

Federal Awards Supplemental Information June 30, 2021

Purdue University

Contents

Independent	Auditor's	Reports
-------------	------------------	---------

Report on Schedule of Expenditures of Federal Awards Required by the Uniform Guidance	1
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>	2-3
Report on Compliance for Each Major Federal Program and Report on Internal Control Over Compliance Required by the Uniform Guidance	4-5
Schedule of Expenditures of Federal Awards	6-59
Notes to Schedule of Expenditures of Federal Awards	60-62
Schedule of Findings and Questioned Costs	63-73

Plante & Moran, PLLC



Suite 300 537 E. Pete Rose Way Cincinnati, OH 45202-3578 Tel: 513.595.8800 Fax: 513.595.8806 plantemoran.com

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

Independent Auditor's Report

To the Board of Trustees Purdue University

We have audited the financial statements of the business-type activities, the fiduciary activities, and the aggregate discretely presented component units of Purdue University (the "University"), a component unit of the State of Indiana, as of and for the year ended June 30, 2021, and the related notes to the financial statements, which collectively comprise the University's basic financial statements. We issued our report thereon dated October 27, 2021, which contained an unmodified opinion on the financial statements. Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the basic financial statements. We have not performed any procedures with respect to the audited financial statements subsequent to October 27, 2021.

We did not audit the financial statements of Purdue Research Foundation, which represents 96 percent, 98 percent, and 99 percent of the assets, net position, and revenue, respectively, of the discretely presented component units. Purdue Research Foundation's financial statements were audited by other auditors, whose report has been furnished to us, and our opinion, insofar as it relates to the amounts included for Purdue Research Foundation, is based solely on the report of the other auditors.

The University's basic financial statements include the operations of Purdue University Global, Inc. (Purdue Global), a blended component unit. Purdue Global expended federal awards that are reported separately and are not included in the University's schedule of expenditures of federal awards for the year ended June 30, 2021.

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

Plante & Moran, PLLC

April 4, 2022



Plante & Moran, PLLC



Suite 300 537 E. Pete Rose Way Cincinnati, OH 45202-3578 Tel: 513.595.8806 Fax: 513.595.8806 plantemoran.com

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*

Independent Auditor's Report

To Management and the Board of Trustees Purdue University

We have audited, in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the business-type activities, the fiduciary activities, and the aggregate discretely presented component units of Purdue University (the "University"), a component unit of the State of Indiana, as of and for the year ended June 30, 2021 and the related notes to the financial statements, which collectively comprise the University's basic financial statements, and have issued our report thereon dated October 27, 2021. The financial statements of the discretely presented component units were not audited in accordance with *Government Auditing Standards*, and, accordingly, this report does not include reporting on internal control over financial reporting or compliance and other matters associated with the discretely presented component units or that were reported on separately by those auditors who audited the financial statements of Purdue Research Foundation.

Internal Control Over Financial Reporting

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

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

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

Compliance and Other Matters

As part of obtaining reasonable assurance about whether the University's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the financial statements. 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*.



To Management and the Board of Trustees Purdue University

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.

Plante & Moran, PLLC

October 27, 2021





Suite 300 537 E. Pete Rose Way Cincinnati, OH 45202-3578 Tel: 513.595.8800 Fax: 513.595.8806 plantemoran.com

Report on Compliance for Each Major Federal Program and Report on Internal Control Over Compliance Required by the Uniform Guidance

Independent Auditor's Report

To the Board of Trustees Purdue University

Report on Compliance for Each Major Federal Program

We have audited Purdue University's (the "University") compliance with the types of compliance requirements described in the U.S. Office of Management and Budget (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, 2021. The University's major federal programs are identified in the summary of auditor's results section of the accompanying schedule of findings and questioned costs.

Management's Responsibility

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

Auditor's 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* (the "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 the major federal programs for the year ended June 30, 2021.



To the Board of Trustees Purdue University

Report on Internal Control Over Compliance

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

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

Our consideration of internal control over compliance was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control over compliance that might be material weaknesses or significant deficiencies, and, therefore, material weaknesses or significant deficiencies may exist that were not identified. We did not identify any deficiencies in internal control over compliance that we consider to be material weaknesses. However, we identified certain deficiencies in internal control over compliance, as described in the accompanying schedule of findings and questioned costs as Findings 2021-001, 2021-002, 2021-003, and 2021-004, that we consider to be significant deficiencies.

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

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.

Flante & Morse, PLLC

April 4, 2022

Clusters	Federal Grantor	Туре	Pass-Through Grantor	Award Identifier	Assistance Listing Number	CFDA Program Title	Federal Expenditures	Subrecipient Expenditure
Student Financial Assistance Cluster*	U.S. Department of Education	Direct			84.007	Federal Supplemental Educational Opportunity Grants	2,662,742	
Student Financial Assistance Cluster*	U.S. Department of Education	Direct			84.033	Federal Work-Study Program	899,888	
Student Financial Assistance Cluster*	U.S. Department of Education	Direct			84.038	LOAN/LOAN GUARANTEE - Federal Perkins Loan Program_Federal Capital Contributions	15,458,943	
Student Financial Assistance Cluster*	U.S. Department of Education	Direct			84.063	Federal Pell Grant Program	47,712,963	
Student Financial Assistance Cluster*	U.S. Department of Education	Direct			84.268	LOAN/LOAN GUARANTEE - Federal Direct Student Loans	169,139,159	
Student Financial Assistance Cluster*	U.S. Department of Education	Direct			84.379	Teacher Education Asst for College & Higher Education Grants (TEACH Grants)	43,342	
Student Financial Assistance Cluster*	Total - U.S. Department of Education						235,917,037	
Student Financial Assistance Cluster*	U.S. Department of Health & Human Services	Direct			93.342	LOAN/LOAN GUARANTEE - Health Professions Student Loans, Including Primary Care Loan	4,461,438	
Student Financial Assistance Cluster*	Total - U.S. Department of Health & Human Services						4,461,438	
Total - Student Financial Assistance							240,378,475	
Research and Development Cluster	U.S. Department of Agriculture	Direct			10.001	Agricultural Research_Basic and Applied Research	2,827,419	224,03
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	IOWA STATE UNIVERSITY	021220B	10.001	Agricultural Research_Basic and Applied Research	114,178	
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	AGRICULTURAL RESEARCH SERV	159-5020-8-002	10.001	Agricultural Research_Basic and Applied Research	11,896	
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	AGRICULTURAL RESEARCH SERV	159-5020-8-004	10.001	Agricultural Research_Basic and Applied Research	-39	
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	AGRICULTURAL RESEARCH SERV	159-5020-9-003	10.001	Agricultural Research_Basic and Applied Research	33,881	
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	AGRICULTURAL RESEARCH SERV	59-5090-7-003	10.001	Agricultural Research_Basic and Applied Research	89,311	
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	FLORIDA ATLANTIC UNIVERSITY	PR-K195	10.001	Agricultural Research_Basic and Applied Research	5,654	
					Total - 10.001		3,082,300	224,03
Research and Development Cluster	U.S. Department of Agriculture	Direct			10.025	Plant and Animal Disease, Pest Control, and Animal Care	904,576	5,17
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	IN DEPARTMENT OF NATURAL RE	CONTRACT #47337	10.025	Plant and Animal Disease, Pest Control, and Animal Care	58,369	
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	IN DEPARTMENT OF NATURAL RE	CONTRACT NO 52169	10.025	Plant and Animal Disease, Pest Control, and Animal Care	429	
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	IN DEPARTMENT OF NATURAL RE	CONTRACT NO 52633	10.025	Plant and Animal Disease, Pest Control, and Animal Care	34,462	
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	IN DEPARTMENT OF NATURAL RE	CONTRACT# 32519	10.025	Plant and Animal Disease, Pest Control, and Animal Care	179	
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	IN DEPARTMENT OF NATURAL RE	CONTRACT# 38850	10.025	Plant and Animal Disease, Pest Control, and Animal Care	55,362	
					Total - 10.025		1,053,377	5,17
Research and Development Cluster	U.S. Department of Agriculture	Direct			10.028	Wildlife Services	151,692	
Research and Development Cluster	U.S. Department of Agriculture	Direct			10.163	Market Protection and Promotion	10,943	
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	IN STATE DEPARTMENT OF AGRIC	A337-17-SCBG-101	10.170	Specialty Crop Block Grant Program - Farm Bill	-502	

^{*} denotes major programs

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

Clusters	Federal Grantor	Туре	Pass-Through Grantor	Award Identifier	Assistance Listing Number	CFDA Program Title	Federal Expenditures	Subrecipient Expenditure
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	IN STATE DEPARTMENT OF AGRIC	A337-19-SCBG-18-004	10.170	Specialty Crop Block Grant Program - Farm Bill	15,966	
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	IN STATE DEPARTMENT OF AGRIC	A337-19-SCBG-18-006	10.170	Specialty Crop Block Grant Program - Farm Bill	19,922	
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	IN STATE DEPARTMENT OF AGRIC	A337-21-SCBG-20-101	10.170	Specialty Crop Block Grant Program - Farm Bill	8,680	
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	IN STATE DEPARTMENT OF AGRIC	A337-21-SCBG-20-102	10.170	Specialty Crop Block Grant Program - Farm Bill	82	
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	IN STATE DEPARTMENT OF AGRIC	A337-21-SCBG-20-103	10.170	Specialty Crop Block Grant Program - Farm Bill	16,760	
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	IN STATE DEPARTMENT OF AGRIC	CONTRACT #38036	10.170	Specialty Crop Block Grant Program - Farm Bill	10,084	
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	IN STATE DEPARTMENT OF AGRIC	CONTRACT #38038	10.170	Specialty Crop Block Grant Program - Farm Bill	27,194	
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	IN STATE DEPARTMENT OF AGRIC	CONTRACT #38040	10.170	Specialty Crop Block Grant Program - Farm Bill	5,790	
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	IN STATE DEPARTMENT OF AGRIC	CONTRACT #38043	10.170	Specialty Crop Block Grant Program - Farm Bill	43,257	
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	IN STATE DEPARTMENT OF AGRIC	CONTRACT ID 24214	10.170	Specialty Crop Block Grant Program - Farm Bill	11,596	
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	IN STATE DEPARTMENT OF AGRIC	CONTRACT ID 24217	10.170	Specialty Crop Block Grant Program - Farm Bill	2,340	
Research and Development Cluster	U.S. Department of Agriculture	Poss Through	UNIVERSITY OF KENTUCKY	3200003709-21-207	Total - 10.170	Acer Access & Development Program	161,169 43,950	
Research and Development Cluster	0.3. Department of Agriculture	rass-Illough	UNIVERSITY OF RENTOCKY	3200003709-21-207	10.174	Acel Access & Development Program	43,900	
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	IOWA STATE UNIVERSITY	0162531	10.200	Grants for Agricultural Research, Special Research Grants	31,303	
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	IOWA STATE UNIVERSITY	019585G	10.200	Grants for Agricultural Research, Special Research Grants	24,435	
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	MICHIGAN STATE UNIVERSITY	388639	10.200	Grants for Agricultural Research, Special Research Grants	1,050	
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	IOWA STATE UNIVERSITY	416-41-71F	10.200	Grants for Agricultural Research, Special Research Grants	79,459	
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	MICHIGAN STATE UNIVERSITY	446957	10.200	Grants for Agricultural Research, Special Research Grants	12,911	
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	MICHIGAN STATE UNIVERSITY	PO 514073	10.200	Grants for Agricultural Research, Special Research Grants	2,073	
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	COLORADO STATE UNIVERSITY	UV MONITORING 2008	10.200	Grants for Agricultural Research, Special Research Grants	217	
					Total - 10.200		151,448	
Research and Development Cluster	U.S. Department of Agriculture	Direct			10.202	Cooperative Forestry Research	803,258	
Research and Development Cluster	U.S. Department of Agriculture	Direct			10.203	Payments to Agricultural Experiment Stations Under the	5,894,680	
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	NORTH CAROLINA A & T UNIVERS	I 240935A - 87654	10.205	Hatch Act Payments to 1890 Land-Grant Colleges and Tuskegee	6,880	
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	NORTH CAROLINA A & T UNIVERS	I 240948A - 88118	10.205	University Payments to 1890 Land-Grant Colleges and Tuskegee	12,841	
Research and Development Cluster	U.S. Department of Agriculture	Page_Through	NORTH CAROLINA A & T UNIVERS	2409894/F4240970	10.205	University Payments to 1890 Land-Grant Colleges and Tuskegee	2,785	
Research and Development Cluster	o.s. Department of Agriculture	rass-mough	NONTH CAROLINA A & I UNIVERS	1 240909A/EA240970	10.205	University	2,785	
					Total - 10.205		22,506	
Research and Development Cluster	U.S. Department of Agriculture	Direct			10.207	Animal Health and Disease Research	60,461	

^{*} denotes major programs

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

Clusters	Federal Grantor	Туре	Pass-Through Grantor	Award Identifier	Assistance Listing Number	CFDA Program Title	Federal Expenditures	Subrecipient Expenditures
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	NOVATEUR RESEARCH SOLUTION	2019-33610-30180	10.212	Small Business Innovation Research	68,231	
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	UNIVERSITY OF MINNESOTA	H005722957	10.215	Sustainable Agriculture Research and Education	11,128	
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	UNIVERSITY OF MINNESOTA	H006607403	10.215	Sustainable Agriculture Research and Education	67,910	
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	UNIVERSITY OF MINNESOTA	H006607404	10.215	Sustainable Agriculture Research and Education	40,769	63
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	UNIVERSITY OF MINNESOTA	H007179315	10.215	Sustainable Agriculture Research and Education	44,319	1
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	UNIVERSITY OF MINNESOTA	H007179379	10.215	Sustainable Agriculture Research and Education	658	
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	UNIVERSITY OF MINNESOTA	H007813943	10.215	Sustainable Agriculture Research and Education	44	
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	UNIVERSITY OF MINNESOTA	H008334008	10.215	Sustainable Agriculture Research and Education	6,221	
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	UNIVERSITY OF MINNESOTA	H008334013	10.215	Sustainable Agriculture Research and Education	3,861	
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	UNIVERSITY OF MINNESOTA	H008568305	10.215	Sustainable Agriculture Research and Education	8,924	
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	UNIVERSITY OF MINNESOTA	H008917105	10.215	Sustainable Agriculture Research and Education	3,652	
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	UNIVERSITY OF MINNESOTA	H008917109	10.215	Sustainable Agriculture Research and Education	1,372	
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	UNIVERSITY OF MINNESOTA	H008917112	10.215	Sustainable Agriculture Research and Education	12,848	
						9		
					Total - 10.215		201,706	63
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	LANGSTON UNIVERSITY	2017-38821-26445	10.216	1890 Institution Capacity Building Grants	33,658	
Research and Development Cluster	U.S. Department of Agriculture	Direct			10.217	Higher Education Challenge Grants	71,055	21,04
Research and Development Cluster	U.S. Department of Agriculture	Direct			10.219	Biotechnology Risk Assessment Research	131,741	15,87
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	RICE UNIVERSITY	R19322	10.219	Biotechnology Risk Assessment Research	21,961	
					Total - 10.219		153,702	15,87
Research and Development Cluster	U.S. Department of Agriculture	Direct			10.250	Agricultural and Rural Economic Research	3,228	
Research and Development Cluster	U.S. Department of Agriculture	Direct			10.253	Consumer Data and Nutrition Research	285	
Research and Development Cluster	U.S. Department of Agriculture	Direct			10.290	Agricultural Market and Economic Research	41,888	
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	VIRGINIA POLYTECHNIC INST & ST	422733-19084A	10.290	Agricultural Market and Economic Research	59,818	1
					Total - 10.290		101,706	
Research and Development Cluster	U.S. Department of Agriculture	Direct			10.303	Integrated Programs	177,871	
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	MICHIGAN STATE UNIVERSITY	RC108938PU	10.303	Integrated Programs	-535	
					Total - 10.303		177,336	
Research and Development Cluster	U.S. Department of Agriculture	Direct			10.304	Homeland Security Agricultural	163,793	

^{*} denotes major programs

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

Clusters	Federal Grantor	Туре	Pass-Through Grantor	Award Identifier	Assistance Listing Number	CFDA Program Title	Federal Expenditures	Subrecipient Expenditures
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	MICHIGAN STATE UNIVERSITY	RC106556E	10.304	Homeland Security_Agricultural	84,835	(
					Total - 10.304		248,628	38,950
Research and Development Cluster	U.S. Department of Agriculture	Direct			10.307	Organic Agriculture Research and Extension Initiative	216,279	62,968
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	NORTH CAROLINA STATE UNIVER	2019-3156-02	10.307	Organic Agriculture Research and Extension Initiative	8,537	(
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	MICHIGAN STATE UNIVERSITY	RC106531A	10.307	Organic Agriculture Research and Extension Initiative	23,048	(
					Total - 10.307		247,864	62,968
Research and Development Cluster	U.S. Department of Agriculture	Direct			10.309	Specialty Crop Research Initiative	759,479	207,168
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	TEXAS A&M AGRILIFE RESEARCH	06-M1703517	10.309	Specialty Crop Research Initiative	2,627	(
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	THE CENTER FOR PRODUCE SAF	E 2021CPS12	10.309	Specialty Crop Research Initiative	59,103	C
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	UNIVERSITY OF MINNESOTA	H006335003	10.309	Specialty Crop Research Initiative	115,210	(
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	TEXAS A&M AGRILIFE RESEARCH	M1900056	10.309	Specialty Crop Research Initiative	132,922	C
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	MICHIGAN STATE UNIVERSITY	RC110566PU	10.309	Specialty Crop Research Initiative	45,169	(
					Total - 10.309		1,114,510	207,168
Research and Development Cluster	U.S. Department of Agriculture	Direct			10.310	Agriculture and Food Research Initiative	5,153,592	857,243
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	MISSISSIPPI STATE UNIVERSITY	010500.340919.01	10.310	Agriculture and Food Research Initiative	13,033	(
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	INDIANA WESLEYAN UNIVERSITY	101	10.310	Agriculture and Food Research Initiative	110	C
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	NORTH CAROLINA STATE UNIVER	\$2019-1507-03	10.310	Agriculture and Food Research Initiative	326,420	(
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	UNIVERSITY OF NOTRE DAME	204064PU	10.310	Agriculture and Food Research Initiative	6,046	C
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	KENTUCKY STATE UNIVERSITY	210174 202092 3100	10.310	Agriculture and Food Research Initiative	23,232	(
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	TUSKEGEE UNIVERSITY	36 22091 424 76190	10.310	Agriculture and Food Research Initiative	25,649	(
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	VIRGINIA POLYTECHNIC INST & ST	T 422475-19084	10.310	Agriculture and Food Research Initiative	8,679	(
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	OHIO STATE UNIVERSITY	60076795	10.310	Agriculture and Food Research Initiative	2,158	(
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	UNIVERSITY OF ARKANSAS	AWD-100401-02	10.310	Agriculture and Food Research Initiative	5,084	(
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	UNIVERSITY OF IDAHO	NR3396-SB-691717	10.310	Agriculture and Food Research Initiative	46,345	(
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	MICHIGAN STATE UNIVERSITY	RC111174A	10.310	Agriculture and Food Research Initiative	17,488	(
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	MICHIGAN STATE UNIVERSITY	RC111302D	10.310	Agriculture and Food Research Initiative	69,582	(
					Total - 10.310		5,697,418	857,243
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	NORTH CAROLINA STATE UNIVER	\$2019-0465-01	10.329	Crop Protection and Pest Management Competitive Grants Program	15,028	(

^{*} denotes major programs

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

Clusters	Federal Grantor	Туре	Pass-Through Grantor	Award Identifier	Assistance Listing Number	CFDA Program Title	Federal Expenditures	Subrecipient Expenditures
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	UNIVERSITY OF MISSOURI	C00059074-2	10.329	Crop Protection and Pest Management Competitive Grants Program	31,093	(
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	MICHIGAN STATE UNIVERSITY	RC108974BB	10.329	Crop Protection and Pest Management Competitive Grants Program	9,338	(
					Total - 10.329		55,459	
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	PEOPLES FOUNDATION	LIFE 00087918	10.443	Outreach and Assistance for Socially Disadvantaged Farmers and Ranchers	37,308	(
Research and Development Cluster	U.S. Department of Agriculture	Direct			10.500	Cooperative Extension Service	210,357	(
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	UNIVERSITY OF NEBRASKA-LINCO	25-6324-0187-015	10.500	Cooperative Extension Service	1,861	
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	EXTENSION FOUNDATION	NTAE-2020-2030	10.500	Cooperative Extension Service	9,966	(
					Total - 10.500		222,184	
Research and Development Cluster	U.S. Department of Agriculture	Direct			10.519	Equpment Grants Program	500,000	(
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	U OF KENTUCKY CTR FOR POVER	3200002889-20-241	10.565	Commodity Supplemental Food Program	39,515	(
Research and Development Cluster	U.S. Department of Agriculture	Direct			10.652	Forestry Research	214,323	. (
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	OREGON STATE UNIVERSITY	J2285A-B	10.652	Forestry Research	8,063	. (
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	OREGON STATE UNIVERSITY	J2401A-A	10.652	Forestry Research	270	(
					Total - 10.652		222,656	
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	UNIVERSITY OF TENNESSEE (THE	9500075412	10.675	Urban and Community Forestry Program	4,665	(
Research and Development Cluster	U.S. Department of Agriculture	Direct			10.680	Forest Health Protection	67,632	(
Research and Development Cluster	U.S. Department of Agriculture	Direct			10.777	Norman E. Borlaug International Agricultural Science and Technology Fellowship	13,581	(
Research and Development Cluster	U.S. Department of Agriculture	Direct			10.902	Soil and Water Conservation	109,220	(
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	UNIVERSITY OF ILLINOIS	101917-18195	10.902	Soil and Water Conservation	253,934	
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	UNIVERSITY OF WISCONSIN	144-AAI4597	10.902	Soil and Water Conservation	11,890	(
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	NATURE CONSERVANCY, THE	2041-0022	10.902	Soil and Water Conservation	29,982	(
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	IN ASSOC OF SOIL & WATER CON	21014457	10.902	Soil and Water Conservation	28,586	(
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	AMER SOC OF AG & BIO ENGINEE	NR183A750007C006	10.902	Soil and Water Conservation	1,928	(
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	UNIVERSITY OF WISCONSIN	PURDUE_16100055	10.902	Soil and Water Conservation	23,045	
					Total - 10.902		458,585	
Research and Development Cluster	U.S. Department of Agriculture	Direct			10.903	Soil Survey	6,625	5,86
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	BROOKSIDE LABORATORIES, INC	20013295	10.912	Environmental Quality Incentives Program	16,898	(
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	FARM FOUNDATION	693A7516007	10.912	Environmental Quality Incentives Program	64,506	(

^{*} denotes major programs

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

Clusters	Federal Grantor	Туре	Pass-Through Grantor	Award Identifier	Assistance Listing Number	CFDA Program Title	Federal Expenditures	Subrecipient Expenditures
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	UNIVERSITY OF MINNESOTA	A008715101	10.912	Environmental Quality Incentives Program	19,443	
					Total - 10.912		100,847	
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	MICHIGAN STATE UNIVERSITY	RC111953-PU	10.960	Technical Agricultural Assistance	23,231	
Research and Development Cluster	U.S. Department of Agriculture	Direct			10.961	Scientific Cooperation and Research	12,023	
Research and Development Cluster	U.S. Department of Agriculture	Direct		E17-19	10.RD	U.S. Department of Agriculture	142,791	
Research and Development Cluster	U.S. Department of Agriculture	Pass-Through	MICHIGAN STATE UNIVERSITY	388639	10.RD	U.S. Department of Agriculture	7,450	
					Total - 10.RD		150,241	
Research and Development Cluster	Total - U.S. Department of Agri	culture					21,469,663	1,438,96
Research and Development Cluster	U.S. Department of Commerce	Direct			11.001	Census Bureau Data Products	87,711	22,16
Research and Development Cluster	U.S. Department of Commerce	Direct			11.020	Cluster Grants	15,519	
Research and Development Cluster	U.S. Department of Commerce	Pass-Through	ECONOMIC DEVELOPMENT ADMIN	ED21HDQ3070043	11.307	Economic Adjustment Assistance	2,096	
Research and Development Cluster	U.S. Department of Commerce	Direct			11.417	Sea Grant Support	297,152	160,12
Research and Development Cluster	U.S. Department of Commerce	Pass-Through	UNIVERSITY OF MINNESOTA	D007941107	11.417	Sea Grant Support	40,423	
					Total - 11.417		337,575	160,12
Research and Development Cluster	U.S. Department of Commerce	Pass-Through	IN DEPARTMENT OF NATURAL RE	CONTRACT #46760	11.419	Coastal Zone Management Administration Awards	2,387	
Research and Development Cluster	U.S. Department of Commerce	Pass-Through	UNIVERSITY OF ILLINOIS AT CHICA	092709-17592	11.431	Climate and Atmospheric Research	1,260	
Research and Development Cluster	U.S. Department of Commerce	Direct			11.459	Weather and Air Quality Research	199,003	
Research and Development Cluster	U.S. Department of Commerce	Direct			11.609	Measurement and Engineering Research and Standards	1,760,785	950,82
Research and Development Cluster	U.S. Department of Commerce	Pass-Through	STONY BROOK UNIVERSITY	86272/2/1157293	11.609	Measurement and Engineering Research and Standards	95,794	
					Total - 11.609		1,856,579	950,82
Research and Development Cluster	U.S. Department of Commerce	Direct			11.611	Manufacturing Extension Partnership	-11,843	
Research and Development Cluster	U.S. Department of Commerce	Pass-Through	NATNL INST FOR INNOVATION IN I	SP1.0-003	11.611	Manufacturing Extension Partnership	18,099	
					Total - 11.611		6,256	
Research and Development Cluster	U.S. Department of Commerce	Pass-Through	NATNL INST FOR INNOVATION IN I	PC 2.1-001	11.619	Arrangements for Interdisciplinary Research Infrastructure	57,239	
Research and Development Cluster	U.S. Department of Commerce	Pass-Through	NATNL INST FOR INNOVATION IN I	PC2.1-002	11.619	Arrangements for Interdisciplinary Research Infrastructure	1	
					Total - 11.619		57,240	
Research and Development Cluster	U.S. Department of Commerce	Direct		1305M320PNRMA0628	11.RD	U.S. Department of Commerce	11,163	
Research and Development Cluster	U.S. Department of Commerce	Direct		19100919	11.RD	U.S. Department of Commerce	989	

^{*} denotes major programs

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

Clusters	Federal Grantor	Туре	Pass-Through Grantor	Award Identifier	Assistance Listing Number	CFDA Program Title	Federal Expenditures	Subrecipient Expenditure
Research and Development Cluster	U.S. Department of Commerce	Pass-Through	UNIVERSITIES SPACE RESEARCH	08104-01	11.RD	U.S. Department of Commerce	23,594	
					Total - 11.RD		35,746	
Research and Development Cluster	Total - U.S. Department of Com	nmerce					2,601,372	1,133,10
Research and Development Cluster	U.S. Department of Defense	Direct			12.300	Basic and Applied Scientific Research	14,222,632	3,049,30
Research and Development Cluster	U.S. Department of Defense	Pass-Through	UNIVERSITY OF CALIFORNIA - BER	3 00010541	12.300	Basic and Applied Scientific Research	63,232	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	UNIVERSITY OF CONNECTICUT	163164	12.300	Basic and Applied Scientific Research	288,375	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	GUIDED PARTICLE SYSTEMS, INC	20090627	12.300	Basic and Applied Scientific Research	-1,966	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	GUIDED PARTICLE SYSTEMS, INC	21036153	12.300	Basic and Applied Scientific Research	53,690	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	UNIVERSITY OF PENNSYLVANIA	572339	12.300	Basic and Applied Scientific Research	105,260	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	CORNELL UNIVERSITY	81424-10839	12.300	Basic and Applied Scientific Research	60,769	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	TEXAS A&M AGRILIFE RESEARCH	M1901497	12.300	Basic and Applied Scientific Research	32,623	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	UNIVERSITY OF TENNESSEE SPA	N00164-20-2008-PURDUE	12.300	Basic and Applied Scientific Research	8,375	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	FLORIDA STATE UNIVERSITY	R000002831	12.300	Basic and Applied Scientific Research	13,502	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	FLORIDA STATE UNIVERSITY	R01850	12.300	Basic and Applied Scientific Research	134,605	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	FLORIDA STATE UNIVERSITY	R02119	12.300	Basic and Applied Scientific Research	8,235	
					Total - 12.300		14,989,332	3,049,30
Research and Development Cluster	U.S. Department of Defense	Direct			12.351	Basic Scientific Research - Combating Weapons of Mass Destruction	314,072	14,46
Research and Development Cluster	U.S. Department of Defense	Direct			12.420	Military Medical Research and Development	935,990	193,64
Research and Development Cluster	U.S. Department of Defense	Pass-Through	SOUTHERN ILLINOIS UNIVERSITY	19-02	12.420	Military Medical Research and Development	21,292	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	UNIVERSITY OF KANSAS	FY2019-115	12.420	Military Medical Research and Development	27,320	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	THE GENEVA FOUNDATION	S-11008-01	12.420	Military Medical Research and Development	1,188	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	THE GENEVA FOUNDATION	S-1424-02	12.420	Military Medical Research and Development	132,853	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	CALIFORNIA INSTITUTE OF TECHN	I S374892	12.420	Military Medical Research and Development	58,707	
					Total - 12.420		1,177,350	193,64
Research and Development Cluster	U.S. Department of Defense	Direct			12.431	Basic Scientific Research	7,444,124	869,96
Research and Development Cluster	U.S. Department of Defense	Pass-Through	WORCESTER POLYTECHNIC INST	I 10900-GR	12.431	Basic Scientific Research	72,242	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	UNIVERSITY OF TEXAS AT DALLAS	1604768	12.431	Basic Scientific Research	34,123	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	SONRISA RESEARCH INC	20025100	12.431	Basic Scientific Research	31,628	

