
Michigan State University

Federal Awards Supplemental Information
June 30, 2019

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	6-34
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Notes to Schedule of Expenditures of Federal Awards	35-36
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Schedule of Findings and Questioned Costs	37
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Report on Schedule of Expenditures of Federal Awards Required by the Uniform Guidance

Independent Auditor's Report

To the Board of Trustees
Michigan State University

We have audited the basic financial statements of Michigan State University (the "University") and its discretely presented component unit as of and for the year ended June 30, 2019 and the related notes to the financial statements, which collectively comprise the University's basic financial statements. We issued our report thereon dated October 24, 2019, which contained an unmodified opinion on the financial statements and its component unit. 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 24, 2019. We did not audit the financial statements of Michigan State University Foundation (the "Foundation"), which represent all of the assets, net assets, and revenue of the discretely presented component unit. Those financial statements were audited by other auditors, whose report thereon has been furnished to us, and our opinion, insofar as it relates to the amounts included for the Foundation, is based on the report of the other auditors.

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

January 17, 2020

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
Michigan State 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 Michigan State University (the "University") as of and for the year ended June 30, 2019 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 24, 2019. Our report includes a reference to other auditors who audited the financial statements of Michigan State University Foundation (the "Foundation"), as described in our report on Michigan State University's financial statements. This report does not include the results of the other auditors' testing of internal control over financial reporting or compliance and other matters that are reported on separately by those auditors. The financial statements of the Foundation were not audited in accordance with *Government Auditing Standards*.

Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered the University's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our 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 determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and, accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

To Management and the Board of Trustees
Michigan State 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 & Moreau, PLLC

October 24, 2019

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
Michigan State University

Report on Compliance for Each Major Federal Program

We have audited Michigan State 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, 2019. 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.

Michigan State University's basic financial statements include the operations of Michigan State University Foundation (the "Foundation"). Our audit, described below, did not include the operations of the Foundation because the Foundation did not expend any federal awards during the year ended June 30, 2019.

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, 2019.

To the Board of Trustees
Michigan State 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. We did not identify any deficiencies in internal control over compliance that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

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

Plante & Moreau, PLLC

January 17, 2020

Schedule of Expenditures of Federal Awards

Year Ended June 30, 2019

Federal Agency	Direct/ Pass-through	CFDA (Note 5)	Award Number	Grantor Name	Total Expenditures	Subaward Payments
Research and Development Cluster:						
Agriculture	Direct	10	16-IV-11242305-055	USDA - FOREST SERVICE	\$ 75,482	\$ -
Agriculture	Direct	10	16-TMMSD-MI-0005	USDA - AGRI MARKETING SERV US DEPT AGR	400	-
Agriculture	Direct	10	17-CS-11090400-057	USDA - US DEPT AGRICULTURE	63,714	-
Agriculture	Direct	10	18-PA-11091000-025	USDA - US DEPT AGRICULTURE	67,251	-
Agriculture	Direct	10	1920-152-0103-A4	USDA - AGRI RESEARCH SERV US DEPT	52,073	-
Agriculture	Direct	10	19-NOPXX-MI-0002	USDA - AGRI MARKETING SERV US DEPT AGR	6,814	-
Agriculture	Direct	10.001	14-PA-11091000-020	USDA - FOREST SERVICE	33,157	-
Agriculture	Direct	10.001	58-3607-3-985	USDA - AGRI RESEARCH SERV US DEPT	7,155	-
Agriculture	Direct	10.001	58-3655-4-042	USDA - AGRI RESEARCH SERV US DEPT	426	-
Agriculture	Direct	10.001	58-3655-4-044	USDA - AGRI RESEARCH SERV US DEPT	478	-
Agriculture	Direct	10.001	58-5012-7-023	USDA - AGRI RESEARCH SERV US DEPT	(111)	-
Agriculture	Direct	10.001	58-5012-8-009	USDA - AGRI RESEARCH SERV US DEPT	1,634	-
Agriculture	Direct	10.001	58-5050-7-005	USDA - AGRI RESEARCH SERV US DEPT	9,426	-
Agriculture	Direct	10.001	58-5050-7-006	USDA - AGRI RESEARCH SERV US DEPT	9,346	-
Agriculture	Direct	10.001	58-5080-5-009	USDA - AGRI RESEARCH SERV US DEPT	46,272	-
Agriculture	Direct	10.001	58-5442-4-016	USDA - AGRI RESEARCH SERV US DEPT	9,716	-
Agriculture	Direct	10.001	58-5442-4-017	USDA - AGRI RESEARCH SERV US DEPT	38,617	-
Agriculture	Direct	10.001	58-6040-7-025	USDA - AGRI RESEARCH SERV US DEPT	2,507	-
Agriculture	Direct	10.001	58-6040-8-012	USDA - AGRI RESEARCH SERV US DEPT	5,053	-
Agriculture	Direct	10.001	58-6040-8-013	USDA - AGRI RESEARCH SERV US DEPT	4,375	-
Agriculture	Direct	10.001	58-6040-8-027	USDA - AGRI RESEARCH SERV US DEPT	24,334	-
Agriculture	Direct	10.001	58-6040-8-028	USDA - AGRI RESEARCH SERV US DEPT	8,689	-
Agriculture	Direct	10.001	58-8010-5-020	USDA - AGRI RESEARCH SERV US DEPT	20,469	-
Agriculture	Direct	10.001	58-8030-6-004	USDA - AGRI RESEARCH SERV US DEPT	5,297	-
Agriculture	Direct	10.001	58-8060-6-009	USDA - AGRI RESEARCH SERV US DEPT	7,319	-
Agriculture	Direct	10.001	58-8062-5-036	USDA - AGRI RESEARCH SERV US DEPT	22,869	-
Agriculture	Direct	10.001	59-0206-4-001	USDA - AGRI RESEARCH SERV US DEPT	45,195	-
Agriculture	Direct	10.001	59-0206-4-008	USDA - AGRI RESEARCH SERV US DEPT	(28,866)	-
Agriculture	Direct	10.001	59-0206-6-003	USDA - AGRI RESEARCH SERV US DEPT	125,797	-
Agriculture	Direct	10.001	59-0206-6-004	USDA - AGRI RESEARCH SERV US DEPT	33,468	-
Agriculture	Direct	10.001	59-0206-6-004	USDA - AGRI RESEARCH SERV US DEPT	33,445	-
Agriculture	Direct	10.001	59-0206-8-189	USDA - AGRI RESEARCH SERV US DEPT	3,942	-
Agriculture	Direct	10.001	59-5050-7-001	USDA - AGRI RESEARCH SERV US DEPT	22,383	-
Agriculture	Direct	10.001	59-5090-5-004	USDA - AGRI RESEARCH SERV US DEPT	6,001	-
Agriculture	Direct	10.001	ARS-58-5050-8-002	USDA - AGRI RESEARCH SERV US DEPT	16,000	-
Agriculture	Direct	10.001	S 58-3042-8-012	USDA - AGRI RESEARCH SERV US DEPT	3,695	-
Agriculture	Direct	10.001	S 58-8030-8-007	USDA - AGRI RESEARCH SERV US DEPT	17,455	-
Agriculture	Direct	10.001	S 58-8042-8-075	USDA - AGRI RESEARCH SERV US DEPT	16,831	-
Agriculture	Direct	10.001	S 58-8062-8-014	USDA - AGRI RESEARCH SERV US DEPT	121,625	-
Agriculture	Direct	10.001	S-58-3060-8-022	USDA - AGRI RESEARCH SERV US DEPT	45,943	-
Agriculture	Direct	10.001	S-58-5050-8-004	USDA - AGRI RESEARCH SERV US DEPT	137,845	-
Agriculture	Direct	10.001	S-58-5050-8-005	USDA - AGRI RESEARCH SERV US DEPT	68,901	-
Agriculture	Direct	10.001	S-58-5050-8-007	USDA - AGRI RESEARCH SERV US DEPT	60,312	-
Agriculture	Direct	10.001	S-58-5050-8-008	USDA - AGRI RESEARCH SERV US DEPT	49,483	-
Agriculture	Direct	10.001	S-58-5082-8-023	USDA - AGRI RESEARCH SERV US DEPT	5,244	-
Agriculture	Direct	10.001	S-58-6040-8-019	USDA - AGRI RESEARCH SERV US DEPT	42,675	-
Agriculture	Direct	10.001	S-58-6040-8-032	USDA - AGRI RESEARCH SERV US DEPT	8,774	-
Agriculture	Direct	10.001	S-59-0206-8-215	USDA - AGRI RESEARCH SERV US DEPT	74,702	-
Agriculture	Direct	10.001	S-59-2034-8-002	USDA - AGRI RESEARCH SERV US DEPT	33,793	-
Agriculture	Direct	10.025	16-8130-0666-CA	USDA - ANIMAL AND PLT HTL INSP SER	3,036	-
Agriculture	Direct	10.025	AP17PPQS&T00C017	USDA - ANIMAL AND PLT HTL INSP SER	37,371	-
Agriculture	Direct	10.025	AP17PPQS&T00C173	USDA - ANIMAL AND PLT HTL INSP SER	22,061	-
Agriculture	Direct	10.025	AP18PPQF0000C442	USDA - ANIMAL AND PLT HTL INSP SER	56,438	-
Agriculture	Direct	10.025	AP18PPQS&T00C026	USDA - ANIMAL AND PLT HTL INSP SER	16,731	-
Agriculture	Direct	10.025	AP18PPQS&T00C030	USDA - ANIMAL AND PLT HTL INSP SER	40,716	-
Agriculture	Direct	10.025	AP18PPQS&T00C033	USDA - ANIMAL AND PLT HTL INSP SER	123,877	-
Agriculture	Direct	10.025	AP18PPQS&T00C206	USDA - ANIMAL AND PLT HTL INSP SER	39,667	-
Agriculture	Direct	10.025	APHIS	USDA - ANIMAL AND PLT HTL INSP SER	2,340	-
Agriculture	Direct	10.156	16FSMIPMI0007	FED-STATE MARKETING IMPROVEMENT PROG	72,852	-
Agriculture	Direct	10.156	AM180100XXXXG151	USDA - AGRI MARKETING SERV US DEPT AGR	43,261	-
Agriculture	Direct	10.156	AM180100XXXXG154	USDA - AGRI MARKETING SERV US DEPT AGR	43,325	-
Agriculture	Direct	10.164	17-TMMSD-MI-0001	USDA - AGRI MARKETING SERV US DEPT AGR	1,426	-
Agriculture	Direct	10.200	2015-34383-23852	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	34,991	-
Agriculture	Direct	10.200	2016-34141-25707	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	866,119	682,156
Agriculture	Direct	10.200	2016-70007-25756	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	45,191	-
Agriculture	Direct	10.200	2017-34383-27028	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	1,839,454	-
Agriculture	Direct	10.202	32100-06026 MCINTIRE-STENNIS	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	57,129	-
Agriculture	Direct	10.202	32100-06026 MCINTIRE-STENNIS	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	55,656	-
Agriculture	Direct	10.202	32100-06026 MCINTIRE-STENNIS	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	35,328	-
Agriculture	Direct	10.202	32100-06026 MCINTIRE-STENNIS	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	32,727	-
Agriculture	Direct	10.202	32100-06026 MCINTIRE-STENNIS	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	32,496	-
Agriculture	Direct	10.202	32100-06026 MCINTIRE-STENNIS	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	30,000	-
Agriculture	Direct	10.202	32100-06026 MCINTIRE-STENNIS	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	28,756	-
Agriculture	Direct	10.202	32100-06026 MCINTIRE-STENNIS	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	17,850	-
Agriculture	Direct	10.202	32100-06026 MCINTIRE-STENNIS	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	13,662	-
Agriculture	Direct	10.202	32100-06026 MCINTIRE-STENNIS	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	10,917	-
Agriculture	Direct	10.202	32100-06026 MCINTIRE-STENNIS	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	10,363	-
Agriculture	Direct	10.202	32100-06026 MCINTIRE-STENNIS	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	1,734	-
Agriculture	Direct	10.203	31100-60263 HATCH	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	977,196	-
Agriculture	Direct	10.203	31100-60263 HATCH	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	921,423	-
Agriculture	Direct	10.203	31100-60263 HATCH	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	891,518	-
Agriculture	Direct	10.203	31100-60263 HATCH	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	765,200	-
Agriculture	Direct	10.203	31100-60263 HATCH	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	397,334	-
Agriculture	Direct	10.203	31100-60263 HATCH	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	334,122	-
Agriculture	Direct	10.203	31100-60263 HATCH	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	277,495	-
Agriculture	Direct	10.203	31100-60263 HATCH	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	199,784	-
Agriculture	Direct	10.203	31100-60263 HATCH	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	168,639	-
Agriculture	Direct	10.203	31100-60263 HATCH	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	56,256	-
Agriculture	Direct	10.203	31100-60263 HATCH	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	43,848	-
Agriculture	Direct	10.203	31100-60263 HATCH	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	29,266	-
Agriculture	Direct	10.203	31200-06026 HATCH MULTISTATE	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	261,837	-
Agriculture	Direct	10.203	31200-06026 HATCH MULTISTATE	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	168,244	-
Agriculture	Direct	10.203	31200-06026 HATCH MULTISTATE	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	121,757	-
Agriculture	Direct	10.203	31200-06026 HATCH MULTISTATE	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	67,536	-
Agriculture	Direct	10.203	31200-06026 HATCH MULTISTATE	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	56,501	-

See notes to schedule of expenditures
of federal awards.

Schedule of Expenditures of Federal Awards (Continued)

					Year Ended June 30, 2019	
Federal Agency	Direct/ Pass-through	CFDA (Note 5)	Award Number	Grantor Name	Total Expenditures	Subaward Payments
Research and Development Cluster						
(continued):						
Agriculture	Direct	10.203	31200-06026 HATCH MULTISTATE	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	\$ 42,639	\$ -
Agriculture	Direct	10.203	31200-06026 HATCH MULTISTATE	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	39,681	-
Agriculture	Direct	10.203	31200-06026 HATCH MULTISTATE	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	36,846	-
Agriculture	Direct	10.203	31200-06026 HATCH MULTISTATE	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	33,888	-
Agriculture	Direct	10.203	31200-06026 HATCH MULTISTATE	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	33,150	-
Agriculture	Direct	10.203	31200-06026 HATCH MULTISTATE	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	25,794	-
Agriculture	Direct	10.203	31200-06026 HATCH MULTISTATE	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	24,300	-
Agriculture	Direct	10.203	31200-06026 HATCH MULTISTATE	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	24,221	-
Agriculture	Direct	10.203	31200-06026 HATCH MULTISTATE	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	23,507	-
Agriculture	Direct	10.203	31200-06026 HATCH MULTISTATE	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	23,440	-
Agriculture	Direct	10.203	31200-06026 HATCH MULTISTATE	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	21,988	-
Agriculture	Direct	10.203	31200-06026 HATCH MULTISTATE	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	21,528	-
Agriculture	Direct	10.203	31200-06026 HATCH MULTISTATE	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	20,704	-
Agriculture	Direct	10.203	31200-06026 HATCH MULTISTATE	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	19,214	-
Agriculture	Direct	10.203	31200-06026 HATCH MULTISTATE	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	18,754	-
Agriculture	Direct	10.203	31200-06026 HATCH MULTISTATE	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	18,570	-
Agriculture	Direct	10.203	31200-06026 HATCH MULTISTATE	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	18,260	-
Agriculture	Direct	10.203	31200-06026 HATCH MULTISTATE	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	17,669	-
Agriculture	Direct	10.203	31200-06026 HATCH MULTISTATE	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	17,186	-
Agriculture	Direct	10.203	31200-06026 HATCH MULTISTATE	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	15,161	-
Agriculture	Direct	10.203	31200-06026 HATCH MULTISTATE	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	14,818	-
Agriculture	Direct	10.203	31200-06026 HATCH MULTISTATE	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	13,670	-
Agriculture	Direct	10.203	31200-06026 HATCH MULTISTATE	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	12,868	-
Agriculture	Direct	10.203	31200-06026 HATCH MULTISTATE	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	11,847	-
Agriculture	Direct	10.203	31200-06026 HATCH MULTISTATE	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	11,762	-
Agriculture	Direct	10.203	31200-06026 HATCH MULTISTATE	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	10,457	-
Agriculture	Direct	10.203	31200-06026 HATCH MULTISTATE	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	9,586	-
Agriculture	Direct	10.203	31200-06026 HATCH MULTISTATE	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	7,994	-
Agriculture	Direct	10.203	31200-06026 HATCH MULTISTATE	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	5,931	-
Agriculture	Direct	10.203	31200-06026 HATCH MULTISTATE	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	4,895	-
Agriculture	Direct	10.203	31200-06026 HATCH MULTISTATE	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	4,413	-
Agriculture	Direct	10.203	31200-06026 HATCH MULTISTATE	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	3,662	-
Agriculture	Direct	10.203	31200-06026 HATCH MULTISTATE	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	3,204	-
Agriculture	Direct	10.203	31200-06026 HATCH MULTISTATE	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	2,007	-
Agriculture	Direct	10.203	31200-06026 HATCH MULTISTATE	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	942	-
Agriculture	Direct	10.203	31200-06026 HATCH MULTISTATE	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	798	-
Agriculture	Direct	10.203	31200-06026 HATCH MULTISTATE	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	(80)	-
Agriculture	Direct	10.207	36100-06026 ANIMAL HEALTH	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	56,561	-
Agriculture	Direct	10.207	36100-06026 ANIMAL HEALTH	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	16,193	-
Agriculture	Direct	10.207	36100-06026 ANIMAL HEALTH	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	14,313	-
Agriculture	Direct	10.207	36100-06026 ANIMAL HEALTH	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	13,243	-
Agriculture	Direct	10.207	36100-06026 ANIMAL HEALTH	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	12,995	-
Agriculture	Direct	10.207	36100-06026 ANIMAL HEALTH	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	7,888	-
Agriculture	Direct	10.207	36100-06026 ANIMAL HEALTH	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	5,529	-
Agriculture	Direct	10.219	2013-33522-21090	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	14,307	-
Agriculture	Direct	10.219	2013-33522-21090	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	84	-
Agriculture	Direct	10.219	2018-33522-28736	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	71,771	-
Agriculture	Direct	10.250	59-6006-6-0067	USDA - US DEPT AGRICULTURE	99,623	-
Agriculture	Direct	10.303	2015-51150-23876	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	2,645	-
Agriculture	Direct	10.303	2016-51150-25528	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	84,556	-
Agriculture	Direct	10.303	2017-51150-27128	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	247,371	68,852
Agriculture	Direct	10.303	2018-51106-28776	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	84,495	3,167
Agriculture	Direct	10.303	2018-51106-28779	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	80,483	-
Agriculture	Direct	10.303	2018-51150-28698	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	64,796	30,206
Agriculture	Direct	10.304	2016-37620-25765	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	488,122	390,508
Agriculture	Direct	10.307	2016-51300-25732	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	129,956	32,559
Agriculture	Direct	10.307	2016-51300-25732	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	120,610	-
Agriculture	Direct	10.307	2016-51300-25732	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	46,372	-
Agriculture	Direct	10.307	59-5050-9-001	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	60,078	-
Agriculture	Direct	10.309	2014-51181-22378	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	2,260,904	1,399,789
Agriculture	Direct	10.309	2014-51181-22380	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	489,042	275,841
Agriculture	Direct	10.309	2015-51181-24285	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	1,599,299	1,448,975
Agriculture	Direct	10.309	2015-51181-24285	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	98,917	-
Agriculture	Direct	10.309	2015-51181-24285	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	37,363	-
Agriculture	Direct	10.309	2016-51181-25411	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	487,893	60,755
Agriculture	Direct	10.309	2017-51181-26828	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	511,760	331,844
Agriculture	Direct	10.309	2017-51181-26828	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	123,896	-
Agriculture	Direct	10.309	2017-51181-26828	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	26,124	-
Agriculture	Direct	10.309	2017-51181-26828	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	7,712	-
Agriculture	Direct	10.309	2018-51181-28377	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	29,495	-
Agriculture	Direct	10.310	2011-68004-30340	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	(1,065)	(1,065)
Agriculture	Direct	10.310	2013-67015-20962	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	30,845	-
Agriculture	Direct	10.310	2013-68004-20371	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	186,982	-
Agriculture	Direct	10.310	2013-68004-20439	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	369,593	152,129
Agriculture	Direct	10.310	2014-67009-22310	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	323,886	196,820
Agriculture	Direct	10.310	2014-67015-21619	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	87,618	-
Agriculture	Direct	10.310	2014-67015-21632	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	167,113	-
Agriculture	Direct	10.310	2014-67015-21832	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	104,308	26,555
Agriculture	Direct	10.310	2014-68004-21881	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	265,368	-
Agriculture	Direct	10.310	2014-68004-21952	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	168,206	-
Agriculture	Direct	10.310	2014-68004-21972	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	111,313	-
Agriculture	Direct	10.310	2014-68006-21828	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	69,739	-
Agriculture	Direct	10.310	2014-68006-21863	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	54,178	17,310
Agriculture	Direct	10.310	2014-68006-21869	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	27,722	-
Agriculture	Direct	10.310	2014-68006-21870	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	59,916	-
Agriculture	Direct	10.310	2014-68006-21870	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	18,680	-
Agriculture	Direct	10.310	2015-67013-23068	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	34,358	-
Agriculture	Direct	10.310	2015-67019-23007	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	77,934	36,737
Agriculture	Direct	10.310	2015-67028-23652	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	1,448	-
Agriculture	Direct	10.310	2015-68001-23239	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	878,041	470,835
Agriculture	Direct	10.310	2015-68003-23415	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	761,746	462,574
Agriculture	Direct	10.310	2015-68007-23133	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	1,145,156	202,427
Agriculture	Direct	10.310	2016-67015-24891	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	63,172	28,195
Agriculture	Direct	10.310	2016-67015-24898	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	6,249	-
Agriculture	Direct	10.310	2016-67015-28200	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	155,425	20,589

See notes to schedule of expenditures
of federal awards.

Schedule of Expenditures of Federal Awards (Continued)

					Year Ended June 30, 2019	
Federal Agency	Direct/ Pass-through	CFDA (Note 5)	Award Number	Grantor Name	Total Expenditures	Subaward Payments
Research and Development Cluster						
(continued):						
Agriculture	Direct	10.310	2016-67017-24514	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	\$ 69,704	\$ -
Agriculture	Direct	10.310	2016-68004-24931	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	992,622	697,315
Agriculture	Direct	10.310	2016-68004-24931	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	53,184	-
Agriculture	Direct	10.310	2016-68006-24852	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	105,350	2,523
Agriculture	Direct	10.310	2017-67007-25947	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	73,564	19,457
Agriculture	Direct	10.310	2017-67007-26176	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	232,264	136,758
Agriculture	Direct	10.310	2017-67011-26038	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	30,703	-
Agriculture	Direct	10.310	2017-67011-26042	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	23,160	-
Agriculture	Direct	10.310	2017-67011-26073	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	23,756	-
Agriculture	Direct	10.310	2017-67011-26074	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	35,041	-
Agriculture	Direct	10.310	2017-67013-26257	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	160,723	-
Agriculture	Direct	10.310	2017-67015-26084	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	204,720	-
Agriculture	Direct	10.310	2017-67015-26673	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	154,488	-
Agriculture	Direct	10.310	2017-67015-26806	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	118,170	-
Agriculture	Direct	10.310	2017-67017-26168	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	178,863	-
Agriculture	Direct	10.310	2017-67017-26528	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	138,683	-
Agriculture	Direct	10.310	2017-67023-26271	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	27,450	-
Agriculture	Direct	10.310	2017-67023-26395	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	105,442	24,510
Agriculture	Direct	10.310	2017-68004-26323	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	360,129	48,259
Agriculture	Direct	10.310	2018-67003-27406	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	363,062	45,514
Agriculture	Direct	10.310	2018-67013-27404	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	32,181	-
Agriculture	Direct	10.310	2018-67013-27424	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	147,980	-
Agriculture	Direct	10.310	2018-67013-27457	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	91,934	-
Agriculture	Direct	10.310	2018-67013-27592	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	78,022	-
Agriculture	Direct	10.310	2018-67013-28065	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	149,539	-
Agriculture	Direct	10.310	20186701528242	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	62,241	-
Agriculture	Direct	10.310	2018-67015-28288	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	43,415	-
Agriculture	Direct	10.310	2018-67015-28302	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	14,855	-
Agriculture	Direct	10.310	2018-67017-27876	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	57,809	-
Agriculture	Direct	10.310	2018-67017-28149	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	21	-
Agriculture	Direct	10.310	2018-67017-28359	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	126,269	-
Agriculture	Direct	10.310	2018-67021-27967	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	90,948	-
Agriculture	Direct	10.310	2018-67021-27967	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	3,139	-
Agriculture	Direct	10.310	2018-67030-28150	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	84,411	11,553
Agriculture	Direct	10.310	2018-68003-28151	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	289,345	169,990
Agriculture	Direct	10.310	2018-68008-27887	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	147,341	40,860
Agriculture	Direct	10.310	2019-67012-29524	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	7,921	-
Agriculture	Direct	10.310	2019-67012-29536	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	3,732	-
Agriculture	Direct	10.310	2019-67013-29015	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	3,093	-
Agriculture	Direct	10.310	2019-67013-29203	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	13,997	-
Agriculture	Direct	10.310	2019-67013-29203	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	528	-
Agriculture	Direct	10.310	2019-67017-29112	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	24,122	-
Agriculture	Direct	10.310	3014-67003-21812	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	125,857	92,717
Agriculture	Direct	10.329	2015-70006-24280	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	165	-
Agriculture	Direct	10.329	2018-70006-28883	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	37,133	-
Agriculture	Direct	10.329	2018-7006-28917	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	93,788	-
Agriculture	Direct	10.330	2018-70005-28738	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	23,864	-
Agriculture	Direct	10.500	2013-48765-21544	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	1,349	-
Agriculture	Direct	10.613	FE-CR-16-005	USDA - FOREIGN AG SERVICE	198,678	-
Agriculture	Direct	10.652	13-IV-11242303-078	USDA - FOREST SERVICE	528	-
Agriculture	Direct	10.652	13-IV-11242306-055	USDA - FOREST SERVICE	2,316	-
Agriculture	Direct	10.652	16-IV-11242306-101	USDA - FOREST SERVICE	1,005	-
Agriculture	Direct	10.674	15-CA-11420004-084	USDA - FOREST SERVICE	12,630	-
Agriculture	Direct	10.674	18-DG-11420004-220	USDA - FOREST SERVICE	64,345	-
Agriculture	Direct	10.678	15-CS-11083601-002	USDA - FOREST SERVICE	103,118	-
Agriculture	Direct	10.678	15-CS-11083601-002	USDA - FOREST SERVICE	11,844	-
Agriculture	Direct	10.678	15-IV-11242303-067	USDA - FOREST SERVICE	11,402	-
Agriculture	Direct	10.680	14-CA-11420004-054	USDA - FOREST SERVICE	20,778	-
Agriculture	Direct	10.680	14-CA-11420004-201	USDA - FOREST SERVICE	77,100	-
Agriculture	Direct	10.680	14-IV-11242307-114	USDA - FOREST SERVICE	(205)	-
Agriculture	Direct	10.680	15-DG-11420004-222	USDA - FOREST SERVICE	25,924	-
Agriculture	Direct	10.680	16-CA-11420004-072	USDA - FOREST SERVICE	45,650	-
Agriculture	Direct	10.680	17-CA-11420004-298	USDA - FOREST SERVICE	30,113	-
Agriculture	Direct	10.680	17-CA-11420004-315	USDA - FOREST SERVICE	259,940	-
Agriculture	Direct	10.680	18-CA-11420004-072	USDA - FOREST SERVICE	1,584	-
Agriculture	Direct	10.680	18-CA-11420004-167	USDA - FOREST SERVICE	9,019	-
Agriculture	Direct	10.699	17-IV-11242306-042	USDA - FOREST SERVICE	51,218	-
Agriculture	Direct	10.699	18-CR-11242303-074	USDA - FOREST SERVICE	9,604	-
Agriculture	Direct	10.777	FX18BF-10777R032	USDA - FOREIGN AG SERVICE	20,872	-
Agriculture	Direct	10.902	68-5D21-18-009	USDA - NATURAL RESOURCES CONSERVATION SERVICE	29,332	-
Agriculture	Direct	10.912	NR185D21XXXXG001	USDA - NATURAL RESOURCES CONSERVATION SERVICE	9,919	-
Agriculture	Direct	10.960	FX17TA-10960R003	USDA - FOREIGN AG SERVICE	15,009	-
Agriculture	Direct	10.960	FX18TA-10960R023	USDA - US DEPT AGRICULTURE	33,680	-
Agriculture	Direct	10.960	PR6732733 5TH20017M3441	USDA - FOREIGN AG SERVICE	(67)	-
Direct Total					30,249,849	7,627,214
Agriculture	Pass-through	10	#18-60	POTATOES USA	(6,782)	-
Agriculture	Pass-through	10	3-20-19 CTPB	CHRISTMAS TREE PROMOTION BOARD	8,907	-
Agriculture	Pass-through	10	E17-87	U.S. ENDOWMENT FOR FORESTRY & COMMUNITIES, INC.	62,846	-
Agriculture	Pass-through	10	E18-11	U.S. ENDOWMENT FOR FORESTRY & COMMUNITIES, INC.	45,692	-
Agriculture	Pass-through	10.001	0254-ARS17-MSU	RUTGERS UNIVERSITY	13,672	-
Agriculture	Pass-through	10.001	25-6235-0275-003	NEBRASKA UNIVERSITY OF	2,585	-
Agriculture	Pass-through	10.001	58-3040-8-010	NATIONAL PORK BOARD	14,842	-
Agriculture	Pass-through	10.001	59-2080-8-001	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	96,896	-
Agriculture	Pass-through	10.001	59-6070-7-009	UNITED SOYBEAN BOARD	5,508	-
Agriculture	Pass-through	10.025	180000001989	MICHIGAN DEPT OF AGRICULTURE & RURAL DEVELOPMENT	48,891	-
Agriculture	Pass-through	10.025	180000002096	MICHIGAN DEPT OF AGRICULTURE & RURAL DEVELOPMENT	19,887	-
Agriculture	Pass-through	10.025	18000001933	MICHIGAN DEPT OF AGRICULTURE & RURAL DEVELOPMENT	39,988	-
Agriculture	Pass-through	10.025	190000001578	MICHIGAN DEPT OF AGRICULTURE & RURAL DEVELOPMENT	22,620	-
Agriculture	Pass-through	10.025	GG 180000001744	MICHIGAN DEPT OF AGRICULTURE & RURAL DEVELOPMENT	58,444	-
Agriculture	Pass-through	10.025	GG 190000002171	MICHIGAN DEPT OF AGRICULTURE & RURAL DEVELOPMENT	6,724	-
Agriculture	Pass-through	10.025	MDARD-190000002170	MICHIGAN DEPT OF AGRICULTURE & RURAL DEVELOPMENT	854	-
Agriculture	Pass-through	10.170	00346324	HOP GROWERS OF MICHIGAN	85,375	-
Agriculture	Pass-through	10.170	17-05	WISCONSIN DEPARTMENT OF AGRICULTURE, TRADE AND CONSUMER PROTECTION	51,823	-

See notes to schedule of expenditures of federal awards.

Schedule of Expenditures of Federal Awards (Continued)

					Year Ended June 30, 2019	
Federal Agency	Direct/ Pass-through	CFDA (Note 5)	Award Number	Grantor Name	Total Expenditures	Subaward Payments
Research and Development Cluster						
(continued):						
Agriculture	Pass-through	10.170	1944-205-2011936	CLEMSON UNIVERSITY	\$ 32,790	\$ -
Agriculture	Pass-through	10.170	2019CPS10	CENTER FOR PRODUCE SAFETY	15,204	-
Agriculture	Pass-through	10.170	791AgDSC1810	MICH CHERRY COMMITTEE	65,750	-
Agriculture	Pass-through	10.170	838K935	UNIVERSITY OF WISCONSIN - MADISON	37	-
Agriculture	Pass-through	10.170	Apple and Cherry MRL	MICH STATE HORTICULTURAL SOCIETY	1,066	-
Agriculture	Pass-through	10.170	Asparagus Management	MICH ASPARAGUS RESEARCH COMMITTEE	58,319	-
Agriculture	Pass-through	10.170	CRI-19000000312	CELERY RESEARCH INC	27,969	-
Agriculture	Pass-through	10.170	MAAB GG190000000306	MICH ASPARAGUS ADVISORY BOARD	8,608	-
Agriculture	Pass-through	10.170	MCC 791AgDSC1809	MICH CARROT COMMITTEE	67,294	-
Agriculture	Pass-through	10.170	MCC 791N7700187	MICH CARROT COMMITTEE	(11,290)	-
Agriculture	Pass-through	10.170	MCC GG190000000309	MICH CARROT COMMITTEE	26,304	-
Agriculture	Pass-through	10.170	MDARD 18000001655	MICHIGAN CARROT INDUSTRY DEVELOPMENT PROGRAM	27,583	-
Agriculture	Pass-through	10.170	MDARD 791AgDSC1811	MICH CHRISTMAS TREE ASSN	37,371	-
Agriculture	Pass-through	10.170	MDARD 791N7700183	MBG MARKETING	2,201	-
Agriculture	Pass-through	10.170	MDARD GG 10000000309	MICH CARROT COMMITTEE	14,372	-
Agriculture	Pass-through	10.170	MDARD GG 190000000308	MICHIGAN BLUEBERRY COMMISSION	12,543	-
Agriculture	Pass-through	10.170	MDARD GG 190000000323	MICH VEGETABLE COUNCIL	590	-
Agriculture	Pass-through	10.170	Mi Asparagus	MICH ASPARAGUS ADVISORY BOARD	6,892	-
Agriculture	Pass-through	10.170	MSHS GG190000000321	MICH STATE HORTICULTURAL SOCIETY	22,626	-
Agriculture	Pass-through	10.170	MTFC 791AgDSC1814	MICHIGAN TREE FRUIT COMMISSION	77,395	-
Agriculture	Pass-through	10.170	MTFC GG190000000322	MICHIGAN TREE FRUIT COMMISSION	17,661	-
Agriculture	Pass-through	10.170	MVC - 791AgDSC18015	MICH VEGETABLE COUNCIL	87,234	-
Agriculture	Pass-through	10.170	MVC GG190000000324	MICH VEGETABLE COUNCIL	4,246	-
Agriculture	Pass-through	10.170	Onion Thrips	MICH ONION COMMITTEE	18,856	-
Agriculture	Pass-through	10.170	Spotted Wing Drosophila	MICH CHERRY COMMITTEE	10,032	-
Agriculture	Pass-through	10.212	33769	NVE CORP	6,015	-
Agriculture	Pass-through	10.215	800083963-AG	PURDUE UNIVERSITY	1,631	-
Agriculture	Pass-through	10.215	H004403705	UNIVERSITY OF MINNESOTA	198	-
Agriculture	Pass-through	10.215	H004991225	NORTH CENTRAL REGION SARE AT THE UNIVERSITY OF MN	(11)	-
Agriculture	Pass-through	10.215	H004991236	UNIVERSITY OF MINNESOTA	48,425	-
Agriculture	Pass-through	10.215	H005722934	NORTH CENTRAL REGION SARE AT THE UNIVERSITY OF MN	497	-
Agriculture	Pass-through	10.215	H005722940	NORTH CENTRAL REGION SARE AT THE UNIVERSITY OF MN	9,089	-
Agriculture	Pass-through	10.215	H005722943	NORTH CENTRAL REGION SARE AT THE UNIVERSITY OF MN	2,342	-
Agriculture	Pass-through	10.215	H005722948	NORTH CENTRAL REGION SARE AT THE UNIVERSITY OF MN	5,455	-
Agriculture	Pass-through	10.215	H005722952	NORTH CENTRAL REGION SARE AT THE UNIVERSITY OF MN	10,224	-
Agriculture	Pass-through	10.215	H006607414	NORTH CENTRAL REGION SARE AT THE UNIVERSITY OF MN	72,247	-
Agriculture	Pass-through	10.215	H006607435	NORTH CENTRAL REGION SARE AT THE UNIVERSITY OF MN	767	-
Agriculture	Pass-through	10.215	H006607437	NORTH CENTRAL REGION SARE AT THE UNIVERSITY OF MN	3,697	-
Agriculture	Pass-through	10.215	H007179306	NORTH CENTRAL REGION SARE AT THE UNIVERSITY OF MN	5,428	-
Agriculture	Pass-through	10.227	MSU2018	KEWEENAW BAY OJIBWA COMMUNITY COLLEGE	9,934	-
Agriculture	Pass-through	10.250	0005238/01222019	UNIVERSITY OF RHODE ISLAND	13,214	-
Agriculture	Pass-through	10.290	H006796003	UNIVERSITY OF MINNESOTA	7,152	-
Agriculture	Pass-through	10.303	201265-497	UTAH STATE UNIVERSITY	2,288	-
Agriculture	Pass-through	10.303	3TD388	SOUTH DAKOTA STATE UNIVERSITY	771	-
Agriculture	Pass-through	10.303	60049684	OHIO STATE UNIVERSITY	16,295	-
Agriculture	Pass-through	10.303	CAES-2018-22866-2	STATE OF CONNECTICUT	5,715	-
Agriculture	Pass-through	10.307	1196	UNIVERSITY OF MAINE	49,825	-
Agriculture	Pass-through	10.307	73676-10347	CORNELL UNIVERSITY	30,307	-
Agriculture	Pass-through	10.307	73676-10347	CORNELL UNIVERSITY	1,528	-
Agriculture	Pass-through	10.307	73676-10347	CORNELL UNIVERSITY	308	-
Agriculture	Pass-through	10.307	RC293-636-S000865	UNIVERSITY OF GEORGIA	27,222	-
Agriculture	Pass-through	10.307	SUBK00001844	UNIVERSITY OF GEORGIA	43,267	-
Agriculture	Pass-through	10.309	0799-PP2018	RUTGERS UNIVERSITY	99,431	-
Agriculture	Pass-through	10.309	133336-G003922	WASHINGTON STATE UNIVERSITY	140,832	-
Agriculture	Pass-through	10.309	1762-207-2020386	CLEMSON UNIVERSITY	100,794	-
Agriculture	Pass-through	10.309	1762-207-2020386	CLEMSON UNIVERSITY	42,750	-
Agriculture	Pass-through	10.309	1762-207-2020386	CLEMSON UNIVERSITY	7,544	-
Agriculture	Pass-through	10.309	2017-0398-06	NORTH CAROLINA STATE UNIVERSITY	128,230	-
Agriculture	Pass-through	10.309	215-0228-11	NORTH CAROLINA STATE UNIVERSITY	191,006	-
Agriculture	Pass-through	10.309	6066-PP2016-Smitley	RUTGERS UNIVERSITY	71,853	-
Agriculture	Pass-through	10.309	73999-10421	CORNELL UNIVERSITY	46,088	-
Agriculture	Pass-through	10.309	79611-10750	CORNELL UNIVERSITY	133,608	-
Agriculture	Pass-through	10.309	8000076815-AG	PURDUE UNIVERSITY	51,877	-
Agriculture	Pass-through	10.309	H007082502	UNIVERSITY OF MINNESOTA	9,812	-
Agriculture	Pass-through	10.309	SUB000000423	UNIVERSITY OF GEORGIA	25,960	-
Agriculture	Pass-through	10.309	U-G-01363-05	COLORADO STATE UNIVERSITY	86,588	-
Agriculture	Pass-through	10.310	07-MI702000	TEXAS A & M	10,000	-
Agriculture	Pass-through	10.310	132484-G003899	WASHINGTON STATE UNIVERSITY	45,121	-
Agriculture	Pass-through	10.310	13-453 MSU	WEST VIRGINIA UNIVERSITY	59,752	-
Agriculture	Pass-through	10.310	1556077	UNIVERSITY OF COLORADO AT BOULDER	162,668	-
Agriculture	Pass-through	10.310	1556077	UNIVERSITY OF COLORADO AT BOULDER	140,430	-
Agriculture	Pass-through	10.310	20152118-01	UNIVERSITY OF CALIFORNIA - DAVIS	20,567	-
Agriculture	Pass-through	10.310	201603566-06	THE REGENTS OF THE UNIVERSITY OF CALIFORNIA - DAVIS	96,889	-
Agriculture	Pass-through	10.310	2018-7-57817	CAL POLY CORP	10,629	-
Agriculture	Pass-through	10.310	3TB462	SOUTH DAKOTA STATE UNIVERSITY	69,582	-
Agriculture	Pass-through	10.310	3TC453	SOUTH DAKOTA STATE UNIVERSITY	33,836	-
Agriculture	Pass-through	10.310	416-41-87B	IOWA STATE UNIVERSITY	27,444	-
Agriculture	Pass-through	10.310	60066382	OHIO STATE UNIVERSITY	54,014	-
Agriculture	Pass-through	10.310	71482287	UNIVERSITY OF CALIFORNIA SAN DIEGO	5,121	-
Agriculture	Pass-through	10.310	8000053332-AG	PURDUE UNIVERSITY	42,308	-
Agriculture	Pass-through	10.310	8000069354	PURDUE UNIVERSITY	(2,700)	-
Agriculture	Pass-through	10.310	BKK290-58-005	UNIVERSITY OF IDAHO	(1)	-
Agriculture	Pass-through	10.310	C00050735-1	UNIVERSITY OF MISSOURI	44,882	-
Agriculture	Pass-through	10.310	G211-18-W7150	MONTANA STATE UNIVERSITY	35,927	-
Agriculture	Pass-through	10.310	PO #0000001883	UNIVERSITY OF WISCONSIN	39,340	-
Agriculture	Pass-through	10.329	076332-15448	UNIVERSITY OF ILLINOIS	8,543	-
Agriculture	Pass-through	10.329	128995_G003680	WASHINGTON STATE UNIVERSITY	54,540	-
Agriculture	Pass-through	10.329	2014-07306-19	UNIVERSITY OF ILLINOIS	5,102	-
Agriculture	Pass-through	10.329	850K146	UNIVERSITY OF WISCONSIN - MADISON	12,346	-
Agriculture	Pass-through	10.330	780K651	UNIVERSITY OF WISCONSIN - MADISON	15,625	-
Agriculture	Pass-through	10.604	150204	US Highbush Blueberry Council	191,705	-
Agriculture	Pass-through	10.606	S-MSU03	TECHNOSERVE	146,074	50,906
Agriculture	Pass-through	10.652	080500.330397.01	MISSISSIPPI STATE UNIVERSITY	3,294	-
Agriculture	Pass-through	10.664	E16-51	U.S. ENDOWMENT FOR FORESTRY & COMMUNITIES, INC.	14,871	-

See notes to schedule of expenditures
of federal awards.

