVERSITY OF CALIFORNIA, SAN					
93 838		LUNG DISEASES RESEARCH	RESEARCH AND DEVELOPMENT	\$ 2,492,727	\$ 544,486,028	N	FRANCISCO	R01HL114484			\$	1,768
93 838		LUNG DISEASES RESEARCH	RESEARCH AND DEVELOPMENT	\$ 2,492,727	\$ 544,486,028	N	UNIVERSITY OF PITTSBURGH	1 U01 HL128954-01			\$	773
93 838		LUNG DISEASES RESEARCH	RESEARCH AND DEVELOPMENT	\$ 2,492,727	\$ 544,486,028	N	UNIVERSITY OF PITTSBURGH	5 U01 HL123020-02			\$	4,279
93 838		LUNG DISEASES RESEARCH	RESEARCH AND DEVELOPMENT	\$ 2,492,727	\$ 544,486,028	N	UNIVERSITY OF PITTSBURGH	5U01HL123009-02			\$	22,130
93 838		LUNG DISEASES RESEARCH	RESEARCH AND DEVELOPMENT	\$ 2,492,727	\$ 544,486,028	N	UNIVERSITY OF PITTSBURGH	5U01HL123009-03			\$	10,774
93 838		LUNG DISEASES RESEARCH	RESEARCH AND DEVELOPMENT	\$ 2,492,727	\$ 544,486,028	N	UNIVERSITY OF PITTSBURGH	5U01HL128954-02			\$	11,440
93 846		ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	RESEARCH AND DEVELOPMENT	\$ 2,734,409	\$ 544,486,028	Y			\$	273,716	\$	2,590,385
93 846		ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	RESEARCH AND DEVELOPMENT	\$ 2,734,409	\$ 544,486,028	N	UNIVERSITY OF DELAWARE	5R21AR067390-02			s	33,562
					, ,		VIRGINIA COMMONWEALTH					
93 846		ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASES RESEARCH	RESEARCH AND DEVELOPMENT	\$ 2,734,409	\$ 544,486,028	N	UNIVERSITY	7R01AR068132-17			\$	110,462
		DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL										
93 847		RESEARCH	RESEARCH AND DEVELOPMENT	\$ 8,136,170	\$ 544,486,028	Y			\$	540,371	\$	7,442,478
		DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL										
93 847			RESEARCH AND DEVELOPMENT	\$ 8,136,170	\$ 544,486,028	N	AUGUSTA UNIVERSITY	2U24 DK076169-11			\$	48,165
		DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL										
93 847		RESEARCH	RESEARCH AND DEVELOPMENT	\$ 8,136,170	\$ 544,486,028	N	AUGUSTA UNIVERSITY	2U24DK076169-11			\$	19,820
		DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL										
93 847			RESEARCH AND DEVELOPMENT	\$ 8,136,170	\$ 544,486,028	N	AUGUSTA UNIVERSITY	N/A			\$	30,254
		DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL					CHILDREN'S HOSPITAL OF					
93 847		RESEARCH	RESEARCH AND DEVELOPMENT	\$ 8,136,170	\$ 544,486,028	N	PHILADELPHIA	2R01DK054937-18			\$	115,518
00 5 17		DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL	DECEARCH AND DEVELOR OF THE				GEORGE WASHINGTON UNIVERSITY,	27/4				
93 847		RESEARCH	RESEARCH AND DEVELOPMENT	\$ 8,136,170	\$ 544,486,028	N	THE	N/A			\$	40,694

CFDA Number	Additional Award Identification	Name of Federal Award	Cluster Name	Federal Program Total	Cluster Total	Direct Award	Name of Pass-through Entity	Identifying number assigned by the Pass-through Entity	Amount Passed Through to Subrecipients	Amo	ount Expended
93 847		DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	RESEARCH AND DEVELOPMENT	\$ 8,136,170	\$ 544,486,028	N	ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI	5 U01 DK062429-16	Î	\$	17,861
93 847		DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	RESEARCH AND DEVELOPMENT	\$ 8,136,170	\$ 544,486,028	N	ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI	RQ2687771		\$	36,017
93 847		DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	RESEARCH AND DEVELOPMENT	\$ 8,136,170	\$ 544,486,028	N	NORTHWESTERN UNIVERSITY	4R01DK097364-05		\$	60,913
93 847		DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	RESEARCH AND DEVELOPMENT	\$ 8,136,170	\$ 544,486,028	N	UNIVERSITY OF CALIFORNIA, SAN FRANCISCO	5R01DK098233-02		\$	6,790
93 847		DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	RESEARCH AND DEVELOPMENT	\$ 8,136,170	\$ 544,486,028	N	UNIVERSITY OF CONNECTICUT	R01-DK103663		\$	79,052
93 847		DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	RESEARCH AND DEVELOPMENT	\$ 8,136,170	\$ 544,486,028	N	UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL, THE	U01DK092239		\$	7,819
93 847		DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	RESEARCH AND DEVELOPMENT	\$ 8,136,170	\$ 544,486,028	N	UNIVERSITY OF PENNSYLVANIA	5 U01 DK106892-02		\$	60,226
93 847		DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	RESEARCH AND DEVELOPMENT	\$ 8,136,170	\$ 544,486,028	N	UNIVERSITY OF SOUTH FLORIDA	1UC4DK097835-01		\$	1,701
93 847		DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	RESEARCH AND DEVELOPMENT	\$ 8,136,170	\$ 544,486,028	N	UNIVERSITY OF SOUTHERN CALIFORNIA	5 R01 DK098233-03		\$	58,734
93 847		DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	RESEARCH AND DEVELOPMENT	\$ 8,136,170	\$ 544,486,028	N	UNIVERSITY OF TEXAS AT SAN ANTONIO, THE	1R01DK108185-01		\$	35,137
93 847		DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	RESEARCH AND DEVELOPMENT	\$ 8,136,170	\$ 544,486,028	N	UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT SAN ANTONIO, THE	2R25DK078381-11		\$	12,119
93 853		EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	RESEARCH AND DEVELOPMENT	\$ 5,583,256	\$ 544,486,028	Y			\$ 330,326	\$	5,212,829
93 853		EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	RESEARCH AND DEVELOPMENT	\$ 5,583,256	\$ 544,486,028	N	AUGUSTA UNIVERSITY	1R01NS090083-01A1		\$	448
93 853		EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	RESEARCH AND DEVELOPMENT	\$ 5,583,256	\$ 544,486,028	N	CINCINNATI CHILDREN'S HOSPITAL MEDICAL CENTER	1R01NS096053-01A1		\$	2,031
93 853		EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	RESEARCH AND DEVELOPMENT	\$ 5,583,256	\$ 544,486,028	N	FLORIDA ATLANTIC UNIVERSITY	7R15NS080155-02		\$	25,000
93 853		EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	RESEARCH AND DEVELOPMENT	\$ 5,583,256	\$ 544,486,028	N	GLADSTONE INSTITUTES	4R01NS083390-04		\$	24,000
93 853		EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	RESEARCH AND DEVELOPMENT	\$ 5,583,256	\$ 544,486,028	N	GLADSTONE INSTITUTES	NATIONAL INSTITUTES OF HEALTH		\$	18,168
93 853		EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	RESEARCH AND DEVELOPMENT	\$ 5,583,256	\$ 544,486,028	N	UNIVERSITY OF CALIFORNIA, LOS ANGELES	1R21NS090027-01		\$	80,356
93 853		EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	RESEARCH AND DEVELOPMENT	\$ 5,583,256	\$ 544,486,028	N	UNIVERSITY OF CALIFORNIA, SAN DIEGO	1U01NS087964-01A1		\$	16,180
93 853		EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	RESEARCH AND DEVELOPMENT	\$ 5,583,256	\$ 544,486,028	N	UNIVERSITY OF CALIFORNIA, SAN DIEGO	5U01NS087964-02		\$	58,752
93 853		EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	RESEARCH AND DEVELOPMENT	\$ 5,583,256	\$ 544,486,028	N	UNIVERSITY OF PENNSYLVANIA	1-U01-NS-094340-01		\$	12,769
93 853		EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	RESEARCH AND DEVELOPMENT	\$ 5,583,256	\$ 544,486,028	N	UNIVERSITY OF PENNSYLVANIA	5U01NS094340-02		\$	90,317
93 853		EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	RESEARCH AND DEVELOPMENT	\$ 5,583,256	\$ 544,486,028	N	UNIVERSITY OF PITTSBURGH	1R01NS096755-01		\$	40,107
93 853		EXTRAMURAL RESEARCH PROGRAMS IN THE NEUROSCIENCES AND NEUROLOGICAL DISORDERS	RESEARCH AND DEVELOPMENT	\$ 5,583,256	\$ 544,486,028	N	UNIVERSITY OF ROCHESTER MEDICAL CENTER	5 U01 NS061799-02		\$	2,299
93 855		ALLERGY AND INFECTIOUS DISEASES RESEARCH	RESEARCH AND DEVELOPMENT	\$ 14,374,708	\$ 544,486,028	Y			\$ 1,867,318	\$	12,052,388
93 855 93 855		ALLERGY AND INFECTIOUS DISEASES RESEARCH ALLERGY AND INFECTIOUS DISEASES RESEARCH	RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	\$ 14,374,708 \$ 14,374,708	\$ 544,486,028 \$ 544,486,028	N N	ACTUATED MEDICAL, INC. BOSTON CHILDREN'S HOSPITAL	2R44AI080335-04 1 U01 AI126614-01		\$	23,365 442,705
93 855		ALLERGY AND INFECTIOUS DISEASES RESEARCH	RESEARCH AND DEVELOPMENT	\$ 14,374,708	\$ 544,486,028	N	CHILDREN'S HOSPITAL OF PHILADELPHIA	5R01AI113286-04		\$	49,791
93 855		ALLERGY AND INFECTIOUS DISEASES RESEARCH	RESEARCH AND DEVELOPMENT	\$ 14,374,708		N	CORNELL UNIVERSITY	R01AI092571		\$	4,967
93 855		ALLERGY AND INFECTIOUS DISEASES RESEARCH	RESEARCH AND DEVELOPMENT	\$ 14,374,708	\$ 544,486,028	N	GENEFLUIDICS, INC.	5R01AI117059-02		\$	206,139
93 855		ALLERGY AND INFECTIOUS DISEASES RESEARCH	RESEARCH AND DEVELOPMENT	\$ 14,374,708		N	HARVARD UNIVERSITY	SU19A1109764-03		\$	109,843
93 855		ALLERGY AND INFECTIOUS DISEASES RESEARCH	RESEARCH AND DEVELOPMENT	9 11,571,700	\$ 544,486,028	N	JOHNS HOPKINS UNIVERSITY	1R01AI117032-01		\$	36,369
93 855 93 855		ALLERGY AND INFECTIOUS DISEASES RESEARCH	RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	,,	\$ 544,486,028	N N	JOHNS HOPKINS UNIVERSITY	1R21AI121768-01A1 2U41HG00620		\$	19,005 453,301
93 833		ALLERGY AND INFECTIOUS DISEASES RESEARCH	RESEARCH AND DEVELOPMENT	\$ 14,374,708	\$ 544,486,028	N	JOHNS HOPKINS UNIVERSITY	2041HG00020		3	453,30

									Amount Passed	
CFDA	Additional Award	N	GI	Federal Program		Direct	N 45 4 15 5	Identifying number assigned	Through to	
lumber	Identification	Name of Federal Award	Cluster Name	Total	Cluster Total	Award		by the Pass-through Entity	Subrecipients	Amount Expended
855		ALLERGY AND INFECTIOUS DISEASES RESEARCH	RESEARCH AND DEVELOPMENT	\$ 14,374,708	\$ 544,486,028	N	JOHNS HOPKINS UNIVERSITY	2U41HG006620-05		\$ 349,19
855 855		ALLERGY AND INFECTIOUS DISEASES RESEARCH	RESEARCH AND DEVELOPMENT	\$ 14,374,708	\$ 544,486,028	N	MARS, INC.	N/A		\$ 2,99
855		ALLERGY AND INFECTIOUS DISEASES RESEARCH	RESEARCH AND DEVELOPMENT	7	\$ 544,486,028	N	MICROBIOTIX, INC.	R43 A113993		\$ 7,586
855		ALLERGY AND INFECTIOUS DISEASES RESEARCH	RESEARCH AND DEVELOPMENT	0 1,071,100	\$ 544,486,028	N	NATIONAL JEWISH HEALTH	5U01 AI097073-03		\$ 5,75
855		ALLERGY AND INFECTIOUS DISEASES RESEARCH	RESEARCH AND DEVELOPMENT	0 1,907,1,700	\$ 544,486,028	N	NATIONAL JEWISH HEALTH	U01 AI097073-04		\$ 62,21:
855		ALLERGY AND INFECTIOUS DISEASES RESEARCH	RESEARCH AND DEVELOPMENT	\$ 14,374,708	\$ 544,486,028	N	NEW YORK UNIVERSITY	5U19AI089676-04		\$ 53
855		ALLERGY AND INFECTIOUS DISEASES RESEARCH	RESEARCH AND DEVELOPMENT	\$ 14,374,708	\$ 544,486,028	N	NEW YORK UNIVERSITY	5U19AI089676-06		\$ 100,574
855		ALLERGY AND INFECTIOUS DISEASES RESEARCH	RESEARCH AND DEVELOPMENT	\$ 14,374,708	\$ 511,100,020	N	RUTGERS UNIVERSITY	1 R01 A1091985-01A1		\$ (1,41:
855		ALLERGY AND INFECTIOUS DISEASES RESEARCH	RESEARCH AND DEVELOPMENT	\$ 14,374,708	\$ 544,486,028	N	UNIVERSITY OF CALIFORNIA	1UM1AI110498-02		\$ 15,61:
							UNIVERSITY OF CALIFORNIA, SAN			
855		ALLERGY AND INFECTIOUS DISEASES RESEARCH	RESEARCH AND DEVELOPMENT	\$ 14,374,708	\$ 544,486,028	N	DIEGO	2R01AI090141-05		\$ 63,09
855		ALLERGY AND INFECTIOUS DISEASES RESEARCH	RESEARCH AND DEVELOPMENT		\$ 544,486,028	N	UNIVERSITY OF KENTUCKY	5 R21 AI108260-02		\$ 44,27
855		ALLERGY AND INFECTIOUS DISEASES RESEARCH	RESEARCH AND DEVELOPMENT	\$ 14,374,708	\$ 544,486,028	N	UNIVERSITY OF MICHIGAN	1R01AI110780-01A1		\$ 194,34
855 855		ALLERGY AND INFECTIOUS DISEASES RESEARCH ALLERGY AND INFECTIOUS DISEASES RESEARCH	RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	\$ 14,374,708	\$ 544,486,028 \$ 544,486,028	N N	UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL, THE UNIVERSITY OF ROCHESTER	1R01A121558-01 5R01AI067391-08		\$ 19,810 \$ 76,470
833		ALLERGY AND INFECTIOUS DISEASES RESEARCH	RESEARCH AND DEVELOPMENT	\$ 14,374,708	3 344,480,028	IN	UNIVERSITY OF ROCHESTER	3K01Al06/391-08		\$ /0,4/
857		MEASURING INTEROPERABILITY PROGRESS THROUGH INDIVIDUALS' ACCESS AND USE OF THE ELECTRONIC HEALTH DATA	RESEARCH AND DEVELOPMENT	\$ 103,856	\$ 544,486,028	N	UNIVERSITY OF TEXAS AT AUSTIN, THE	1R01HL129077-01A1		\$ 103,850
858		NATIONAL COLLABORATION TO SUPPORT HEALTH, WELLNESS AND ACADEMIC SUCCESS OF SCHOOL-AGE CHILDREN	RESEARCH AND DEVELOPMENT	\$ 40,069			UNIVERSITY OF GEORGIA	5U01GM11074403		\$ 40,06
859		BIOMEDICAL RESEARCH AND RESEARCH TRAINING	RESEARCH AND DEVELOPMENT	\$ 13,194,842	\$ 544,486,028	Y			\$ 987,178	\$ 12,182,26
859 859 859		BIOMEDICAL RESEARCH AND RESEARCH TRAINING BIOMEDICAL RESEARCH AND RESEARCH TRAINING BIOMEDICAL RESEARCH AND RESEARCH TRAINING	RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	\$ 13,194,842 \$ 13,194,842 \$ 13,194,842			ACTUATED MEDICAL, INC. ARIZONA STATE UNIVERSITY ATOPTIX, LLC	NATIONAL INSTITUTES OF HEALTH 1R01GM122082-01 1R43GM113563-01		\$ 19,366 \$ 89,719 \$ 44,213
839		BIOMEDICAL RESEARCH AND RESEARCH TRAINING	RESEARCH AND DEVELOPMENT	\$ 15,194,842	\$ 344,480,028	IN	ATOFTIA, ELC	1K43GW113303-01		\$ 44,21.
859		BIOMEDICAL RESEARCH AND RESEARCH TRAINING	RESEARCH AND DEVELOPMENT	\$ 13,194,842	\$ 544,486,028	N	CARNEGIE MELLON UNIVERSITY	R01GM114311		\$ 89,43
							CINCINNATI CHILDREN'S HOSPITAL			
859		BIOMEDICAL RESEARCH AND RESEARCH TRAINING	RESEARCH AND DEVELOPMENT	\$ 13,194,842	\$ 544,486,028	N	MEDICAL CENTER	5R01 GM09973-03		\$ 1,33
859		BIOMEDICAL RESEARCH AND RESEARCH TRAINING	RESEARCH AND DEVELOPMENT	\$ 13,194,842	, ,	N	CORNELL UNIVERSITY	N/A		\$ 5,250
859		BIOMEDICAL RESEARCH AND RESEARCH TRAINING	RESEARCH AND DEVELOPMENT	\$ 13,194,842		N	DUKE UNIVERSITY	7R01GM112048-03		\$ 12,41:
859		BIOMEDICAL RESEARCH AND RESEARCH TRAINING	RESEARCH AND DEVELOPMENT	\$ 13,194,842	\$ 544,486,028	N	TEMPLE UNIVERSITY	1R01GM117907-01		\$ 14,51
859		BIOMEDICAL RESEARCH AND RESEARCH TRAINING	RESEARCH AND DEVELOPMENT	\$ 13,194,842	\$ 544,486,028	N	UNIVERSITY OF CALIFORNIA, LOS ANGELES	5R01GM115833-02		\$ 138,02
859		BIOMEDICAL RESEARCH AND RESEARCH TRAINING	RESEARCH AND DEVELOPMENT	\$ 13,194,842	\$ 544,486,028	N	UNIVERSITY OF FLORIDA	R01 GM059969		\$ 144,99
859		BIOMEDICAL RESEARCH AND RESEARCH TRAINING	RESEARCH AND DEVELOPMENT	\$ 13,194,842	\$ 544,486,028	N	UNIVERSITY OF MIAMI	1R01GM105004-01		\$ 64,92
859		BIOMEDICAL RESEARCH AND RESEARCH TRAINING	RESEARCH AND DEVELOPMENT	\$ 13,194,842	\$ 544,486,028	N	UNIVERSITY OF MICHIGAN	5P50GM103297-04		\$ 197,74
859		BIOMEDICAL RESEARCH AND RESEARCH TRAINING	RESEARCH AND DEVELOPMENT	\$ 13,194,842	\$ 544,486,028	N	UNIVERSITY OF PITTSBURGH	1R01GM101197-01A1-02		\$ 13,65
859		BIOMEDICAL RESEARCH AND RESEARCH TRAINING	RESEARCH AND DEVELOPMENT	\$ 13,194,842	\$ 544,486,028	N	UNIVERSITY OF PITTSBURGH	2R01GM095566-06		\$ 12,85
865		CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	RESEARCH AND DEVELOPMENT	\$ 9,721,552	\$ 544,486,028				\$ 1,411,438	\$ 7,968,70
865		CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	RESEARCH AND DEVELOPMENT	\$ 9,721,552	\$ 544,486,028	N	ACTUATED MEDICAL, INC.	1R41HD088139-01		\$ 41,26
								NATIONAL INSTITUTES		
865		CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	RESEARCH AND DEVELOPMENT	\$ 9,721,552	\$ 544,486,028	N	ACTUATED MEDICAL, INC.	OF HEALTH		\$ 9,70
865		CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	RESEARCH AND DEVELOPMENT	\$ 9,721,552	\$ 544,486,028	N	CINCINNATI CHILDREN'S HOSPITAL MEDICAL CENTER	4R01HD069431-05		\$ 89,88
865		CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	RESEARCH AND DEVELOPMENT	\$ 9,721,552	\$ 544,486,028	N	GENEFLUIDICS, INC.	1R44HD084033-01		\$ 2,00
865		CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	RESEARCH AND DEVELOPMENT	\$ 9,721,552	\$ 544,486,028	N	ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI	5P01HD078233-02		\$ 331,00
865		CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	RESEARCH AND DEVELOPMENT	\$ 9,721,552	\$ 544,486,028	N	JOHNS HOPKINS UNIVERSITY	2R01HD038384-16		\$ 70,86
		CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	DESCRIPTION OF THE PROPERTY OF	\$ 9,721,552	\$ 544,486,028	N	JOHNS HOPKINS UNIVERSITY	N/A		\$ 39,42