^{*} denotes major programs

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

Clusters	Federal Grantor	Туре	Pass-Through Grantor	Award Identifier	Assistance Listing Number	CFDA Program Title	Federal Expenditures	Subrecipient Expenditures
Research and Development Cluster	U.S. Department of Defense	Pass-Through	UNIVERSITY OF MICHIGAN	3002778250	12.431	Basic Scientific Research	-2,147	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	GEORGIA TECH	AWD-101190-G4	12.431	Basic Scientific Research	1,051	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	BAE SYSTEMS ADVANCED TECHN	PO# CCD-063020-01-CLC	12.431	Basic Scientific Research	169,666	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	UNIVERSITY OF MICHIGAN	SUBK00010157	12.431	Basic Scientific Research	79,313	
					Total - 12.431		7,830,000	869,96
Research and Development Cluster	U.S. Department of Defense	Direct			12.630	Basic, Applied, and Advanced Research in Science and	132,269	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	CONTINUOUS SOLUTIONS	20090760	12.630	Engineering Basic, Applied, and Advanced Research in Science and	39,496	
Research and Development Cluster	U.S. Department of Defense	Pass-mough	CONTINUOUS SOLUTIONS	20090760	12.030	Engineering	39,490	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	UNIVERSITY OF DELAWARE	56869	12.630	Basic, Applied, and Advanced Research in Science and Engineering	47,678	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	UNIVERSITY OF DELAWARE	UDR0000009	12.630	Basic, Applied, and Advanced Research in Science and Engineering	15,036	
					Total - 12.630		234,479	
Research and Development Cluster	U.S. Department of Defense	Direct			12.800	Air Force Defense Research Sciences Program	6,419,937	940,47
Research and Development Cluster	U.S. Department of Defense	Pass-Through	UES INC.	119-003-002	12.800	Air Force Defense Research Sciences Program	87,801	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	PRESIDENT & FELLOWS OF HARV	130427-5114548	12.800	Air Force Defense Research Sciences Program	38,151	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	UNIVERSITY OF SOUTHERN CALIF	136712590	12.800	Air Force Defense Research Sciences Program	136,527	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	NEXTFLEX	17013120	12.800	Air Force Defense Research Sciences Program	-2,651	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	FREEDOM PHOTONICS, LLC.	20089572	12.800	Air Force Defense Research Sciences Program	64,194	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	SYSTEMS & TECHNOLOGY RESEA	12018-0043	12.800	Air Force Defense Research Sciences Program	-233	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	UNIVERSITY OF CALIFORNIA-IRVIN	2020-1389	12.800	Air Force Defense Research Sciences Program	57,698	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	UNIVERSITY OF MICHIGAN	3004428167	12.800	Air Force Defense Research Sciences Program	132,445	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	FLORIDA INTERNATIONAL UNIVER	800011034-01UG/000143	12.800	Air Force Defense Research Sciences Program	169,797	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	BOISE STATE UNIVERSITY	8583-PO132260	12.800	Air Force Defense Research Sciences Program	85,496	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	UNIVERSITY OF MISSOURI-COLUM	1 C00064537-5	12.800	Air Force Defense Research Sciences Program	175,100	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	SMART INFORMATION FLOW TECH	NEUTRON-PH2-PURDUE-01	12.800	Air Force Defense Research Sciences Program	146,985	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	CENTAURI	PO# 1461	12.800	Air Force Defense Research Sciences Program	131,764	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	UNIVERSITY OF CALIFORNIA-RIVE	S-000701	12.800	Air Force Defense Research Sciences Program	169,930	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	SPECTRAL ENERGIES, LLC	SB1713-001-1	12.800	Air Force Defense Research Sciences Program	37,397	
Decease and Development Chief-	II C Department of Deferre	Desc Through	EDECTRAL ENERGIES IL S	CD4000 004 4	12.800	Air Farra Defense Desearch Calances Desearch	44,849	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	SPECTRAL ENERGIES, LLC	SB1908-001-1	12.000	Air Force Defense Research Sciences Program	44,849	
					Total - 12.800		7,895,187	940,47

^{*} denotes major programs

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

Clusters	Federal Grantor	Туре	Pass-Through Grantor	Award Identifier	Assistance Listing Number	CFDA Program Title	Federal Expenditures	Subrecipient Expenditures
Research and Development Cluster	U.S. Department of Defense	Direct			12.902	Information Security Grants	808	
Research and Development Cluster	U.S. Department of Defense	Direct			12.903	GenCyber Grants Program	30,064	
Research and Development Cluster	U.S. Department of Defense	Direct			12.905	CyberSecurity Core Curriculum	32,619	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	UNIVERSITY OF ALABAMA HUNTS	2020-1268	12.905	CyberSecurity Core Curriculum	29,446	
					Total - 12.905		62,065	
Research and Development Cluster	U.S. Department of Defense	Direct			10tal - 12.905 12.910	Research and Technology Development	2,613,950	
Research and Development Cluster	U.S. Department of Defense	Direct			12.910	Research and Technology Development	2,613,950	204,95
Research and Development Cluster	U.S. Department of Defense	Pass-Through	ROCHESTER INSTITUTE OF TECH	417385/URFAO GR510841	12.910	Research and Technology Development	49,085	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	PENNSYLVANIA STATE UNIVERSIT	5621-PU-DARPA-0032	12.910	Research and Technology Development	202,470	
					Total - 12.910		2,865,505	204,95
Research and Development Cluster	U.S. Department of Defense	Direct		100720-1	12.RD	U.S. Department of Defense	6,730	
Research and Development Cluster	U.S. Department of Defense	Direct		1131-00059	12.RD	U.S. Department of Defense	27,000	
Research and Development Cluster	U.S. Department of Defense	Direct		167017	12.RD	U.S. Department of Defense	13,860	
Research and Development Cluster	U.S. Department of Defense	Direct		17066836	12.RD	U.S. Department of Defense	122,923	
Research and Development Cluster	U.S. Department of Defense	Direct		19089079	12.RD	U.S. Department of Defense	50,998	
Research and Development Cluster	U.S. Department of Defense	Direct		20046552	12.RD	U.S. Department of Defense	13,211	
Research and Development Cluster	U.S. Department of Defense	Direct		2019-016	12.RD	U.S. Department of Defense	168,294	
Research and Development Cluster	U.S. Department of Defense	Direct		2019-18101500002	12.RD	U.S. Department of Defense	65,852	
Research and Development Cluster	U.S. Department of Defense	Direct		2019-19020700004	12.RD	U.S. Department of Defense	25,139	21,92
Research and Development Cluster	U.S. Department of Defense	Direct		F1SRQ20223M001	12.RD	U.S. Department of Defense	23,941	
Research and Development Cluster	U.S. Department of Defense	Direct		FA864920P0576	12.RD	U.S. Department of Defense	5,675	
Research and Development Cluster	U.S. Department of Defense	Direct		FA8650-19-C-2410	12.RD	U.S. Department of Defense	1,015,357	625,79
Research and Development Cluster	U.S. Department of Defense	Direct		FA8750-17-C-0069	12.RD	U.S. Department of Defense	54,549	
Research and Development Cluster	U.S. Department of Defense	Direct		HR001119C0038	12.RD	U.S. Department of Defense	66,577	
Research and Development Cluster	U.S. Department of Defense	Direct		HR00112090010	12.RD	U.S. Department of Defense	701,003	243,24
Research and Development Cluster	U.S. Department of Defense	Direct		HR00112090069	12.RD	U.S. Department of Defense	491,801	
Research and Development Cluster	U.S. Department of Defense	Direct		HR00112090083	12.RD	U.S. Department of Defense	202,005	
Research and Development Cluster	U.S. Department of Defense	Direct		HR00112090124	12.RD	U.S. Department of Defense	156,555	
Research and Development Cluster	U.S. Department of Defense	Direct		HR00112190006	12.RD	U.S. Department of Defense	452,127	

^{*} denotes major programs

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

Clusters	Federal Grantor	Туре	Pass-Through Grantor	Award Identifier	Assistance Listing Number	CFDA Program Title	Federal Expenditures	Subrecipient Expenditures
Research and Development Cluster	U.S. Department of Defense	Direct		HR00112190007	12.RD	U.S. Department of Defense	137,982	
Research and Development Cluster	U.S. Department of Defense	Direct		HR00112190038	12.RD	U.S. Department of Defense	55,481	
Research and Development Cluster	U.S. Department of Defense	Direct		N00164-19-P-0106	12.RD	U.S. Department of Defense	19,391	
Research and Development Cluster	U.S. Department of Defense	Direct		N0016420P0064	12.RD	U.S. Department of Defense	10,961	
Research and Development Cluster	U.S. Department of Defense	Direct		N0016420PJ176	12.RD	U.S. Department of Defense	57,602	
Research and Development Cluster	U.S. Department of Defense	Direct		N00173-19-P-1124	12.RD	U.S. Department of Defense	32,255	
Research and Development Cluster	U.S. Department of Defense	Direct		N00173-20-P-0210	12.RD	U.S. Department of Defense	33,808	
Research and Development Cluster	U.S. Department of Defense	Direct		N00178-21-P-6682	12.RD	U.S. Department of Defense	2,663	
Research and Development Cluster	U.S. Department of Defense	Direct		N4175620C3020	12.RD	U.S. Department of Defense	3,171	
Research and Development Cluster	U.S. Department of Defense	Direct		N4814420MD45005	12.RD	U.S. Department of Defense	5,524	
Research and Development Cluster	U.S. Department of Defense	Direct		SP8000-18-P-0007	12.RD	U.S. Department of Defense	-6	
Research and Development Cluster	U.S. Department of Defense	Direct		W911NF-16-2-0020	12.RD	U.S. Department of Defense	709,831	
Research and Development Cluster	U.S. Department of Defense	Direct		W911NF-18-1-0074	12.RD	U.S. Department of Defense	41,689	
Research and Development Cluster	U.S. Department of Defense	Direct		W911NF2010179	12.RD	U.S. Department of Defense	100,596	
Research and Development Cluster	U.S. Department of Defense	Direct		W911QY1910009	12.RD	U.S. Department of Defense	312,882	59,35
Research and Development Cluster	U.S. Department of Defense	Direct		W912HQ-16-C-0048	12.RD	U.S. Department of Defense	462,962	
Research and Development Cluster	U.S. Department of Defense	Direct		W912HQ-18-C-0021	12.RD	U.S. Department of Defense	182,818	
Research and Development Cluster	U.S. Department of Defense	Direct		W912HQ19C0063	12.RD	U.S. Department of Defense	392,606	
Research and Development Cluster	U.S. Department of Defense	Direct		W912HQ20C0020	12.RD	U.S. Department of Defense	234,437	
Research and Development Cluster	U.S. Department of Defense	Direct		W912HZ20C0019	12.RD	U.S. Department of Defense	150,434	
Research and Development Cluster	U.S. Department of Defense	Direct		W91CRB-14-C-0025	12.RD	U.S. Department of Defense	1,940	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	BROWN UNIVERSITY	00001603	12.RD	U.S. Department of Defense	90,415	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	ENERGETICS TECHNOLOGY CENT	0258 TO 0001	12.RD	U.S. Department of Defense	92,586	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	IN TECH & MANUFACTURING CO	08012020SC1	12.RD	U.S. Department of Defense	61,256	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	BAE SYSTEMS ADVANCED TECHN	1017479	12.RD	U.S. Department of Defense	-2,946	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	BAE SYSTEMS ADVANCED TECHN	1105750	12.RD	U.S. Department of Defense	46,543	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	ALION SCIENCE AND TECHNOLOG	1160012	12.RD	U.S. Department of Defense	65,000	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	TANGRAM FLEX, INC	125_01_PURDUE	12.RD	U.S. Department of Defense	14,682	

^{*} denotes major programs

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

Clusters	Federal Grantor	Туре	Pass-Through Grantor	Award Identifier	Assistance Listing Number	CFDA Program Title	Federal Expenditures	Subrecipient Expenditures
Research and Development Cluster	U.S. Department of Defense	Pass-Through	UNIVERSITY OF SOUTHERN CALIF	125053027	12.RD	U.S. Department of Defense	396,256	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	MITRE CORPORATION	130564	12.RD	U.S. Department of Defense	147,521	67,79
Research and Development Cluster	U.S. Department of Defense	Pass-Through	HELICON CHEMICAL COMPANY	15109773	12.RD	U.S. Department of Defense	73,591	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	JOHNS HOPKINS UNIVERSITY APP	151437	12.RD	U.S. Department of Defense	110,388	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	JOHNS HOPKINS UNIVERSITY APP	155220	12.RD	U.S. Department of Defense	4,682	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	ARCTOS TECHNOLOGY SOLUTION	I 162642.01.00.0001.00.42	12.RD	U.S. Department of Defense	11,391	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	UNIVERSITY OF ILLINOIS AT CHICA	17043	12.RD	U.S. Department of Defense	717	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	MAGEE TECHNOLOGIES, LLC	180027	12.RD	U.S. Department of Defense	76,633	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	APPLIED OPTIMIZATION, INC	1816076-19-PU-01	12.RD	U.S. Department of Defense	4,502	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	CORVID TECHNOLOGIES	19-041	12.RD	U.S. Department of Defense	7,061	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	TWINLEAF LLC	19035493	12.RD	U.S. Department of Defense	92,388	
·					12.RD		22	
Research and Development Cluster	U.S. Department of Defense		MCCOY CONSULTING, LLC	19088786		U.S. Department of Defense		
Research and Development Cluster	U.S. Department of Defense	Pass-Through	AIR SQUARED	19122748	12.RD	U.S. Department of Defense	11,917	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	CORVID TECHNOLOGIES	20-012	12.RD	U.S. Department of Defense	12,500	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	CORVID TECHNOLOGIES	20-034	12.RD	U.S. Department of Defense	29,978	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	CORVID TECHNOLOGIES	20-037	12.RD	U.S. Department of Defense	32,776	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	CONTINUOUS SOLUTIONS	20024730	12.RD	U.S. Department of Defense	44,924	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	PC KRAUSE AND ASSOCIATES	20035240	12.RD	U.S. Department of Defense	59,269	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	BDYWR, LLC	20046553	12.RD	U.S. Department of Defense	8,897	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	FLIR SYSTEMS INC	20089402	12.RD	U.S. Department of Defense	33,152	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	ADRANOS ENERGETICS LLC	20123306	12.RD	U.S. Department of Defense	36,000	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	CFD RESEARCH CORPORATION	20160552	12.RD	U.S. Department of Defense	-2,057	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	NORTH CAROLINA STATE UNIVER	2018-0438-01	12.RD	U.S. Department of Defense	26,178	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	ADVANCED TECHNOLOGY INTERN	12018-505 TASK 1	12.RD	U.S. Department of Defense	15,460	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	ADVANCED TECHNOLOGY INTERN	2018-505 TASK NO. 2	12.RD	U.S. Department of Defense	69,442	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	GALOIS, INC	2020-017	12.RD	U.S. Department of Defense	44,888	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	SPG INSTITUTE, INC.	2020-ARC-S-20009	12.RD	U.S. Department of Defense	16,405	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	ADVANCED TECHNOLOGY INTERN		12.RD	U.S. Department of Defense	4,204	
research and Development Gluster	o.o. Department of Defense	rass-IIIIOUGN	ADVANCED TECHNOLOGY INTERN	V ZUZ 1-43Z	IZ.NU	o.o. Department of Defense	4,204	

^{*} denotes major programs

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

Clusters	Federal Grantor	Туре	Pass-Through Grantor	Award Identifier	Assistance Listing Number	CFDA Program Title	Federal Expenditures	Subrecipient Expenditure
Research and Development Cluster	U.S. Department of Defense	Pass-Through	CONTINUOUS SOLUTIONS	21013851	12.RD	U.S. Department of Defense	4,366	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	VORCAT, INC	21014423	12.RD	U.S. Department of Defense	39,537	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	ADRANOS ENERGETICS LLC	21024639	12.RD	U.S. Department of Defense	5,944	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	STEVENS INSTITUTE OF TECHNOL	_ 2102854-01	12.RD	U.S. Department of Defense	-1,216	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	STEVENS INSTITUTE OF TECHNOL	2102929-01	12.RD	U.S. Department of Defense	-239	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	STEVENS INSTITUTE OF TECHNOL	2102967-01	12.RD	U.S. Department of Defense	9,113	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	STEVENS INSTITUTE OF TECHNOL	_2102990-01	12.RD	U.S. Department of Defense	107,490	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	STEVENS INSTITUTE OF TECHNOL	2103000-01	12.RD	U.S. Department of Defense	48,028	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	TECHNICAL DATA ANALYSIS, INC	2111-001-01	12.RD	U.S. Department of Defense	43,928	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	LUNA INNOVATIONS INCORPORA	Г 3682-DHA-1S/PURDUE	12.RD	U.S. Department of Defense	109,162	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	BAYLOR UNIVERSITY	37050335-01	12.RD	U.S. Department of Defense	919	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	COLORADO SCHOOL OF MINES	401733-5802	12.RD	U.S. Department of Defense	15,094	
Research and Development Cluster	U.S. Department of Defense	Pass-Through			12.RD	U.S. Department of Defense	-18,170	
Research and Development Cluster	U.S. Department of Defense				12.RD	U.S. Department of Defense	49,141	
·	·	Pass-Through				·		
Research and Development Cluster	U.S. Department of Defense	Pass-Through			12.RD	U.S. Department of Defense	9,020	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	IBM	4700059853	12.RD	U.S. Department of Defense	897,276	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	IBM	4700184269	12.RD	U.S. Department of Defense	255,091	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	IBM	4700185103	12.RD	U.S. Department of Defense	214,679	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	MASSACHUSETTS INST OF TECH	L 7000506291	12.RD	U.S. Department of Defense	22,889	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	UNIVERSITY OF CALIFORNIA - SAN	V 703731	12.RD	U.S. Department of Defense	81,118	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	CFD RESEARCH CORPORATION	9391	12.RD	U.S. Department of Defense	85,764	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	LYNNTECH INC	AF-002 II	12.RD	U.S. Department of Defense	131,194	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	ARIZONA STATE UNIVERSITY	ASUB00000424	12.RD	U.S. Department of Defense	225,714	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	RAYTHEON BBN TECHNOLOGIES	BBN REF #90189	12.RD	U.S. Department of Defense	11,665	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	CENTER FOR OPEN SCIENCE	GABRIEL_4Z88	12.RD	U.S. Department of Defense	10,000	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	IN SPACE, LLC	INS-22002-1	12.RD	U.S. Department of Defense	185,681	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	GENERAL DYNAMICS INFORMATION	C N00178-04-D-4012	12.RD	U.S. Department of Defense	118,172	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	ANALYSWIFT LLC	N6833520C008	12.RD	U.S. Department of Defense	20,951	

^{*} denotes major programs

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

Clusters	Federal Grantor	Туре	Pass-Through Grantor	Award Identifier	Assistance Listing Number	CFDA Program Title	Federal Expenditures	Subrecipient Expenditur
Research and Development Cluster	U.S. Department of Defense	Pass-Through	UNIVERSITY OF ILLINOIS AT CHICA	NTP-20090504	12.RD	U.S. Department of Defense	32,772	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	LEIDOS	P010204872	12.RD	U.S. Department of Defense	-269	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	SCIENCE APPLICATIONS INTNL	P010224172 PO LINE 26	12.RD	U.S. Department of Defense	210,143	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	SCIENCE APPLICATIONS INTNL	P010224172 PO LINE 27	12.RD	U.S. Department of Defense	5,533	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	SCIENCE APPLICATIONS INTNL	P010224172 PO LINE 28	12.RD	U.S. Department of Defense	2,171	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	SCIENCE APPLICATIONS INTNL	P010224172 PO LINE 29	12.RD	U.S. Department of Defense	1,358	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	LEIDOS	P010234740	12.RD	U.S. Department of Defense	238,823	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	LEIDOS	P010246279	12.RD	U.S. Department of Defense	361,194	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	SCIENCE APPLICATIONS INTNL	P010254479	12.RD	U.S. Department of Defense	23,724	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	PALO ALTO RESEARCH CENTER	P315539	12.RD	U.S. Department of Defense	75,985	
Research and Development Cluster	U.S. Department of Defense	Pass-Through		PO 10312	12.RD	U.S. Department of Defense	37,569	
						·		
tesearch and Development Cluster	U.S. Department of Defense	Pass-Inrough	PERSPECTA LABS	PO-0021592	12.RD	U.S. Department of Defense	118,274	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	DYNETICS, INC	PO: JW001903	12.RD	U.S. Department of Defense	57,833	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	HONEYWELL INC.	PO# 4207438363	12.RD	U.S. Department of Defense	-3,100	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	SCIENCE APPLICATIONS INTNL	PO10250986-LINE1	12.RD	U.S. Department of Defense	58,913	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	SCIENCE APPLICATIONS INTNL	PO10250986-LINE2	12.RD	U.S. Department of Defense	106	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	SRI INTERNATIONAL	PO51396	12.RD	U.S. Department of Defense	221,908	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	FRONTIER TECHNOLOGY INC	PUR-19-208755-291	12.RD	U.S. Department of Defense	4,080	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	UNIVERSITY OF DAYTON RESEAR	(RSC17068	12.RD	U.S. Department of Defense	66,386	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	UNIVERSITY OF DAYTON RESEAR	(RSC19028	12.RD	U.S. Department of Defense	534,509	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	UNIVERSITY OF DAYTON RESEAR	(RSC20028	12.RD	U.S. Department of Defense	240,095	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	UNIVERSITY OF CALIFORNIA-RIVE	S-001156	12.RD	U.S. Department of Defense	-2,077	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	APPLIED RESEARCH ASSOCIATES	S-004517-01-PU	12.RD	U.S. Department of Defense	12,426	
esearch and Development Cluster	U.S. Department of Defense	Pass-Through	UES INC.	S-109-5P9-001	12.RD	U.S. Department of Defense	19,961	
lesearch and Development Cluster	U.S. Department of Defense	Pass-Through	UES INC.	S-109-5Z6-001	12.RD	U.S. Department of Defense	87,413	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	UES INC.	S-111-051-002	12.RD	U.S. Department of Defense	97,072	
esearch and Development Cluster	U.S. Department of Defense	Pass-Through	UES INC.	S-114-006-010	12.RD	U.S. Department of Defense	73,087	
Research and Development Cluster	U.S. Department of Defense	Pass-Through		S-114-054-002	12.RD	U.S. Department of Defense	-404	
lesearch and Development Cluster	o.s. Department of Defense	rass-Inrough	UES ING.	J- 114-UJ4-UUZ	12.RU	о.э. рерактиетк от ретепѕе	-404	

^{*} denotes major programs

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

Clusters	Federal Grantor	Туре	Pass-Through Grantor	Award Identifier	Assistance Listing Number	CFDA Program Title	Federal Expenditures	Subrecipient Expenditures
Research and Development Cluster	U.S. Department of Defense	Pass-Through	APPLIED RESEARCH ASSOCIATES	S-273-003253-02-PU	12.RD	U.S. Department of Defense	25	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	APPLIED RESEARCH ASSOCIATES	S-275-003253-03-PU	12.RD	U.S. Department of Defense	57,263	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	UES INC.	S-987-001-001	12.RD	U.S. Department of Defense	107,036	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	SURVICE ENGINEERING COMPANY	S19-095006	12.RD	U.S. Department of Defense	101,786	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	SPECTRAL ENERGIES, LLC	SB1506-001-1	12.RD	U.S. Department of Defense	53,843	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	SPECTRAL ENERGIES, LLC	SB1610-001-2	12.RD	U.S. Department of Defense	-3,706	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	SPECTRAL ENERGIES, LLC	SB1808-001-1	12.RD	U.S. Department of Defense	13,480	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	SPECTRAL ENERGIES, LLC	SB1814-001-1	12.RD	U.S. Department of Defense	113,846	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	SPECTRAL ENERGIES, LLC	SB1905-001-1	12.RD	U.S. Department of Defense	16,060	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	SPECTRAL ENERGIES, LLC	SB1918-001-1	12.RD	U.S. Department of Defense	-18,249	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	SPECTRAL ENERGIES, LLC	SB1921-001-1	12.RD	U.S. Department of Defense	131,019	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	SPECTRAL ENERGIES, LLC	SB2003-001-1	12.RD	U.S. Department of Defense	65,000	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	SPECTRAL ENERGIES, LLC	SB2012-001-1	12.RD	U.S. Department of Defense	84,589	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	GEORGIA STATE UNIVERSITY	SP00012914-02	12.RD	U.S. Department of Defense	23,676	
Research and Development Cluster	U.S. Department of Defense			SUB10193	12.RD	U.S. Department of Defense	131,817	
Research and Development Cluster	U.S. Department of Defense	Pass-Through		SUBCONTRACT NO. 2019-012		U.S. Department of Defense	199,532	
						· ·		
Research and Development Cluster	U.S. Department of Defense	_		SUBK00011570	12.RD	U.S. Department of Defense	294,563	
Research and Development Cluster	U.S. Department of Defense	_		T19S053-0337	12.RD	U.S. Department of Defense	78,253	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	TORCH TECHNOLOGIES	T19S053-0339	12.RD	U.S. Department of Defense	47,087	
Research and Development Cluster	U.S. Department of Defense	Pass-Through	TRITON SYSTEMS, INC	TSI-2708-21-20203271	12.RD	U.S. Department of Defense	30,773	
					Total - 12.RD		15,134,734	1,018,10
Research and Development Cluster	Total - U.S. Department of Defe	nse					50,533,596	6,290,91
Research and Development Cluster	Housing & Urban Development	Pass-Through	VIRGINIA TECH	451625-19084	14.906	Healthy Homes Technical Studies Grants	-2,736	
Research and Development Cluster	Total - Housing & Urban Develo	ppment					-2,736	
Research and Development Cluster	U.S. Department of Interior	Direct			15.246	BLM CA Threatened and Endangered Species	26,386	
Research and Development Cluster	U.S. Department of Interior	Pass-Through	IN DEPARTMENT OF NATURAL RE	CONTRACT #27739	15.611	Wildlife Restoration	563,870	
Research and Development Cluster	U.S. Department of Interior	Pass-Through	IN DEPARTMENT OF NATURAL RE	CONTRACT #47460	15.611	Wildlife Restoration	24,333	
Research and Development Cluster	U.S. Department of Interior	Pass-Through	IN DEPARTMENT OF NATURAL RE	CONTRACT #48711	15.611	Wildlife Restoration	32,319	