Schedule of Expenditures of Federal Awards (Continued)

					Year Ended June 30, 2019	
Federal Agency	Direct/ Pass-through	CFDA (Note 5)	Award Number	Grantor Name	Total Expenditures	Subaward Payments
Research and Development Cluster						
(continued):						
Agriculture	Pass-through	10.674	App 148050	RENEWABLE RESOURCE SOLUTIONS	\$ 23,819	\$ -
Agriculture	Pass-through	10.680	Root Disease APP153122	WISCONSIN DEPT. OF NATURAL RESOURCES	237	-
Agriculture	Pass-through	10.903	8000083093-AG	PURDUE UNIVERSITY	6,444	-
Agriculture	Pass-through	10.932	060915-1	NATURE CONSERVANCY THE	17,355	-
Agriculture	Pass-through	10.960	0666	RUTGERS UNIVERSITY	50,835	-
	Pass-through Total				4,167,227	50,906
	Agriculture Total				34,417,076	7,678,120
Commerce	Direct	11.303	ED16CHI3030037	ECONOMIC DEVELOPMENT ADMINISTRATION	97,962	-
Commerce	Direct	11.303	ED16CHI3030037	ECONOMIC DEVELOPMENT ADMINISTRATION	43,252	-
Commerce	Direct	11.429	NA16N054290194	NATL OCEANIC & ATMOSPHERIC ADMIN	56,858	-
Commerce	Direct	11.431	NA170AR4310132	NATL OCEANIC & ATMOSPHERIC ADMIN	71,234	-
Commerce	Direct	11.609	60NAB18D212	NATL INST OF STANDARDS & TECHNOLOGY	30,556	-
Commerce	Direct	11.609	60NANB18D210	NATL INST OF STANDARDS & TECHNOLOGY	5,116	-
Commerce	Direct	11.609	70NANB15H280	NATL INST OF STANDARDS & TECHNOLOGY	6,189	-
Commerce	Direct	11.609	70NANB16H244	NATL INST OF STANDARDS & TECHNOLOGY	5,819	-
Commerce	Direct	11.609	70NANB17H027	NATL INST OF STANDARDS & TECHNOLOGY	84,418	-
Commerce	Direct	11.620	70NANB17H319	NATL INST OF STANDARDS & TECHNOLOGY	23,692	-
	Direct Total				425,096	-
Commerce	Pass-through	11.417	3003003182	UNIVERSITY OF MICHIGAN	(355)	-
Commerce	Pass-through	11.417	3003807199	UNIVERSITY OF MICHIGAN	6,689	-
Commerce	Pass-through	11.417	3004752711	UNIVERSITY OF MICHIGAN	8,490	-
Commerce	Pass-through	11.417	3004924854	UNIVERSITY OF MICHIGAN	39,740	-
Commerce	Pass-through	11.417	3004924855	UNIVERSITY OF MICHIGAN	317,588	-
Commerce	Pass-through	11.417	3004924855	UNIVERSITY OF MICHIGAN	32,575	-
Commerce	Pass-through	11.419	18-Chab-001	MI ENVIRONMENTAL QUALITY	70,016	-
Commerce	Pass-through	11.419	18-Chab-002	MI ENVIRONMENTAL QUALITY	63,905	32,587
Commerce	Pass-through	11.419	18-Chaz-001	MICHIGAN DEPARTMENT OF NATURAL RESOURCES	25,000	-
Commerce	Pass-through	11.419	C-19-Costal Marketing-001	MICH COASTAL MANAGEMENT PROGRAM	34,772	-
Commerce	Pass-through	11.419	MDNR 19-Chaz Assistantship-001	MICHIGAN DEPARTMENT OF NATURAL RESOURCES	23,209	-
Commerce	Pass-through	11.419	MEC 19-Chab-001	MICHIGAN ENVIRONMENTAL COUNCIL	11,095	-
Commerce	Pass-through	11.427	505116-78050	NORTHEASTERN UNIVERSITY	27,412	-
Commerce	Pass-through	11.431	3003959776	UNIVERSITY OF MICHIGAN	65,091	22,068
Commerce	Pass-through	11.432	3004178132	UNIVERSITY OF MICHIGAN	2,000	-
Commerce	Pass-through	11.432	3004178132	UNIVERSITY OF MICHIGAN	1,638	-
Commerce	Pass-through	11.432	3004178132	UNIVERSITY OF MICHIGAN	1,573	-
Commerce	Pass-through	11.432	3004178132	UNIVERSITY OF MICHIGAN	(1,066)	-
	Pass-through Total				729,372	54,655
	Commerce Total				1,154,468	54,655
Defense	Direct	12	2017-17020200004	INTELLIGENCE ADVANCED RESEARCH PROJECTS ACTIVITY	972,559	212,782
Defense	Direct	12	2017-17020200004	INTELLIGENCE ADVANCED RESEARCH PROJECTS ACTIVITY	624,915	271,724
Defense	Direct	12	2018-18012900001	INTELLIGENCE ADVANCED RESEARCH PROJECTS ACTIVITY	338,554	-
Defense	Direct	12	FA8750-17-C-0182	AIR FORCE RESEARCH LABORATORY	62,298	-
Defense	Direct	12	N00173-19-P-1337	US NAVAL RESEARCH LABORATORY	17,580	-
Defense	Direct	12	W912HQ-17-C-0006	ARMY US CORPS OF ENGINEERS	70,479	-
Defense	Direct	12.010	W912DR-17-2-0001	ARMY US CORPS OF ENGINEERS	47,079	-
Defense	Direct	12.116	FA9453-14-C-0215	AIR FORCE RESEARCH LABORATORY	(65)	-
Defense	Direct	12.116	W912HQ-13-C-0071	ARMY US CORPS OF ENGINEERS	15,339	-
Defense	Direct	12.300	FA8750-16-2-0284	AIR FORCE RESEARCH LABORATORY	254,424	-
Defense	Direct	12.300	FA8750-17-1-0139	AIR FORCE RESEARCH LABORATORY	51,924	-
Defense	Direct	12.300	N00014-14-1-0631	NAVAL RESEARCH US OFFICE OF USDN	10,668	-
Defense	Direct	12.300	N00014-15-1-2005	NAVAL RESEARCH US OFFICE OF USDN	(3)	-
Defense	Direct	12.300	N00014-16-1-2109	NAVAL RESEARCH US OFFICE OF USDN	147,851	-
Defense	Direct	12.300	N00014-16-1-2457	NAVAL RESEARCH US OFFICE OF USDN	146,340	-
Defense	Direct	12.300	N00014-16-1-2760	NAVAL RESEARCH US OFFICE OF USDN	165,432	-
Defense	Direct	12.300	N00014-16-1-2841	NAVAL RESEARCH US OFFICE OF USDN	169,415	-
Defense	Direct	12.300	N00014-16-1-3051	NAVAL RESEARCH US OFFICE OF USDN	49,211	-
Defense	Direct	12.300	N00014-17-1-2102	NAVAL RESEARCH US OFFICE OF USDN	208,649	-
Defense	Direct	12.300	N00014-17-1-2265	NAVAL RESEARCH US OFFICE OF USDN	206,245	-
Defense	Direct	12.300	N00014-17-1-2678	NAVAL RESEARCH US OFFICE OF USDN	268,914	-
Defense	Direct	12.300	N00014-17-1-2713	NAVAL RESEARCH US OFFICE OF USDN	158,679	-
Defense	Direct	12.300	N00014-17-1-2886	NAVAL RESEARCH US OFFICE OF USDN	144,054	-
Defense	Direct	12.300	N00014-18-1-2032	NAVAL RESEARCH US OFFICE OF USDN	1,058,471	641,873
Defense	Direct	12.300	N00014-18-1-2230	NAVAL RESEARCH US OFFICE OF USDN	93,445	-
Defense	Direct	12.300	N00014-18-1-2273	NAVAL RESEARCH US OFFICE OF USDN	243,430	-
Defense	Direct	12.300	N00014-18-1-2514	NAVAL RESEARCH US OFFICE OF USDN	93,719	-
Defense	Direct	12.300	N00014-18-1-2597	NAVAL RESEARCH US OFFICE OF USDN	88,766	-
Defense	Direct	12.300	N00014-19-1-2051	NAVAL RESEARCH US OFFICE OF USDN	124,125	-
Defense	Direct	12.300	W9126G-12-2-0020	ARMY US CORPS OF ENGINEERS	(340)	1,278
Defense	Direct	12.300	W9126G-18-2-0011	ARMY US CORPS OF ENGINEERS	129,714	-
Defense	Direct	12.420	W81XWH-15-1-0018	ARMY US DEPT OF	31,388	-
Defense	Direct	12.420	W81XWH-15-1-0453	ARMY US DEPT OF	77,162	-
Defense	Direct	12.420	W81XWH-15-1-0454	ARMY US DEPT OF	6,088	-
Defense	Direct	12.420	W81XWH-16-1-0631	ARMY US DEPT OF	206,284	-
Defense	Direct	12.420	W81XWH-16-1-0676	ARMY US DEPT OF	101,288	-
Defense	Direct	12.420	W81XWH-16-1-0732	ARMY US DEPT OF	74,306	-
Defense	Direct	12.420	W81XWH-16-1-0735	ARMY US DEPT OF	356,089	-
Defense	Direct	12.420	W81XWH-17-1-0270	ARMY US DEPT OF	271,656	-
Defense	Direct	12.420	W81XWH-17-1-0282	ARMY US DEPT OF	243,642	-
Defense	Direct	12.420	W81XWH-17-1-0536	ARMY US DEPT OF	420,807	48,952
Defense	Direct	12.420	W81XWH1910051	ARMY US DEPT OF	49,067	-
Defense	Direct	12.431	W911NF-15-1-0487	ARMY RESEARCH OFFICE U S	(2,576)	-
Defense	Direct	12.431	W911NF-17-1-0153	ARMY RESEARCH OFFICE U S	244,537	-
Defense	Direct	12.431	W911NF1810190	ARMY RESEARCH OFFICE U S	325,350	-
Defense	Direct	12.431	W911NF1810330	ARMY RESEARCH OFFICE U S	102,765	-
Defense	Direct	12.431	W911NF1910174	ARMY RESEARCH OFFICE U S	22,528	-
Defense	Direct	12.630	HMD04761510001	DEFENSE US DEPT OF	129,030	-
Defense	Direct	12.630	W911NF-14-1-0026	ARMY US DEPT OF	252,020	-
Defense	Direct	12.630	W912HZ-17-2-0030	ARMY US DEPT OF	70,347	-
Defense	Direct	12.800	FA8650-18-2-6880	AIR FORCE OFFICE OF SCIENTIFIC RESEARCH	326,367	-
Defense	Direct	12.800	FA9550-12-1-0343	AIR FORCE OFFICE OF SCIENTIFIC RESEARCH	20	-
Defense	Direct	12.800	FA9550-15-1-0282	AIR FORCE OFFICE OF SCIENTIFIC RESEARCH	34,486	-
Defense	Direct	12.800	FA9550-17-1-0150	AIR FORCE OFFICE OF SCIENTIFIC RESEARCH	80,547	-
Defense	Direct	12.800	FA9550-17-1-0394	AIR FORCE OFFICE OF SCIENTIFIC RESEARCH	398,365	-
Defense	Direct	12.800	FA9550-17-1-0411	AIR FORCE OFFICE OF SCIENTIFIC RESEARCH	113,860	-

See notes to schedule of expenditures
of federal awards.

Schedule of Expenditures of Federal Awards (Continued)

					Year Ended June 30, 2019	
Federal Agency	Direct/ Pass-through	CFDA (Note 5)	Award Number	Grantor Name	Total Expenditures	Subaward Payments
Research and Development Cluster						
(continued):						
Defense	Direct	12.800	FA9550-18-1-0061	AIR FORCE OFFICE OF SCIENTIFIC RESEARCH	\$ 132,299	\$ -
Defense	Direct	12.800	FA9550-18-1-0062	AIR FORCE OFFICE OF SCIENTIFIC RESEARCH	1,099,489	756,660
Defense	Direct	12.901	H98230-18-1-0042	NATL SECURITY AGENCY	17,487	-
Defense	Direct	12.901	H98230-18-1-0042	NATL SECURITY AGENCY	(2,385)	-
Defense	Direct	12.901	H98230-19-0014	NATL SECURITY AGENCY	25,322	-
Defense	Direct	12.901	H98230-19-0014	NATL SECURITY AGENCY	216	-
Defense	Direct	12.910	D16AP00117	DEFENSE ADVANCED RESEARCH PROJECTS AGENCY	190,988	-
Defense	Direct	12.910	FA8650-15-1-7525	AIR FORCE US DEPT OF	310,845	260,040
Defense	Direct	12.910	HR0011-15-2-0002	DEFENSE ADVANCED RESEARCH PROJECTS AGENCY	12,915	11,949
Defense	Direct	12.910	N66001-17-1-4045	DEFENSE ADVANCED RESEARCH PROJECTS AGENCY	254,455	-
	Direct Total				11,938,925	2,205,258
Defense	Pass-through	12	101129	FBSCIENCES	10,674	-
Defense	Pass-through	12	201652-140858	NATL CTR FOR MANUFACTURING SCIENCE	138,560	-
Defense	Pass-through	12	201845-140914	NATL CTR FOR MANUFACTURING SCIENCE	131,699	-
Defense	Pass-through	12	201851-140919	NATL CTR FOR MANUFACTURING SCIENCE	71,764	-
Defense	Pass-through	12	313-0875	DUKE UNIVERSITY	112,571	-
Defense	Pass-through	12	404-77-20	IOWA STATE UNIVERSITY	1	-
Defense	Pass-through	12	68171-29233203	UNIVERSITY OF MARYLAND	28,328	-
Defense	Pass-through	12	A002-2018	ARRAY INFORMATION TECHNOLOGY	130	-
Defense	Pass-through	12	A17-0682-S002	TENNESSEE UNIV OF	62,475	-
Defense	Pass-through	12	A17-0682-S002-A01	TENNESSEE UNIV OF	9,110	-
Defense	Pass-through	12	Brainscope Supplement	BRAINSCOPE CO INC	12,648	-
Defense	Pass-through	12	C-737911	BATTELLE COLUMBUS LABS	7,475	-
Defense	Pass-through	12	DRC.1250.00106.18	RIVERSIDE RESEARCH	62,109	-
Defense	Pass-through	12	FS-18-JV-11242306-048	USDA FOREST SERVICE	48,214	-
Defense	Pass-through	12	G42871-N01-065-MSU	STRATEGIC ANALYSIS, INC.	18,310	-
Defense	Pass-through	12	KTI-W911QX-18C-0005	KYMA TECHNOLOGIES INC	18,495	-
Defense	Pass-through	12	P004957701	UNIVERSITY OF MINNESOTA	199,490	-
Defense	Pass-through	12	SC-18-014	SOAR TECHNOLOGY, INC.	45,523	-
Defense	Pass-through	12	TECH-X N68335-18-C-0060-MSU	TECH-X CORPORATION	27,396	-
Defense	Pass-through	12	TECH-X W31P4Q-17-C-0037-MSU	TECH-X CORPORATION	63,267	-
Defense	Pass-through	12.116	7000295420	MASSACHUSETTS INST OF TECHNOLOGY	28,417	-
Defense	Pass-through	12.116	8140000819	NORTHROP GRUMMAN CORP	224,838	-
Defense	Pass-through	12.225	201658-140851	NATL CTR FOR MANUFACTURING SCIENCE	111,277	-
Defense	Pass-through	12.300	14-2-1203547-94802	UNIVERSITY OF TULSA OKLAHOMA	56,303	-
Defense	Pass-through	12.420	1(GG011705)	COLUMBIA UNIVERSITY	14,105	-
				HENRY M. JACKSON FOUNDATION FOR ADVANCEMENT OF		
Defense	Pass-through	12.420	4175	MILITARY MEDICINE	31,610	-
Defense	Pass-through	12.420	MSUW81XWH-18-1-0150	PENNSYLVANIA STATE UNIVERSITY	49,736	-
Defense	Pass-through	12.420	SUBK00008213	UNIVERSITY OF MICHIGAN	92,570	-
Defense	Pass-through	12.420	UWSC8721	UNIVERSITY OF WASHINGTON	11,684	-
Defense	Pass-through	12.431	00000834	BROWN UNIVERSITY	319,360	-
Defense	Pass-through	12.431	00001392	BROWN UNIVERSITY	53,813	-
Defense	Pass-through	12.431	10034220-S1	UNIVERSITY OF UTAH	181,125	-
Defense	Pass-through	12.431	SBU0000257	PRINCETON UNIVERSITY	74,777	-
Defense	Pass-through	12.800	1000002744	UNIVERSITY OF TEXAS - SAN ANTONIO	3,088	-
Defense	Pass-through	12.800	8263-A	BOISE STATE UNIVERSITY	2,182	-
Defense	Pass-through	12.910	0006	RUTGERS UNIVERSITY	4,321	-
Defense	Pass-through	12.910	079287-15764	UNIVERSITY OF ILLINOIS	5,539	-
Defense	Pass-through	12.910	1015 G UA-497	UNIVERSITY OF CALIFORNIA	122,726	-
Defense	Pass-through	12.910	1015 S TA037	REGENTS OF THE UNIVERSITY OF CALIFORNIA	62	-
Defense	Pass-through	12.910	126.001	SIEMENS CORPORATION	141,264	-
Defense	Pass-through	12.910	14-503	ARIZONA STATE UNIVERSITY	9,801	-
Defense	Pass-through	12.910	4201874310	RAYTHEON COMPANY	104,246	-
	Pass-through Total				2,711,083	-
	Defense Total				14,650,008	2,205,258
Education	Direct	84.015	P015B140098	US DEPT OF EDUCATION	10,790	-
Education	Direct	84.015	P015B180155	US DEPT OF EDUCATION	288,133	-
Education	Direct	84.015	P015B180155	US DEPT OF EDUCATION	192,847	-
Education	Direct	84.200	P200A180025	US DEPT OF EDUCATION	23,594	-
Education	Direct	84.200	P200A180025	US DEPT OF EDUCATION	12,516	-
Education	Direct	84.220	P220A180001	US DEPT OF EDUCATION	181,484	-
Education	Direct	84.305	R305A150210	US DEPT OF EDUCATION	258,420	117,356
Education	Direct	84.305	R305A160049	US DEPT OF EDUCATION	224,877	-
Education	Direct	84.324	R324A150063	US DEPT OF EDUCATION	345,405	-
Education	Direct	84.324	R324A180122	US DEPT OF EDUCATION	232,376	-
Education	Direct	84.324	R324B170003	US DEPT OF EDUCATION	97,004	-
	Direct Total				1,867,446	117,356
Education	Pass-through	84.004	8004D160011	INDIANA UNIVERSITY PURDUE UNIVERSITY INDIANAPOLIS	24,635	-
Education	Pass-through	84.048	173430-17133	MICHIGAN DEPARTMENT OF EDUCATION	(195)	-
Education	Pass-through	84.048	183430-18133	MICHIGAN DEPARTMENT OF EDUCATION	(391)	-
Education	Pass-through	84.116	SP00012139-06	GEORGIA STATE UNIV	205,704	-
Education	Pass-through	84.263	VRTAC-PEQA	UNIVERSITY OF WISCONSIN STOUT	128,107	-
Education	Pass-through	84.287	182122-MSUEVAL	MICHIGAN DEPARTMENT OF EDUCATION	104,887	-
Education	Pass-through	84.287	192122	MICHIGAN DEPARTMENT OF EDUCATION	311,860	-
Education	Pass-through	84.305	0388700002	AMER INSTITUTES FOR RESEARCH	44,662	-
Education	Pass-through	84.305	0440400002	AMER INSTITUTES FOR RESEARCH	6,621	-
Education	Pass-through	84.305	130596	UNIVERSITY OF CONNECTICUT	192,086	-
Education	Pass-through	84.305	511140-02	TEACHERS COLLEGE, COLUMBIA UNIVERSITY	43,022	-
Education	Pass-through	84.305	ED162A-A	OREGON STATE UNIVERSITY	34,572	-
Education	Pass-through	84.305	SCC-556404-18/19	TULANE UNIVERSITY	209,716	-
Education	Pass-through	84.411	Investing in Innovation (i3)	HIGH/SCOPE EDUCATIONAL RESEARCH FDN.	81,585	-
	Pass-through Total				1,386,871	-
	Education Total				3,254,317	117,356
Energy	Direct	81	HARDSHIP	US DEPT OF ENERGY	18,490	-
Energy	Direct	81.049	DE-FG02-01ER15228	US DEPT OF ENERGY	53,250	-
Energy	Direct	81.049	DE-FG02-01ER15282	US DEPT OF ENERGY	45,852	-
Energy	Direct	81.049	DE-FG02-03ER41259	US DEPT OF ENERGY	93,710	-
Energy	Direct	81.049	DE-FG02-06ER15808	US DEPT OF ENERGY	205,630	81,174
Energy	Direct	81.049	DE-FG02-06ER46309	US DEPT OF ENERGY	146,392	-
Energy	Direct	81.049	DE-FG02-08ER41546	US DEPT OF ENERGY	(41,031)	-
Energy	Direct	81.049	DE-FG02-08ER41556	US DEPT OF ENERGY	64,960	-
Energy	Direct	81.049	DE-FG02-91ER20021	US DEPT OF ENERGY	3,292,448	-

Schedule of Expenditures of Federal Awards (Continued)

					Year Ended June 30, 2019	
Federal Agency	Direct/ Pass-through	CFDA (Note 5)	Award Number	Grantor Name	Total Expenditures	Subaward Payments
Research and Development Cluster						
(continued):						
Energy	Direct	81.049	DE-FG02-91ER20021	US DEPT OF ENERGY	\$ 116,790	\$ -
Energy	Direct	81.049	DE-FG02-98ER20305	US DEPT OF ENERGY	(173)	-
Energy	Direct	81.049	DE-FG02-99ER62848	US DEPT OF ENERGY	34,214	-
Energy	Direct	81.049	DE-SC0000661	US DEPT OF ENERGY	42,848,012	8,042
Energy	Direct	81.049	DE-SC0000661	US DEPT OF ENERGY	1,812,821	-
Energy	Direct	81.049	DE-SC0000661	US DEPT OF ENERGY	736,755	-
Energy	Direct	81.049	DE-SC0000661	US DEPT OF ENERGY	33,767	-
Energy	Direct	81.049	DE-SC0001525	US DEPT OF ENERGY	220,830	-
Energy	Direct	81.049	DE-SC0002325	US DEPT OF ENERGY	78,458	-
Energy	Direct	81.049	DE-SC0007101	US DEPT OF ENERGY	226,610	-
Energy	Direct	81.049	DE-SC0009962	US DEPT OF ENERGY	321,624	125,360
Energy	Direct	81.049	DE-SC0010847	US DEPT OF ENERGY	133,696	-
Energy	Direct	81.049	DE-SC0013365	US DEPT OF ENERGY	270,310	-
Energy	Direct	81.049	DE-SC0013617	US DEPT OF ENERGY	374,387	71,037
Energy	Direct	81.049	DE-SC0013617	US DEPT OF ENERGY	18,382	-
Energy	Direct	81.049	DE-SC0014108	US DEPT OF ENERGY	253,572	-
Energy	Direct	81.049	DE-SC0014108	US DEPT OF ENERGY	199,435	-
Energy	Direct	81.049	DE-SC0014108	US DEPT OF ENERGY	5,135	-
Energy	Direct	81.049	DE-SC0014108	US DEPT OF ENERGY	2,828	-
Energy	Direct	81.049	DE-SC0014384	US DEPT OF ENERGY	2,403,195	210,958
Energy	Direct	81.049	DE-SC0014530	US DEPT OF ENERGY	259,007	-
Energy	Direct	81.049	DE-SC0014554	US DEPT OF ENERGY	83,218	21,248
Energy	Direct	81.049	DE-SC0015903	US DEPT OF ENERGY	133,148	-
Energy	Direct	81.049	DE-SC0015904	US DEPT OF ENERGY	40,970	-
Energy	Direct	81.049	DE-SC0016052	US DEPT OF ENERGY	151,218	-
Energy	Direct	81.049	DE-SC0016604	US DEPT OF ENERGY	64,662	-
Energy	Direct	81.049	DE-SC0016948	US DEPT OF ENERGY	158,975	-
Energy	Direct	81.049	DE-SC0017342	US DEPT OF ENERGY	210,254	-
Energy	Direct	81.049	DE-SC0017883	US DEPT OF ENERGY	242,031	11,820
Energy	Direct	81.049	DE-SC0017887	US DEPT OF ENERGY	158,253	-
Energy	Direct	81.049	DE-SC0017888	US DEPT OF ENERGY	256,612	64,510
Energy	Direct	81.049	DE-SC0017889	US DEPT OF ENERGY	31,933	-
Energy	Direct	81.049	DE-SC0017952	US DEPT OF ENERGY	126,688	-
Energy	Direct	81.049	DE-SC0017955	US DEPT OF ENERGY	202,344	85,978
Energy	Direct	81.049	DE-SC0017955	US DEPT OF ENERGY	2,315	-
Energy	Direct	81.049	DE-SC0018083	US DEPT OF ENERGY	338,890	111,056
Energy	Direct	81.049	DE-SC0018083	US DEPT OF ENERGY	43,635	-
Energy	Direct	81.049	DE-SC0018269	US DEPT OF ENERGY	1,218,825	815,831
Energy	Direct	81.049	DE-SC0018269	US DEPT OF ENERGY	209,581	-
Energy	Direct	81.049	DE-SC0018269	US DEPT OF ENERGY	170,007	-
Energy	Direct	81.049	DE-SC0018362	US DEPT OF ENERGY	270,581	-
Energy	Direct	81.049	DE-SC0018432	US DEPT OF ENERGY	110,635	-
Energy	Direct	81.049	DE-SC001863	US DEPT OF ENERGY	158,761	-
Energy	Direct	81.049	DE-SC0018637	US DEPT OF ENERGY	208,836	-
Energy	Direct	81.049	DE-SC0018638	US DEPT OF ENERGY	157,605	-
Energy	Direct	81.049	DE-SC0018966	US DEPT OF ENERGY	100,673	-
Energy	Direct	81.049	DE-SC0018973	US DEPT OF ENERGY	20,263	-
Energy	Direct	81.049	DE-SC0019015	US DEPT OF ENERGY	14,022	-
Energy	Direct	81.049	DE-SC0019034	US DEPT OF ENERGY	147,318	-
Energy	Direct	81.049	DE-SC0019058	US DEPT OF ENERGY	94,707	-
Energy	Direct	81.049	DE-SC0019072	US DEPT OF ENERGY	105,045	-
Energy	Direct	81.049	DE-SC0019113	US DEPT OF ENERGY	21,282	-
Energy	Direct	81.049	DE-SC0019120	US DEPT OF ENERGY	44,506	-
Energy	Direct	81.049	DE-SC0019203	US DEPT OF ENERGY	2,966	-
Energy	Direct	81.049	DE-SC0019209	US DEPT OF ENERGY	128,664	-
Energy	Direct	81.049	DE-SC0019252	US DEPT OF ENERGY	76,173	-
Energy	Direct	81.049	DE-SC0019259	US DEPT OF ENERGY	40,693	-
Energy	Direct	81.049	DE-SC0019260	US DEPT OF ENERGY	15,000	-
Energy	Direct	81.049	DE-SC0019369	US DEPT OF ENERGY	39,400	-
Energy	Direct	81.049	DE-SC0019403	US DEPT OF ENERGY	25,676	-
Energy	Direct	81.049	DE-SC0019455	US DEPT OF ENERGY	4,023	-
Energy	Direct	81.086	DE-EE0007803	US DEPT OF ENERGY	293,838	158,717
Energy	Direct	81.086	DE-EE0008320	US DEPT OF ENERGY	62,641	-
Energy	Direct	81.086	DE-EE0008455	US DEPT OF ENERGY	152,757	-
Energy	Direct	81.087	DE-EE0008148	US DEPT OF ENERGY	620,415	409,858
Energy	Direct	81.089	DE-FE0023315	US DEPT OF ENERGY	15,226	-
Energy	Direct	81.089	DE-FE0030977	US DEPT OF ENERGY	369,761	2,573
Energy	Direct	81.089	DE-FE0031250	US DEPT OF ENERGY	136,346	77,358
Energy	Direct	81.089	DE-FE0031672	US DEPT OF ENERGY	224,301	-
Energy	Direct	81.112	DE-NA0002847	US DEPT OF ENERGY	2,197	-
Energy	Direct	81.112	DE-NA0002923	US DEPT OF ENERGY	223,281	-
Energy	Direct	81.112	DE-NA0002924	US DEPT OF ENERGY	170,092	-
Energy	Direct	81.112	DE-NA0003221	US DEPT OF ENERGY	210,672	-
Energy	Direct	81.112	DE-NA0003885	US DEPT OF ENERGY	117,995	-
Energy	Direct	81.135	DE-AR0000455	US DEPT OF ENERGY	(136)	-
Energy	Direct	81.135	DE-AR0000991	US DEPT OF ENERGY	177,636	-
	Direct Total				62,636,766	2,255,520
Energy	Pass-through	81	16-P0616	JEFFERSON SCIENCE ASSOCIATES LLC	32	-
				THE BOARD OF TRUSTEES OF THE LELAND STANFORD JUNIOR		
				UNIVERSITY - SLAC		
Energy	Pass-through	81	186853	SANDINA NATIONAL LABORATORIES	13,917	-
Energy	Pass-through	81	1955343	LOS ALAMOS NATIONAL LABORATORY	81,541	-
Energy	Pass-through	81	276363	BROOKHAVEN NATL LABORATORY	(6,375)	-
Energy	Pass-through	81	308720	LOS ALAMOS NATIONAL LABORATORY	71,132	-
Energy	Pass-through	81	319838	LOS ALAMOS NATIONAL LABORATORY	14,014	-
Energy	Pass-through	81	332574	LOS ALAMOS NATIONAL LABORATORY	71,321	-
Energy	Pass-through	81	344028	BROOKHAVEN NATL LABORATORY	91,525	-
Energy	Pass-through	81	344514	BROOKHAVEN NATL LABORATORY	63,453	-
Energy	Pass-through	81	4000166582	OAK RIDGE NATIONAL LAB	42,179	-
Energy	Pass-through	81	404227	LOS ALAMOS NATIONAL LABORATORY	148,124	-
Energy	Pass-through	81	510272	LOS ALAMOS NATIONAL LABORATORY	68,592	-
Energy	Pass-through	81	510272	LOS ALAMOS NATIONAL LABORATORY	38,809	-
Energy	Pass-through	81	527464	LOS ALAMOS NATIONAL LABORATORY	11,085	-
Energy	Pass-through	81	638420	FERMI NATL ACCELERATOR LAB	60,738	-
Energy	Pass-through	81	640672	FERMI NATL ACCELERATOR LAB	122,960	-
Energy	Pass-through	81	642883	FERMI NATL ACCELERATOR LAB	27,109	-

See notes to schedule of expenditures
of federal awards.

Schedule of Expenditures of Federal Awards (Continued)

				Year Ended June 30, 2019		
Federal Agency	Direct/ Pass-through	CFDA (Note 5)	Award Number	Grantor Name	Total Expenditures	Subaward Payments
Research and Development Cluster (continued):						
Energy	Pass-through	81	645950	FERMI NATL ACCELERATOR LAB	\$ 25,851	\$ -
Energy	Pass-through	81	646732	FERMI NATL ACCELERATOR LAB	152,325	-
Energy	Pass-through	81	650703	FERMI NATL ACCELERATOR LAB	37,248	-
Energy	Pass-through	81	7436735	THE REGENTS OF THE UNIVERSITY OF CALIFORNIA - LBNL	2,790	-
Energy	Pass-through	81	8F-30001	ARGONNE NATIONAL LABORATORY	(25)	-
Energy	Pass-through	81	9F-60106	ARGONNE NATIONAL LABORATORY	12,431	-
Energy	Pass-through	81	B632490	LAWRENCE LIVERMORE NATL LAB	82,480	-
Energy	Pass-through	81	ILAB-645751	FERMI NATL ACCELERATOR LAB	36,794	-
Energy	Pass-through	81	Joint Appt Hao	BROOKHAVEN SCIENCE ASSOC LLC	153,484	-
Energy	Pass-through	81	N000251535	HONEYWELL CORPORATION	22,389	-
Energy	Pass-through	81	N000254451	HONEYWELL CORPORATION	138,399	-
Energy	Pass-through	81	N000295611	HONEYWELL CORPORATION	223,617	-
Energy	Pass-through	81	PO1910351	SANDINA NATIONAL LABORATORIES	78,404	-
Energy	Pass-through	81.041	ME0-18-007	MICHIGAN ENERGY OFFICE	184,143	-
Energy	Pass-through	81.049	00340757	NIOWAVE, INC	49,945	-
Energy	Pass-through	81.049	2014-13	UNIVERSITY OF OKLAHOMA	93,980	-
Energy	Pass-through	81.049	201801	UHV TECHNOLOGIES INC	40,518	-
Energy	Pass-through	81.049	3003805140	UNIVERSITY OF MICHIGAN	169,015	-
Energy	Pass-through	81.049	348207	PHDS CO.	11,313	-
Energy	Pass-through	81.049	384H963	BO OF REGENTS OF THE UNIV WISC	353,989	-
Energy	Pass-through	81.049	508145	LOS ALAMOS NATIONAL LABORATORY	49,098	-
Energy	Pass-through	81.049	5103977	UNIVERSITY OF NORTH CAROLINA	25,711	-
Energy	Pass-through	81.049	53793	MARINE BIOLOGICAL LABORATORY	37,386	-
Energy	Pass-through	81.049	812K980	UNIVERSITY OF WISCONSIN - MADISON	10,677,076	-
Energy	Pass-through	81.049	AGR2017 00021	ESTEC SERVICE, LLC	442	-
Energy	Pass-through	81.049	CORP-82429-4066-46	PHYSICAL SCIENCES INC	49,310	-
Energy	Pass-through	81.049	DOE 17630-27181004	UNIVERSITY OF MARYLAND	94,622	-
Energy	Pass-through	81.049	GF70041-2	UNIVERSITY OF NORTH TEXAS	24,507	-
Energy	Pass-through	81.049	500460-01	UNIVERSITY OF IOWA	2,041	-
Energy	Pass-through	81.049	SUB0000288	PRINCETON UNIVERSITY	98,236	-
Energy	Pass-through	81.086	4300501633	GENERAL MOTORS CORPORATION	98,437	-
Energy	Pass-through	81.086	A16-0349-S005	COLLABORATIVE COMPOSITE SOLUTIONS CORP.	84,393	-
Energy	Pass-through	81.086	A16-0349-S005	COLLABORATIVE COMPOSITE SOLUTIONS CORP.	(373,675)	-
Energy	Pass-through	81.086	CORP-A16-0349-S005	COLLABORATIVE COMPOSITE SOLUTIONS CORP.	63,955	-
Energy	Pass-through	81.086	CORP-A16-0349-S005	COLLABORATIVE COMPOSITE SOLUTIONS CORP.	36,466	-
Energy	Pass-through	81.086	DOE PA16-0349-3.1-01	COLLABORATIVE COMPOSITE SOLUTIONS CORP.	950,183	-
Energy	Pass-through	81.086	MB-DE-EED008235	MERCEDES BENZ RESEARCH & DEVELOPMENT NORTH AMERICA, INC.	33,562	-
Energy	Pass-through	81.086	PA16-0349-3.16-01	COLLABORATIVE COMPOSITE SOLUTIONS CORP.	22,047	-
Energy	Pass-through	81.086	PA16-0349-3.2-02	COLLABORATIVE COMPOSITE SOLUTIONS CORP.	198,894	-
Energy	Pass-through	81.086	PA16-0349-3.7-01	COLLABORATIVE COMPOSITE SOLUTIONS CORP.	608,953	-
Energy	Pass-through	81.086	PA16-0349-3.9-01	COLLABORATIVE COMPOSITE SOLUTIONS CORP.	27,026	-
Energy	Pass-through	81.087	2108-219-2023054	CLEMSON UNIVERSITY	4,620	-
Energy	Pass-through	81.087	3004665464	UNIVERSITY OF MICHIGAN	60,360	-
Energy	Pass-through	81.087	G0174A-B	OREGON STATE UNIVERSITY	63,410	-
Energy	Pass-through	81.089	401469-5801	COLORADO SCHOOL OF MINES	14,822	-
Energy	Pass-through	81.112	18-517	GEORGE WASHINGTON UNIVERSITY	39,591	-
Energy	Pass-through	81.112	4-10469-28	CARNEGIE INSTITUTE	(399)	-
Energy	Pass-through	81.112	51924106 5108	RUTGERS UNIVERSITY	56,513	-
Energy	Pass-through	81.112	51928815 5109 PO 579853	RUTGERS UNIVERSITY	147,469	-
Energy	Pass-through	81.113	00009330	UNIVERSITY OF CALIFORNIA BERKELEY	1,156,912	-
	Pass-through Total				17,141,214	-
	Energy Total				79,777,980	2,255,520
Environmental Protection Agency	Direct	66.001	83589201	ENVIRONMENTAL PROTECTION AGENCY	38,735	-
Environmental Protection Agency	Direct	66.509	83579801	ENVIRONMENTAL PROTECTION AGENCY	133,551	69,617
Environmental Protection Agency	Direct	66.509	83616801	ENVIRONMENTAL PROTECTION AGENCY	156,925	-
Environmental Protection Agency	Direct	66.516	83594101	ENVIRONMENTAL PROTECTION AGENCY	14,958	-
Environmental Protection Agency	Direct	66.951	00E01570-0	ENVIRONMENTAL PROTECTION AGENCY	4,774	-
	Direct Total				348,943	69,617
Environmental Protection Agency	Pass-through	66	10006-7-105247	CH2M HILL	22,208	-
Environmental Protection Agency	Pass-through	66.419	2017-7216	MI ENVIRONMENTAL QUALITY	20,452	-
Environmental Protection Agency	Pass-through	66.469	143652	THE STEWARDSHIP NETWORK	1,661	-
Environmental Protection Agency	Pass-through	66.469	150908022	MICH TECHNOLOGICAL UNIVERSITY	26,879	-
Environmental Protection Agency	Pass-through	66.469	18-AOC-014	MICHIGAN DEPARTMENT OF NATURAL RESOURCES	86,457	-
Environmental Protection Agency	Pass-through	66.469	19000001785	MICHIGAN DEPT OF AGRICULTURE & RURAL DEVELOPMENT	1,038	-
Environmental Protection Agency	Pass-through	66.469	AOC18-ECON-002	MI ENVIRONMENTAL QUALITY	95,881	-
Environmental Protection Agency	Pass-through	66.469	GL-00E02209	GREAT LAKES COMMISSION	53,670	-
Environmental Protection Agency	Pass-through	66.509	429-40-10D	IOWA STATE UNIVERSITY	22,391	-
Environmental Protection Agency	Pass-through	66.511	4109-79628	PURDUE UNIVERSITY	148,021	81,335
Environmental Protection Agency	Pass-through	66.511	4109-79628	PURDUE UNIVERSITY	46,930	-
Environmental Protection Agency	Pass-through	66.511	4109-79628	PURDUE UNIVERSITY	7,454	-
	Pass-through Total				533,042	81,335
	Environmental Protection Agency Total				881,985	150,952
Federal Council on the Arts and Humanities	Direct	45.169	HK-50173-14	NATL ENDOWMENT FOR THE HUMANITIES	8,372	-
	Direct Total				8,372	-
Federal Council on the Arts and Humanities	Pass-through	45.025	18PS4197AC	MICHIGAN COUNCIL OF ARTS & CULTURAL AFFAIRS	15,000	-
	Pass-through Total				15,000	-
	Federal Council on the Arts and Humanities Total				23,372	-
Health and Human Services	Direct	93	200-2016-89831	CENTERS FOR DISEASE CONTROL AND PREVENTION	678,314	-
Health and Human Services	Direct	93	200-2016-89831	CENTERS FOR DISEASE CONTROL AND PREVENTION	305,733	-
Health and Human Services	Direct	93	200-2016-89831	CENTERS FOR DISEASE CONTROL AND PREVENTION	33,695	-
Health and Human Services	Direct	93	200-2016-89831	CENTERS FOR DISEASE CONTROL AND PREVENTION	21,000	-
Health and Human Services	Direct	93.110	5 R40MCC27704-03-00	HEALTH RESOURCES & SERVICES ADMIN -PHS	40,560	-
Health and Human Services	Direct	93.113	1K01ES029115-01	NATL INST OF ENVIRON HEALTH SCI -NIH/PHS	167,789	-
Health and Human Services	Direct	93.113	1R01ES029227-01A1	NATL INST OF ENVIRON HEALTH SCI -NIH/PHS	67,483	-
Health and Human Services	Direct	93.113	1R01ES029541-01A1	NATL INST OF ENVIRON HEALTH SCI -NIH/PHS	33,728	-
Health and Human Services	Direct	93.113	1R21ES029205-01	NATL INST OF ENVIRON HEALTH SCI -NIH/PHS	261,350	-
Health and Human Services	Direct	93.113	4R01ES002520-29	NATL INST OF ENVIRON HEALTH SCI -NIH/PHS	288,402	-
Health and Human Services	Direct	93.113	5R01ES022302-03	NATL INST OF ENVIRON HEALTH SCI -NIH/PHS	371,370	200,646
Health and Human Services	Direct	93.113	5R01ES024064-02	NATL INST OF ENVIRON HEALTH SCI -NIH/PHS	439,883	-
Health and Human Services	Direct	93.113	5R21ES026022 - 02	NATL INST OF ENVIRON HEALTH SCI -NIH/PHS	3,427	956
Health and Human Services	Direct	93.113	5R25ES0250602-04S1	NATL INST OF ENVIRON HEALTH SCI -NIH/PHS	21,287	-
Health and Human Services	Direct	93.113	5T3ES007255-29	NATL INST OF ENVIRON HEALTH SCI -NIH/PHS	155,365	-
Health and Human Services	Direct	93.113	5T3ES007255-30	NATL INST OF ENVIRON HEALTH SCI -NIH/PHS	195,637	-

See notes to schedule of expenditures
of federal awards.