CFDA Number	Additional Award Identification	Name of Federal Award	Cluster Name	Federal Program Total	Cluster Total	Direct Award	Name of Pass-through Entity	Identifying number assigned by the Pass-through Entity	Amount Passed Through to Subrecipients	Amount	Expended
93 865		CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH		\$ 9,721,552	\$ 544,486,028		NEW YORK UNIVERSITY	4U01HD076595-04		\$	46,987
93 865		CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	RESEARCH AND DEVELOPMENT	\$ 9,721,552	\$ 544,486,028	N	NEW YORK UNIVERSITY	5U01HD076595-03		\$	18,898
93 865		CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	RESEARCH AND DEVELOPMENT	\$ 9,721,552	\$ 544,486,028	N	NEW YORK UNIVERSITY	F4330-03 A01		\$	245,962
93 865		CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	RESEARCH AND DEVELOPMENT	\$ 9,721,552	\$ 544,486,028	N	NEW YORK UNIVERSITY	N/A		\$	26,034
93 865		CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	RESEARCH AND DEVELOPMENT	\$ 9,721,552	\$ 544,486,028	N	NEW YORK UNIVERSITY	NATIONAL INSTITUTES OF HEALTH		\$	37,411
93 865		CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	RESEARCH AND DEVELOPMENT	\$ 9,721,552	\$ 544,486,028	N	PRINCETON UNIVERSITY	1 R01 HD0765920-03		\$	2,278
93 865		CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	RESEARCH AND DEVELOPMENT	\$ 9,721,552	\$ 544,486,028	N	PRINCETON UNIVERSITY	5R01HD076592-04		\$	19,467
93 865		CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	RESEARCH AND DEVELOPMENT	\$ 9,721,552	\$ 544,486,028	N	RTI INTERNATIONAL	R21HD079524		\$	18,773
93 865		CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	RESEARCH AND DEVELOPMENT	\$ 9,721,552	\$ 544,486,028	N	STONY BROOK UNIVERSITY	4R01HD073352-04		\$	161,498
93 865		CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	RESEARCH AND DEVELOPMENT	\$ 9,721,552	\$ 544,486,028	N	THOMAS JEFFERSON UNIVERSITY UNIVERSITY OF CALIFORNIA, LOS	1R01 HD086911-01A1		\$	36,237
93 865		CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	RESEARCH AND DEVELOPMENT	\$ 9,721,552	\$ 544,486,028	N	ANGELES	5R01HD062547-05		\$	4,573
93 865		CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	RESEARCH AND DEVELOPMENT	\$ 9,721,552	\$ 544,486,028	N	UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL, THE	1R01HD080786		\$	512
							UNIVERSITY OF NORTH CAROLINA				
93 865		CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH		\$ 9,721,552 \$ 9,721,552	\$ 544,486,028 \$ 544,486,028	N N	AT CHAPEL HILL, THE UNIVERSITY OF OREGON	5R01HD080786-03 R56HD042608		\$	90,441
93 865		CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH		\$ 9,721,552 \$ 9,721,552	\$ 544,486,028	N	UNIVERSITY OF PENNSYLVANIA	5R01HD069321-05		\$	19,400
93 865		CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH		\$ 9,721,552	\$ 544,486,028		UNIVERSITY OF WISCONSIN - MADISON	7R01HD081361-02		s	204,724
93 865		CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH		\$ 9,721,552	\$ 544,486,028		VANDERBILT UNIVERSITY	5U01HD076733-02		\$	343
93 865		CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	RESEARCH AND DEVELOPMENT	\$ 9,721,552	\$ 544,486,028	N	VIRGINIA COMMONWEALTH UNIVERSITY	4R01HD073555-05		\$	93,084
93 865		CHILD HEALTH AND HUMAN DEVELOPMENT EXTRAMURAL RESEARCH	RESEARCH AND DEVELOPMENT	\$ 9,721,552	\$ 544,486,028	N	YALE UNIVERSITY	5U01HD055925-08		\$	57,806
93 865 93 866			RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	\$ 9,721,552 \$ 3,991,151	\$ 544,486,028 \$ 544,486,028	N Y	YALE UNIVERSITY	5U01HD055925-09	\$ 277,575	\$	84,292 2,675,837
93 866		AGING RESEARCH	RESEARCH AND DEVELOPMENT	\$ 3,991,151	\$ 544,486,028 \$ 544,486,028	N	BETH ISRAEL DEACONESS MEDICAL CENTER	5R01AG030618-06	\$ 211,313	s	49,269
93 866		AGING RESEARCH	RESEARCH AND DEVELOPMENT	\$ 3,991,151	\$ 544,486,028	N	BETH ISRAEL DEACONESS MEDICAL CENTER	R01AG030618		\$	135,674
93 866		AGING RESEARCH	RESEARCH AND DEVELOPMENT	\$ 3,991,151		N	ELON UNIVERSITY	1R15AG052903-01		\$	25,372
93 866			RESEARCH AND DEVELOPMENT	\$ 3,991,151	\$ 544,486,028	N	HEBREW REHABILITATION CENTER ICAHN SCHOOL OF MEDICINE AT	R24AG054259		\$	19,657
93 866 93 866			RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	,,,,,,,,	\$ 544,486,028 \$ 544,486,028	N N	MOUNT SINAI IOWA STATE UNIVERSITY	1R21AG050072-01A1 1 R01 AG049416		\$	86,845 44,827
93 866 93 866		AGING RESEARCH AGING RESEARCH	RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	\$ 3,991,151 \$ 3,991,151	\$ 544,486,028 \$ 544,486,028	N N	KLEIN BUENDEL, INC. KLEIN BUENDEL, INC.	2R24AG049750-02 R42AG049570		\$	99,334 265,034
93 866 93 866		AGING RESEARCH AGING RESEARCH	RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	\$ 3,991,151 \$ 3,991,151	\$ 544,486,028 \$ 544,486,028	N N	MOBILE SLEEP TECHNOLOGIES LLC UNIVERSITY OF KENTUCKY	1 R43 AG056250-01 4R01AG026307-10		\$	10,910 32,806
93 866 93 866		AGING RESEARCH	RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	\$ 3,991,151 \$ 3,991,151 \$ 3,991,151	\$ 544,486,028	N	UNIVERSITY OF MARYLAND UNIVERSITY OF MARYLAND	R01AG050516 R01-AG050516-01 A 1		\$	25,961 95,823

CFDA Jumber	Additional Award Identification	Name of Federal Award	Cluster Name	Federal Program Total	Cluster Total	Direct Award	Name of Pass-through Entity	Identifying number assigned by the Pass-through Entity	Amount Passed Through to Subrecipients	Amount Expended
866	identification	AGING RESEARCH	RESEARCH AND DEVELOPMENT	\$ 3,991,151	\$ 544,486,028	N	UNIVERSITY OF SOUTHERN CALIFORNIA	R56AG037985	Subrecipients	\$ 16,77
866		AGING RESEARCH	RESEARCH AND DEVELOPMENT	\$ 3,991,151	\$ 544,486,028		UNIVERSITY OF TEXAS AT AUSTIN, THE	1RO1AG049735		\$ 109,58
866		AGING RESEARCH	RESEARCH AND DEVELOPMENT	\$ 3,991,151	\$ 544,486,028	N	UNIVERSITY OF WISCONSIN - MADISON	1U19AG051426-01A1		\$ 217,50
966		AGING RESEARCH	RESEARCH AND DEVELOPMENT	\$ 3,991,151	\$ 544,486,028	N	UNIVERSITY OF WISCONSIN - MADISON	P01AG020166	6 4000	\$ 79,8
866 867		VISION RESEARCH	RESEARCH AND DEVELOPMENT	\$ 1,492,167		Y	MADISON	F01AG020100	\$ 4,960 \$ 582,861	
867		VISION RESEARCH	RESEARCH AND DEVELOPMENT	\$ 1,492,167			UNIVERSITY OF MICHIGAN	5R01EY023725-03	302,001	\$ 59,9
		GRANTS TO PROVIDE OUTPATIENT EARLY INTERVENTION SERVICES								
918		WITH RESPECT TO HIV DISEASE	RESEARCH AND DEVELOPMENT	\$ 505,629	\$ 544,486,028	Y			\$ 12,327	
928		SPECIAL PROJECTS OF NATIONAL SIGNIFICANCE	RESEARCH AND DEVELOPMENT	\$ 188,710	\$ 544,486,028	Y			\$ 30,132	\$ 188,
936		NATIONAL INSTITUTES OF HEALTH ACQUIRED IMMUNODEFICIENCY SYNDROME RESEARCH LOAN REPAYMENT PROGRAM	RESEARCH AND DEVELOPMENT	\$ 26,850	\$ 544,486,028	Y				\$ 26,8
		BLOCK GRANTS FOR PREVENTION AND TREATMENT OF SUBSTANCE					COMMONWEALTH OF			A .
959		ABUSE	RESEARCH AND DEVELOPMENT	\$ 1,308,556	\$ 544,486,028	N	PENNSYLVANIA	23468		\$ 74,2
959	1	BLOCK GRANTS FOR PREVENTION AND TREATMENT OF SUBSTANCE ABUSE	RESEARCH AND DEVELOPMENT	\$ 1,308,556	\$ 544,486,028	N	COMMONWEALTH OF PENNSYLVANIA	26796		\$ 1,234,
989		INTERNATIONAL RESEARCH AND RESEARCH TRAINING	RESEARCH AND DEVELOPMENT	\$ 393,436			TEMOTEVIMI	20770	\$ 140,400	
,							CHILDREN'S HOSPITAL OF			
RD	8901210917	CENTERS FOR DISEASE CONTROL AND PREVENTION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802	\$ 544,486,028	N	PHILADELPHIA	5NU27DD001155-02-00		\$ 22,
RD	821051 PO 533514	CENTERS FOR DISEASE CONTROL AND PREVENTION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802	\$ 544,486,028	N	RUTGERS UNIVERSITY	CENTERS FOR DISEASE CONTROL AN		\$ 5,
	BIQSFP-COG AALL1131	DEPARTMENT OF HEALTH AND HUMAN DEVELOPMENT - NON-		, , , , , , , , , , , , , , , , , , , ,	, , , , , , ,		CHILDREN'S HOSPITAL OF			1
RD	11XS1	SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802	\$ 544,486,028	N	PHILADELPHIA	U10 CA98543-08		\$ 76,3
RD	HHSN-275201000003I STUDY5191	DEPARTMENT OF HEALTH AND HUMAN DEVELOPMENT - NON- SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802	\$ 544,486,028	N	DUKE CLINICAL RESERCH INSTITUTE	HHSN-275201000003I		\$ 9,3
RD	146587	DEPARTMENT OF HEALTH AND HUMAN DEVELOPMENT - NON- SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802	\$ 544,486,028	N	EMMES CORPORATION, THE	1U01NS026835-01A1		\$ 1
RD	W81XWH-10-2-0090	DEPARTMENT OF HEALTH AND HUMAN DEVELOPMENT - NON- SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802	\$ 544,486,028	N	JOHNS HOPKINS UNIVERSITY	W81XWH-10-2-0090		\$ 36,
RD	LEHIGH SUBAWARD 542835-78001	DEPARTMENT OF HEALTH AND HUMAN DEVELOPMENT - NON- SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802	\$ 544,486,028	N	LEHIGH UNIVERSITY	7R01HD068594		\$ 19.5
RD	4/1/2016-3/31/2017	DEPARTMENT OF HEALTH AND HUMAN DEVELOPMENT - NON- SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802			TOBACCO CENTERS OF REGULATORY SCIENCE	P50 DA036107		\$ 14,
RD	6/1/2016-5/31/2017	DEPARTMENT OF HEALTH AND HUMAN DEVELOPMENT - NON- SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802	\$ 544,486,028	N	TOBACCO CENTERS OF REGULATORY SCIENCE	P50 DA036107		\$ 2,
RD	8/1/2016-7/31/2017	DEPARTMENT OF HEALTH AND HUMAN DEVELOPMENT - NON- SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802	\$ 544,486,028	N	TOBACCO CENTERS OF REGULATORY SCIENCE	P50 DA036107		\$ (15,
RD	201401968-01	DEPARTMENT OF HEALTH AND HUMAN DEVELOPMENT - NON- SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802	\$ 544,486,028	N	UNIVERSITY OF CALIFORNIA, DAVIS	IHS-1310-07894		\$ 53,
RD	2014-07266-01-00	DEPARTMENT OF HEALTH AND HUMAN DEVELOPMENT - NON- SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802	\$ 544,486,028	N	UNIVERSITY OF ILLINOIS	1R21CA195543-01		\$ 49,
RD	QB8763950 0049450 (711300-3)	DEPARTMENT OF HEALTH AND HUMAN DEVELOPMENT - NON- SPECIFIED DEPARTMENT OF HEALTH AND HUMAN DEVELOPMENT - NON-	RESEARCH AND DEVELOPMENT	\$ 14,491,802	\$ 544,486,028	N	UNIVERSITY OF KANSAS MEDICAL CENTER	CER-1306-02496		\$ 5,
RD	2016113684	DEPARTMENT OF HEALTH AND HUMAN DEVELOPMENT - NON- DEPARTMENT OF HEALTH AND HUMAN DEVELOPMENT - NON-	RESEARCH AND DEVELOPMENT	\$ 14,491,802	\$ 544,486,028	N	UNIVERSITY OF PITTSBURGH	OBS-1505-30683		\$ 1,
RD	2015686478-1	SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802	\$ 544,486,028	N	WORLD HEALTH ORGANIZATION	2016/661660-2		\$ 24,
RD	200-2015-88062 HHSP233201750005A LINE	DEPARTMENT OF HEALTH AND HUMAN SERVICES - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802	\$ 544,486,028	Y				\$ 298,
RD	ITEM #1	DEPARTMENT OF HEALTH AND HUMAN SERVICES - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802	\$ 544,486,028	Y	COMMONWEALTH OF			\$ 313,
RD	23468	DEPARTMENT OF HEALTH AND HUMAN SERVICES - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802		N	PENNSYLVANIA	23468		\$ 27,4
RD	HHSF223201610405P	FOOD AND DRUG ADMINISTRATION - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802	\$ 544,486,028	Y				\$ 45,
RD	3209610517 PO#962070- RSUB	HEALTH RESOURCES AND SERVICES ADMINISTRATION - NON- SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802	\$ 544,486,028	N	CHILDREN'S HOSPITAL OF PHILADELPHIA	HEALTH RESOURCES AND SERVICES		\$ 58,
RD	1 DP1 HD086071-01	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802	\$ 544,486,028	Y				\$ 73