^{*} denotes major programs

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

Clusters	Federal Grantor	Туре	Pass-Through Grantor	Award Identifier	Assistance Listing Number	CFDA Program Title	Federal Expenditures	Subrecipient Expenditure
Research and Development Cluster	U.S. Department of Interior	Pass-Through	IN DEPARTMENT OF NATURAL RE	CONTRACT ID 25141	15.611	Wildlife Restoration	21,071	
Research and Development Cluster	U.S. Department of Interior	Pass-Through	IN DEPARTMENT OF NATURAL RE	GRANT #46038	15.611	Wildlife Restoration	98,472	
Research and Development Cluster	U.S. Department of Interior	Pass-Through	TEXAS A&M AGRILIFE RESEARCH	M1901198	15.611	Wildlife Restoration	68,090	
					Total - 15.611		808,155	
Research and Development Cluster	U.S. Department of Interior	Pass-Through	BALL STATE UNIVERSITY	19100472	15.629	Great Apes Conservation Fund	13,044	
Research and Development Cluster	U.S. Department of Interior	Pass-Through	TOLEDO ZOO AND AQUARIUM	18112181	15.634	State Wildlife Grants	25,265	
Research and Development Cluster	U.S. Department of Interior	Pass-Through	IN DEPT NAT RES DIV OF FISH & V	CONTRACT #17236	15.634	State Wildlife Grants	3,215	'
Research and Development Cluster	U.S. Department of Interior	Pass-Through	IN DEPARTMENT OF NATURAL RE	CONTRACT ID 22295	15.634	State Wildlife Grants	-5	
Research and Development Cluster	U.S. Department of Interior	Pass-Through	IN DEPARTMENT OF NATURAL RE	CONTRACT ID 23557	15.634	State Wildlife Grants	10,689	
Research and Development Cluster	U.S. Department of Interior	Pass-Through	IN DEPARTMENT OF NATURAL RE	GRANT: 00035792	15.634	State Wildlife Grants	157,121	
					Total - 15.634		196,285	
Research and Development Cluster	U.S. Department of Interior	Pass-Through	NATIONAL FISH AND WILDLIFE FO	0101.15.050007	15.650	Research Grants (Generic)	16,744	
Research and Development Cluster	U.S. Department of Interior	Direct			15.678	Cooperative Ecosystem Studies Units	48,649	
Research and Development Cluster	U.S. Department of Interior	Direct			15.805	Assistance to State Water Resources Research Institutes	187,977	129,21
Research and Development Cluster	U.S. Department of Interior	Pass-Through	UNIVERSITY OF ILLINOIS	078687-15710	15.805	Assistance to State Water Resources Research Institutes	50,372	
					Total - 15.805		238,349	129,21
Research and Development Cluster	U.S. Department of Interior	Direct			15.808	U.S. Geological Survey_ Research and Data Collection	34,423	
Research and Development Cluster	U.S. Department of Interior	Direct			15.810	National Cooperative Geologic Mapping Program	4,495	
Research and Development Cluster	U.S. Department of Interior	Pass-Through	AMERICAVIEW INC	AV18-IN-01	15.815	National Land Remote Sensing_Education Outreach and Research	12,608	
Research and Development Cluster	U.S. Department of Interior	Direct		140G0221F0033	15.RD	U.S. Department of Interior	3,255	
Research and Development Cluster	U.S. Department of Interior	Direct		140G0221P0029	15.RD	U.S. Department of Interior	16,575	
Research and Development Cluster	U.S. Department of Interior	Direct		140G0318P0283	15.RD	U.S. Department of Interior	6,394	
Research and Development Cluster	U.S. Department of Interior	Direct		140G0318P0326	15.RD	U.S. Department of Interior	45,136	'
Research and Development Cluster	U.S. Department of Interior	Direct		140G0319P0090	15.RD	U.S. Department of Interior	6,355	'
Research and Development Cluster	U.S. Department of Interior	Direct		140G0320P0047	15.RD	U.S. Department of Interior	3,150	
Research and Development Cluster	U.S. Department of Interior	Direct		140G0320P0213	15.RD	U.S. Department of Interior	10,308	'
Research and Development Cluster	U.S. Department of Interior	Direct		20123468	15.RD	U.S. Department of Interior	6,650	
Research and Development Cluster	U.S. Department of Interior	Direct		D18AC00024	15.RD	U.S. Department of Interior	616,944	409,90

^{*} denotes major programs

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

Clusters	Federal Grantor	Туре	Pass-Through Grantor	Award Identifier	Assistance Listing Number	CFDA Program Title	Federal Expenditures	Subrecipient Expenditures
Research and Development Cluster	U.S. Department of Interior	Direct		G17PX01373	15.RD	U.S. Department of Interior	8,231	
Research and Development Cluster	U.S. Department of Interior	Direct		P103716-A106153	15.RD	U.S. Department of Interior	1,692	
					Total - 15.RD		724,690	409,90
Research and Development Cluster	Total - U.S. Department of Interio	or					2,123,828	539,12
Research and Development Cluster	U.S. Department of Justice	Direct			16.543	Missing Children's Assistance	120,983	
Research and Development Cluster	U.S. Department of Justice	Direct			16.560	National Institute of Justice Research, Evaluation, and Development Project Gran	667,719	368,01
Research and Development Cluster	U.S. Department of Justice	Direct			16.562	Criminal Justice Research and Development_Graduate Research Fellowships	26,559	
Research and Development Cluster	U.S. Department of Justice	Pass-Through	UNIVERSITY OF ILLINOIS AT CHICA	⁴ 17596-00	16.582	Crime Victim Assistance/Discretionary Grants	-27	
Research and Development Cluster	U.S. Department of Justice	Direct		DJO-NIJ-17-RO-0110	16.RD	U.S. Department of Justice	34,483	-
Research and Development Cluster	Total - U.S. Department of Justic	ce					849,717	368,01
Research and Development Cluster	U.S. Department of State	Direct			19.033	Global Threat Reduction	11,035	
Research and Development Cluster	Total - U.S. Department of State						11,035	
Research and Development Cluster	U.S. Department of Transportation	Direct			20.109	Air Transportation Centers of Excellence	744,609	
Research and Development Cluster	U.S. Department of Transportation	Direct			20.200	Highway Research & Development Program	422,207	148,80
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	20122693	20.200	Highway Research & Development Program	108,845	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	2019-2020 APPROPRIATION	20.200	Highway Research & Development Program	236,718	(
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	2042	20.200	Highway Research & Development Program	8,342	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	EDS# A249-20-ON200001	20.200	Highway Research & Development Program	173,486	(
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	PO 20025230	20.200	Highway Research & Development Program	-1,547	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	PO 20037386	20.200	Highway Research & Development Program	35,750	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-2352/4345	20.200	Highway Research & Development Program	49,150	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-3715	20.200	Highway Research & Development Program	-5,088	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-3727	20.200	Highway Research & Development Program	464,387	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-3865	20.200	Highway Research & Development Program	2,392	2,39
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-3914	20.200	Highway Research & Development Program	1,622	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4009	20.200	Highway Research & Development Program	19,778	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4102	20.200	Highway Research & Development Program	7,249	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4108	20.200	Highway Research & Development Program	18,020	

^{*} denotes major programs

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

Clusters	Federal Grantor	Туре	Pass-Through Grantor	Award Identifier	Assistance Listing Number	CFDA Program Title	Federal Expenditures	Subrecipient Expenditures
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4116	20.200	Highway Research & Development Program	-1,008	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4122	20.200	Highway Research & Development Program	12,864	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4126	20.200	Highway Research & Development Program	-620	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4153	20.200	Highway Research & Development Program	-2,188	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	7 SPR-4160	20.200	Highway Research & Development Program	-1	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4162	20.200	Highway Research & Development Program	-7	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4165	20.200	Highway Research & Development Program	21,509	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4209	20.200	Highway Research & Development Program	-1	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4210	20.200	Highway Research & Development Program	4	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4212	20.200	Highway Research & Development Program	47,773	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4213	20.200	Highway Research & Development Program	40,321	24,17
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4215	20.200	Highway Research & Development Program	68,928	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4217	20.200	Highway Research & Development Program	210	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4218	20.200	Highway Research & Development Program	11,939	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4221	20.200	Highway Research & Development Program	64,608	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4222	20.200	Highway Research & Development Program	65,894	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4225	20.200	Highway Research & Development Program	20,763	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4226	20.200	Highway Research & Development Program	-3	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4231	20.200	Highway Research & Development Program	8,810	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4234	20.200	Highway Research & Development Program	47,535	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4251	20.200	Highway Research & Development Program	507,092	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4252	20.200	Highway Research & Development Program	84,525	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4300	20.200	Highway Research & Development Program	30,141	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4301	20.200	Highway Research & Development Program	36,489	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4302	20.200	Highway Research & Development Program	3,358	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4309	20.200	Highway Research & Development Program	61,677	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4310	20.200	Highway Research & Development Program	11,796	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4311	20.200	Highway Research & Development Program	21,912	21,91

^{*} denotes major programs

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

Clusters	Federal Grantor	Туре	Pass-Through Grantor	Award Identifier	Assistance Listing Number	CFDA Program Title	Federal Expenditures	Subrecipient Expenditures
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4314	20.200	Highway Research & Development Program	116,838	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORTA	SPR-4315	20.200	Highway Research & Development Program	79,177	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4318	20.200	Highway Research & Development Program	-2,385	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4319	20.200	Highway Research & Development Program	-13	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4322	20.200	Highway Research & Development Program	130,347	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4323	20.200	Highway Research & Development Program	59,483	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4325	20.200	Highway Research & Development Program	79,057	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORTA	SPR-4326	20.200	Highway Research & Development Program	100,038	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4327	20.200	Highway Research & Development Program	134,832	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4329	20.200	Highway Research & Development Program	90,088	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT.	SPR-4332	20.200	Highway Research & Development Program	11,902	
Research and Development Cluster	U.S. Department of Transportation	Pass-Inrough	IN DEPARTMENT OF TRANSPORT	SPR-4334	20.200	Highway Research & Development Program	91,895	10,36
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4335	20.200	Highway Research & Development Program	96,846	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4336	20.200	Highway Research & Development Program	50,493	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4351	20.200	Highway Research & Development Program	103,417	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4404	20.200	Highway Research & Development Program	112,552	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4405	20.200	Highway Research & Development Program	15,841	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4406	20.200	Highway Research & Development Program	59,767	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4407	20.200	Highway Research & Development Program	47,295	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4409	20.200	Highway Research & Development Program	56,621	20,00
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4411	20.200	Highway Research & Development Program	72,618	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4413	20.200	Highway Research & Development Program	111,865	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4414	20.200	Highway Research & Development Program	80,870	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4415	20.200	Highway Research & Development Program	59,430	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORTA	SPR-4417	20.200	Highway Research & Development Program	91,503	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4418	20.200	Highway Research & Development Program	82,566	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4419	20.200	Highway Research & Development Program	64,967	
Research and Development Cluster		-	IN DEPARTMENT OF TRANSPORT.		20.200	Highway Research & Development Program	45,009	
researon and Development Cidstel	S.S. Department of Transportation	i ass-illough	DEL ANTIVIENT OF TRANSPORT	0.17-7720	20.200	The state of the second of the	45,009	

^{*} denotes major programs

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

Clusters	Federal Grantor	Туре	Pass-Through Grantor	Award Identifier	Assistance Listing Number	CFDA Program Title	Federal Expenditures	Subrecipient Expenditures
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4421	20.200	Highway Research & Development Program	36,666	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4422	20.200	Highway Research & Development Program	41,406	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4423	20.200	Highway Research & Development Program	98,289	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4424	20.200	Highway Research & Development Program	65,475	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4429	20.200	Highway Research & Development Program	70,567	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4430	20.200	Highway Research & Development Program	47,975	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4431	20.200	Highway Research & Development Program	41,421	41,42
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4432	20.200	Highway Research & Development Program	42,032	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4433	20.200	Highway Research & Development Program	31,977	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4436	20.200	Highway Research & Development Program	114,782	114,78
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4437	20.200	Highway Research & Development Program	44,542	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4438	20.200	Highway Research & Development Program	55,162	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4439	20.200	Highway Research & Development Program	-5,933	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4440	20.200	Highway Research & Development Program	166,802	77,08
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4441	20.200	Highway Research & Development Program	59,659	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4442	20.200	Highway Research & Development Program	124,791	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4443	20.200	Highway Research & Development Program	95,902	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4444	20.200	Highway Research & Development Program	56,906	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4445	20.200	Highway Research & Development Program	370,045	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4446	20.200	Highway Research & Development Program	5,768	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4447	20.200	Highway Research & Development Program	85,716	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4448	20.200	Highway Research & Development Program	3,176	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4450	20.200	Highway Research & Development Program	49,674	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4451	20.200	Highway Research & Development Program	118,001	
Research and Development Cluster		_	IN DEPARTMENT OF TRANSPORT		20.200	Highway Research & Development Program	44,895	
Research and Development Cluster		_	IN DEPARTMENT OF TRANSPORT		20.200	Highway Research & Development Program	62,516	
Research and Development Cluster			IN DEPARTMENT OF TRANSPORT		20.200	Highway Research & Development Program	34,325	
·					20.200		61,292	
Research and Development Cluster	U.S. Department of Transportation	rass-inrough	IN DEPARTMENT OF TRANSPORT	3PR-43U9	20.200	Highway Research & Development Program	61,292	. 22,93

^{*} denotes major programs

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

Clusters	Federal Grantor	Туре	Pass-Through Grantor	Award Identifier	Assistance Listing Number	CFDA Program Title	Federal Expenditures	Subrecipient Expenditures
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4511	20.200	Highway Research & Development Program	133,460	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4512	20.200	Highway Research & Development Program	129,893	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4513	20.200	Highway Research & Development Program	76,325	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4514	20.200	Highway Research & Development Program	79,067	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4516	20.200	Highway Research & Development Program	71,680	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4517	20.200	Highway Research & Development Program	40,951	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4518	20.200	Highway Research & Development Program	46,214	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4521	20.200	Highway Research & Development Program	30,687	3,06
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4522	20.200	Highway Research & Development Program	106,882	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4523	20.200	Highway Research & Development Program	35,053	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4524	20.200	Highway Research & Development Program	25,127	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	7 SPR-4526	20.200	Highway Research & Development Program	26,757	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4527	20.200	Highway Research & Development Program	68,988	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4535	20.200	Highway Research & Development Program	2,458	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4536	20.200	Highway Research & Development Program	97,273	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4537	20.200	Highway Research & Development Program	59,560	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4540	20.200	Highway Research & Development Program	185,813	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4541	20.200	Highway Research & Development Program	54,901	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4542	20.200	Highway Research & Development Program	87,409	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4545	20.200	Highway Research & Development Program	32,908	32,90
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4546	20.200	Highway Research & Development Program	25,170	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4547	20.200	Highway Research & Development Program	18,652	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4549	20.200	Highway Research & Development Program	18,841	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	SPR-4600	20.200	Highway Research & Development Program	7,646	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	TPF-5(281)	20.200	Highway Research & Development Program	98,826	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	TPF-5(377)	20.200	Highway Research & Development Program	363,410	5,58
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	TPF-5(387)	20.200	Highway Research & Development Program	147,437	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN DEPARTMENT OF TRANSPORT	7 TPF-5(436)	20.200	Highway Research & Development Program	135,226	

^{*} denotes major programs

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

Clusters	Federal Grantor	Туре	Pass-Through Grantor	Award Identifier	Assistance Listing Number	CFDA Program Title	Federal Expenditures	Subrecipient Expenditures
					Total - 20.200		8,978,993	525,41
Research and Development Cluster	U.S. Department of Transportation	Direct			20.205	Highway Planning and Construction	45,231	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	NEVADA DEPT OF TRANSPORTAT	P302-19-803	20.205	Highway Planning and Construction	15,524	
					Total - 20.205		60,755	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN CRIMINAL JUSTICE INSTITUTE	CONTRACT #41264	20.600	State and Community Highway Safety	64,612	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN CRIMINAL JUSTICE INSTITUTE	CONTRACT #45047	20.600	State and Community Highway Safety	155,588	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN CRIMINAL JUSTICE INSTITUTE	CONTRACT #48906	20.600	State and Community Highway Safety	284,352	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	IN CRIMINAL JUSTICE INSTITUTE	NTP21079243	20.600	State and Community Highway Safety	114,393	
					Total - 20.600		618,945	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	UNIVERSITY OF MICHIGAN	3004631368	20.701	University Transportation Centers Program	756,746	79,95
Research and Development Cluster	U.S. Department of Transportation	Direct		13-C-AJFE-PU NO.38	20.RD	U.S. Department of Transportation	285,070	
Research and Development Cluster	U.S. Department of Transportation	Direct		18101261	20.RD	U.S. Department of Transportation	-1,385	
Research and Development Cluster	U.S. Department of Transportation	Direct		693JJ620C000032	20.RD	U.S. Department of Transportation	48,883	
Research and Development Cluster	U.S. Department of Transportation	Direct		DOT-DESIGN_2021	20.RD	U.S. Department of Transportation	468	
Research and Development Cluster	U.S. Department of Transportation	Direct		DTFACT-13-D-00010-0004	20.RD	U.S. Department of Transportation	26,711	'
Research and Development Cluster	U.S. Department of Transportation	Direct		HR 20-05(51-07)	20.RD	U.S. Department of Transportation	31,819	
Research and Development Cluster	U.S. Department of Transportation	Direct		SUB0001608	20.RD	U.S. Department of Transportation	33,660	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	CAMBRIDGE SYSTEMATICS INC	160140.029	20.RD	U.S. Department of Transportation	29,925	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	OLD DOMINION UNIV RESEARCH	20111970	20.RD	U.S. Department of Transportation	11,084	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	OLD DOMINION UNIV RESEARCH	21-164-400204-010	20.RD	U.S. Department of Transportation	2,968	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	OLD DOMINION UNIVERSITY	21-174-400204-010	20.RD	U.S. Department of Transportation	9,865	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	STATE OF SOUTH CAROLINA	4400022446	20.RD	U.S. Department of Transportation	165,546	
Research and Development Cluster	U.S. Department of Transportation	Pass-Through	UNIVERSITY OF MARYLAND	80924-Z9415201	20.RD	U.S. Department of Transportation	67,412	
					Total - 20.RD		712,026	
Research and Development Cluster	Total - U.S. Department of Trans	portation					11,872,074	605,37
Research and Development Cluster	National Aeronautics & Space Adm	Direct			43.001	Science	2,531,466	222,47
Research and Development Cluster	National Aeronautics & Space Adm	Pass-Through	UNIVERSITY OF COLORADO AT BO	1555205	43.001	Science	174,689	
Research and Development Cluster	National Aeronautics & Space Adm	Pass-Through	CONTINUOUS SOLUTIONS	16077690	43.001	Science	-16,325	

^{*} denotes major programs

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

Clusters	Federal Grantor	Туре	Pass-Through Grantor	Award Identifier	Assistance Listing Number	CFDA Program Title	Federal Expenditures	Subrecipient Expenditures
Research and Development Cluster	National Aeronautics & Space Adm	Pass-Through	JET PROPULSION LABORATORY	1609311	43.001	Science	3,371	(
Research and Development Cluster	National Aeronautics & Space Adm	Pass-Through	PLANETARY SCIENCE INSTITUTE	1612-PU	43.001	Science	57,073	. (
Research and Development Cluster	National Aeronautics & Space Adm	Pass-Through	JET PROPULSION LABORATORY	1642716	43.001	Science	10,895	(
Research and Development Cluster	National Aeronautics & Space Adm	Pass-Through	JET PROPULSION LABORATORY	1653611	43.001	Science	13,000	(
Research and Development Cluster	National Aeronautics & Space Adm	Pass-Through	JET PROPULSION LABORATORY	1657892	43.001	Science	131,799	(
Research and Development Cluster	National Aeronautics & Space Adm	Pass-Through	EAGLE HARBOR TECHNOLOGIES,	17066953	43.001	Science	7,854	
Research and Development Cluster	National Aeronautics & Space Adm	Pass-Through	LOWELL OBSERVATORY	2016-81490	43.001	Science	13,556	
Research and Development Cluster	National Aeronautics & Space Adm	Pass-Through	UNIVERSITY OF CENTRAL FLORID	66016A16	43.001	Science	61,381	(
Research and Development Cluster	National Aeronautics & Space Adm	Pass-Through	UNIVERSITY OF ALABAMA	A20-0041-S001	43.001	Science	15,438	(
Research and Development Cluster	National Aeronautics & Space Adm	Pass-Through	SMITHSONIAN ASTROPHYSICAL O	GO0-21089X	43.001	Science	42,935	
Research and Development Cluster	National Aeronautics & Space Adm	Pass-Through	SMITHSONIAN ASTROPHYSICAL O	GO9-20085X	43.001	Science	105	(
Research and Development Cluster	National Aeronautics & Space Adm	Pass-Through	TEXAS A&M UNIVERSITY	M1900178	43.001	Science	34,758	(
Research and Development Cluster	National Aeronautics & Space Adm	Pass-Through	MASSACHUSETTS INSTITUTE OF 1	S5011	43.001	Science	29,841	(
					Total - 43.001		3,111,836	222,474
Research and Development Cluster	National Aeronautics & Space Adm	Direct			43.002	Aeronautics	64,262	
Research and Development Cluster	National Aeronautics & Space Adm	Pass-Through	NORTH CAROLINA A & T UNIVERS	220072B	43.002	Aeronautics	321,540	(
Research and Development Cluster	National Aeronautics & Space Adm	Pass-Through	MASSACHUSETTS INSTITUTE OF 1	5710003954	43.002	Aeronautics	33,075	(
Research and Development Cluster	National Aeronautics & Space Adm	Pass-Through	GEORGIA INSTITUTE OF TECHNOL	AWD-100719-G2	43.002	Aeronautics	8,571	(
					Total - 43.002		427,448	
Research and Development Cluster	National Aeronautics & Space Adm	Direct			43.003	Exploration	111,643	3,384
Research and Development Cluster	National Aeronautics & Space Adm	Direct			43.007	Space Operations	307,187	95
Research and Development Cluster	National Aeronautics & Space Adm	Pass-Through	NATIONAL INSTITUTE OF AEROSP	C20-202023-PU	43.008	Education	32,366	(
Research and Development Cluster	National Aeronautics & Space Adm	Direct			43.012	Space Technology	3,870,516	1,309,11
Research and Development Cluster	National Aeronautics & Space Adm	Pass-Through	UNIVERSITY OF PUERTO RICO - S.	2021-000053	43.012	Space Technology	42,234	
Research and Development Cluster	National Aeronautics & Space Adm	Pass-Through	RENSSELAER POLYTECHNIC INST	A20-0091-S001	43.012	Space Technology	53,645	
					Total - 43.012		3,966,395	1,309,11
Research and Development Cluster	National Aeronautics & Space Adm	Direct		1547388	43.RD	National Aeronautics & Space Administration	85,745	(
Research and Development Cluster	National Aeronautics & Space Adm	Direct		1615649	43.RD	National Aeronautics & Space Administration	10,313	

^{*} denotes major programs

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

Clusters	Federal Grantor	Туре	Pass-Through Grantor	Award Identifier	Assistance Listing Number	CFDA Program Title	Federal Expenditures	Subrecipient Expenditure
Research and Development Cluster	National Aeronautics & Space Adm	Direct		164329	43.RD	National Aeronautics & Space Administration	4,901	
Research and Development Cluster	National Aeronautics & Space Adm	Direct		18078780	43.RD	National Aeronautics & Space Administration	243	
Research and Development Cluster	National Aeronautics & Space Adm	Direct		80GRC018C0055	43.RD	National Aeronautics & Space Administration	91,459	
Research and Development Cluster	National Aeronautics & Space Adm	Direct		80NSSC19K0582	43.RD	National Aeronautics & Space Administration	164,023	98,89
Research and Development Cluster	National Aeronautics & Space Adm	Direct		HST-AR-16154.001-A	43.RD	National Aeronautics & Space Administration	30,382	
Research and Development Cluster	National Aeronautics & Space Adm	Direct		HST-GO-14801.003-A	43.RD	National Aeronautics & Space Administration	2,239	
Research and Development Cluster	National Aeronautics & Space Adm	Direct		HST-GO-15995.005-A	43.RD	National Aeronautics & Space Administration	5,644	
Research and Development Cluster	National Aeronautics & Space Adm	Direct		HST-GO-16165.008-A	43.RD	National Aeronautics & Space Administration	12,991	
Research and Development Cluster	National Aeronautics & Space Adm	Direct		NTP-21112525	43.RD	National Aeronautics & Space Administration	17,006	
Research and Development Cluster	National Aeronautics & Space Adm	Pass-Through	ARIZONA STATE UNIVERSITY	15-704	43.RD	National Aeronautics & Space Administration	90,298	
Research and Development Cluster	National Aeronautics & Space Adm	Pass-Through	JOHNS HOPKINS UNIVERSITY APP	165830	43.RD	National Aeronautics & Space Administration	29,654	
Research and Development Cluster	National Aeronautics & Space Adm	Pass-Through	AIR SQUARED	18067611	43.RD	National Aeronautics & Space Administration	-5,540	
esearch and Development Cluster	National Aeronautics & Space Adm	Pass-Through	P. C. KRAUSE AND ASSOCIATES, I	18122509	43.RD	National Aeronautics & Space Administration	64,809	
Research and Development Cluster	National Aeronautics & Space Adm	Pass-Through	ANALYSWIFT LLC	19090191	43.RD	National Aeronautics & Space Administration	15,161	
Research and Development Cluster	National Aeronautics & Space Adm	Pass-Through	VESTIGO AEROSPACE	19090279	43.RD	National Aeronautics & Space Administration	16	
Research and Development Cluster	National Aeronautics & Space Adm	Pass-Through	VESTIGO AEROSPACE	20089549	43.RD	National Aeronautics & Space Administration	36,639	
Research and Development Cluster	National Aeronautics & Space Adm	Pass-Through	ANALYSWIFT LLC	20090595	43.RD	National Aeronautics & Space Administration	26,924	
Research and Development Cluster	National Aeronautics & Space Adm	Pass-Through	AIR SQUARED	20122783	43.RD	National Aeronautics & Space Administration	75,011	
Research and Development Cluster	National Aeronautics & Space Adm	_		20122881	43.RD	National Aeronautics & Space Administration	50,063	
Research and Development Cluster		_		2282-1	43.RD	National Aeronautics & Space Administration	54,811	
Research and Development Cluster	National Aeronautics & Space Adm			3002485426	43.RD	National Aeronautics & Space Administration	89,850	
					43.RD		9,000	
Research and Development Cluster		_	OLD DOMINION UNIV RESEARCH F			National Aeronautics & Space Administration		
Research and Development Cluster	National Aeronautics & Space Adm			ASUB00000621	43.RD	National Aeronautics & Space Administration	97,753	
Research and Development Cluster		_	FRONTIER AEROSPACE CORPORA		43.RD	National Aeronautics & Space Administration	61,466	
Research and Development Cluster	·		SPACE TELESCOPE SCIENCE INST		43.RD	National Aeronautics & Space Administration	-56	
Research and Development Cluster	National Aeronautics & Space Adm	Pass-Through	SPACE TELESCOPE SCIENCE INST	THST-GO-15818.001-A	43.RD	National Aeronautics & Space Administration	12,237	
Research and Development Cluster	National Aeronautics & Space Adm	Pass-Through	IN SPACE, LLC	INS-41703-1	43.RD	National Aeronautics & Space Administration	55,259	
Research and Development Cluster	National Aeronautics & Space Adm	Pass-Through	VON BRAUN CTR FOR SCIENCE &	PUR18-002	43.RD	National Aeronautics & Space Administration	13	

^{*} denotes major programs

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

Clusters	Federal Grantor	Туре	Pass-Through Grantor	Award Identifier	Assistance Listing Number	CFDA Program Title	Federal Expenditures	Subrecipient Expenditures
Research and Development Cluster	National Aeronautics & Space Adm	Pass-Through	SPECTRAL ENERGIES, LLC	SB1917-001-2	43.RD	National Aeronautics & Space Administration	1,384	
Research and Development Cluster	National Aeronautics & Space Adm	Pass-Through	SPECTRAL ENERGIES, LLC	SB2102-001-1	43.RD	National Aeronautics & Space Administration	17,554	
Research and Development Cluster	National Aeronautics & Space Adm	Pass-Through	SETI INSTITUTE	SC 3447	43.RD	National Aeronautics & Space Administration	69,030	
Research and Development Cluster	National Aeronautics & Space Adm	Pass-Through	PHYSICAL SCIENCES, INC	SC 6982-46-1	43.RD	National Aeronautics & Space Administration	39,055	
Research and Development Cluster	National Aeronautics & Space Adm	Pass-Through	PHYSICAL SCIENCES, INC	SC-7378-059-4171-001	43.RD	National Aeronautics & Space Administration	156,511	
Research and Development Cluster	National Aeronautics & Space Adm	Pass-Through	NATIONAL INSTITUTE OF AEROSP	7T16-6500-PU	43.RD	National Aeronautics & Space Administration	126,756	
Research and Development Cluster	National Aeronautics & Space Adm	Pass-Through	ANALYTICAL MECHANICS ASSOC,	T3-0224-FY20	43.RD	National Aeronautics & Space Administration	5,000	
Research and Development Cluster	National Aeronautics & Space Adm	Pass-Through	ANALYTICAL MECHANICS ASSOC,	T3-0417-FY19	43.RD	National Aeronautics & Space Administration	1,186	
Research and Development Cluster	National Aeronautics & Space Adm	Pass-Through	ANALYTICAL MECHANICS ASSOC,	T3-0490 FY20	43.RD	National Aeronautics & Space Administration	9,663	
					Total - 43.RD		1,614,453	98,89
Research and Development Cluster	Total - National Aeronautics & Sp	pace Administr	ation				9,571,328	1,634,81
Research and Development Cluster	National Endowment for the Arts &	Direct			45.161	Promotion of the Humanities_Research	-195	
Research and Development Cluster	Total - National Endowment for t	he Arts & Hum	anities				-195	
Research and Development Cluster	National Science Foundation	Direct			47.041	Engineering Grants	20,965,377	4,130,23
Research and Development Cluster	National Science Foundation	Pass-Through	AUBURN UNIVERSITY	17-ENG-200641-PU	47.041	Engineering Grants	64,394	
Research and Development Cluster	National Science Foundation	Pass-Through	CROSSLIFE TECHNOLOGIES INC	17066873	47.041	Engineering Grants	-9,408	
Research and Development Cluster	National Science Foundation	Pass-Through	GENIPHYS LLC	19057322	47.041	Engineering Grants	14,347	
Research and Development Cluster	National Science Foundation	Pass-Through	NUTRAMAIZE	19089464	47.041	Engineering Grants	123,676	
Research and Development Cluster	National Science Foundation	Pass-Through	VALGOTECH LLC	20057381	47.041	Engineering Grants	88,640	
Research and Development Cluster	National Science Foundation	Pass-Through	ONU TECHNOLOGY, INC	20090643	47.041	Engineering Grants	10,000	
Research and Development Cluster	National Science Foundation	Pass-Through	KAMPANICS, LLC	2014804	47.041	Engineering Grants	70,117	
Research and Development Cluster	National Science Foundation	Pass-Through	NORTH CAROLINA STATE UNIVER	\$2019-0901-01	47.041	Engineering Grants	11,427	
Research and Development Cluster	National Science Foundation	Pass-Through	UTAH STATE UNIVERSITY	203085-731	47.041	Engineering Grants	239,658	
Research and Development Cluster	National Science Foundation	Pass-Through	ERADIRVIR, INC	21079084	47.041	Engineering Grants	24,164	
Research and Development Cluster	National Science Foundation	Pass-Through	RUTGERS, THE STATE UNIVERSIT	2297	47.041	Engineering Grants	-2	
Research and Development Cluster	National Science Foundation	Pass-Through	UNIVERSITY OF MICHIGAN	3004362735	47.041	Engineering Grants	216,195	
Research and Development Cluster	National Science Foundation	Pass-Through	VIRGINIA TECH	480081-19084	47.041	Engineering Grants	222,981	
Research and Development Cluster	National Science Foundation	Pass-Through	UNIVERSITY OF PENNSYLVANIA	580247	47.041	Engineering Grants	184,509	