Schedule of Expenditures of Federal Awards (Continued)

					Year Ended June 30, 2019			
Federal Agency	Direct/ Pass-through	CFDA (Note 5)	Award Number	Grantor Name	Total Expenditures	Subaward Payments		
Research and Development Cluster								
(continued):								
Health and Human Services	Direct	93.113	9RS6E5029064-05A1	NATL INST OF ENVIRON HEALTH SCI -NIH/PHS	\$ 122,580	\$ 12,831		
Health and Human Services	Direct	93.113	KE5025435C	NATL INST OF ENVIRON HEALTH SCI -NIH/PHS	108,938	-		
Health and Human Services	Direct	93.113	KE5026208A	NATL INST OF ENVIRON HEALTH SCI -NIH/PHS	181,207	-		
Health and Human Services	Direct	93.113	KE5028047B	NATL INST OF ENVIRON HEALTH SCI -NIH/PHS	204,290	-		
Health and Human Services	Direct	93.113	R01E5027863	NATL INST OF ENVIRON HEALTH SCI -NIH/PHS	164,032	-		
Health and Human Services	Direct	93.113	RES017537C	NATL INST OF ENVIRON HEALTH SCI -NIH/PHS	369,676	22,092		
Health and Human Services	Direct	93.113	RES024064A	NATL INST OF ENVIRON HEALTH SCI -NIH/PHS	58,066	-		
Health and Human Services	Direct	93.113	RES024570B	NATL INST OF ENVIRON HEALTH SCI -NIH/PHS	190,966	-		
Health and Human Services	Direct	93.113	RES024795B	NATL INST OF ENVIRON HEALTH SCI -NIH/PHS	111,603	-		
Health and Human Services	Direct	93.113	RES024806B	NATL INST OF ENVIRON HEALTH SCI -NIH/PHS	203,432	-		
Health and Human Services	Direct	93.113	RES024966A	NATL INST OF ENVIRON HEALTH SCI -NIH/PHS	347,150	-		
Health and Human Services	Direct	93.113	RES025060A	NATL INST OF ENVIRON HEALTH SCI -NIH/PHS	44,442	-		
Health and Human Services	Direct	93.113	RES027353A	NATL INST OF ENVIRON HEALTH SCI -NIH/PHS	625,444	102,058		
Health and Human Services	Direct	93.113	RES027418A	NATL INST OF ENVIRON HEALTH SCI -NIH/PHS	46,131	-		
Health and Human Services	Direct	93.113	TES007255F	NATL INST OF ENVIRON HEALTH SCI -NIH/PHS	1,566	-		
Health and Human Services	Direct	93.113	UES026119A	NATL INST OF ENVIRON HEALTH SCI -NIH/PHS	861,869	156,313		
Health and Human Services	Direct	93.121	1R03D027429-01A1	NATL INST DENTAL & CRANIOFACIAL RESEARCH -NIH/PHS	111,982	-		
Health and Human Services	Direct	93.121	7R01D026125-03	NATL INST DENTAL & CRANIOFACIAL RESEARCH -NIH/PHS	454,334	246,346		
Health and Human Services	Direct	93.121	RDE027108A	NATL INST DENTAL & CRANIOFACIAL RESEARCH -NIH/PHS	21,804	-		
Health and Human Services	Direct	93.136	SRO1CE002682-04	CENTERS FOR DISEASE CONTROL AND PREVENTION	171,674	-		
Health and Human Services	Direct	93.143	NIH-5PA2ES004911-26S1	NATL INST OF ENVIRON HEALTH SCI -NIH/PHS	76,670	-		
Health and Human Services	Direct	93.143	NIH-5PA2ES004911-26	NATL INST OF ENVIRON HEALTH SCI -NIH/PHS	185,802	-		
Health and Human Services	Direct	93.143	NIH-5PA2ES004911-26	NATL INST OF ENVIRON HEALTH SCI -NIH/PHS	142,963	-		
Health and Human Services	Direct	93.143	NIH-5PA2ES004911-26	NATL INST OF ENVIRON HEALTH SCI -NIH/PHS	134,937	134,937		
Health and Human Services	Direct	93.143	NIH-5PA2ES004911-26	NATL INST OF ENVIRON HEALTH SCI -NIH/PHS	127,885	-		
Health and Human Services	Direct	93.143	NIH-5PA2ES004911-26	NATL INST OF ENVIRON HEALTH SCI -NIH/PHS	102,614	-		
Health and Human Services	Direct	93.143	NIH-5PA2ES004911-26	NATL INST OF ENVIRON HEALTH SCI -NIH/PHS	51,018	-		
Health and Human Services	Direct	93.143	NIH-5PA2ES004911-26	NATL INST OF ENVIRON HEALTH SCI -NIH/PHS	47,403	-		
Health and Human Services	Direct	93.143	NIH-5PA2ES004911-26	NATL INST OF ENVIRON HEALTH SCI -NIH/PHS	36,060	-		
Health and Human Services	Direct	93.143	NIH-5PA2ES004911-26	NATL INST OF ENVIRON HEALTH SCI -NIH/PHS	16,070	-		
Health and Human Services	Direct	93.143	NIH-5PA2ES004911-26S1	NATL INST OF ENVIRON HEALTH SCI -NIH/PHS	130,028	-		
Health and Human Services	Direct	93.143	NIH-5PA2ES004911-26S1	NATL INST OF ENVIRON HEALTH SCI -NIH/PHS	102,403	-		
Health and Human Services	Direct	93.143	PE5004911F	NATL INST OF ENVIRON HEALTH SCI -NIH/PHS	147,349	-		
Health and Human Services	Direct	93.143	PE5004911F	NATL INST OF ENVIRON HEALTH SCI -NIH/PHS	139,043	-		
Health and Human Services	Direct	93.143	PE5004911F	NATL INST OF ENVIRON HEALTH SCI -NIH/PHS	131,371	-		
Health and Human Services	Direct	93.143	PE5004911F	NATL INST OF ENVIRON HEALTH SCI -NIH/PHS	108,872	-		
Health and Human Services	Direct	93.143	PE5004911F	NATL INST OF ENVIRON HEALTH SCI -NIH/PHS	101,264	-		
Health and Human Services	Direct	93.143	PE5004911F	NATL INST OF ENVIRON HEALTH SCI -NIH/PHS	65,235	-		
Health and Human Services	Direct	93.143	PE5004911F	NATL INST OF ENVIRON HEALTH SCI -NIH/PHS	54,448	-		
Health and Human Services	Direct	93.143	PE5004911F	NATL INST OF ENVIRON HEALTH SCI -NIH/PHS	33,481	33,481		
Health and Human Services	Direct	93.143	PE5004911F	NATL INST OF ENVIRON HEALTH SCI -NIH/PHS	30,293	-		
Health and Human Services	Direct	93.143	PE5004911F	NATL INST OF ENVIRON HEALTH SCI -NIH/PHS	24,807	-		
Health and Human Services	Direct	93.143	PE5004911F	NATL INST OF ENVIRON HEALTH SCI -NIH/PHS	22,273	-		
Health and Human Services	Direct	93.143	PE5004911F	NATL INST OF ENVIRON HEALTH SCI -NIH/PHS	9,044	-		
Health and Human Services	Direct	93.143	PE5004911F	NATL INST OF ENVIRON HEALTH SCI -NIH/PHS	7,202	7,202		
Health and Human Services	Direct	93.143	PE5004911F	NATL INST OF ENVIRON HEALTH SCI -NIH/PHS	5,979	-		
Health and Human Services	Direct	93.143	PE5004911F	NATL INST OF ENVIRON HEALTH SCI -NIH/PHS	(35,136)	-		
Health and Human Services	Direct	93.172	NIH-SR01HG007060-03	NATL HUMAN GENOME RESEARCH INST -NIH/PHS	(18)	-		
Health and Human Services	Direct	93.173	1K01DC017751-01	NATL INST DEAFNESS & COMMUNICATION DISORDERS -NIH/PHS	27,661	-		
Health and Human Services	Direct	93.173	1R21DC017227-01	NATL INST DEAFNESS & COMMUNICATION DISORDERS -NIH/PHS	101,781	24,457		
Health and Human Services	Direct	93.173	5R01DC012315-04	NATL INST DEAFNESS & COMMUNICATION DISORDERS -NIH/PHS	235,752	90,531		
Health and Human Services	Direct	93.173	5R21DC015550-02	NATL INST DEAFNESS & COMMUNICATION DISORDERS -NIH/PHS	163,401	-		
Health and Human Services	Direct	93.173	5R21DC016102-02	NATL INST DEAFNESS & COMMUNICATION DISORDERS -NIH/PHS	108,843	-		
Health and Human Services	Direct	93.213	1K99AT009156-01A1	NATL CTR COMPLEMENTARY & INTEGRATIVE HEALTH -NIH/PHS	(430)	-		
Health and Human Services	Direct	93.213	3U19AT006057-01A1S1	NATL CTR COMPLEMENTARY & INTEGRATIVE HEALTH -NIH/PHS	65,073	-		
Health and Human Services	Direct	93.213	4R00AT009156-03	NATL CTR COMPLEMENTARY & INTEGRATIVE HEALTH -NIH/PHS	30,581	-		
Health and Human Services	Direct	93.213	5F32AT008761-03	NATL CTR COMPLEMENTARY & INTEGRATIVE HEALTH -NIH/PHS	10,090	-		
Health and Human Services	Direct	93.213	5R01AT007695-05	NATL CTR COMPLEMENTARY & INTEGRATIVE HEALTH -NIH/PHS	(33,658)	32,124		
Health and Human Services	Direct	93.226	5R18S020208-05	AGENCY FOR HEALTHCARE RSCH & QUAL -PHS	(743)	-		
Health and Human Services	Direct	93.226	RH5025386A	AGENCY FOR HEALTHCARE RSCH & QUAL -PHS	263,126	39,558		
Health and Human Services	Direct	93.242	1R01MH119149-01	NATL INST OF MENTAL HEALTH -NIH/PHS	70,652	-		
Health and Human Services	Direct	93.242	1RF1MH117802-01	NATL INST OF MENTAL HEALTH -NIH/PHS	228,745	-		
Health and Human Services	Direct	93.242	1UG3MH114249-01	NATL INST OF MENTAL HEALTH -NIH/PHS	7,868	-		
Health and Human Services	Direct	93.242	3U01MH106660-04S1	NATL INST OF MENTAL HEALTH -NIH/PHS	128,161	-		
Health and Human Services	Direct	93.242	5R1GM1125991	NATL INST OF MENTAL HEALTH -NIH/PHS	587,767	154,957		
Health and Human Services	Direct	93.242	R00MH110665	NATL INST OF MENTAL HEALTH -NIH/PHS	42,749	-		
Health and Human Services	Direct	93.242	R01MH1108511	NATL INST OF MENTAL HEALTH -NIH/PHS	26,242	-		
Health and Human Services	Direct	93.242	R01MH111715	NATL INST OF MENTAL HEALTH -NIH/PHS	68,148	-		
Health and Human Services	Direct	93.242	R01MH112644	NATL INST OF MENTAL HEALTH -NIH/PHS	312,645	30,262		
Health and Human Services	Direct	93.242	R01MH118848	NATL INST OF MENTAL HEALTH -NIH/PHS	12,242	-		
Health and Human Services	Direct	93.242	RHD083058A	NATL INST OF MENTAL HEALTH -NIH/PHS	349,142	-		
Health and Human Services	Direct	93.242	RMH108511A	NATL INST OF MENTAL HEALTH -NIH/PHS	629,344	60,813		
Health and Human Services	Direct	93.242	RMH111276A	NATL INST OF MENTAL HEALTH -NIH/PHS	351,333	-		
Health and Human Services	Direct	93.242	RMH111604A	NATL INST OF MENTAL HEALTH -NIH/PHS	388,272	-		
Health and Human Services	Direct	93.242	RMH111715A	NATL INST OF MENTAL HEALTH -NIH/PHS	712,613	6,754		
Health and Human Services	Direct	93.242	UH3MH114249	NATL INST OF MENTAL HEALTH -NIH/PHS	332,220	220,137		
Health and Human Services	Direct	93.242	UMH106660A	NATL INST OF MENTAL HEALTH -NIH/PHS	1,607,691	1,013,188		
Health and Human Services	Direct	93.262	1U60OH010892-01A1	NATL INST OCCUP SAFETY & HEALTH -CDC	169,798	20,000		
Health and Human Services	Direct	93.262	CDC 0084660H15	NATL INST OCCUP SAFETY & HEALTH -CDC	680,086	135,470		
Health and Human Services	Direct	93.273	1R01AA026057	NATL INST ALCOHOL ABUSE & ALCOHOLISM -NIH/PHS	114,852	50,981		
Health and Human Services	Direct	93.273	1R21AA026674-01A1	NATL INST ALCOHOL ABUSE & ALCOHOLISM -NIH/PHS	36,547	-		
Health and Human Services	Direct	93.273	5R03AA024288-02	NATL INST ALCOHOL ABUSE & ALCOHOLISM -NIH/PHS	47,957	-		
Health and Human Services	Direct	93.279	1R01DA047180-01	NATL INST ON DRUG ABUSE -NIH/PHS	134,243	-		
Health and Human Services	Direct	93.279	5R25DA030310-05	NATL INST ON DRUG ABUSE -NIH/PHS	321,620	107,047		
Health and Human Services	Direct	93.279	FDA042502A	NATL INST ON DRUG ABUSE -NIH/PHS	5,908	-		
Health and Human Services	Direct	93.279	R01DA039112	NATL INST ON DRUG ABUSE -NIH/PHS	530,374	213,045		
Health and Human Services	Direct	93.279	RDA037271B	NATL INST ON DRUG ABUSE -NIH/PHS	284,920	-		
Health and Human Services	Direct	93.279	RDA039895A	NATL INST ON DRUG ABUSE -NIH/PHS	405,809	-		
Health and Human Services	Direct	93.279	RDA043501A	NATL INST ON DRUG ABUSE -NIH/PHS	276,115	-		
Health and Human Services	Direct	93.279	TD0A21129C	NATL INST ON DRUG ABUSE -NIH/PHS	8,578	-		
Health and Human Services	Direct	93.286	1R21EB023051-01A1	NATL INST BIOMEDICAL IMAGING & BIOENGINEERING -NIH/PHS	220,549	-		
Health and Human Services	Direct	93.286	2R01EB01207	NATL INST BIOMEDICAL IMAGING & BIOENGINEERING -NIH/PHS	88,909	-		
Health and Human Services	Direct	93.286	SRO0EB016753-04 Revised	NATL INST BIOMEDICAL IMAGING & BIOENGINEERING -NIH/PHS	143,713	-		
Health and Human Services	Direct	93.286	UEB018818A	NATL INST BIOMEDICAL IMAGING & BIOENGINEERING -NIH/PHS	593,830	391,878		
Health and Human Services	Direct	93.307	SU54MD011227-02S1	NATL INSTITUTE ON MINORITY HEALTH AND HEALTH DISPARITIES	110,112	-		

See notes to schedule of expenditures
of federal awards.

Schedule of Expenditures of Federal Awards (Continued)

					Year Ended June 30, 2019		
Federal Agency	Direct/ Pass-through	CFDA (Note 5)	Award Number	Grantor Name	Total Expenditures	Subaward Payments	
Research and Development Cluster							
(continued):							
Health and Human Services	Direct	93.307	UMD011227A	NATL INSTITUTE ON MINORITY HEALTH AND HEALTH DISPARITIES	\$ 2,759,207	\$ 240,506	
Health and Human Services	Direct	93.310	SUG3OD0232	NATL INST OF HEALTH - NIH/PHS	1,221,939	999,104	
Health and Human Services	Direct	93.310	DOD020320A	NATL INST OF HEALTH - NIH/PHS	293,341	-	
Health and Human Services	Direct	93.310	UH30D023285-03	NATL INST OF HEALTH - NIH/PHS	1,836,386	781,065	
Health and Human Services	Direct	93.350	7R21TR001743-02	NATL CTR ADVANCING TRANSLATIONAL SCIENCES -NIH/PHS	448,947	200,996	
Health and Human Services	Direct	93.351	5R01OD0112206-04	NATL INST CHILD HEALTH & HUMAN DEV -NIH/PHS	(520)	-	
Health and Human Services	Direct	93.351	5R24OD012221-15 Revised	NATL INST CHILD HEALTH & HUMAN DEV -NIH/PHS	(2,038)	-	
Health and Human Services	Direct	93.351	R0D012091D	NATL INST CHILD HEALTH & HUMAN DEV -NIH/PHS	66,500	-	
Health and Human Services	Direct	93.351	R0D012221E	NATL INST CHILD HEALTH & HUMAN DEV -NIH/PHS	1	-	
Health and Human Services	Direct	93.351	R0D016534A	NATL INST CHILD HEALTH & HUMAN DEV -NIH/PHS	294,690	68,202	
Health and Human Services	Direct	93.361	1R21NR015589-01A1	NATL INSTITUTE OF NURSING RESEARCH -NIH/PHS	141,369	32,838	
Health and Human Services	Direct	93.361	7R01NR014484-04	NATL INSTITUTE OF NURSING RESEARCH -NIH/PHS	78,281	18,320	
Health and Human Services	Direct	93.361	R00NR017191	NATL INSTITUTE OF NURSING RESEARCH -NIH/PHS	42,012	-	
Health and Human Services	Direct	93.393	1R01CA225105	NATL CANCER INSTITUTE -NIH/PHS	304,341	-	
Health and Human Services	Direct	93.393	1R01CA226690-01A1	NATL CANCER INSTITUTE -NIH/PHS	10,134	-	
Health and Human Services	Direct	93.393	1R21CA226579-01A1	NATL CANCER INSTITUTE -NIH/PHS	97,510	-	
Health and Human Services	Direct	93.393	5R00CA177868-03	NATL CANCER INSTITUTE -NIH/PHS	39,552	-	
Health and Human Services	Direct	93.393	RCA1750888	NATL CANCER INSTITUTE -NIH/PHS	14,925	-	
Health and Human Services	Direct	93.394	7R01CA135650-09	NATL CANCER INSTITUTE -NIH/PHS	571,197	329,076	
Health and Human Services	Direct	93.394	7R01CA182043-04	NATL CANCER INSTITUTE -NIH/PHS	611,740	-	
Health and Human Services	Direct	93.395	1R21CA216867-01A1	NATL CANCER INSTITUTE -NIH/PHS	139,274	-	
Health and Human Services	Direct	93.395	1R21CA240875-01	NATL CANCER INSTITUTE -NIH/PHS	13,202	-	
Health and Human Services	Direct	93.395	RCA193706A	NATL CANCER INSTITUTE -NIH/PHS	653,094	229,901	
Health and Human Services	Direct	93.396	7R01CA197398	NATL CANCER INSTITUTE -NIH/PHS	505,186	242,524	
Health and Human Services	Direct	93.396	R01CA172895	NATL CANCER INSTITUTE -NIH/PHS	367,672	164,071	
Health and Human Services	Direct	93.396	RCA188305A	NATL CANCER INSTITUTE -NIH/PHS	264,890	-	
Health and Human Services	Direct	93.398	1F31CA232555-01	NATL CANCER INSTITUTE -NIH/PHS	25,148	-	
Health and Human Services	Direct	93.398	5K22CA188149-03	NATL CANCER INSTITUTE -NIH/PHS	21,767	-	
Health and Human Services	Direct	93.398	5T32OD011167-14	NATL CANCER INSTITUTE -NIH/PHS	19,933	-	
Health and Human Services	Direct	93.398	5T32OD011167-15	NATL CANCER INSTITUTE -NIH/PHS	44,540	-	
Health and Human Services	Direct	93.398	FCA212221A	NATL CANCER INSTITUTE -NIH/PHS	4,826	-	
Health and Human Services	Direct	93.837	1F31HL143937-01	NATL HEART LUNG BLOOD INST -NIH/PHS	23,788	-	
Health and Human Services	Direct	93.837	2R25HL108864-06A1	NATL HEART LUNG BLOOD INST -NIH/PHS	206,304	-	
Health and Human Services	Direct	93.837	4R00HL121073-03	NATL HEART LUNG BLOOD INST -NIH/PHS	194,256	-	
Health and Human Services	Direct	93.837	5R00HL121160-05	NATL HEART LUNG BLOOD INST -NIH/PHS	269,578	-	
Health and Human Services	Direct	93.837	5R01HL117847-03	NATL HEART LUNG BLOOD INST -NIH/PHS	129,106	-	
Health and Human Services	Direct	93.837	7K01HL135464-03	NATL HEART LUNG BLOOD INST -NIH/PHS	238,751	-	
Health and Human Services	Direct	93.837	I RHL140319A	NATL HEART LUNG BLOOD INST -NIH/PHS	12,424	-	
Health and Human Services	Direct	93.837	KHL128843A	NATL HEART LUNG BLOOD INST -NIH/PHS	156,003	-	
Health and Human Services	Direct	93.837	PHL070687C	NATL HEART LUNG BLOOD INST -NIH/PHS	381,125	-	
Health and Human Services	Direct	93.837	PHL070687C	NATL HEART LUNG BLOOD INST -NIH/PHS	225,791	-	
Health and Human Services	Direct	93.837	PHL070687C	NATL HEART LUNG BLOOD INST -NIH/PHS	196,765	-	
Health and Human Services	Direct	93.837	PHL070687C	NATL HEART LUNG BLOOD INST -NIH/PHS	168,482	-	
Health and Human Services	Direct	93.837	PHL070687C	NATL HEART LUNG BLOOD INST -NIH/PHS	118,109	-	
Health and Human Services	Direct	93.837	PHL070687C	NATL HEART LUNG BLOOD INST -NIH/PHS	97,868	-	
Health and Human Services	Direct	93.837	PHL070687C	NATL HEART LUNG BLOOD INST -NIH/PHS	43,621	-	
Health and Human Services	Direct	93.837	R56HL109327	NATL HEART LUNG BLOOD INST -NIH/PHS	48,111	-	
Health and Human Services	Direct	93.837	RHL1031568	NATL HEART LUNG BLOOD INST -NIH/PHS	96,763	-	
Health and Human Services	Direct	93.837	RHL117847A	NATL HEART LUNG BLOOD INST -NIH/PHS	(851)	-	
Health and Human Services	Direct	93.837	RHL122238	NATL HEART LUNG BLOOD INST -NIH/PHS	213,540	-	
Health and Human Services	Direct	93.837	RHL128628B	NATL HEART LUNG BLOOD INST -NIH/PHS	223,713	-	
Health and Human Services	Direct	93.837	RHL130624A	NATL HEART LUNG BLOOD INST -NIH/PHS	646,519	562,498	
Health and Human Services	Direct	93.837	RHL134841A	NATL HEART LUNG BLOOD INST -NIH/PHS	617,843	501,445	
Health and Human Services	Direct	93.837	RHL137694A	NATL HEART LUNG BLOOD INST -NIH/PHS	635,956	32,380	
				NATL INST ARTHRITIS & MUSCULOSKELETAL & SKIN DISEASES			
Health and Human Services	Direct	93.846	1F30AR071201-01A1	- NIH/PHS	39,973	-	
Health and Human Services	Direct	93.847	1R01DK108798-01A1	NATL INST DIABETES DIGESTIVE & KIDNEY DISEASES -NIH/PHS	375,874	-	
Health and Human Services	Direct	93.847	1R01DK112695	NATL INST DIABETES DIGESTIVE & KIDNEY DISEASES -NIH/PHS	248,519	-	
Health and Human Services	Direct	93.847	3R01DK108798-02S1	NATL INST DIABETES DIGESTIVE & KIDNEY DISEASES -NIH/PHS	64,247	-	
Health and Human Services	Direct	93.847	3R01DK110665-02S1	NATL INST DIABETES DIGESTIVE & KIDNEY DISEASES -NIH/PHS	92,041	-	
Health and Human Services	Direct	93.847	5R01DK073566-09	NATL INST DIABETES DIGESTIVE & KIDNEY DISEASES -NIH/PHS	14,836	-	
Health and Human Services	Direct	93.847	5R01DK101050-03	NATL INST DIABETES DIGESTIVE & KIDNEY DISEASES -NIH/PHS	(8,244)	-	
Health and Human Services	Direct	93.847	7K01DK103840-05	NATL INST DIABETES DIGESTIVE & KIDNEY DISEASES -NIH/PHS	44,775	-	
Health and Human Services	Direct	93.847	FDK107163A	NATL INST DIABETES DIGESTIVE & KIDNEY DISEASES -NIH/PHS	37,427	-	
Health and Human Services	Direct	93.847	RDK103723A	NATL INST DIABETES DIGESTIVE & KIDNEY DISEASES -NIH/PHS	559,239	47,080	
Health and Human Services	Direct	93.847	RDK103759A	NATL INST DIABETES DIGESTIVE & KIDNEY DISEASES -NIH/PHS	212,149	61,884	
Health and Human Services	Direct	93.847	RDK103808A	NATL INST DIABETES DIGESTIVE & KIDNEY DISEASES -NIH/PHS	240,288	-	
Health and Human Services	Direct	93.847	RDK105099A	NATL INST DIABETES DIGESTIVE & KIDNEY DISEASES -NIH/PHS	269,191	22,450	
Health and Human Services	Direct	93.847	RDK105468B	NATL INST DIABETES DIGESTIVE & KIDNEY DISEASES -NIH/PHS	531,987	334,510	
Health and Human Services	Direct	93.847	RDK105503B	NATL INST DIABETES DIGESTIVE & KIDNEY DISEASES -NIH/PHS	504,380	375,183	
Health and Human Services	Direct	93.847	RDK107697A	NATL INST DIABETES DIGESTIVE & KIDNEY DISEASES -NIH/PHS	451,608	37,559	
Health and Human Services	Direct	93.847	RDK110665A	NATL INST DIABETES DIGESTIVE & KIDNEY DISEASES -NIH/PHS	392,608	58,901	
Health and Human Services	Direct	93.847	RDK111475A	NATL INST DIABETES DIGESTIVE & KIDNEY DISEASES -NIH/PHS	355,996	-	
Health and Human Services	Direct	93.853	1R01NS104306-01	NATL INST NEURO DISORDERS & STROKE -NIH/PHS	298,970	-	
Health and Human Services	Direct	93.853	1R01NS107451-01A1	NATL INST NEURO DISORDERS & STROKE -NIH/PHS	122,726	-	
Health and Human Services	Direct	93.853	1R21NS099416-01A1	NATL INST NEURO DISORDERS & STROKE -NIH/PHS	36,416	14,756	
Health and Human Services	Direct	93.853	1R21NS099632-01	NATL INST NEURO DISORDERS & STROKE -NIH/PHS	82,882	-	
Health and Human Services	Direct	93.853	5R00NS096108	NATL INST NEURO DISORDERS & STROKE -NIH/PHS	160,885	-	
Health and Human Services	Direct	93.853	5R03NS095202-02	NATL INST NEURO DISORDERS & STROKE -NIH/PHS	(1,621)	-	
Health and Human Services	Direct	93.853	5R21NS090107-02	NATL INST NEURO DISORDERS & STROKE -NIH/PHS	(844)	-	
Health and Human Services	Direct	93.853	5R21NS094900-02 Revised	NATL INST NEURO DISORDERS & STROKE -NIH/PHS	33,173	-	
Health and Human Services	Direct	93.853	5R21NS096637-02	NATL INST NEURO DISORDERS & STROKE -NIH/PHS	271,183	227,204	
Health and Human Services	Direct	93.853	5R21NS098079-02	NATL INST NEURO DISORDERS & STROKE -NIH/PHS	118,313	80,104	
Health and Human Services	Direct	93.853	FNS090866A	NATL INST NEURO DISORDERS & STROKE -NIH/PHS	17,895	-	
Health and Human Services	Direct	93.853	R01NS105826	NATL INST NEURO DISORDERS & STROKE -NIH/PHS	147,399	-	
Health and Human Services	Direct	93.853	R01NS110398	NATL INST NEURO DISORDERS & STROKE -NIH/PHS	236,383	-	
Health and Human Services	Direct	93.853	R21NS098173-S1	NATL INST NEURO DISORDERS & STROKE -NIH/PHS	56,286	-	
Health and Human Services	Direct	93.853	R33NS099416	NATL INST NEURO DISORDERS & STROKE -NIH/PHS	302,202	16,904	
Health and Human Services	Direct	93.853	RNS045195D	NATL INST NEURO DISORDERS & STROKE -NIH/PHS	274,000	-	
Health and Human Services	Direct	93.853	RNS072171C	NATL INST NEURO DISORDERS & STROKE -NIH/PHS	217,850	17,330	
Health and Human Services	Direct	93.853	RNS090989A	NATL INST NEURO DISORDERS & STROKE -NIH/PHS	310,413	-	
Health and Human Services	Direct	93.853	RNS094460A	NATL INST NEURO DISORDERS & STROKE -NIH/PHS	503,667	300,470	
Health and Human Services	Direct	93.853	RNS095656A (P)	NATL INST NEURO DISORDERS & STROKE -NIH/PHS	776	-	
Health and Human Services	Direct	93.853	RNS098173A	NATL INST NEURO DISORDERS & STROKE -NIH/PHS	40,690	-	
Health and Human Services	Direct	93.853	RNS098231A	NATL INST NEURO DISORDERS & STROKE -NIH/PHS	639,176	4,959	
Health and Human Services	Direct	93.853	RNS105888A	NATL INST NEURO DISORDERS & STROKE -NIH/PHS	400,504	92,801	
Health and Human Services	Direct	93.853	TNS044928C	NATL INST NEURO DISORDERS & STROKE -NIH/PHS	7,333	-	

See notes to schedule of expenditures of federal awards.