									Amo	ount Passed		
CFDA	Additional Award			Federal Program		Direct		Identifying number assigned		rough to		
Number	Identification	Name of Federal Award	Cluster Name	Total	Cluster Total	Award	Name of Pass-through Entity	by the Pass-through Entity		recipients	Amount 1	Expended
3 RD	1 P50 DA036107-01	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802	\$ 544,486,028	Y		1			\$	12,436
3 RD	1 R01 DK102624-01	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802		Y					\$	164,327
3 RD	1 R01 GM114547-01	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802		Y					\$	34,035
3 RD	1 R01 GM117014-01	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802		Y					\$	21,402
3 RD	1 R01 HD074807-01A1	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802		Y			S	147,305	\$	487,390
3 RD	1 R01 HD084476-01A1	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802		Y			Ť		S	189,983
3 RD	1 R01 HD087266-01	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802	, ,	Y					\$	139,212
3 RD	1 R01 HD088448-01	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802		Y			S	27,550	S	712,526
3 RD	1 R01 HL127316-01	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802		Y			Ť	,,	\$	48,488
3 RD	1 R01 HL131921-01	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802		Y					\$	158,916
3 RD	1 R03 CA201951-01	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802		Y					\$	33,995
3 RD	1 R03 DA035929-01A1	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802		Y					S	17,419
3 RD	1 R21 CA181962-01A1	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802		Y					\$	17,379
3 RD	1 R21 CA196924-01A1	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802		Y					S	57,180
3 RD	1 U34 AR067392-01	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802		Y			S	164,462	\$	270,001
3 RD	187963	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802	\$ 544,486,028	Y			1	. , .	S	55,913
3 RD	1-H97HA28893-01-00	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802		Y			S	19,064	S	48,673
3 RD	2 R01 AI045818-16A1	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802		Y			S	1,848	S	89,337
3 RD	2 R01 GM047477-21A1	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802		Y			Ť	1,010	\$	64,042
3 RD	2 R01 GM058672-14	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802	\$ 544,486,028	Y					\$	18,587
3 RD	2 R01 GM058672-18A1	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802	\$ 544,486,028	Y					\$	308,295
3 RD	200-2016-90385	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802		Y					\$	165,779
3 RD	200-2016-91953	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802	, ,	Y					\$	183,884
3 RD	211-2011-41138	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802		Y					\$	40,599
3 RD	4 F32 NR014777-03	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802		Y					\$	14,149
3 RD	4 P50 DA036107-04	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802		Y			9	809,395	\$	3,758,669
3 RD	4 R01 CA167535-04	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802		Y			J	607,373	¢	61,394
3 RD	4 R01 HD072468-05	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802		Y			9	63,172	\$	424,184
3 RD	4 R24 HD041025-15	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802		Y			3	03,172	\$ C	2,479
3 RD	4 U10 HD038992-14	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT		\$ 544,486,028	Y			6	100,265	\$	365,627
3 RD	4/15/2017-5/31/2018	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802		Y			3	100,203	ф Ф	13,251
3 RD	5 R01 HL119245-04	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802		Y			6	84,341	\$	206,578
3 RD	7 R01 CA172169-04	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802		Y			3	186,916	ф Ф	414,333
3 RD	7 R01 DA017949-11	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802		Y			3	180,910	\$	52,602
3 RD	7 R01 DA034618-04	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802		Y			6	58,367	\$	58,447
3 RD	7/1/2016-6/30/2017	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802		Y			\$	/	\$	1,486,292
3 RD	8 UL1 TR000127-02	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802		Y			3	100,293	\$	745,951
3 RD	HHSN2722010000020I	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802		Y					\$	367,858
3 RD	K01 AA019447	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802		Y					ф Ф	89,163
3 RD	P50DA039838	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT			Y					\$ e	11,513
3 KD	P30DA039838	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802	\$ 544,486,028	Y	ALDERT ENGTENICOLLEGE OF				3	11,515
2 DD	210567	NATIONAL INSTITUTES OF HEALTH, NON SPECIFIED	DECEARCH AND DEVELOPMENT	6 14 401 002	£ 544.406.000		ALBERT EINSTEIN COLLEGE OF MEDICINE	D01NIC082422			¢.	5 400
3 RD	310567	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802	\$ 544,486,028	N	MEDICINE	R01NS082432			\$	5,489
							ALDEDT ENETEN COLLEGE OF	NATIONAL BIOTETITES				
.	210694 PO POSTO122	NATIONAL INSTITUTES OF HEALTH, NON SPECIFIED	DECEARCH AND DEVELOPMENT				ALBERT EINSTEIN COLLEGE OF	NATIONAL INSTITUTES				40.200
3 RD	310684 PO P0510122	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802	\$ 544,486,028	N	MEDICINE	OF HEALTH	1		\$	40,399
	PO594759/PO594761/PO594						ALBERT EINSTEIN COLLEGE OF	NATIONAL INSTITUTES				
3 RD	964	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802	\$ 544,486,028	N	MEDICINE	OF HEALTH			\$	240,575
				1				1				
							AMERICAN THROMBOSIS &	NATIONAL INSTITUTES				
3 RD	ATHN2015002-HCT5	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	, , , , , , ,	\$ 544,486,028		HEMOSTASIS NETWORK	OF HEALTH			\$	795
_	RSTFD0000710305	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802	, ,		BOSTON CHILDREN'S HOSPITAL	5R01HD085853-02			\$	67,296
3 RD	00000543	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802	\$ 544,486,028	N	BROWN UNIVERSITY	5R01ES020871-05			\$	56,811
3 RD	1090423-352129 AMEND 1	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802	\$ 544,486,028	N	CARNEGIE MELLON UNIVERSITY	1R21AT008493-01A1			\$	7,092
						1		NATIONAL INSTITUTES				
3 RD	5/1/2017-4/30/2018	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802	\$ 544,486,028	N	CLEVELAND CLINIC FOUNDATION	OF HEALTH			\$	40,988
3 RD	560-SUB	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802	\$ 544,486,028	N	CLEVELAND CLINIC FOUNDATION	R01 CA169117			\$	(1,655)
				1								

									Amount Passed		
CFDA	Additional Award		61 . Y	Federal Program		Direct		Identifying number assigned	Through to		
lumber	Identification	Name of Federal Award	Cluster Name	Total	Cluster Total	Award	Name of Pass-through Entity	by the Pass-through Entity	Subrecipients	Amount E	xpended
RD	225492-NICHD-2016-SAP3- OPPORT6	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802	\$ 544,486,028	N	DUKE CLINICAL RESERCH INSTITUTE	HHSN-2752010000031		¢	1,091
KD	OLLOKIO	INATIONAL INSTITUTES OF HEALTH - NON-SI ECIFIED	RESEARCH AND DEVELOT WENT	3 14,491,002	\$ 344,460,026	IN	BOKE CEINICAE RESERCIT INSTITUTE	1111314-2732010000031		Φ	1,091
	HHSN27500042							NATIONAL INSTITUTES			
RD	HHSN275201000003I	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802	\$ 544,486,028	N	DUKE CLINICAL RESERCH INSTITUTE			s	24,948
				.,,,,,,,,,						-	- 1,5 11
RD	HHSN275201000003I	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802	\$ 544,486,028	N	DUKE CLINICAL RESERCH INSTITUTE	HHSN275201000003I		s	36,816
				, , , , , ,	, , , , , , ,						/
								NATIONAL INSTITUTES			
RD	203-4789 AMEND 01	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802	\$ 544,486,028	N	DUKE UNIVERSITY	OF HEALTH		\$	50,975
RD	BABYTAPE	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802	\$ 544,486,028	N	DUKE UNIVERSITY	HHSN-2752010000031		\$	7,756
RD	CE01-203/SPS 212079	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802	\$ 544,486,028	N	DUKE UNIVERSITY	N/A		\$	4,700
	HHSN27500001_TASK										
RD	ORDER 34	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802		N	DUKE UNIVERSITY	HHSN275201000003I		\$	3,244
RD	HHSN27520100003I	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802	\$ 544,486,028	N	DUKE UNIVERSITY	HHSN-275201000003I		\$	36,038
	NIII TO #25	NATIONAL DISTRICTED OF HEALTH, NOV. SPECIFIED	DEGE A DOLL AND DEVEL OF TOTAL				DUIZE LINIVERGITY	NATIONAL INSTITUTES			
RD	NIH TO #25	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802	\$ 544,486,028	N	DUKE UNIVERSITY	OF HEALTH		\$	1,357
D.D.	ESSENTIAL INST OF	NATIONAL INSTITUTES OF HEALTH, MON SPECIFIED	DECEARCH AND DEVELOPMENT	6 14 401 002	£ 544 406 020		ESSENTIA INSTITUTE OF RURAL	NI/A			4.105
RD RD	RURAL HLTH 158682 PO #6502783	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	,.,.,	\$ 544,486,028 \$ 544,486,028	N	HEALTH GEISINGER HEALTH SYSTEM	N/A CD-1304-6987		\$	4,197
KD	138082 PO #0302783	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802	\$ 544,486,028	N	GEISINGER HEALTH STSTEM	CD-1304-0987		2	4,860
RD	R2368-A AMENDMENT 3	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802	\$ 544,486,028	N	GLADSTONE INSTITUTES	5U54NS091046-02		•	30,465
KD	K2308-A AMENDMENT 3	INATIONAL INSTITUTES OF HEALTH - NON-SI ECIFIED	RESEARCH AND DEVELOT WENT	3 14,491,002	\$ 344,460,028	IN	GLADSTONE INSTITUTES	JUJ4N3091040-02		Φ	30,403
								NATIONAL INSTITUTES			
RD	2002668606	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14 491 802	\$ 544,486,028	N	JOHNS HOPKINS UNIVERSITY	OF HEALTH		s	13,656
TCD	161485 YEAR 3 FUND			0 11,101,002	ψ 311,100,020	- 1	MASSACHUSETTS GENERAL			<u> </u>	15,050
RD	#224108	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802	\$ 544,486,028	N	HOSPITAL	N/A		s	85,964
				0 11,151,002			MEDICAL UNIVERSITY OF SOUTH			-	
RD	MUSC16-21	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802	\$ 544,486,028	N	CAROLINA, THE	PCS-1402-09328		\$	18,188
								NATIONAL INSTITUTES			
RD	4/1/2017-3/31/2018	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802	\$ 544,486,028	N	NORTHWESTERN UNIVERSITY	OF HEALTH		\$	27,382
								NATIONAL INSTITUTES			
RD		NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802			NORTHWESTERN UNIVERSITY	OF HEALTH		\$	636
RD	60036745	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802		N	NORTHWESTERN UNIVERSITY	5U01NS080818-03		\$	21,404
RD	186245	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802		N	QUADRANT BIOSCIENCES INC.	1 R41 MH111347-01		\$	51,211
RD	701-7137112	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802		N	RHODE ISLAND HOSPITAL	R01HL110791-04		\$	51,969
RD	701-7137112	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802	\$ 544,486,028	N	RHODE ISLAND HOSPITAL	R01HL110791-05		\$	2,083
								NATIONAL DISTITUTES			
RD	6/1/2017-5/31/2018	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802	\$ 544,486,028	N	STONY BROOK UNIVERSITY	NATIONAL INSTITUTES OF HEALTH		6	9,153
KD	0/1/2017-3/31/2018	NATIONAL INSTITUTES OF HEALTH - NON-SI ECHIED	RESEARCH AND DEVELOT MENT	3 14,491,002	\$ 344,460,026	IN	STONT BROOK UNIVERSITT	OF HEALTH		3	9,133
RD	87017-1	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802	\$ 544,486,028	N	UNIVERSITY OF ALABAMA, THE	HHSN2722011000161		s s	74,760
KD	07017-1	TATTIONAL INSTITUTES OF THEALTH - NOTW-ST ECH IED	RESEARCH AND DEVELOTIMENT	3 14,471,002	\$ 344,460,026	18	CHIVERSHIT OF AEABAWA, THE	11113112722011000101		φ	74,700
RD	87017-R1	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802	\$ 544,486,028	N	UNIVERSITY OF ALABAMA, THE	N/A		s	28,982
RD	ULRF14-1281	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802			UNIVERSITY OF LOUISVILLE	5R01CA185972-03		S	84,504
	ULRF-14-1281 PO			,.,.,,002	,,020						
RD	3000184452	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802	\$ 544,486,028	N	UNIVERSITY OF LOUISVILLE	R01CA185972		\$	26,922
RD	SUBK00005527	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802		N	UNIVERSITY OF MICHIGAN	N/A		\$	28,903
RD	215350B AMEND 3	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802		N	UNIVERSITY OF OREGON	1R01DA035062		\$	57,128
RD	0030451 (123192)	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802		N	UNIVERSITY OF PITTSBURGH	1U01NS081041-01A1		\$	(304
RD	0038682 (127179-1)	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802		N	UNIVERSITY OF PITTSBURGH	5U01HL123020-03		\$	61,423
RD	9011986 (128727-3)	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802	\$ 544,486,028	N	UNIVERSITY OF PITTSBURGH	U1QHP28736		\$	96,083
				1.				NATIONAL INSTITUTES			
RD	9012549 (128373-5)	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802	\$ 544,486,028	N	UNIVERSITY OF PITTSBURGH	OF HEALTH		\$	44,439
1								NATIONAL INSTITUTES			
RD	9012549(128373-5)	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT		\$ 544,486,028		UNIVERSITY OF PITTSBURGH	OF HEALTH			8,023

CFDA Number	Additional Award Identification	Name of Federal Award	Cluster Name	Federal Program Total	Cluster Total	Direct Award	Name of Pass-through Entity	Identifying number assigned by the Pass-through Entity	Thro	nt Passed ough to cipients	Amoun	t Expended
93 RD	5/1/2017-4/30/2018	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802	\$ 544,486,028	N	UNIVERSITY OF ROCHESTER	NATIONAL INSTITUTES OF HEALTH			\$	10,644
93 RD	6/1/2017-5/31/2018		RESEARCH AND DEVELOPMENT	\$ 14,491,802	\$ 544,486,028	N	UNIVERSITY OF TEXAS AT SAN ANTONIO, THE	NATIONAL INSTITUTES OF HEALTH			\$	3,347
	GC12273 145679	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802		N	UNIVERSITY OF VIRGINIA	N/A			\$	32,066
93 RD	576K424	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802	\$ 544,486,028	N	UNIVERSITY OF WISCONSIN	R01 HD080201-01A1			\$	160,705
93 RD	6/1/2017-5/31/2018	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14.491.802	\$ 544.486.028	N	UNIVERSITY OF WISCONSIN - MADISON	NATIONAL INSTITUTES OF HEALTH			e	39,245
93 RD		NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	, , , , , , , , , , , , , , , , , , , ,	\$ 544,486,028		VANDERBILT UNIVERSITY	K07 CA172294			Ф Ф	(6,257)
93 RD	M14A12028 (A10541)	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 14,491,802	\$ 544,486,028	N	YALE UNIVERSITY	5U01HD055925-08			\$	50,535
96 007		SOCIAL SECURITY RESEARCH AND DEMONSTRATION	RESEARCH AND DEVELOPMENT	\$ 45,000	\$ 544,486,028	N	BOSTON COLLEGE	6 RRC0898402-08-04			\$	45,000
97 061		CENTERS FOR HOMELAND SECURITY	RESEARCH AND DEVELOPMENT	\$ 77,995	\$ 544,486,028		PURDUE UNIVERSITY	2009-ST-061-CI0001			\$	77,995
97 077 98 001		HOMELAND SECURITY RESEARCH, DEVELOPMENT, TESTING, EVALUATION, AND DEMONSTRATION OF TECHNOLOGIES RELATED TO NUCLEAR THREAT DETECTION USAID FOREIGN ASSISTANCE FOR PROGRAMS OVERSEAS	RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	\$ 329,640 \$ 1,324,628	\$ 544,486,028	Y Y			\$	162,349 492,332	\$	329,640 786,147
98 001		COMB TOREIGN MODEL TOR TROCKE HIS OVERDEND	RESEARCH AND BE VEED I MENT	3 1,324,026	\$ 544,460,026	1		U.S. AGENCY FOR	J.	492,332	φ	780,147
98 001		USAID FOREIGN ASSISTANCE FOR PROGRAMS OVERSEAS	RESEARCH AND DEVELOPMENT	\$ 1,324,628	\$ 544,486,028	N	COLLEGE OF WILLIAM & MARY	INTERNATIONAL			s	5,440
98 001		USAID FOREIGN ASSISTANCE FOR PROGRAMS OVERSEAS	RESEARCH AND DEVELOPMENT	\$ 1,324,628	\$ 544,486,028		UNIVERSITY OF CALIFORNIA, DAVIS	EPP-A-00-09-00004	s	109,014	\$	350,870
98 001		USAID FOREIGN ASSISTANCE FOR PROGRAMS OVERSEAS	RESEARCH AND DEVELOPMENT	\$ 1,324,628	\$ 544,486,028	N	VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY	AID-0AA-L-12-00002			\$	64,947
98 001		USAID FOREIGN ASSISTANCE FOR PROGRAMS OVERSEAS	RESEARCH AND DEVELOPMENT	\$ 1,324,628	\$ 544,486,028	N	VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY	AID-111-A-14-00003			\$	34,526
98 001		USAID FOREIGN ASSISTANCE FOR PROGRAMS OVERSEAS	RESEARCH AND DEVELOPMENT	\$ 1,324,628	\$ 544,486,028	N	VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY	AID-OAA-L-15-00001			\$	51,939
98 RD	AID-OFDA-G-14-00214	AGENCY FOR INTERNATIONAL DEVELOPMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 224,824	\$ 544,486,028	Y					\$	13,140
98 RD	S16056	AGENCY FOR INTERNATIONAL DEVELOPMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 224,824	\$ 544,486,028	N	KANSAS STATE UNIVERSITY	AID-OAA-L-14-00006	\$	151,059	\$	202,584
98 RD	8000075676	AGENCY FOR INTERNATIONAL DEVELOPMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 224,824	\$ 544,486,028	N	PURDUE UNIVERSITY	209673			\$	9,100
99 RD	11-C-0323	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275	\$ 544,486,028	Y			\$	3,378	\$	3,980
99 RD	11-G-5134/0005	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275		Y			\$	782,494	\$	849,867
99 RD	12-G-2087/0005	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275		Y					\$	(301)
99 RD	12-G-2500 TO 0002	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275	\$ 544,486,028	Y					\$	(872)
99 RD	12-G-2807 ORDER 0006	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275	\$ 544,486,028	Y					\$	(821)
99 RD	12-G-2807 ORDER 0007	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275	\$ 544,486,028	Y					\$	(755)
99 RD	12-G-2807 TO 0008	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT		\$ 544,486,028	Y					\$	(1,268)
99 RD		UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT		\$ 544,486,028	Y					\$	174,385
99 RD	12-G-3050 TO-0011	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275	\$ 544,486,028	Y			\$	112,393	\$	127,155
99 RD	12-G-3050 ORDER 0006	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275	\$ 544,486,028	Y					\$	13
99 RD	12-G-3050/0013	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275	\$ 544,486,028	Y				1,347,319	\$	1,505,457
99 RD	12-G-3050/0014	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275		Y			\$ 2	2,105,166	\$	2,278,757
99 RD	12-G-3050/0015	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275		Y			\$	439,158	\$	491,094
99 RD	12-G-3050/0016 12-G-3050/0017	UNITED STATES GOVERNMENT - NON-SPECIFIED UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	\$ 29,166,275 \$ 29,166,275	\$ 544,486,028 \$ 544,486,028	Y			\$	24,505 164,429	\$	33,659 189,712
99 RD	12-G-3050/0017 13-G-2500 TO 0006	UNITED STATES GOVERNMENT - NON-SPECIFIED UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275 \$ 29,166,275	\$ 544,486,028 \$ 544,486,028	Y			3	104,429	\$	652,791
99 RD	13-G-2500/0006	UNITED STATES GOVERNMENT - NON-SPECIFIED UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT		\$ 544,486,028	Y					\$	119,976
99 RD	13-G-4323/0004	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275	\$ 511,100,020	Y					\$	232,271
99 RD	14-C-0150	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT		\$ 544,486,028	Y			\$	653,007	\$	5,676,761
99 RD	14-C-0188	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275		Y			\$	95,966	\$	695,280
<u> </u>	•	1		, , , , , , , , ,	,,.==			•				