^{*} denotes major programs

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

Clusters	Federal Grantor	Туре	Pass-Through Grantor	Award Identifier	Assistance Listing Number	CFDA Program Title	Federal Expenditures	Subrecipient Expenditure
Research and Development Cluster	National Science Foundation	Pass-Through	UNIVERSITY OF SAN DIEGO	A15-0009-S002	47.041	Engineering Grants	32,464	
Research and Development Cluster	National Science Foundation	Pass-Through	ARIZONA STATE UNIVERSITY	ASUB00000557	47.041	Engineering Grants	134,345	
Research and Development Cluster	National Science Foundation	Pass-Through	CALIFORNIA STATE UNIVERSITY F	SC360453-18-01	47.041	Engineering Grants	Federal Expenditures 32,464 134,345 20,226 22,413,110 10,125,920 20,848 2,678 24,508 -5,260 2,613 533,521 10,704,828 2,874,652 40,414 20,492 4,345 2,939,903 16,768,095 182,689 69,582 93,284 20,542 27,253 75,406 32,198 31,499 62,171	
					Total - 47.041		22,413,110	4,130,23
Research and Development Cluster	National Science Foundation	Direct			47.049	Mathematical and Physical Sciences	10,125,920	118,13
Research and Development Cluster	National Science Foundation	Pass-Through	CARNEGIE-MELLON UNIVERSITY	1123266-388661	47.049	Mathematical and Physical Sciences	20,848	
Research and Development Cluster	National Science Foundation	Pass-Through	UNIVERSITY OF MASSACHUSETTS	21-015990-A-00	47.049	Mathematical and Physical Sciences	2,678	
Research and Development Cluster	National Science Foundation	Pass-Through	DUKE UNIVERSITY	333-2726	47.049	Mathematical and Physical Sciences	24,508	
Research and Development Cluster	National Science Foundation	Pass-Through	CORNELL UNIVERSITY	75737-11061	47.049	Mathematical and Physical Sciences	-5,260	
Research and Development Cluster	National Science Foundation	Pass-Through	ARIZONA STATE UNIVERSITY	ASUB00000730	47.049	Mathematical and Physical Sciences	2,613	
Research and Development Cluster	National Science Foundation	Pass-Through	PRINCETON UNIVERSITY	SUB0000181	47.049	Mathematical and Physical Sciences	533,521	
					Total - 47.049		10,704,828	118,13
Research and Development Cluster	National Science Foundation	Direct			47.050	Geosciences	2,874,652	128,41
Research and Development Cluster	National Science Foundation	Pass-Through	UNIV OF ILLINOIS AT CHAMPAIGN-	072212-14701	47.050	Geosciences	40,414	
Research and Development Cluster	National Science Foundation	Pass-Through	COLUMBIA UNIVERSITY	1(GG013199)	47.050	Geosciences	20,492	
Research and Development Cluster	National Science Foundation	Pass-Through	IN UNIV PURDUE UNIV AT INDIANA	7892	47.050	Geosciences	4,345	
					Total - 47.050		2,939,903	128,41
Research and Development Cluster	National Science Foundation	Direct			47.070	Computer and Information Science and Engineering	16,768,095	2,554,59
Research and Development Cluster	National Science Foundation	Pass-Through	UNIV OF ILLINOIS AT CHAMPAIGN-	083842-16071	47.070	Computer and Information Science and Engineering	182,689	
Research and Development Cluster	National Science Foundation	Pass-Through	OHIO STATE UNIVERSITY	1839252	47.070	Computer and Information Science and Engineering	69,582	
Research and Development Cluster	National Science Foundation	Pass-Through	MOLECULAR SCIENCES SOFTWAR	479590-19084	47.070	Computer and Information Science and Engineering	93,284	
Research and Development Cluster	National Science Foundation	Pass-Through	VIRGINIA POLYTECHNIC INST & ST	480299-19084	47.070	Computer and Information Science and Engineering	20,542	
Research and Development Cluster	National Science Foundation	Pass-Through	NORTHWESTERN UNIVERSITY	60054249 PURDUE	47.070	Computer and Information Science and Engineering	27,253	
Research and Development Cluster	National Science Foundation	Pass-Through	UNIVERSITY OF CALIFORNIA - SAM	78283280	47.070	Computer and Information Science and Engineering	75,406	
Research and Development Cluster	National Science Foundation	Pass-Through	UNIVERSITY OF MINNESOTA	A006581302	47.070	Computer and Information Science and Engineering	32,198	
Research and Development Cluster	National Science Foundation	Pass-Through	GEORGE MASON UNIVERSITY	E2043283	47.070	Computer and Information Science and Engineering	31,499	
Research and Development Cluster	National Science Foundation	Pass-Through	UNIVERSITY OF TOLEDO	F-2020-11	47.070	Computer and Information Science and Engineering	62,171	
Research and Development Cluster	National Science Foundation	Pass-Through	UNIVERSITY OF MICHIGAN	SUBK00014127	47.070	Computer and Information Science and Engineering	43,116	

^{*} denotes major programs

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

Clusters	Federal Grantor	Туре	Pass-Through Grantor	Award Identifier	Assistance Listing Number	CFDA Program Title	Federal Expenditures	Subrecipient Expenditure
					Total - 47.070		17,405,835	2,554,59
Research and Development Cluster	National Science Foundation	Direct			47.074	Biological Sciences	5,135,013	503,25
Research and Development Cluster	National Science Foundation	Pass-Through	UNIVERSITY OF UTAH	10040050-01	47.074	Biological Sciences	26,695	
Research and Development Cluster	National Science Foundation	Pass-Through	NORTH CAROLINA STATE UNIVER	\$2014-2564-01	47.074	Biological Sciences	-1,789	
Research and Development Cluster	National Science Foundation	Pass-Through	COLD SPRING HARBOR LABORATE	52670216	47.074	Biological Sciences	40,379	
Research and Development Cluster	National Science Foundation	Pass-Through	MICHIGAN STATE UNIVERSITY	RC104982PU	47.074	Biological Sciences	17,218	
Research and Development Cluster	National Science Foundation	Pass-Through	UNIVERSITY OF FLORIDA	SUB00002485	47.074	Biological Sciences	14,854	
					Total - 47.074		5,232,370	503,25
Research and Development Cluster	National Science Foundation	Direct			47.075	Social, Behavioral, and Economic Sciences	670,791	57,88
Research and Development Cluster	National Science Foundation	Pass-Through	UNIVERSITY OF NEBRASKA	25-6238-0905-004	47.075	Social, Behavioral, and Economic Sciences	4,891	
Research and Development Cluster	National Science Foundation	Pass-Through	PENNSYLVANIA STATE UNIVERSIT	5897-PU-NSF-4092	47.075	Social, Behavioral, and Economic Sciences	2,530	
Research and Development Cluster	National Science Foundation	Pass-Through	UNIVERSITY OF CHICAGO	FP043343-02-B	47.075	Social, Behavioral, and Economic Sciences	-13,950	
					Total - 47.075		664,262	57,88
Research and Development Cluster	National Science Foundation	Direct			47.076	Education and Human Resources	9,483,781	547,99
Research and Development Cluster	National Science Foundation	Pass-Through	UNIVERSITY OF ILLINOIS AT CHICA	17765	47.076	Education and Human Resources	23,760	
Research and Development Cluster	National Science Foundation	Pass-Through	PASADENA CITY COLLEGE	2000281PURDUE-PACCD B21	C 47.076	Education and Human Resources	10,374	
Research and Development Cluster	National Science Foundation	Pass-Through	THE CONCORD CONSORTIUM INC	299-01	47.076	Education and Human Resources	86,912	
Research and Development Cluster	National Science Foundation	Pass-Through	THE CONCORD CONSORTIUM INC	314.01	47.076	Education and Human Resources	44,970	
Research and Development Cluster	National Science Foundation	Pass-Through	VIRGINIA POLYTECHNIC INST & ST	479710-19084	47.076	Education and Human Resources	271	
Research and Development Cluster	National Science Foundation	Pass-Through	PENNSYLVANIA STATE UNIVERSIT	5430-PU-NSF-1450	47.076	Education and Human Resources	796	
Research and Development Cluster	National Science Foundation	Pass-Through	OHIO STATE UNIVERSITY	60059092	47.076	Education and Human Resources	5,543	
Research and Development Cluster	National Science Foundation	Pass-Through	UNIVERSITY OF MONTANA	PG20-66254-01	47.076	Education and Human Resources	27,620	
Research and Development Cluster	National Science Foundation	Pass-Through	SINCLAIR COMMUNITY COLLEGE	SCC-1700531	47.076	Education and Human Resources	8,504	
Research and Development Cluster				UNIV59509	47.076	Education and Human Resources	1,365	
Research and Development Cluster	National Science Foundation	Pass-Through	VANDERBILT UNIVERSITY	OMINDADOR	47.076	Education and numan Resources	1,305	
					Total - 47.076		9,693,896	547,99
Research and Development Cluster	National Science Foundation	Direct			47.078	Polar Programs	23,350	
Research and Development Cluster	National Science Foundation	Direct			47.079	International Science and Engineering (OISE)	52,888	
Research and Development Cluster	National Science Foundation	Pass-Through	ARIZONA STATE UNIVERSITY	ASUB00000616	47.079	International Science and Engineering (OISE)	2,191	

^{*} denotes major programs

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

Clusters	Federal Grantor	Туре	Pass-Through Grantor	Award Identifier	Assistance Listing Number	CFDA Program Title	Federal Expenditures	Subrecipient Expenditure
					Total - 47.079		55,079	
Research and Development Cluster	National Science Foundation	Pass-Through	UNIVERSITY OF CINCINNATI	012454-002	47.080	Office of Cyberinfrastructure	34,819	27,62
Research and Development Cluster	National Science Foundation	Direct			47.083	Office of Integrative Activities	1,343,325	143,85
Research and Development Cluster	National Science Foundation	Pass-Through	UNIVERSITY OF CINCINNATI	013204-002	47.083	Office of Integrative Activities	22,816	
Research and Development Cluster	National Science Foundation	Pass-Through	UNIV OF ILLINOIS AT CHAMPAIGN-	- 097434-17672	47.083	Office of Integrative Activities	65,318	
Research and Development Cluster	National Science Foundation	Pass-Through	UNIVERSITY OF ARIZONA	582141	47.083	Office of Integrative Activities	89,876	
					Total - 47.083		1,521,335	143,85
Research and Development Cluster	National Science Foundation	Direct		1000 G WD515	47.RD	National Science Foundation	88,705	
Research and Development Cluster	National Science Foundation	Direct		134149-5113572	47.RD	National Science Foundation	63,340	
Research and Development Cluster	National Science Foundation	Direct		1937036-OIA	47.RD	National Science Foundation	20,543	14,68
Research and Development Cluster	National Science Foundation	Direct		1946683	47.RD	National Science Foundation	211,443	
Research and Development Cluster	National Science Foundation	Direct		1948438-EEC	47.RD	National Science Foundation	108,925	
Research and Development Cluster	National Science Foundation	Direct		2052860	47.RD	National Science Foundation	215,691	
Research and Development Cluster	National Science Foundation	Direct		2053097	47.RD	National Science Foundation	167,034	
Research and Development Cluster	National Science Foundation	Direct		21035873	47.RD	National Science Foundation	9,938	
Research and Development Cluster	National Science Foundation	Direct		21036089	47.RD	National Science Foundation	9,641	
Research and Development Cluster	National Science Foundation	Direct		28-S172814	47.RD	National Science Foundation	1,907	
Research and Development Cluster	National Science Foundation	Direct		5112062	47.RD	National Science Foundation	-15,648	
Research and Development Cluster	National Science Foundation	Direct		577550	47.RD	National Science Foundation	106,498	
Research and Development Cluster	National Science Foundation	Direct		87901/3/1160759	47.RD	National Science Foundation	36,716	
Research and Development Cluster	National Science Foundation	Direct		S2037-RCA-20-0020	47.RD	National Science Foundation	478	
Research and Development Cluster	National Science Foundation	Pass-Through	EXPLORE INTERACTIVE, INC	19090107	47.RD	National Science Foundation	-3,343	
Research and Development Cluster	National Science Foundation	Pass-Through	AMER INST OF MATHEMATICS	20024947	47.RD	National Science Foundation	10,000	
Research and Development Cluster	National Science Foundation	Pass-Through	SPIRROW THERAPEUTICS LLC	20101411	47.RD	National Science Foundation	35,252	
Research and Development Cluster	National Science Foundation	Pass-Through	OMNIVIS	21057449	47.RD	National Science Foundation	3,737	
Research and Development Cluster	National Science Foundation	Pass-Through	CENTER FOR BIOANALYTIC METR	(307915PU	47.RD	National Science Foundation	101,744	
Research and Development Cluster	National Science Foundation	Pass-Through	UNIVERSITY OF NOTRE DAME	307915PU	47.RD	National Science Foundation	47,567	
Research and Development Cluster	National Science Foundation	Pass-Through	CENTER FOR BIOANALYTIC METR	(307915PU-LINNES	47.RD	National Science Foundation	2,316	

^{*} denotes major programs

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

Clusters	Federal Grantor	Туре	Pass-Through Grantor	Award Identifier	Assistance Listing Number	CFDA Program Title	Federal Expenditures	Subrecipient Expenditures
Research and Development Cluster	National Science Foundation	Pass-Through	PENNSYLVANIA STATE UNIVERSIT	6024-PU-NSF-0020	47.RD	National Science Foundation	6,089	
					Total - 47.RD		1,228,573	14,68
Research and Development Cluster	Total - National Science Founda	ation					71,917,360	8,226,67
Research and Development Cluster	Small Business Administration	Pass-Through	IN ECONOMIC DEVELOPMENT COR	21068307	59.037	Small Business Development Center	81,850	
Research and Development Cluster	Small Business Administration	Pass-Through	IN ECONOMIC DEVELOPMENT COR	CARES ACTA229-1-SBA-1039	59.037	Small Business Development Center	28,715	
					Total - 59.037		110,565	
Research and Development Cluster	Total - Small Business Administ	tration					110,565	
Research and Development Cluster	Department of Veterans Affairs	Direct			64.009	Veterans Medical Care Benefits	49,816	
Research and Development Cluster	Department of Veterans Affairs	Direct		583-D05040	64.RD	Department of Veteran's Affairs	15,400	
Research and Development Cluster	Department of Veterans Affairs	Direct		583-D15077	64.RD	Department of Veteran's Affairs	5,162	
Research and Development Cluster	Department of Veterans Affairs	Direct		583D15090	64.RD	Department of Veteran's Affairs	5,927	
Research and Development Cluster	Department of Veterans Affairs	Direct		IPA GREG ARLING	64.RD	Department of Veteran's Affairs	18,988	
					Total - 64.RD		45,477	
Research and Development Cluster	Total - Department of Veterans	Affairs					95,293	
Research and Development Cluster	Environmental Protection Agency	Direct			66.034	Surveys, Studies, Investigations, Demonstrations and Special Purpose Activities	13,739	
Research and Development Cluster	Environmental Protection Agency	Pass-Through	IN STATE DEPARTMENT OF AGRIC	CONTRACT #42559	66.436	Surveys, Studies, Investigations, Demonstrations, and Training Grants and Cooper	38,908	
Research and Development Cluster	Environmental Protection Agency	Pass-Through	IN DEPARTMENT OF ENVIRONMEN	CONTRACT# 19146	66.460	Nonpoint Source Implementation Grants	104,129	
Research and Development Cluster	Environmental Protection Agency	Pass-Through	IN DEPARTMENT OF ENVIRONMENT	CONTRACT# 34910	66.469	Great Lakes Program	101	
Research and Development Cluster	Environmental Protection Agency	Pass-Through	MICHIGAN DEPT OF NATURAL RES	FISH112020-1	66.469	Great Lakes Program	70,339	
					Total - 66.469		70,440	
Research and Development Cluster	Environmental Protection Agency	Direct			66.509	Science To Achieve Results (STAR) Research Program	344,364	182,75
Research and Development Cluster	Environmental Protection Agency	Direct			66.511	Office of Research and Development Consolidated Research/Training	270,414	131,68
Research and Development Cluster	Environmental Protection Agency	Direct			66.608	Environmental Information Exchange Network Grant Program and Related Assistance	95,269	
Research and Development Cluster	Environmental Protection Agency	Direct		84008201	66.RD	Environmental Protection Agency	158,161	25,29
Research and Development Cluster	Environmental Protection Agency	Pass-Through	AMEC	16098772	66.RD	Environmental Protection Agency	18,632	'
Research and Development Cluster	Environmental Protection Agency	Pass-Through	PEGASUS TECHNICAL SERVICES I	PUR-19-001	66.RD	Environmental Protection Agency	8,047	
Research and Development Cluster	Environmental Protection Agency	Pass-Through	PEGASUS TECHNICAL SERVICES I	PUR-20-001	66.RD	Environmental Protection Agency	15,806	
Research and Development Cluster	Environmental Protection Agency	Pass-Through	PEGASUS TECHNICAL SERVICES I	PUR-21-001	66.RD	Environmental Protection Agency	24,830	

^{*} denotes major programs

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

Clusters	Federal Grantor	Туре	Pass-Through Grantor	Award Identifier	Assistance Listing Number	CFDA Program Title	Federal Expenditures	Subrecipient Expenditure
					Total - 66.RD		225,476	25,29
Research and Development Cluster	Total - Environmental Protection	n Agency					1,162,739	339,73
Research and Development Cluster	Nuclear Regulatory Commission	Direct			77.008	Nuclear Regulatory Commission Scholarship & Fellowship Program	-1,189	
Research and Development Cluster	Nuclear Regulatory Commission	Direct		NRC-HQ-84-14-G-0048	77.RD	Nuclear Regulatory Commission	77,135	
Research and Development Cluster	Nuclear Regulatory Commission	Pass-Through	ENERGY RESEARCH INC.	NRC-HQ-25-14-E-005 TO 1	77.RD	Nuclear Regulatory Commission	36,102	
Research and Development Cluster	Nuclear Regulatory Commission	Pass-Through	UNIVERSITY OF MICHIGAN	SUBK00011584	77.RD	Nuclear Regulatory Commission	49,730	
					Total - 77.RD		162,967	
Research and Development Cluster	Total - Nuclear Regulatory Com	mission					161,778	
Research and Development Cluster	U.S. Department of Energy	Direct			81.049	Office of Science Financial Assistance Program	7,800,263	836,07
Research and Development Cluster	U.S. Department of Energy	Pass-Through	DONALD DANFORTH PLANT SCIEN	N 23706-P	81.049	Office of Science Financial Assistance Program	188,110	
Research and Development Cluster	U.S. Department of Energy	Pass-Through	UNIVERSITY OF NEBRASKA-LINCO	25-1215-0208-004	81.049	Office of Science Financial Assistance Program	85,506	
Research and Development Cluster	U.S. Department of Energy	Pass-Through	OAK RIDGE NATIONAL LABORATO	1 4000184661	81.049	Office of Science Financial Assistance Program	599,664	
Research and Development Cluster	U.S. Department of Energy	Pass-Through	STANFORD UNIVERSITY	61351722-124215	81.049	Office of Science Financial Assistance Program	223,854	
Research and Development Cluster	U.S. Department of Energy	Pass-Through	STONY BROOK UNIVERSITY	85526/2/1155763	81.049	Office of Science Financial Assistance Program	888	
Research and Development Cluster	U.S. Department of Energy	Pass-Through	NEW YORK UNIVERSITY	F7600-06	81.049	Office of Science Financial Assistance Program	18,599	
Research and Development Cluster	U.S. Department of Energy	Pass-Through	UNIV OF CALIFORNIA-SANTA BAR	E KK1935	81.049	Office of Science Financial Assistance Program	82,954	
Research and Development Cluster	U.S. Department of Energy	Pass-Through	PENNSYLVANIA STATE UNIVERSIT	S001325-USDOE	81.049	Office of Science Financial Assistance Program	81,600	
					Total - 81.049		9,081,438	836,07
Research and Development Cluster	U.S. Department of Energy	Direct			81.086	Conservation Research and Development	1,494,972	224,42
Research and Development Cluster	U.S. Department of Energy	Pass-Through	UNIVERSITY OF WISCONSIN-MAD	1: 0000000464	81.086	Conservation Research and Development	118,987	
Research and Development Cluster	U.S. Department of Energy	Pass-Through	UTAH STATE UNIVERSITY	203220-744	81.086	Conservation Research and Development	6,708	
Research and Development Cluster	U.S. Department of Energy	Pass-Through	INST FOR ADVCD COMPOSITES M	I PA16-0349-3.12-01	81.086	Conservation Research and Development	43,739	
Research and Development Cluster	U.S. Department of Energy	Pass-Through	UNIVERSITY OF TENNESSEE (THE	PA16-0349-4.2-01	81.086	Conservation Research and Development	-986	
Research and Development Cluster	U.S. Department of Energy	Pass-Through	UNIVERSITY OF TENNESSEE (THE	; PA16-0349-7.1-01	81.086	Conservation Research and Development	955,840	
					Total - 81.086		2,619,260	224,42
Research and Development Cluster	U.S. Department of Energy	Direct			81.087	Renewable Energy Research and Development	2,366,297	241,57
Research and Development Cluster	U.S. Department of Energy	Pass-Through	THE REGENTS OF THE UNIV OF C	4550 G YA226	81.087	Renewable Energy Research and Development	14,091	
Research and Development Cluster	U.S. Department of Energy	Pass-Through	MICHIGAN STATE UNIVERSITY	RC111121 - PU	81.087	Renewable Energy Research and Development	51,477	

^{*} denotes major programs

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

Clusters	Federal Grantor	Туре	Pass-Through Grantor	Award Identifier	Assistance Listing Number	CFDA Program Title	Federal Expenditures	Subrecipient Expenditures
Research and Development Cluster	U.S. Department of Energy	Pass-Through	MASSACHUSETTS INSTITUTE OF T	S4696-PO245703	81.087	Renewable Energy Research and Development	82,849	(
					Total - 81.087		2,514,714	241,57
Research and Development Cluster	U.S. Department of Energy	Pass-Through	TENNESSEE TECH UNIVERSITY	BL125409438	81.089	Fossil Energy Research and Development	210,984	
Research and Development Cluster	U.S. Department of Energy	Pass-Through	SOUTHWEST RESEARCH INSTITUT	P99007RR	81.089	Fossil Energy Research and Development	123,781	
Research and Development Cluster	U.S. Department of Energy	Pass-Through	NATIONAL RURAL ELECTRIC COOF	PURDUE-001-SUBK	81.089	Fossil Energy Research and Development	498,761	
					Total - 81.089		833,526	
Research and Development Cluster	U.S. Department of Energy	Pass-Through	NORTH CAROLINA STATE UNIVERS	2014-0501-03	81.113	Defense Nuclear Nonproliferation Research	-17,861	
Research and Development Cluster	U.S. Department of Energy	Direct			81.121	Nuclear Energy Research, Development and Demonstration	759,378	139,69
Research and Development Cluster	U.S. Department of Energy	Pass-Through	BATTELLE ENERGY ALLIANCE LLC	195702	81.121	Nuclear Energy Research, Development and Demonstration	11,623	
Research and Development Cluster	U.S. Department of Energy	Pass-Through	NORTH CAROLINA STATE UNIVERS	2016-1536-01	81.121	Nuclear Energy Research, Development and Demonstration	39,876	
Research and Development Cluster	U.S. Department of Energy	Pass-Through	BOISE STATE UNIVERSITY	7161-PO124384	81.121	Nuclear Energy Research, Development and Demonstration	13,901	
Research and Development Cluster	U.S. Department of Energy	Pass-Through	OHIO STATE UNIVERSITY	PO# RF 01579974	81.121	Nuclear Energy Research, Development and Demonstration	53,885	
					Total - 81.121		878,663	139,69
Research and Development Cluster	U.S. Department of Energy	Direct			81.122	Electricity Delivery and Energy Reliability, Research, Development and Analysis	391,145	187,36
Research and Development Cluster	U.S. Department of Energy	Pass-Through	STANFORD UNIVERSITY	62486845-138242	81.124	Predictive Science Academic Alliance Program	49,164	
Research and Development Cluster	U.S. Department of Energy	Direct			81.135	Advanced Research and Projects Agency ♦ Energy Financial Assistance Program	2,290,875	1,221,97
Research and Development Cluster	U.S. Department of Energy	Pass-Through	COLORADO SCHOOL OF MINES	401567-5802	81.135	Advanced Research and Projects Agency � Energy Financial Assistance Program	95,982	
Research and Development Cluster	U.S. Department of Energy	Pass-Through	OREGON STATE UNIVERSITY	G0183A-A	81.135	Advanced Research and Projects Agency • Energy Financial Assistance Program	113,396	
Research and Development Cluster	U.S. Department of Energy	Pass-Through	MOLTEX ENERGY LIMITED	POUSA1	81.135	Advanced Research and Projects Agency ♦ Energy Financial Assistance Program	9,866	
Research and Development Cluster	U.S. Department of Energy	Pass-Through	MASSACHUSETTS INSTITUTE OF T	S4894-PO397313	81.135	Advanced Research and Projects Agency ♦ Energy Financial Assistance Program	211,603	
					Total - 81.135		2,721,722	1,221,97
Research and Development Cluster	U.S. Department of Energy	Direct		115108	81.RD	U.S. Department of Energy	30,449	
Research and Development Cluster	U.S. Department of Energy	Direct		123980	81.RD	U.S. Department of Energy	197,305	
Research and Development Cluster	U.S. Department of Energy	Direct		133569	81.RD	U.S. Department of Energy	137,104	
Research and Development Cluster	U.S. Department of Energy	Direct		140520	81.RD	U.S. Department of Energy	13,974	
Research and Development Cluster	U.S. Department of Energy	Direct		1746523	81.RD	U.S. Department of Energy	-68	
Research and Development Cluster	U.S. Department of Energy	Direct		1852765	81.RD	U.S. Department of Energy	103,204	
Research and Development Cluster	U.S. Department of Energy	Direct		1853829	81.RD	U.S. Department of Energy	21,603	