Schedule of Expenditures of Federal Awards (Continued)

					Year Ended June 30, 2019	
Federal Agency	Direct/ Pass-through	CFDA (Note 5)	Award Number	Grantor Name	Total Expenditures	Subaward Payments
Research and Development Cluster						
(continued):						
Health and Human Services	Direct	93.853	TNS044928C	NATL INST NEURO DISORDERS & STROKE -NIH/PHS	\$ (8,205)	\$ -
Health and Human Services	Direct	93.855	1R01AI121178-01A1	NATL INST OF ALLERGY & INFEC DISEASE -NIH/PHS	132,107	-
Health and Human Services	Direct	93.855	1R01AI121178-01A1	NATL INST OF ALLERGY & INFEC DISEASE -NIH/PHS	125,270	-
Health and Human Services	Direct	93.855	1R01AI147634-01	NATL INST OF ALLERGY & INFEC DISEASE -NIH/PHS	1,789	-
Health and Human Services	Direct	93.855	1R21AI138707-01	NATL INST OF ALLERGY & INFEC DISEASE -NIH/PHS	62,750	-
Health and Human Services	Direct	93.855	1R21AI138707-01	NATL INST OF ALLERGY & INFEC DISEASE -NIH/PHS	63,830	-
Health and Human Services	Direct	93.855	1R21AI140413-01A1	NATL INST OF ALLERGY & INFEC DISEASE -NIH/PHS	121,890	-
Health and Human Services	Direct	93.855	1R21AI144395-01	NATL INST OF ALLERGY & INFEC DISEASE -NIH/PHS	14,062	-
Health and Human Services	Direct	93.855	1R21AI144395-01	NATL INST OF ALLERGY & INFEC DISEASE -NIH/PHS	8,530	-
Health and Human Services	Direct	93.855	1R21AI144504-01	NATL INST OF ALLERGY & INFEC DISEASE -NIH/PHS	34,984	-
Health and Human Services	Direct	93.855	1U01AI126610-01	NATL INST OF ALLERGY & INFEC DISEASE -NIH/PHS	(39)	-
Health and Human Services	Direct	93.855	4R01AI048758-17	NATL INST OF ALLERGY & INFEC DISEASE -NIH/PHS	32,999	-
Health and Human Services	Direct	93.855	5R01AI113257-04	NATL INST OF ALLERGY & INFEC DISEASE -NIH/PHS	236,605	38,377
Health and Human Services	Direct	93.855	5R01AI120189-03	NATL INST OF ALLERGY & INFEC DISEASE -NIH/PHS	227,012	-
Health and Human Services	Direct	93.855	5R21AI111192-03	NATL INST OF ALLERGY & INFEC DISEASE -NIH/PHS	143,196	-
Health and Human Services	Direct	93.855	5R21AI121748-02	NATL INST OF ALLERGY & INFEC DISEASE -NIH/PHS	82,369	-
Health and Human Services	Direct	93.855	5R21AI122808-02	NATL INST OF ALLERGY & INFEC DISEASE -NIH/PHS	42,675	-
Health and Human Services	Direct	93.855	5R21AI122863-02	NATL INST OF ALLERGY & INFEC DISEASE -NIH/PHS	52,318	-
Health and Human Services	Direct	93.855	5R21AI126359-02	NATL INST OF ALLERGY & INFEC DISEASE -NIH/PHS	125,778	-
Health and Human Services	Direct	93.855	5R21AI17018-02	NATL INST OF ALLERGY & INFEC DISEASE -NIH/PHS	64,597	-
Health and Human Services	Direct	93.855	5R37AI021884 - 32	NATL INST OF ALLERGY & INFEC DISEASE -NIH/PHS	124,818	-
Health and Human Services	Direct	93.855	R01AI047153-16A1	NATL INST OF ALLERGY & INFEC DISEASE -NIH/PHS	270,563	-
Health and Human Services	Direct	93.855	R01AI139039	NATL INST OF ALLERGY & INFEC DISEASE -NIH/PHS	98,873	-
Health and Human Services	Direct	93.855	R21AI138345	NATL INST OF ALLERGY & INFEC DISEASE -NIH/PHS	80,677	-
Health and Human Services	Direct	93.855	R21AI142517	NATL INST OF ALLERGY & INFEC DISEASE -NIH/PHS	83,843	-
Health and Human Services	Direct	93.855	RAI047153D	NATL INST OF ALLERGY & INFEC DISEASE -NIH/PHS	6,781	-
Health and Human Services	Direct	93.855	RAI116605A	NATL INST OF ALLERGY & INFEC DISEASE -NIH/PHS	438,615	70,281
Health and Human Services	Direct	93.855	RAI117018A	NATL INST OF ALLERGY & INFEC DISEASE -NIH/PHS	39,856	-
Health and Human Services	Direct	93.855	RAI130554A	NATL INST OF ALLERGY & INFEC DISEASE -NIH/PHS	20,963	-
Health and Human Services	Direct	93.855	RAI133094A	NATL INST OF ALLERGY & INFEC DISEASE -NIH/PHS	151,643	75,600
Health and Human Services	Direct	93.855	RAI139074A	NATL INST OF ALLERGY & INFEC DISEASE -NIH/PHS	59,781	-
Health and Human Services	Direct	93.855	RAI140258A	NATL INST OF ALLERGY & INFEC DISEASE -NIH/PHS	32,232	5,487
Health and Human Services	Direct	93.855	RAI21178A	NATL INST OF ALLERGY & INFEC DISEASE -NIH/PHS	392,778	-
Health and Human Services	Direct	93.855	UAI089683C	NATL INST OF ALLERGY & INFEC DISEASE -NIH/PHS	1,592,939	1,112,971
Health and Human Services	Direct	93.855	UAI126610A	NATL INST OF ALLERGY & INFEC DISEASE -NIH/PHS	1,548,451	1,248,412
Health and Human Services	Direct	93.859	1F30GM123632-01A1	NATL INST GENERAL MEDICAL SCIENCES -NIH/PHS	41,266	-
Health and Human Services	Direct	93.859	1R01GM121499	NATL INST GENERAL MEDICAL SCIENCES -NIH/PHS	281,818	-
Health and Human Services	Direct	93.859	1R01GM124137	NATL INST GENERAL MEDICAL SCIENCES -NIH/PHS	388,977	-
Health and Human Services	Direct	93.859	1R01GM125743-01	NATL INST GENERAL MEDICAL SCIENCES -NIH/PHS	309,991	-
Health and Human Services	Direct	93.859	1R01GM127431-01	NATL INST GENERAL MEDICAL SCIENCES -NIH/PHS	283,531	24,842
Health and Human Services	Direct	93.859	1R25GM116761	NATL INST GENERAL MEDICAL SCIENCES -NIH/PHS	188,069	-
Health and Human Services	Direct	93.859	1R35GM126948-01	NATL INST GENERAL MEDICAL SCIENCES -NIH/PHS	317,783	-
Health and Human Services	Direct	93.859	1R35GM128765-01	NATL INST GENERAL MEDICAL SCIENCES -NIH/PHS	227,961	-
Health and Human Services	Direct	93.859	2T32GM092715-08	NATL INST GENERAL MEDICAL SCIENCES -NIH/PHS	155,009	-
Health and Human Services	Direct	93.859	4R01GM100908-05	NATL INST GENERAL MEDICAL SCIENCES -NIH/PHS	63,264	-
Health and Human Services	Direct	93.859	4R01GM101353 - 04	NATL INST GENERAL MEDICAL SCIENCES -NIH/PHS	14,764	-
Health and Human Services	Direct	93.859	5R01GM026916-35	NATL INST GENERAL MEDICAL SCIENCES -NIH/PHS	81	-
Health and Human Services	Direct	93.859	5R01GM084953-08	NATL INST GENERAL MEDICAL SCIENCES -NIH/PHS	180,529	-
Health and Human Services	Direct	93.859	5R01GM101219-06	NATL INST GENERAL MEDICAL SCIENCES -NIH/PHS	204,597	-
Health and Human Services	Direct	93.859	5R01GM101386-04	NATL INST GENERAL MEDICAL SCIENCES -NIH/PHS	41	-
Health and Human Services	Direct	93.859	5R01GM104009-04	NATL INST GENERAL MEDICAL SCIENCES -NIH/PHS	548,100	-
Health and Human Services	Direct	93.859	5R01GM110195-03	NATL INST GENERAL MEDICAL SCIENCES -NIH/PHS	12,472	-
Health and Human Services	Direct	93.859	5R25GM115335	NATL INST GENERAL MEDICAL SCIENCES -NIH/PHS	21,342	-
Health and Human Services	Direct	93.859	5R25GM115335-03	NATL INST GENERAL MEDICAL SCIENCES -NIH/PHS	66,327	12,268
Health and Human Services	Direct	93.859	5T32GM092715-07	NATL INST GENERAL MEDICAL SCIENCES -NIH/PHS	17,708	-
Health and Human Services	Direct	93.859	5T32GM110523-04	NATL INST GENERAL MEDICAL SCIENCES -NIH/PHS	37,718	-
Health and Human Services	Direct	93.859	5T32GM110523-05	NATL INST GENERAL MEDICAL SCIENCES -NIH/PHS	144,049	-
Health and Human Services	Direct	93.859	7F32GM128283-02	NATL INST GENERAL MEDICAL SCIENCES -NIH/PHS	2,096	-
Health and Human Services	Direct	93.859	R00GM120386	NATL INST GENERAL MEDICAL SCIENCES -NIH/PHS	294,900	-
Health and Human Services	Direct	93.859	R01 GM129004	NATL INST GENERAL MEDICAL SCIENCES -NIH/PHS	90,725	-
Health and Human Services	Direct	93.859	R01GM043585	NATL INST GENERAL MEDICAL SCIENCES -NIH/PHS	472,507	-
Health and Human Services	Direct	93.859	R01GM122085	NATL INST GENERAL MEDICAL SCIENCES -NIH/PHS	74,339	-
Health and Human Services	Direct	93.859	R01GM125991	NATL INST GENERAL MEDICAL SCIENCES -NIH/PHS	273,523	39,671
Health and Human Services	Direct	93.859	R01GM125991	NATL INST GENERAL MEDICAL SCIENCES -NIH/PHS	35,313	-
Health and Human Services	Direct	93.859	R01GM126189	NATL INST GENERAL MEDICAL SCIENCES -NIH/PHS	19,379	-
Health and Human Services	Direct	93.859	R01GM130794	NATL INST GENERAL MEDICAL SCIENCES -NIH/PHS	328,747	-
Health and Human Services	Direct	93.859	R01GM131398	NATL INST GENERAL MEDICAL SCIENCES -NIH/PHS	79,441	-
Health and Human Services	Direct	93.859	R01GM131398	NATL INST GENERAL MEDICAL SCIENCES -NIH/PHS	12,362	-
Health and Human Services	Direct	93.859	RGM063188D	NATL INST GENERAL MEDICAL SCIENCES -NIH/PHS	304,521	-
Health and Human Services	Direct	93.859	RGM072667D	NATL INST GENERAL MEDICAL SCIENCES -NIH/PHS	130,289	81,343
Health and Human Services	Direct	93.859	RGM094534B	NATL INST GENERAL MEDICAL SCIENCES -NIH/PHS	422,296	175,290
Health and Human Services	Direct	93.859	RGM101038B	NATL INST GENERAL MEDICAL SCIENCES -NIH/PHS	348,835	31,658
Health and Human Services	Direct	93.859	RGM108593A	NATL INST GENERAL MEDICAL SCIENCES -NIH/PHS	153,620	32,263
Health and Human Services	Direct	93.859	RGM109259A	NATL INST GENERAL MEDICAL SCIENCES -NIH/PHS	403,517	116,382
Health and Human Services	Direct	93.859	RGM109928A	NATL INST GENERAL MEDICAL SCIENCES -NIH/PHS	67,835	-
Health and Human Services	Direct	93.859	RGM110185A	NATL INST GENERAL MEDICAL SCIENCES -NIH/PHS	315,719	-
Health and Human Services	Direct	93.859	RGM110525A	NATL INST GENERAL MEDICAL SCIENCES -NIH/PHS	209,359	-
Health and Human Services	Direct	93.859	RGM115373A	NATL INST GENERAL MEDICAL SCIENCES -NIH/PHS	310,857	-
Health and Human Services	Direct	93.859	RGM115459A	NATL INST GENERAL MEDICAL SCIENCES -NIH/PHS	254,582	123,707
Health and Human Services	Direct	93.859	RGM115475A	NATL INST GENERAL MEDICAL SCIENCES -NIH/PHS	191,073	-
Health and Human Services	Direct	93.859	RGM118685A	NATL INST GENERAL MEDICAL SCIENCES -NIH/PHS	286,253	-
Health and Human Services	Direct	93.859	RGM122085A	NATL INST GENERAL MEDICAL SCIENCES -NIH/PHS	307,625	202,001
Health and Human Services	Direct	93.865	1R01HD094842-01	NATL INST CHILD HEALTH & HUMAN DEV -NIH/PHS	375,133	95,613
Health and Human Services	Direct	93.865	1R01HD098027-01	NATL INST CHILD HEALTH & HUMAN DEV -NIH/PHS	60,639	-
Health and Human Services	Direct	93.865	1R03HD097085-01-L	NATL INST CHILD HEALTH & HUMAN DEV -NIH/PHS	6,458	-
Health and Human Services	Direct	93.865	1R21HD083058-01A1	NATL INST CHILD HEALTH & HUMAN DEV -NIH/PHS	98,956	-
Health and Human Services	Direct	93.865	1R21HD090406	NATL INST CHILD HEALTH & HUMAN DEV -NIH/PHS	218,345	40,501
Health and Human Services	Direct	93.865	1T32HD087166-01	NATL INST CHILD HEALTH & HUMAN DEV -NIH/PHS	184,414	-
Health and Human Services	Direct	93.865	1T32HD087166-01	NATL INST CHILD HEALTH & HUMAN DEV -NIH/PHS	2,897	-
Health and Human Services	Direct	93.865	1T32HD087166-02	NATL INST CHILD HEALTH & HUMAN DEV -NIH/PHS	148,264	-
Health and Human Services	Direct	93.865	2R01HD042280-10A1	NATL INST CHILD HEALTH & HUMAN DEV -NIH/PHS	370,793	30,238
Health and Human Services	Direct	93.865	3R21HD088169-02S1	NATL INST CHILD HEALTH & HUMAN DEV -NIH/PHS	102,206	52,101
Health and Human Services	Direct	93.865	5R01HD064416-05	NATL INST CHILD HEALTH & HUMAN DEV -NIH/PHS	97	-
Health and Human Services	Direct	93.865	5R01HD070723-05	NATL INST CHILD HEALTH & HUMAN DEV -NIH/PHS	4,331	5,449
Health and Human Services	Direct	93.865	5R01HD072489-05	NATL INST CHILD HEALTH & HUMAN DEV -NIH/PHS	(5)	-
Health and Human Services	Direct	93.865	5R01HD072968-05 Revised	NATL INST CHILD HEALTH & HUMAN DEV -NIH/PHS	(6)	-
Health and Human Services	Direct	93.865	5R21HD085138-02	NATL INST CHILD HEALTH & HUMAN DEV -NIH/PHS	58,405	16,332

See notes to schedule of expenditures
of federal awards.

Schedule of Expenditures of Federal Awards (Continued)

					Year Ended June 30, 2019	
Federal Agency	Direct/ Pass-through	CFDA (Note 5)	Award Number	Grantor Name	Total Expenditures	Subaward Payments
Research and Development Cluster						
(continued):						
Health and Human Services	Direct	93.865	R00HD084759	NATL INST CHILD HEALTH & HUMAN DEV -NIH/PHS	\$ 185,526	\$ -
Health and Human Services	Direct	93.865	R01HD095371-01	NATL INST CHILD HEALTH & HUMAN DEV -NIH/PHS	172,513	-
Health and Human Services	Direct	93.865	R03 HD09614	NATL INST CHILD HEALTH & HUMAN DEV -NIH/PHS	24,877	-
Health and Human Services	Direct	93.865	R03HD091640	NATL INST CHILD HEALTH & HUMAN DEV -NIH/PHS	57,713	4,220
Health and Human Services	Direct	93.865	RHD070723A	NATL INST CHILD HEALTH & HUMAN DEV -NIH/PHS	10,693	7,690
Health and Human Services	Direct	93.865	RHD075903A	NATL INST CHILD HEALTH & HUMAN DEV -NIH/PHS	128,537	16,823
Health and Human Services	Direct	93.865	RHD083273A	NATL INST CHILD HEALTH & HUMAN DEV -NIH/PHS	408,073	-
Health and Human Services	Direct	93.865	RHD084377A	NATL INST CHILD HEALTH & HUMAN DEV -NIH/PHS	567,129	185,177
Health and Human Services	Direct	93.865	RHD084478A	NATL INST CHILD HEALTH & HUMAN DEV -NIH/PHS	343,446	-
Health and Human Services	Direct	93.865	RHD084494A	NATL INST CHILD HEALTH & HUMAN DEV -NIH/PHS	225,934	-
Health and Human Services	Direct	93.865	RHD085990A	NATL INST CHILD HEALTH & HUMAN DEV -NIH/PHS	802,101	326,932
Health and Human Services	Direct	93.865	RHD086062B	NATL INST CHILD HEALTH & HUMAN DEV -NIH/PHS	403,412	-
Health and Human Services	Direct	93.865	RHD088169A	NATL INST CHILD HEALTH & HUMAN DEV -NIH/PHS	179,849	102,557
Health and Human Services	Direct	93.865	RHD091429A	NATL INST CHILD HEALTH & HUMAN DEV -NIH/PHS	196,113	-
Health and Human Services	Direct	93.865	RHD093334A	NATL INST CHILD HEALTH & HUMAN DEV -NIH/PHS	705,865	437,843
Health and Human Services	Direct	93.866	1 R01 AG 062217-01	NATL INST ON AGING -NIH/PHS	269,887	-
Health and Human Services	Direct	93.866	1R01AG062435-01	NATL INST ON AGING -NIH/PHS	6,036	-
Health and Human Services	Direct	93.866	1RA56AG0523328-01A1	NATL INST ON AGING -NIH/PHS	79,777	73,242
Health and Human Services	Direct	93.866	5K01AG043417-03	NATL INST ON AGING -NIH/PHS	76,024	-
Health and Human Services	Direct	93.866	5R01AG040715-05	NATL INST ON AGING -NIH/PHS	19,393	-
Health and Human Services	Direct	93.866	5R21AG051820-02	NATL INST ON AGING -NIH/PHS	65,945	46,597
Health and Human Services	Direct	93.866	5R21AG053581-02	NATL INST ON AGING -NIH/PHS	179,173	-
Health and Human Services	Direct	93.866	7R01AG051500-3	NATL INST ON AGING -NIH/PHS	717,181	263,547
Health and Human Services	Direct	93.866	R01AG060731	NATL INST ON AGING -NIH/PHS	63,223	-
Health and Human Services	Direct	93.866	R21AG054960	NATL INST ON AGING -NIH/PHS	381,881	43,089
Health and Human Services	Direct	93.866	R21AG057951	NATL INST ON AGING -NIH/PHS	145,119	-
Health and Human Services	Direct	93.866	RAG044372A	NATL INST ON AGING -NIH/PHS	255,104	30,950
Health and Human Services	Direct	93.866	RAG054705A	NATL INST ON AGING -NIH/PHS	67,050	-
Health and Human Services	Direct	93.867	1F32EY028426-01A1	NATL EYE INSTITUTE -NIH/PHS	60,159	-
Health and Human Services	Direct	93.867	2T35OD016477-16	NATL EYE INSTITUTE -NIH/PHS	50,436	-
Health and Human Services	Direct	93.867	4R01EY022727-05	NATL EYE INSTITUTE -NIH/PHS	(6,485)	-
Health and Human Services	Direct	93.867	5R01EY016077	NATL EYE INSTITUTE -NIH/PHS	20,281	-
Health and Human Services	Direct	93.867	5T35OD016477-17	NATL EYE INSTITUTE -NIH/PHS	41,515	-
Health and Human Services	Direct	93.867	FEY030029A	NATL EYE INSTITUTE -NIH/PHS	12,876	-
Health and Human Services	Direct	93.867	REY016077C	NATL EYE INSTITUTE -NIH/PHS	383,921	54,019
Health and Human Services	Direct	93.867	REY025752A	NATL EYE INSTITUTE -NIH/PHS	709,836	199,565
Health and Human Services	Direct	93.867	REY027285A	NATL EYE INSTITUTE -NIH/PHS	1,470,703	735,264
Health and Human Services	Direct	93.867	REY028049A	NATL EYE INSTITUTE -NIH/PHS	389,471	-
Health and Human Services	Direct	93.879	RLM012848A	NATIONAL LIBRARY OF MEDICINE - NIH/PHS	230,209	-
Health and Human Services	Direct	93.989	1R21TW010896	FOGARTY INTERNATIONAL CENTER - NIH/PHS	189,858	145,851
Direct Total					72,346,683	15,907,238
Health and Human Services	Pass-through	93	BCHS/MSU FY19	MICH DEPT OF LICENSING & REGULATORY AFFAIRS	244,209	81,110
Health and Human Services	Pass-through	93	E1A11	NRG ONCOLOGY	1,815	-
Health and Human Services	Pass-through	93.000	E20192723-00-AI	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	235,726	-
Health and Human Services	Pass-through	93.000	E20192772-00-AH	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	370,613	-
Health and Human Services	Pass-through	93	NCT02775383	NRG ONCOLOGY	19,711	-
Health and Human Services	Pass-through	93	PROTOCOL S1207	NRG ONCOLOGY	288	-
Health and Human Services	Pass-through	93	R43AG060886	HESPEROS INC	14,875	-
Health and Human Services	Pass-through	93	S1418/BR006	NRG ONCOLOGY	5,245	-
Health and Human Services	Pass-through	93.001	B-43	NRG ONCOLOGY	1,003	-
Health and Human Services	Pass-through	93.001	CLINICAL TRIAL	SOUTHWEST ONCOLOGY GROUP	51,123	-
Health and Human Services	Pass-through	93.070	E20180657-00-1	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	11,953	-
Health and Human Services	Pass-through	93.070	E20191311-00-1	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	23,569	-
Health and Human Services	Pass-through	93.077	114970-5101334	HARVARD UNIVERSITY	14,450	-
Health and Human Services	Pass-through	93.084	723K866	UNIVERSITY OF WISCONSIN	345,090	-
Health and Human Services	Pass-through	93.110	SUBK00009095	UNIVERSITY OF MICHIGAN	2,554	-
Health and Human Services	Pass-through	93.113	10009736-MSU01	BOWLING GREEN UNIVERSITY	15,767	-
Health and Human Services	Pass-through	93.113	1009036	OREGON HEALTH SCIENCES UNIVERSITY	103,684	-
Health and Human Services	Pass-through	93.113	3004687116	UNIVERSITY OF MICHIGAN	23,231	-
Health and Human Services	Pass-through	93.113	3R8B7	UNIVERSITY OF NEW MEXICO	142,570	-
Health and Human Services	Pass-through	93.113	782K261	UNIVERSITY OF WISCONSIN - MADISON	11,800	-
Health and Human Services	Pass-through	93.113	796K305	UNIVERSITY OF WISCONSIN	37,592	24,253
Health and Human Services	Pass-through	93.113	WSU16078	WAYNE STATE UNIVERSITY	2,397	-
Health and Human Services	Pass-through	93.117	18-3637	UNIVERSITY OF SOUTH CAROLINA	61,403	-
Health and Human Services	Pass-through	93.121	576283	PENNSYLVANIA STATE UNIVERSITY	25,105	-
Health and Human Services	Pass-through	93.121	S00426-01	UNIVERSITY OF IOWA	34,365	-
Health and Human Services	Pass-through	93.121	SUBK00008454	UNIVERSITY OF MICHIGAN	61,168	-
Health and Human Services	Pass-through	93.136	WSU19004	WAYNE STATE UNIVERSITY	50,473	-
Health and Human Services	Pass-through	93.173	0044466 (125619-1)	UNIVERSITY OF PITTSBURGH	82,486	-
Health and Human Services	Pass-through	93.173	17-0491	BRIGHAM YOUNG UNIVERSITY	24,877	-
Health and Human Services	Pass-through	93.173	18-0527	BRIGHAM YOUNG UNIVERSITY	27,267	-
Health and Human Services	Pass-through	93.173	3004138691	UNIVERSITY OF MICHIGAN	324,237	-
Health and Human Services	Pass-through	93.173	3004261216	UNIVERSITY OF MICHIGAN	14,841	-
Health and Human Services	Pass-through	93.173	60051342	OHIO STATE UNIVERSITY	163,818	-
Health and Human Services	Pass-through	93.173	BL-4633518-MSU	INDIANA UNIVERSITY	76,804	-
Health and Human Services	Pass-through	93.173	VUMCS6181	VANDERBILT UNIVERSITY	3,972	-
Health and Human Services	Pass-through	93.213	00001330	BROWN UNIVERSITY	4,150	-
Health and Human Services	Pass-through	93.226	FY17.688.002	UNIVERSITY OF COLORADO - DENVER	37,289	-
Health and Human Services	Pass-through	93.226	UWSC8138	UNIVERSITY OF WASHINGTON	44,045	-
Health and Human Services	Pass-through	93.242	0255-4061-4609	MOUNT SINAI MEDICAL CENTER	52,099	-
Health and Human Services	Pass-through	93.242	18A0-00-1001852	NEW YORK UNIVERSITY SCHOOL OF MEDICINE	18,723	-
Health and Human Services	Pass-through	93.242	3003210937	UNIVERSITY OF MICHIGAN	8,386	-
Health and Human Services	Pass-through	93.242	5001421	BUTLER HOSPITAL	12,313	-
Health and Human Services	Pass-through	93.242	5110592	UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL	46,423	-
Health and Human Services	Pass-through	93.242	5-27105	SCRIPPS RESEARCH INST	12,463	-
Health and Human Services	Pass-through	93.242	5-27254	SCRIPPS RESEARCH INST	15,600	-
Health and Human Services	Pass-through	93.242	FP00004867_SA001	VIRGINIA COMMONWEALTH UNIVERSITY	20,570	-
Health and Human Services	Pass-through	93.242	Project CARE	BROWN UNIVERSITY	27,233	-
Health and Human Services	Pass-through	93.242	WSU16128	WAYNE STATE UNIVERSITY	(8)	-
Health and Human Services	Pass-through	93.243	192734-AWARE19	MICHIGAN DEPT OF EDUCATION	93,495	-
Health and Human Services	Pass-through	93.262	S00452-01	UNIVERSITY OF IOWA	7,972	-
Health and Human Services	Pass-through	93.273	9053-8349	BUTLER HOSPITAL	55,225	-
Health and Human Services	Pass-through	93.273	ORI 1R34AA024275-01	OREGON RESEARCH INSTITUTE	70,181	-
Health and Human Services	Pass-through	93.279	18-023	TEXAS MEDICAL BRANCH GALVESTON UNIV OF	108,711	-
Health and Human Services	Pass-through	93.279	19-84521	TEXAS MEDICAL BRANCH GALVESTON UNIV OF	87,078	-
Health and Human Services	Pass-through	93.279	FP00003327_SA004	VIRGINIA COMMONWEALTH UNIVERSITY	19,161	-

See notes to schedule of expenditures
of federal awards.

Schedule of Expenditures of Federal Awards (Continued)

Federal Agency	Direct/ Pass-through	CFDA (Note 5)	Award Number	Grantor Name	Year Ended June 30, 2019	
					Total Expenditures	Subaward Payments
Research and Development Cluster (continued):						
Health and Human Services	Pass-through	93.279	UTA17-000881	UNIVERSITY OF TEXAS AT AUSTIN	\$ 4,806	\$ -
Health and Human Services	Pass-through	93.286	2003719763	JOHNS HOPKINS UNIVERSITY	181,980	-
Health and Human Services	Pass-through	93.307	057063-87D5	UNIVERSITY OF NEW MEXICO	17,073	-
Health and Human Services	Pass-through	93.307	WSU17108	WAYNE STATE UNIVERSITY	21,436	-
Health and Human Services	Pass-through	93.310	5108608	UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL	26,750	-
Health and Human Services	Pass-through	93.310	5111878	UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL	77,144	-
Health and Human Services	Pass-through	93.310	68-1096430	CALIFORNIA INSTITUTE OF TECHNOLOGY	311,375	-
Health and Human Services	Pass-through	93.310	706K672	UNIVERSITY OF WISCONSIN - MADISON	31,922	-
Health and Human Services	Pass-through	93.310	SUB00001823	UNIVERSITY OF GEORGIA	28,530	-
Health and Human Services	Pass-through	93.351	4102-83615	PURDUE UNIVERSITY	2,800	-
Health and Human Services	Pass-through	93.351	App 143125	FREEZEBACK, LLC	323	-
Health and Human Services	Pass-through	93.351	U-2157208	UNIVERSITY OF OREGON	146,688	-
Health and Human Services	Pass-through	93.361	0000977827	FRED HUTCHINSON CANCER RESEARCH CENTER	2,073	-
Health and Human Services	Pass-through	93.361	0255-3001-4609	MOUNT SINAI MEDICAL CENTER	2,984	-
Health and Human Services	Pass-through	93.393	481270	ARIZONA STATE UNIVERSITY	28,679	-
Health and Human Services	Pass-through	93.394	228473	MASSACHUSETTS GENERAL HOSPITAL	12,724	-
Health and Human Services	Pass-through	93.395	233016	MASSACHUSETTS GENERAL HOSPITAL	287,100	-
Health and Human Services	Pass-through	93.395	450683	ARIZONA STATE UNIVERSITY	47,699	-
Health and Human Services	Pass-through	93.395	9500080216-13e	CHILDRENS HOSPITAL OF PHILADELPHIA	28,226	-
Health and Human Services	Pass-through	93.395	A021502	NRG ONCOLOGY	19	-
Health and Human Services	Pass-through	93.395	FP00017458 SUB40 01	CHILDRENS HOSPITAL OF PHILADELPHIA	1,983	-
Health and Human Services	Pass-through	93.397	16157	UNIVERSITY OF ILLINOIS - CHICAGO	2,022	-
Health and Human Services	Pass-through	93.397	36001068803	THE UNIVERSITY OF TEXAS MD ANDERSON CANCER CENTER	28,162	-
Health and Human Services	Pass-through	93.600	WSU17121	WAYNE STATE UNIVERSITY	31,126	-
Health and Human Services	Pass-through	93.624	E20182361-00-AL	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	210,957	-
Health and Human Services	Pass-through	93.624	E20182362-00-AM	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	219,399	-
Health and Human Services	Pass-through	93.624	E20192723-00-AI	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	112,436	-
Health and Human Services	Pass-through	93.624	E20192772-00-AH	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	76,152	-
Health and Human Services	Pass-through	93.799	E20180566-00-AA	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	176,822	113,304
Health and Human Services	Pass-through	93.810	E20180229-00-AB	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	4,125	-
Health and Human Services	Pass-through	93.810	E20180292-00-N	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	6,341	-
Health and Human Services	Pass-through	93.810	E20192091-00-L	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	18,208	-
Health and Human Services	Pass-through	93.810	E20192184-00-Y	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	23,725	-
Health and Human Services	Pass-through	93.837	0001531091	CEDARS SINAI HEALTH SYSTEM	19,276	-
Health and Human Services	Pass-through	93.837	3004463783	UNIVERSITY OF MICHIGAN	217,908	-
Health and Human Services	Pass-through	93.837	3004463783	UNIVERSITY OF MICHIGAN	70,188	-
Health and Human Services	Pass-through	93.837	3004463783	UNIVERSITY OF MICHIGAN	(50,291)	-
Health and Human Services	Pass-through	93.837	3200001401-18-026	UNIVERSITY OF KENTUCKY	136,690	-
Health and Human Services	Pass-through	93.837	N003631001	UNIVERSITY OF MINNESOTA	16,795	-
Health and Human Services	Pass-through	93.837	OOS100311-MSU	KAISER PERMANENTE	14,796	-
Health and Human Services	Pass-through	93.837	WSU15107	WAYNE STATE UNIVERSITY	8,052	-
Health and Human Services	Pass-through	93.837	WU-19-133	WASHINGTON UNIVERSITY IN ST LOUIS	73,092	-
Health and Human Services	Pass-through	93.838	540544	UNIVERSITY OF MEMPHIS	86,041	-
Health and Human Services	Pass-through	93.838	540544	UNIVERSITY OF MEMPHIS	483	-
Health and Human Services	Pass-through	93.846	000514824-SP004-SC003	UNIVERSITY OF ALABAMA BIRMINGHAM	18,608	-
Health and Human Services	Pass-through	93.847	3003071149	UNIVERSITY OF MICHIGAN	(211)	-
Health and Human Services	Pass-through	93.847	306065	CHILDRENS HOSPITAL OF CINCINNATI	7,927	-
Health and Human Services	Pass-through	93.847	60069375	OHIO STATE UNIVERSITY	271	-
Health and Human Services	Pass-through	93.847	MD-15-A0-00-003649-01	NEW YORK UNIVERSITY SCHOOL OF MEDICINE	22,522	-
Health and Human Services	Pass-through	93.847	MD-17-A1-00-007381-01	NEW YORK UNIVERSITY SCHOOL OF MEDICINE	24,399	-
Health and Human Services	Pass-through	93.847	SUBK00010651	MDRC	16,984	-
Health and Human Services	Pass-through	93.853	1(GG015025-01)	COLUMBIA UNIVERSITY	23,511	-
Health and Human Services	Pass-through	93.853	3004548920	UNIVERSITY OF MICHIGAN	29,334	-
Health and Human Services	Pass-through	93.853	416854	UNIVERSITY OF ROCHESTER	11,212	-
Health and Human Services	Pass-through	93.853	417168	UNIVERSITY OF ROCHESTER	43,322	-
Health and Human Services	Pass-through	93.853	60036745	NORTHWESTERN UNIVERSITY	2,951	-
Health and Human Services	Pass-through	93.853	7000000711	BAYLOR COLLEGE OF MEDICINE	50,416	-
Health and Human Services	Pass-through	93.853	7357	UNIVERSITY OF ILLINOIS - CHICAGO	305,343	-
Health and Human Services	Pass-through	93.853	PG18-61028-01	UNIVERSITY OF MONTANA	821	-
Health and Human Services	Pass-through	93.853	PG19-61068-01	UNIVERSITY OF MONTANA	33,129	-
Health and Human Services	Pass-through	93.853	PSG 186	MASSACHUSETTS GENERAL HOSPITAL	7,294	-
Health and Human Services	Pass-through	93.853	V3535-1	VAN ANDEL RESEARCH INSTITUTE	2,302	-
Health and Human Services	Pass-through	93.855	151062	UNIVERSITY OF PRETORIA	12	-
Health and Human Services	Pass-through	93.855	2(GG011631-02)	COLUMBIA UNIVERSITY	17,764	-
Health and Human Services	Pass-through	93.855	2(GG011631-02)	COLUMBIA UNIVERSITY	2,419	-
Health and Human Services	Pass-through	93.855	2R44A112164-03A1-MSU	VISIONQUEST BIOMEDICAL, LLC	(12)	-
Health and Human Services	Pass-through	93.855	2R44A112164-05	VISIONQUEST BIOMEDICAL, LLC	10,165	-
Health and Human Services	Pass-through	93.855	3200000654-17-016	UNIVERSITY OF KENTUCKY	12,941	-
Health and Human Services	Pass-through	93.855	TSRL R41A1143098-01A1	THERAPEUTIC SYSTEMS RESEARCH LABORATORIES INC	6,974	-
Health and Human Services	Pass-through	93.855	U-540478	UNIVERSITY OF MEMPHIS	111,631	-
Health and Human Services	Pass-through	93.855	VUMC63296	VANDERBILT UNIVERSITY	138,737	-
Health and Human Services	Pass-through	93.859	00020791	QUANTUMBI, INC.	23,158	-
Health and Human Services	Pass-through	93.859	0051314 (126984-2)	UNIVERSITY OF PITTSBURGH	64,056	-
Health and Human Services	Pass-through	93.859	0056117(129070-1)	UNIVERSITY OF PITTSBURGH	10,079	-
Health and Human Services	Pass-through	93.859	4500002876	BOSTON UNIVERSITY	9,642	-
Health and Human Services	Pass-through	93.859	60067850	OHIO STATE UNIVERSITY	40,278	-
Health and Human Services	Pass-through	93.859	F63600	CENTRAL MICHIGAN UNIVERSITY	8,234	-
Health and Human Services	Pass-through	93.859	SP00013312-01	GEORGIA STATE UNIV	70,861	-
Health and Human Services	Pass-through	93.865	5112242	UNIVERSITY OF NORTH CAROLINA	18,259	-
Health and Human Services	Pass-through	93.865	9922sc	CALIFORNIA AT SAN FRANCISCO - UNIV OF	65,064	-
Health and Human Services	Pass-through	93.865	GC-10075-00-05	DARTMOUTH HITCHCOCK MEDICAL CENTER	14,921	-
Health and Human Services	Pass-through	93.865	R-16-0019	UNIVERSITY OF HOUSTON	5,224	-
Health and Human Services	Pass-through	93.865	R866	TRUSTEES OF DARTMOUTH COLLEGE	10,790	-
Health and Human Services	Pass-through	93.865	RNG200543-02 (2680-2828)	KAISER PERMANENTE	13,078	-
Health and Human Services	Pass-through	93.865	SUBK00010325	UNIVERSITY OF MICHIGAN	10,666	-
Health and Human Services	Pass-through	93.865	VUMC67407	VANDERBILT UNIVERSITY	95,014	-
Health and Human Services	Pass-through	93.865	WU-15-394	WASHINGTON UNIVERSITY IN ST LOUIS	50,598	-
Health and Human Services	Pass-through	93.865	ZAC000A0	UNIV OF KANSAS MEDICAL CENTER RESEARCH INST INC	8,145	-
Health and Human Services	Pass-through	93.866	00326063	CAYMAN CHEMICAL CO INC	118,099	-
Health and Human Services	Pass-through	93.866	1032114-MSU	DIGNITY HEALTH	193,026	-
Health and Human Services	Pass-through	93.866	160236	UNIV OF TEXAS SOUTHWESTERN MED	115,495	-
Health and Human Services	Pass-through	93.866	207041-02	GRAND VALLEY STATE UNIVERSITY	34,369	-
Health and Human Services	Pass-through	93.866	207042-01	GRAND VALLEY STATE UNIVERSITY	13,203	-
Health and Human Services	Pass-through	93.866	3003090374	UNIVERSITY OF MICHIGAN	80,732	-
Health and Human Services	Pass-through	93.866	3004127215	UNIVERSITY OF MICHIGAN	40,752	-
Health and Human Services	Pass-through	93.866	3004127215	UNIVERSITY OF MICHIGAN	(2,301)	-
Health and Human Services	Pass-through	93.866	3004657721	UNIVERSITY OF MICHIGAN	1,932	-

See notes to schedule of expenditures
of federal awards.

Schedule of Expenditures of Federal Awards (Continued)

					Year Ended June 30, 2019	
Federal Agency	Direct/ Pass-through	CFDA (Note 5)	Award Number	Grantor Name	Total Expenditures	Subaward Payments
Research and Development Cluster						
(continued):						
Health and Human Services	Pass-through	93.866	6118-1080-00-A	SOUTH UNIVERSITY OF FLORIDA	\$ 100,048	\$ -
Health and Human Services	Pass-through	93.866	F-1136054-76472	RESEARCH FOUNDATION OF S.U.N.Y.	16,240	-
Health and Human Services	Pass-through	93.866	FY2019-089	UNIV OF KANSAS MEDICAL CENTER RESEARCH INST INC	7,589	-
Health and Human Services	Pass-through	93.866	GMO 181212	UNIVERSITY OF TEXAS SOUTHWESTERN MEDICAL CENTER	51,070	-
Health and Human Services	Pass-through	93.866	H-1R44AG058330-01	HESPEROS INC	89,484	-
Health and Human Services	Pass-through	93.866	S-1R41AH058283-01	STARWISE THERAPEUTICS, LLC	179,464	-
Health and Human Services	Pass-through	93.866	SUBK00007878	UNIVERSITY OF MICHIGAN	20,987	-
Health and Human Services	Pass-through	93.866	SUBK00007878	UNIVERSITY OF MICHIGAN	19,995	-
Health and Human Services	Pass-through	93.866	SUBK00007878	UNIVERSITY OF MICHIGAN	7,941	-
Health and Human Services	Pass-through	93.866	SUBK00007977	UNIVERSITY OF MICHIGAN	112,833	-
Health and Human Services	Pass-through	93.866	SUBK00007977	UNIVERSITY OF MICHIGAN	20,221	-
Health and Human Services	Pass-through	93.866	SUBK00011103	UNIVERSITY OF MICHIGAN	922	-
Health and Human Services	Pass-through	93.866	UTA18-000523	UNIVERSITY OF TEXAS AT AUSTIN	14,037	-
Health and Human Services	Pass-through	93.867	000517565-003	UNIVERSITY OF ALABAMA BIRMINGHAM	138,205	-
Health and Human Services	Pass-through	93.867	000517565-003	UNIVERSITY OF ALABAMA BIRMINGHAM	632	-
Health and Human Services	Pass-through	93.867	000518070-02	UNIVERSITY OF ALABAMA BIRMINGHAM	5,515	-
Health and Human Services	Pass-through	93.867	153768	BIO TIME, INC.	254,578	-
Health and Human Services	Pass-through	93.867	4500002464	BOSTON UNIVERSITY	45,391	-
Health and Human Services	Pass-through	93.867	RESS12052	CASE WESTERN RESERVE UNIV	(8,792)	-
Health and Human Services	Pass-through	93.867	RESS13081	CASE WESTERN RESERVE UNIV	80,529	-
Health and Human Services	Pass-through	93.867	UCI-2019-3696	UNIVERSITY OF CALIFORNIA IRVINE	246,340	-
Health and Human Services	Pass-through	93.958	E20170238-00-F	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	1,258	-
Health and Human Services	Pass-through	93.958	E20180370-00-X	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	617	-
Health and Human Services	Pass-through	93.958	E20182632-00-H	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	25,883	-
Health and Human Services	Pass-through	93.958	E20182633-00-V	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	14,311	-
Health and Human Services	Pass-through	93.958	E20182634-00-AE	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	22,764	-
Health and Human Services	Pass-through	93.958	E20182635-00-AQ	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	43,330	-
Health and Human Services	Pass-through	93.958	E20191310-00-H	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	67,861	-
Health and Human Services	Pass-through	93.958	E20191314-00-S	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	51,840	-
Health and Human Services	Pass-through	93.958	E20191315-00-AA	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	43,824	-
Health and Human Services	Pass-through	93.958	E20191320-00-AP	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	118,512	-
Health and Human Services	Pass-through	93.958	E20192824-00-U	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	19,055	-
Health and Human Services	Pass-through	93.989	1600922	UNIVERSITY OF MARYLAND SCHOOL OF MEDICINE	45,608	-
Health and Human Services	Pass-through	93.989	4D43TW009639-05	FOGARTY INTL CENTER -NIH/PHS	340,267	125,515
Health and Human Services	Pass-through	93.989	KTW009654A	FOGARTY INTL CENTER -NIH/PHS	128,077	15,947
Pass-through Total					10,476,585	360,129
Health and Human Services Total					82,823,268	16,267,367
Homeland Security	Pass-through	97.061	E2042937	GEORGE MASON UNIVERSITY	105,374	20,455
Homeland Security	Pass-through	97.062	30345-29058104	UNIVERSITY OF MARYLAND	50,005	-
Homeland Security Total					155,379	20,455
Interior	Direct	15	140G0119C0009	US GEOLOGICAL SURVEY	35,684	-
Interior	Direct	15.608	F13AC00565	US FISH & WILDLIFE SERVICE	(559)	-
Interior	Direct	15.608	F17AP00582	US FISH & WILDLIFE SERVICE	44,805	-
Interior	Direct	15.608	F18AC00360	US FISH & WILDLIFE SERVICE	6,873	-
Interior	Direct	15.608	F19AP00229	US FISH & WILDLIFE SERVICE	11,662	-
Interior	Direct	15.630	F17AC00989	US FISH & WILDLIFE SERVICE	52,889	-
Interior	Direct	15.637	F14AC00225	US FISH & WILDLIFE SERVICE	(11,441)	-
Interior	Direct	15.637	F17AP00743	US FISH & WILDLIFE SERVICE	15,052	-
Interior	Direct	15.647	F14AC00397	US FISH & WILDLIFE SERVICE	611	-
Interior	Direct	15.657	F18AP00536	US FISH & WILDLIFE SERVICE	5,395	-
Interior	Direct	15.662	17AC00774	US FISH & WILDLIFE SERVICE	60,335	-
Interior	Direct	15.662	F16AC00099	US FISH & WILDLIFE SERVICE	102,106	-
Interior	Direct	15.662	F16AP00875	US FISH & WILDLIFE SERVICE	22,462	-
Interior	Direct	15.662	F18AC00566	US FISH & WILDLIFE SERVICE	50,260	18,376
Interior	Direct	15.678	F17AC00575	US FISH & WILDLIFE SERVICE	54,786	-
Interior	Direct	15.678	F17AC00981	US FISH & WILDLIFE SERVICE	14,523	-
Interior	Direct	15.805	G16AP00063	US GEOLOGICAL SURVEY	43,498	-
Interior	Direct	15.805	G17AP00031	US GEOLOGICAL SURVEY	43,037	-
Interior	Direct	15.808	16AX00421	US GEOLOGICAL SURVEY	145,030	-
Interior	Direct	15.808	G12AC20394	US GEOLOGICAL SURVEY	1,368	-
Interior	Direct	15.808	G13AC00044	US GEOLOGICAL SURVEY	(2,787)	-
Interior	Direct	15.808	G13AC00244	US GEOLOGICAL SURVEY	(2,611)	-
Interior	Direct	15.808	G13AC00284	US GEOLOGICAL SURVEY	(4)	-
Interior	Direct	15.808	G15AC00026	US GEOLOGICAL SURVEY	41,353	-
Interior	Direct	15.808	G15AC00164	US GEOLOGICAL SURVEY	(2)	-
Interior	Direct	15.808	G16AC00116	US GEOLOGICAL SURVEY	27,172	-
Interior	Direct	15.808	G16AC00116	US GEOLOGICAL SURVEY	18,702	-
Interior	Direct	15.808	G16AC00244	US GEOLOGICAL SURVEY	2,161	-
Interior	Direct	15.808	G17AC00148	US GEOLOGICAL SURVEY	83,442	-
Interior	Direct	15.808	G17AC00152	US GEOLOGICAL SURVEY	150,436	-
Interior	Direct	15.808	G17AC00273	US GEOLOGICAL SURVEY	35,316	-
Interior	Direct	15.808	G17AC00385	US GEOLOGICAL SURVEY	48,367	-
Interior	Direct	15.808	G17AC00387	US GEOLOGICAL SURVEY	48,242	-
Interior	Direct	15.808	G17AC00408	US GEOLOGICAL SURVEY	4,137	-
Interior	Direct	15.808	G18AC00105	US GEOLOGICAL SURVEY	48,569	-
Interior	Direct	15.808	G18AC00153	US GEOLOGICAL SURVEY	36,944	-
Interior	Direct	15.808	G19AC00109	US GEOLOGICAL SURVEY	3,220	-
Interior	Direct	15.808	G1AC20368	US GEOLOGICAL SURVEY	8,227	-
Interior	Direct	15.811	G14AC00321	US GEOLOGICAL SURVEY	206	-
Interior	Direct	15.811	G17AC00185	US GEOLOGICAL SURVEY	165,376	-
Interior	Direct	15.820	G15AC00351	US GEOLOGICAL SURVEY	4,450	-
Interior	Direct	15.820	G17AC00291	US GEOLOGICAL SURVEY	6,320	-
Interior	Direct	15.945	P16AC01326	NATIONAL PARK SERVICE	191,689	-
Interior	Direct	15.945	P17AC01465	NATIONAL PARK SERVICE	6,632	-
Direct Total					1,623,933	18,376
Interior	Pass-through	15.156	ITC BIA A15AV00507	INTER TRIBAL COUNCIL OF MICH	12,660	-
Interior	Pass-through	15.232	15-JV-11242313-115	USDA - FOREST SERVICE	77,427	-
Interior	Pass-through	15.232	60064793	OHIO STATE UNIVERSITY	16,155	-
Interior	Pass-through	15.615	Arkansas Darter	KANSAS DEPARTMENT OF WILDLIFE, PARKS & TOURISM	65,880	-
Interior	Pass-through	15.639	SCIT F&W F16AP00301	SAGINAW CHIPPEWA INDIAN TRIBE OF MICHIGAN	68,877	-
Interior	Pass-through	15.662	101817-1	NATURE CONSERVANCY THE	4,027	-
Interior	Pass-through	15.662	1131928-74394	RESEARCH FOUNDATION OF S.U.N.Y.	9,739	-
Interior	Pass-through	15.818	UAF19-0068	UNIVERSITY OF ALASKA	46,004	-
Interior	Pass-through	15.820	404-42-07A	IOWA STATE UNIVERSITY	4,747	-
Interior	Pass-through	15.820	App 152482	COLLEGE OF MENOMINEE NATION	12,983	-