									Amount Passed	
CFDA	Additional Award			Federal Program		Direct		Identifying number assigned	Through to	
Number	Identification	Name of Federal Award	Cluster Name	Total	Cluster Total	Award	Name of Pass-through Entity	by the Pass-through Entity	Subrecipients	Amount Expende
99 RD	15-C-5014	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275	\$ 544,486,028	Y	The state of the s	by and a man and again and ag		\$ 8,4
99 RD	15-G-2529 TO 0001	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT		\$ 544,486,028	Y				\$ 390.8
99 RD	15-G-2529 TO 001	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275	\$ 544,486,028	Y				\$ 167,5
99 RD	15-G-2529 TO 002	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT		\$ 544,486,028	Y				\$ 580,3
99 RD	15-G-2529/0001	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275	, ,	Y				\$ 39,2
99 RD		UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275		Y				\$ 768,3
99 RD		UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275		Y				\$ 179,2
99 RD	16-C-0089	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT		\$ 544,486,028	Y			\$ 463,637	\$ 1,909,0
99 RD	2010-0928224-005	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT		\$ 544,486,028	Y			,	\$ (2
99 RD	2010-0928224-006	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275		Y				\$ (1,9
,,										4 (1)
99 RD	2010-098224-006 TO 0006	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275	\$ 544,486,028	Y				\$ (8
99 RD	2013324G001 TO 0007	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT		\$ 544,486,028	Y			\$ 109,553	\$ 124,9
99 RD	2013324G001 TO 005	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT		\$ 544,486,028	Y			,	\$ (4,8
99 RD	2013324G001 TO 006	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT		\$ 544,486,028	Y				\$ (3,4
99 RD		UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275	\$ 544,486,028	Y			\$ 297,087	\$ 320,0
99 RD		UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275	\$ 544,486,028	Y			,	\$ 109,6
99 RD		UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275		Y				\$ (3
99 RD	2013324G001/006	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275		Y				\$ 349,5
99 RD	2013324G001/009	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275		Y				\$ 437,6
99 RD	2013324G001-004	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275		Y				\$ (1
99 RD		UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275		Y				\$ 196,3
99 RD	2015233G004	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT		\$ 544,486,028	Y			\$ 14,919	\$ 495,9
99 RD	2016034G004	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT		\$ 544,486,028	Y			, ,	\$ 5,994,2
99 RD	2016-160200002-003	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275		Y			\$ 40,500	\$ 62,9
					, ,				.,	
99 RD	2016-16021000002 TO 001	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275	\$ 544,486,028	Y				\$ 205,1
99 RD		UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275		Y				\$ 5,3
99 RD	2016-16021000002-02	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT		\$ 544,486,028	Y				\$ 37,2
99 RD	2016-1602100002-003	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275		Y				\$ 76,7
99 RD	2807 TO 0006	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275		Y				\$ (8
99 RD	3050 ORDER 0007	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275	\$ 544,486,028	Y			\$ (426)	\$ (4
99 RD	3050/0008	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275	\$ 544,486,028	Y			Ų (120)	\$ (5,2
99 RD	5317	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275		Y				\$ 253,3
99 RD	USG	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275		Y				\$ 7,5
99 RD	USG CLIN 0004	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275		Y				\$
99 RD	USG CLIN 0006	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275		Y				\$ 2
99 RD	USG CLIN 0007	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275		Y				\$ (4,2
99 RD	USG CLIN 0009	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275		Y				\$ 4,4
	TA4, NRTC-FY15-D-					-	ADVANCED TECHNOLOGY			,,,
99 RD	01A/2015-328	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275	\$ 544,486,028	N	INTERNATIONAL	W1QKN-10-9-0003		\$ 134,9
-				. ,,	. ,,.20					231,0
99 RD	ARV-15-009 PSU 001 2	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275	\$ 544,486,028	N	ALTEX TECHNOLOGIES	ARV-15-009		\$ 56,2
99 RD	CAPO-0094	UNITED STATES GOVERNMENT - NON-SPECIFIED		\$ 29,166,275			CAITTA, INC.	HHSF2232015106886P		\$ 70.0
-				. ,,	,,.20					70,0
99 RD	SC1505801	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275	\$ 544,486,028	N	CHARLES RIVER ANALYTICS INC.	FA8650-16-C-6680		\$ 102,1
				, ,	,,.=		CONCURRENT TECHNOLOGIES			,,
99 RD	140900106	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275	\$ 544,486,028	N	CORPORATION	N/A		\$ 1,194,5
	140900106- SLIN002 NON			,,//			CONCURRENT TECHNOLOGIES			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
99 RD	LABOR	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275	\$ 544,486,028	N	CORPORATION	N/A		\$ 8
				2,,100,210	, 100,020					
99 RD	25536	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275	\$ 544,486,028	N	CURTISS-WRIGHT CORPORATION	111116-G		\$ 43,8
					, , ,					,
								APPALACHIAN		
99 RD	195108	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275	\$ 544,486,028	N	DOWNSTREAM STRATEGIES, LLC	REGIONAL COMMISSIO		\$ 24,4
				, ,	,,.=		, , , , , , , , , , , , , , , , , , , ,			
99 RD	51ESM907599	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275	\$ 544,486,028	N	GENERAL DYNAMICS CORPORATION	B16-2016166G003		\$ 6,3
-				. ,,	. ,,.20					0,0
99 RD	B16Y358	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275	\$ 544,486,028	N	GENERAL DYNAMICS CORPORATION	B15-2015105G001		\$ 147,0
				. ,,	,,.20					2.17,0
99 RD	JRS-000079 PR-50591	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275	\$ 544,486,028	N	IAP WORLDWIDE SERVICES, INC.	W15P7T-10-D-D416		\$ 44,0
99 RD	117590	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT		\$ 544,486,028	N	JOHNS HOPKINS UNIVERSITY	11-G-2402		\$ 1
99 RD	124818 TO 133815	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275			JOHNS HOPKINS UNIVERSITY	CPD1		\$ 2,9

CFDA	Additional Award	Nove of Endand Associa	ChatasNama	Federal Program	Charter Tatal	Direct	Name of David Rounds Fraction	Identifying number assigned	Amount Passed Through to	A
Number 99 RD	Identification 124818/TO 135787	Name of Federal Award UNITED STATES GOVERNMENT - NON-SPECIFIED	Cluster Name RESEARCH AND DEVELOPMENT	Total \$ 29,166,275	Cluster Total \$ 544,486,028	Award	Name of Pass-through Entity JOHNS HOPKINS UNIVERSITY	by the Pass-through Entity 15-G-2133	Subrecipients	Amount Expended
		UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT		, ,		KESSLER FOUNDATION			\$ 39,338
99 RD	437-01	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275	\$ 544,486,028	N	L-3 COMMUNICATIONS HOLDINGS,	HC0185		\$ 38,776
99 RD	2010-SC-4-0131 CO 1 & 2	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275	\$ 544,486,028	N	INC.	N/A		\$ (701)
99 RD	4101996824	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275	\$ 544,486,028	N	LOCKHEED MARTIN CORPORATION	CLASSIFIED		\$ (4,057)
99 RD	4102757441	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275	\$ 544,486,028	N	LOCKHEED MARTIN CORPORATION	UNNUMBERED (SEAHORSE)		\$ 202,873
99 RD	PO 4102827037	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275	\$ 544,486,028	N	LOCKHEED MARTIN CORPORATION	UNNUMBERED		\$ 258,800
99 RD	G02756 PO P0178449	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275	\$ 544,486,028	N	MIAMI UNIVERSITY	G-1617-04-0372		\$ 42,701
99 RD	710000253 20474	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT		\$ 544,486,028	N	MISCELLANEOUS	N/A		\$ 59,066
99 RD	674-110933-1	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275	\$ 544,486,028	N	MRIGLOBAL	HR 15-59		\$ 16,322
99 RD	702-111020-3	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275	\$ 544,486,028	N	MRIGLOBAL	17-84		\$ 1,299
99 RD	SUB0000854	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275	\$ 544,486,028	N	NATIONAL ACADEMY OF SCIENCES NORTHROP GRUMMAN	FR-RRD-0070-16-01-00		\$ 43,743
99 RD	7500145432	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275	\$ 544,486,028	N	CORPORATION	NRO000-16-C-0340		\$ 174,475
99 RD	8180085052	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275	\$ 544,486,028	N	NORTHROP GRUMMAN CORPORATION	N/A		\$ 27,415
99 KD	0100005032	CATED STATES GOVERAMENT - NOV-SI ECITIED	RESEARCH AND DEVELOT MENT	3 29,100,273	\$ 544,460,026	14	CONTONTION	10/1		\$ 27,415
99 RD	LI00163644 CLIN 0003AA	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275	\$ 544,486,028	N	RAYTHEON COMPANY	N/A	\$ 76,301	\$ 88,653
99 RD	LI00163644 CLIN 0011	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275	\$ 544,486,028	N	RAYTHEON COMPANY	N/A		\$ 74,848
00 DD	I 1001/2//4/ CI IN 10011 A A	LIMITED CTATES COVERNMENT MON SPECIFIED	DECEARCH AND DEVELOPMENT	0.166.275	£ 544.40C.020	.,	DAVTHEON COMBANIV	NI/A		f 12.014
99 RD 99 RD	LI00163644 CLIN 0011AA LI00163644 CLIN 0015	UNITED STATES GOVERNMENT - NON-SPECIFIED UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT RESEARCH AND DEVELOPMENT	\$ 29,166,275 \$ 29,166,275	\$ 544,486,028 \$ 544,486,028	N N	RAYTHEON COMPANY RAYTHEON COMPANY	N/A N/A		\$ 12,914 \$ 98,690
99 KD	L100103044 CLIN 0013	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,100,273	\$ 344,480,028	IN	RAT THEON COMPANT	IN/A		\$ 98,090
99 RD	LI00163644 CLIN 0015AA	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275	\$ 544,486,028	N	RAYTHEON COMPANY	N/A		\$ 55,880
99 RD	LI00163644 CLIN 0022AA	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275	\$ 544,486,028	l N	RAYTHEON COMPANY	N/A		\$ 34,898
99 RD	LI00163644 CLIN 0024	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT		\$ 544,486,028	N	RAYTHEON COMPANY	N/A		\$ 206,888
							ROBERTS & FOLKERS ASSOCIATES			
99 RD	PO #022610	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275	\$ 544,486,028	N	LLC	N/A		\$ 1,313
99 RD	S15-024-570090-PENN	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275	\$ 544,486,028	N	TEXAS A&M UNIVERSITY	2011-0001-PA011		\$ 7,356
99 RD	9597SC	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275	\$ 544,486,028	N	UNIVERSITY OF CALIFORNIA, SAN FRANCISCO	SOC OF FAM PLANNING; SFPRF1010		\$ 58,551
	080189-16209 GRANT									
99 RD	CODE AC542	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275	\$ 544,486,028	N	UNIVERSITY OF ILLINOIS	298347		\$ 11,747
99 RD	1500770	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275	\$ 544,486,028	N	UNIVERSITY OF MARYLAND	1NU27DD001155		\$ 3,259
99 RD	567394	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275	\$ 544,486,028	N	UNIVERSITY OF PENNSYLVANIA	G-2015-14011		\$ 36,879
							WASHINGTON UNIVERSITY IN ST.			
99 RD	WU-16-64 PO 2928371A	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275	\$ 544,486,028	N	LOUIS WASHINGTON UNIVERSITY IN ST.	4-FY15-415		\$ 7,435
99 RD	WU-17-231 PO 2928437C	UNITED STATES GOVERNMENT - NON-SPECIFIED	RESEARCH AND DEVELOPMENT	\$ 29,166,275	\$ 544,486,028	N	LOUIS	4-FY16-273		\$ 10,000
84 007		FEDERAL SUPPLEMENTAL EDUCATIONAL OPPORTUNITY GRANT	STUDENT FINANCIAL AID	\$ 4,304,806	\$ 681,317,418	v				\$ 4,304,806
84 033		FEDERAL WORK STUDY PROGRAM	STUDENT FINANCIAL AID	\$ 2,862,242		Y				\$ 2,862,242
84 038		FEDERAL PERKINS LOAN PROGRAM	STUDENT FINANCIAL AID	\$ 42,772,219	\$ 681,317,418	Y				\$ 42,772,219
84 063		FEDERAL PELL GRANT PROGRAM	STUDENT FINANCIAL AID	\$ 83,599,740	\$ 681,317,418	Y				\$ 83,599,740
84 268		FEDERAL DIRECT LOAN PROGRAM	STUDENT FINANCIAL AID	\$ 547,739,058	\$ 681,317,418	Y				\$ 547,739,058
93 342		HEALTH PROFESSIONS STUDENT LOAN PROGRAM	STUDENT FINANCIAL AID	\$ 39,353	\$ 681,317,418	Y				\$ 39,353
10 001		AGRICULTURAL RESEARCH BASIC AND APPLIED RESEARCH	N/A	\$ 1,345,455	\$ -	N	UNIVERSITY OF ARKANSAS	58-8250-4-002		\$ 95,938
10 025		PLANT AND ANIMAL DISEASE, PEST CONTROL, AND ANIMAL CARE	N/A	\$ 987,085	\$ -	Y				\$ (1,347)
10 103		AQUACULTURE GRANT PROGRAM	N/A	\$ 28,028	\$ -	N	UNIVERSITY OF VERMONT, THE	2015-38640-23777		\$ 28,028
10 170		SPECIALTY CROP BLOCK GRANT PROGRAM - FARM BILL	N/A	\$ 305,146	\$	N	COMMONWEALTH OF PENNSYLVANIA	44155554		\$ 67,950
10 170		S. Lea E CROT BLOCK GRAINT TROOKAWI - PARWI BILL	A V A A	9 303,140	Ψ -	IN	COMMONWEALTH OF			Ψ 07,930
10 170		SPECIALTY CROP BLOCK GRANT PROGRAM - FARM BILL	N/A	\$ 305,146	\$ -	N	PENNSYLVANIA	44166071		\$ 12,215