^{*} denotes major programs

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

Clusters	Federal Grantor	Туре	Pass-Through Grantor	Award Identifier	Assistance Listing Number	CFDA Program Title	Federal Expenditures	Subrecipient Expenditure
Research and Development Cluster	U.S. Department of Energy	Direct		1861716	81.RD	U.S. Department of Energy	45,597	
Research and Development Cluster	U.S. Department of Energy	Direct		1861780	81.RD	U.S. Department of Energy	820	
Research and Development Cluster	U.S. Department of Energy	Direct		1955839	81.RD	U.S. Department of Energy	41,967	
Research and Development Cluster	U.S. Department of Energy	Direct		1971341	81.RD	U.S. Department of Energy	17,462	
Research and Development Cluster	U.S. Department of Energy	Direct		1975861	81.RD	U.S. Department of Energy	96,189	
Research and Development Cluster	U.S. Department of Energy	Direct		1976906	81.RD	U.S. Department of Energy	-2,108	
Research and Development Cluster	U.S. Department of Energy	Direct		2025851	81.RD	U.S. Department of Energy	55,336	
Research and Development Cluster	U.S. Department of Energy	Direct		2041483	81.RD	U.S. Department of Energy	233,433	
Research and Development Cluster	U.S. Department of Energy	Direct		2056944	81.RD	U.S. Department of Energy	62,527	
Research and Development Cluster	U.S. Department of Energy	Direct		2073648	81.RD	U.S. Department of Energy	15,397	
Research and Development Cluster	U.S. Department of Energy	Direct		2081656	81.RD	U.S. Department of Energy	61,339	
Research and Development Cluster	U.S. Department of Energy	Direct		2083577	81.RD	U.S. Department of Energy	120,383	
Research and Development Cluster	U.S. Department of Energy	Direct		2085864	81.RD	U.S. Department of Energy	31,062	
Research and Development Cluster	U.S. Department of Energy	Direct		2090974	81.RD	U.S. Department of Energy	87,629	
Research and Development Cluster	U.S. Department of Energy	Direct		2095407	81.RD	U.S. Department of Energy	19,379	
Research and Development Cluster	U.S. Department of Energy	Direct		2097553	81.RD	U.S. Department of Energy	26,325	
Research and Development Cluster	U.S. Department of Energy	Direct		2097716	81.RD	U.S. Department of Energy	131,579	53,23
Research and Development Cluster	U.S. Department of Energy	Direct		21014224	81.RD	U.S. Department of Energy	7,500	
Research and Development Cluster	U.S. Department of Energy	Direct		2104827	81.RD	U.S. Department of Energy	110,628	
Research and Development Cluster	U.S. Department of Energy	Direct		2106142	81.RD	U.S. Department of Energy	65,464	
Research and Development Cluster	U.S. Department of Energy	Direct		2127579	81.RD	U.S. Department of Energy	25,820	
Research and Development Cluster	U.S. Department of Energy	Direct		2136626	81.RD	U.S. Department of Energy	27,793	
Research and Development Cluster	U.S. Department of Energy	Direct		2145615	81.RD	U.S. Department of Energy	34,305	
Research and Development Cluster	U.S. Department of Energy	Direct		2146521	81.RD	U.S. Department of Energy	35,456	
·								
Research and Development Cluster	U.S. Department of Energy	Direct		2162652	81.RD	U.S. Department of Energy	76,983	
Research and Development Cluster	U.S. Department of Energy	Direct		216331	81.RD	U.S. Department of Energy	79,474	
Research and Development Cluster	U.S. Department of Energy	Direct		2167336	81.RD	U.S. Department of Energy	40,322	
Research and Development Cluster	U.S. Department of Energy	Direct		2174242	81.RD	U.S. Department of Energy	79,614	

^{*} denotes major programs

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

Clusters	Federal Grantor	Туре	Pass-Through Grantor	Award Identifier	Assistance Listing Number	CFDA Program Title	Federal Expenditures	Subrecipient Expenditures
Research and Development Cluster	U.S. Department of Energy	Direct		217897	81.RD	U.S. Department of Energy	39,725	
Research and Development Cluster	U.S. Department of Energy	Direct		2189722	81.RD	U.S. Department of Energy	45,363	
Research and Development Cluster	U.S. Department of Energy	Direct		2193858	81.RD	U.S. Department of Energy	47,603	
Research and Development Cluster	U.S. Department of Energy	Direct		2195291	81.RD	U.S. Department of Energy	187,725	
Research and Development Cluster	U.S. Department of Energy	Direct		2195626	81.RD	U.S. Department of Energy	31,151	
Research and Development Cluster	U.S. Department of Energy	Direct		2201442	81.RD	U.S. Department of Energy	36,705	
Research and Development Cluster	U.S. Department of Energy	Direct		2204365	81.RD	U.S. Department of Energy	38,613	
Research and Development Cluster	U.S. Department of Energy	Direct		2204400	81.RD	U.S. Department of Energy	36,424	
Research and Development Cluster	U.S. Department of Energy	Direct		2204478	81.RD	U.S. Department of Energy	54,725	
Research and Development Cluster	U.S. Department of Energy	Direct		2205519	81.RD	U.S. Department of Energy	42,742	
Research and Development Cluster	U.S. Department of Energy	Direct		2206255	81.RD	U.S. Department of Energy	42,699	
Research and Development Cluster	U.S. Department of Energy	Direct		2207382	81.RD	U.S. Department of Energy	42,280	
Research and Development Cluster	U.S. Department of Energy	Direct		220926	81.RD	U.S. Department of Energy	177,302	
Research and Development Cluster	U.S. Department of Energy	Direct		220928	81.RD	U.S. Department of Energy	249,130	124,45
Research and Development Cluster	U.S. Department of Energy	Direct		2210356	81.RD	U.S. Department of Energy	13,642	
Research and Development Cluster	U.S. Department of Energy	Direct		2215195	81.RD	U.S. Department of Energy	62,713	
Research and Development Cluster	U.S. Department of Energy	Direct		2218371	81.RD	U.S. Department of Energy	37,449	
Research and Development Cluster	U.S. Department of Energy	Direct		2224095	81.RD	U.S. Department of Energy	41,692	
Research and Development Cluster	U.S. Department of Energy	Direct		2230622	81.RD	U.S. Department of Energy	20,958	
Research and Development Cluster	U.S. Department of Energy	Direct		2232217	81.RD	U.S. Department of Energy	19,530	
Research and Development Cluster	U.S. Department of Energy	Direct		2234344	81.RD	U.S. Department of Energy	20,895	
Research and Development Cluster	U.S. Department of Energy	Direct		2248552	81.RD	U.S. Department of Energy	14,475	
Research and Development Cluster	U.S. Department of Energy	Direct		2248643	81.RD	U.S. Department of Energy	4,597	
Research and Development Cluster	U.S. Department of Energy	Direct		2259625	81.RD	U.S. Department of Energy	20,901	
Research and Development Cluster	U.S. Department of Energy	Direct		231417	81.RD	U.S. Department of Energy	-3,086	
Research and Development Cluster	U.S. Department of Energy	Direct		231427	81.RD	U.S. Department of Energy	35,798	
Research and Development Cluster	U.S. Department of Energy	Direct		239544	81.RD	U.S. Department of Energy	41,854	
Research and Development Cluster	U.S. Department of Energy	Direct		365253	81.RD	U.S. Department of Energy	101,433	

^{*} denotes major programs

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

Clusters	Federal Grantor	Туре	Pass-Through Grantor	Award Identifier	Assistance Listing Number	CFDA Program Title	Federal Expenditures	Subrecipient Expenditures
Research and Development Cluster	U.S. Department of Energy	Direct		389810	81.RD	U.S. Department of Energy	1,761	(
Research and Development Cluster	U.S. Department of Energy	Direct		4000151703	81.RD	U.S. Department of Energy	108,376	
Research and Development Cluster	U.S. Department of Energy	Direct		4000152822	81.RD	U.S. Department of Energy	-37,089	
Research and Development Cluster	U.S. Department of Energy	Direct		4000153378	81.RD	U.S. Department of Energy	4,776	
Research and Development Cluster	U.S. Department of Energy	Direct		4000165967	81.RD	U.S. Department of Energy	19,147	
Research and Development Cluster	U.S. Department of Energy	Direct		4000167323	81.RD	U.S. Department of Energy	-244	
Research and Development Cluster	U.S. Department of Energy	Direct		4000168374	81.RD	U.S. Department of Energy	88,114	
Research and Development Cluster	U.S. Department of Energy	Direct		4000173789	81.RD	U.S. Department of Energy	85,710	
Research and Development Cluster	U.S. Department of Energy	Direct		425170	81.RD	U.S. Department of Energy	78,805	
Research and Development Cluster	U.S. Department of Energy	Direct		483976	81.RD	U.S. Department of Energy	18,399	
Research and Development Cluster	U.S. Department of Energy	Direct		498532	81.RD	U.S. Department of Energy	62,326	
Research and Development Cluster	U.S. Department of Energy	Direct		8F-30010	81.RD	U.S. Department of Energy	127,630	
Research and Development Cluster	U.S. Department of Energy	Direct		9F-60060	81.RD	U.S. Department of Energy	-8,475	
Research and Development Cluster	U.S. Department of Energy	Direct		B628390	81.RD	U.S. Department of Energy	25,461	
Research and Development Cluster	U.S. Department of Energy	Direct		B641098	81.RD	U.S. Department of Energy	7,500	
Research and Development Cluster	U.S. Department of Energy	Direct		DE-EE0008920	81.RD	U.S. Department of Energy	42,694	
Research and Development Cluster	U.S. Department of Energy	Direct		DE-SC0007884	81.RD	U.S. Department of Energy	984,735	
Research and Development Cluster	U.S. Department of Energy	Direct		DE-SC0018238	81.RD	U.S. Department of Energy	119,321	
Research and Development Cluster	U.S. Department of Energy	Direct		PO# 2084425	81.RD	U.S. Department of Energy	67,768	
Research and Development Cluster	U.S. Department of Energy	Direct		PO# 2091335	81.RD	U.S. Department of Energy	62,811	
Research and Development Cluster	U.S. Department of Energy	Direct		PO# 2095505	81.RD	U.S. Department of Energy	96,995	
Research and Development Cluster	U.S. Department of Energy	Direct		PO104741	81.RD	U.S. Department of Energy	-203	
Research and Development Cluster	U.S. Department of Energy	Direct		SC-10-334	81.RD	U.S. Department of Energy	-127	
Research and Development Cluster	U.S. Department of Energy	Direct		SC-13-393	81.RD	U.S. Department of Energy	11,385	
Research and Development Cluster	U.S. Department of Energy	Direct		SC-18-476	81.RD	U.S. Department of Energy	953,828	59,96
Research and Development Cluster	U.S. Department of Energy	Direct		XGX-8-82045-01	81.RD	U.S. Department of Energy	-6,772	
Research and Development Cluster	U.S. Department of Energy	Pass-Through	SAVANNAH RIVER NUCLEAR SOLU	.0000386328	81.RD	U.S. Department of Energy	23,492	
Research and Development Cluster	U.S. Department of Energy	Pass-Through	SAVANNAH RIVER NUCLEAR SOLU	. 0000457811	81.RD	U.S. Department of Energy	54,739	

^{*} denotes major programs

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

Federal Grantor	Туре	Pass-Through Grantor	Award Identifier	Assistance Listing Number	CFDA Program Title	Federal Expenditures	Subrecipient Expenditure
U.S. Department of Energy	Pass-Through	SAVANNAH RIVER NUCLEAR SOLU	0000483105	81.RD	U.S. Department of Energy	90,451	
U.S. Department of Energy	Pass-Through	UNIVERSITY OF TEXAS AT SAN AN	1000003891	81.RD	U.S. Department of Energy	291,189	
U.S. Department of Energy	Pass-Through	UNIVERSITY OF CALIFORNIA - SAN	111119283	81.RD	U.S. Department of Energy	170,258	
U.S. Department of Energy	Pass-Through	RAYTHEON TECHNOLOGIES RESE	1259830	81.RD	U.S. Department of Energy	5,333	
U.S. Department of Energy	Pass-Through	SONRISA RESEARCH INC	19013714	81.RD	U.S. Department of Energy	451,797	
U.S. Department of Energy	Pass-Through	ARGONNE NATIONAL LABORATOR	t 1F-60258	81.RD	U.S. Department of Energy	11,475	
U.S. Department of Energy	Pass-Through	ARGONNE NATIONAL LABORATOR	t 1F-60318	81.RD	U.S. Department of Energy	24,622	
II C Department of Fragge	Dage Through	ADCONNE NATIONAL LABORATOR	45 60306	04.00	II.C. Department of France	14.030	
U.S. Department of Energy	Pass-Inrougn	ARGUNNE NATIONAL LABORATOR	R 1F-60386	81.RD	U.S. Department of Energy	14,938	
U.S. Department of Energy	Pass-Through	GEOMETRIC DATA ANALYTICS, INC	20046320	81.RD	U.S. Department of Energy	69,514	
U.S. Department of Energy	Pass-Through	UNIVERSITY OF NOTRE DAME	202199PU	81.RD	U.S. Department of Energy	-73,218	
U.S. Department of Energy	Pass-Through	BATTELLE ENERGY ALLIANCE LLC	208358	81.RD	U.S. Department of Energy	398,308	
U.S. Department of Energy	Pass-Through	BATTELLE ENERGY ALLIANCE LLC	212848	81.RD	U.S. Department of Energy	86,739	
U.S. Department of Energy	Pass-Through	IDAHO NATIONAL LABORATORY	243477	81.RD	U.S. Department of Energy	71,428	
U.S. Department of Energy	Pass-Through	IDAHO NATIONAL LABORATORY	245993	81.RD	U.S. Department of Energy	61,757	
U.S. Department of Energy	Pass-Through	IDAHO NATIONAL LABORATORY	246778	81.RD	U.S. Department of Energy	33,277	
U.S. Department of Energy	Pass-Through	UNIVERSITY OF NEBRASKA-LINCO	25-1123-0061-002	81.RD	U.S. Department of Energy	139,798	
U.S. Department of Energy	Pass-Through	BROOKHAVEN NATIONAL LABORA	382247	81.RD	U.S. Department of Energy	28,956	
U.S. Department of Energy	Pass-Through	UT-BATTELLE LLC	4000169270	81.RD	U.S. Department of Energy	48,160	
U.S. Department of Energy	Pass-Through	OAK RIDGE NATIONAL LABORATO	I 4000172637	81.RD	U.S. Department of Energy	409	
U.S. Department of Energy	Pass-Through	OAK RIDGE NATIONAL LABORATO	I 4000175762	81.RD	U.S. Department of Energy	1,371	
U.S. Department of Energy	Pass-Through	UT-BATTELLE LLC	4000179033	81.RD	U.S. Department of Energy	59,977	
U.S. Department of Energy	Pass-Through	OAK RIDGE NATIONAL LABORATO	14000181577	81.RD	U.S. Department of Energy	45,525	
U.S. Department of Energy	Pass-Through	OAK RIDGE NATIONAL LABORATO	14000184880	81.RD	U.S. Department of Energy	6,126	
U.S. Department of Energy	Pass-Through	OAK RIDGE NATIONAL LABORATO	i 4000184914	81.RD	U.S. Department of Energy	8,809	
U.S. Department of Energy	Pass-Through	OAK RIDGE NATIONAL LABORATO	14000187075	81.RD	U.S. Department of Energy	2,403	
U.S. Department of Energy	Pass-Through	ARCELORMITTAL USA	4550 G WA302	81.RD	U.S. Department of Energy	126,211	
U.S. Department of Energy	Pass-Through	PACIFIC NORTHWEST NATIONAL L	539426	81.RD	U.S. Department of Energy	151,168	
U.S. Department of Energy	Pass-Through	LOS ALAMOS NATIONAL LABORAT	589334	81.RD	U.S. Department of Energy	236,873	
	U.S. Department of Energy	U.S. Department of Energy U.S. Department of Energy U.S. Department of Energy U.S. Department of Energy Pass-Through	U.S. Department of Energy U.S. Department of Energy Department o	U.S. Department of Energy Pass-Through Pass-Through Pass-Through U.S. Department of Energy Pass-Through U.S. Department of Energy Pass-Through Pass-Through ARGONNE NATIONAL LABORATOR 1F-60258 U.S. Department of Energy Pass-Through U.S. Department of Energy U.S. Department of Energy Pass-Through U.S. Department of Energy Pass-Through U.S. Department of Energy Pass-Through U.S. Department of Energy U.S. Department of Energy Pass-Through U.S. Department of Energy U.S. Department of Energy Pass-Through U.S. Department of Energy U.S. Department of Energy U.S. Department of Energy Pass-Through U.S. Department of Energy U.S. Department of Energy Pass-Through U.S. Department of En	U.S. Department of Energy Pass-Through UNIVERSITY OF TEXAS AT SAN AN 1000003891 81.RD U.S. Department of Energy Pass-Through UNIVERSITY OF CALIFORNIA - SAN 111119283 81.RD U.S. Department of Energy Pass-Through RAYTHEON TECHNOLOGIES RESE 1259830 81.RD U.S. Department of Energy Pass-Through SONRISA RESEARCH INC 19013714 81.RD U.S. Department of Energy Pass-Through ARGONNE NATIONAL LABORATOR 1F-60288 81.RD U.S. Department of Energy Pass-Through ARGONNE NATIONAL LABORATOR 1F-60318 81.RD U.S. Department of Energy Pass-Through ARGONNE NATIONAL LABORATOR 1F-60386 81.RD U.S. Department of Energy Pass-Through BATTELLE ENERGY ALLIANCE LLC 208558 81.RD U.S. Department of Energy Pass-Through BATTELLE ENERGY ALLIANCE LLC 208558 81.RD U.S. Department of Energy Pass-Through DAHO NATIONAL LABORATORY 245993 81.RD U.S. Department of Energy Pass-Through DAHO NATIONAL LABORATORY 245993 81.RD U.S. Department of Energy Pass-Through BATTELLE ENERGY ALLIANCE LLC 212848 81.RD U.S. Department of Energy Pass-Through DAHO NATIONAL LABORATORY 245993 81.RD U.S. Department of Energy Pass-Through DAHO NATIONAL LABORATORY 245993 81.RD U.S. Department of Energy Pass-Through BATTELLE ENERGY ALLIANCE LLC 212848 81.RD U.S. Department of Energy Pass-Through BATTELLE ENERGY ALLIANCE LLC 212848 81.RD U.S. Department of Energy Pass-Through DAHO NATIONAL LABORATORY 245993 81.RD U.S. Department of Energy Pass-Through BATTELLE LLC 4000169270 81.RD U.S. Department of Energy Pass-Through BATTELLE LLC 4000169270 81.RD U.S. Department of Energy Pass-Through OAK RIDGE NATIONAL LABORATORY 4000172637 81.RD U.S. Department of Energy Pass-Through OAK RIDGE NATIONAL LABORATO 4000172637 81.RD U.S. Department of Energy Pass-Through OAK RIDGE NATIONAL LABORATO 4000175762 81.RD U.S. Department of Energy Pass-Through OAK RIDGE NATIONAL LABORATO 4000184914 81.RD U.S. Department of Energy Pass-Through OAK RIDGE NATIONAL LABORATO 4000184914 81.RD U.S. Department of Energy Pass-Through OAK RIDGE NATIONAL LABORATO 4000184914 81.RD U.S. Department o	U.S. Department of Energy Peas-Through UNIVERSITY OF TEXAS AT SAN AN 100003891 81 RD	D.S. Department of Energy Peac-Through UNIVERSITY OF TEXAS AT SAN AN 1000003891 ST RD U.S. Department of Energy Peac-Through UNIVERSITY OF CALLS ORNA - SAN AN 1000003891 ST RD U.S. Department of Energy Peac-Through U.S. Department of Energy Peac-Through U.S. Department of Energy Peac-Through ST RD U.S. Department of Energy 2.333 U.S. Department of Energy Peac-Through ST RD U.S. Department of Energy Peac-Through ST RD U.S. Department of Energy Peac-Through ST RD U.S. Department of Energy Peac-Through Peac-Through

^{*} denotes major programs

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

Clusters	Federal Grantor	Туре	Pass-Through Grantor	Award Identifier	Assistance Listing Number	CFDA Program Title	Federal Expenditures	Subrecipient Expenditures
Research and Development Cluster	U.S. Department of Energy	Pass-Through	LOS ALAMOS NATIONAL LABORAT	601213	81.RD	U.S. Department of Energy	108,540	(
Research and Development Cluster	U.S. Department of Energy	Pass-Through	LOS ALAMOS NATIONAL LABORAT	607537	81.RD	U.S. Department of Energy	14,574	(
Research and Development Cluster	U.S. Department of Energy	Pass-Through	FERMI NATIONAL ACCELERATOR	1 652325	81.RD	U.S. Department of Energy	27,125	(
Research and Development Cluster	U.S. Department of Energy	Pass-Through	FERMI NATIONAL ACCELERATOR	L 668388	81.RD	U.S. Department of Energy	202,584	(
Research and Development Cluster	U.S. Department of Energy	Pass-Through	FERMI NATIONAL ACCELERATOR	l 672713	81.RD	U.S. Department of Energy	5,425	(
Research and Development Cluster	U.S. Department of Energy	Pass-Through	FERMI NATIONAL ACCELERATOR	l 677848	81.RD	U.S. Department of Energy	11,854	(
Research and Development Cluster	U.S. Department of Energy	Pass-Through	ARGONNE NATIONAL LABORATOR	8F-30072	81.RD	U.S. Department of Energy	3,593	(
Research and Development Cluster	U.S. Department of Energy	Pass-Through	ARGONNE NATIONAL LABORATOR	9F-60152	81.RD	U.S. Department of Energy	28,018	(
Research and Development Cluster	U.S. Department of Energy	Pass-Through	ARGONNE NATIONAL LABORATOR	9F-60181	81.RD	U.S. Department of Energy	7,483	(
Research and Development Cluster	U.S. Department of Energy	Pass-Through	ARGONNE NATIONAL LABORATOR	8 9F-60239	81.RD	U.S. Department of Energy	50,741	(
Research and Development Cluster	U.S. Department of Energy	Pass-Through	TEXAS A&M UNIVERSITY	M1802095	81.RD	U.S. Department of Energy	95,385	(
Research and Development Cluster	U.S. Department of Energy	Pass-Through	UNIVERSITY OF TENNESSEE (THE	PA16-0349-3.2-02	81.RD	U.S. Department of Energy	4,527	(
Research and Development Cluster	U.S. Department of Energy	Pass-Through	UNIVERSITY OF TENNESSEE (THE	PA16-0349-3.7-01	81.RD	U.S. Department of Energy	-11	(
Research and Development Cluster	U.S. Department of Energy	Pass-Through	UNIVERSITY OF TENNESSEE (THE	PA16-0349-7.2-01	81.RD	U.S. Department of Energy	-533	(
Research and Development Cluster	U.S. Department of Energy	Pass-Through	INST FOR ADVCD COMPOSITES M	I PA16-0349-7.3-01	81.RD	U.S. Department of Energy	2,664	(
Research and Development Cluster	U.S. Department of Energy	Pass-Through	UNIVERSITY OF TENNESSEE (THE	PA16-0349-7.6-01	81.RD	U.S. Department of Energy	-10,964	(
Research and Development Cluster	U.S. Department of Energy	Pass-Through	UNIVERSITY OF TENNESSEE (THE	PA16-0349-7.7-01	81.RD	U.S. Department of Energy	5,744	(
Research and Development Cluster	U.S. Department of Energy	Pass-Through	UNIVERSITY OF TENNESSEE (THE	PA16-0349-7.8-01	81.RD	U.S. Department of Energy	-1,777	(
Research and Development Cluster	U.S. Department of Energy	Pass-Through	UNIVERSITY OF TENNESSEE (THE	PA16-0349-7.9-01	81.RD	U.S. Department of Energy	98,608	(
Research and Development Cluster	U.S. Department of Energy	Pass-Through	FREEDOM PHOTONICS, LLC.	S-7198	81.RD	U.S. Department of Energy	7,846	(
Research and Development Cluster	U.S. Department of Energy	Pass-Through	AMES LABORATORY	SC-20-518	81.RD	U.S. Department of Energy	365,861	
Research and Development Cluster	U.S. Department of Energy	Pass-Through	NATIONAL RENEWABLE ENERGY I	SUB-2020-10003	81.RD	U.S. Department of Energy	12,906	(
Research and Development Cluster	U.S. Department of Energy	Pass-Through	NATIONAL RENEWABLE ENERGY	SUB-2020-10359	81.RD	U.S. Department of Energy	38,553	(
					Total - 81.RD		40 274 547	227.05
Research and Development Cluster					10tai - 01.KU		10,271,547	·
	Total - U.S. Department of Ene				04 000	Control Andrews In Ass. (N. F. 18)	29,343,318	
Research and Development Cluster	U.S. Department of Education	Direct			84.200	Graduate Assistance in Areas of National Need	2,983	
Research and Development Cluster	U.S. Department of Education	Direct			84.305	Education Research, Development and Dissemination	420,784	135,86
Research and Development Cluster	U.S. Department of Education	Pass-Through	LEHIGH UNIVERSITY	544220-78002	84.305	Education Research, Development and Dissemination	57,746	(

^{*} denotes major programs

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

Clusters	Federal Grantor	Туре	Pass-Through Grantor	Award Identifier	Assistance Listing Number	CFDA Program Title	Federal Expenditures	Subrecipient Expenditures
					Total - 84.305		478,530	135,86
Research and Development Cluster	U.S. Department of Education	Direct			84.324	Research in Special Education	76,064	28,30
Research and Development Cluster	U.S. Department of Education	Direct			84.325	Special Education - Personnel Development to Improve Services and Results for Ch	138,246	
Research and Development Cluster	U.S. Department of Education	Direct			84.334	Gaining Early Awareness and Readiness for Undergraduate Programs	50,062	50,06
Research and Development Cluster	U.S. Department of Education	Pass-Through	IN COMMISSION FOR HIGHER EDI	CONTRACT #44280	84.334	Gaining Early Awareness and Readiness for Undergraduate Programs	15,957	
					Total - 84.334		66,019	50,06
Research and Development Cluster	U.S. Department of Education	Direct			84.365	English Language Acquisition State Grants	605,803	
Research and Development Cluster	Total - U.S. Department of Educ	ation					1,367,645	214,23
Research and Development Cluster	National Archives	Direct			89.003	National Historical Publications and Records Grants	19,407	
Research and Development Cluster	Total - National Archives						19,407	
Research and Development Cluster	U.S. Department of Health & Hum	na Direct			93.103	Food and Drug Administration_Research	873,066	
Research and Development Cluster	U.S. Department of Health & Hum	a Pass-Through	LONG ISLAND UNIVERSITY	0001	93.103	Food and Drug Administration_Research	11,952	
Research and Development Cluster	U.S. Department of Health & Hum	a Pass-Through	RUTGERS, THE STATE UNIVERSIT	0648	93.103	Food and Drug Administration_Research	-17,485	
Research and Development Cluster	U.S. Department of Health & Hum	na Pass-Through	RUTGERS, THE STATE UNIVERSIT	1251	93.103	Food and Drug Administration_Research	-304,796	
Research and Development Cluster	U.S. Department of Health & Hum	na Pass-Through	UNIVERSITY OF DELAWARE	58082	93.103	Food and Drug Administration_Research	660,826	
Research and Development Cluster	U.S. Department of Health & Hum	a Pass-Through	NATNL INST FOR PHRMCTCL TECH	NIPTE-U01-PU-2020-001	93.103	Food and Drug Administration_Research	25,795	
Research and Development Cluster	U.S. Department of Health & Hum	na Pass-Through	NATNL INST FOR PHRMCTCL TECH	NIPTE-U01-PU-2020-002	93.103	Food and Drug Administration_Research	32,328	
					Total - 93.103		1,281,686	
Research and Development Cluster	U.S. Department of Health & Hum	na Direct			93.107	Model State-Supported Area Health Education Centers	133,630	
Research and Development Cluster	U.S. Department of Health & Hum	na Pass-Through	INDIANA UNIVERSITY	IN4683374PUR	93.107	Model State-Supported Area Health Education Centers	-230	
					Total - 93.107		133,400	
Research and Development Cluster	U.S. Department of Health & Hum	na Direct			93.113	Biological Response to Environmental Health Hazards	1,153,067	213,689
Research and Development Cluster	U.S. Department of Health & Hum	na Pass-Through	HARVARD SCHOOL OF PUBLIC HE	. 112150-5077626	93.113	Biological Response to Environmental Health Hazards	1,763	
Research and Development Cluster	U.S. Department of Health & Hum	na Pass-Through	ALBERT EINSTEIN COLLEGE OF M	1311022	93.113	Biological Response to Environmental Health Hazards	246,911	38,51
Research and Development Cluster	U.S. Department of Health & Hum	na Pass-Through	ALBERT EINSTEIN COLLEGE OF M	I 311288	93.113	Biological Response to Environmental Health Hazards	219,074	40,93
Research and Development Cluster	U.S. Department of Health & Hum	na Pass-Through	BOSTON UNIVERSITY	4500002874	93.113	Biological Response to Environmental Health Hazards	-121	
					Total - 93.113		1,620,694	293,13
Research and Development Cluster	U.S. Department of Health & Hum	na Direct			93.121	Oral Diseases and Disorders Research	10,925	