Schedule of Expenditures of Federal Awards (Continued)

					Year Ended June 30, 2019	
Federal Agency	Direct/ Pass-through	CFDA (Note 5)	Award Number	Grantor Name	Total Expenditures	Subaward Payments
Research and Development Cluster (continued):						
Interior	Pass-through	15.945	2018-2109-01	NORTH CAROLINA STATE UNIVERSITY	\$ 6,861	\$ -
Interior	Pass-through	15.945	PG19-65888-01	UNIVERSITY OF MONTANA	41,874	-
	Pass-through Total				367,234	-
	Interior Total				1,991,167	18,376
Justice	Direct	16.026	2017-SI-AX-0002	JUSTICE US DEPT OF	116,368	10,511
Justice	Direct	16.026	2018-SI-AX-0001	JUSTICE US DEPT OF	48,608	-
Justice	Direct	16.550	2016-BJ-CX-K026	BUREAU OF JUSTICE STATISTICS	(457)	-
Justice	Direct	16.550	2017-BJ-CX-K020	BUREAU OF JUSTICE STATISTICS	106,688	-
Justice	Direct	16.550	2018-86-CX-K033	BUREAU OF JUSTICE STATISTICS	20,559	-
Justice	Direct	16.560	2013-R2-CX-0015	NATIONAL INSTITUTE OF JUSTICE	38,975	-
Justice	Direct	16.560	2014-NE-BX-0006	NATIONAL INSTITUTE OF JUSTICE	60,423	-
Justice	Direct	16.560	2015-CX-BX-0003	NATIONAL INSTITUTE OF JUSTICE	217,636	110,455
Justice	Direct	16.560	2015-CX-BX-0017	NATIONAL INSTITUTE OF JUSTICE	1,117,178	949,897
Justice	Direct	16.560	2015-DN-BX-K012	NATIONAL INSTITUTE OF JUSTICE	61,294	-
Justice	Direct	16.560	2015-DN-BX-K013	NATIONAL INSTITUTE OF JUSTICE	33,220	-
Justice	Direct	16.560	2015-DN-BX-K031	NATIONAL INSTITUTE OF JUSTICE	22,199	-
Justice	Direct	16.560	2015-DN-BX-K036	NATIONAL INSTITUTE OF JUSTICE	(3,577)	-
Justice	Direct	16.560	2015-UI-CX-K008	NATIONAL INSTITUTE OF JUSTICE	1,087	-
Justice	Direct	16.560	2015-R2-CX-K041	NATIONAL INSTITUTE OF JUSTICE	158,906	76,144
Justice	Direct	16.560	2016-R2-CX-0052	NATIONAL INSTITUTE OF JUSTICE	52,634	-
Justice	Direct	16.560	2018-DU-BX-0225	NATIONAL INSTITUTE OF JUSTICE	40,143	2,751
Justice	Direct	16.560	2018-ZD-CX-0003	NATIONAL INSTITUTE OF JUSTICE	85,523	-
Justice	Direct	16.562	2015-R2-CX-0005	NATIONAL INSTITUTE OF JUSTICE	10,894	-
Justice	Direct	16.562	2017-UI-CX-0002	NATIONAL INSTITUTE OF JUSTICE	2,145	-
Justice	Direct	16.609	2015-GP-BX-K003	BUREAU OF JUSTICE ASSISTANCE	123,546	-
Justice	Direct	16.738	2016-MU-BX-K001	BUREAU OF JUSTICE ASSISTANCE	663,768	385,852
Justice	Direct	16.738	2016-MU-BX-K001	BUREAU OF JUSTICE ASSISTANCE	6,102	-
	Direct Total				2,983,862	1,535,610
Justice	Pass-through	16	09-097CCC-MSU	WEST VIRGINIA UNIVERSITY	231,898	-
Justice	Pass-through	16	09-097III-MSU	WEST VIRGINIA UNIVERSITY	34	-
Justice	Pass-through	16	09-097JII-MSU	WEST VIRGINIA UNIVERSITY	263,564	-
Justice	Pass-through	16	09-097NN-MSU	WEST VIRGINIA UNIVERSITY	70,987	-
Justice	Pass-through	16.123	6000742	CITY OF DETROIT	29,320	-
Justice	Pass-through	16.560	19008-3125-1	TEXAS STATE UNIVERSITY	31,496	-
Justice	Pass-through	16.560	40582-Z9246101	UNIVERSITY OF MARYLAND	3,582	-
Justice	Pass-through	16.560	CM00000097-00	JOHN JAY COLLEGE	84,338	-
Justice	Pass-through	16.560	GR101771	YALE UNIVERSITY	124,859	-
Justice	Pass-through	16.575	C-32001-115-504200	MICHIGAN PUBLIC HEALTH INSTITUTE	10,736	-
Justice	Pass-through	16.575	C-32001-115-504200	MICHIGAN PUBLIC HEALTH INSTITUTE	219,647	-
Justice	Pass-through	16.609	#BFDI-153908	BLACK FAMILY DEVELOPMENT, INC.	46,724	-
Justice	Pass-through	16.662	2016-0113	MI ENVIRONMENTAL QUALITY	49,552	-
Justice	Pass-through	16.738	6001197	CITY OF DETROIT	53,018	-
Justice	Pass-through	16.738	PF 2016-VI-X-K001	POLICE FOUNDATION DBA THE NATIONAL POLICE FOUNDATION	51,891	-
Justice	Pass-through	16.751	6001224	CITY OF DETROIT	23,253	-
Justice	Pass-through	16.751	WCPO 2017-DG-BX-K012	WAYNE COUNTY	25,639	-
Justice	Pass-through	16.812	DRMM-17479-001	DETROIT RESCUE MISSION MINISTRIES	477	-
Justice	Pass-through	16.833	SAKI-15-04	MI STATE POLICE	80,652	-
	Pass-through Total				1,401,667	-
	Justice Total				4,385,529	1,535,610
Library of Congress	Direct	42.000	Home Care Aides	LIBRARY OF CONGRESS	11,859	-
	Library of Congress Total				11,859	-
Miscellaneous	Pass-through	99	PO0500091	PRICEWATERHOUSE COOPERS PUBLIC SECTOR LLP	17,904	-
	Miscellaneous Total				17,904	-
National Aeronautics and Space Administration	Direct	43.001	80NSSC17K0259	NATL AERONAUTICS AND SPACE ADM	714,385	303,962
National Aeronautics and Space Administration	Direct	43.001	80NSSC17K0507	NATL AERONAUTICS AND SPACE ADM	29,003	-
National Aeronautics and Space Administration	Direct	43.001	80NSSC18K0382	NATL AERONAUTICS AND SPACE ADM	35,656	-
National Aeronautics and Space Administration	Direct	43.001	80NSSC18K1134	NATL AERONAUTICS AND SPACE ADM	97,556	-
National Aeronautics and Space Administration	Direct	43.001	80NSSC18K1707	NATL AERONAUTICS AND SPACE ADM	87,197	-
National Aeronautics and Space Administration	Direct	43.001	80NSSC18K1746	NATL AERONAUTICS AND SPACE ADM	12,198	-
National Aeronautics and Space Administration	Direct	43.001	80NSSC19K0302	NATL AERONAUTICS AND SPACE ADM	64,433	-
National Aeronautics and Space Administration	Direct	43.001	80NSSC19K0522	NATL AERONAUTICS AND SPACE ADM	5,154	-
National Aeronautics and Space Administration	Direct	43.001	NNX12AN71G	NATL AERONAUTICS AND SPACE ADM	60,040	-
National Aeronautics and Space Administration	Direct	43.001	NNX15AD51G	NATL AERONAUTICS AND SPACE ADM	39,409	-
National Aeronautics and Space Administration	Direct	43.001	NNX15AI71G	NATL AERONAUTICS AND SPACE ADM	10,380	-
National Aeronautics and Space Administration	Direct	43.001	NNX15AP39G	NATL AERONAUTICS AND SPACE ADM	172,941	-
National Aeronautics and Space Administration	Direct	43.001	NNX16AE52G	NATL AERONAUTICS AND SPACE ADM	27,815	-
National Aeronautics and Space Administration	Direct	43.001	NNX16AP81G	NATL AERONAUTICS AND SPACE ADM	22,691	-
National Aeronautics and Space Administration	Direct	43.001	NNX16AQ44G	NATL AERONAUTICS AND SPACE ADM	12,908	740
National Aeronautics and Space Administration	Direct	43.001	NNX17AE16G	NATL AERONAUTICS AND SPACE ADM	376,042	-
National Aeronautics and Space Administration	Direct	43.003	NNX13AI44G	NATL AERONAUTICS AND SPACE ADM	59,390	-
National Aeronautics and Space Administration	Direct	43.003	NNX16AR52G	NATL AERONAUTICS AND SPACE ADM	67,718	-
National Aeronautics and Space Administration	Direct	43.007	80NSSC19M0128	NATL AERONAUTICS AND SPACE ADM	78	-
National Aeronautics and Space Administration	Direct	43.007	NNX16AC24A	NATL AERONAUTICS AND SPACE ADM	62,532	-
National Aeronautics and Space Administration	Direct	43.007	NNX16AD52A	NATL AERONAUTICS AND SPACE ADM	18,552	-
National Aeronautics and Space Administration	Direct	43.007	NNX16AT85G	NATL AERONAUTICS AND SPACE ADM	7,751	-
	Direct Total				1,983,829	304,702
National Aeronautics and Space Administration	Pass-through	43	1587104	JET PROPULSION LABORATORY	(7,114)	-
National Aeronautics and Space Administration	Pass-through	43	HST-GO-14086.001-A	SPACE TELESCOPE SCIENCE INSTITUTE	2,856	-
National Aeronautics and Space Administration	Pass-through	43	HST-GO-14351.001-A	SPACE TELESCOPE SCIENCE INSTITUTE	405	-
National Aeronautics and Space Administration	Pass-through	43	HST-GO-14639.008-A	SPACE TELESCOPE SCIENCE INSTITUTE	4,353	-
National Aeronautics and Space Administration	Pass-through	43	HST-GO-14704.003-A	SPACE TELESCOPE SCIENCE INSTITUTE	15,384	-
National Aeronautics and Space Administration	Pass-through	43	HST-GO-14738.004-A	SPACE TELESCOPE SCIENCE INSTITUTE	2,583	-
National Aeronautics and Space Administration	Pass-through	43	HST-GO-15308.003	SPACE TELESCOPE SCIENCE INSTITUTE	7,021	-
National Aeronautics and Space Administration	Pass-through	43	NNX17CK13P	ROLF MILES OLSEN DBA TWO PLANET STEEL	(34,911)	-
National Aeronautics and Space Administration	Pass-through	43.001	1552613	COLORADO UNIVERSITY OF	75,639	-
National Aeronautics and Space Administration	Pass-through	43.001	1580232	JET PROPULSION LABORATORY	79,992	-
National Aeronautics and Space Administration	Pass-through	43.001	160908221	MICHIGAN TECH RESEARCH INSTITUTE	229,455	-
National Aeronautics and Space Administration	Pass-through	43.001	1626984	JET PROPULSION LABORATORY	1,674	-
National Aeronautics and Space Administration	Pass-through	43.001	19-0053	UNIVERSITY OF ALASKA	1,538	-
National Aeronautics and Space Administration	Pass-through	43.001	403356	ARIZONA STATE UNIVERSITY	111	-
National Aeronautics and Space Administration	Pass-through	43.001	AR7-18008X	SMITHSONIAN ASTROPHYSICAL OBSERVATORY	1,772	-
National Aeronautics and Space Administration	Pass-through	43.001	G06-17040X	SMITHSONIAN ASTROPHYSICAL OBSERVATORY	66,344	-
National Aeronautics and Space Administration	Pass-through	43.001	G04-15089A	SMITHSONIAN ASTROPHYSICAL OBSERVATORY	19,407	-
National Aeronautics and Space Administration	Pass-through	43.001	G05-16084A	SMITHSONIAN ASTROPHYSICAL OBSERVATORY	1,656	-
National Aeronautics and Space Administration	Pass-through	43.001	G06-17035X	SMITHSONIAN ASTROPHYSICAL OBSERVATORY	1,109	-

See notes to schedule of expenditures
of federal awards.

Schedule of Expenditures of Federal Awards (Continued)

					Year Ended June 30, 2019	
Federal Agency	Direct/ Pass-through	CFDA (Note 5)	Award Number	Grantor Name	Total Expenditures	Subaward Payments
Research and Development Cluster						
(continued):						
National Aeronautics and Space Administration	Pass-through	43.001	G06-17045X	SMITHSONIAN ASTROPHYSICAL OBSERVATORY	\$ 6,027	\$ -
National Aeronautics and Space Administration	Pass-through	43.001	G07-18036X	SMITHSONIAN ASTROPHYSICAL OBSERVATORY	6,027	-
National Aeronautics and Space Administration	Pass-through	43.001	G08-19122X	SMITHSONIAN ASTROPHYSICAL OBSERVATORY	5,667	-
National Aeronautics and Space Administration	Pass-through	43.001	HST-AR-13923.001-A	SPACE TELESCOPE SCIENCE INSTITUTE	43,934	-
National Aeronautics and Space Administration	Pass-through	43.001	HST-AR-14315.001-A	SPACE TELESCOPE SCIENCE INSTITUTE	4,096	-
National Aeronautics and Space Administration	Pass-through	43.001	HST-GO-13720.001-A	SPACE TELESCOPE SCIENCE INSTITUTE	50,528	-
National Aeronautics and Space Administration	Pass-through	43.001	HST-GO-14132.001-A	SPACE TELESCOPE SCIENCE INSTITUTE	25,709	-
National Aeronautics and Space Administration	Pass-through	43.001	HST-GO-14203.002-A	SPACE TELESCOPE SCIENCE INSTITUTE	16,535	-
National Aeronautics and Space Administration	Pass-through	43.001	NS2210-SB-223334	UNIVERSITY OF IDAHO	4,535	-
National Aeronautics and Space Administration	Pass-through	43.001	SV9-89010	SMITHSONIAN ASTROPHYSICAL OBSERVATORY	14,891	-
National Aeronautics and Space Administration	Pass-through	43.001	TM7-18005X	SMITHSONIAN ASTROPHYSICAL OBSERVATORY	27,453	-
National Aeronautics and Space Administration	Pass-through	43.001	TM8-19006X	SMITHSONIAN ASTROPHYSICAL OBSERVATORY	1,913	-
National Aeronautics and Space Administration	Pass-through	43.003	7000000820	BAYLOR COLLEGE OF MEDICINE	108,407	-
National Aeronautics and Space Administration	Pass-through	43.008	3004469965	UNIVERSITY OF MICHIGAN	6,005	-
National Aeronautics and Space Administration	Pass-through	43.008	SUBK00009426	MICHIGAN SPACE GRANT CONSORTIUM	2,252	-
National Aeronautics and Space Administration	Pass-through	43.008	SUBK00009426	UNIVERSITY OF MICHIGAN	6,402	-
National Aeronautics and Space Administration	Pass-through	43.012	438296	ARIZONA STATE UNIVERSITY	84,272	-
Pass-through Total					883,927	-
National Aeronautics and Space Administration Total					2,867,756	304,702
National Science Foundation	Direct	47.041	1462118	NATIONAL SCIENCE FOUNDATION	17,207	-
National Science Foundation	Direct	47.041	1463164	NATIONAL SCIENCE FOUNDATION	25,463	-
National Science Foundation	Direct	47.041	1510895	NATIONAL SCIENCE FOUNDATION	52,295	-
National Science Foundation	Direct	47.041	1510895	NATIONAL SCIENCE FOUNDATION	7,555	-
National Science Foundation	Direct	47.041	1511098	NATIONAL SCIENCE FOUNDATION	40,509	-
National Science Foundation	Direct	47.041	1544068	NATIONAL SCIENCE FOUNDATION	7,259	-
National Science Foundation	Direct	47.041	1547518	NATIONAL SCIENCE FOUNDATION	(6,270)	-
National Science Foundation	Direct	47.041	1549517	NATIONAL SCIENCE FOUNDATION	9,213	-
National Science Foundation	Direct	47.041	1561628	NATIONAL SCIENCE FOUNDATION	21,029	-
National Science Foundation	Direct	47.041	1561964	NATIONAL SCIENCE FOUNDATION	135,816	-
National Science Foundation	Direct	47.041	1565232	NATIONAL SCIENCE FOUNDATION	126,012	-
National Science Foundation	Direct	47.041	1600417	NATIONAL SCIENCE FOUNDATION	57,685	(58)
National Science Foundation	Direct	47.041	1603347	NATIONAL SCIENCE FOUNDATION	83,282	-
National Science Foundation	Direct	47.041	1603646	NATIONAL SCIENCE FOUNDATION	127,473	-
National Science Foundation	Direct	47.041	1603646	NATIONAL SCIENCE FOUNDATION	5,737	-
National Science Foundation	Direct	47.041	1603705	NATIONAL SCIENCE FOUNDATION	72,302	-
National Science Foundation	Direct	47.041	1603720	NATIONAL SCIENCE FOUNDATION	86,767	-
National Science Foundation	Direct	47.041	1603892	NATIONAL SCIENCE FOUNDATION	43,072	-
National Science Foundation	Direct	47.041	1603892	NATIONAL SCIENCE FOUNDATION	303	-
National Science Foundation	Direct	47.041	1628958	NATIONAL SCIENCE FOUNDATION	393,169	137,389
National Science Foundation	Direct	47.041	1632051	NATIONAL SCIENCE FOUNDATION	146,346	6,452
National Science Foundation	Direct	47.041	1639115	NATIONAL SCIENCE FOUNDATION	768,325	40,945
National Science Foundation	Direct	47.041	1651674	NATIONAL SCIENCE FOUNDATION	114,657	-
National Science Foundation	Direct	47.041	1661618	NATIONAL SCIENCE FOUNDATION	34,966	-
National Science Foundation	Direct	47.041	1700785	NATIONAL SCIENCE FOUNDATION	2,737	-
National Science Foundation	Direct	47.041	1700787	NATIONAL SCIENCE FOUNDATION	72,249	-
National Science Foundation	Direct	47.041	1702591	NATIONAL SCIENCE FOUNDATION	145,854	-
National Science Foundation	Direct	47.041	1702987	NATIONAL SCIENCE FOUNDATION	52,650	-
National Science Foundation	Direct	47.041	1703735	NATIONAL SCIENCE FOUNDATION	82,602	-
National Science Foundation	Direct	47.041	1703735	NATIONAL SCIENCE FOUNDATION	21,917	-
National Science Foundation	Direct	47.041	1708820	NATIONAL SCIENCE FOUNDATION	71,904	-
National Science Foundation	Direct	47.041	1724941	NATIONAL SCIENCE FOUNDATION	50,191	-
National Science Foundation	Direct	47.041	1725278	NATIONAL SCIENCE FOUNDATION	119,459	-
National Science Foundation	Direct	47.041	1727525	NATIONAL SCIENCE FOUNDATION	189,137	-
National Science Foundation	Direct	47.041	1744273	NATIONAL SCIENCE FOUNDATION	37,255	-
National Science Foundation	Direct	47.041	1744604	NATIONAL SCIENCE FOUNDATION	54,261	-
National Science Foundation	Direct	47.041	1750785	NATIONAL SCIENCE FOUNDATION	33,650	-
National Science Foundation	Direct	47.041	1752773	NATIONAL SCIENCE FOUNDATION	94,375	-
National Science Foundation	Direct	47.041	1759823	NATIONAL SCIENCE FOUNDATION	51,602	-
National Science Foundation	Direct	47.041	1762331	NATIONAL SCIENCE FOUNDATION	111,633	-
National Science Foundation	Direct	47.041	1800466	NATIONAL SCIENCE FOUNDATION	57,832	-
National Science Foundation	Direct	47.041	1801785	NATIONAL SCIENCE FOUNDATION	66,260	-
National Science Foundation	Direct	47.041	1802992	NATIONAL SCIENCE FOUNDATION	85,166	-
National Science Foundation	Direct	47.041	1803695	NATIONAL SCIENCE FOUNDATION	43,889	-
National Science Foundation	Direct	47.041	1808436	NATIONAL SCIENCE FOUNDATION	61,952	-
National Science Foundation	Direct	47.041	1823684	NATIONAL SCIENCE FOUNDATION	20,000	-
National Science Foundation	Direct	47.041	1824976	NATIONAL SCIENCE FOUNDATION	110,337	-
National Science Foundation	Direct	47.041	1825678	NATIONAL SCIENCE FOUNDATION	77,368	-
National Science Foundation	Direct	47.041	1825678	NATIONAL SCIENCE FOUNDATION	468	-
National Science Foundation	Direct	47.041	1830269	NATIONAL SCIENCE FOUNDATION	12,713	-
National Science Foundation	Direct	47.041	1836682	NATIONAL SCIENCE FOUNDATION	38,442	-
National Science Foundation	Direct	47.041	1854750	NATIONAL SCIENCE FOUNDATION	1,662	-
National Science Foundation	Direct	47.041	1923187	NATIONAL SCIENCE FOUNDATION	29,217	-
National Science Foundation	Direct	47.041	CBET-1236120	NATIONAL SCIENCE FOUNDATION	11,405	11,405
National Science Foundation	Direct	47.041	CBET-1254238	NATIONAL SCIENCE FOUNDATION	60,737	-
National Science Foundation	Direct	47.041	CBET-1254238	NATIONAL SCIENCE FOUNDATION	11,590	-
National Science Foundation	Direct	47.041	CBET-1254453	NATIONAL SCIENCE FOUNDATION	3,930	-
National Science Foundation	Direct	47.041	CBET-1437657	NATIONAL SCIENCE FOUNDATION	(36)	-
National Science Foundation	Direct	47.041	CBET-1438105	NATIONAL SCIENCE FOUNDATION	(107)	-
National Science Foundation	Direct	47.041	CBET-1507789	NATIONAL SCIENCE FOUNDATION	43,100	-
National Science Foundation	Direct	47.041	CBET-1510203	NATIONAL SCIENCE FOUNDATION	25,841	-
National Science Foundation	Direct	47.041	CBET-1845006	NATIONAL SCIENCE FOUNDATION	14,638	-
National Science Foundation	Direct	47.041	CMMI-1030821	NATIONAL SCIENCE FOUNDATION	(2,188)	-
National Science Foundation	Direct	47.041	CMMI-1435126	NATIONAL SCIENCE FOUNDATION	6,850	-
National Science Foundation	Direct	47.041	CMMI-1462118	NATIONAL SCIENCE FOUNDATION	49,466	-
National Science Foundation	Direct	47.041	CMMI-1463006	NATIONAL SCIENCE FOUNDATION	133,361	-
National Science Foundation	Direct	47.041	ECCS-1350560	NATIONAL SCIENCE FOUNDATION	126	-
National Science Foundation	Direct	47.041	ECCS-1350560	NATIONAL SCIENCE FOUNDATION	(22,959)	-
National Science Foundation	Direct	47.041	ECCS-1407880	NATIONAL SCIENCE FOUNDATION	21,085	21,645
National Science Foundation	Direct	47.041	ECCS-1408115	NATIONAL SCIENCE FOUNDATION	(761)	-
National Science Foundation	Direct	47.041	ECCS-1408506	NATIONAL SCIENCE FOUNDATION	63,850	-
National Science Foundation	Direct	47.041	ECCS-1446793	NATIONAL SCIENCE FOUNDATION	362,148	-
National Science Foundation	Direct	47.041	ECCS-175165	NATIONAL SCIENCE FOUNDATION	27,964	-
National Science Foundation	Direct	47.041	PHY-1531199	NATIONAL SCIENCE FOUNDATION	280,706	-
National Science Foundation	Direct	47.049	1149408	NATIONAL SCIENCE FOUNDATION	124,610	-
National Science Foundation	Direct	47.049	1150872	NATIONAL SCIENCE FOUNDATION	(2,291)	-
National Science Foundation	Direct	47.049	1453661	NATIONAL SCIENCE FOUNDATION	91,398	-

See notes to schedule of expenditures
of federal awards.

Schedule of Expenditures of Federal Awards (Continued)

					Year Ended June 30, 2019	
Federal Agency	Direct/ Pass-through	CFDA (Note 5)	Award Number	Grantor Name	Total Expenditures	Subaward Payments
Research and Development Cluster						
(continued):						
National Science Foundation	Direct	47.049	1453661	NATIONAL SCIENCE FOUNDATION	\$ 5,360	\$ -
National Science Foundation	Direct	47.049	1462156	NATIONAL SCIENCE FOUNDATION	160,504	-
National Science Foundation	Direct	47.049	1464807	NATIONAL SCIENCE FOUNDATION	64,680	-
National Science Foundation	Direct	47.049	1465043	NATIONAL SCIENCE FOUNDATION	119,569	-
National Science Foundation	Direct	47.049	1502135	NATIONAL SCIENCE FOUNDATION	8,951	-
National Science Foundation	Direct	47.049	1502135	NATIONAL SCIENCE FOUNDATION	1,422	-
National Science Foundation	Direct	47.049	1505364	NATIONAL SCIENCE FOUNDATION	(2,917)	-
National Science Foundation	Direct	47.049	1507226	NATIONAL SCIENCE FOUNDATION	50,393	-
National Science Foundation	Direct	47.049	1514591	NATIONAL SCIENCE FOUNDATION	94	-
National Science Foundation	Direct	47.049	1514700	NATIONAL SCIENCE FOUNDATION	118,056	-
National Science Foundation	Direct	47.049	1514763	NATIONAL SCIENCE FOUNDATION	99,066	-
National Science Foundation	Direct	47.049	1516969	NATIONAL SCIENCE FOUNDATION	50,700	-
National Science Foundation	Direct	47.049	1519045	NATIONAL SCIENCE FOUNDATION	22,667	-
National Science Foundation	Direct	47.049	1520929	NATIONAL SCIENCE FOUNDATION	27,599	-
National Science Foundation	Direct	47.049	1522249	NATIONAL SCIENCE FOUNDATION	15,665	-
National Science Foundation	Direct	47.049	1554315	NATIONAL SCIENCE FOUNDATION	83,127	-
National Science Foundation	Direct	47.049	1559776	NATIONAL SCIENCE FOUNDATION	65,672	-
National Science Foundation	Direct	47.049	1559776	NATIONAL SCIENCE FOUNDATION	11,523	-
National Science Foundation	Direct	47.049	1559866	NATIONAL SCIENCE FOUNDATION	82,278	-
National Science Foundation	Direct	47.049	1559866	NATIONAL SCIENCE FOUNDATION	18,106	-
National Science Foundation	Direct	47.049	1562140	NATIONAL SCIENCE FOUNDATION	80,884	-
National Science Foundation	Direct	47.049	1600065	NATIONAL SCIENCE FOUNDATION	150,472	-
National Science Foundation	Direct	47.049	1607089	NATIONAL SCIENCE FOUNDATION	42,642	-
National Science Foundation	Direct	47.049	1607942	NATIONAL SCIENCE FOUNDATION	129,468	-
National Science Foundation	Direct	47.049	1608752	NATIONAL SCIENCE FOUNDATION	95,734	-
National Science Foundation	Direct	47.049	1612867	NATIONAL SCIENCE FOUNDATION	90,551	-
National Science Foundation	Direct	47.049	1612885	NATIONAL SCIENCE FOUNDATION	29,758	-
National Science Foundation	Direct	47.049	1613899	NATIONAL SCIENCE FOUNDATION	(430)	-
National Science Foundation	Direct	47.049	1614566	NATIONAL SCIENCE FOUNDATION	140,820	-
National Science Foundation	Direct	47.049	1619960	NATIONAL SCIENCE FOUNDATION	71,144	-
National Science Foundation	Direct	47.049	1620216	NATIONAL SCIENCE FOUNDATION	80,970	-
National Science Foundation	Direct	47.049	1621798	NATIONAL SCIENCE FOUNDATION	55,625	-
National Science Foundation	Direct	47.049	162494	NATIONAL SCIENCE FOUNDATION	210,836	6,301
National Science Foundation	Direct	47.049	1625181	NATIONAL SCIENCE FOUNDATION	306,325	-
National Science Foundation	Direct	47.049	1632761	NATIONAL SCIENCE FOUNDATION	60,346	-
National Science Foundation	Direct	47.049	1636557	NATIONAL SCIENCE FOUNDATION	144,616	-
National Science Foundation	Direct	47.049	1653405	NATIONAL SCIENCE FOUNDATION	102,592	-
National Science Foundation	Direct	47.049	1654610	NATIONAL SCIENCE FOUNDATION	121,907	-
National Science Foundation	Direct	47.049	1663778	NATIONAL SCIENCE FOUNDATION	22,809	-
National Science Foundation	Direct	47.049	1664823	NATIONAL SCIENCE FOUNDATION	107,858	-
National Science Foundation	Direct	47.049	1665285	NATIONAL SCIENCE FOUNDATION	56,946	-
National Science Foundation	Direct	47.049	1700094	NATIONAL SCIENCE FOUNDATION	43,815	-
National Science Foundation	Direct	47.049	1700837	NATIONAL SCIENCE FOUNDATION	54,480	-
National Science Foundation	Direct	47.049	1701619	NATIONAL SCIENCE FOUNDATION	49,077	-
National Science Foundation	Direct	47.049	1702115	NATIONAL SCIENCE FOUNDATION	58,971	-
National Science Foundation	Direct	47.049	1707812	NATIONAL SCIENCE FOUNDATION	1,023,401	-
National Science Foundation	Direct	47.049	1707842	NATIONAL SCIENCE FOUNDATION	179,371	-
National Science Foundation	Direct	47.049	1708249	NATIONAL SCIENCE FOUNDATION	99,908	-
National Science Foundation	Direct	47.049	1708331	NATIONAL SCIENCE FOUNDATION	116,347	-
National Science Foundation	Direct	47.049	1709016	NATIONAL SCIENCE FOUNDATION	90,558	-
National Science Foundation	Direct	47.049	1709158	NATIONAL SCIENCE FOUNDATION	154,205	-
National Science Foundation	Direct	47.049	1713901	NATIONAL SCIENCE FOUNDATION	210,399	-
National Science Foundation	Direct	47.049	1714144	NATIONAL SCIENCE FOUNDATION	3,138	-
National Science Foundation	Direct	47.049	1714825	NATIONAL SCIENCE FOUNDATION	63,044	-
National Science Foundation	Direct	47.049	1715178	NATIONAL SCIENCE FOUNDATION	31,459	-
National Science Foundation	Direct	47.049	1719863	NATIONAL SCIENCE FOUNDATION	58,403	-
National Science Foundation	Direct	47.049	1719914	NATIONAL SCIENCE FOUNDATION	110,201	-
National Science Foundation	Direct	47.049	1720002	NATIONAL SCIENCE FOUNDATION	86,819	-
National Science Foundation	Direct	47.049	1720023	NATIONAL SCIENCE FOUNDATION	19,214	-
National Science Foundation	Direct	47.049	1721024	NATIONAL SCIENCE FOUNDATION	202,869	-
National Science Foundation	Direct	47.049	1734183	NATIONAL SCIENCE FOUNDATION	3,129	-
National Science Foundation	Direct	47.049	1751857	NATIONAL SCIENCE FOUNDATION	9,092	-
National Science Foundation	Direct	47.049	1751857	NATIONAL SCIENCE FOUNDATION	1,000	-
National Science Foundation	Direct	47.049	1751874	NATIONAL SCIENCE FOUNDATION	121,667	-
National Science Foundation	Direct	47.049	1754967	NATIONAL SCIENCE FOUNDATION	19,560	-
National Science Foundation	Direct	47.049	1758326	NATIONAL SCIENCE FOUNDATION	36,616	-
National Science Foundation	Direct	47.049	1759824	NATIONAL SCIENCE FOUNDATION	39,927	-
National Science Foundation	Direct	47.049	1761320	NATIONAL SCIENCE FOUNDATION	142,539	-
National Science Foundation	Direct	47.049	1761320	NATIONAL SCIENCE FOUNDATION	77,288	-
National Science Foundation	Direct	47.049	1761320	NATIONAL SCIENCE FOUNDATION	22,560	-
National Science Foundation	Direct	47.049	1763371	NATIONAL SCIENCE FOUNDATION	49,329	-
National Science Foundation	Direct	47.049	1763855	NATIONAL SCIENCE FOUNDATION	11,764	-
National Science Foundation	Direct	47.049	1800446	NATIONAL SCIENCE FOUNDATION	46,442	-
National Science Foundation	Direct	47.049	1802934	NATIONAL SCIENCE FOUNDATION	(673)	-
National Science Foundation	Direct	47.049	1803719	NATIONAL SCIENCE FOUNDATION	120,737	-
National Science Foundation	Direct	47.049	1806473	NATIONAL SCIENCE FOUNDATION	105,822	67,339
National Science Foundation	Direct	47.049	1807073	NATIONAL SCIENCE FOUNDATION	40,164	-
National Science Foundation	Direct	47.049	1807073	NATIONAL SCIENCE FOUNDATION	9,163	-
National Science Foundation	Direct	47.049	1807573	NATIONAL SCIENCE FOUNDATION	133,935	-
National Science Foundation	Direct	47.049	1810575	NATIONAL SCIENCE FOUNDATION	10,437	-
National Science Foundation	Direct	47.049	1811777	NATIONAL SCIENCE FOUNDATION	5,000	-
National Science Foundation	Direct	47.049	1811815	NATIONAL SCIENCE FOUNDATION	39,582	-
National Science Foundation	Direct	47.049	1811855	NATIONAL SCIENCE FOUNDATION	103,831	-
National Science Foundation	Direct	47.049	1812332	NATIONAL SCIENCE FOUNDATION	62,394	-
National Science Foundation	Direct	47.049	1812838	NATIONAL SCIENCE FOUNDATION	42,931	-
National Science Foundation	Direct	47.049	1812856	NATIONAL SCIENCE FOUNDATION	9,940	-
National Science Foundation	Direct	47.049	1813203	NATIONAL SCIENCE FOUNDATION	33,505	-
National Science Foundation	Direct	47.049	1813203	NATIONAL SCIENCE FOUNDATION	2,311	-
National Science Foundation	Direct	47.049	1832808	NATIONAL SCIENCE FOUNDATION	9,721	-
National Science Foundation	Direct	47.049	1833447	NATIONAL SCIENCE FOUNDATION	25,000	-
National Science Foundation	Direct	47.049	1836498	NATIONAL SCIENCE FOUNDATION	154,334	-
National Science Foundation	Direct	47.049	1843472	NATIONAL SCIENCE FOUNDATION	4,505	-
National Science Foundation	Direct	47.049	1851776	NATIONAL SCIENCE FOUNDATION	40,304	-
National Science Foundation	Direct	47.049	1851776	NATIONAL SCIENCE FOUNDATION	12,784	-
National Science Foundation	Direct	47.049	AST-1412549	NATIONAL SCIENCE FOUNDATION	58,118	-
National Science Foundation	Direct	47.049	AST-1412774	NATIONAL SCIENCE FOUNDATION	(8,307)	-
National Science Foundation	Direct	47.049	AST-1412980	NATIONAL SCIENCE FOUNDATION	88,654	-

See notes to schedule of expenditures
of federal awards.