CFDA	Additional Award			Federal Program		Direct		Identifying number assigned	Amount Passed Through to		
Number	Identification	Name of Federal Award	Cluster Name	Total	Cluster Total	Award	Name of Pass-through Entity	by the Pass-through Entity	Subrecipients	Amou	unt Expended
10 170		SPECIALTY CROP BLOCK GRANT PROGRAM - FARM BILL	N/A	\$ 305,146	\$ -	N	COMMONWEALTH OF PENNSYLVANIA	44166076		s	22,335
10 215		SUSTAINABLE AGRICULTURE RESEARCH AND EDUCATION	N/A	\$ 475,899	\$ -	N	UNIVERSITY OF VERMONT, THE	20163864025380		\$	28,440
10 215		SUSTAINABLE AGRICULTURE RESEARCH AND EDUCATION	N/A	\$ 475,899	\$ -	N	UNIVERSITY OF VERMONT, THE	2014-38640-22161		\$	65,841
10 215		SUSTAINABLE AGRICULTURE RESEARCH AND EDUCATION	N/A	\$ 475,899	\$ -	N	UNIVERSITY OF VERMONT, THE	2015-38640-23777		\$	20,155
10 303		INTEGRATED PROGRAMS	N/A	\$ 548,588	\$ -	N	CORNELL UNIVERSITY	2012-51120-20287		\$	24,719
10 309		SPECIALTY CROP RESEARCH INITIATIVE	N/A	\$ 1,127,516	\$ -	N	CORNELL UNIVERSITY	2015-51181-24393		\$	24,218
10 310		AGRICULTURE AND FOOD RESEARCH INITIATIVE (AFRI)	N/A	\$ 8,645,724	\$ -	Y				\$	562,947
10 310		AGRICULTURE AND FOOD RESEARCH INITIATIVE (AFRI)	N/A	\$ 8,645,724	\$ -	N	OHIO STATE UNIVERSITY, THE	2015-68004-23131		\$	46,921
10 311		BEGINNING FARMER AND RANCHER DEVELOPMENT PROGRAM	N/A	\$ 164,346	\$ -	Y				\$	156,725
10 311		BEGINNING FARMER AND RANCHER DEVELOPMENT PROGRAM	N/A	\$ 164,346	\$ -	N	UNIVERSITY OF VERMONT, THE	20157001723898		\$	7,621
		NATIONAL FOOD SAFETY TRAINING, EDUCATION, EXTENSION,									
		OUTREACH, AND TECHNICAL ASSISTANCE COMPETITIVE GRANTS									
10 328		PROGRAM	N/A	\$ 20,165	\$ -	Y				\$	20,165
		CROP PROTECTION AND PEST MANAGEMENT COMPETITIVE GRANTS									
10 329		PROGRAM	N/A	\$ 336,991	\$ -	Y				\$	194,487
		CROP PROTECTION AND PEST MANAGEMENT COMPETITIVE GRANTS									
10 329		PROGRAM	N/A	\$ 336,991	\$ -	N	UNIVERSITY OF VERMONT, THE	2014-70006-22516		s	13,612
10 451		NONINSURED ASSISTANCE	N/A	\$ 71,949	S -	Y				S	71,949
				7 7 7 7 7 7 7	*		COMMONWEALTH OF				
10 458		CROP INSURANCE EDUCATION IN TARGETED STATES	N/A	\$ 86,898	s -	N	PENNSYLVANIA	44155491		s	5,404
10 130				\$ 00,070	4		COMMONWEALTH OF				3,101
10 458		CROP INSURANCE EDUCATION IN TARGETED STATES	N/A	\$ 86,898	ę	l N	PENNSYLVANIA	44155556		6	2,057
10 436		CROT INSURANCE EDUCATION IN TARGETED STATES	IV/A	\$ 60,696	5 -	IN	COMMONWEALTH OF	44133330		٥	2,037
10 458		CDOD INCLID ANCE EDUCATION IN TARCETED STATES	NT/A	6 07 000	e	NT.	PENNSYLVANIA	44166063		6	548
10 458		CROP INSURANCE EDUCATION IN TARGETED STATES	N/A	\$ 86,898	5 -	N		44166063		2	548
		CD OD DIGHT AND DRIVE A THOUGHT AND OTHER OF A THE					COMMONWEALTH OF	N 471 444 55400			
10 458		CROP INSURANCE EDUCATION IN TARGETED STATES	N/A	\$ 86,898	\$ -	N	PENNSYLVANIA	ME# 44155490		\$	50,331
							COMMONWEALTH OF				
10 458		CROP INSURANCE EDUCATION IN TARGETED STATES	N/A	\$ 86,898	\$ -	N	PENNSYLVANIA	ME# 44166062		\$	28,558
10 460		RISK MANAGEMENT EDUCATION PARTNERSHIPS	N/A	\$ 30,541	\$ -	Y				\$	30,541
10 500		COOPERATIVE EXTENSION SERVICE	N/A	\$ 26,469,711	\$ -	Y			\$ 62,070	\$	11,529,232
10 500		COOPERATIVE EXTENSION SERVICE	N/A	\$ 26,469,711	\$ -	N	KANSAS STATE UNIVERSITY	2013-48696-21184		\$	9,042
10 500		COOPERATIVE EXTENSION SERVICE	N/A	\$ 26,469,711	\$ -	N	KANSAS STATE UNIVERSITY	2014-48661-22370		\$	6,042
10 500		COOPERATIVE EXTENSION SERVICE	N/A	\$ 26,469,711	\$ -	N	UNIVERSITY OF NEBRASKA	2013-48712-21516		\$	421,056
10 500		COOPERATIVE EXTENSION SERVICE	N/A	\$ 26,469,711	\$ -	N	UNIVERSITY OF VERMONT, THE	2012-47001-19544	\$ 820	\$	1,066
10 500		COOPERATIVE EXTENSION SERVICE	N/A	\$ 26,469,711	\$ -	N	UNVIERSITY OF DELAWARE	2015-49200-24225		\$	20,702
							COMMONWEALTH OF				
10 558		CHILD AND ADULT CARE FOOD PROGRAM	N/A	\$ 88,706	\$ -	N	PENNSYLVANIA	N/A		\$	88,706
							COMMONWEALTH OF				
10 559		SUMMER FOOD SERVICE PROGRAM FOR CHILDREN	CHILD NUTRITION CLUSTER	\$ 15,049	\$ 15,049	N	PENNSYLVANIA	310-140005		\$	9,109
							COMMONWEALTH OF				
10 559		SUMMER FOOD SERVICE PROGRAM FOR CHILDREN	CHILD NUTRITION CLUSTER	\$ 15,049	\$ 15,049	N	PENNSYLVANIA	377-140678		\$	5,940
							COMMONWEALTH OF				
10 560		STATE ADMINISTRATIVE EXPENSES FOR CHILD NUTRITION	N/A	\$ 228,142	\$ -	N	PENNSYLVANIA	4300467243		\$	103,162
							COMMONWEALTH OF				,. 32
10 560		STATE ADMINISTRATIVE EXPENSES FOR CHILD NUTRITION	N/A	\$ 228,142	s -	N	PENNSYLVANIA	4300518332		s	46,413
20 500				U 220,142			COMMONWEALTH OF				10,113
10 560		STATE ADMINISTRATIVE EXPENSES FOR CHILD NUTRITION	N/A	\$ 228,142	\$	N	PENNSYLVANIA	4300518342		s	17,923
.0 300		The state of the s		220,142	-	IN	COMMONWEALTH OF	.500510512		Ψ	17,923
10 560		STATE ADMINISTRATIVE EXPENSES FOR CHILD NUTRITION	N/A	\$ 228,142	e	N	PENNSYLVANIA	4300524648		I .	60,644
10 200		STATE ADMINISTRATIVE EAFENSES FOR CHIED NOTRITION STATE ADMINISTRATIVE MATCHING GRANTS FOR THE SUPPLEMENTAL	1971	ø 220,142	9 -	IN	COMMONWEALTH OF	1300324040		, a	00,044
10 561		NUTRITION ASSISTANCE PROGRAM	SNAP CLUSTER	\$ 22,798,807	\$ 22.709.907	N	PENNSYLVANIA	4100069151	\$ 19,584,298	6	22,798,807
10 361		NOTATION ASSISTANCE PROGRAM	SIVAL CEUSTER	3 22,798,807	\$ 22,798,807	N		4100009131	3 19,384,298	٥	22,798,807
1 1 1		TEAM NUTRITION OF ANTE	NI/A		6		COMMONWEALTH OF	4200487026		[151.05
,, ,-,		TEAM NUTRITION GRANTS	N/A	\$ 392,391	5 -	N	PENNSYLVANIA	4300487036		\$	151,850
10 574							COMMONWEALTH OF				
		TARLET GOVERNMENT OF THE PROPERTY.					PENNSYLVANIA	4300513873	4	18	18,809
10 574 10 575		FARM TO SCHOOL GRANT PROGRAM	N/A	\$ 74,509	2 -	IN				_	
10 575					\$ -	IN	COMMONWEALTH OF				
10 575 10 575		FARM TO SCHOOL GRANT PROGRAM	N/A	\$ 74,509	\$ -	N		4300515725		\$	55,700
10 575					\$ - \$ -	N N Y Y	COMMONWEALTH OF		\$ 23,271	\$	55,700 69,764 387,475

									Amount Passed	
CFDA	Additional Award			Federal Program		Direct		Identifying number assigned	Through to	
Number	Identification	Name of Federal Award	Cluster Name	Total	Cluster Total	Award	Name of Pass-through Entity	by the Pass-through Entity	Subrecipients	Amount Expended
10 678		FOREST STEWARDSHIP PROGRAM	N/A	\$ 228,462	\$ -	Y				\$ 196,079
10 868		RURAL ENERGY FOR AMERICA PROGRAM	N/A	\$ 40,365	\$ -	Y				\$ 40,365
10 902		SOIL AND WATER CONSERVATION	N/A	\$ 18,826	\$ -	Y				\$ 18,826
10 912		ENVIRONMENTAL QUALITY INCENTIVES PROGRAM	N/A	\$ 202,478	\$ -	Y			\$ 1,600	\$ 120,837
10 912		ENVIRONMENTAL QUALITY INCENTIVES PROGRAM	N/A	\$ 202,478	\$ -	N	UNVIERSITY OF DELAWARE	69-3A75-12-244		\$ 3,393
10 961		SCIENTIFIC COOPERATION AND RESEARCH	N/A	\$ 20,032	\$ -	Y				\$ 1,770
10 U01	13-CS-11242302-099	DEPARTMENT OF AGRICULTURE - NON-SPECIFIED	N/A	\$ 72,947	\$ -	Y				\$ 8,547
10 U01	16-CR-11138100-009	DEPARTMENT OF AGRICULTURE - NON-SPECIFIED	N/A	\$ 72,947	\$ -	Y				\$ 36,341
10 U01	2015-68004-23179	DEPARTMENT OF AGRICULTURE - NON-SPECIFIED	N/A	\$ 72,947	\$ -	Y				\$ 1,406
10 U01	178427	DEPARTMENT OF AGRICULTURE - NON-SPECIFIED	N/A	\$ 72,947	\$ -	N	CORNELL UNIVERSITY	N/A		\$ 3,750
10 U01	42667	DEPARTMENT OF AGRICULTURE - NON-SPECIFIED	N/A	\$ 72,947	\$ -	N	UNVIERSITY OF DELAWARE	2015-49200-24225	\$ 7,097	\$ 22,903
							COMMONWEALTH OF			
10 U02	4100077037	NATIONAL INSTITUTE OF FOOD AND AGRICULTURE - NON-SPECIFIED	N/A	\$ 46,916	\$ -	N	PENNSYLVANIA	4100077037		\$ 46,916
11 1101	ED15HD00200022	ECONOMIC DEVELOPMENT ADMINISTRATION. NON SPECIFIED	NIA	6 210.002	Ф.	37				d 120.260
11 U01	ED15HDQ0200022	ECONOMIC DEVELOPMENT ADMINISTRATION - NON-SPECIFIED	N/A	\$ 218,982	\$ -	Y				\$ 128,269
11 U01	ED16PHI3030065	ECONOMIC DEVELOPMENT ADMINISTRATION - NON-SPECIFIED	N/A	\$ 218,982	\$ -	Y				\$ 90,713
		NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY - NON-								
11 U02	5/1/2017-9/30/2017	SPECIFIED	N/A	\$ 18,072	\$ -	Y				\$ 18,072
12 900		LANGUAGE GRANT PROGRAM	N/A	\$ 1,915	\$ -	Y				\$ 1,915
	DARPA IPA GALAMBOS									
12 U01		DEPARTMENT OF DEFENSE - NON-SPECIFIED	N/A	\$ 3,527,122	s -	Y				\$ 211,142
		DEPARTMENT OF DEFENSE - NON-SPECIFIED	N/A	\$ 3,527,122	\$ -	Y				\$ 167,679
12 U01	IPA AGREEMENT	DEPARTMENT OF DEFENSE - NON-SPECIFIED	N/A	\$ 3,527,122	\$ -	Y				\$ 310,097
12 U01	7/28/2016-7/27/2018	DEPARTMENT OF DEFENSE - NON-SPECIFIED	N/A	\$ 3,527,122	s -	Y				\$ 246,089
	IPA AGMT			, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	-	_				,
12 U01	IPAPSV16ST0006	DEPARTMENT OF DEFENSE - NON-SPECIFIED	N/A	\$ 3,527,122	¢	l v				\$ 13,320
12 U01		DEPARTMENT OF DEFENSE - NON-SPECIFIED	N/A	\$ 3,527,122	<u>\$</u> -	Y				\$ (9,000
12 U01	ARMY ROTC	DEPARTMENT OF DEFENSE - NON-SPECIFIED	N/A	\$ 3,527,122	<u>•</u>	Y				\$ (32,508
12 001	IPA ASSIGNMENT 2014-	DEFARTMENT OF BEFENSE - NON-SFECIFIED	IV/A	\$ 3,327,122	<u>ъ</u> -	1				\$ (32,300
12 1101	2016	DEPARTMENT OF DEFENSE - NON-SPECIFIED	N/A	\$ 3,527,122	¢	N	NATIONAL DEFENSE UNIVERSITY	N/A		6 5177
12 U01 12 U01		DEPARTMENT OF DEFENSE - NON-SPECIFIED	N/A	\$ 3,527,122	5 -	Y	NATIONAL DEFENSE UNIVERSITY	IN/A		\$ 5,177 \$ 107,946
12 U01	9/1/2015-8/31/2017	DEPARTMENT OF DEFENSE - NON-SPECIFIED DEPARTMENT OF DEFENSE - NON-SPECIFIED	N/A	\$ 3,527,122	<u>\$</u> -	Y				\$ 311,166
12 U01		DEPARTMENT OF DEFENSE - NON-SPECIFIED	N/A							\$ 168,241
12 001		DEPARTMENT OF DEPENSE - NON-SPECIFIED	N/A	\$ 3,527,122	2 -	Y				\$ 168,241
12 U01	DN IPA AGREEMENT 2014/2016	DEPARTMENT OF DEFENSE - NON-SPECIFIED	N/A	\$ 3,527,122	¢ _	Y				\$ (46,626
12 001	201 1/2010	DEFINITION OF DEFENDE THOSE DEFENDE	1771	5 5,527,122	<u> </u>	<u> </u>				\$ (40,020
12 U01	DN IPA AHMED 2015-2016	DEPARTMENT OF DEFENSE - NON-SPECIFIED	N/A	\$ 3,527,122	¢	Y				\$ 255,517
12 001	IPA 23734 2015-2017	DEPARTMENT OF BEFENDE - NON-SFECIFIED	10/11	5 3,327,122	φ -	1				\$ 233,317
12 U01	(ANDERSON)	DEPARTMENT OF DEFENSE - NON-SPECIFIED	N/A	\$ 3,527,122	¢	l v				\$ 38,770
		DEPARTMENT OF DEFENSE - NON-SPECIFIED	N/A	\$ 3,527,122	<u>\$</u>	Y				\$ 158,457
12 001		DEFARTMENT OF DEFENSE - NON-SFECIFIED	IVA	\$ 3,327,122	5 -	1				\$ 130,437
12 U01	IPA AGREEMENT WENCHEL 2016	DEPARTMENT OF DEFENSE - NON-SPECIFIED	N/A	\$ 3,527,122	¢	Y				\$ 278,288
12 001	WENCHEL 2010	DEFARTMENT OF DEPENSE - NON-SPECIFIED	11/73	\$ 3,327,122	Ф -	Y				a 2/8,288
12 U01	N00024-12-D-6404 DO 0407	DEPARTMENT OF DEFENSE - NON-SPECIFIED	N/A	\$ 3,527,122	s -	l v				\$ 1,319
12 U01	N49606-16-IP-002UA	DEPARTMENT OF DEFENSE - NON-SPECIFIED	N/A	\$ 3,527,122	\$	Y				\$ 293,525
12 U01		DEPARTMENT OF DEFENSE - NON-SPECIFIED	N/A	\$ 3,527,122	\$	Y				\$ 242,963
12 U01		DEPARTMENT OF DEFENSE - NON-SPECIFIED	N/A	\$ 3,527,122		Y				\$ 242,963
12 U01	176706	DEPARTMENT OF DEFENSE - NON-SPECIFIED DEPARTMENT OF DEFENSE - NON-SPECIFIED	N/A	\$ 3,527,122	•	Y				\$ 227,191
12 U01	H98230-16-1-0142	DEPARTMENT OF DEFENSE - NON-SPECIFIED	N/A	\$ 3,527,122	<u> </u>	Y				\$ 227,191
12 U01	DA IPA AGREE	DEPARTMENT OF DEFENSE - NON-SPECIFIED	N/A	\$ 3,527,122	\$	Y				\$ 242,865
12 U01	IPA AGREEMENT	DEPARTMENT OF DEFENSE - NON-SPECIFIED DEPARTMENT OF DEFENSE - NON-SPECIFIED	N/A N/A	\$ 3,527,122 \$ 3,527,122	ф - ¢	Y				\$ 242,865 \$ 217,849
12 001	II A AGREEMENT	DELAKTMENT OF DEPENSE - NON-SPECIFIED	CDBG - ENTITLEMENT GRANTS	\$ 3,327,122	Ф -	Y				a 217,849
14 218		COMMUNITY DEVELOPMENT BLOCK GRANTS/ENTITLEMENT GRANTS	CLUSTER	\$ 10,525	\$ 10,525	N	PARTNER4WORK	N/A		\$ 10,525
				2.0,0.20			COMMONWEALTH OF			1.3020
16 582		CRIME VICTIM ASSISTANCE/DISCRETIONARY GRANTS	N/A	\$ 127,780	\$ -	N	PENNSYLVANIA	26563		\$ 127,780
16 726		JUVENILE MENTORING PROGRAM	N/A	\$ 111,544	\$ -	N	NATIONAL 4-H COUNCIL	2015-JU-FX-0015		\$ 77,953
								OFFICE OF JUVENILE		
	I	JUVENILE MENTORING PROGRAM	N/A	\$ 111,544	\$ -	N	NATIONAL 4-H COUNCIL	JUSTICE AND		\$ 33,591
16 726										
16 726							COMMONWEALTH OF			