^{*} denotes major programs

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

Clusters	Federal Grantor	Туре	Pass-Through Grantor	Award Identifier	Assistance Listing Number	CFDA Program Title	Federal Expenditures	Subrecipient Expenditure
Research and Development Cluster	U.S. Department of Health & Huma	Direct			93.137	Community Programs to Improve Minority Health Grant Program	-167	
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	MICHIGAN STATE UNIVERSITY	RC108824PU	93.143	NIEHS Superfund Hazardous Substances_Basic Research and Education	20,929	
Research and Development Cluster	U.S. Department of Health & Huma	Direct			93.173	Research Related to Deafness and Communication Disorders	3,024,469	
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	SPEECHVIVE	15065570	93.173	Research Related to Deafness and Communication Disorders	-434	
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	UNIVERSITY OF MASSACHUSETTS	S 18-010389A00	93.173	Research Related to Deafness and Communication Disorders	53,652	
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	BOSTON UNIVERSITY, TRUSTEES	4500002696	93.173	Research Related to Deafness and Communication Disorders	13,050	
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	OHIO STATE UNIVERSITY	GR120213	93.173	Research Related to Deafness and Communication Disorders	7,940	
					Total - 93.173		3,098,677	
Research and Development Cluster	U.S. Department of Health & Huma	Direct			93.213	Research and Training in Complementary and Alternative Medicine	-296	
Research and Development Cluster	U.S. Department of Health & Huma	Direct			93.226	Research on Healthcare Costs, Quality and Outcomes	395,964	213,02
Research and Development Cluster	U.S. Department of Health & Huma	Direct			93.242	Mental Health Research Grants	1,602,087	111,73
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	BROWN UNIVERSITY	00001446	93.242	Mental Health Research Grants	22,620	
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	CINCINNATI CHILDRENS HOSPITA	l 312122	93.242	Mental Health Research Grants	9,576	
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	DUKE UNIVERSITY	A034063	93.242	Mental Health Research Grants	34,151	
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	FEINSTEIN INST FOR MEDICAL RE	: AWD00001246-PU	93.242	Mental Health Research Grants	11,391	
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	INDIANA UNIVERSITY	IN-4679720-PU	93.242	Mental Health Research Grants	85,183	
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	UNIVERSITY OF MICHIGAN	SUBK00010086	93.242	Mental Health Research Grants	72,105	
					Total - 93.242		1,837,113	111,73
Research and Development Cluster	U.S. Department of Health & Huma	Direct			93.243	Substance Abuse and Mental Health Services_Projects of Regional and National Sig	99,292	
Research and Development Cluster	U.S. Department of Health & Huma	Direct			93.247	Advanced Education Nursing Grant Program	59,204	58,26
Research and Development Cluster	U.S. Department of Health & Huma	Direct			93.262	Occupational Safety and Health Program	52,603	
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	UNIV OF CINCINNATI-EDU & RESE	010412-078	93.262	Occupational Safety and Health Program	367	
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	UNIVERSITY OF CINCINNATI	010412-102	93.262	Occupational Safety and Health Program	2,007	
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	COLORADO STATE UNIVERSITY	G-06056-01	93.262	Occupational Safety and Health Program	4,535	
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	UNIVERSITY OF MICHIGAN	SUBK00010465	93.262	Occupational Safety and Health Program	-1,211	
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	UNIVERSITY OF MICHIGAN	SUBK00014286	93.262	Occupational Safety and Health Program	13,466	
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	UNIVERSITY OF MICHIGAN	SUBK00014287	93.262	Occupational Safety and Health Program	19,884	
					Total - 93.262		91,651	

^{*} denotes major programs

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

Clusters	Federal Grantor	Туре	Pass-Through Grantor	Award Identifier	Assistance Listing Number	CFDA Program Title	Federal Expenditures	Subrecipient Expenditures
Research and Development Cluster	U.S. Department of Health & Hum	na Direct			93.273	Alcohol Research Programs	1,871,614	116,55
Research and Development Cluster	U.S. Department of Health & Hum	na Pass-Through	UTAH STATE UNIVERSITY	201356-490	93.273	Alcohol Research Programs	76,317	
Research and Development Cluster	U.S. Department of Health & Hum	a Pass-Through	INDIANA UNIVERSITY	8346	93.273	Alcohol Research Programs	15,020	
Research and Development Cluster	U.S. Department of Health & Hum	a Pass-Through	MONTANA STATE UNIVERSITY	G259-21-W8643	93.273	Alcohol Research Programs	14,544	
Research and Development Cluster	U.S. Department of Health & Hum	na Pass-Through	INDIANA UNIVERSITY	IN4687305PU	93.273	Alcohol Research Programs	27,147	
					Total - 93.273		2,004,642	116,555
Research and Development Cluster	U.S. Department of Health & Hum	na Direct			93.279	Drug Abuse and Addiction Research Programs	1,526,937	
Research and Development Cluster	U.S. Department of Health & Hum	a Pass-Through	UNIVERSITY OF CINCINNATI	009942-024	93.279	Drug Abuse and Addiction Research Programs	1,337	
Research and Development Cluster	U.S. Department of Health & Hum	a Pass-Through	THE UNIVERSITY OF BRITISH COL	L 20R22505	93.279	Drug Abuse and Addiction Research Programs	-3,509	
Research and Development Cluster	U.S. Department of Health & Hum	na Pass-Through	PENNSYLVANIA STATE UNIVERSIT	5877-PU-DHHS-5108	93.279	Drug Abuse and Addiction Research Programs	85,594	
Research and Development Cluster	U.S. Department of Health & Hum	na Pass-Through	OHIO STATE UNIVERSITY	60065570	93.279	Drug Abuse and Addiction Research Programs	39,775	
Research and Development Cluster	U.S. Department of Health & Hum	na Pass-Through	OHIO STATE UNIVERSITY	60067478-PURDUE	93.279	Drug Abuse and Addiction Research Programs	18,734	
Research and Development Cluster	U.S. Department of Health & Hum	na Pass-Through	SFC FLUIDICS	SFC 2018-01	93.279	Drug Abuse and Addiction Research Programs	43,469	32,73
Research and Development Cluster	U.S. Department of Health & Hum	na Pass-Through	EMORY UNIVERSITY	T880310	93.279	Drug Abuse and Addiction Research Programs	29,086	
Research and Development Cluster	U.S. Department of Health & Hum	na Pass-Through	EMORY UNIVERSITY	Т994736	93.279	Drug Abuse and Addiction Research Programs	48,350	
					Total - 93.279		1,789,773	32,73
Research and Development Cluster	U.S. Department of Health & Hum	na Direct			93.286	Discovery and Applied Research for Technological Innovations to Improve Human He	704,993	
Research and Development Cluster	U.S. Department of Health & Hum	na Pass-Through	UNIVERSITY OF PENNSYLVANIA	574115	93.286	Discovery and Applied Research for Technological Innovations to Improve Human He	45,468	
Research and Development Cluster	U.S. Department of Health & Hum	na Pass-Through	UNIVERSITY OF PITTSBURGH	CNVA00057617 (132042-1)	93.286	Discovery and Applied Research for Technological Innovations to Improve Human He	13,503	
					Total - 93.286		763,964	
Research and Development Cluster	U.S. Department of Health & Hum	na Direct			93.307	Minority Health and Health Disparities Research	313,806	
Research and Development Cluster	U.S. Department of Health & Hum	na Direct			93.310	Trans-NIH Research Support	5,051,333	2,263,02
Research and Development Cluster	U.S. Department of Health & Hum	na Pass-Through	INDIANA UNIVERSITY	8715_PUR	93.310	Trans-NIH Research Support	25,707	
Research and Development Cluster	U.S. Department of Health & Hum	na Pass-Through	UNIVERSITY OF MICHIGAN	SUBK00013663	93.310	Trans-NIH Research Support	93,087	
					Total - 93.310		5,170,127	2,263,02
Research and Development Cluster	U.S. Department of Health & Hum	na Direct			93.350	National Center for Advancing Translational Sciences	30,456	
Research and Development Cluster	U.S. Department of Health & Hum	a Pass-Through	IN UNIV PURDUE UNIV AT INDIANA	00088780	93.350	National Center for Advancing Translational Sciences	785,238	
Research and Development Cluster	U.S. Department of Health & Hum	na Pass-Through	IN UNIV PURDUE UNIV AT INDIANA	8128	93.350	National Center for Advancing Translational Sciences	-916	

^{*} denotes major programs

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

Clusters	Federal Grantor	Туре	Pass-Through Grantor	Award Identifier	Assistance Listing Number	CFDA Program Title	Federal Expenditures	Subrecipient Expenditures
Research and Development Cluster	U.S. Department of Health & Hum	a Pass-Through	IN UNIV PURDUE UNIV AT INDIANA	A 8475	93.350	National Center for Advancing Translational Sciences	90,174	
Research and Development Cluster	U.S. Department of Health & Hum	a Pass-Through	IN UNIV PURDUE UNIV AT INDIANA	A 8617	93.350	National Center for Advancing Translational Sciences	182,845	
Research and Development Cluster	U.S. Department of Health & Hum	a Pass-Through	INDIANA UNIVERSITY	8681	93.350	National Center for Advancing Translational Sciences	156,700	
Research and Development Cluster	U.S. Department of Health & Hum	a Pass-Through	IN UNIV PURDUE UNIV AT INDIANA	\ 8929	93.350	National Center for Advancing Translational Sciences	14,874	
Research and Development Cluster	U.S. Department of Health & Hum	a Pass-Through	IN UNIV PURDUE UNIV AT INDIANA	A 8940	93.350	National Center for Advancing Translational Sciences	84,123	
Research and Development Cluster	U.S. Department of Health & Hum	a Pass-Through	IN UNIV PURDUE UNIV AT INDIANA	A 8944	93.350	National Center for Advancing Translational Sciences	12,349	
Research and Development Cluster	U.S. Department of Health & Hum	a Pass-Through	IN UNIV PURDUE UNIV AT INDIANA	N4680910PU	93.350	National Center for Advancing Translational Sciences	-2,206	
Research and Development Cluster	U.S. Department of Health & Hum	a Pass-Through	IN UNIV PURDUE UNIV AT INDIANA	N4680932PU	93.350	National Center for Advancing Translational Sciences	5,271	
Research and Development Cluster	U.S. Department of Health & Hum	a Pass-Through	IN UNIV PURDUE UNIV AT INDIANA	N4680933PU	93.350	National Center for Advancing Translational Sciences	-680	
					Total - 93.350		1,358,228	
Research and Development Cluster	U.S. Department of Health & Hum	a Direct			93.351	Research Infrastructure Programs	1,358,228	
Page and Davelanment Chater	II C Department of Health 9 Hum	a Daga Through	LINIVEDEITY OF ALADAMA AT DIDA	1000546424 20002	93.353	24at Contuni Curae Act. Bosu Bidon Concer Meanshat	24.467	
Research and Development Cluster	U.S. Department or Health & Hum	a Pass-Inrougn	UNIVERSITY OF ALABAMA AT BIRM	V000516421-SC003	93.353	21st Century Cures Act - Beau Biden Cancer Moonshot	24,167	
Research and Development Cluster	U.S. Department of Health & Hum	a Pass-Through	IN STATE DEPARTMENT OF HEAL	CONTRACT #41662	93.367	Developing A Rapid Response Team (RRT)	1,036	
Research and Development Cluster	U.S. Department of Health & Hum	a Direct			93.393	Cancer Cause and Prevention Research	825,631	61,77
Research and Development Cluster	U.S. Department of Health & Hum	a Pass-Through	UNIVERSITY OF PITTSBURGH MED	0057797(130855-2)	93.393	Cancer Cause and Prevention Research	51,853	
Research and Development Cluster	U.S. Department of Health & Hum	a Pass-Through	HARVARD MEDICAL SCHOOL	1299701	93.393	Cancer Cause and Prevention Research	53,183	
					Total - 93.393		930,667	61,77
Research and Development Cluster	U.S. Department of Health & Hum	a Direct			93.394	Cancer Detection and Diagnosis Research	390,574	71,35
Research and Development Cluster	U.S. Department of Health & Hum	a Pass-Through	TYMORA ANALYTICAL OPERATION	N 16076937	93.394	Cancer Detection and Diagnosis Research	561	
Research and Development Cluster	U.S. Department of Health & Hum	a Pass-Through	UNIVERSITY OF PENNSYLVANIA	568408	93.394	Cancer Detection and Diagnosis Research	36,735	
Research and Development Cluster	U.S. Department of Health & Hum	a Pass-Through	UNIVERSITY OF CHICAGO	FP059852	93.394	Cancer Detection and Diagnosis Research	-663	
					Total - 93.394		427,207	71,35
Research and Development Cluster	U.S. Department of Health & Hum	a Direct			93.395	Cancer Treatment Research	2,975,758	300,65
Research and Development Cluster	U.S. Department of Health & Hum	a Pass-Through	KINARX, LLC	19025176	93.395	Cancer Treatment Research	113,194	
Research and Development Cluster	U.S. Department of Health & Hum	a Pass-Through	KINARX, LLC	20025158	93.395	Cancer Treatment Research	115,644	
Research and Development Cluster	U.S. Department of Health & Hum	a Pass-Through	INDIANA UNIVERSITY	IN4687974PUR	93.395	Cancer Treatment Research	13,061	
					Total - 93.395		3,217,657	300,65
Research and Development Cluster	U.S. Department of Health & Hum	a Direct			93.396	Cancer Biology Research	2,566,820	

^{*} denotes major programs

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

Research and Development Cluster					Assistance Listing Number	CFDA Program Title		Subrecipient Expenditures
	U.S. Department of Health & Huma	Direct			93.397	Cancer Centers Support Grants	1,761,563	,
Research and Development Cluster	U.S. Department of Health & Huma	Direct			93.398	Cancer Research Manpower	883,623	65,79
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	CHILDHELP, INC	20123014	93.670	Child Abuse and Neglect Discretionary Activities	59,847	
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	IN UNIV PURDUE UNIV AT INDIANA	EDS#17317	93.758	Preventive Health & Health Services Block Grant funded solely with PPH Funds	-381	
Research and Development Cluster	U.S. Department of Health & Huma	Direct			93.774	Medicare_Supplementary Medical Insurance	268,201	4,97
Research and Development Cluster	U.S. Department of Health & Huma	Direct			93.788	Opioid STR	414,710	160,18
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	IN FAMILY & SOCIAL SERVICES AD	GRANT ID: 32087	93.788	Opioid STR	108,456	
					Total - 93.788		523,166	160,18
Research and Development Cluster	U.S. Department of Health & Huma	Direct			93.822	Health Careers Opportunity Program	685,963	
Research and Development Cluster	U.S. Department of Health & Huma	Direct			93.837	Heart and Vascular Diseases Research	1,549,434	152,15
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	NEW YORK UNIVERSITY	19-A0-00-1002499	93.837	Heart and Vascular Diseases Research	3	1
					Total - 93.837		1,549,437	152,15
Research and Development Cluster	U.S. Department of Health & Huma	Direct			93.839	Blood Diseases and Resources Research	44,316	
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	UNIV. OF NORTH CAROLINA AT CH	15115293	93.839	Blood Diseases and Resources Research	41,341	
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	UNIV. OF NORTH CAROLINA AT CH	15118100	93.839	Blood Diseases and Resources Research	199,278	
					Total - 93.839		284,935	
Research and Development Cluster	U.S. Department of Health & Huma	Direct			93.846	Arthritis, Musculoskeletal and Skin Diseases Research	1,669,841	434,66
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	UNIVERSITY OF COLORADO AT BO	C 1559695	93.846	Arthritis, Musculoskeletal and Skin Diseases Research	71,241	
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	VIRGINIA COMMONWEALTH UNIVE	FP00007737_SA001	93.846	Arthritis, Musculoskeletal and Skin Diseases Research	239,989	
					Total - 93.846		1,981,071	434,66
Research and Development Cluster	U.S. Department of Health & Huma	Direct			93.847	Diabetes, Endocrinology and Metabolism Research	1,851,857	28,62
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	RUTGERS, THE STATE UNIVERSIT	0202	93.847	Diabetes, Endocrinology and Metabolism Research	94,467	
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	IN UNIV PURDUE UNIV AT INDIANA	7916_PUR	93.847	Diabetes, Endocrinology and Metabolism Research	128,595	
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	INDIANA UNIVERSITY	8019_PUR	93.847	Diabetes, Endocrinology and Metabolism Research	-425	
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	INDIANA UNIVERSITY	8521	93.847	Diabetes, Endocrinology and Metabolism Research	8,017	(
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	INDIANA UNIVERSITY	8654_PUR	93.847	Diabetes, Endocrinology and Metabolism Research	7,496	
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	NORTHSHORE UNIV HEALTH SYST	EH18-093-S1	93.847	Diabetes, Endocrinology and Metabolism Research	110,617	
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	UNIVERSITY OF COLORADO DENV	FY19.115.001	93.847	Diabetes, Endocrinology and Metabolism Research	22,112	

^{*} denotes major programs

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

Clusters	Federal Grantor	Туре	Pass-Through Grantor	Award Identifier	Assistance Listing Number	CFDA Program Title	Federal Expenditures	Subrecipient Expenditures
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	IN UNIV PURDUE UNIV AT INDIANA	REQ 125863040	93.847	Diabetes, Endocrinology and Metabolism Research	15,225	
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	IN UNIV PURDUE UNIV AT INDIANA	REQ 134762495	93.847	Diabetes, Endocrinology and Metabolism Research	47,584	
					Total - 93.847		2,285,545	28,62
Research and Development Cluster	U.S. Department of Health & Huma	Direct			93.853	Extramural Research Programs in the Neurosciences and Neurological Disorders	1,801,102	164,36
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	BRIGHAM AND WOMEN'S HOSPITA	121802	93.853	Extramural Research Programs in the Neurosciences and Neurological Disorders	375,944	
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	MR-LINK LLC	17099944	93.853	Extramural Research Programs in the Neurosciences and Neurological Disorders	1,740	
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	BACKYARD BRAINS	18078267	93.853	Extramural Research Programs in the Neurosciences and Neurological Disorders	124,234	
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	YALE UNIVERSITY	GK000164 (CON-80000474)	93.853	Extramural Research Programs in the Neurosciences and Neurological Disorders	-1,223	
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	UNIV OF TEXAS S WSTN MEDICAL	GMO211009 PO0000002095	93.853	Extramural Research Programs in the Neurosciences and Neurological Disorders	35,896	
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	INDIANA UNIVERSITY	IN-4685646-PU	93.853	Extramural Research Programs in the Neurosciences and Neurological Disorders	66,140	
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	INDIANA UNIVERSITY	IN-4693851-PU	93.853	Extramural Research Programs in the Neurosciences and Neurological Disorders	2,213	
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	INDIANA UNIVERSITY	IN4685646PU	93.853	Extramural Research Programs in the Neurosciences and Neurological Disorders	281,791	
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	BRIGHAM AND WOMEN'S HOSPITA	NTP21112617	93.853	Extramural Research Programs in the Neurosciences and Neurological Disorders	31,092	
					Total - 93.853		2,718,929	164,36
Research and Development Cluster	U.S. Department of Health & Huma	Direct			93.855	Allergy, Immunology and Transplantation Research	6,459,998	2,077,59
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	UNIVERSITY OF UTAH	10051059-01	93.855	Allergy, Immunology and Transplantation Research	2,811	
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	LOYOLA UNIVERSITY CHICAGO	206944-1	93.855	Allergy, Immunology and Transplantation Research	27,478	,
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	LA JOLLA INST FOR ALLERGY & IM	27909-01-123-408	93.855	Allergy, Immunology and Transplantation Research	-1,426	
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	LA JOLLA INST FOR ALLERGY & IM	27909-02-123-408	93.855	Allergy, Immunology and Transplantation Research	315,364	
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	VIRGINIA POLYTECHNIC INST & ST	T 412642-19084	93.855	Allergy, Immunology and Transplantation Research	115,559	
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	UNIVERSITY OF ROCHESTER	417319G/UR FAO GR510776	93.855	Allergy, Immunology and Transplantation Research	442,619	
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	BOSTON UNIVERSITY, TRUSTEES	4500002938	93.855	Allergy, Immunology and Transplantation Research	15,686	
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	IU SCHOOL OF MEDICINE	8514-PU	93.855	Allergy, Immunology and Transplantation Research	157,904	
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	UNIVERSITY OF CALIFORNIA - DAV	A20-0624-S001	93.855	Allergy, Immunology and Transplantation Research	52,989	
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	UNIVERSITY OF COLORADO DENV	/ FY16.526.001	93.855	Allergy, Immunology and Transplantation Research	136,051	
	U.S. Department of Health & Huma	Pass-Through	GEORGIA STATE UNIVERSITY	SP00013765-03	93.855	Allergy, Immunology and Transplantation Research	122,325	
Research and Development Cluster								
Research and Development Cluster Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	WASHINGTON UNIVERSITY	WU-17-36	93.855	Allergy, Immunology and Transplantation Research	135,139	

^{*} denotes major programs

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

Clusters	Federal Grantor	Туре	Pass-Through Grantor	Award Identifier	Assistance Listing Number	CFDA Program Title	Federal Expenditures	Subrecipient Expenditures
					Total - 93.855		8,423,611	2,077,59
Research and Development Cluster	U.S. Department of Health & Huma	Direct			93.859	Biomedical Research and Research Training	11,589,057	440,27
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	PURSPEC TECHNOLOGIES	18035549	93.859	Biomedical Research and Research Training	26,862	
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	MATERIALS DEVELOPMENT INC.	19068068	93.859	Biomedical Research and Research Training	9,508	(
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	EXPLORE INTERACTIVE, INC	19078086	93.859	Biomedical Research and Research Training	51,255	(
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	TYMORA ANALYTICAL OPERATION	N 19100468	93.859	Biomedical Research and Research Training	30,135	(
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	BOSTON UNIVERSITY, TRUSTEES	4500002413	93.859	Biomedical Research and Research Training	5,998	(
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	RUTGERS, THE STATE UNIVERSIT	5923	93.859	Biomedical Research and Research Training	-149	(
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	UNIVERSITY OF CALIFORNIA - SAM	N 82691762	93.859	Biomedical Research and Research Training	4,211	
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	UNIVERSITY OF MINNESOTA	A004265801	93.859	Biomedical Research and Research Training	-379	(
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	UNIVERSITY OF CALIFORNIA - SAM	A18-0179-S001-PO646848	93.859	Biomedical Research and Research Training	164,219	(
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	UNIVERSITY OF WASHINGTON	UWSC12039	93.859	Biomedical Research and Research Training	26,737	(
					Total - 93.859		11,907,454	440,27
Research and Development Cluster	U.S. Department of Health & Huma	Direct			93.865	Child Health and Human Development Extramural Research	643,205	14,713
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	BRADLEY HOSPITAL	7127549	93.865	Child Health and Human Development Extramural Research	33,600	(
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	FLORIDA STATE UNIVERSITY	R000002502	93.865	Child Health and Human Development Extramural Research	4,263	(
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	FLORIDA STATE UNIVERSITY	R000002725	93.865	Child Health and Human Development Extramural Research	25,984	(
					Total - 93.865		707,052	14,71;
Research and Development Cluster	U.S. Department of Health & Huma	Direct			93.866	Aging Research	1,791,174	805,43
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	TYMORA ANALYTICAL OPERATION	19100468	93.866	Aging Research	88,169	(
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	UNIVERSITY OF MASSACHUSETTS	S 21-015815 A00	93.866	Aging Research	4,460	
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	INDIANA UNIVERSITY	8160_PUR	93.866	Aging Research	3,124,192	(
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	INDIANA UNIVERSITY	IN4688983PU	93.866	Aging Research	39,539	(
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	UNIV OF TX HEALTH SCIENCE CTR	R SA0000226	93.866	Aging Research	25,804	(
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	UNIVERSITY OF WASHINGTON	UWSC11021	93.866	Aging Research	23,427	(
					Total - 93.866		5,096,765	805,43
Research and Development Cluster	U.S. Department of Health & Huma	Direct			93.867	Vision Research	741,700	(
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	CORNELL UNIVERSITY	182101	93.867	Vision Research	-32	

^{*} denotes major programs

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

Clusters	Federal Grantor	Туре	Pass-Through Grantor	Award Identifier	Assistance Listing Number	CFDA Program Title	Federal Expenditures	Subrecipient Expenditures
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	CORNELL UNIVERSITY	201864	93.867	Vision Research	83,103	(
					Total - 93.867		824,771	
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	UNIVERSITY OF IOWA	S00869-02	93.879	Medical Library Assistance	-414	(
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	UNIVERSITY OF IOWA	S02181-01	93.879	Medical Library Assistance	7,517	(
					Total - 93.879		7,103	
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	MARION GENERAL HOSPITAL	19100889	93.912	Rural Health Care Services Outreach and Rural Health Network Development Program	147,327	(
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	OHIO STATE UNIVERSITY	60074625	93.958	Block Grants for Community Mental Health Services	16,348	(
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	IN FAMILY & SOCIAL SERVICES AD	CONTRACT# 32039	93.958	Block Grants for Community Mental Health Services	-1,288	
					Total - 93.958		15,060	
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	IN FAMILY & SOCIAL SERVICES AD	GRANT ID 21962	93.959	Block Grants for Prevention and Treatment of Substance Abuse	20,516	(
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	INDIANA UNIVERSITY	19078529	93.969	Geriatric Education Centers	10,268	(
Research and Development Cluster	U.S. Department of Health & Huma	Direct			93.989	International Research and Research Training	2,120	1,573
Research and Development Cluster	U.S. Department of Health & Huma	Direct		19-A0-00-1002663	93.RD	U.S. Department of Health & Human Services	40,394	(
Research and Development Cluster	U.S. Department of Health & Huma	Direct		19024324 - PIOTROWSKI	93.RD	U.S. Department of Health & Human Services	10,314	(
Research and Development Cluster	U.S. Department of Health & Huma	Direct		19122519 - DAVIS	93.RD	U.S. Department of Health & Human Services	10,314	(
Research and Development Cluster	U.S. Department of Health & Huma	Direct		19122660	93.RD	U.S. Department of Health & Human Services	5,898	(
Research and Development Cluster	U.S. Department of Health & Huma	Direct		21014254 - HUANG	93.RD	U.S. Department of Health & Human Services	10,314	(
Research and Development Cluster	U.S. Department of Health & Huma	Direct		21067911	93.RD	U.S. Department of Health & Human Services	104,988	(
Research and Development Cluster	U.S. Department of Health & Huma	Direct		234362	93.RD	U.S. Department of Health & Human Services	36,355	(
Research and Development Cluster	U.S. Department of Health & Huma	Direct		ВЕСК	93.RD	U.S. Department of Health & Human Services	2,820	(
Research and Development Cluster	U.S. Department of Health & Huma	Direct		HHSF223201710137C	93.RD	U.S. Department of Health & Human Services	33,751	(
Research and Development Cluster	U.S. Department of Health & Huma	Direct		HHSN271201700022I	93.RD	U.S. Department of Health & Human Services	3,653	(
Research and Development Cluster	U.S. Department of Health & Huma	Direct		IP15120879	93.RD	U.S. Department of Health & Human Services	1,120	(
Research and Development Cluster	U.S. Department of Health & Huma	Direct		SP0040139 60047648 PU-03	93.RD	U.S. Department of Health & Human Services	44,035	(
Research and Development Cluster	U.S. Department of Health & Huma	Direct		SP0040139 60047648 PU-04	93.RD	U.S. Department of Health & Human Services	171,421	(
Research and Development Cluster	U.S. Department of Health & Huma	Direct		SP0040139 60047653 PU-03	93.RD	U.S. Department of Health & Human Services	258,006	(
Research and Development Cluster	U.S. Department of Health & Huma	Direct		SP0040139 60047653 PU-04	93.RD	U.S. Department of Health & Human Services	95,136	(
Research and Development Cluster	U.S. Department of Health & Huma	Direct		VUMC80773	93.RD	U.S. Department of Health & Human Services	359,660	112,87

^{*} denotes major programs

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

Clusters	Federal Grantor	Туре	Pass-Through Grantor	Award Identifier	Assistance Listing Number	CFDA Program Title	Federal Expenditures	Subrecipient Expenditures
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	TYMORA ANALYTICAL OPERATION	16099420	93.RD	U.S. Department of Health & Human Services	13,452	C
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	ADIPO THERAPEUTICS LLC	18024192	93.RD	U.S. Department of Health & Human Services	-6	(
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	NOVILYTIC LLC	19057160	93.RD	U.S. Department of Health & Human Services	1	(
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	MONON BIOVENTURES LLC	19068051	93.RD	U.S. Department of Health & Human Services	99,634	(
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	MOI UNIVERSITY	20013726	93.RD	U.S. Department of Health & Human Services	-3	(
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	INDIANA UNIVERSITY	20101602 MOU	93.RD	U.S. Department of Health & Human Services	27,548	(
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	UNIV. OF NORTH CAROLINA AT CH	5115210	93.RD	U.S. Department of Health & Human Services	-172	(
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	NATNL INST FOR PHRMCTCL TECH	NIPTE-75F-PU-2021-001	93.RD	U.S. Department of Health & Human Services	76,840	(
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	UNIVERSITY OF MINNESOTA	P007405902	93.RD	U.S. Department of Health & Human Services	20,110	(
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	UNIVERSITY OF IOWA	S00841-01	93.RD	U.S. Department of Health & Human Services	33,648	(
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	WELLESLEY COLLEGE	SA26494	93.RD	U.S. Department of Health & Human Services	15,847	(
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	ALTARUM INSTITUTE	SC-17-010	93.RD	U.S. Department of Health & Human Services	233,520	(
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	NORTHWESTERN UNIVERSITY	SP0040139 60047653 PU-02	93.RD	U.S. Department of Health & Human Services	-20	(
Research and Development Cluster	U.S. Department of Health & Huma	Pass-Through	UNIVERSITY OF MICHIGAN	SUBK00012614	93.RD	U.S. Department of Health & Human Services	1,007	(
					Total - 93.RD		1,709,585	112,877
Research and Development Cluster	Total - U.S. Department of Health	n & Human Ser	vices				69,196,668	8,322,538
Research and Development Cluster	U.S. Department of Homeland Sec	Direct			97.061	Centers for Homeland Security	-27,600	(
Research and Development Cluster	U.S. Department of Homeland Sec	Pass-Through	NORTHEASTERN UNIVERSITY	505035-78054	97.061	Centers for Homeland Security	61,015	(
Research and Development Cluster	U.S. Department of Homeland Sec	Pass-Through	GEORGE MASON UNIVERSITY	E2042938	97.061	Centers for Homeland Security	231,724	79,523
					Total - 97.061		265,139	79,523
Research and Development Cluster	U.S. Department of Homeland Sec	Direct			97.077	Homeland Security Testing, Evaluation, and Demonstration of Technologies	315,825	22,520
Research and Development Cluster	U.S. Department of Homeland Sec	Direct		70RSAT18CB0000004	97.RD	U.S. Department of Homeland Security	-1,031	(
Research and Development Cluster	U.S. Department of Homeland Sec	Pass-Through	UNIV OF ILLINOIS AT CHAMPAIGN-	101869-18172	97.RD	U.S. Department of Homeland Security	179,184	(
Research and Development Cluster	U.S. Department of Homeland Sec	Pass-Through	NORTHEASTERN UNIVERSITY	505185-78051	97.RD	U.S. Department of Homeland Security	72,030	(
Research and Development Cluster	U.S. Department of Homeland Sec	Pass-Through	LAWRENCE LIVERMORE NATNL LA	B629434	97.RD	U.S. Department of Homeland Security	54,921	(
					Total - 97.RD		305,104	(
Research and Development Cluster	Total - U.S. Department of Home	land Security					886,068	102,043
Research and Development Cluster	Agency for International Developm	Direct			98.001	USAID Foreign Assistance for Programs Overseas	4,952,234	3,429,02