Schedule of Expenditures of Federal Awards (Continued)

Year Ended June 30, 2019

Federal Agency	Direct/ Pass-through	CFDA (Note 5)	Award Number	Grantor Name	Total Expenditures	Subaward Payments
Research and Development Cluster						
(continued):						
National Science Foundation	Direct	47.049	CHE 1151590	NATIONAL SCIENCE FOUNDATION	\$ (228)	\$ -
National Science Foundation	Direct	47.049	CHE-1358842	NATIONAL SCIENCE FOUNDATION	8,256	-
National Science Foundation	Direct	47.049	CHE-1358842	NATIONAL SCIENCE FOUNDATION	4,176	-
National Science Foundation	Direct	47.049	CHE-1362812	NATIONAL SCIENCE FOUNDATION	124,399	-
National Science Foundation	Direct	47.049	CHE-1507588	NATIONAL SCIENCE FOUNDATION	49,209	-
National Science Foundation	Direct	47.049	CHE-1516126	NATIONAL SCIENCE FOUNDATION	69,044	-
National Science Foundation	Direct	47.049	CHE-1516126	NATIONAL SCIENCE FOUNDATION	54,791	-
National Science Foundation	Direct	47.049	CHE-1565634	NATIONAL SCIENCE FOUNDATION	97,276	-
National Science Foundation	Direct	47.049	DMR-1410850	NATIONAL SCIENCE FOUNDATION	31,164	-
National Science Foundation	Direct	47.049	DMR-1411102	NATIONAL SCIENCE FOUNDATION	(47)	-
National Science Foundation	Direct	47.049	DMR-1507489	NATIONAL SCIENCE FOUNDATION	1,349	-
National Science Foundation	Direct	47.049	DMS-1149408	NATIONAL SCIENCE FOUNDATION	1,215	-
National Science Foundation	Direct	47.049	DMS-1352407	NATIONAL SCIENCE FOUNDATION	41,722	-
National Science Foundation	Direct	47.049	DMS-1360733	NATIONAL SCIENCE FOUNDATION	15,290	-
National Science Foundation	Direct	47.049	DMS-1404754	NATIONAL SCIENCE FOUNDATION	(1,201)	-
National Science Foundation	Direct	47.049	DMS-1409940	NATIONAL SCIENCE FOUNDATION	14,120	-
National Science Foundation	Direct	47.049	DMS-1409940	NATIONAL SCIENCE FOUNDATION	12,110	-
National Science Foundation	Direct	47.049	DMS-1411411	NATIONAL SCIENCE FOUNDATION	29,413	-
National Science Foundation	Direct	47.049	DMS-1413060	NATIONAL SCIENCE FOUNDATION	4,289	-
National Science Foundation	Direct	47.049	DMS-1416752	NATIONAL SCIENCE FOUNDATION	(2,862)	-
National Science Foundation	Direct	47.049	DMS-1418804	NATIONAL SCIENCE FOUNDATION	(601)	-
National Science Foundation	Direct	47.049	DMS-1500386	NATIONAL SCIENCE FOUNDATION	35,280	-
National Science Foundation	Direct	47.049	DMS-1513481	NATIONAL SCIENCE FOUNDATION	30,703	-
National Science Foundation	Direct	47.049	DMS-1622301	NATIONAL SCIENCE FOUNDATION	55,102	-
National Science Foundation	Direct	47.049	DMS-1852066	NATIONAL SCIENCE FOUNDATION	25,487	-
National Science Foundation	Direct	47.049	PHY-1350234	NATIONAL SCIENCE FOUNDATION	76,073	-
National Science Foundation	Direct	47.049	PHY-1350234	NATIONAL SCIENCE FOUNDATION	6,737	-
National Science Foundation	Direct	47.049	PHY-1403906	NATIONAL SCIENCE FOUNDATION	2,024	-
National Science Foundation	Direct	47.049	PHY-1410972	NATIONAL SCIENCE FOUNDATION	39,480	-
National Science Foundation	Direct	47.049	PHY-1415462	NATIONAL SCIENCE FOUNDATION	61,836	-
National Science Foundation	Direct	47.049	PHY-1430152	NATIONAL SCIENCE FOUNDATION	2,504,105	1,521,670
National Science Foundation	Direct	47.049	PHY-1430152	NATIONAL SCIENCE FOUNDATION	58,712	-
National Science Foundation	Direct	47.049	PHY-1520971	NATIONAL SCIENCE FOUNDATION	46,359	-
National Science Foundation	Direct	47.049	PHY-1565546	NATIONAL SCIENCE FOUNDATION	24,922,122	15,448
National Science Foundation	Direct	47.050	1443165	NATIONAL SCIENCE FOUNDATION	46,396	-
National Science Foundation	Direct	47.050	1446328	NATIONAL SCIENCE FOUNDATION	61,656	-
National Science Foundation	Direct	47.050	1523628	NATIONAL SCIENCE FOUNDATION	166,415	108,667
National Science Foundation	Direct	47.050	1531086	NATIONAL SCIENCE FOUNDATION	123,517	-
National Science Foundation	Direct	47.050	1540576	NATIONAL SCIENCE FOUNDATION	25,748	20,220
National Science Foundation	Direct	47.050	1549764	NATIONAL SCIENCE FOUNDATION	83,000	-
National Science Foundation	Direct	47.050	1551872	NATIONAL SCIENCE FOUNDATION	57,770	-
National Science Foundation	Direct	47.050	1620509	NATIONAL SCIENCE FOUNDATION	105,308	-
National Science Foundation	Direct	47.050	1629439	NATIONAL SCIENCE FOUNDATION	70,603	-
National Science Foundation	Direct	47.050	1630399	NATIONAL SCIENCE FOUNDATION	94,378	-
National Science Foundation	Direct	47.050	1638958	NATIONAL SCIENCE FOUNDATION	216,389	-
National Science Foundation	Direct	47.050	1644453	NATIONAL SCIENCE FOUNDATION	13,700	-
National Science Foundation	Direct	47.050	1645299	NATIONAL SCIENCE FOUNDATION	14,620	-
National Science Foundation	Direct	47.050	1649186	NATIONAL SCIENCE FOUNDATION	13,640	-
National Science Foundation	Direct	47.050	1664332	NATIONAL SCIENCE FOUNDATION	59,218	-
National Science Foundation	Direct	47.050	1722623	NATIONAL SCIENCE FOUNDATION	24,524	-
National Science Foundation	Direct	47.050	1751664	NATIONAL SCIENCE FOUNDATION	90,259	-
National Science Foundation	Direct	47.050	1752729	NATIONAL SCIENCE FOUNDATION	78,100	-
National Science Foundation	Direct	47.050	1802247	NATIONAL SCIENCE FOUNDATION	69,396	-
National Science Foundation	Direct	47.050	1842078	NATIONAL SCIENCE FOUNDATION	33,747	-
National Science Foundation	Direct	47.050	1842078	NATIONAL SCIENCE FOUNDATION	7,126	-
National Science Foundation	Direct	47.050	1842989	NATIONAL SCIENCE FOUNDATION	13,433	-
National Science Foundation	Direct	47.050	1846855	NATIONAL SCIENCE FOUNDATION	66,179	-
National Science Foundation	Direct	47.050	1917435	NATIONAL SCIENCE FOUNDATION	4,028	-
National Science Foundation	Direct	47.050	EAR-1348935	NATIONAL SCIENCE FOUNDATION	8,882	-
National Science Foundation	Direct	47.050	OCE 1829406	NATIONAL SCIENCE FOUNDATION	43,852	-
National Science Foundation	Direct	47.070	1524698	NATIONAL SCIENCE FOUNDATION	20,920	-
National Science Foundation	Direct	47.070	1533802	NATIONAL SCIENCE FOUNDATION	96,056	-
National Science Foundation	Direct	47.070	1547015	NATIONAL SCIENCE FOUNDATION	99,872	-
National Science Foundation	Direct	47.070	1560168	NATIONAL SCIENCE FOUNDATION	115,977	-
National Science Foundation	Direct	47.070	1560168	NATIONAL SCIENCE FOUNDATION	13,952	-
National Science Foundation	Direct	47.070	1565596	NATIONAL SCIENCE FOUNDATION	40,007	-
National Science Foundation	Direct	47.070	1565604	NATIONAL SCIENCE FOUNDATION	40,649	-
National Science Foundation	Direct	47.070	1615489	NATIONAL SCIENCE FOUNDATION	99,108	-
National Science Foundation	Direct	47.070	1615597	NATIONAL SCIENCE FOUNDATION	91,101	-
National Science Foundation	Direct	47.070	1615612	NATIONAL SCIENCE FOUNDATION	52,661	-
National Science Foundation	Direct	47.070	1617412	NATIONAL SCIENCE FOUNDATION	12,404	-
National Science Foundation	Direct	47.070	1617466	NATIONAL SCIENCE FOUNDATION	96,384	-
National Science Foundation	Direct	47.070	1617627	NATIONAL SCIENCE FOUNDATION	172,695	-
National Science Foundation	Direct	47.070	1617682	NATIONAL SCIENCE FOUNDATION	194,078	-
National Science Foundation	Direct	47.070	1618518	NATIONAL SCIENCE FOUNDATION	162,421	-
National Science Foundation	Direct	47.070	1622659	NATIONAL SCIENCE FOUNDATION	175,670	-
National Science Foundation	Direct	47.070	1645783	NATIONAL SCIENCE FOUNDATION	19,899	-
National Science Foundation	Direct	47.070	1655422	NATIONAL SCIENCE FOUNDATION	2,238	-
National Science Foundation	Direct	47.070	1656905	NATIONAL SCIENCE FOUNDATION	47,230	-
National Science Foundation	Direct	47.070	1714126	NATIONAL SCIENCE FOUNDATION	88,871	-
National Science Foundation	Direct	47.070	1714126	NATIONAL SCIENCE FOUNDATION	4,313	-
National Science Foundation	Direct	47.070	1714417	NATIONAL SCIENCE FOUNDATION	83,028	-
National Science Foundation	Direct	47.070	1714741	NATIONAL SCIENCE FOUNDATION	147,974	-
National Science Foundation	Direct	47.070	1715714	NATIONAL SCIENCE FOUNDATION	8,210	-
National Science Foundation	Direct	47.070	1715940	NATIONAL SCIENCE FOUNDATION	73,779	-
National Science Foundation	Direct	47.070	1719275	NATIONAL SCIENCE FOUNDATION	15,406	-
National Science Foundation	Direct	47.070	1730137	NATIONAL SCIENCE FOUNDATION	97,008	-
National Science Foundation	Direct	47.070	1730137	NATIONAL SCIENCE FOUNDATION	679	-
National Science Foundation	Direct	47.070	1734272	NATIONAL SCIENCE FOUNDATION	203,137	-
National Science Foundation	Direct	47.070	1738677	NATIONAL SCIENCE FOUNDATION	235,628	99,982
National Science Foundation	Direct	47.070	1738677	NATIONAL SCIENCE FOUNDATION	96	-
National Science Foundation	Direct	47.070	1749018	NATIONAL SCIENCE FOUNDATION	87,460	-
National Science Foundation	Direct	47.070	1749940	NATIONAL SCIENCE FOUNDATION	34,262	-
National Science Foundation	Direct	47.070	1807622	NATIONAL SCIENCE FOUNDATION	36,452	-
National Science Foundation	Direct	47.070	1810584	NATIONAL SCIENCE FOUNDATION	6,318	-
National Science Foundation	Direct	47.070	1814551	NATIONAL SCIENCE FOUNDATION	33,758	-
National Science Foundation	Direct	47.070	1815636	NATIONAL SCIENCE FOUNDATION	53,085	-

See notes to schedule of expenditures
of federal awards.

Schedule of Expenditures of Federal Awards (Continued)

					Year Ended June 30, 2019		
Federal Agency	Direct/ Pass-through	CFDA (Note 5)	Award Number	Grantor Name	Total Expenditures	Subaward Payments	
Research and Development Cluster							
(continued):							
National Science Foundation	Direct	47.070	1822932	NATIONAL SCIENCE FOUNDATION	\$ 56,247	\$ -	
National Science Foundation	Direct	47.070	1830244	NATIONAL SCIENCE FOUNDATION	1,700	-	
National Science Foundation	Direct	47.070	1832740	NATIONAL SCIENCE FOUNDATION	14,689	-	
National Science Foundation	Direct	47.070	1835267	NATIONAL SCIENCE FOUNDATION	51,586	-	
National Science Foundation	Direct	47.070	1835426	NATIONAL SCIENCE FOUNDATION	38,066	-	
National Science Foundation	Direct	47.070	1837146	NATIONAL SCIENCE FOUNDATION	39,141	-	
National Science Foundation	Direct	47.070	1841590	NATIONAL SCIENCE FOUNDATION	14,404	-	
National Science Foundation	Direct	47.070	1845081	NATIONAL SCIENCE FOUNDATION	6,233	-	
National Science Foundation	Direct	47.070	1845208	NATIONAL SCIENCE FOUNDATION	5,598	-	
National Science Foundation	Direct	47.070	1848945	NATIONAL SCIENCE FOUNDATION	8,095	-	
National Science Foundation	Direct	47.070	1854985	NATIONAL SCIENCE FOUNDATION	23,954	-	
National Science Foundation	Direct	47.070	1854985	NATIONAL SCIENCE FOUNDATION	21,823	-	
National Science Foundation	Direct	47.070	ACI-1514580	NATIONAL SCIENCE FOUNDATION	(5,422)	-	
National Science Foundation	Direct	47.070	ACI-1566049	NATIONAL SCIENCE FOUNDATION	72,691	-	
National Science Foundation	Direct	47.070	CCF-1422262	NATIONAL SCIENCE FOUNDATION	173,102	-	
National Science Foundation	Direct	47.070	CCF-1565719	NATIONAL SCIENCE FOUNDATION	54,775	-	
National Science Foundation	Direct	47.070	CNS 1305358	NATIONAL SCIENCE FOUNDATION	156,047	-	
National Science Foundation	Direct	47.070	CNS 1502462	NATIONAL SCIENCE FOUNDATION	38,047	12,145	
National Science Foundation	Direct	47.070	CNS-1405273	NATIONAL SCIENCE FOUNDATION	158,697	79,741	
National Science Foundation	Direct	47.070	CNS-1421407	NATIONAL SCIENCE FOUNDATION	13,525	-	
National Science Foundation	Direct	47.070	CNS-1423221	NATIONAL SCIENCE FOUNDATION	9,207	-	
National Science Foundation	Direct	47.070	CNS-1502462	NATIONAL SCIENCE FOUNDATION	6,085	-	
National Science Foundation	Direct	47.070	CNS-1524296	NATIONAL SCIENCE FOUNDATION	106,171	-	
National Science Foundation	Direct	47.070	CNS-1524520	NATIONAL SCIENCE FOUNDATION	(241)	-	
National Science Foundation	Direct	47.070	CNS-1547015	NATIONAL SCIENCE FOUNDATION	8,038	-	
National Science Foundation	Direct	47.070	CNS-1609339	NATIONAL SCIENCE FOUNDATION	75,192	-	
National Science Foundation	Direct	47.070	CNS-1609339	NATIONAL SCIENCE FOUNDATION	65,534	-	
National Science Foundation	Direct	47.070	IIS-1302285	NATIONAL SCIENCE FOUNDATION	24,609	-	
National Science Foundation	Direct	47.070	IIS-1302285	NATIONAL SCIENCE FOUNDATION	4,000	-	
National Science Foundation	Direct	47.070	IIS-1319909	NATIONAL SCIENCE FOUNDATION	12,688	-	
National Science Foundation	Direct	47.070	IIS-1350253	NATIONAL SCIENCE FOUNDATION	75,034	-	
National Science Foundation	Direct	47.070	IIS-1350253	NATIONAL SCIENCE FOUNDATION	1,552	-	
National Science Foundation	Direct	47.070	IIS-1422316	NATIONAL SCIENCE FOUNDATION	16,092	-	
National Science Foundation	Direct	47.070	IIS-1422316	NATIONAL SCIENCE FOUNDATION	1,948	-	
National Science Foundation	Direct	47.070	IIS-1452479	NATIONAL SCIENCE FOUNDATION	101,295	-	
National Science Foundation	Direct	47.070	IIS-1615612	NATIONAL SCIENCE FOUNDATION	87,941	-	
National Science Foundation	Direct	47.070	OAC-1835144	NATIONAL SCIENCE FOUNDATION	64,388	12,263	
National Science Foundation	Direct	47.070	REU-1617682	NATIONAL SCIENCE FOUNDATION	(4,844)	-	
National Science Foundation	Direct	47.074	0939454	NATIONAL SCIENCE FOUNDATION	19,512	-	
National Science Foundation	Direct	47.074	0939454	NATIONAL SCIENCE FOUNDATION	11,987	7,809	
National Science Foundation	Direct	47.074	1027253	NATIONAL SCIENCE FOUNDATION	18	-	
National Science Foundation	Direct	47.074	1354085	NATIONAL SCIENCE FOUNDATION	5,321	-	
National Science Foundation	Direct	47.074	1444499	NATIONAL SCIENCE FOUNDATION	1,302,083	889,470	
National Science Foundation	Direct	47.074	1444499	NATIONAL SCIENCE FOUNDATION	21,459	-	
National Science Foundation	Direct	47.074	1455405	NATIONAL SCIENCE FOUNDATION	208,633	-	
National Science Foundation	Direct	47.074	1455405	NATIONAL SCIENCE FOUNDATION	1,032	-	
National Science Foundation	Direct	47.074	1456615	NATIONAL SCIENCE FOUNDATION	12,958	-	
National Science Foundation	Direct	47.074	1514706	NATIONAL SCIENCE FOUNDATION	(2,310)	-	
National Science Foundation	Direct	47.074	1518366	NATIONAL SCIENCE FOUNDATION	62,496	-	
National Science Foundation	Direct	47.074	1546617	NATIONAL SCIENCE FOUNDATION	523,914	172,210	
National Science Foundation	Direct	47.074	1546617	NATIONAL SCIENCE FOUNDATION	178,013	-	
National Science Foundation	Direct	47.074	1546617	NATIONAL SCIENCE FOUNDATION	112,504	-	
National Science Foundation	Direct	47.074	1546617	NATIONAL SCIENCE FOUNDATION	71,205	-	
National Science Foundation	Direct	47.074	1546617	NATIONAL SCIENCE FOUNDATION	53,145	-	
National Science Foundation	Direct	47.074	1546657	NATIONAL SCIENCE FOUNDATION	874,020	392,339	
National Science Foundation	Direct	47.074	1546657	NATIONAL SCIENCE FOUNDATION	321,754	-	
National Science Foundation	Direct	47.074	1546657	NATIONAL SCIENCE FOUNDATION	10,164	-	
National Science Foundation	Direct	47.074	1546657	NATIONAL SCIENCE FOUNDATION	1,361	-	
National Science Foundation	Direct	47.074	1550686	NATIONAL SCIENCE FOUNDATION	16,719	-	
National Science Foundation	Direct	47.074	1550765	NATIONAL SCIENCE FOUNDATION	16,142	-	
National Science Foundation	Direct	47.074	1550765	NATIONAL SCIENCE FOUNDATION	9,876	-	
National Science Foundation	Direct	47.074	1557324	NATIONAL SCIENCE FOUNDATION	177,887	-	
National Science Foundation	Direct	47.074	1557324	NATIONAL SCIENCE FOUNDATION	19,120	-	
National Science Foundation	Direct	47.074	1557437	NATIONAL SCIENCE FOUNDATION	53,977	-	
National Science Foundation	Direct	47.074	1557657	NATIONAL SCIENCE FOUNDATION	45,284	-	
National Science Foundation	Direct	47.074	1600556	NATIONAL SCIENCE FOUNDATION	70,764	-	
National Science Foundation	Direct	47.074	1637653	NATIONAL SCIENCE FOUNDATION	304,510	-	
National Science Foundation	Direct	47.074	1637653	NATIONAL SCIENCE FOUNDATION	90,854	-	
National Science Foundation	Direct	47.074	1637653	NATIONAL SCIENCE FOUNDATION	69,377	-	
National Science Foundation	Direct	47.074	1637653	NATIONAL SCIENCE FOUNDATION	64,325	-	
National Science Foundation	Direct	47.074	1637653	NATIONAL SCIENCE FOUNDATION	58,147	-	
National Science Foundation	Direct	47.074	1637653	NATIONAL SCIENCE FOUNDATION	53,235	-	
National Science Foundation	Direct	47.074	1637653	NATIONAL SCIENCE FOUNDATION	39,076	-	
National Science Foundation	Direct	47.074	1637653	NATIONAL SCIENCE FOUNDATION	24,751	-	
National Science Foundation	Direct	47.074	1637653	NATIONAL SCIENCE FOUNDATION	15,647	-	
National Science Foundation	Direct	47.074	1637653	NATIONAL SCIENCE FOUNDATION	10,988	-	
National Science Foundation	Direct	47.074	1637653	NATIONAL SCIENCE FOUNDATION	2,000	-	
National Science Foundation	Direct	47.074	1638679	NATIONAL SCIENCE FOUNDATION	452,623	-	
National Science Foundation	Direct	47.074	1638679	NATIONAL SCIENCE FOUNDATION	8,648	-	
National Science Foundation	Direct	47.074	1638778	NATIONAL SCIENCE FOUNDATION	230,999	1,502	
National Science Foundation	Direct	47.074	1638778	NATIONAL SCIENCE FOUNDATION	19,328	-	
National Science Foundation	Direct	47.074	1644965	NATIONAL SCIENCE FOUNDATION	504,116	229,963	
National Science Foundation	Direct	47.074	1644965	NATIONAL SCIENCE FOUNDATION	16,370	-	
National Science Foundation	Direct	47.074	1655386	NATIONAL SCIENCE FOUNDATION	105,827	-	
National Science Foundation	Direct	47.074	1655386	NATIONAL SCIENCE FOUNDATION	61,165	-	
National Science Foundation	Direct	47.074	1655392	NATIONAL SCIENCE FOUNDATION	162,188	-	
National Science Foundation	Direct	47.074	1655392	NATIONAL SCIENCE FOUNDATION	12,566	-	
National Science Foundation	Direct	47.074	1655394	NATIONAL SCIENCE FOUNDATION	101,378	-	
National Science Foundation	Direct	47.074	1655715	NATIONAL SCIENCE FOUNDATION	220,587	-	
National Science Foundation	Direct	47.074	1655715	NATIONAL SCIENCE FOUNDATION	2,866	-	
National Science Foundation	Direct	47.074	1701384	NATIONAL SCIENCE FOUNDATION	20,149	-	
National Science Foundation	Direct	47.074	1701602	NATIONAL SCIENCE FOUNDATION	6,071	-	
National Science Foundation	Direct	47.074	1701736	NATIONAL SCIENCE FOUNDATION	13,813	-	
National Science Foundation	Direct	47.074	1701791	NATIONAL SCIENCE FOUNDATION	9,728	-	
National Science Foundation	Direct	47.074	1702379	NATIONAL SCIENCE FOUNDATION	107,170	39,229	
National Science Foundation	Direct	47.074	1702635	NATIONAL SCIENCE FOUNDATION	126,918	-	
National Science Foundation	Direct	47.074	1702635	NATIONAL SCIENCE FOUNDATION	8,779	-	

See notes to schedule of expenditures
of federal awards.

Schedule of Expenditures of Federal Awards (Continued)

					Year Ended June 30, 2019	
Federal Agency	Direct/ Pass-through	CFDA (Note 5)	Award Number	Grantor Name	Total Expenditures	Subaward Payments
Research and Development Cluster						
(continued):						
National Science Foundation	Direct	47.074	1702635	NATIONAL SCIENCE FOUNDATION	\$ 5,000	\$ -
National Science Foundation	Direct	47.074	1714093	NATIONAL SCIENCE FOUNDATION	62,998	-
National Science Foundation	Direct	47.074	1714093	NATIONAL SCIENCE FOUNDATION	3,105	-
National Science Foundation	Direct	47.074	1714322	NATIONAL SCIENCE FOUNDATION	38,059	-
National Science Foundation	Direct	47.074	1714561	NATIONAL SCIENCE FOUNDATION	266,952	-
National Science Foundation	Direct	47.074	1714561	NATIONAL SCIENCE FOUNDATION	25,597	-
National Science Foundation	Direct	47.074	1714612	NATIONAL SCIENCE FOUNDATION	178,184	-
National Science Foundation	Direct	47.074	1719376	NATIONAL SCIENCE FOUNDATION	254,132	-
National Science Foundation	Direct	47.074	1722621	NATIONAL SCIENCE FOUNDATION	124,399	-
National Science Foundation	Direct	47.074	1733552	NATIONAL SCIENCE FOUNDATION	133,808	-
National Science Foundation	Direct	47.074	1733633	NATIONAL SCIENCE FOUNDATION	869,466	358,515
National Science Foundation	Direct	47.074	1733633	NATIONAL SCIENCE FOUNDATION	238,767	-
National Science Foundation	Direct	47.074	1733633	NATIONAL SCIENCE FOUNDATION	27,066	-
National Science Foundation	Direct	47.074	1735934	NATIONAL SCIENCE FOUNDATION	246,836	-
National Science Foundation	Direct	47.074	1737898	NATIONAL SCIENCE FOUNDATION	263,376	-
National Science Foundation	Direct	47.074	1737898	NATIONAL SCIENCE FOUNDATION	3,186	-
National Science Foundation	Direct	47.074	1740874	NATIONAL SCIENCE FOUNDATION	235,672	125,005
National Science Foundation	Direct	47.074	1740874	NATIONAL SCIENCE FOUNDATION	211,395	-
National Science Foundation	Direct	47.074	1740874	NATIONAL SCIENCE FOUNDATION	103,675	-
National Science Foundation	Direct	47.074	1749544	NATIONAL SCIENCE FOUNDATION	95,373	-
National Science Foundation	Direct	47.074	1750003	NATIONAL SCIENCE FOUNDATION	112,273	-
National Science Foundation	Direct	47.074	1750125	NATIONAL SCIENCE FOUNDATION	72,860	-
National Science Foundation	Direct	47.074	1754250	NATIONAL SCIENCE FOUNDATION	47,027	-
National Science Foundation	Direct	47.074	1754357	NATIONAL SCIENCE FOUNDATION	3,907	-
National Science Foundation	Direct	47.074	1754484	NATIONAL SCIENCE FOUNDATION	24,217	-
National Science Foundation	Direct	47.074	1755089	NATIONAL SCIENCE FOUNDATION	59,112	-
National Science Foundation	Direct	47.074	1757043	NATIONAL SCIENCE FOUNDATION	80,814	-
National Science Foundation	Direct	47.074	1757043	NATIONAL SCIENCE FOUNDATION	7,854	-
National Science Foundation	Direct	47.074	1757530	NATIONAL SCIENCE FOUNDATION	146,585	-
National Science Foundation	Direct	47.074	1757530	NATIONAL SCIENCE FOUNDATION	14,239	-
National Science Foundation	Direct	47.074	1758091	NATIONAL SCIENCE FOUNDATION	195,141	66,000
National Science Foundation	Direct	47.074	1759729	NATIONAL SCIENCE FOUNDATION	4,895	-
National Science Foundation	Direct	47.074	1759892	NATIONAL SCIENCE FOUNDATION	14,082	-
National Science Foundation	Direct	47.074	1817307	NATIONAL SCIENCE FOUNDATION	73,111	-
National Science Foundation	Direct	47.074	1817324	NATIONAL SCIENCE FOUNDATION	67,779	-
National Science Foundation	Direct	47.074	1817347	NATIONAL SCIENCE FOUNDATION	101,454	-
National Science Foundation	Direct	47.074	1817347	NATIONAL SCIENCE FOUNDATION	5,794	-
National Science Foundation	Direct	47.074	1817377	NATIONAL SCIENCE FOUNDATION	78,751	-
National Science Foundation	Direct	47.074	1817377	NATIONAL SCIENCE FOUNDATION	42,518	-
National Science Foundation	Direct	47.074	1818898	NATIONAL SCIENCE FOUNDATION	24,367	-
National Science Foundation	Direct	47.074	1822254	NATIONAL SCIENCE FOUNDATION	246,557	35,387
National Science Foundation	Direct	47.074	1822343	NATIONAL SCIENCE FOUNDATION	314,381	-
National Science Foundation	Direct	47.074	1822343	NATIONAL SCIENCE FOUNDATION	5,826	-
National Science Foundation	Direct	47.074	1831164	NATIONAL SCIENCE FOUNDATION	84,572	-
National Science Foundation	Direct	47.074	1832042	NATIONAL SCIENCE FOUNDATION	233,104	-
National Science Foundation	Direct	47.074	1832042	NATIONAL SCIENCE FOUNDATION	29,844	-
National Science Foundation	Direct	47.074	1832042	NATIONAL SCIENCE FOUNDATION	14,000	-
National Science Foundation	Direct	47.074	1832042	NATIONAL SCIENCE FOUNDATION	10,874	-
National Science Foundation	Direct	47.074	1832042	NATIONAL SCIENCE FOUNDATION	7,250	-
National Science Foundation	Direct	47.074	1832042	NATIONAL SCIENCE FOUNDATION	2,451	-
National Science Foundation	Direct	47.074	1832042	NATIONAL SCIENCE FOUNDATION	2,102	-
National Science Foundation	Direct	47.074	1832042	NATIONAL SCIENCE FOUNDATION	1,725	-
National Science Foundation	Direct	47.074	1832042	NATIONAL SCIENCE FOUNDATION	277	-
National Science Foundation	Direct	47.074	1841251	NATIONAL SCIENCE FOUNDATION	20,753	-
National Science Foundation	Direct	47.074	1845463	NATIONAL SCIENCE FOUNDATION	37,961	-
National Science Foundation	Direct	47.074	1919439	NATIONAL SCIENCE FOUNDATION	40,398	-
National Science Foundation	Direct	47.074	DBI 0939454	NATIONAL SCIENCE FOUNDATION	3,330,958	1,638,955
National Science Foundation	Direct	47.074	DBI 0939454	NATIONAL SCIENCE FOUNDATION	125,390	-
National Science Foundation	Direct	47.074	DBI-0953738	NATIONAL SCIENCE FOUNDATION	(28)	-
National Science Foundation	Direct	47.074	DBI-1356380	NATIONAL SCIENCE FOUNDATION	284,667	-
National Science Foundation	Direct	47.074	DBI-1460569	NATIONAL SCIENCE FOUNDATION	10,231	-
National Science Foundation	Direct	47.074	DBI-1460569	NATIONAL SCIENCE FOUNDATION	6,598	-
National Science Foundation	Direct	47.074	DEB 1027253	NATIONAL SCIENCE FOUNDATION	(290)	-
National Science Foundation	Direct	47.074	DEB 1027253	NATIONAL SCIENCE FOUNDATION	(1,036)	-
National Science Foundation	Direct	47.074	DEB 1027253	NATIONAL SCIENCE FOUNDATION	(5,145)	-
National Science Foundation	Direct	47.074	DEB-1145808	NATIONAL SCIENCE FOUNDATION	6,718	-
National Science Foundation	Direct	47.074	DEB-1257756	NATIONAL SCIENCE FOUNDATION	(728)	-
National Science Foundation	Direct	47.074	DEB-1354085	NATIONAL SCIENCE FOUNDATION	72,298	-
National Science Foundation	Direct	47.074	DEB-1354414	NATIONAL SCIENCE FOUNDATION	44,106	31,928
National Science Foundation	Direct	47.074	DEB-1451740	NATIONAL SCIENCE FOUNDATION	89,957	-
National Science Foundation	Direct	47.074	DEB-1518518	NATIONAL SCIENCE FOUNDATION	240,126	36,414
National Science Foundation	Direct	47.074	DEB-1547024	NATIONAL SCIENCE FOUNDATION	57,105	-
National Science Foundation	Direct	47.074	DEB-1552197	NATIONAL SCIENCE FOUNDATION	100,689	-
National Science Foundation	Direct	47.074	DEB-1552197	NATIONAL SCIENCE FOUNDATION	12,073	-
National Science Foundation	Direct	47.074	DEB-1655425	NATIONAL SCIENCE FOUNDATION	29,880	-
National Science Foundation	Direct	47.074	EF-1253225	NATIONAL SCIENCE FOUNDATION	390,228	8,614
National Science Foundation	Direct	47.074	EF-1253225	NATIONAL SCIENCE FOUNDATION	37,158	-
National Science Foundation	Direct	47.074	EF-1340604	NATIONAL SCIENCE FOUNDATION	9,995	-
National Science Foundation	Direct	47.074	EF-1340812	NATIONAL SCIENCE FOUNDATION	376,574	-
National Science Foundation	Direct	47.074	IOS-1331218	NATIONAL SCIENCE FOUNDATION	64,757	-
National Science Foundation	Direct	47.074	IOS-1350772	NATIONAL SCIENCE FOUNDATION	75,000	-
National Science Foundation	Direct	47.074	IOS-1350772	NATIONAL SCIENCE FOUNDATION	8,725	-
National Science Foundation	Direct	47.074	IOS-1353110	NATIONAL SCIENCE FOUNDATION	163,506	6,255
National Science Foundation	Direct	47.074	IOS-1354089	NATIONAL SCIENCE FOUNDATION	61,846	-
National Science Foundation	Direct	47.074	IOS-1354195	NATIONAL SCIENCE FOUNDATION	(26,140)	-
National Science Foundation	Direct	47.074	IOS-1354721	NATIONAL SCIENCE FOUNDATION	3,675	-
National Science Foundation	Direct	47.074	IOS-1456482	NATIONAL SCIENCE FOUNDATION	71,995	-
National Science Foundation	Direct	47.074	IOS-1456864	NATIONAL SCIENCE FOUNDATION	33,422	-
National Science Foundation	Direct	47.074	IOS-1847193	NATIONAL SCIENCE FOUNDATION	22,835	-
National Science Foundation	Direct	47.074	MCB-1243792	NATIONAL SCIENCE FOUNDATION	3,060	-
National Science Foundation	Direct	47.074	MCB-1243792	NATIONAL SCIENCE FOUNDATION	917	-
National Science Foundation	Direct	47.074	MCB-1243983	NATIONAL SCIENCE FOUNDATION	24,714	-
National Science Foundation	Direct	47.074	MCB-1243983	NATIONAL SCIENCE FOUNDATION	12,595	-
National Science Foundation	Direct	47.074	MCB-1330441	NATIONAL SCIENCE FOUNDATION	5,648	-
National Science Foundation	Direct	47.074	MCB-1330441	NATIONAL SCIENCE FOUNDATION	(1,189)	-
National Science Foundation	Direct	47.074	MCB-1330560	NATIONAL SCIENCE FOUNDATION	4,284	-
National Science Foundation	Direct	47.074	MCB-1355594	NATIONAL SCIENCE FOUNDATION	(9,518)	-

See notes to schedule of expenditures
of federal awards.

Schedule of Expenditures of Federal Awards (Continued)

					Year Ended June 30, 2019		
Federal Agency	Direct/ Pass-through	CFDA (Note 5)	Award Number	Grantor Name	Total Expenditures	Subaward Payments	
Research and Development Cluster							
(continued):							
National Science Foundation	Direct	47.074	MCB-1413356	NATIONAL SCIENCE FOUNDATION	\$ 12,538	\$ -	
National Science Foundation	Direct	47.074	MCB-1515002	NATIONAL SCIENCE FOUNDATION	142,855	-	
National Science Foundation	Direct	47.074	MCB-1515002	NATIONAL SCIENCE FOUNDATION	12,431	-	
National Science Foundation	Direct	47.074	MCB-1515169	NATIONAL SCIENCE FOUNDATION	79,358	-	
National Science Foundation	Direct	47.074	MCB-1515169	NATIONAL SCIENCE FOUNDATION	30,123	-	
National Science Foundation	Direct	47.074	MCB-1517241	NATIONAL SCIENCE FOUNDATION	134,983	-	
National Science Foundation	Direct	47.074	MCB-1517241	NATIONAL SCIENCE FOUNDATION	11,904	-	
National Science Foundation	Direct	47.075	1338614	NATIONAL SCIENCE FOUNDATION	15,890	-	
National Science Foundation	Direct	47.075	1540314	NATIONAL SCIENCE FOUNDATION	107,581	85,280	
National Science Foundation	Direct	47.075	1556270	NATIONAL SCIENCE FOUNDATION	25,812	-	
National Science Foundation	Direct	47.075	1559045	NATIONAL SCIENCE FOUNDATION	(287)	-	
National Science Foundation	Direct	47.075	1560846	NATIONAL SCIENCE FOUNDATION	336,725	-	
National Science Foundation	Direct	47.075	1560846	NATIONAL SCIENCE FOUNDATION	126,228	-	
National Science Foundation	Direct	47.075	1630982	NATIONAL SCIENCE FOUNDATION	55,183	-	
National Science Foundation	Direct	47.075	1638167	NATIONAL SCIENCE FOUNDATION	3,426	-	
National Science Foundation	Direct	47.075	1654929	NATIONAL SCIENCE FOUNDATION	74,523	8,442	
National Science Foundation	Direct	47.075	1658249	NATIONAL SCIENCE FOUNDATION	49,928	-	
National Science Foundation	Direct	47.075	1728749	NATIONAL SCIENCE FOUNDATION	20,909	-	
National Science Foundation	Direct	47.075	1728923	NATIONAL SCIENCE FOUNDATION	121,617	-	
National Science Foundation	Direct	47.075	1728975	NATIONAL SCIENCE FOUNDATION	448	-	
National Science Foundation	Direct	47.075	1734063	NATIONAL SCIENCE FOUNDATION	32,883	-	
National Science Foundation	Direct	47.075	1734063	NATIONAL SCIENCE FOUNDATION	2,835	-	
National Science Foundation	Direct	47.075	1734237	NATIONAL SCIENCE FOUNDATION	114,613	-	
National Science Foundation	Direct	47.075	1744094	NATIONAL SCIENCE FOUNDATION	(360)	-	
National Science Foundation	Direct	47.075	1745150	NATIONAL SCIENCE FOUNDATION	6,444	-	
National Science Foundation	Direct	47.075	1753635	NATIONAL SCIENCE FOUNDATION	9,611	-	
National Science Foundation	Direct	47.075	1754863	NATIONAL SCIENCE FOUNDATION	55,469	-	
National Science Foundation	Direct	47.075	1756092	NATIONAL SCIENCE FOUNDATION	120,872	-	
National Science Foundation	Direct	47.075	1759528	NATIONAL SCIENCE FOUNDATION	108,617	20,165	
National Science Foundation	Direct	47.075	1759587	NATIONAL SCIENCE FOUNDATION	212	-	
National Science Foundation	Direct	47.075	1760254	NATIONAL SCIENCE FOUNDATION	59,132	-	
National Science Foundation	Direct	47.075	1823889	NATIONAL SCIENCE FOUNDATION	28,068	-	
National Science Foundation	Direct	47.075	1826773	NATIONAL SCIENCE FOUNDATION	8,087	-	
National Science Foundation	Direct	47.075	1826911	NATIONAL SCIENCE FOUNDATION	98,453	-	
National Science Foundation	Direct	47.075	1844694	NATIONAL SCIENCE FOUNDATION	23	-	
National Science Foundation	Direct	47.075	1851625	NATIONAL SCIENCE FOUNDATION	49,016	-	
National Science Foundation	Direct	47.075	1904083	NATIONAL SCIENCE FOUNDATION	51,924	-	
National Science Foundation	Direct	47.075	BCS-1149078	NATIONAL SCIENCE FOUNDATION	(242)	-	
National Science Foundation	Direct	47.075	BCS-1431063	NATIONAL SCIENCE FOUNDATION	1,905	-	
National Science Foundation	Direct	47.075	BCS-1656133	NATIONAL SCIENCE FOUNDATION	76,106	-	
National Science Foundation	Direct	47.075	BCS-1817665	NATIONAL SCIENCE FOUNDATION	15,308	-	
National Science Foundation	Direct	47.075	SES-1449466	NATIONAL SCIENCE FOUNDATION	90,708	45,337	
National Science Foundation	Direct	47.075	SES-1851928	NATIONAL SCIENCE FOUNDATION	8,262	-	
National Science Foundation	Direct	47.075	SMA-1416730	NATIONAL SCIENCE FOUNDATION	147,627	96,034	
National Science Foundation	Direct	47.076	1316908	NATIONAL SCIENCE FOUNDATION	61	-	
National Science Foundation	Direct	47.076	1340048	NATIONAL SCIENCE FOUNDATION	268,691	-	
National Science Foundation	Direct	47.076	1503211	NATIONAL SCIENCE FOUNDATION	190,432	-	
National Science Foundation	Direct	47.076	1503211	NATIONAL SCIENCE FOUNDATION	6,697	-	
National Science Foundation	Direct	47.076	1503277	NATIONAL SCIENCE FOUNDATION	812	-	
National Science Foundation	Direct	47.076	1503277	NATIONAL SCIENCE FOUNDATION	(1,788)	-	
National Science Foundation	Direct	47.076	1504786	NATIONAL SCIENCE FOUNDATION	(558)	-	
National Science Foundation	Direct	47.076	1524128	NATIONAL SCIENCE FOUNDATION	121,908	-	
National Science Foundation	Direct	47.076	1561122	NATIONAL SCIENCE FOUNDATION	60,595	-	
National Science Foundation	Direct	47.076	1561159	NATIONAL SCIENCE FOUNDATION	110,970	-	
National Science Foundation	Direct	47.076	1564745	NATIONAL SCIENCE FOUNDATION	160,216	-	
National Science Foundation	Direct	47.076	1564745	NATIONAL SCIENCE FOUNDATION	20,987	-	
National Science Foundation	Direct	47.076	1620580	NATIONAL SCIENCE FOUNDATION	383,118	-	
National Science Foundation	Direct	47.076	1620746	NATIONAL SCIENCE FOUNDATION	231,102	-	
National Science Foundation	Direct	47.076	1620746	NATIONAL SCIENCE FOUNDATION	9,144	-	
National Science Foundation	Direct	47.076	1620934	NATIONAL SCIENCE FOUNDATION	261,313	-	
National Science Foundation	Direct	47.076	1620934	NATIONAL SCIENCE FOUNDATION	986	-	
National Science Foundation	Direct	47.076	1623824	NATIONAL SCIENCE FOUNDATION	172,797	-	
National Science Foundation	Direct	47.076	1643723	NATIONAL SCIENCE FOUNDATION	124,000	-	
National Science Foundation	Direct	47.076	1643723	NATIONAL SCIENCE FOUNDATION	40,977	-	
National Science Foundation	Direct	47.076	1643833	NATIONAL SCIENCE FOUNDATION	70,285	-	
National Science Foundation	Direct	47.076	1643833	NATIONAL SCIENCE FOUNDATION	47,645	-	
National Science Foundation	Direct	47.076	1646869	NATIONAL SCIENCE FOUNDATION	66,939	-	
National Science Foundation	Direct	47.076	1649981	NATIONAL SCIENCE FOUNDATION	33,203	-	
National Science Foundation	Direct	47.076	1660643	NATIONAL SCIENCE FOUNDATION	105,403	-	
National Science Foundation	Direct	47.076	1661064	NATIONAL SCIENCE FOUNDATION	184,341	-	
National Science Foundation	Direct	47.076	1661236	NATIONAL SCIENCE FOUNDATION	422,345	-	
National Science Foundation	Direct	47.076	1702592	NATIONAL SCIENCE FOUNDATION	30,380	-	
National Science Foundation	Direct	47.076	1708506	NATIONAL SCIENCE FOUNDATION	83,346	73,552	
National Science Foundation	Direct	47.076	1708664	NATIONAL SCIENCE FOUNDATION	53,519	-	
National Science Foundation	Direct	47.076	1711260	NATIONAL SCIENCE FOUNDATION	77,266	-	
National Science Foundation	Direct	47.076	1713060	NATIONAL SCIENCE FOUNDATION	114,984	-	
National Science Foundation	Direct	47.076	1713197	NATIONAL SCIENCE FOUNDATION	47,213	-	
National Science Foundation	Direct	47.076	1719950	NATIONAL SCIENCE FOUNDATION	12,146	-	
National Science Foundation	Direct	47.076	1719950	NATIONAL SCIENCE FOUNDATION	3,577	-	
National Science Foundation	Direct	47.076	1725320	NATIONAL SCIENCE FOUNDATION	346,327	56,744	
National Science Foundation	Direct	47.076	1725520	NATIONAL SCIENCE FOUNDATION	128,186	-	
National Science Foundation	Direct	47.076	1725521	NATIONAL SCIENCE FOUNDATION	163,427	-	
National Science Foundation	Direct	47.076	1725910	NATIONAL SCIENCE FOUNDATION	255,164	-	
National Science Foundation	Direct	47.076	1725956	NATIONAL SCIENCE FOUNDATION	117,519	-	
National Science Foundation	Direct	47.076	1741575	NATIONAL SCIENCE FOUNDATION	203,903	-	
National Science Foundation	Direct	47.076	1741575	NATIONAL SCIENCE FOUNDATION	15,861	-	
National Science Foundation	Direct	47.076	1742381	NATIONAL SCIENCE FOUNDATION	411,023	234,469	
National Science Foundation	Direct	47.076	1742381	NATIONAL SCIENCE FOUNDATION	99,310	-	
National Science Foundation	Direct	47.076	1812916	NATIONAL SCIENCE FOUNDATION	524	-	
National Science Foundation	Direct	47.076	1813047	NATIONAL SCIENCE FOUNDATION	140,690	-	
National Science Foundation	Direct	47.076	1835946	NATIONAL SCIENCE FOUNDATION	4,983	-	
National Science Foundation	Direct	47.076	1835946	NATIONAL SCIENCE FOUNDATION	1,500	-	
National Science Foundation	Direct	47.076	1836685	NATIONAL SCIENCE FOUNDATION	41,095	-	
National Science Foundation	Direct	47.076	1836685	NATIONAL SCIENCE FOUNDATION	3,717	-	
National Science Foundation	Direct	47.076	1842037	NATIONAL SCIENCE FOUNDATION	131,302	-	
National Science Foundation	Direct	47.076	1848739	NATIONAL SCIENCE FOUNDATION	593,410	-	
National Science Foundation	Direct	47.076	DGE-1424871	NATIONAL SCIENCE FOUNDATION	883,757	-	

See notes to schedule of expenditures
of federal awards.