									Amount Passed		
CFDA	Additional Award	Name of Federal Accord	Charter Mana	Federal Program	Classica Tatal	Direct	Name of Daniel American English	Identifying number assigned	Through to	A	4 F d . d
Number	Identification	Name of Federal Award	Cluster Name	Total	Cluster Total	Award	Name of Pass-through Entity COMMONWEALTH OF	by the Pass-through Entity	Subrecipients	Amoun	t Expended
16 738		EDWARD BYRNE MEMORIAL JUSTICE ASSISTANCE GRANT PROGRAM	N/A	\$ 165,409	\$ -	N	PENNSYLVANIA	4400015622		S	58,147
16 U01	2016-NE-BX-K001	DEPARTMENT OF JUSTICE - NON-SPECIFIED	N/A	\$ 243,714	\$ -	Y				S	243,714
					•		COMMONWEALTH OF				- /-
17 245		TRADE ADJUSTMENT ASSISTANCE	N/A	\$ 1,320,767	\$ -	N	PENNSYLVANIA	PDLI		\$	1,320,767
							LEHIGH VALLEY WORKFORCE				
17 259		WIOA YOUTH ACTIVITIES	WIA CLUSTER	\$ 98,484	\$ 98,484	N	INVESTMENT BOARD, INC.	N/A		\$	95,134
17 259		WIO A VOLUTH ACTIVITIES	WIA CLUSTER	6 00 404	\$ 98,484	N	TRI-COUNTY WORKFORCE INVESTMENT BOARD, INC.	N/A			3,350
1/ 259		WIOA YOUTH ACTIVITIES	WIA CLUSTER	\$ 98,484	\$ 98,484	N	CENTRAL PENNSYLVANIA	N/A		\$	3,330
		WIOA NATIONAL DISLOCATED WORKER GRANTS / WIA NATIONAL					WORKFORCE DEVELOPMENT				
17 277		EMERGENCY GRANTS	N/A	\$ 56,032	\$ -	N	CORPORATION	PENN41-SECT-1701		\$	44,430
							CENTRAL PENNSYLVANIA				
		WIOA NATIONAL DISLOCATED WORKER GRANTS / WIA NATIONAL					WORKFORCE DEVELOPMENT	US DEPARTMENT OF			
17 277		EMERGENCY GRANTS	N/A	\$ 56,032	\$ -	N	CORPORATION	LABOR		\$	11,602
17 600		MINIC HEALTH AND CAPETY OF ANTO	NI/A	201 204	Ф.	NT.	COMMONWEALTH OF	4200410625		6	1.50
17 600		MINE HEALTH AND SAFETY GRANTS	N/A	\$ 301,294	\$ -	N	PENNSYLVANIA COMMONWEALTH OF	4300410625		2	152
17 600		MINE HEALTH AND SAFETY GRANTS	N/A	\$ 301,294	\$ -	N	PENNSYLVANIA	4300470895		S	1,063
17 000		I STATE OF THE STA	1022	301,274	<u> </u>	- 11	COMMONWEALTH OF	1300170033		y.	1,005
17 600		MINE HEALTH AND SAFETY GRANTS	N/A	\$ 301,294	\$ -	N	PENNSYLVANIA	4300474477		\$	83,431
							COMMONWEALTH OF				
17 600		MINE HEALTH AND SAFETY GRANTS	N/A	\$ 301,294	\$ -	N	PENNSYLVANIA	4300523410		\$	216,648
17 603		BROOKWOOD-SAGO GRANT	N/A	\$ 44,906	\$ -	Y			\$ 25,062	\$	44,906
							WEGTMORE! AND EAVETTE				
17 U01	WI0A15-17-007	DEPARTMENT OF LABOR - NON-SPECIFIED	N/A	\$ 4,769	¢	N	WESTMORELAND-FAYETTE WORKFORCE INVESTMENT BOARD	US DEPT OF LABOR		e	4,769
17 001	WIOA13-17-007	ACADEMIC EXCHANGE PROGRAMS - HUBERT H. HUMPHREY	IVA	3 4,709		IN	INSTITUTE FOR INTERNATIONAL	C3 DEI I OI LABOR		3	4,709
19 010		FELLOWSHIP PROGRAM	N/A	\$ 246,413	s -	N	EDUCATION	N/A		s	246,413
	S-LMAQM-16-CA-1221	DEPARTMENT OF STATE - NON-SPECIFIED	N/A	\$ 108,834	\$ -	Y				\$	108,834
20 106		AIRPORT IMPROVEMENT PROGRAM	N/A	\$ 6,120,524	\$ -	Y				\$	6,120,524
			HIGHWAY PLANNING AND				COMMONWEALTH OF				
20 205		HIGHWAY PLANNING AND CONSTRUCTION	CONSTRUCTION CLUSTER	\$ 664,459	\$ 546,334	N	PENNSYLVANIA	N/A		\$	546,334
20 002		DOMATION OF FEDERAL CURRILIC BERCONAL PROPERTY	NT/A	6 4.020	Ф.	NT.	COMMONWEALTH OF	NI/A		6	4.020
39 003 39 U01	GS-21F-025CA	DONATION OF FEDERAL SURPLUS PERSONAL PROPERTY GENERAL SERVICES ADMINISTRATION - NON-SPECIFIED	N/A N/A	\$ 4,839 \$ 117,271	\$ -	N Y	PENNSYLVANIA	N/A		\$	4,839 117,271
43 001	G3-211-023CA	SCIENCE	N/A	\$ 7,887,642	\$ -	Y				\$	10,080
43 008		EDUCATION	N/A	\$ 1,116,606	\$ -	Y			\$ 9,757	\$	16,201
43 008		EDUCATION	N/A	\$ 1,116,606	\$ -		TEXAS STATE UNIVERSITY	NNX14AQ30A		\$	87,214
		NATIONAL AERONAUTICS AND SPACE ADMINISTRATION - NON-					SPACE TELESCOPE SCIENCE				
43 U01	HST-EO-13802.001-A	SPECIFIED	N/A	\$ 6,338	\$ -	N	INSTITUTE	NAS5-26555		\$	6,338
		PROMOTION OF THE ARTS GRANTS TO ORGANIZATIONS AND	27/4								40.000
45 024		INDIVIDUALS	N/A	\$ 10,675	\$ -	Y				\$	10,008
								NATIONAL ENDOWMENT			
1	1	PROMOTION OF THE ARTS BARTHERSHIP A SPECIALIZE	NI/A	\$ 9,000	s -	N	MID ATLANTIC ARTS FOUNDATION	FOR THE ART		\$	9,000
45 025		PROMOTION OF THE ARTS PARTNERSHIP AGREEMENTS	N/A	3 9,000						¢	113,006
		MATHEMATICAL AND PHYSICAL SCIENCES	N/A N/A	\$ 19,720,413	\$ -	Y				φ	
47 049 47 050		MATHEMATICAL AND PHYSICAL SCIENCES GEOSCIENCES	N/A N/A	\$ 19,720,413 \$ 9,520,878	\$ - \$ -	Y				\$	8,452
47 049 47 050		MATHEMATICAL AND PHYSICAL SCIENCES GEOSCIENCES COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	N/A N/A N/A	\$ 19,720,413 \$ 9,520,878 \$ 8,297,348	\$ - \$ - \$ -	Y Y				\$	26
47 049 47 050 47 070 47 074		MATHEMATICAL AND PHYSICAL SCIENCES GEOSCIENCES COMPUTER AND INFORMATION SCIENCE AND ENGINEERING BIOLOGICAL SCIENCES	N/A N/A N/A N/A	\$ 19,720,413 \$ 9,520,878 \$ 8,297,348 \$ 9,383,901	\$ - \$ - \$ - \$ -	Y Y Y				\$ \$	26 33,929
47 049 47 050		MATHEMATICAL AND PHYSICAL SCIENCES GEOSCIENCES COMPUTER AND INFORMATION SCIENCE AND ENGINEERING	N/A N/A N/A	\$ 19,720,413 \$ 9,520,878 \$ 8,297,348	\$ - \$ - \$ - \$ -	Y Y				\$ \$ \$ \$	26
47 049 47 050 47 070 47 074 47 076		MATHEMATICAL AND PHYSICAL SCIENCES GEOSCIENCES COMPUTER AND INFORMATION SCIENCE AND ENGINEERING BIOLOGICAL SCIENCES EDUCATION AND HUMAN RESOURCES	N/A N/A N/A N/A N/A N/A	\$ 19,720,413 \$ 9,520,878 \$ 8,297,348 \$ 9,383,901 \$ 7,837,993	\$ - \$ - \$ - \$ -	Y Y Y Y	UNIVERSITY OF MASSACHUSETTS	HRD 9978878		\$ \$ \$ \$	26 33,929 657,391
47 049 47 050 47 070 47 074 47 076 47 076		MATHEMATICAL AND PHYSICAL SCIENCES GEOSCIENCES COMPUTER AND INFORMATION SCIENCE AND ENGINEERING BIOLOGICAL SCIENCES	N/A N/A N/A N/A	\$ 19,720,413 \$ 9,520,878 \$ 8,297,348 \$ 9,383,901	\$ - \$ - \$ - \$ - \$ -	Y Y Y	UNIVERSITY OF MASSACHUSETTS	HRD 9978878		\$ \$ \$ \$	26 33,929
47 049 47 050 47 070 47 074 47 076	HRD 16-49184	MATHEMATICAL AND PHYSICAL SCIENCES GEOSCIENCES COMPUTER AND INFORMATION SCIENCE AND ENGINEERING BIOLOGICAL SCIENCES EDUCATION AND HUMAN RESOURCES EDUCATION AND HUMAN RESOURCES	N/A N/A N/A N/A N/A N/A	\$ 19,720,413 \$ 9,520,878 \$ 8,297,348 \$ 9,383,901 \$ 7,837,993	\$ - \$ - \$ - \$ - \$ - \$ - \$ -	Y Y Y Y	UNIVERSITY OF MASSACHUSETTS	HRD 9978878		\$ \$ \$ \$ \$ \$	26 33,929 657,391 (12,429)
47 049 47 050 47 070 47 074 47 076 47 076 47 U01 47 U01	HRD 16-49184	MATHEMATICAL AND PHYSICAL SCIENCES GEOSCIENCES COMPUTER AND INFORMATION SCIENCE AND ENGINEERING BIOLOGICAL SCIENCES EDUCATION AND HUMAN RESOURCES EDUCATION AND HUMAN RESOURCES NATIONAL SCIENCE FOUNDATION - NON-SPECIFIED NATIONAL SCIENCE FOUNDATION - NON-SPECIFIED	N/A N/A N/A N/A N/A N/A N/A N/A	\$ 19,720,413 \$ 9,520,878 \$ 8,297,348 \$ 9,383,901 \$ 7,837,993 \$ 7,837,993 \$ 38,107	\$ - \$ - \$ - \$ - \$ - \$ - \$ -	Y Y Y Y N Y				\$ \$ \$ \$ \$ \$	26 33,929 657,391 (12,429) 6,000 32,107
47 049 47 050 47 070 47 074 47 076 47 076 47 U01	HRD 16-49184	MATHEMATICAL AND PHYSICAL SCIENCES GEOSCIENCES COMPUTER AND INFORMATION SCIENCE AND ENGINEERING BIOLOGICAL SCIENCES EDUCATION AND HUMAN RESOURCES EDUCATION AND HUMAN RESOURCES NATIONAL SCIENCE FOUNDATION - NON-SPECIFIED	N/A N/A N/A N/A N/A N/A N/A	\$ 19,720,413 \$ 9,520,878 \$ 8,297,348 \$ 9,383,901 \$ 7,837,993 \$ 7,837,993 \$ 38,107	\$ - \$ - \$ - \$ - \$ - \$ - \$ -	Y Y Y Y N Y	UNIVERSITY OF MASSACHUSETTS UNIVERSITY OF PENNSYLVANIA	HRD 9978878 SBAHQ-16-B-0043		\$ \$ \$ \$ \$ \$ \$	26 33,929 657,391 (12,429) 6,000
47 049 47 050 47 070 47 074 47 076 47 076 47 U01 47 U01 59 037	HRD 16-49184	MATHEMATICAL AND PHYSICAL SCIENCES GEOSCIENCES COMPUTER AND INFORMATION SCIENCE AND ENGINEERING BIOLOGICAL SCIENCES EDUCATION AND HUMAN RESOURCES EDUCATION AND HUMAN RESOURCES NATIONAL SCIENCE FOUNDATION - NON-SPECIFIED NATIONAL SCIENCE FOUNDATION - NON-SPECIFIED SMALL BUSINESS DEVELOPMENT CENTERS	N/A N/A N/A N/A N/A N/A N/A N/A	\$ 19,720,413 \$ 9,520,878 \$ 8,297,348 \$ 9,383,901 \$ 7,837,993 \$ 7,837,993 \$ 38,107 \$ 38,107 \$ 57,190	\$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -	Y Y Y Y Y N N Y N	UNIVERSITY OF PENNSYLVANIA	SBAHQ-16-B-0043		\$ \$ \$ \$ \$ \$ \$	26 33,929 657,391 (12,429) 6,000 32,107 57,190
47 049 47 050 47 070 47 074 47 076 47 076 47 U01 47 U01	HRD 16-49184	MATHEMATICAL AND PHYSICAL SCIENCES GEOSCIENCES COMPUTER AND INFORMATION SCIENCE AND ENGINEERING BIOLOGICAL SCIENCES EDUCATION AND HUMAN RESOURCES EDUCATION AND HUMAN RESOURCES NATIONAL SCIENCE FOUNDATION - NON-SPECIFIED NATIONAL SCIENCE FOUNDATION - NON-SPECIFIED	N/A N/A N/A N/A N/A N/A N/A N/A	\$ 19,720,413 \$ 9,520,878 \$ 8,297,348 \$ 9,383,901 \$ 7,837,993 \$ 7,837,993 \$ 38,107	\$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -	Y Y Y Y N Y		SBAHQ-16-B-0043 N/A		\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	26 33,929 657,391 (12,429) 6,000 32,107
47 049 47 050 47 070 47 074 47 076 47 076 47 U01 47 U01 59 037	HRD 16-49184 ICER-1736333	MATHEMATICAL AND PHYSICAL SCIENCES GEOSCIENCES COMPUTER AND INFORMATION SCIENCE AND ENGINEERING BIOLOGICAL SCIENCES EDUCATION AND HUMAN RESOURCES EDUCATION AND HUMAN RESOURCES NATIONAL SCIENCE FOUNDATION - NON-SPECIFIED NATIONAL SCIENCE FOUNDATION - NON-SPECIFIED SMALL BUSINESS DEVELOPMENT CENTERS	N/A N/A N/A N/A N/A N/A N/A N/A	\$ 19,720,413 \$ 9,520,878 \$ 8,297,348 \$ 9,383,901 \$ 7,837,993 \$ 7,837,993 \$ 38,107 \$ 38,107 \$ 57,190	\$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -	Y Y Y Y Y N N N N	UNIVERSITY OF PENNSYLVANIA	SBAHQ-16-B-0043		\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	26 33,929 657,391 (12,429) 6,000 32,107 57,190