^{*} denotes major programs

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

Clusters	Federal Grantor	Туре	Pass-Through Grantor	Award Identifier	Assistance Listing Number	CFDA Program Title	Federal Expenditures	Subrecipient Expenditure
Research and Development Cluster	Agency for International Developm	Pass-Through	CIMMYT, INT.	17121882	98.001	USAID Foreign Assistance for Programs Overseas	196,757	
Research and Development Cluster	Agency for International Developm	Pass-Through	MICHIGAN STATE UNIVERSITY	RC108887-PURDUE	98.001	USAID Foreign Assistance for Programs Overseas	60,742	
Research and Development Cluster	Agency for International Developm	Pass-Through	MICHIGAN STATE UNIVERSITY	RC111143-PURDUE	98.001	USAID Foreign Assistance for Programs Overseas	2,197	
Research and Development Cluster	Agency for International Developm	Pass-Through	VANDERBILT UNIVERSITY MEDICA	.VUMC68125	98.001	USAID Foreign Assistance for Programs Overseas	35,928	
					Total - 98.001		5,247,858	3,429,02
Research and Development Cluster	Agency for International Developm	Pass-Through	NATIONAL ACADEMY OF SCIENCE	2000007146	98.RD	Agency for International Development	-2,637	
Research and Development Cluster	Total - Agency for International	Development					5,245,221	3,429,02
Total - Research and Development	Cluster						278,535,744	35,733,30
SNAP Cluster	U.S. Department of Agriculture	Pass-Through	IN STATE DEPARTMENT OF HEAL	CONTRACT #29605 (AMD#1)	10.561*	State Admin Matching Grants for the Supplemental Nutrition Assistance Program	1,646,873	
SNAP Cluster	U.S. Department of Agriculture	Pass-Through	IN STATE DEPARTMENT OF HEAL	CONTRACT #47205	10.561*	State Admin Matching Grants for the Supplemental Nutrition Assistance Program	3,994,851	
					Total - 10.561		5,641,724	
Total - SNAP Cluster							5,641,724	
	U.S. Department of Agriculture	Pass-Through	MISSISSIPPI STATE UNIVERSITY	018000.340888.04B	10.001	Agricultural Research_Basic and Applied Research	14,973	
	U.S. Department of Agriculture	Pass-Through	AGRICULTURAL RESEARCH SERV	59-5030-9-004	10.001	Agricultural Research_Basic and Applied Research	4,241	
					Total - 10.001		19,214	
	U.S. Department of Agriculture	Direct			10.025	Plant and Animal Disease, Pest Control, and Animal Care	-14,955	-2,58
	U.S. Department of Agriculture	Pass-Through	CORNELL UNIVERSITY	81230-10953	10.025	Plant and Animal Disease, Pest Control, and Animal Care	-1,059	
					Total - 10.025		-16,014	-2,58
	U.S. Department of Agriculture	Pass-Through	IN STATE DEPARTMENT OF AGRIC	CONTRACT #38350	10.156	Federal-State Marketing Improvement Program	18,151	
	U.S. Department of Agriculture	Direct			10.163	Market Protection and Promotion	50,654	
	U.S. Department of Agriculture	Direct			10.172	Local Food Promotion Program	149,004	103,77
	U.S. Department of Agriculture	Direct			10.200	Grants for Agricultural Research, Special Research Grants	25,459	
	U.S. Department of Agriculture	Direct			10.202	Cooperative Forestry Research	3,414	
	U.S. Department of Agriculture	Direct			10.210	Food and Agricultural Sciences National Needs Graduate Fellowship Grants	58,453	
	U.S. Department of Agriculture	Pass-Through	UNIVERSITY OF MINNESOTA	H007179311	10.215	Sustainable Agriculture Research and Education	63,931	
	U.S. Department of Agriculture	Pass-Through	UNIVERSITY OF MINNESOTA	H007179330	10.215	Sustainable Agriculture Research and Education	32,617	
	U.S. Department of Agriculture	Pass-Through	UNIVERSITY OF MINNESOTA	H007813909	10.215	Sustainable Agriculture Research and Education	20,072	12,16
	U.S. Department of Agriculture	Pass-Through	UNIVERSITY OF MINNESOTA	H008568314	10.215	Sustainable Agriculture Research and Education	6,011	

^{*} denotes major programs

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

tures Subrecipient Expe	Federal Expenditures	CFDA Program Title	Assistance Listing Number	Award Identifier	Pass-Through Grantor	Туре	Federal Grantor	lusters
122,631	122,631		Total - 10.215					
303	303	1890 Institution Capacity Building Grants	10.216	F 229_33_11011002	UNIVERSITY OF AR AT PINE BLUFF	Pass-Through	U.S. Department of Agriculture	
71,097	71,097	Higher Education Challenge Grants	10.217			Direct	U.S. Department of Agriculture	
711	711	Extension Collaborative on Immunization Teaching & Engagement	10.229	EXC1-2021-2060	EXTENSION FOUNDATION	Pass-Through	U.S. Department of Agriculture	
5,650	5,650	Agricultural and Rural Economic Research	10.250			Direct	U.S. Department of Agriculture	
39,398	39,398	Agricultural Market and Economic Research	10.290	T 422733-19084	VIRGINIA POLYTECHNIC INST & ST	Pass-Through	U.S. Department of Agriculture	
357,060	357,060	Homeland Security_Agricultural	10.304			Direct	U.S. Department of Agriculture	
164,204	164,204	Organic Agriculture Research and Extension Initiative	10.307			Direct	U.S. Department of Agriculture	
505,420	505,420	Agriculture and Food Research Initiative	10.310			Direct	U.S. Department of Agriculture	
24,473	24,473	Natnl Food Safety Training, Educ, Extn, Outreach & Tech Asst Compet.Grant Prog	10.328			Direct	U.S. Department of Agriculture	
3,685	3,685	Natnl Food Safety Training, Educ, Extn, Outreach & Tech Asst Compet.Grant Prog	10.328	4163031A	IOWA STATE UNIVERSITY	Pass-Through	U.S. Department of Agriculture	
1,708	1,708	Natnl Food Safety Training, Educ, Extn, Outreach & Tech Asst Compet.Grant Prog	10.328	v A21-1335-S003	UNIVERSITY OF CALIFORNIA - DAV	Pass-Through	U.S. Department of Agriculture	
29,866	29,866		Total - 10.328					
231,568	231,568	Crop Protection and Pest Management Competitive Grants Program	10.329			Direct	U.S. Department of Agriculture	
81,924	81,924	Enhancing Agricultural Opportunities for Military Veterans Competitive Grants	10.334	£ 2019-77028-29971	HOOSIER UPLANDS ECONOMIC DE	Pass-Through	U.S. Department of Agriculture	
33,975	33,975	Rural Business Development Grant	10.351			Direct	U.S. Department of Agriculture	
7,191	7,191	Cooperative Agreements with States for Intrastate Meat and Poultry Inspection	10.475			Direct	U.S. Department of Agriculture	
766,315	766,315	Cooperative Extension Service	10.500			Direct	U.S. Department of Agriculture	
11,302	11,302	Cooperative Extension Service	10.500	080300.340955.02	MISSISSIPPI STATE UNIVERSITY	Pass-Through	U.S. Department of Agriculture	
26,558	26,558	Cooperative Extension Service	10.500	2020-0885-01	NORTH CAROLINA STATE UNIVERS	Pass-Through	U.S. Department of Agriculture	
4,203	4,203	Cooperative Extension Service	10.500	25-6324-0187-311	UNIVERSITY OF NEBRASKA	Pass-Through	U.S. Department of Agriculture	
352	352	Cooperative Extension Service	10.500	A00-0349-S002	KANSAS STATE UNIVERSITY	Pass-Through	U.S. Department of Agriculture	
341	341	Cooperative Extension Service	10.500	H005722929	UNIVERSITY OF MINNESOTA	Pass-Through	U.S. Department of Agriculture	
49,049	49,049	Cooperative Extension Service	10.500	C PO:P1906709	ILLINOIS COOPERATIVE EXTENSION	Pass-Through	U.S. Department of Agriculture	
858,120	858,120		Total - 10.500					
232,420	9,232,420	Smith-Lever	10.511*			Direct	U.S. Department of Agriculture	
105,066	1,105,066	Expanded Food and Nutrition Education Program	10.514			Direct	U.S. Department of Agriculture	
77,788	77,788	Renewable Resources Extension Act and National Focus Fund Project	10.515			Direct	U.S. Department of Agriculture	

^{*} denotes major programs

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

Clusters	Federal Grantor	Туре	Pass-Through Grantor	Award Identifier	Assistance Listing Number	CFDA Program Title	Federal Expenditures	Subrecipient Expenditures
	U.S. Department of Agriculture	Pass-Through	UNIV OF ILLINOIS AT CHAMPAIGN	101598-18251	10.525	Farm and Ranch Stress Assistance Network Competitive Grants Program	29,287	
	U.S. Department of Agriculture	Pass-Through	UNIV OF ILLINOIS AT CHAMPAIGN	101598-18253	10.525	Farm and Ranch Stress Assistance Network Competitive Grants Program	1,570	
					Total - 10.525		30,857	
	U.S. Department of Agriculture	Pass-Through	IN STATE DEPARTMENT OF HEAL	CONTRACT #46965	10.575	Farm to School Grant Program	5,117	
	U.S. Department of Agriculture	Pass-Through	VIRGINIA POLYTECHNIC INST & ST	549123-19084	10.674	Forest Products Lab: Technology Marketing Unit (TMU)	17,236	
	U.S. Department of Agriculture	Direct			10.680	Forest Health Protection	86,306	20,75
	U.S. Department of Agriculture	Direct			10.890	Rural Development Cooperative Agreement Program	182,799	88,30
	U.S. Department of Agriculture	Pass-Through	FARM FOUNDATION	693A7516007	10.912	Environmental Quality Incentives Program	122	
	U.S. Department of Agriculture	Direct			10.960	Technical Agricultural Assistance	192,064	
	U.S. Department of Agriculture	Pass-Through	UNIVERSITY OF WISCONSIN-MAD	000000703	10.U00	U.S. Department of Agriculture	29,303	
	Total - U.S. Department of Agri	iculture					19,418,255	609,89
	U.S. Department of Commerce	Direct			11.303	Economic Development_Technical Assistance	184,635	
	U.S. Department of Commerce	Direct			11.307	Economic Adjustment Assistance	94,479	30,92
	U.S. Department of Commerce	Direct			11.417	Sea Grant Support	1,811,664	481,33
	U.S. Department of Commerce	Pass-Through	UNIVERSITY CORP FOR ATMOSPH	SUBAWD001801	11.431	Climate and Atmospheric Research	48,007	
	U.S. Department of Commerce	Direct			11.611	Manufacturing Extension Partnership	4,738,704	107,00
	U.S. Department of Commerce	Pass-Through	MISSOURI ENTERPRISE	21101569	11.611	Manufacturing Extension Partnership	16,357	
					Total - 11.611		4,755,061	107,00
	U.S. Department of Commerce	Pass-Through	MICHIGAN MANUFACTURING TEC	PROJECT# 32166-OT	11.620	Science, Technology, Business and/or Education Outreach	35,000	
	U.S. Department of Commerce	Direct		1332KP21FNEEN0020	11.U00	U.S. Department of Commerce	11,273	
	Total - U.S. Department of Con	nmerce					6,940,119	619,25
	U.S. Department of Defense	Direct			12.300	Basic and Applied Scientific Research	21,907	
	U.S. Department of Defense	Direct			12.431	Basic Scientific Research	13,023	
	U.S. Department of Defense	Pass-Through	UNIVERSITY OF MICHIGAN	SUBK00011356	12.617	Economic Adjustment Assistance for State Governments	128,424	
	U.S. Department of Defense	Pass-Through	HENRY M JACKSON FOUNDATION	5107	12.750	Uniformed Services University Medical Research Projects	27,307	
	U.S. Department of Defense	Pass-Through	HENRY M JACKSON FOUNDATION	5635	12.750	Uniformed Services University Medical Research Projects	105,992	
	U.S. Department of Defense	Pass-Through	HENRY M JACKSON FOUNDATION	5636	12.750	Uniformed Services University Medical Research Projects	8,054	
					Total - 12.750		141,353	

^{*} denotes major programs

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

Clusters	Federal Grantor	Туре	Pass-Through Grantor	Award Identifier	Assistance Listing Number	CFDA Program Title	Federal Expenditures	Subrecipient Expenditure
	U.S. Department of Defense	Direct			12.905	CyberSecurity Core Curriculum	597,348	87,85
	U.S. Department of Defense	Pass-Through	UNIVERSITY OF MICHIGAN	SUBK00009307	12.U00	U.S. Department of Defense	-235	
	U.S. Department of Defense	Pass-Through	HYPERCOMP INC	18122985	12.U01	U.S. Department of Defense	5,900	
	II.O. Donorto out of Defense	Dana Thannah	IN ODAOF II O	INS-51810-1	12.U02	H.C. Danielovania of Defense	-548	
	U.S. Department of Defense	Pass-Inrougn	IN SPACE, LLC	INS-51810-1	12.002	U.S. Department of Defense	-548	
	U.S. Department of Defense	Pass-Through	HENRY M JACKSON FOUNDATION	66033-5106	12.U03	U.S. Department of Defense	128,908	
	U.S. Department of Defense	Direct		CONTRACTF41999-20-D-0001	12.U04	U.S. Department of Defense	2,025,320	
	U.S. Department of Defense	Pass-Through	EXO-ATMOSPHERIC TECHNOLOG	I 190620-1	12.U05	U.S. Department of Defense	11,821	
	Total - U.S. Department of Defer	nse					3,073,221	87,85
	Housing & Urban Development	Pass-Through	FORT WAYNE, CITY OF	CO# 175PF193-5369-3067	14.272	National Disaster Resilience Competition	58,574	
	Total - Housing & Urban Develo	pment					58,574	
	U.S. Department of Interior	Direct		140G0320P0096	15.U00	U.S. Department of Interior	4,473	
	Total - U.S. Department of Interi	ior					4,473	
	U.S. Department of Justice	Direct			16.839	STOP School Violence	9,532	
	Total - U.S. Department of Justin	ce					9,532	
	U.S. Department of Labor	Direct			17.268	H-1B Job Training Grants	2,664,604	725,88
	U.S. Department of Labor	Direct			17.502	Occupational Safety and Health_Susan Harwood Training Grants	70,968	
	Total - U.S. Department of Labo	r					2,735,572	725,88
	U.S. Department of State	Pass-Through	INTERNATIONAL RESEARCH & EX	(FY20-YALI-BE-PU-03	19.009	Academic Exchange Programs - Undergraduate Programs	61,937	
	U.S. Department of State	Direct			19.040	Public Diplomacy Programs	34,870	
	U.S. Department of State	Pass-Through	SAKARYA UNION OF CHAMBERS	19101220	19.040	Public Diplomacy Programs	-776	
					Total - 19.040		34,094	
	U.S. Department of State	Direct			19.415	Professional Exchanges_Annual Open Grant	59,123	
	U.S. Department of State	Pass-Through	CRDF GLOBAL	CYB0-19-65258-0	19.U00	U.S. Department of State	37,526	
	U.S. Department of State	Direct		20013878	19.U01	U.S. Department of State	-742	
	U.S. Department of State	Direct		IP20057411	19.U02	U.S. Department of State	6,541	
	U.S. Department of State	Direct		100820A0336	19.U03	U.S. Department of State	198,806	
	U.S. Department of State	Direct		WLPURDUEILUA01	19.U04	U.S. Department of State	88,201	
	Total - U.S. Department of State						485,486	

^{*} denotes major programs

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

Clusters	Federal Grantor	Туре	Pass-Through Grantor	Award Identifier	Assistance Listing Number	CFDA Program Title	Federal Expenditures	Subrecipient Expenditures
	U.S. Department of Transportation	Direct			20.106	Airport Improvement Program	-55,050	
	U.S. Department of Transportation	Direct			20.215	Highway Training and Education	16,547	
	U.S. Department of Transportation	Direct		DTFACT-13-D-00010 0005	20.U00	U.S. Department of Transportation	3,850	
	U.S. Department of Transportation	Pass-Through	OLD DOMINION UNIV RESEARCH I	ACRP 2019-2020	20.U01	U.S. Department of Transportation	3,000	
	·	, and the second					·	
	Total - U.S. Department of Trans	•					-31,653	
	U.S. Department of the Treasury	Pass-Through	UNITED WAY	AGREEMENT #1601	21.009	Volunteer Income Tax Assistance (VITA) Matching Grant Program	6,929	
	U.S. Department of the Treasury	Pass-Through	IN COMMISSION FOR HIGHER ED	L CONTRACT# 48273	21.019	COVID-19 Coronavirus Relief Fund	5,000	
	Total - U.S. Department of the T	reasury					11,929	
	Federal Communications Commis	s Direct			32.006	COVID-19 Telehealth Program	34,209	
	Total - Federal Communications	Commission					34,209	
	National Aeronautics & Space Adn				43.001	Science	160,032	
	·							
	National Aeronautics & Space Adn	n Direct			43.008	Education	925,129	288,96
	National Aeronautics & Space Adn	n Direct			43.012	Space Technology	686,708	
	National Aeronautics & Space Adn	n Direct		80NSSC17K0368	43.U00	National Aeronautics & Space Administration	4,519	
	National Aeronautics & Space Adn	n Direct		80NSSC19P0397	43.U01	National Aeronautics & Space Administration	11,508	
	National Aeronautics & Space Adn	n Direct		80NSSC19P1336	43.U02	National Aeronautics & Space Administration	42,980	
	National Aeronautics & Space Adn	n Pass-Through	ANALYTICAL MECHANICS ASSOC,	T3-0417-FY19	43.U03	National Aeronautics & Space Administration	14,914	
	National Aeronautics & Space Adn	n Pass-Through	IN SPACE, LLC	NTPINS-41703-2	43.U04	National Aeronautics & Space Administration	119,680	
	National Aeronautics & Space Adn	n Direct		PC11832204/HRC0430622	43.U05	National Aeronautics & Space Administration	25,699	
	National Aeronautics & Space Adn	n Direct		4200741264	43.U06	National Aeronautics & Space Administration	59,566	
	National Aeronautics & Space Adn	n Pass-Through	ANALYTICAL MECHANICS ASSOC,	T3-0522-FY20	43.U07	National Aeronautics & Space Administration	46,312	
	National Aeronautics & Space Adn	n Pass-Through	ROCKET PROPULSION SYSTEMS I	20067514	43.U08	National Aeronautics & Space Administration	190,136	
	National Aeronautics & Space Adn	n Direct		20112446	43.U09	National Aeronautics & Space Administration	14,470	
	National Aeronautics & Space Adn	n Pass-Through	STENNIS SPACE CENTER	80NSSC20P2088	43.U10	National Aeronautics & Space Administration	60,682	
	National Aeronautics & Space Adn	n Pass-Through	ANALYTICAL MECHANICS ASSOC,	T3-0546-FY21	43.U11	National Aeronautics & Space Administration	207,050	
	National Aeronautics & Space Adn	n Pass-Through	ANALYTICAL MECHANICS ASSOC,	T3-0583-FY21	43.U12	National Aeronautics & Space Administration	19,678	
	National Aeronautics & Space Adn	n Pass-Through	ANALYTICAL MECHANICS ASSOC,	T3-0584-FY21	43.U13	National Aeronautics & Space Administration	1,489	
	Total - National Aeronautics & S	inace Administr	ration				2,590,552	288,96

^{*} denotes major programs

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

Clusters	Federal Grantor	Туре	Pass-Through Grantor	Award Identifier	Assistance Listing Number	CFDA Program Title	Federal Expenditures	Subrecipient Expenditures
	National Endowment for the Arts &	Pass-Through	ARTS MIDWEST	19067941	45.025	Promotion of the Arts_Partnership Agreements	3,040	
	National Endowment for the Arts &	Pass-Through	INDIANA ARTS COMMISSION	RIG4-18-2874427	45.025	Promotion of the Arts_Partnership Agreements	220	
					Total - 45.025		3,260	
	National Endowment for the Arts &	Direct			45.160	Promotion of the Humanities_Fellowships and Stipends	131,845	
	National Endowment for the Arts &	Direct			45.161	Promotion of the Humanities_Research	27,880	1,99
	National Endowment for the Arts &	Direct			45.162	Promotion of the Humanities_Teaching and Learning Resources and Curriculum Devel	20,121	
	National Endowment for the Arts &	Direct			45.313	Laura Bush 21st Century Librarian Program	46,585	
	National Endowment for the Arts &	Direct		20-8126	45.U00	National Endowment for the Arts & Humanities	714	
	Total - National Endowment for	the Arts & Hum	anities				230,405	1,99
	Small Business Administration	Pass-Through	IN ECONOMIC DEVELOPMENT CO	F 20089753	59.037	Small Business Development Center	95,443	
	Small Business Administration	Pass-Through	IN ECONOMIC DEVELOPMENT CO	F 21068542	59.037	Small Business Development Center	96,843	
	Small Business Administration	Pass-Through	IN ECONOMIC DEVELOPMENT CO	F 21090667	59.037	Small Business Development Center	77,165	
	Small Business Administration	Pass-Through	IN ECONOMIC DEVELOPMENT CO	F 21090669	59.037	Small Business Development Center	86,399	
	Small Business Administration	Pass-Through	IN ECONOMIC DEVELOPMENT CO	FA229-0-SBA-1019	59.037	Small Business Development Center	23,814	
	Small Business Administration	Pass-Through	OFFICE OF SMALL BUSINESS & EN	NA229-0-SBA-1021	59.037	Small Business Development Center	110,111	
	Small Business Administration	Pass-Through	IN ECONOMIC DEVELOPMENT CO	FA229-0-SBA-1025	59.037	Small Business Development Center	67,515	
	Small Business Administration	Pass-Through	IN ECONOMIC DEVELOPMENT CO	FCARES ACT A2290SBA1038	59.037	Small Business Development Center	169,655	
	Small Business Administration	Pass-Through	IN ECONOMIC DEVELOPMENT CO	F CARES ACT SBAHQ20C0040	59.037	Small Business Development Center	82,378	
	Small Business Administration	Pass-Through	IN ECONOMIC DEVELOPMENT CO	FCARESACT A229-1-SBA-1040	59.037	Small Business Development Center	39,369	
					Total - 59.037		848,692	
	Total - Small Business Administ	ration					848,692	
	Department of Veterans Affairs	Direct		583C10272	64.U00	Department of Veteran's Affairs	77,627	
	Total - Department of Veterans A	Affairs					77,627	
	Environmental Protection Agency	Direct			66.436	Surveys, Studies, Investigations, Demonstrations, and Training Grants and Cooper	15,230	
	Environmental Protection Agency	Pass-Through	IN DEPARTMENT OF ENVIRONME	CONTRACT ID 23109	66.460	Nonpoint Source Implementation Grants	8,976	
	Environmental Protection Agency	Direct			66.700	Consolidated Pesticide Enforcement Cooperative Agreements	669,324	
	Environmental Protection Agency	Pass-Through	IN DEPARTMENT OF ENVIRONME	CONTRACT #38626	66.708	Pollution Prevention Grants Program	46,282	
	Total - Environmental Protection	n Agency					739,812	

^{*} denotes major programs

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

Clusters	Federal Grantor	Туре	Pass-Through Grantor	Award Identifier	Assistance Listing Number	CFDA Program Title	Federal Expenditures	Subrecipient Expenditure
	Nuclear Regulatory Commission	Direct			77.008	Nuclear Regulatory Commission Scholarship & Fellowship Program	151,229	
	Total - Nuclear Regulatory Com	mission					151,229	
	U.S. Department of Energy	Direct			81.121	Nuclear Energy Research, Development and Demonstration	113,387	
	U.S. Department of Energy	Direct		368096	81.U00	U.S. Department of Energy	29,980	
	U.S. Department of Energy	Pass-Through	UNIVERSITY OF KENTUCKY	3200001517-18-076	81.U01	U.S. Department of Energy	15,932	
	U.S. Department of Energy	Pass-Through	BATTELLE ENERGY ALLIANCE LLC	214762	81.U02	U.S. Department of Energy	6,697	
	U.S. Department of Energy	Direct		AWARD-20013492	81.U03	U.S. Department of Energy	21	
	U.S. Department of Energy	Pass-Through	LOS ALAMOS NATIONAL LABORAT	624154	81.U04	U.S. Department of Energy	1,334	
	Total - U.S. Department of Energ	у					167,351	
TRIO Cluster	U.S. Department of Education	Direct			84.042	TRIO_Student Support Services	889,944	
TRIO Cluster	U.S. Department of Education	Direct			84.044	TRIO_Talent Search	719,711	
TRIO Cluster	U.S. Department of Education	Direct			84.047	TRIO_Upward Bound	923,657	
Total - TRIO Cluster							2,533,312	
	U.S. Department of Education	Pass-Through	VINCENNES UNIVERSITY	1920-I	84.048	Vocational Education_Basic Grants to States	6,333	
	U.S. Department of Education	Pass-Through	GEORGIA STATE UNIVERSITY	SP00012139-09	84.116	Fund for the Improvement of Postsecondary Education	6,334	
	U.S. Department of Education	Direct			84.200	Graduate Assistance in Areas of National Need	33,769	
	U.S. Department of Education	Direct			84.206	Javits Gifted and Talented Students Education Grant Program	495,259	
	U.S. Department of Education	Direct			84.334	Gaining Early Awareness and Readiness for Undergraduate Programs	2,393,592	374,64
	U.S. Department of Education	Direct			84.336	Teacher Quality Enhancement Grants	338,705	
	U.S. Department of Education	Pass-Through	IN DEPARTMENT OF EDUCATION	CONTRACT# 43709	84.367	Improving Teacher Quality State Grants	277,495	
	U.S. Department of Education	Pass-Through	IN DEPARTMENT OF EDUCATION	CONTRACT# 47253	84.367	Improving Teacher Quality State Grants	56,694	
					Total - 84.367		334,189	
	U.S. Department of Education	Pass-Through	IN DEPARTMENT OF EDUCATION	CONTRACT #48827	84.425C*	COVID-19 Education Stabilization Fund	307,471	
	U.S. Department of Education	Direct			84.425E*	COVID-19 Education Stabilization Fund	29,005,083	
	U.S. Department of Education	Direct			84.425F*	COVID-19 Education Stabilization Fund	54,031,470	
					Total - 84.425		83,344,024	
	U.S. Department of Education	Direct		P217A170345	84.U00	U.S. Department of Education	306,479	
	U.S. Department of Education	Pass-Through	INDIANA UNIVERSITY	4228746	84.U01	U.S. Department of Education	2,545	