Schedule of Expenditures of Federal Awards (Continued)

					Year Ended June 30, 2019	
Federal Agency	Direct/ Pass-through	CFDA (Note 5)	Award Number	Grantor Name	Total Expenditures	Subaward Payments
Research and Development Cluster						
(continued):						
National Science Foundation	Direct	47.076	DGE-1438739	NATIONAL SCIENCE FOUNDATION	\$ 14,952	\$ -
National Science Foundation	Direct	47.076	DGE-1535011	NATIONAL SCIENCE FOUNDATION	150,276	96,643
National Science Foundation	Direct	47.076	DGE-1828149	NATIONAL SCIENCE FOUNDATION	50,755	-
National Science Foundation	Direct	47.076	DGE-1828149	NATIONAL SCIENCE FOUNDATION	21,038	-
National Science Foundation	Direct	47.076	DRL-1232388	NATIONAL SCIENCE FOUNDATION	(16,097)	-
National Science Foundation	Direct	47.076	DRL-1252439	NATIONAL SCIENCE FOUNDATION	34,480	4,702
National Science Foundation	Direct	47.076	DRL-1253036	NATIONAL SCIENCE FOUNDATION	136,332	-
National Science Foundation	Direct	47.076	DRL-1253036	NATIONAL SCIENCE FOUNDATION	2,403	-
National Science Foundation	Direct	47.076	DRL-1253822	NATIONAL SCIENCE FOUNDATION	(278)	-
National Science Foundation	Direct	47.076	DRL-1316908	NATIONAL SCIENCE FOUNDATION	198,484	-
National Science Foundation	Direct	47.076	DRL-1417672	NATIONAL SCIENCE FOUNDATION	537,716	130,202
National Science Foundation	Direct	47.076	DRL-1417672	NATIONAL SCIENCE FOUNDATION	19,993	-
National Science Foundation	Direct	47.076	DRL-1417900	NATIONAL SCIENCE FOUNDATION	142,230	-
National Science Foundation	Direct	47.076	DRL-1417900	NATIONAL SCIENCE FOUNDATION	4,578	-
National Science Foundation	Direct	47.076	DRL-1420492	NATIONAL SCIENCE FOUNDATION	5,712	-
National Science Foundation	Direct	47.076	DRL-1420532	NATIONAL SCIENCE FOUNDATION	71,159	71,309
National Science Foundation	Direct	47.076	DRL-1440988	NATIONAL SCIENCE FOUNDATION	1,220,174	557,506
National Science Foundation	Direct	47.076	DRL-1440988	NATIONAL SCIENCE FOUNDATION	-	-
National Science Foundation	Direct	47.076	DRL-1502755	NATIONAL SCIENCE FOUNDATION	190,183	66,644
National Science Foundation	Direct	47.076	DRL-1647033	NATIONAL SCIENCE FOUNDATION	343,522	128,216
National Science Foundation	Direct	47.076	DRL-1660926	NATIONAL SCIENCE FOUNDATION	332,999	163,330
National Science Foundation	Direct	47.076	DRL-1712834	NATIONAL SCIENCE FOUNDATION	184,884	73,928
National Science Foundation	Direct	47.076	DRL-1744202	NATIONAL SCIENCE FOUNDATION	11,616	-
National Science Foundation	Direct	47.076	DUE-1323162	NATIONAL SCIENCE FOUNDATION	725,235	95,925
National Science Foundation	Direct	47.076	DUE-1340048	NATIONAL SCIENCE FOUNDATION	37,521	-
National Science Foundation	Direct	47.076	DUE-1347605	NATIONAL SCIENCE FOUNDATION	123,930	48,306
National Science Foundation	Direct	47.076	DUE-1431725	NATIONAL SCIENCE FOUNDATION	360,125	175,896
National Science Foundation	Direct	47.076	DUE-1431725	NATIONAL SCIENCE FOUNDATION	799	-
National Science Foundation	Direct	47.076	DUE-1432563	NATIONAL SCIENCE FOUNDATION	296,313	-
National Science Foundation	Direct	47.076	DUE-1432563	NATIONAL SCIENCE FOUNDATION	4,527	-
National Science Foundation	Direct	47.076	DUE-1502552	NATIONAL SCIENCE FOUNDATION	46,946	-
National Science Foundation	Direct	47.076	FED GOV FELLOWSHIPS-FEES	NATIONAL SCIENCE FOUNDATION	(109,558)	-
National Science Foundation	Direct	47.076	HRD-1305819	NATIONAL SCIENCE FOUNDATION	89,192	-
National Science Foundation	Direct	47.076	HRD-1305819	NATIONAL SCIENCE FOUNDATION	6,276	-
National Science Foundation	Direct	47.079	1556407	NATIONAL SCIENCE FOUNDATION	84,725	-
National Science Foundation	Direct	47.079	1556407	NATIONAL SCIENCE FOUNDATION	40,485	-
National Science Foundation	Direct	47.079	1614130	NATIONAL SCIENCE FOUNDATION	76,637	-
National Science Foundation	Direct	47.079	1827093	NATIONAL SCIENCE FOUNDATION	37,655	-
National Science Foundation	Direct	47.079	1827093	NATIONAL SCIENCE FOUNDATION	3,014	-
National Science Foundation	Direct	47.079	1844794	NATIONAL SCIENCE FOUNDATION	38,053	-
National Science Foundation	Direct	47.079	1853934	NATIONAL SCIENCE FOUNDATION	1,326	-
National Science Foundation	Direct	47.079	IIA-1358110	NATIONAL SCIENCE FOUNDATION	19,127	-
National Science Foundation	Direct	47.079	IIA-1358110	NATIONAL SCIENCE FOUNDATION	4,765	-
National Science Foundation	Direct	47.079	OISE-1545684	NATIONAL SCIENCE FOUNDATION	1,057,590	-
National Science Foundation	Direct	47.079	OISE-1545684	NATIONAL SCIENCE FOUNDATION	14,464	-
Direct Total					81,943,723	8,433,779
National Science Foundation	Pass-through	47	4558	STANFORD RESEARCH INSTITUTE	33,816	-
National Science Foundation	Pass-through	47.041	3003795364	UNIVERSITY OF MICHIGAN	64,159	-
National Science Foundation	Pass-through	47.041	4101-71104	PURDUE UNIVERSITY	79,975	-
National Science Foundation	Pass-through	47.041	4500002780	BOSTON UNIVERSITY	18,076	-
National Science Foundation	Pass-through	47.041	4500002844	BOSTON UNIVERSITY	6,359	-
National Science Foundation	Pass-through	47.041	E204620-3	GEORGE MASON UNIVERSITY	13,623	-
National Science Foundation	Pass-through	47.041	G-01151-1	STATE OF COLORADO	93,212	-
National Science Foundation	Pass-through	47.041	S1863P-B	OREGON STATE UNIVERSITY	33,066	-
National Science Foundation	Pass-through	47.049	2003349346	JOHNS HOPKINS UNIVERSITY	60,656	-
National Science Foundation	Pass-through	47.049	2017-13	AMERICAN PHYSICAL SOCIETY	5,815	-
National Science Foundation	Pass-through	47.049	3004423504	UNIVERSITY OF MICHIGAN	256,596	-
National Science Foundation	Pass-through	47.049	359609	NATL RADIO ASTRONOMY OBSERVATORY	7,094	-
National Science Foundation	Pass-through	47.049	76749/1136652/2R&D	THE REGENTS OF THE UNIVERSITY OF CALIFORNIA - DAVIS	301,577	-
National Science Foundation	Pass-through	47.049	76749/1136652/2R&D	THE REGENTS OF THE UNIVERSITY OF CALIFORNIA - DAVIS	47,125	-
National Science Foundation	Pass-through	47.049	76749/1136652/2R&D	THE REGENTS OF THE UNIVERSITY OF CALIFORNIA - DAVIS	6,977	-
National Science Foundation	Pass-through	47.049	76749-1136652-2	STONY BROOK UNIVERSITY	382,435	-
National Science Foundation	Pass-through	47.049	855K805	UNIVERSITY OF WISCONSIN - MADISON	171,446	-
National Science Foundation	Pass-through	47.049	NSF 68790	STATE UNIVERSITY OF NEW YORK	414,796	-
National Science Foundation	Pass-through	47.050	10010192-MSU01	BOWLING GREEN UNIVERSITY	17,169	-
National Science Foundation	Pass-through	47.050	24 (GG009393)	COLUMBIA UNIVERSITY	5,247	-
National Science Foundation	Pass-through	47.050	24 (GG009393)	COLUMBIA UNIVERSITY	27	-
National Science Foundation	Pass-through	47.050	3004146006	UNIVERSITY OF MICHIGAN	66,355	-
National Science Foundation	Pass-through	47.050	479483-19057	VIRGINIA POLYTECHNIC INST	35,750	-
National Science Foundation	Pass-through	47.050	675K964	BD OF REGENTS OF THE UNIV WISC	27,664	-
National Science Foundation	Pass-through	47.050	UAF 19-0046	UNIVERSITY OF ALASKA	72,228	-
National Science Foundation	Pass-through	47.050	UAF19-0083	UNIVERSITY OF ALASKA	8,201	-
National Science Foundation	Pass-through	47.070	3003646555	UNIVERSITY OF MICHIGAN	147,334	-
National Science Foundation	Pass-through	47.070	3003646555	UNIVERSITY OF MICHIGAN	7,624	-
National Science Foundation	Pass-through	47.070	4044103C	IOWA STATE UNIVERSITY	1,477	-
National Science Foundation	Pass-through	47.070	479590-19057	VIRGINIA POLYTECHNIC INST	47,422	-
National Science Foundation	Pass-through	47.070	U-100987-1	CLARKSON UNIVERSITY	4,348	-
National Science Foundation	Pass-through	47.074	1002973-01	NORTHERN ARIZONA UNIVERSITY	2,851	-
National Science Foundation	Pass-through	47.074	1002973-01	NORTHERN ARIZONA UNIVERSITY	1,652	-
National Science Foundation	Pass-through	47.074	1002973-01	NORTHERN ARIZONA UNIVERSITY	716	-
National Science Foundation	Pass-through	47.074	1457323MSU	ALMA COLLEGE	(97)	-
National Science Foundation	Pass-through	47.074	15-571	ARIZONA STATE UNIVERSITY	30,324	-
National Science Foundation	Pass-through	47.074	1716340	UNIVERSITY OF KENTUCKY	53,169	-
National Science Foundation	Pass-through	47.074	17-21	UNIVERSITY OF NEVADA RENO	154,366	-
National Science Foundation	Pass-through	47.074	2014-0347-01	NORTH CAROLINA STATE UNIVERSITY	40,147	-
National Science Foundation	Pass-through	47.074	2015-984-001	SAMUEL ROBERTS NOBLE FOUNDATION	171,010	-
National Science Foundation	Pass-through	47.074	202236	UNIVERSITY OF NOTRE DAME	34,112	-
National Science Foundation	Pass-through	47.074	4101-80632	PURDUE UNIVERSITY	10,704	-
National Science Foundation	Pass-through	47.074	420-66-088	IOWA STATE UNIVERSITY	391,872	-
National Science Foundation	Pass-through	47.074	42271	SAINT LOUIS UNIVERSITY	113,323	-
National Science Foundation	Pass-through	47.074	50124-1	THE FIELD MUSEUM	450	-
National Science Foundation	Pass-through	47.074	7793-MSU	WESTERN MICHIGAN UNIVERSITY	(2,204)	-
National Science Foundation	Pass-through	47.074	A18-0247-S001	UNIVERSITY OF TENNESSEE KNOXVILLE	20,508	-
National Science Foundation	Pass-through	47.074	CB2960-SB-897821	UNIVERSITY OF IDAHO	3,381	-
National Science Foundation	Pass-through	47.074	RR167-629/S001557	UNIVERSITY OF GEORGIA	390,985	-
National Science Foundation	Pass-through	47.074	SUBK00008579	UNIVERSITY OF MICHIGAN	14,317	-

See notes to schedule of expenditures
of federal awards.

Schedule of Expenditures of Federal Awards (Continued)

					Year Ended June 30, 2019	
Federal Agency	Direct/ Pass-through	CFDA (Note 5)	Award Number	Grantor Name	Total Expenditures	Subaward Payments
Research and Development Cluster (continued):						
National Science Foundation	Pass-through	47.074	UFDS00010707	UNIVERSITY OF FLORIDA	\$ 71,090	\$ -
National Science Foundation	Pass-through	47.075	129152	ARIZONA STATE UNIVERSITY	3,817	-
National Science Foundation	Pass-through	47.075	17-009496 A	UNIVERSITY OF MASSACHUSETTS	9,016	-
National Science Foundation	Pass-through	47.075	GTK137-58-002	UNIVERSITY OF IDAHO	19,361	-
National Science Foundation	Pass-through	47.076	1555285	UNIVERSITY OF COLORADO AT BOULDER	6,393	-
National Science Foundation	Pass-through	47.076	16043-003	MISSOURI STATE UNIV	16,859	-
National Science Foundation	Pass-through	47.076	16043-003	MISSOURI STATE UNIV	5,493	-
National Science Foundation	Pass-through	47.076	3003620154	UNIVERSITY OF MICHIGAN	1	-
National Science Foundation	Pass-through	47.076	3004280408	UNIVERSITY OF MICHIGAN	47,630	-
National Science Foundation	Pass-through	47.076	3004280408	UNIVERSITY OF MICHIGAN	27,821	-
National Science Foundation	Pass-through	47.076	4101-65235	PURDUE UNIVERSITY	(2,223)	-
National Science Foundation	Pass-through	47.076	415908-G	UNIVERSITY OF ROCHESTER	3,319	-
National Science Foundation	Pass-through	47.076	64155-1	NORTHERN ILLINOIS UNIVERSITY	6,816	-
National Science Foundation	Pass-through	47.076	782K493	UNIVERSITY OF WISCONSIN - MADISON	20,114	-
National Science Foundation	Pass-through	47.076	782K493	UNIVERSITY OF WISCONSIN - MADISON	2,635	-
National Science Foundation	Pass-through	47.076	856K424	UNIVERSITY OF WISCONSIN	33,829	-
National Science Foundation	Pass-through	47.076	879K815	UNIVERSITY OF WISCONSIN	30,293	-
National Science Foundation	Pass-through	47.076	9109-0003	ASSOCIATED UNIVERSITIES INC	14,586	-
National Science Foundation	Pass-through	47.076	GA11161 150025	UNIVERSITY OF VIRGINIA	144,711	-
National Science Foundation	Pass-through	47.076	24625001	UNIVERSITY OF MARYLAND	28,167	-
National Science Foundation	Pass-through	47.079	OISE-1243433	DUKE UNIVERSITY	182,094	-
National Science Foundation	Pass-through	47.079	OISE-16-62750-0	CRDF GLOBAL	18,212	-
Pass-through Total					4,559,269	-
National Science Foundation Total					86,502,992	8,433,779
State	Direct	19	19AQMM18P1791	STATE US DEPARTMENT OF	7,418	-
State	Direct	19	19AQMM18P1798	STATE US DEPARTMENT OF	7,696	-
State	Direct	19	19AQMM18P2520	STATE US DEPARTMENT OF	20,000	-
State	Direct	19	SAQMMMA15M2452	STATE US DEPARTMENT OF	(925)	-
State	Direct	19.345	S-LMAQM-17-GR-1177	STATE US DEPARTMENT OF	156,813	-
State Total					191,002	-
Transportation	Direct	20.200	DTFH61-3-H-00009	FEDERAL HIGHWAY ADMINISTRATION	(1,002)	-
Transportation	Direct	20.701	DTRT13-G-UTC44	TRANSPORTATION US DEPT OF	322,921	270,154
Transportation	Direct	20.701	DTRT13-G-UTC44	TRANSPORTATION US DEPT OF	15,693	-
Transportation	Direct	20.701	DTRT13-G-UTC44	TRANSPORTATION US DEPT OF	10,509	-
Transportation	Direct	20.701	DTRT13-G-UTC44	TRANSPORTATION US DEPT OF	5,368	-
Transportation	Direct	20.701	DTRT13-G-UTC44	TRANSPORTATION US DEPT OF	3,320	-
Transportation	Direct	20.724	693JK31850007	TRANSPORTATION US DEPT OF	33,619	-
Direct Total					390,428	270,154
Transportation	Pass-through	20	17-44	ENGINEERING AND SOFTWARE CONSULTANTS, INC (ESC)	2,739	-
Transportation	Pass-through	20	2013-0066	MICHIGAN DEPARTMENT OF TRANSPORTATION	221,321	76,544
Transportation	Pass-through	20	2013-0066 Z8	MICHIGAN DEPARTMENT OF TRANSPORTATION	55,664	41,226
Transportation	Pass-through	20	2018-0045	MICHIGAN DEPARTMENT OF TRANSPORTATION	10,885	-
Transportation	Pass-through	20	404-77-50	IOWA STATE UNIVERSITY	5,753	-
Transportation	Pass-through	20	436-17-42B	IOWA STATE UNIVERSITY	314,709	-
Transportation	Pass-through	20	436-17-48B	IOWA STATE UNIVERSITY	106,393	-
Transportation	Pass-through	20	OP-18-02	MICHIGAN STATE POLICE	43,115	18,755
Transportation	Pass-through	20	OP-18-05	MICHIGAN STATE POLICE	73,088	-
Transportation	Pass-through	20.200	2018-0813	MICHIGAN DEPARTMENT OF TRANSPORTATION	64,177	-
Transportation	Pass-through	20.505	2013-0066-Z10	MICHIGAN DEPARTMENT OF TRANSPORTATION	124,914	-
Transportation	Pass-through	20.505	2013-0066-Z11	MICHIGAN DEPARTMENT OF TRANSPORTATION	10,202	-
Transportation	Pass-through	20.505	2018-0074	MICHIGAN DEPARTMENT OF TRANSPORTATION	39,204	-
Transportation	Pass-through	20.505	2019-0275	MICHIGAN DEPARTMENT OF TRANSPORTATION	9,227	-
Transportation	Pass-through	20.505	2019-0289	MICHIGAN DEPARTMENT OF TRANSPORTATION	8,465	-
Transportation	Pass-through	20.505	2019-0295	MICHIGAN DEPARTMENT OF TRANSPORTATION	3,041	-
Transportation	Pass-through	20.505	2019-0369	MICHIGAN DEPARTMENT OF TRANSPORTATION	8,793	-
Transportation	Pass-through	20.724	17-158	ARIZONA STATE UNIVERSITY	12,186	-
Transportation	Pass-through	20.724	401493-5801	COLORADO SCHOOL OF MINES	11,628	-
Transportation	Pass-through	20.724	FY16.675.001	REGENTS OF UNIV OF COLORADO	38,858	-
Transportation	Pass-through	20.724	FY16.675.001	UNIVERSITY OF COLORADO - DENVER	35,414	-
Pass-through Total					1,199,776	136,525
Transportation Total					1,590,204	406,679
Treasury	Pass-through	21.010	App 143072/154144	MICHIGAN HOMEOWNER ASSISTANCE	129,440	-
Treasury Total					129,440	-
USAID	Direct	98.001	155588	US AGENCY FOR INTERNATIONAL DEVELOPMENT	17	-
USAID	Direct	98.001	611-A-00-11-00001-00	US AGENCY FOR INTERNATIONAL DEVELOPMENT	(52)	-
USAID	Direct	98.001	7200AA18LE00003	US AGENCY FOR INTERNATIONAL DEVELOPMENT	605,491	48,950
USAID	Direct	98.001	7200AA18LE00003	US AGENCY FOR INTERNATIONAL DEVELOPMENT	12,468	-
USAID	Direct	98.001	AID-482-LA-14-00003	US AGENCY FOR INTERNATIONAL DEVELOPMENT	1,150,624	252,938
USAID	Direct	98.001	AID-612-LA-15-00001	US AGENCY FOR INTERNATIONAL DEVELOPMENT	594,917	105,458
USAID	Direct	98.001	AID-620-LA-15-00001	US AGENCY FOR INTERNATIONAL DEVELOPMENT	2,525,862	1,983,190
USAID	Direct	98.001	AID-685-LA-15-00001	US AGENCY FOR INTERNATIONAL DEVELOPMENT	2,915,752	2,782,299
USAID	Direct	98.001	AID-688-A-16-00001	US AGENCY FOR INTERNATIONAL DEVELOPMENT	818,798	22,806
USAID	Direct	98.001	AID-OAA-A-15-00056	US AGENCY FOR INTERNATIONAL DEVELOPMENT	1,932,458	919,042
USAID	Direct	98.001	AID-OAA-L13-00001	US AGENCY FOR INTERNATIONAL DEVELOPMENT	1,923,485	75,294
USAID	Direct	98.001	AID-OAA-L13-00001	US AGENCY FOR INTERNATIONAL DEVELOPMENT	473,361	90,755
USAID	Direct	98.001	AID-OAA-L-13-00001	US AGENCY FOR INTERNATIONAL DEVELOPMENT	2,317,315	1,108,255
USAID	Direct	98.001	AID-OAA-L-13-00001	US AGENCY FOR INTERNATIONAL DEVELOPMENT	176,244	120,671
USAID	Direct	98.001	AID-OAA-L-13-00001	US AGENCY FOR INTERNATIONAL DEVELOPMENT	141,917	101,367
USAID	Direct	98.001	AID-OAA-L-13-00001	US AGENCY FOR INTERNATIONAL DEVELOPMENT	55,968	-
USAID	Direct	98.001	AID-OAA-L-13-00001	US AGENCY FOR INTERNATIONAL DEVELOPMENT	32,235	-
USAID	Direct	98.001	AID-OAA-L-13-00001	US AGENCY FOR INTERNATIONAL DEVELOPMENT	12,890	-
USAID	Direct	98.001	AID-OAA-L-13-00001	US AGENCY FOR INTERNATIONAL DEVELOPMENT	1,185	-
USAID	Direct	98.001	AID-OAA-LA-14-00005	US AGENCY FOR INTERNATIONAL DEVELOPMENT	831,485	614,904
USAID	Direct	98.001	AID-OAA-LA-15-00006	US AGENCY FOR INTERNATIONAL DEVELOPMENT	61,692	35,721
USAID	Direct	98.001	AID-OAA-LA-17-00002	US AGENCY FOR INTERNATIONAL DEVELOPMENT	33,898	-
USAID	Direct	98.001	ILLSR	US AGENCY FOR INTERNATIONAL DEVELOPMENT	5,970	-
Direct Total					16,623,980	8,261,650
USAID	Pass-through	98	148524	INTL INST FOR TROPICAL AGRICULTURE	73,405	-
USAID	Pass-through	98	2017X240.MSU	INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE	200,252	-
USAID	Pass-through	98	2017X240.MSU	INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE	83,581	-
USAID	Pass-through	98.001	078517-15682	ILLINOIS URBANA CHAMPAIGN, UNIVERSITY OF	134,655	34,335
USAID	Pass-through	98.001	09-002945-103	THE REGENTS OF THE UNIVERSITY OF CALIFORNIA - DAVIS	7,998	7,967
USAID	Pass-through	98.001	8000075688	PURDUE UNIVERSITY	(15)	-
USAID	Pass-through	98.001	BFS-G-11-00002	INTL INST FOR TROPICAL AGRICULTURE	744,498	110,645
USAID	Pass-through	98.001	FAW Project	CIMMYT INC	25,245	-
USAID	Pass-through	98.001	IQC-TIARD-MSU-005	TETRA TECH INC.	(39)	-

See notes to schedule of expenditures
of federal awards.

Schedule of Expenditures of Federal Awards (Continued)

					Year Ended June 30, 2019	
Federal Agency	Direct/ Pass-through	CFDA (Note 5)	Award Number	Grantor Name	Total Expenditures	Subaward Payments
Research and Development Cluster						
(continued):						
USAID	Pass-through	98.001	MA1279	UNIVERSITY OF HAWAII	\$ 35,834	\$ -
USAID	Pass-through	98.001	MTO 069018	INTL INST FOR TROPICAL AGRICULTURE	1,908	-
USAID	Pass-through	98.001	PGA-2000003665	NATL ACADEMY OF SCIENCES	13,849	-
USAID	Pass-through	98.001	RD011G-J	OREGON STATE UNIVERSITY	16,327	-
USAID	Pass-through	98.001	S16058	KANSAS STATE UNIVERSITY	172,163	16,992
USAID	Pass-through	98.001	S16058	KANSAS STATE UNIVERSITY	115,874	-
USAID	Pass-through	98.001	S17090	KANSAS STATE UNIVERSITY	46,565	-
USAID	Pass-through	98.001	S17182	KANSAS STATE UNIVERSITY	167,472	23,233
	Pass-through Total				1,839,572	193,172
	USAID Total				18,463,552	8,454,822
	TOTAL RESEARCH AND DEVELOPMENT CLUSTER				333,289,258	47,903,651
Student Financial Assistance						
Cluster:						
Education	Direct	84.007	P007A102046 SEOG 18-19	US DEPT OF EDUCATION	1,441,746	-
Education	Direct	84.033	P033A102045 FWS 18-19	US DEPT OF EDUCATION	2,293,476	-
Education	Direct	84.033	P033A102045 FWS AR 18-19	US DEPT OF EDUCATION	52,876	-
Education	Direct	84.033	P033A102045 FWS JL 18-19	US DEPT OF EDUCATION	47,509	-
Education	Direct	84.033	P033A102045 FWS 17-18	US DEPT OF EDUCATION	25,897	-
Education	Direct	84.033	P033A102045 FWS AC 18-19	US DEPT OF EDUCATION	10,348	-
Education	Direct	84.033	P033A102045 FWS JL 17-18	US DEPT OF EDUCATION	10,166	-
Education	Direct	84.038	VARIOUS PERKINS	US DEPT OF EDUCATION	29,940,192	-
Education	Direct	84.063	P063P110233 PELL 18-19	US DEPT OF EDUCATION	44,870,952	-
Education	Direct	84.063	P063P110233 PELL ADMIN ALLOWANCE	US DEPT OF EDUCATION	45,235	-
Education	Direct	84.063	P063P110233 PELL 17-18	US DEPT OF EDUCATION	(16,429)	-
Education	Direct	84.268	FED DIRECT LOAN PROG-98 AID YR	US DEPT OF EDUCATION	347,640,816	-
Education	Direct	84.379	P379T110233 TEACH 18-19	US DEPT OF EDUCATION	111,907	-
	Education Total				426,474,691	-
Student Financial Assistance Cluster (continued):						
Health and Human Services	Direct	93.264	VARIOUS - NURSE FACULTY PROG STUDENT LOANS	HEALTH & HUMAN SERV US DEPT OF	348,229	-
Health and Human Services	Direct	93.342	VARIOUS - HEALTH PROFESSIONAL STUDENT LOANS	HEALTH & HUMAN SERV US DEPT OF	11,600,751	-
Health and Human Services	Direct	93.364	VARIOUS - NURSING PROFESSION STUDENT LOANS	HEALTH & HUMAN SERV US DEPT OF	3,612	-
	Health and Human Services Total				11,952,592	-
	TOTAL STUDENT FINANCIAL ASSISTANCE CLUSTER				438,427,283	-
CDBG Cluster:						
Housing and Urban Development	Pass-through	14.218	EL B-18-MC-26-0024	CITY OF EAST LANSING	6,822	-
	TOTAL CDBG CLUSTER				6,822	-
CCDF Cluster:						
Health and Human Services	Pass-through	93.596	BCHS/MSU FY18	MICH DEPT OF LICENSING & REGULATORY AFFAIRS	62,039	59,374
Health and Human Services	Pass-through	93.596	BCHS/MSU FY19	MICH DEPT OF LICENSING & REGULATORY AFFAIRS	189,903	56,262
	TOTAL CCDF CLUSTER				251,942	115,636
Economic Development Cluster:						
Commerce	Direct	11.300	EDA 06-01-05931	ECONOMIC DEVELOPMENT ADMINISTRATION	1,522,449	-
Commerce	Direct	11.300	EDA 06-01-05931	ECONOMIC DEVELOPMENT ADMINISTRATION	(1,097,420)	-
	TOTAL ECONOMIC DEVELOPMENT CLUSTER				425,029	-
Fish and Wildlife Cluster:						
Interior	Pass-through	15.611	MSU-001	NEVADA DEPARTMENT OF WILDLIFE	259,624	21,769
	TOTAL FISH AND WILDLIFE CLUSTER				259,624	21,769
Highway Planning and Construction Cluster:						
Transportation	Pass-through	20.205	12-S171220	TEXAS TRANSPORTATION INSTITUTE	38,588	-
Transportation	Pass-through	20.205	MSUAP01	MICHIGAN FITNESS FOUNDATION	82,914	-
Transportation	Pass-through	20.205	MSUAP01	MICHIGAN FITNESS FOUNDATION	58,373	-
Transportation	Pass-through	20.205	MSUAP01-CEE	MICHIGAN FITNESS FOUNDATION	59,808	-
Transportation	Pass-through	20.205	MSUAP01-SPDC	MICHIGAN FITNESS FOUNDATION	35,729	-
	TOTAL HIGHWAY PLANNING AND CONSTRUCTION CLUSTER				275,412	-
Highway Safety Cluster:						
Transportation	Pass-through	20.616	19-03	MI OFFICE OF HIGHWAY SAFETY PLANNING	54,282	-
	TOTAL HIGHWAY SAFETY CLUSTER				54,282	-
Medicaid Cluster:						
Health and Human Services	Pass-through	93.778	E20180226-00-W	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	25,877	-
Health and Human Services	Pass-through	93.778	E20180325-00-AJ	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	39,138	-
Health and Human Services	Pass-through	93.778	E20180326-00-AP	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	20,043	-
Health and Human Services	Pass-through	93.778	E20180328-00-AN	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	43,330	-
Health and Human Services	Pass-through	93.778	E20180329-00-P	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	47,869	16,170
Health and Human Services	Pass-through	93.778	E20181145-00-AF	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	6,497	-
Health and Human Services	Pass-through	93.778	E20182787-00-L	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	3,028	-
Health and Human Services	Pass-through	93.778	E20182788-00-Z	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	123,618	-
Health and Human Services	Pass-through	93.778	E20182877-00	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	130,639	-
Health and Human Services	Pass-through	93.778	E20191317-00-AF	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	139,434	-
Health and Human Services	Pass-through	93.778	E20191319-00-AN	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	77,756	-
Health and Human Services	Pass-through	93.778	E20192890-00-AQ	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	131,165	-
Health and Human Services	Pass-through	93.778	E20192891-00-AR	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	335,695	-
Health and Human Services	Pass-through	93.778	E20193095-00-AS	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	18,658	-
Health and Human Services	Pass-through	93.778	E20193273-00 BD	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	248,487	-
	TOTAL MEDICAID CLUSTER				1,391,234	16,170
SNAP Cluster:						
Agriculture	Pass-through	10.561	ADMIN-16-99010	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	22	-
Agriculture	Pass-through	10.561	E20182777-00-AR	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	1,758,695	-
Agriculture	Pass-through	10.561	E20192773-00-AJ	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	5,260,920	-
Agriculture	Pass-through	10.561	E20192892-00-AG	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	71,738	22,094
	TOTAL SNAP CLUSTER				7,091,375	22,094
TRIO Cluster:						
Education	Direct	84.042	P042A150804	US DEPT OF EDUCATION	824,258	-
Education	Direct	84.044	P044A160125	US DEPT OF EDUCATION	322,176	-
	TOTAL TRIO CLUSTER				1,146,434	-
Other Federal Awards:						
Agriculture	Direct	10	14-PA-11090400-024	USDA - FOREST SERVICE	25,135	-
Agriculture	Direct	10	16-CS-11090400-038	USDA - FOREST SERVICE	1,947	-
Agriculture	Direct	10	17-CS-11090400-027	USDA - FOREST SERVICE	(174)	-
Agriculture	Direct	10	18-PA-11090400-040	USDA - FOREST SERVICE	30,402	-
Agriculture	Direct	10	18-TMMSD-MI-0001	USDA - AGRICULTURE U.S. DEPT.	35,524	-
Agriculture	Direct	10	AG-5405-P-17-0011	USDA - AGRI RESEARCH SERV US DEPT	28,090	-

See notes to schedule of expenditures
of federal awards.