CFD		News of Federal Armed	Chatas Nava	Federal Program	Claster Tetal	Direct	Nove of Deep though Forting	Identifying number assigned	Amount Passed Through to	A
Numb		Name of Federal Award CHESAPEAKE BAY PROGRAM	Cluster Name	Total \$ 476,253	Cluster Total	Award	Name of Pass-through Entity JUNIATA COUNTY CONSERVATION DISTRICT	by the Pass-through Entity US EPA	Subrecipients	Amount Expended \$ 13,564
66 46		CHESAPEAKE BAY PROGRAM	N/A	\$ 476,253	s -	N	NATIONAL FISH AND WILDLIFE FOUNDATION	0602.15.049722	\$ 7,200	\$ 104,833
66 46	6	CHESAPEAKE BAY PROGRAM	N/A	\$ 476,253	s -	N	NATIONAL FISH AND WILDLIFE FOUNDATION	N/A	\$ 21,568	\$ 49,273
66 70	8	POLLUTION PREVENTION GRANTS PROGRAM	N/A	\$ 110,064	\$ -	Y				\$ 103,246
66 70	*	POLLUTION PREVENTION GRANTS PROGRAM	N/A	\$ 110,064	s -	N	COMMONWEALTH OF PENNSYLVANIA	4100066876		\$ 6,818
66 U0		SOURCE REDUCTION ASSISTANCE ENVIRONMENTAL PROTECTION ACENICY MON SPECIFIED	N/A N/A	\$ 1,809 \$ 400,678	\$ -	Y				\$ 1,809 \$ 42,474
66 UC		ENVIRONMENTAL PROTECTION AGENCY - NON-SPECIFIED ENVIRONMENTAL PROTECTION AGENCY - NON-SPECIFIED	N/A	\$ 400,678	\$ -	N	BEAVER COUNTY, PENNSYLVANIA	4100073724		\$ 9,112
66 UC	187434	ENVIRONMENTAL PROTECTION AGENCY - NON-SPECIFIED	N/A	\$ 400,678	s -	N	DELAWARE COUNTY, PENNSYLVANIA	4100072575		\$ 52,050
66 U0	188425 PRIME 4100073722	ENVIRONMENTAL PROTECTION AGENCY - NON-SPECIFIED	N/A	\$ 400,678	\$ -	N	DELAWARE COUNTY, PENNSYLVANIA	4100073722		\$ 30,161
66 UC	01 186461; PRIME 4100072437	ENVIRONMENTAL PROTECTION AGENCY - NON-SPECIFIED	N/A	\$ 400,678	s -	N	FRANKLIN COUNTY, PENNSYLVANIA	4100072437		\$ 24,092
66 UC	01 4100076424	ENVIRONMENTAL PROTECTION AGENCY - NON-SPECIFIED	N/A	\$ 400,678	\$ -	N	FRANKLIN COUNTY, PENNSYLVANIA	7C-FA-28.0		\$ 22,327
66 UC	01 186457 DEP #4100072340	ENVIRONMENTAL PROTECTION AGENCY - NON-SPECIFIED	N/A	\$ 400,678	s -	N	LEHIGH COUNTY, PENNSYLVANIA	4100072340		\$ 54,837
66 U	1 4100073714; SUB 189759	ENVIRONMENTAL PROTECTION AGENCY - NON-SPECIFIED	N/A	\$ 400,678	· -	N	LEHIGH COUNTY, PENNSYLVANIA	4100073714		\$ 28,868
66 U0		ENVIRONMENTAL PROTECTION AGENCY - NON-SPECIFIED	N/A	\$ 400,678	s -	N	NORTHAMPTON COUNTY, PENNSYLVANIA	4100073588		\$ 47,637
66 UC		ENVIRONMENTAL PROTECTION AGENCY - NON-SPECIFIED	N/A	\$ 400,678	\$ -	N	SUSTAINABLE CHESAPEAKE	0602.16.053565		\$ 89,120
81 04	1	STATE ENERGY PROGRAM	N/A	\$ 674,038	s -	N	COMMONWEALTH OF PENNSYLVANIA	4300420329		\$ (4
81 04		STATE ENERGY PROGRAM	N/A	\$ 674,038	\$ -	N	COMMONWEALTH OF PENNSYLVANIA	4300512838		\$ 472,085
81 04		OFFICE OF SCIENCE FINANCIAL ASSISTANCE PROGRAM	N/A	4 10,000,017	\$ -	Y			0 56 600	\$ 12,735
81 08	1	RENEWABLE ENERGY RESEARCH AND DEVELOPMENT	N/A	\$ 1,777,994	-	Y			\$ 76,628	\$ 76,628
81 UC)1 P217A120086-15B & 16	DEPARTMENT OF ENERGY - NON-SPECIFIED	N/A	\$ 316,049	s -	Y				\$ 219,915
81 UC	1 4300512722	DEPARTMENT OF ENERGY - NON-SPECIFIED	N/A	\$ 316,049	s -	N	COMMONWEALTH OF PENNSYLVANIA	4300512722		\$ 96,134
84 00	2	ADULT EDUCATION - BASIC GRANTS TO STATES	N/A	\$ 1,232,288	s -	N	COMMONWEALTH OF PENNSYLVANIA	064-160039		\$ 517
84 00	2	ADULT EDUCATION - BASIC GRANTS TO STATES	N/A	\$ 1,232,288	\$ -	N	COMMONWEALTH OF PENNSYLVANIA	064-16-0040		\$ 347
84 00	2	ADULT EDUCATION - BASIC GRANTS TO STATES	N/A	\$ 1,232,288	s -	N	COMMONWEALTH OF PENNSYLVANIA	064-170039		\$ 310,950
84 00	2	ADULT EDUCATION - BASIC GRANTS TO STATES	N/A	\$ 1,232,288	s -	N	COMMONWEALTH OF PENNSYLVANIA	064-170040		\$ 164,784
84 00	2	ADULT EDUCATION - BASIC GRANTS TO STATES	N/A	\$ 1,232,288	s -	N	COMMONWEALTH OF PENNSYLVANIA	099-160001		\$ 1,161
84 00	2	ADULT EDUCATION - BASIC GRANTS TO STATES	N/A	\$ 1,232,288	\$ -	N	COMMONWEALTH OF PENNSYLVANIA	099-160002		\$ 1,700
84 00	2	ADULT EDUCATION - BASIC GRANTS TO STATES	N/A	\$ 1,232,288	s -	N	COMMONWEALTH OF PENNSYLVANIA	099-170001	\$ 60,000	\$ 189,320
84 00	2	ADULT EDUCATION - BASIC GRANTS TO STATES	N/A	\$ 1,232,288	\$ -	N	COMMONWEALTH OF PENNSYLVANIA	099-170002		\$ 250,783
84 00	2	ADULT EDUCATION - BASIC GRANTS TO STATES	N/A	\$ 1,232,288	s -	N	COMMONWEALTH OF PENNSYLVANIA	099-170003		\$ 205,613
84 00	2	ADULT EDUCATION - BASIC GRANTS TO STATES	N/A	\$ 1,232,288	s -	N	COMMONWEALTH OF PENNSYLVANIA	FA-099-16-0003		\$ 107,113
84 02	7	SPECIAL EDUCATION GRANTS TO STATES	SPECIAL EDUCATION CLUSTER (IDEA)	\$ 484,791	\$ 477,196	N	COMMONWEALTH OF PENNSYLVANIA	062-160042		\$ 64,616
84 02	7	SPECIAL EDUCATION GRANTS TO STATES	SPECIAL EDUCATION CLUSTER (IDEA)	\$ 484,791	\$ 477,196	N	COMMONWEALTH OF PENNSYLVANIA	062-170042		\$ 412,580

CFDA	Additional Award			Federal Program		Direct		Identifying number assigned	Amount Passed Through to		
Number	Identification	Name of Federal Award	Cluster Name	Total	Cluster Total	Award	Name of Pass-through Entity	by the Pass-through Entity	Subrecipients	Amor	unt Expended
84 044		TRIO TALENT SEARCH	TRIO CLUSTER	\$ 112,793	\$ 306,396	Y	,	, ,		s	112,793
84 047		TRIO UPWARD BOUND	TRIO CLUSTER	\$ 90,313	\$ 306,396	Y				\$	90,313
84 047 84 217		TRIO MCNAIR POST-BACCALAUREATE ACHIEVEMENT	TRIO CLUSTER	\$ 103,290	\$ 306,396	Y				\$	103,290
84 048		CAREER AND TECHNICAL EDUCATION - BASIC GRANTS TO STATES	N/A	\$ 216,605	s -	N	COMMONWEALTH OF PENNSYLVANIA	119 170003		s	216,605
		REHABILITATION SERVICES VOCATIONAL REHABILITATION GRANTS		,			COMMONWEALTH OF			_	
84 126		TO STATES	N/A	\$ 235,126	\$ -	N	PENNSYLVANIA	N/A		\$	235,126
84 129		REHABILITATION LONG-TERM TRAINING	N/A	\$ 201,556	\$ -	Y				\$	201,556
		SPECIAL EDUCATION - PERSONNEL DEVELOPMENT TO IMPROVE									
84 325		SERVICES AND RESULTS FOR CHILDREN WITH DISABILITIES	N/A	\$ 511,040	\$ -	Y				\$	511,040
84 365		ENGLISH LANGUAGE ACQUISITION STATE GRANTS	N/A	\$ 206,215	\$ -	Y				\$	99,990
							COMMONWEALTH OF				
84 367		SUPPORTING EFFECTIVE INSTRUCTION STATE GRANTS	N/A	\$ 285,231	\$ -	N	PENNSYLVANIA	071-800045	\$ 223,366	\$	262,101
84 367		SUPPORTING EFFECTIVE INSTRUCTION STATE GRANTS	N/A	\$ 285,231	\$ -	N	NATIONAL WRITING PROJECT	N/A		\$	16,508
84 367		SUPPORTING EFFECTIVE INSTRUCTION STATE GRANTS	N/A	\$ 285,231	\$ -	N	NATIONAL WRITING PROJECT	U367D150004		\$	4,791
		TRANSITION PROGRAMS FOR STUDENTS WITH INTELLECTUAL									
84 407		DISABILITIES INTO HIGHER EDUCATION	N/A	\$ 44,107	\$ -	N	MILLERSVILLE UNIVERSITY	P407A100034		\$	44,107
84 U01		DEPARTMENT OF EDUCATION - NON-SPECIFIED	N/A	\$ 2,796,570	\$ -	Y				\$	81,534
84 U01	P044A160461	DEPARTMENT OF EDUCATION - NON-SPECIFIED	N/A	\$ 2,796,570	\$ -	Y				\$	341,840
84 U01	P044A160465 ACTION 1	DEPARTMENT OF EDUCATION - NON-SPECIFIED	N/A	\$ 2,796,570	\$ -	Y				\$	147,751
84 U01	P044A160470 ACTION 1	DEPARTMENT OF EDUCATION - NON-SPECIFIED	N/A	\$ 2,796,570	\$ -	Y				\$	178,526
	P047A120871-15	DEPARTMENT OF EDUCATION - NON-SPECIFIED	N/A	\$ 2,796,570	\$ -	Y				\$	(9,503)
84 U01	P047A120871-16	DEPARTMENT OF EDUCATION - NON-SPECIFIED	N/A	\$ 2,796,570	\$ -	Y				\$	440,155
84 U01	P047A120875-16	DEPARTMENT OF EDUCATION - NON-SPECIFIED	N/A	\$ 2,796,570	\$ -	Y				\$	196,464
84 U01	P047A170384	DEPARTMENT OF EDUCATION - NON-SPECIFIED	N/A	\$ 2,796,570	\$ -	Y				\$	70,058
84 U01	P047M120100-16	DEPARTMENT OF EDUCATION - NON-SPECIFIED	N/A	\$ 2,796,570	\$ -	Y				\$	124,681
84 U01	P047M120100-4	DEPARTMENT OF EDUCATION - NON-SPECIFIED	N/A	\$ 2,796,570	\$ -	Y				\$	103,694
84 U01	P066A120043 ACTION 5	DEPARTMENT OF EDUCATION - NON-SPECIFIED	N/A	\$ 2,796,570	\$ -	Y				\$	202,716
84 U01	P066A120043-15	DEPARTMENT OF EDUCATION - NON-SPECIFIED	N/A	\$ 2,796,570	\$ -	Y				\$	43,094
84 U01	P066A160255 ACTION1	DEPARTMENT OF EDUCATION - NON-SPECIFIED	N/A	\$ 2,796,570	\$ -	Y				s	150,219
84 U01	R305B150033	DEPARTMENT OF EDUCATION - NON-SPECIFIED	N/A	\$ 2,796,570	\$ -	Y				\$	638,183
84 U01	T365Z110200 ACTION 8	DEPARTMENT OF EDUCATION - NON-SPECIFIED	N/A	\$ 2,796,570	s -	Y			\$ 16,521	S	87,158
93 107		AREA HEALTH EDUCATION CENTERS	N/A	\$ 662,047	\$ -	Y			\$ 493,656		662,047
93 113		ENVIRONMENTAL HEALTH	N/A	\$ 2,122,886	\$ -	Y			,	S	31,104
93 241		STATE RURAL HOSPITAL FLEXIBILITY PROGRAM	N/A	\$ 421,381	\$ -	Y				S	421,381
93 242		MENTAL HEALTH RESEARCH GRANTS	N/A	\$ 4,650,266	\$ -	Y				S	31,781
		SUBSTANCE ABUSE AND MENTAL HEALTH SERVICES PROJECTS OF		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,							
93 243		REGIONAL AND NATIONAL SIGNIFICANCE	N/A	\$ 9,745	\$ -	N	YORK/ADAMS MH-IDD PROGRAM	1-U79-SM061750-01		\$	9,745
93 247		ADVANCED NURSING EDUCATION WORKFORCE GRANT PROGRAM	N/A	\$ 3,665	\$ -	Y				\$	3,665
93 262		OCCUPATIONAL SAFETY AND HEALTH PROGRAM	N/A	\$ 416,965	s -	N	MARSHFIELD CLINIC RESEARCH INSTITUTE	2U54OH009568-07		s	49,772
				,,			MARSHFIELD CLINIC RESEARCH			_	
93 262		OCCUPATIONAL SAFETY AND HEALTH PROGRAM	N/A	\$ 416,965	\$ -	N	INSTITUTE	5U54OH009568-08		\$	74,932
93 262		OCCUPATIONAL SAFETY AND HEALTH PROGRAM	N/A	\$ 416,965	\$ -	N	MARSHFIELD CLINIC RESEARCH INSTITUTE	CDC-NIOSH I2U54OH010170-06		\$	10,471
93 273		ALCOHOL RESEARCH PROGRAMS	N/A	\$ 2,968,111	\$ -	Y				\$	53,300
93 279		DRUG ABUSE AND ADDICTION RESEARCH PROGRAMS	N/A	\$ 6,646,265	\$ -	Y				\$	35,408
93 350		NATIONAL CENTER FOR ADVANCING TRANSLATIONAL SCIENCES	N/A	\$ 5,045,155	\$ -	Y				\$	81,941
93 358		ADVANCED EDUCATION NURSING TRAINEESHIPS	N/A	\$ 334,067	\$ -	Y				\$	334,067
93 398		CANCER RESEARCH MANPOWER	N/A	\$ 332,565	\$ -	Y				\$	96,884
93 558		TEMPORARY ASSISTANCE FOR NEEDY FAMILIES	TANF CLUSTER	\$ 29,532	\$ 29,532		LEHIGH VALLEY WORKFORCE INVESTMENT BOARD, INC.	1502PATANF		\$	29,532
				7,000	. ,,,,,		COMMONWEALTH OF				. ,,,,,,
						1	PENNSYLVANIA				

CFDA Number	Additional Award Identification	Name of Federal Award	Cluster Name		al Program Γotal	Cluster Total	Direct Award	Name of Pass-through Entity	Identifying number assigned by the Pass-through Entity	Amount Passed Through to Subrecipients	Amou	ınt Expended
93 575		CHILD CARE AND DEVELOPMENT BLOCK GRANT	CCDF CLUSTER	s	1,104,472	\$ 1,087,2	5 N	CHILD CARE CONSULTANTS, INC.	DHHS		\$	108,904
93 575		CHILD CARE AND DEVELOPMENT BLOCK GRANT	CCDF CLUSTER	s	1,104,472	\$ 1,087,2	5 N	CHILD CARE CONSULTANTS, INC.	N/A		\$	818,782
93 575		CHILD CARE AND DEVELOPMENT BLOCK GRANT	CCDF CLUSTER	\$	1,104,472	\$ 1,087,2	5 N	GEORGIA DEPARTMENT OF EARLY CARE AND LEARNING	N/A		\$	77,498
93 575		CHILD CARE AND DEVELOPMENT BLOCK GRANT	CCDF CLUSTER	s	1,104,472	\$ 1,087,2	5 N	NORTHWEST INSTITUTE OF RESEARCH	4100029171		\$	28,999
93 575		CHILD CARE AND DEVELOPMENT BLOCK GRANT	CCDF CLUSTER	\$	1,104,472	\$ 1,087,2	5 N	NORTHWEST INSTITUTE OF RESEARCH	N/A		\$	1,010
93 575		CHILD CARE AND DEVELOPMENT BLOCK GRANT	CCDF CLUSTER	\$	1,104,472	\$ 1,087,2	5 N	PUBLIC HEALTH MANAGEMENT CORPORATION	N/A		\$	4,745
93 575		CHILD CARE AND DEVELOPMENT BLOCK GRANT	CCDF CLUSTER	\$	1,104,472	\$ 1,087,2	5 N	VERMONT DEPARTMENT FOR CHILDREN AND FAMILIES	10601VTCCDF		\$	47,307
93 758		PREVENTIVE HEALTH AND HEALTH SERVICES BLOCK GRANT FUNDED SOLELY WITH PREVENTION AND PUBLIC HEALTH FUNDS (PPHF)	N/A	s	(30,172)	\$	- N	COMMONWEALTH OF PENNSYLVANIA	4100065734		\$	(30,172)
93 817		HOSPITAL PREPAREDNESS PROGRAM (HPP) EBOLA PREPAREDNESS AND RESPONSE ACTIVITIES	N/A	s	13,121	\$	- N	COMMONWEALTH OF PENNSYLVANIA	N/A		\$	13,121
93 837		CARDIOVASCULAR DISEASES RESEARCH	N/A	\$	9,344,315	\$	- Y				\$	24,924
93 847		DIABETES, DIGESTIVE, AND KIDNEY DISEASES EXTRAMURAL RESEARCH	N/A	s	8,136,170	S	- Y				\$	62,872
93 855		ALLERGY AND INFECTIOUS DISEASE RESEARCH	N/A	\$ 1	14,374,708	\$	- Y				\$	35,777
93 859		BIOMEDICAL RESEARCH AND RESEARCH TRAINING	N/A		13,194,842	\$	- Y				\$	164,143
93 879 93 879		MEDICAL LIBRARY ASSISTANCE MEDICAL LIBRARY ASSISTANCE	N/A N/A	\$	101,603 101,603	\$	- Y	UNIVERSITY OF PITTSBURGH	1UG4LM012342-01		\$	89,347 12,256
93 884		GRANTS FOR PRIMARY CARE TRAINING AND ENHANCEMENT	N/A	s	419,239	\$	- Y				\$	419,239
93 889		NATIONAL BIOTERRORISM HOSPITAL PREPAREDNESS PROGRAM	N/A	s	18,740	\$	- N	COMMONWEALTH OF PENNSYLVANIA	4100062657		\$	18,740
93 912		RURAL HEALTH CARE SERVICES OUTREACH, RURAL HEALTH NETWORK DEVELOPMENT AND SMALL HEALTH CARE PROVIDER QUALITY IMPROVEMENT PROGRAM	N/A	s	592	\$	- N	PENNSYLVANIA MOUNTAINS HEALTHCARE ALLIANCE	R01RH26277		\$	592
93 913		GRANTS TO STATES FOR OPERATION OF STATE OFFICES OF RURAL HEALTH	N/A	\$	165,508	\$	- Y				\$	165,508
93 940		HIV PREVENTION ACTIVITIES HEALTH DEPARTMENT BASED	N/A	s	77,899	\$	- N	COMMONWEALTH OF PENNSYLVANIA	4300536547		\$	77,899
02 045		ASSISTANCE PROGRAMS FOR CHRONIC DISEASE PREVENTION AND CONTROL	NI/A		102.000	¢	N	COMMONWEALTH OF	4100074915		6	193,900
93 945 93 989		INTERNATIONAL RESEARCH AND RESEARCH TRAINING	N/A N/A	\$	193,900 393,436	\$	- N - Y	PENNSYLVANIA	4100074815	\$ 25,130	\$	123,703
93 994		MATERNAL AND CHILD HEALTH SERVICES BLOCK GRANT TO THE STATES	N/A	s	128,638	\$	- N	COMMONWEALTH OF PENNSYLVANIA	4100065723		\$	128,638
93 U01	1-4100070188-16/17	DEPARTMENT OF HEALTH AND HUMAN SERVICES - NON-SPECIFIED	N/A	s	1,009,272	\$	- N	BERKS COUNTY INTERMEDIATE UNIT	4100070188		\$	808,790
93 U01	N/A	DEPARTMENT OF HEALTH AND HUMAN SERVICES - NON-SPECIFIED	N/A	\$	1,009,272	\$	- N	COMMONWEALTH OF PENNSYLVANIA	N/A		\$	6,084
93 U01	182099	DEPARTMENT OF HEALTH AND HUMAN SERVICES - NON-SPECIFIED	N/A	s	1,009,272	\$	- N	COMMUNITY SERVICES FOR CHILDREN	N/A		\$	1
93 U01	187927	DEPARTMENT OF HEALTH AND HUMAN SERVICES - NON-SPECIFIED	N/A	s	1,009,272	\$	- N	COMMUNITY SERVICES FOR CHILDREN	4100029168		\$	720
93 U01	7/1/2015-6/30/2016	DEPARTMENT OF HEALTH AND HUMAN SERVICES - NON-SPECIFIED	N/A	s	1,009,272	\$	- N	COMMUNITY SERVICES FOR CHILDREN	N/A		\$	1
93 U01	CUDC-907-201	DEPARTMENT OF HEALTH AND HUMAN SERVICES - NON-SPECIFIED	N/A	\$	1,009,272	\$	- N	CURIS, INC.	CUDC-907-201		\$	10,200
93 U01	BTCRC-GI13-002	DEPARTMENT OF HEALTH AND HUMAN SERVICES - NON-SPECIFIED	N/A	s	1,009,272	\$	- N	HOOSIER CANCER RESEARCH NETWORK	NCT02575339		\$	14,000
93 U01	ICPI	DEPARTMENT OF HEALTH AND HUMAN SERVICES - NON-SPECIFIED	N/A	\$	1,009,272	\$	- N	INTERSOCIETY COUNCIL FOR PATHOLOGY INFORMATION	147010		\$	544
93 U01	1C1CMS331021-01-00	DEPARTMENT OF HEALTH AND HUMAN SERVICES - NON-SPECIFIED	N/A	\$	1,009,272	\$	- N	JOSLIN DIABETES CENTER	N/A		\$	116,332
93 U01	1C1CMS331021-01-00-PSU	DEPARTMENT OF HEALTH AND HUMAN SERVICES - NON-SPECIFIED	N/A	\$	1,009,272	\$	- N	JOSLIN DIABETES CENTER	1C1CMS331021-01-00		\$	(3,059)