^{*} denotes major programs

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

Clusters	Federal Grantor	Туре	Pass-Through Grantor	Award Identifier	Assistance Listing Number	CFDA Program Title	Federal Expenditures	Subrecipient Expenditures
	U.S. Department of Education	Pass-Through	INDIANA UNIVERSITY	20079073	84.U02	U.S. Department of Education	3,000	(
	U.S. Department of Education	Direct		ANTH 523	84.U03	U.S. Department of Education	1,629	(
	Total - U.S. Department of Edu	cation					89,799,170	374,646
Health Center Program Cluster	U.S. Department of Health & Hur	ma Direct			93.224	Consolidated Health Centers (Community Health Centers, Migrant Health Centers, H	2,937,956	(
Total - Health Center Program Cl	uster						2,937,956	
Medicaid Cluster	U.S. Department of Health & Hur	ma Pass-Through	IN FAMILY & SOCIAL SERVICES AD	CONTRACT# 18963	93.778	Medical Assistance Program	2,651,857	(
Total - Medicaid Cluster							2,651,857	
	U.S. Department of Health & Hur	ma Direct			93.103	Food and Drug Administration_Research	31,279	(
	U.S. Department of Health & Hur	ma Pass-Through	IN STATE DEPARTMENT OF HEAL	CONTRACT ID#30149	93.103	Food and Drug Administration_Research	112,141	C
	U.S. Department of Health & Hur	ma Pass-Through	NATNL INST FOR PHRMCTCL TECH	NIPTE-U01-PU-2019-001-01	93.103	Food and Drug Administration_Research	-1	(
	U.S. Department of Health & Hur	ma Pass-Through	NATNL INST FOR PHRMCTCL TECH	NIPTE-U01-PU-2019-002	93.103	Food and Drug Administration_Research	-921	(
	U.S. Department of Health & Hur	ma Pass-Through	NATNL INST FOR PHRMCTCL TECH	F NIPTE-U01-PU-2022-001	93.103	Food and Drug Administration_Research	8,119	(
					Total - 93.103		150,617	(
	U.S. Department of Health & Hur	ma Pass-Through	IN STATE DEPARTMENT OF HEAL	CONTRACT NO 52867	93.136	Injury Prevention and Control Research and State and Community Based Programs	21,898	
	U.S. Department of Health & Hur	ma Pass-Through	IN STATE DEPARTMENT OF HEAL	CONTRACT# 48684	93.136	Injury Prevention and Control Research and State and Community Based Programs	24,490	(
					Total - 93.136		46,388	(
	U.S. Department of Health & Hur	ma Direct			93.137	Community Programs to Improve Minority Health Grant Program	365,169	(
	U.S. Department of Health & Hur	ma Pass-Through	IN STATE OFFICE OF RURAL HEAL	CONTRACT #38087	93.241	State Rural Hospital Flexibility Program	15,793	C
	U.S. Department of Health & Hur	ma Pass-Through	IN STATE OFFICE OF RURAL HEAL	CONTRACT #47471	93.241	State Rural Hospital Flexibility Program	164,063	(
					Total - 93.241		179,856	(
	U.S. Department of Health & Hur	ma Direct			93.243	Substance Abuse and Mental Health Services_Projects of Regional and National Sig	60,980	(
	U.S. Department of Health & Hur	ma Direct			93.247	Advanced Education Nursing Grant Program	540,678	9,684
	U.S. Department of Health & Hur	na Direct			93.262	Occupational Safety and Health Program	92,307	(
	U.S. Department of Health & Hur	ma Pass-Through	HEALTH CARE EDUCATION-TRAIN	II 20035621	93.297	Teenage Pregnancy Prevention Program	1,838	(
	U.S. Department of Health & Hur	ma Pass-Through	HEALTH CARE EDUCATION-TRAIN	II 21047118	93.297	Teenage Pregnancy Prevention Program	15,648	(
					Total - 93.297		17,486	(
	U.S. Department of Health & Hur	ma Pass-Through	IN STATE DEPARTMENT OF HEAL	CONTRACT #44744	93.426	Improving the Health of Americans through Prevention and Management of Diabetes	22,998	(
	U.S. Department of Health & Hur	ma Pass-Through	INDIANA UNIVERSITY	IN4680993PU	93.638	ACA-Transforming Clinical Practice Initiative: Practice Transf Networks(PTNs)	f -1	(

^{*} denotes major programs

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

Clusters	Federal Grantor	Туре	Pass-Through Grantor	Award Identifier	Assistance Listing Number	CFDA Program Title	Federal Expenditures	Subrecipient Expenditure
	U.S. Department of Health & Hum-	a Pass-Through	IN FAMILY & SOCIAL SERVICES AD	GRANT ID: 46898	93.788	Opioid STR	313,058	
	U.S. Department of Health & Hum-	a Direct		HHSF223201610019C	93.U00	U.S. Department of Health & Human Services	-2,500	
	U.S. Department of Health & Human	a Direct		HHSF223201610019C	93.U01	U.S. Department of Health & Human Services	-12,178	
	U.S. Department of Health & Hum	a Direct		HHSF223201610019C	93.U02	U.S. Department of Health & Human Services	-6,825	
	U.S. Department of Health & Hum	Direct		HHSF223201810131C	93.U03	U.S. Department of Health & Human Services	118	
	·					·		
	U.S. Department of Health & Hum	a Direct		HHSF223201850066A	93.U04	U.S. Department of Health & Human Services	-39	
	U.S. Department of Health & Hum-	a Direct		HHSF223201610019C	93.U05	U.S. Department of Health & Human Services	3,377	
	U.S. Department of Health & Huma	a Direct		IPA - DANYA FARUQI	93.U06	U.S. Department of Health & Human Services	12	
	U.S. Department of Health & Hum-	a Direct		HHSF223201810131C	93.U07	U.S. Department of Health & Human Services	-10,892	
	U.S. Department of Health & Hum	a Direct		IPA - D VO	93.U08	U.S. Department of Health & Human Services	7,340	
	U.S. Department of Health & Hum	a Direct		IPA - J NWABUEZE	93.U09	U.S. Department of Health & Human Services	19,112	
	U.S. Department of Health & Hum	a Direct		IPA - JENNIFER CHEN	93.U10	U.S. Department of Health & Human Services	25,022	
	U.S. Department of Health & Hum	2 Direct		IPA - MINH TRI TRAN	93.U11	U.S. Department of Health & Human Services	26,417	
	·							
	U.S. Department of Health & Hum	a Direct		IPA - MEGAN COUMO	93.U12	U.S. Department of Health & Human Services	7,431	
	U.S. Department of Health & Hum	a Direct		HHSF223201610019C	93.U13	U.S. Department of Health & Human Services	75,669	
	U.S. Department of Health & Huma	a Direct		IPA - KATHRYN COMANICI	93.U14	U.S. Department of Health & Human Services	31,541	
	U.S. Department of Health & Hum	Direct		HHSF223201810131C	93.U15	U.S. Department of Health & Human Services	7,674	
	U.S. Department of Health & Hum	a Pass-Through	UNIVERSITY OF MARYLAND BALTI	I 53584-Z0071201	93.U16	U.S. Department of Health & Human Services	3,000	
	U.S. Department of Health & Hum-	a Direct		HHSF223201850066A	93.U17	U.S. Department of Health & Human Services	80,391	
	U.S. Department of Health & Hum	a Direct		21024825	93.U18	U.S. Department of Health & Human Services	6,035	
	U.S. Department of Health & Hum.	a Pass-Through	IN STATE DEPARTMENT OF HEAL	CONTRACT# 32251	93.U19	U.S. Department of Health & Human Services	30,459	
	Total - U.S. Department of Health						7,670,513	
	AmeriCorps	Pass-Through	SERVE INDIANA	CONTRACT NO 53376	94.006	AmeriCorps	568	
	Total - AmeriCorps						568	
	Office of National Drug Control Po	li Direct			95.007	Research and Data Analysis	67,831	
	Total - Office of National Drug C	ontrol Policy					67,831	
	U.S. Department of Homeland Sec	Direct			97.005	State and Local Homeland Security Training Program	114,099	8,13
	U.S. Department of Homeland Sec	Pass-Through	NORTHEASTERN UNIVERSITY	505035-78054	97.061	Centers for Homeland Security	-1,246	

^{*} denotes major programs

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

Clusters	Federal Grantor	Гуре	Pass-Through Grantor	Award Identifier	Assistance Listing Number	CFDA Program Title	Federal Expenditures	Subrecipient Expenditures
	Total - U.S. Department of Homela	nd Security					112,853	8,136
	Agency for International Developm(Direct			98.001	USAID Foreign Assistance for Programs Overseas	2,892,906	1,218,044
	Agency for International Developm(F	Pass-Through	PUBLIC HEALTH INSTITUTE	02155	98.001	USAID Foreign Assistance for Programs Overseas	54,167	0
	Agency for International Developm(F	Pass-Through	NATIONAL ACADEMY OF SCIENCE	2000008310	98.001	USAID Foreign Assistance for Programs Overseas	20,828	0
	Agency for International Developm F	Pass-Through	NATIONAL ACADEMY OF SCIENCE	2000009139	98.001	USAID Foreign Assistance for Programs Overseas	214	0
	Agency for International Developm F	Pass-Through	CORNELL UNIVERSITY	87718-11203	98.001	USAID Foreign Assistance for Programs Overseas	35,379	0
	Agency for International Developm(F	Pass-Through	KANSAS STATE UNIVERSITY	A00-0868-S020	98.001	USAID Foreign Assistance for Programs Overseas	51,880	0
	Agency for International Developm(F	Pass-Through	TUFTS UNIVERSITY	AID-OAA-L-10-00006	98.001	USAID Foreign Assistance for Programs Overseas	65,301	0
	Agency for International Developm(F	Pass-Through	KANSAS STATE UNIVERSITY	S15005	98.001	USAID Foreign Assistance for Programs Overseas	-394	0
	Agency for International Developm(F	Pass-Through	KANSAS STATE UNIVERSITY	S19170	98.001	USAID Foreign Assistance for Programs Overseas	193,114	0
	Agency for International Developm (Pass-Through	KANSAS STATE UNIVERSITY	S19172	98.001	USAID Foreign Assistance for Programs Overseas	41,061	0
	Agency for International Developm	Pass-Through	KANSAS STATE UNIVERSITY	S19186	98.001	USAID Foreign Assistance for Programs Overseas	133,165	114,449
	Agency for International Developm(F	Pass-Through	PARTNERS OF THE AMERICAS FD	I SG-2020-1	98.001	USAID Foreign Assistance for Programs Overseas	177,295	98,261
					Total - 98.001		3,664,916	1,430,754
	Agency for International Developm	Direct		AID-OAA-L-14-00003	98.U00	Agency for International Development	45,746	-179
	Agency for International Developm	Pass-Through	RUTGERS, THE STATE UNIVERSIT	5736	98.U01	Agency for International Development	-311	0
	Agency for International Developm	Direct		AID-OAA-L-14-00003	98.U02	Agency for International Development	848,290	373,111
	Total - Agency for International De	evelopment					4,558,641	1,803,686
Total - Other Programs							139,754,961	4,529,991
Grand Total							658,669,180	40,263,299

PURDUE UNIVERSITY NOTES TO SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS June 30, 2021

Note 1. Basis of Presentation

The accompanying Schedule of Expenditures of Federal Awards (Schedule) includes the federal award activity of Purdue University (University). The information in the Schedule is presented in accordance with the requirements of Title 2 U.S Code of Federal Regulations Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance). Because the Schedule presents only a selective portion of the activities of the University, it is not intended to and does not present the financial position, change in financial position, or cash flows of the University. For reporting purposes, federal awards have been classified into three types:

- 1. Student financial aid
- 2. Research and development
- 3. Other federal programs

Note 2. Summary of Significant Accounting Policies

Expenditures reported on the Schedule are reported on a modified cash basis of accounting. Such expenditures are recognized following the cost principles contained in Title 2 U.S. Code of Federal Regulations Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance), wherein certain types of expenditures are not allowable or are limited as to reimbursement. Under Uniform Guidance, an award is considered expended when certain events related to the award occur. These include:

- Date of work being performed for payroll related transactions
- Receipt of goods for those ordered via a purchase order; generally all goods are required to be purchased via a purchase order except for small dollars approved for purchasing card processing
- Use of loan proceeds under loan and loan guarantee programs
- Disbursement of funds to sub recipients
- Receipt or use of program income
- Payment for other supplies and expenses
- A portion of costs associated with general University activities that are allocated to certain federal awards under negotiated formulas commonly referred to as facilities and administrative rates and assessed for applicable underlying expense

As a result of these criteria, some amounts presented in the Schedule may differ from amounts presented in, or used in the preparation of the University's basic financial statements which are prepared on an accrual basis of accounting.

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 identifying numbers are presented when available.

PURDUE UNIVERSITY NOTES TO SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS June 30, 2021 (Continued)

The University did not elect to use the 10% de minimus indirect cost rate allowed under the Uniform Guidance.

Note 3. Federal Student Loan Programs

The University considers the federal capital contribution of federally sponsored student loan programs as a liability. Balances of loan advances and 2020-21 federal capital contributions were:

Balance, July 1, 2020	\$ 8,518,395
Net Federal Capital Contributions: Federal Perkins Loan Program	(3,622,436)
Balance, June 30, 2021	\$ <u>4,895,959</u>

Amounts loaned to students are recorded as notes receivable. Gross student notes receivable outstanding as of June 30, 2021 were:

<u>Program Title</u>	Federal CFDA Number	<u>Amount</u>
Federal Perkins Loan Progr	am 84.038	\$ 8,822,805
Health Professions Student I	Loans 93.342	<u>3,449,318</u>
Total Student Notes Receive	able	\$ <u>12,272,123</u>

Note 4. Federal Direct Loan Program

The University participates in the Federal Direct Loan Program, which facilitates direct borrowing for students and parents from the Federal Government. During the fiscal year ended June 30, 2021, the University had the following gross loan activity related to new loans under this program:

<u>Program</u>	Federal CFDA <u>Number</u>	Number of Loans Issued	<u>Amount</u>
Federal Stafford Loans	84.268	25,412	\$131,876,934
Federal PLUS Loans	84.268	<u>2,302</u>	37,262,225
Totals		<u>27,714</u>	\$ <u>169,139,159</u>

Note 5. Adjustments and Transfers

As allowable and in accordance with federal regulations issued by the U.S. Department of Education, the University transferred \$647,412 of Federal Work-Study Program (CFDA No. 84.033) funds to the Federal Supplemental Educational Opportunity Grant (CFDA No. 84.007).

PURDUE UNIVERSITY NOTES TO SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS June 30, 2021 (Continued)

The University carried forward \$91,933 of the 2020-2021 Federal Work-Study Program (CFDA No. 84.033) funds to provide aid to students in 2021-2022. In addition, the University carried forward \$27,286 of the 2019-2020 Federal Work-Study Program funds to provide aid to students in 2020-2021.

Note 6. Assistance Listing Numbers

All programs with identifiable Assistance Listing numbers have been listed separately. Award numbers have been provided for all programs for which Assistance Listing numbers were not available. Programs without an identifiable Assistance Listing number are identified by agency number only. If the agency number is not known, the program is listed using an agency number of 99. For fiscal year 2020-2021, no 99 assignments were made as all agencies were known.

Schedule of Findings and Questioned Costs

Year Ended June 30, 2021

Section I - Summary of Auditor's Results

Financial Statemer	nts		
Type of auditor's rep	port issued:	Unmodified	
Internal control over	financial reporting:		
Material weakne	ss(es) identified?	Yes	X No
	ency(ies) identified that are d to be material weaknesses?	Yes	X None reported
Noncompliance mat statements noted		Yes	X None reported
Federal Awards			
Internal control over	major programs:		
Material weakne	ss(es) identified?	Yes	X No
•	ency(ies) identified that are d to be material weaknesses?	XYes	None reported
	sclosed that are required to be reported in Section 2 CFR 200.516(a)?	XYes	No
Identification of major	or programs:		
Assistance Listing Number	Name of Federal Program	ı or Cluster	Opinion
Various 10.561 10.511 84.425	Student Financial Assistance Cluster SNAP Cluster Smith-Lever COVID-19 Education Stabilization Fund		Unmodified Unmodified Unmodified Unmodified
Dollar threshold use type A and type I	d to distinguish between 3 programs:	\$3,000,000	
Auditee qualified as	low-risk auditee?	Yes	X No
Section II - Fin	ancial Statement Audit Findings		
Reference Number	Fi	nding	
Current Year N	lone		

Year Ended June 30, 2021

Section III - Federal Program Audit Findings

Reference Number	Finding	Questioned Costs
2021-001	Assistance Listing Number, Federal Agency, and Program Name	None
	Federal Agency: Department of Education Federal Programs: Federal Supplemental Educational Opportunity Grants (FSEOG), Federal Work-Study Program, Federal Pell Grant Program, Federal Direct Student Loans Assistance Listing Numbers: 84.007, 84.033, 84.063, 84.268	
	Finding Type - Significant deficiency	
	Repeat Finding - No	
	Criteria	
	34 CFR 685.309 states in part:	
	(b) Enrollment reporting process.	
	(1) Upon receipt of an enrollment report from the Secretary, a school must update all information included in the report and return the report to the Secretary -	
	(i) In the manner and format prescribed by the Secretary; and	
	(ii) Within the timeframe prescribed by the Secretary.	

Condition

Special Tests and Provisions - Enrollment Reporting

The Purdue Northwest campus did not properly design or implement an effective internal control system to ensure compliance with the requirements related to the Special Tests and Provisions - Enrollment Reporting compliance requirements. Specifically, there is a lack of review at Purdue Northwest to identify instances in which graduated enrollment status changes reported to the National Student Clearinghouse were not applied for a certain population of students.

Questioned Costs

There were no questioned costs identified.

Context

The Purdue Northwest campus did not update enrollment information in the National Student Clearinghouse for students enrolled in five-year programs (four years undergraduate program plus one year graduate program (4+1)) who graduated with their undergraduate degrees during the year, impacting 1 out of 25 students tested. Purdue Northwest reported the students as graduated; however, based on students remaining enrolled in the graduate program, graduation status at the undergraduate program level was not properly applied. Purdue Northwest did not have a process in place to review instances where graduation from degree reported was not correctly applied in the National Student Clearinghouse.

Year Ended June 30, 2021

Section III - Federal Program Audit Findings (Continued)

Reference		Questioned
Number	Finding	Costs

2021-001 (Continued)

Cause and Effect

The Purdue Northwest campus had not developed a system of internal controls that would have ensured compliance with the Special Tests and Provisions - Enrollment compliance requirements for students enrolled in five-year programs described above.

The failure to establish an effective internal control system caused the Purdue Northwest campus to be in noncompliance with the compliance requirement listed above.

Recommendation

We recommend that the Purdue Northwest campus modify its existing internal control structure to include internal controls to review instances in which graduated enrollment status changes reported to the National Student Clearinghouse were not applied in order to ensure compliance with the Special Tests and Provisions - Enrollment compliance requirements.

Views of Responsible Officials and Corrective Action Plan

The University concurs with the finding that the Northwest campus did not update enrollment information in the National Student Clearinghouse for students enrolled in five-year programs (four years undergraduate program plus one year graduate program) who graduate with their undergraduate degrees during the year, impacting six students.

As noted in Finding 2021-001, graduation status was not reported to the National Student Clearinghouse for all 4+1 student records. To ensure no further instances, the University is in the process of implementing a new tracking system within Banner, for instance, the identification of 4+1 students with corresponding tracking reports. Upon graduation, the registrar's office will manually update the student record from undergraduate to graduate in Banner and manually report the student's graduation status in the National Student Clearinghouse system.

Year Ended June 30, 2021

Section III - Federal Program Audit Findings (Continued)

Reference Number	Finding	Questioned Costs
2021-002	Assistance Listing Number, Federal Agency, and Program Name	\$3,500
	Federal Agency: Department of Education Federal Program: COVID-19 Education Stabilization Fund Assistance Listing Number: 84.425E	
	Finding Type - Significant deficiency	
	Repeat Finding - No	
	Criteria	
	Under the Coronavirus Response and Relief Supplemental Appropriations Act, 2021 (CRRSAA) and American Rescue Plan (ARP) Higher Education Emergency Relief Fund (HEERF) programs, student portion funds must be used to provide financial aid grants to students, and an institution of higher education must prioritize grants to students with exceptional need, such as students who receive Pell grants, based on the institution's disbursement policy.	

Condition

The Purdue West Lafayette campus did not have adequate controls in place to ensure that the proper amount of HEERF emergency grants was disbursed to students.

Questioned Costs

\$3,500

Identification of How Questioned Costs Were Computed

Questioned costs were identified as the amount of HEERF grant dollars a student received over the amount they had actually requested and been approved for.

Context

The lack of controls to detect duplicate payments led to 1 student out of 21 tested receiving a payment that was originally requested by another student. The individual responsible for aggregating application data prior to sending to the bursar's office for processing did not review the listing for duplicate payments, and there was no evidence of a review or oversight process to ensure information was aggregated appropriately.

Cause and Effect

The failure to establish an effective internal control to review accuracy of disbursements caused the Purdue West Lafayette campus to issue a duplicate payment to one student, which was not in compliance with the established disbursement policy.

Year Ended June 30, 2021

Section III - Federal Program Audit Findings (Continued)

Reference Number	Finding	Questioned Costs
2021-002	Recommendation	
(Continued)	We recommend that the Purdue West Lafayette campus modify its existing internal control structure to include a review for duplicate payments prior to disbursements being executed.	
	Views of Responsible Officials and Planned Corrective Actions	
	The University concurs with the finding that there was not a proper internal control in place to review the HEERF reporting for accuracy prior to submission of the annual report.	
	 A draft report once available from the U.S. Department of Education will be sent to the financial aid office contacts to review data and provide answers. 	
	 The director of post award will aggregate answers from all campuses and store the documentation received from the campuses' financial aid offices on a network drive. 	
	 The director of post award will enter information from the financial aid offices. 	
	 The director of post award will enter answers related to the institutional funding, as applicable. If applicable, the data to substantiate this information will be stored on a network drive. 	
	 The assistant director of post award will review and compare the information entered in the online report to the backup stored on a network drive. 	

- Once reviewed, the report will be submitted to the U.S. Department of Education.
- The quarterly HEERF reports will also be reviewed utilizing the same processes as the annual report (described above) with a dual review of the assistant director of post award prior to posting the reports on the website.

Year Ended June 30, 2021

Section III - Federal Program Audit Findings (Continued)

Reference Number	Finding	Questioned Costs
2021-003	Assistance Listing Number, Federal Agency, and Program Name	None
	Federal Agency: Department of Education Federal Program: COVID-19 Education Stabilization Fund Assistance Listing Number: 84.425E	
	Finding Type - Significant deficiency	
	Repeat Finding - No	
	Criteria	
	The Coronavirus Aid, Relief, and Economic Security (CARES) Act Section 18004(e) and the Coronavirus Response and Relief Supplemental Appropriations Act, 2021 section 314(e) require an institution receiving funds under HEERF I and HEERF II to submit a report to the secretary, at such time and in such a manner as the secretary may require. American Rescue Plan Section 2003 specifies that the same terms and conditions of CRRSAA Section 314 apply to HEERF III funds. While the acts do not explicitly identify procedures by which institutions must report on their uses of HEERF grant funds, pursuant to these requirements, the Department of Education required quarterly public reporting of student portion and institutional portion awards.	
	Condition	

The University did not properly design or implement an effective internal control system to ensure adequate review of HEERF reporting for accuracy, leading to inaccurate information being reported to the Department of Education.

Questioned Costs

There were no questioned costs identified.

Year Ended June 30, 2021

Section III - Federal Program Audit Findings (Continued)

Reference		Questioned
Number	Finding	Costs

2021-003 (Continued)

Context

The University had developed a system where one individual had the sole responsibility to aggregate HEERF reporting information from all three campuses to be used for the annual report submitted to the Department of Education. There was no evidence of a review or oversight process to ensure proper aggregation of information prior to submission. Lack of review and oversight caused aggregated reporting to be incorrect by \$241,312.

Additionally, at the campus level, Purdue West Lafayette (PWL) campus and Purdue Fort Wayne (PFW) campus did not compile campus data consistent with reporting compliance requirements for HEERF. PWL campus incorrectly left one student off their listing, causing reporting to be incorrect by \$555 and one student. PFW campus incorrectly included institutional and student portion of grants awarded to students in reporting of student portion, causing reporting to be incorrect by \$443,113 and 399 students.

The Purdue Fort Wayne campus had developed a system where one individual had the sole responsibility of updating the HEERF student portion reporting on the campus website. These reports were updated monthly; however, no records were retained to document content of past versions of the report. The University was unable to provide documentation or other supporting evidence that the campus website was updated timely with required HEERF reporting information. Additionally, reported amounts on the website reflected amounts as of April 30, 2021 rather than up-to-date information as of June 30, 2021, causing reporting to be incorrect by \$73,409 and 48 students.

Cause and Effect

The University had not developed a system of internal controls that would have ensured compliance with reporting for the HEERF grant.

The failure to establish an effective internal control caused the University to be in noncompliance with the compliance requirement listed above.

Recommendation

We recommend the University modify its existing internal control structure to include internal controls that would ensure compliance with HEERF reporting requirements.

Year Ended June 30, 2021

Section III - Federal Program Audit Findings (Continued)

Reference Number	Finding	Questioned Costs
2021-003 (Continued)	Views of Responsible Officials and Planned Corrective Actions	
(00	The University had not developed a system of internal controls that would have ensured compliance with reporting for the HEERF grant. The failure to establish an effective internal control caused the University to be in	
	noncompliance with the compliance requirement listed above.	

The PFW office of financial aid will enhance the review of data pulled for the annual HEERF reporting to accurately identify funds usage. This audit finding identified that PFW incorrectly included institutional and student portion of grants awarded to students in reporting of student portion, causing reporting to be incorrect by \$443,113 and 399 students. There was confusion as to what should be listed on this portion of the report. In two areas it asked for the student portion. It was believed that this question was asking for the combination of student portion and institutional portion. To correct this issue, there will be a check and balance system of the director reviewing the information before it is sent to Purdue West Lafayette to submit the report.

Anticipated Completion Date: April 2022 (when the next annual report is submitted)

In November 2021, Purdue University Fort Wayne set up a new procedure in which the person responsible for updating the HEERF reporting website now takes screenshots of the current page prior to updating the report. This audit finding identified that no records were retained to document the past versions of the report. The updated process includes a time stamp to document when the report was updated and will be retained for audit purposes. This finding also indicated that incorrect amounts were shown on the website. Information added to the website will be audited by the director for accuracy.

Year Ended June 30, 2021

Section III - Federal Program Audit Findings (Continued)

Reference Number	Finding	Questioned Costs
2021-004	Assistance Listing Number, Federal Agency, and Program Name	None
	Federal Agency: Department of Education Federal Programs: Federal Supplemental Educational Opportunity Grants (FSEOG), Federal Work-Study Program, Federal Pell Grant Program, Federal Direct Student Loans Assistance Listing Numbers: 84.007, 84.033, 84.063, 84.268	
	Finding Type - Significant deficiency	
	Repeat Finding - Yes	
	2020-001	
	Criteria	
	2 CFR 200.303 states in part:	
	"The non-Federal entity must:	
	(a) Establish and maintain effective internal control over the Federal award that provides reasonable assurance that the non-Federal entity is managing the Federal award in compliance with Federal statutes, regulations, and the terms and conditions of the Federal award. These internal controls should be in compliance with guidance in 'Standards for Internal Control in the Federal Government' issued by the Comptroller General of the United States or the 'Internal Control Integrated Framework', issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) "	
	Condition	

The Purdue Fort Wayne campus did not properly design or implement an effective internal control system to ensure compliance with the requirements related to the Special Tests and Provisions - Verification and Return of Title IV Funds compliance requirements.

Questioned Costs

There were no questioned costs identified.

Year Ended June 30, 2021

Section III - Federal Program Audit Findings (Continued)

Reference Number	Finding	Questioned Costs
2021-004 (Continued)	Context	
	Special Tests and Provisions - Verification	
	One employee had the sole responsibility to update students' information based upon documentation received from those selected for verification. There was no evidence of a review or oversight process to ensure students' information had been accurately updated.	
	Special Tests and Provisions - Return of Title IV Funds	

The Purdue Fort Wayne campus had designed a process where one employee entered the required information into the Common Origination and Disbursement (COD) system in order to calculate the amounts to be returned. Once complete, the employee sent the information to the bursar for

review. The University was unable to provide documentation or other supporting evidence that these reviews occurred during the audit period.

Cause and Effect

The Purdue Fort Wayne campus had not developed a system of internal controls that would have ensured compliance with the Special Tests and Provisions - Verification and Return of Title IV Funds compliance requirements.

The failure to establish an effective internal control system placed the Purdue Fort Wayne campus at risk of noncompliance with the compliance requirements listed above.

Recommendation

We recommended that the Purdue Fort Wayne campus modify its existing internal control structure to include internal controls that would ensure compliance with the Special Tests and Provisions - Verification and Return of Title IV Funds compliance requirements.

Year Ended June 30, 2021

Section III - Federal Program Audit Findings (Continued)

Reference Number	Finding	Questioned Costs
2021-004 (Continued)	Views of Responsible Officials and Planned Corrective Actions PFW believes that adequate internal controls related to input checking/validation on verification and Title IV return of funds (R2T4) exist. That said, an additional layer of control will be added to verify accuracy of the inputs.	
	The office of financial aid has created a spreadsheet, named Processing Spot Checks, to record files that are manually checked.	
	Process for Verification	
	One to two verifications will be pulled per month for review. Information will be documented on the spreadsheet, along with any findings. Appropriate actions, as necessary, will be taken pertaining to any findings.	
	Process for R2T4 Verification	
	The director, or designee, will randomly pull one completed R2T4 form per month to review. Information will be documented on the spreadsheet, along with any findings. If errors are identified, corrections will be made and information rechecked for accuracy.	