CFDA Numbe		Name of Federal Award	Cluster Name	Fede	eral Program Total	Cluster Total	Direct Award	Name of Pass-through Entity	Identifying number assigned by the Pass-through Entity	T	nount Passed hrough to brecipients	Amo	ount Expended
				Ī				NORTHWEST INSTITUTE OF					
93 U0	1 184376	DEPARTMENT OF HEALTH AND HUMAN SERVICES - NON-SPECIFIED	N/A	\$	1,009,272	\$ -		RESEARCH	N/A			\$	(1)
93 U0	1 185146	DEPARTMENT OF HEALTH AND HUMAN SERVICES - NON-SPECIFIED	N/A	s	1,009,272	\$ -		NORTHWEST INSTITUTE OF RESEARCH	N/A			\$	2,002
93 U0	1 7/1/2015-6/30/2016	DEPARTMENT OF HEALTH AND HUMAN SERVICES - NON-SPECIFIED	N/A	s	1,009,272	\$ -	N	NORTHWEST INSTITUTE OF RESEARCH	N/A			\$	(1)
93 U0	1 178209	DEPARTMENT OF HEALTH AND HUMAN SERVICES - NON-SPECIFIED	N/A	\$	1,009,272	\$ -		PENNSYLVANIA ASSOCIATION OF COMMUNITY HEALTH CENTERS	N/A			\$	21,011
93 U0	1 R2810-ONC-1423	DEPARTMENT OF HEALTH AND HUMAN SERVICES - NON-SPECIFIED	N/A	\$	1,009,272	\$ -	N	REGENERON PHARMACEUTICALS, INC.	PSHCI 15-053			\$	37,436
93 U0	1 R2810-ONC-1425	DEPARTMENT OF HEALTH AND HUMAN SERVICES - NON-SPECIFIED	N/A	s	1,009,272	\$ -		REGENERON PHARMACEUTICALS, INC.	R2810-ONC-1425			\$	(4,788)
93 U0		NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	N/A	\$	846,633	\$ -	Y					\$	16,087
93 U0		NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	N/A	\$	846,633	\$ -	Y					\$	11,665
93 U0	2 219446	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	N/A	\$	846,633	\$ -	N	DAIICHI SANKYO, INC.	DS1040-A-U103			\$	6,442
93 U0	2 RAD-1FN-CS-003	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	N/A	\$	846,633	\$ -	N	FKD THERAPIES OY	CTO 1833 LOG 186214			\$	26,500
93 U0	2 LTS13930	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	N/A	\$	846,633	\$ -	N	GENZYME CORPORATION	CTO1677			\$	3,055
93 U0	2 BRE 15-016	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	N/A	\$	846,633	\$ -		HOOSIER CANCER RESEARCH NETWORK	CTO #1825			\$	14,130
93 U0	2 MK-3475-062-0047	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	N/A	\$	846,633	\$ -	N	MERCK & CO., INC.	180069 CTO 1835			\$	17,100
93 U0	2 TRINITI-CLEEX11XUS29	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	N/A	s	846,633	\$ -	N	NOVARTIS	139556			\$	11,781
	2 UNIV OF PA	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	N/A	\$	846,633	\$ -		UNIVERSITY OF PENNSYLVANIA	N/A			\$	737,373
	2 0039845 (126156)	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	N/A	\$	846,633	\$ -		UNIVERSITY OF PITTSBURGH	5R01AA023260-02			\$	1,000
93 U0	2 0050256 (127316-13)	NATIONAL INSTITUTES OF HEALTH - NON-SPECIFIED	N/A	\$	846,633	\$ -	N	UNIVERSITY OF PITTSBURGH	1UG4LM012342-01			\$	1,500
97 036		· · · · · · · · · · · · · · · · · · ·	N/A	\$	328,901	\$ -		COMMONWEALTH OF PENNSYLVANIA	N/A			\$	328,901
97 U0	1 4/25/2016-7/31/2017		N/A	\$	107,498	\$ -	Y					\$	107,498
98 001		USAID FOREIGN ASSISTANCE FOR PROGRAMS OVERSEAS	N/A	\$	1,324,628	\$ -	N	MICHIGAN STATE UNIVERSITY	AID-OAA-A-13-00006	\$	15,653	\$	30,759
\Box													
									Total	8	72,115,888	\$	1,296,269,993

1. BASIS OF PRESENTATION AND ACCOUNTING

The purpose of the Schedule of Expenditures of Federal Awards ("the Schedule") is to present a summary of the activities of The Pennsylvania State University ("the University") for the year ended June 30, 2017 which have been financed by the United States Government. The federal award information is presented in accordance with the provisions of Office of Management and Budget ("OMB") Title 2 U.S. Code of Federal Regulations Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* ("Uniform Guidance"). The Schedule is prepared on the accrual basis of accounting.

Expenditures for federal awards are determined using the cost accounting principles and procedures set forth in OMB Circular A-21, *Cost Principles for Educational Institutions*, and the uniform administrative requirements as set forth in OMB Circular A-110, *Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations*, or the administrative and cost principles contained in Uniform Guidance, as applicable. Amounts passed through to subrecipients represent amounts paid to a third party for effort performed in support of the University's federal awards. The University has not elected to use the 10% de minimis indirect cost rate.

Because the Schedule presents only a selected portion of the activities of the University, it is not intended to, and does not, present the financial position, results of operations or cash flows of the University.

The University's consolidated financial statements are prepared on the accrual basis of accounting in conformity with accounting principles generally accepted in the United States of America (GAAP). The Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC) is the source of Authoritative GAAP. The University's consolidated financial statements include statements of financial position, activities and cash flows. In accordance with FASB ASC requirements, net assets and the changes in net assets are classified as permanently restricted, temporarily restricted or unrestricted.

Negative amounts shown on the Schedule represent adjustments or credits made in the normal course of business to amounts reported as expenditures in prior years. Pass-through entity identifying numbers are presented where available.

2. FEDERAL LOAN PROGRAMS

The University administers the following federal loan programs:

_Title	CFDA No.	Federal Contributi Year I June 30	on for the Ended	Loan Expenditures And Disbursements	Outstanding Balance at une 30, 2017
Federal Perkins Loan Program Health Professions Student Loan Program	84.038 93.342	\$	-	\$ -	\$ 42,772,219 39,353

The above expenditures for the loan programs include disbursements and expenditures such as loans to students and administrative expenditures. The Schedule only includes administrative allowances charged to the loan program.

3. FEDERAL DIRECT LOAN PROGRAM

The University participates in the Federal Direct Student Loan Program (CFDA No. 84.268) including Federal Stafford Loans and Federal PLUS Loans. Loan disbursements under the program for the year ended June 30, 2017 totaled \$547,739,058.

4. SUMMARY SCHEDULE

Programs:	CFDA <u>No.</u>	Subcontract Expenditures	<u>Expenditures</u>
Research and development cluster: Direct funding Pass-through funds – Commonwealth of Pennsylvania Pass-through funds – other institutions Total research and development cluster		\$ 49,325,160 93,454 2,043,577 51,462,191	\$ 478,791,898 3,106,191 62,587,939 544,486,028
Student financial aid cluster (direct): Department of Education:			
Federal Supplemental Educational Opportunity Grant	84.007	_	4,304,806
Federal Work Study Program	84.033	_	2,862,242
Federal Perkins Loan Program	84.038	_	42,772,219
Federal Pell Grant Program	84.063	_	83,599,740
Federal Direct Loan Program	84.268	-	547,739,058
Department of Health and Human Services:			, ,
Health Professions Student Loan Program	93.342		39,353
Total student financial aid cluster		_	681,317,418
Other programs:			
Cooperative Extension Program State Administrative Matching Grants for the Supplemental	10.500	62,890	11,987,140
Nutrition Assistance Program	10.561	19,584,298	22,798,807
Department of Defense – Non-Specified	12.xxx	-	3,527,122
Airport Improvement Program	20.106	-	6,120,524
Other direct funding		671,625	10,902,471
Other pass-through funds – Commonwealth of Pennsylvania		283,366	10,308,208
Other pass-through funds – other institutions		<u>51,518</u>	4,822,275
Total other programs		20,653,697	70,466,547
Total programs		<u>\$ 72,115,888</u>	<u>\$1,296,269,993</u>



Deloitte & Touche LLP 1700 Market Street Philadelphia, PA 19103

Tel: 215-246-23

Tel: 215-246-2300 Fax: 215-448-2278 www.deloitte.com

INDEPENDENT AUDITORS' REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH GOVERNMENT AUDITING STANDARDS

To the Board of Trustees of The Pennsylvania State University University Park, Pennsylvania

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 The Pennsylvania State University and subsidiaries (the "University"), which comprise the consolidated statements of financial position as of June 30, 2017, and the related consolidated statements of activities and cash flows for the years then ended, and the related notes to the consolidated financial statements, and have issued our report thereon dated October 20, 2017.

The consolidated financial statements of the University include various subsidiaries as outlined in Note 1 to the consolidated financial statements. The Penn State Health subsidiaries, including Saint Joseph's Regional Health Network and Medical Group and Nittany Health, Inc. and The Corporation for Penn State subsidiaries, including Penn State Recycling Markets Center, Research Park Management Corporation, The Pennsylvania State University Philanthropic Fund, Ben Franklin Technology Center of Central & Northern PA, Penn State Research Foundation, Research Park Hotel Corporation, and Nittany Insurance Company, are audited in accordance with generally accepted auditing standards, but were not audited in accordance with *Government Auditing Standards* and accordingly this report does not include reporting on internal control over financial reporting or instances of reportable noncompliance associated with these entities.

Internal Control Over Financial Reporting

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

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

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

Compliance and Other Matters

As part of obtaining reasonable assurance about whether the University's consolidated financial statements are free of 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 consolidated financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Purpose of this Report

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

October 20, 2017

Deloitte & Touche LLP



Deloitte & Touche LLP

1700 Market Street Philadelphia, PA 19103

JJA

Tel: 215-246-2300 Fax: 215-448-2278 www.deloitte.com

INDEPENDENT AUDITORS' REPORT ON COMPLIANCE FOR EACH MAJOR FEDERAL PROGRAM; REPORT ON INTERNAL CONTROL OVER COMPLIANCE; AND REPORT ON SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS REQUIRED BY THE UNIFORM GUIDANCE

To the Board of Trustees of The Pennsylvania State University University Park, Pennsylvania

Report on Compliance for Each Major Federal Program

We have audited The Pennsylvania State University and subsidiaries (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, 2017. 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.

Our audit, described below, did not include the operations of the Penn State Health subsidiaries, including Saint Joseph's Regional Health Network and Medical Group and Nittany Health, Inc. and The Corporation for Penn State subsidiaries, including Penn State Recycling Markets Center, Research Park Management Corporation, The Pennsylvania State University Philanthropic Fund, Ben Franklin Technology Center of Central & Northern PA, Penn State Research Foundation, Research Park Hotel Corporation, and Nittany Insurance Company, because these subsidiaries did not receive federal awards subject to audit in accordance with the Uniform Grant Guidance. The University's consolidated financial statements include the Pennsylvania College of Technology ("PCT"), which received \$55,456,446 in federal awards which are not included in the University's Schedule of Expenditures of Federal Awards during the year ended June 30, 2017. Our audit, described below, did not include the operation of the PCT because PCT engaged other auditors to perform an audit in accordance with OMB Compliance Supplement for the year ended June 30, 2017.

Management's Responsibility

Management is responsible for compliance with the federal statues, 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, 2017.

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 University's internal control over compliance.

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

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

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

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

We have audited the consolidated financial statements of the University as of and for the year ended June 30, 2017, and have issued our report thereon dated October 20, 2017, which contained an unmodified opinion on those consolidated financial statements. Our audit was conducted for the purpose of forming an opinion on the consolidated financial statements as a

whole. The accompanying schedule of expenditures of federal awards is presented for purposes of additional analysis as required by the Uniform Guidance and is not a required part of the consolidated financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the consolidated financial statements. The information has been subjected to the auditing procedures applied in the audit of the consolidated financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the consolidated financial statements or to the consolidated financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the schedule of expenditure of federal awards is fairly stated in all material respects in relation to the consolidated financial statements as a whole.

Deloitte & Touche UP

March 26, 2018

THE PENNSYLVANIA STATE UNIVERSITY

SCHEDULE OF FINDINGS AND QUESTIONED COSTS FOR THE YEAR ENDED JUNE 30, 2017

SECTION I—SUMMARY OF AUDITORS' RESULTS											
Financial Statements											
Type of report the auditor issued on whether the financial statements audited were prepared in accordance with GAAP: UNMODIFIED											
Internal control over financial reporting:											
Material weakness (es) identified?	yes	X no									
Significant deficiency (ies) identified?	yes	Xnone reported									
Noncompliance material to financial statements noted?	yes	Xno									
Federal Awards											
Internal control over major federal programs:											
Material weakness (es) identified?	yes	X no									
Significant deficiency (ies) identified?	yes	Xnone reported									
Type of auditor's report issued on compliance for major t	federal programs: Unmo	odified.									
Any audit findings disclosed that are required to be reported in accordance with 2 CFR 200.516(a)?	yes	X no									
Identification of major federal programs: Student Financial Aids Cluster (See "Schedule of Expenditures of Federal Awards for Cluster CFDA) Cooperative Extension Service - CFDA 10.500 State Administrative Matching Grants For the Supplemental Nutrition Assistance Program – CFDA 10.561 Airport Improvement Program – CFDA 20.106 Department of Defense – Non-Specified – CFDA 12.U01 Dollar threshold used to distinguish between type A and type B programs:											
Auditee qualified as low-risk auditee?	X_yes	no									

SECTION II — FINANCIAL STATEMENT FINDINGS

The audit disclosed no items required to be disclosed in this section.

SECTION III—FEDERAL AWARD FINDINGS AND QUESTIONED COSTS

The audit disclosed no items required to be disclosed in this section.

THE PENNSYLVANIA STATE UNIVERSITY

SCHEDULE OF STATUS ON PRIOR YEAR FINDINGS FOR THE YEAR ENDED JUNE 30, 2017

Prior year audit Schedule of Findings and Questioned Costs did not contain any findings; therefore no items required to be reported in this section.