Schedule of Expenditures of Federal Awards (Continued)

					Year Ended June 30, 2019	
Federal Agency	Direct/ Pass-through	CFDA (Note 5)	Award Number	Grantor Name	Total Expenditures	Subaward Payments
Other Federal Awards (continued):						
Agriculture	Direct	10.001	45-5484-8-0019 PHONE	USDA - FOREST SERVICE	\$ 4,381	\$ -
Agriculture	Direct	10.001	GENERAL FISCAL AGENT	USDA - FOREST SERVICE	926	-
Agriculture	Direct	10.164	17-005	USDA - FOREIGN AG SERVICE	29,836	-
Agriculture	Direct	10.172	AM180100XXXXG125	USDA - AGRI MARKETING SERV US DEPT AGR	26,110	5,996
Agriculture	Direct	10.174	AM180100XXXXG153	USDA - AGRICULTURE U.S. DEPT.	11,539	-
Agriculture	Direct	10.210	2014-38420-21803	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	61,110	-
Agriculture	Direct	10.210	2015-38420-23697	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	87,360	-
Agriculture	Direct	10.210	2017-38420-26759	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	53,568	-
Agriculture	Direct	10.210	2017-38420-26823	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	36,750	-
Agriculture	Direct	10.217	2014-70003-22363	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	47,651	15,296
Agriculture	Direct	10.217	2019-70003-29088	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	6,698	-
Agriculture	Direct	10.220	2018-38413-28142	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	28,667	-
Agriculture	Direct	10.220	2018-38413-28143	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	6,414	-
Agriculture	Direct	10.226	2016-38414-25820	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	43,384	11,117
Agriculture	Direct	10.304	2017-7620-27296	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	334,429	-
Agriculture	Direct	10.310	2018-67011-27991	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	39,832	-
Agriculture	Direct	10.310	2018-67011-28006	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	60,230	-
Agriculture	Direct	10.310	2018-67012-27996	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	71,173	-
Agriculture	Direct	10.310	2019-67012-29595	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	390	-
Agriculture	Direct	10.310	2019-67012-29719	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	8,993	-
Agriculture	Direct	10.311	2017-70017-26860	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	177,681	37,587
Agriculture	Direct	10.311	2017-70017-26860	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	1,130	-
Agriculture	Direct	10.329	2014-70006-22498	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	(8)	-
Agriculture	Direct	10.329	2017-70006-27175	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	207,262	-
Agriculture	Direct	10.329	2018-70006-28883	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	280,784	74,007
Agriculture	Direct	10.329	2018-70006-28883	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	6,424	-
Agriculture	Direct	10.329	2018-70006-28883	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	316	-
Agriculture	Direct	10.336	2018-70024-28817	USDA - AGRICULTURE U.S. DEPT.	23,599	4,676
Agriculture	Direct	10.336	2018-70024-28817	USDA - AGRICULTURE U.S. DEPT.	3,900	-
Agriculture	Direct	10.500	2014-41590-23327	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	102,299	62,540
Agriculture	Direct	10.500	2014-48778-22647	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	442	-
Agriculture	Direct	10.500	2014-48778-22647	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	100	-
Agriculture	Direct	10.500	2018-39592-28959	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	71,237	-
Agriculture	Direct	10.500	2018-41590-28722	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	99,347	52,996
Agriculture	Direct	10.511	41100-02200 SMITH-LEVER	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	2,539,668	-
Agriculture	Direct	10.511	41100-02200 SMITH-LEVER	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	2,118,067	-
Agriculture	Direct	10.511	41100-02200 SMITH-LEVER	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	2,092,569	-
Agriculture	Direct	10.511	41100-02200 SMITH-LEVER	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	1,146,865	-
Agriculture	Direct	10.511	41100-02200 SMITH-LEVER	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	957,698	-
Agriculture	Direct	10.511	41100-02200 SMITH-LEVER	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	795,214	-
Agriculture	Direct	10.511	41100-02200 SMITH-LEVER	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	199,684	-
Agriculture	Direct	10.511	41100-02200 SMITH-LEVER	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	165,545	-
Agriculture	Direct	10.511	41100-02200 SMITH-LEVER	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	96,380	-
Agriculture	Direct	10.511	41100-02200 SMITH-LEVER	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	32,746	-
Agriculture	Direct	10.511	41100-02200 SMITH-LEVER	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	31,161	-
Agriculture	Direct	10.511	41100-02200 SMITH-LEVER	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	17,558	-
Agriculture	Direct	10.511	41100-02200 SMITH-LEVER	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	13,410	-
Agriculture	Direct	10.511	41100-02200 SMITH-LEVER	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	12,998	-
Agriculture	Direct	10.511	41100-02200 SMITH-LEVER	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	11,618	-
Agriculture	Direct	10.511	41100-02200 SMITH-LEVER	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	5,000	-
Agriculture	Direct	10.511	41100-02200 SMITH-LEVER	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	812	-
Agriculture	Direct	10.511	41100-02200 SMITH-LEVER	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	250	-
Agriculture	Direct	10.511	41100-02200 SMITH-LEVER	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	100	-
Agriculture	Direct	10.512	2015-41595-24254	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	1,674,392	1,591,297
Agriculture	Direct	10.512	2017-41580-26940	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	88,700	-
Agriculture	Direct	10.514	EFNEP-EXT HN	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	1,521,507	-
Agriculture	Direct	10.515	2017-46401-27162	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	57,163	-
Agriculture	Direct	10.515	2017-46401-27162	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	12,584	-
Agriculture	Direct	10.515	Renew Resources Project DIR	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	132,103	-
Agriculture	Direct	10.517	2013-41580-20792	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	1,011	-
Agriculture	Direct	10.521	2013-41520-20939	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	110,737	-
Agriculture	Direct	10.521	2016-41520-25564	USDA - NATIONAL INSTITUTE OF FOOD AND AGRICULTURE	116,759	-
Agriculture	Direct	10.614	FX175E-10614R003	USDA - FOREIGN AG SERVICE	32,427	-
Agriculture	Direct	10.614	FX175E-10614R004	USDA - FOREIGN AG SERVICE	2,228	-
Agriculture	Direct	10.614	FX185E-10614R001	USDA - FOREIGN AG SERVICE	31,085	-
Agriculture	Direct	10.771	386005984	USDA - AGRICULTURE U.S. DEPT.	31,691	-
Agriculture	Direct	10.777	BF-CR-16-020	USDA - FOREIGN AG SERVICE	9,770	-
Agriculture	Direct	10.777	BF-CR-16-024	USDA - FOREIGN AG SERVICE	10,343	-
Agriculture	Direct	10.777	BF-CR-16-050	USDA - FOREIGN AG SERVICE	2,630	-
Agriculture	Direct	10.777	FX17BF-10777R022	USDA - FOREIGN AG SERVICE	19,062	-
Agriculture	Direct	10.777	FX17BF-10777R035	USDA - FOREIGN AG SERVICE	31,476	-
Agriculture	Direct	10.777	FX17BF-10777R036	USDA - FOREIGN AG SERVICE	13	-
Agriculture	Direct	10.777	FX18BF-10777R010	USDA - FOREIGN AG SERVICE	23,705	-
Agriculture	Direct	10.777	FX18BF-10777R011	USDA - FOREIGN AG SERVICE	37,510	-
Agriculture	Direct	10.777	FX18BF-10777R028	USDA - FOREIGN AG SERVICE	10,009	-
Agriculture	Direct	10.777	FX18BF-10777R033	USDA - FOREIGN AG SERVICE	25,817	-
Agriculture	Direct	10.777	FX19BF-10777R002	USDA - FOREIGN AG SERVICE	8,720	-
Agriculture	Direct	10.868	26-033-030879893	USDA - AGRICULTURE U.S. DEPT.	17,749	-
Agriculture	Direct	10.902	NR193A750023G001	USDA - NATURAL RESOURCES CONSERVATION SERVICE	1,980	-
Agriculture	Direct	10.902	NR1974820005C001	USDA - NATURAL RESOURCES CONSERVATION SERVICE	2,880	-
Agriculture	Direct	10.902	NR1974820005C002	USDA - NATURAL RESOURCES CONSERVATION SERVICE	3,168	-
Agriculture	Direct	10.903	68-3A75-17-442	USDA - NATURAL RESOURCES CONSERVATION SERVICE	1,936	-
Agriculture	Direct	10.912	69-5D21-18-001	USDA - NATURAL RESOURCES CONSERVATION SERVICE	44,001	-
Agriculture	Direct	10.932	NR185D21XXXXC002	USDA - NATURAL RESOURCES CONSERVATION SERVICE	3,956	-
Agriculture	Direct	10.960	EMP Program Agreement #2015-16	USDA - FOREIGN AG SERVICE	107,577	-
Agriculture	Direct	10.960	FX18TA-10960R018	USDA - FOREIGN AG SERVICE	46,971	-
Agriculture	Direct	10.960	TA-CR-16-043	USDA - FOREIGN AG SERVICE	97,011	-
Agriculture	Direct	10.962	FX18CO-10962R017	USDA - FOREIGN AG SERVICE	27,341	-
Direct Total					16,638,233	1,855,512
Agriculture	Pass-through	10.001	018000.340888.01	MISSISSIPPI STATE UNIVERSITY	25,934	-
Agriculture	Pass-through	10.174	412-30-36A	IOWA STATE UNIVERSITY	11,286	-
Agriculture	Pass-through	10.200	416-41-15H	IOWA STATE UNIVERSITY	(42)	-
Agriculture	Pass-through	10.200	F9002921802002	PURDUE UNIVERSITY	3,741	-
Agriculture	Pass-through	10.227	2017-03930 Tribal College	BAY MILLS COMMUNITY COLLEGE	1,909	-
Agriculture	Pass-through	10.310	2015-0097-24	NORTH CAROLINA STATE UNIVERSITY	25,076	-
Agriculture	Pass-through	10.329	075978-15421	UNIVERSITY OF ILLINOIS	69,228	-
Agriculture	Pass-through	10.329	076332-15443	UNIVERSITY OF ILLINOIS	16,470	-

See notes to schedule of expenditures
of federal awards.

Schedule of Expenditures of Federal Awards (Continued)

				Year Ended June 30, 2019		
Federal Agency	Direct/ Pass-through	CFDA (Note 5)	Award Number	Grantor Name	Total Expenditures	Subaward Payments
Other Federal Awards (continued):						
Agriculture	Pass-through	10.329	076332-16597	UNIVERSITY OF ILLINOIS	\$ 16,374	\$ -
Agriculture	Pass-through	10.329	076332-16831	NORTH CENTRAL INTEGRATED PEST MANAGEMENT	3,003	1,940
Agriculture	Pass-through	10.329	076332-16832	NORTH CENTRAL INTEGRATED PEST MANAGEMENT	12,717	-
Agriculture	Pass-through	10.329	2014-07306-16	UNIVERSITY OF ILLINOIS	7,845	-
Agriculture	Pass-through	10.500	2023-207-2012187	CLEMSON UNIVERSITY	13,232	-
Agriculture	Pass-through	10.500	25-6324-0150-310	NEBRASKA UNIVERSITY OF	16,227	-
Agriculture	Pass-through	10.500	8000083841	PURDUE UNIVERSITY	7,087	-
Agriculture	Pass-through	10.500	BMCC 2018-47002-28637	BAY MILLS COMMUNITY COLLEGE	34,646	-
Agriculture	Pass-through	10.500	Empower Educators	NORTH CENTRAL REGION WATER NETWORK	22,180	12,402
Agriculture	Pass-through	10.500	S18072	KANSAS STATE UNIVERSITY	15,489	-
Agriculture	Pass-through	10.500	S18072	KANSAS STATE UNIVERSITY	3,677	-
Agriculture	Pass-through	10.500	S19064	KANSAS STATE UNIVERSITY	6,021	-
Agriculture	Pass-through	10.557	E20180227-00-M	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	9,600	-
Agriculture	Pass-through	10.557	E20192182-001-K	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	9,840	-
Agriculture	Pass-through	10.574	31367700003 PO180000008111	MICHIGAN DEPARTMENT OF EDUCATION	58,022	-
Agriculture	Pass-through	10.575	Farm to School	MICHIGAN DEPARTMENT OF EDUCATION	(57)	-
Agriculture	Pass-through	10.606	17-MSIKA-A-A-657	LAND O LAKES INC	241,851	9,740
Agriculture	Pass-through	10.680	8000064146-AG	PURDUE UNIVERSITY	24,954	-
Pass-through Total					656,310	24,082
Agriculture Total					17,294,543	1,879,594
Commerce	Direct	11.303	ED17CHI3030031	ECONOMIC DEVELOPMENT ADMINISTRATION	37,346	-
Commerce	Direct	11.417	NA140AR4170285	NATL OCEANIC & ATMOSPHERIC ADMIN	29,760	-
Commerce	Direct	11.429	NA18NOS4290003	NATL OCEANIC & ATMOSPHERIC ADMIN	42,086	-
Commerce	Direct	11.429	NA18NOS4290003	NATL OCEANIC & ATMOSPHERIC ADMIN	1,499	-
Commerce	Direct	11.620	70NANB15H339	NATL INST OF STANDARDS & TECHNOLOGY	(96)	-
Direct Total					110,595	-
Commerce	Pass-through	11	82017-0131	SYNOPTIC DATA CORP	35,736	-
Commerce	Pass-through	11	D-S2017-0131	SYNOPTIC DATA CORP	62,559	-
Commerce	Pass-through	11.008	SUBK00009321	UNIVERSITY OF MICHIGAN	3,393	-
Commerce	Pass-through	11.008	SUBK00009321	UNIVERSITY OF MICHIGAN	2,145	-
Commerce	Pass-through	11.407	102699	MINNESOTA DEPT OF NATURAL RESOURCES	15,209	-
Commerce	Pass-through	11.417	3002999560	UNIVERSITY OF MICHIGAN	84,396	-
Commerce	Pass-through	11.417	3003003179	UNIVERSITY OF MICHIGAN	475,241	-
Commerce	Pass-through	11.417	3003003179	UNIVERSITY OF MICHIGAN	3,000	-
Commerce	Pass-through	11.417	3003003179	UNIVERSITY OF MICHIGAN	563	-
Commerce	Pass-through	11.417	3003675941	UNIVERSITY OF MICHIGAN	578	-
Commerce	Pass-through	11.417	3003675941	UNIVERSITY OF MICHIGAN	(44)	-
Commerce	Pass-through	11.417	3004235158	UNIVERSITY OF MICHIGAN	1,130	-
Commerce	Pass-through	11.417	3004629463	UNIVERSITY OF MICHIGAN	28,588	-
Commerce	Pass-through	11.432	089354-16821	UNIVERSITY OF ILLINOIS URBANA CHAMPAIGN	538	-
Commerce	Pass-through	11.432	089354-16821	UNIVERSITY OF ILLINOIS URBANA CHAMPAIGN	3,750	-
Commerce	Pass-through	11.432	3004875740	UNIVERSITY OF MICHIGAN	121,291	-
Commerce	Pass-through	11.432	SUBK00011137	UNIVERSITY OF MICHIGAN	3,310	-
Pass-through Total					841,383	-
Commerce Total					951,978	-
Corporation for National and Community Service	Pass-through	94.006	E20183158-00	MI COMMUNITY SERVICE COMMISSION	232,452	-
Corporation for National and Community Service	Pass-through	94.006	MACF18-33000	MI COMMUNITY SERVICE COMMISSION	31,653	-
Corporation for National and Community Service Total					264,105	-
Defense	Direct	12.420	W81XWH1810233	ARMY US DEPT OF	153,049	-
Defense	Direct	12.800	FA9550-18-1-0407	AIR FORCE OFFICE OF SCIENTIFIC RESEARCH	32,222	-
Direct Total					185,271	-
Defense	Pass-through	12	20PO008276	LOUIS BERGER GROUP, INC.	129,646	-
Defense	Pass-through	12	3332-ARM-25/MSU	LUNA INNOVATIONS	17,833	-
Defense	Pass-through	12	CB0181-004-1	ZYMERON CORP	714	-
Defense	Pass-through	12	PO 031054	LUNA INNOVATIONS	167,540	-
Defense	Pass-through	12.550	0054-MSU-22-PI-280-PO2	INST OF INTERNATL EDUCATION	47,759	-
Defense	Pass-through	12.550	0054-MSU-22-PI-280-PO2	INST OF INTERNATL EDUCATION	6,830	-
Pass-through Total					370,322	-
Defense Total					555,593	-
Education	Direct	84.015	P015A140097 - 16	US DEPT OF EDUCATION	28,828	-
Education	Direct	84.015	P015A140098 - 16	US DEPT OF EDUCATION	32,395	-
Education	Direct	84.015	P015B140097 - 17	US DEPT OF EDUCATION	6,000	-
Education	Direct	84.015	P015B140099	US DEPT OF EDUCATION	(2,623)	-
Education	Direct	84.022	P022A160061	US DEPT OF EDUCATION	9,545	-
Education	Direct	84.022	P022A170045	US DEPT OF EDUCATION	20,739	-
Education	Direct	84.022	P022A180056	US DEPT OF EDUCATION	24,273	-
Education	Direct	84.022	P022A180056	US DEPT OF EDUCATION	11,055	-
Education	Direct	84.022	P022A180056	US DEPT OF EDUCATION	1,941	-
Education	Direct	84.022	P022A180056	US DEPT OF EDUCATION	1,172	-
Education	Direct	84.129	H129B140012	US DEPT OF EDUCATION	181,951	-
Education	Direct	84.149	S149A150003	US DEPT OF EDUCATION	435,032	-
Education	Direct	84.200	P200A140215	US DEPT OF EDUCATION	(27,938)	-
Education	Direct	84.220	P220A140001	US DEPT OF EDUCATION	(18,828)	-
Education	Direct	84.229	P229A140006	US DEPT OF EDUCATION	21,838	-
Education	Direct	84.032	FFELP Loans Receivable	US DEPT OF EDUCATION	646,393	-
Education	Direct	84.334	GEAR UP	US DEPT OF EDUCATION	69,725	-
Education	Direct	84.335	P335A180261	US DEPT OF EDUCATION	281,565	-
Direct Total					1,723,063	-
Education	Pass-through	84	4400007264	LOS ANGELES UNIFIED SCHOOL DISTRICT	5,015	-
Education	Pass-through	84.010	App 151026	GOGEBIC ONTONAGON INTERMEDIATE SCHOOL DISTRICT	74	-
Education	Pass-through	84.011	181850-1718	MICHIGAN DEPARTMENT OF EDUCATION	97,315	-
Education	Pass-through	84.011	191850-1819	MICHIGAN DEPARTMENT OF EDUCATION	73,953	-
Education	Pass-through	84.048	183280-18183	MICHIGAN DEPARTMENT OF EDUCATION	(2)	-
Education	Pass-through	84.048	193280-19183	MICHIGAN DEPARTMENT OF EDUCATION	69,655	-
Education	Pass-through	84.048	193430-19133	MICHIGAN DEPARTMENT OF EDUCATION	59,935	-
Education	Pass-through	84.334	18-00-06	MICHIGAN ECONOMIC DEVELOPMENT CORP	254	-
Education	Pass-through	84.334	GEAR UP 16-00-06	MICHIGAN ECONOMIC DEVELOPMENT CORP	35,149	-
Education	Pass-through	84.367	170291-2018	MICHIGAN DEPARTMENT OF EDUCATION	224,055	104,310
Education	Pass-through	84.367	94-MI04-SEED2017-CRWPAI	NATL WRITING PROJECT CORP.	5,236	-
Education	Pass-through	84.367	PR-94-MI04-SEED2018-C3WWPD	NATL WRITING PROJECT CORP.	11,572	-
Pass-through Total					582,211	104,310
Education Total					2,305,274	104,310
Energy	Pass-through	81	19-D0382	JEFFERSON SCIENCE ASSOCIATES LLC	17,381	-

See notes to schedule of expenditures of federal awards.

Schedule of Expenditures of Federal Awards (Continued)

					Year Ended June 30, 2019	
Federal Agency	Direct/ Pass-through	CFDA (Note 5)	Award Number	Grantor Name	Total Expenditures	Subaward Payments
Other Federal Awards (continued):						
Energy	Pass-through	81.041	MEO-16-022	MICH DEPT OF LICENSING & REGULATORY AFFAIRS	\$ 113,983	\$ -
	Energy Total				131,364	-
Environmental Protection Agency	Direct	66.469	00E02224	ENVIRONMENTAL PROTECTION AGENCY	177,719	-
Environmental Protection Agency	Direct	66.716	83927401	ENVIRONMENTAL PROTECTION AGENCY	80,345	-
Environmental Protection Agency	Direct	66.716	83927401	ENVIRONMENTAL PROTECTION AGENCY	39,578	-
	Direct Total				297,642	-
Environmental Protection Agency	Pass-through	66.605	GG190000001440	MICHIGAN DEPT OF AGRICULTURE & RURAL DEVELOPMENT	33,931	-
	Environmental Protection Agency Total				331,573	-
Federal Communications Commission	Direct	32.001	WKAR FCC Repack Account	FEDERAL COMMUNICATION COMMISSION	207,208	-
	Federal Communications Commission Total				207,208	-
Federal Council on the Arts and Humanities	Direct	45.024	1755007099	NATL ENDOWMENT FOR THE ARTS	9,413	-
Federal Council on the Arts and Humanities	Direct	45.024	1809872-55-18	NATL ENDOWMENT FOR THE ARTS	42,669	-
Federal Council on the Arts and Humanities	Direct	45.024	1830513-55-18	NATL ENDOWMENT FOR THE ARTS	14,576	-
Federal Council on the Arts and Humanities	Direct	45.149	PG-263588-19	NATL ENDOWMENT FOR THE HUMANITIES	5,968	-
Federal Council on the Arts and Humanities	Direct	45.301	MA-10-17-0377-17	INSTITUTE OF MUSEUM AND LIBRARY SERVICES	26,286	-
	Direct Total				98,912	-
Federal Council on the Arts and Humanities	Pass-through	45.025	00022223	ARTS MIDWEST	3,800	-
Federal Council on the Arts and Humanities	Pass-through	45.025	17P54002AC	MICHIGAN COUNCIL OF ARTS & CULTURAL AFFAIRS	(51)	-
Federal Council on the Arts and Humanities	Pass-through	45.025	18NL4717MT	MICHIGAN COUNCIL OF ARTS & CULTURAL AFFAIRS	1,013	-
Federal Council on the Arts and Humanities	Pass-through	45.025	18NL4718EN	MICHIGAN COUNCIL OF ARTS & CULTURAL AFFAIRS	2,400	-
Federal Council on the Arts and Humanities	Pass-through	45.025	18SF4094SV	MICHIGAN COUNCIL OF ARTS & CULTURAL AFFAIRS	21,926	-
Federal Council on the Arts and Humanities	Pass-through	45.025	19P54877AC	MICHIGAN COUNCIL OF ARTS & CULTURAL AFFAIRS	5,211	-
Federal Council on the Arts and Humanities	Pass-through	45.025	19P54879ED	MICHIGAN COUNCIL OF ARTS & CULTURAL AFFAIRS	22,500	-
Federal Council on the Arts and Humanities	Pass-through	45.025	19P54880AC	MICHIGAN COUNCIL OF ARTS & CULTURAL AFFAIRS	5,653	-
Federal Council on the Arts and Humanities	Pass-through	45.025	19P54881AC	MICHIGAN COUNCIL OF ARTS & CULTURAL AFFAIRS	15,000	-
Federal Council on the Arts and Humanities	Pass-through	45.129	HUD075-18	MICHIGAN HUMANITIES COUNCIL	4,756	-
	Pass-through Total				82,208	-
	Federal Council on the Arts and Humanities Total				181,120	-
Health and Human Services	Direct	93.103	1U18FD006593-01	FOOD & DRUG ADMINISTRATION -PHS	28,941	-
Health and Human Services	Direct	93.103	UFD006175A	FOOD & DRUG ADMINISTRATION -PHS	35,071	-
Health and Human Services	Direct	93.124	A22HP930937-01-01	HEALTH RESOURCES & SERVICES ADMIN -PHS	27,569	-
Health and Human Services	Direct	93.157	2 D24HP24457-06-00	HEALTH RESOURCES & SERVICES ADMIN -PHS	700,076	-
Health and Human Services	Direct	93.197	1NUE2EH001370-01-00	CENTERS FOR DISEASE CONTROL AND PREVENTION	2,992,864	1,389,510
Health and Human Services	Direct	93.247	5 D09HP26953-03-00	HEALTH RESOURCES & SERVICES ADMIN -PHS	95	-
Health and Human Services	Direct	93.761	90FPSG0014-01-00	ADMINISTRATION FOR COMMUNITY LIVING	104,315	-
Health and Human Services	Direct	93.761	90FPSG0014-01-00	ADMINISTRATION FOR COMMUNITY LIVING	4,500	-
Health and Human Services	Direct	93.976	5 K02HP30816-02	HEALTH RESOURCES & SERVICES ADMIN -PHS	167,777	-
	Direct Total				4,061,208	1,389,510
Health and Human Services	Pass-through	93	19-8068	UNIVERSITY OF WISCONSIN	29,259	-
Health and Human Services	Pass-through	93	E20182726-00-D	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	339,103	-
Health and Human Services	Pass-through	93	E20191306-00-C	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	8,989	-
Health and Human Services	Pass-through	93	E20191307-00-D	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	80,233	-
Health and Human Services	Pass-through	93	ED-012.001-17	SAGINAW CHIPPEWA INDIAN TRIBE OF MICHIGAN	190	-
Health and Human Services	Pass-through	93	HHSN261201800026C	THERANANO LLC	39,151	-
Health and Human Services	Pass-through	93	NHPCC-1-03	AMERICAN THROMBOSIS & HEMOSTASIS NETWORK	3,155	-
Health and Human Services	Pass-through	93.001	AOEC EXPOSURE	ASSOC OCCUPATIONAL & ENVIRONMENT CLINICS	30,613	-
Health and Human Services	Pass-through	93.052	00378521	TRI COUNTY OFFICE ON AGING	3,235	-
Health and Human Services	Pass-through	93.052	KINSHIP FY 18	TRI COUNTY OFFICE ON AGING	3,889	-
Health and Human Services	Pass-through	93.068	E20191307-00-D	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	10,029	-
Health and Human Services	Pass-through	93.069	E20180371-00-F	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	22,692	-
Health and Human Services	Pass-through	93.069	E20192722-00-F	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	63,815	-
Health and Human Services	Pass-through	93.070	E20182726-00-D	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	28,088	-
Health and Human Services	Pass-through	93.070	E20191307-00-D	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	40,117	-
Health and Human Services	Pass-through	93.080	17-18-442	HEMOPHILIA FOUNDATION OF MICHIGAN	15,257	-
Health and Human Services	Pass-through	93.080	18-19-442	HEMOPHILIA FOUNDATION OF MICHIGAN	50,110	-
Health and Human Services	Pass-through	93.103	180000000241	MICHIGAN DEPT OF AGRICULTURE & RURAL DEVELOPMENT	(35,454)	-
Health and Human Services	Pass-through	93.103	180000001180	MICHIGAN DEPT OF AGRICULTURE & RURAL DEVELOPMENT	12,566	-
Health and Human Services	Pass-through	93.103	180000002938	MICHIGAN DEPT OF AGRICULTURE & RURAL DEVELOPMENT	394,834	-
Health and Human Services	Pass-through	93.103	791N770000252	MICHIGAN DEPT OF AGRICULTURE & RURAL DEVELOPMENT	4,211	-
Health and Human Services	Pass-through	93.103	MDARD 5U18FD005902-03	MICHIGAN FOOD & FARMING SYSTEMS	24,290	-
Health and Human Services	Pass-through	93.110	442 19-20	HEMOPHILIA FOUNDATION OF MICHIGAN	3,530	-
Health and Human Services	Pass-through	93.110	H30MC24047-07-00	HEMOPHILIA FOUNDATION OF MICHIGAN	60,174	-
Health and Human Services	Pass-through	93.110	MCHB 442 17-18	HEMOPHILIA FOUNDATION OF MICHIGAN	(2,600)	-
Health and Human Services	Pass-through	93.110	SUBK00010309	UNIVERSITY OF MICHIGAN	1,584	-
Health and Human Services	Pass-through	93.110	WSU17101	WAYNE STATE UNIVERSITY	(3,083)	-
Health and Human Services	Pass-through	93.110	WSU19025	WAYNE STATE UNIVERSITY	54,025	-
Health and Human Services	Pass-through	93.110	Z-38839-115-504200	MICH PUBLIC HEALTH INSTITUTE	10,006	-
Health and Human Services	Pass-through	93.110	E20192185-00-0-AB	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	18,471	-
Health and Human Services	Pass-through	93.136	E20182726-00-D	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	5,852	-
Health and Human Services	Pass-through	93.136	E20191307-00-D	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	8,358	-
Health and Human Services	Pass-through	93.243	1	MUNSON MEDICAL CENTER	35,388	-
Health and Human Services	Pass-through	93.243	182734-AWARE18	MICHIGAN DEPARTMENT OF EDUCATION	42,015	-
Health and Human Services	Pass-through	93.243	E20182726-00-D	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	3,511	-
Health and Human Services	Pass-through	93.243	E20191307-00-D	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	10,865	-
Health and Human Services	Pass-through	93.243	SM063521-01	CITY OF FLINT	566,670	-
Health and Human Services	Pass-through	93.268	E20180537-00-AH	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	35,276	-
Health and Human Services	Pass-through	93.268	E20192642-00-AD	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	127,986	-
Health and Human Services	Pass-through	93.270	E20191307-00-D	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	3,343	-
Health and Human Services	Pass-through	93.283	E20180536-00-S	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	8,839	-
Health and Human Services	Pass-through	93.283	E20182726-00-D	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	8,192	-
Health and Human Services	Pass-through	93.283	E20191312-00-0	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	21,306	-
Health and Human Services	Pass-through	93.336	E20180251-00-E	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	20,252	-
Health and Human Services	Pass-through	93.424	E20182701-00-AS	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	(1,146)	-
Health and Human Services	Pass-through	93.424	E20193065-00-Q	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	10,679	-
Health and Human Services	Pass-through	93.426	E20191307-00-D	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	36,105	-
Health and Human Services	Pass-through	93.556	SFSC14-19001	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	9,731	-
Health and Human Services	Pass-through	93.590	CTFDS-15-73001	MI DEPARTMENT OF HUMAN SERVICES	11,316	-
Health and Human Services	Pass-through	93.590	GLCYD CTFDS17-52001	GREAT LAKES CENTER FOR YOUTH DEVELOPMENT	7,718	-
Health and Human Services	Pass-through	93.590	Promising Futures	GREAT LAKES CENTER FOR YOUTH DEVELOPMENT	2,677	-
Health and Human Services	Pass-through	93.599	E20193260-00-AU	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	68,801	-
Health and Human Services	Pass-through	93.600	05CH8365	CACS HEAD START	117,191	-
Health and Human Services	Pass-through	93.600	2017-2018	CACS HEAD START	10,752	-
Health and Human Services	Pass-through	93.624	E20191307-00-D	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	126,388	-
Health and Human Services	Pass-through	93.624	E20191308-00 (E)	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	3,845	-

Schedule of Expenditures of Federal Awards (Continued)

Year Ended June 30, 2019

Federal Agency	Direct/ Pass-through	CFDA (Note 5)	Award Number	Grantor Name	Total Expenditures	Subaward Payments
Other Federal Awards (continued):						
Health and Human Services	Pass-through	93.628	E20180327-00-U	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	\$ 72,213	\$ -
Health and Human Services	Pass-through	93.630	E20191313-00-R	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	117,727	-
Health and Human Services	Pass-through	93.644	E20182776-00-C	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	7,967	-
Health and Human Services	Pass-through	93.644	E20191306-00-C	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	15,603	-
Health and Human Services	Pass-through	93.648	19-19-82905	RESEARCH FOUNDATION OF S.U.N.Y.	127,612	-
Health and Human Services	Pass-through	93.648	F-18-19	RESEARCH FOUNDATION OF S.U.N.Y.	262,797	74,002
Health and Human Services	Pass-through	93.745	E20191307-00-D	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	242,245	-
Health and Human Services	Pass-through	93.745	E20191308-00 (E)	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	19,768	-
Health and Human Services	Pass-through	93.757	E20182726-00-D	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	8,426	-
Health and Human Services	Pass-through	93.758	E20182759-00-AD	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	2,595	-
Health and Human Services	Pass-through	93.788	E20191318-00-AL	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	100,073	-
Health and Human Services	Pass-through	93.788	E20193230-00-AW	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	71,452	-
Health and Human Services	Pass-through	93.788	E20193231-00-AX	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	98,055	42,613
Health and Human Services	Pass-through	93.808	E20182726-00-D	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	40,260	-
Health and Human Services	Pass-through	93.810	E20191307-00-D	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	10,029	-
Health and Human Services	Pass-through	93.872	FY17.494.004	UNIVERSITY OF COLORADO - DENVER	15,817	-
Health and Human Services	Pass-through	93.872	FY17.494.004	UNIVERSITY OF COLORADO - DENVER	5,325	-
Health and Human Services	Pass-through	93.898	E20191307-00-D	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	32,093	-
Health and Human Services	Pass-through	93.926	HR-SBP14-05	SPECTRUM HEALTH SYSTEMS OF GRAND RAPIDS	58,981	-
Health and Human Services	Pass-through	93.926	HR-SBP14-05	SPECTRUM HEALTH SYSTEMS OF GRAND RAPIDS	21,829	-
Health and Human Services	Pass-through	93.926	Resolution 18-189	GENESEE COUNTY HEALTH DEPT	117,971	-
Health and Human Services	Pass-through	93.945	E20182726-00-D	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	7,022	-
Health and Human Services	Pass-through	93.958	E20191307-00-D	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	10,029	-
Health and Human Services	Pass-through	93.959	E20182726-00-D	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	4,096	-
Health and Human Services	Pass-through	93.994	E20182726-00-D	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	11,235	-
Health and Human Services	Pass-through	93.994	E20193221-00-AT	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	34,884	-
Pass-through Total					<u>4,128,493</u>	<u>116,615</u>
Health and Human Services Total					<u>8,189,701</u>	<u>1,506,125</u>
Homeland Security	Direct	97.012	3316SUR160102	US COAST GUARD	153,127	-
Direct Total					<u>153,127</u>	<u>-</u>
Homeland Security	Pass-through	97.012	1-312-0215847-52926L	RTI INTERNATIONAL	455	-
Pass-through Total					<u>455</u>	<u>-</u>
Homeland Security Total					<u>153,582</u>	<u>-</u>
Housing and Urban Development	Pass-through	14.169	18-15 HUD	MICH STATE HOUSING DEVELOPMENT AUTHORITY	31,930	-
Housing and Urban Development Total					<u>31,930</u>	<u>-</u>
Interior	Direct	15	G16PA00015	US GEOLOGICAL SURVEY	12,902	-
Interior	Direct	15	P13PX02284	TREASURY US DEPT OF	11,000	-
Interior	Direct	15.658	F17AC00428	US FISH & WILDLIFE SERVICE	32,098	-
Interior	Direct	15.820	G18AC00336	US GEOLOGICAL SURVEY	20,000	-
Interior	Direct	15.945	P18AC01019	NATIONAL PARK SERVICE	9,043	-
Interior	Direct	15.945	P18AC01067	NATIONAL PARK SERVICE	10,601	-
Direct Total					<u>95,644</u>	<u>-</u>
Interior	Pass-through	15.156	1002791-01	NORTHERN ARIZONA UNIVERSITY	622	-
Interior	Pass-through	15.805	078687-15712	ILLINOIS URBANA CHAMPAIGN, UNIVERSITY OF	24,402	-
Interior	Pass-through	15.805	078687-15712	ILLINOIS URBANA CHAMPAIGN, UNIVERSITY OF	17,324	-
Interior	Pass-through	15.805	078687-15712	ILLINOIS URBANA CHAMPAIGN, UNIVERSITY OF	4,998	-
Pass-through Total					<u>47,346</u>	<u>-</u>
Interior Total					<u>142,990</u>	<u>-</u>
Justice	Direct	16.001	16W-ENR01-0168	JUSTICE US DEPT OF	(36,983)	-
Justice	Direct	16.001	90-11-2-5292	JUSTICE US DEPT OF	48,611	-
Justice	Direct	16.562	2018-R2-CX-0002	JUSTICE US DEPT OF	23,478	-
Justice	Direct	16.738	2018-DP-BX-K011	JUSTICE US DEPT OF	53,032	-
Direct Total					<u>88,138</u>	<u>-</u>
Justice	Pass-through	16.575	C-32020-115-504200	MICH PUBLIC HEALTH INSTITUTE	150,029	-
Justice	Pass-through	16.575	E20180565-00	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	146,084	-
Justice	Pass-through	16.575	E20190946-00	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	56,793	-
Justice	Pass-through	16.575	E20192053-00	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	506,207	-
Justice	Pass-through	16.575	E20193139-00	MICHIGAN DEPARTMENT OF HEALTH & HUMAN SERVICES	35,314	-
Justice	Pass-through	16.726	4-H 2017-JU-FX-0016	NATL 4-H COUNCIL	59,414	-
Justice	Pass-through	16.726	4-H 2017-JU-FX-0016	NATL 4-H COUNCIL	44,199	-
Justice	Pass-through	16.726	4-H 2018-JU-FX-0005	NATL 4-H COUNCIL	16,270	-
Justice	Pass-through	16.726	4-H 2018-JU-FX-0005	NATL 4-H COUNCIL	3,449	-
Justice	Pass-through	16.726	NMP7 TTA	NATL 4-H COUNCIL	(20)	-
Justice	Pass-through	16.833	3-321-0215016-52458L	RTI INTERNATIONAL	139,226	-
Pass-through Total					<u>1,156,965</u>	<u>-</u>
Justice Total					<u>1,245,103</u>	<u>-</u>
Miscellaneous	Pass-through	99	MCA-CI/ATP-TPM-044	COTE D'IVOIRE	1,961	-
Miscellaneous Total					<u>1,961</u>	<u>-</u>
National Aeronautics and Space Administration	Direct	43.001	80NSSC17K0395	NATL AERONAUTICS AND SPACE ADM	43,085	-
National Aeronautics and Space Administration Total					<u>43,085</u>	<u>-</u>
State	Direct	19.040	SCI800-17-GR-0050	STATE US DEPARTMENT OF	23,797	-
State	Direct	19.040	SCI800-17-GR-0050	STATE US DEPARTMENT OF	1,629	-
State	Direct	19.415	5-ECAGD-17-CA-1077	STATE US DEPARTMENT OF	161,707	-
State	Direct	19.415	5-ECAGD-17-CA-1077	STATE US DEPARTMENT OF	78,147	-
State	Direct	19.415	SECAGD18CA0017	STATE US DEPARTMENT OF	83,096	-
State	Direct	19.415	SECAGD18CA0017	STATE US DEPARTMENT OF	39,314	-
Direct Total					<u>387,690</u>	<u>-</u>
State	Pass-through	19	1801_5.1.18	INST OF INTERNATL EDUCATION	38,918	-
State	Pass-through	19	1801_5.1.18	INST OF INTERNATL EDUCATION	31,647	-
State	Pass-through	19	FST1901_MSU EGSP_2019	INST OF INTERNATL EDUCATION	986	-
State	Pass-through	19	FST1901_MSU_FLTA_5.1.19	INST OF INTERNATL EDUCATION	205	-
State	Pass-through	19	FST1901_MSU_FLTA_5.1.19	INST OF INTERNATL EDUCATION	57	-
State	Pass-through	19.010	18-CA-1027	INST OF INTERNATL EDUCATION	168,268	-
State	Pass-through	19.040	SBR25018GR0014	US EMBASSY BRASILIA	16,923	-
State	Pass-through	19.040	SCI80018GR0060	US EMBASSY IN CHILE	15,974	-
State	Pass-through	19.040	SCI80018GR0060	US EMBASSY IN CHILE	7,667	-
State	Pass-through	19.400	1801_MSU_4.24.18	INST OF INTERNATL EDUCATION	58,530	-
State	Pass-through	19.400	1801_MSU_4.24.18	INST OF INTERNATL EDUCATION	46,887	-
Pass-through Total					<u>386,062</u>	<u>-</u>
State Total					<u>773,752</u>	<u>-</u>
Transportation	Direct	20.215	693JJ31945006	FEDERAL HIGHWAY ADMINISTRATION	15,686	-
Direct Total					<u>15,686</u>	<u>-</u>

See notes to schedule of expenditures
of federal awards.

Schedule of Expenditures of Federal Awards (Continued)

					Year Ended June 30, 2019	
Federal Agency	Direct/ Pass-through	CFDA (Note 5)	Award Number	Grantor Name	Total Expenditures	Subaward Payments
Other Federal Awards (continued):						
Transportation	Pass-through	20	2018-0741	MICHIGAN DEPARTMENT OF TRANSPORTATION	\$ 69,291	\$ -
	Pass-through Total				69,291	-
	Transportation Total				84,977	-
USAID	Direct	98.001	AID-OAA-A-13-00006	US AGENCY FOR INTERNATIONAL DEVELOPMENT	4,228,895	145,556
USAID	Direct	98.001	AID-OAA-A-13-00006	US AGENCY FOR INTERNATIONAL DEVELOPMENT	130,612	168,547
USAID	Direct	98.001	AID-OAA-LA-17-00002	US AGENCY FOR INTERNATIONAL DEVELOPMENT	309,534	243,057
USAID	Direct	98.012	7200AA18CA00021	US AGENCY FOR INTERNATIONAL DEVELOPMENT	313,472	108,103
	Direct Total				4,982,513	665,263
USAID	Pass-through	98.001	1856-000	TETRA TECH INC.	33,798	-
USAID	Pass-through	98.001	2015-07022-02	ILLINOIS URBANA CHAMPAIGN, UNIVERSITY OF	3,329	-
USAID	Pass-through	98.001	2420	IMPAQ INTL	4,026	-
USAID	Pass-through	98.001	87718-11202	CORNELL UNIVERSITY	96,887	-
USAID	Pass-through	98.001	BHEARD	CIMMYT INC	1,579,136	715,637
USAID	Pass-through	98.001	BHEARD	CIMMYT INC	796,207	613,455
USAID	Pass-through	98.001	BHEARD	CIMMYT INC	592,768	25,610
USAID	Pass-through	98.001	BHEARD	CIMMYT INC	533,025	275,444
USAID	Pass-through	98.001	BHEARD	CIMMYT INC	486,781	384,231
USAID	Pass-through	98.001	BHEARD	CIMMYT INC	467,602	-
USAID	Pass-through	98.001	BHEARD	CIMMYT INC	466,717	31,751
USAID	Pass-through	98.001	BHEARD	CIMMYT INC	412,086	412,086
USAID	Pass-through	98.001	BHEARD	CIMMYT INC	392,001	-
USAID	Pass-through	98.001	BHEARD	CIMMYT INC	372,443	269,096
USAID	Pass-through	98.001	BHEARD	CIMMYT INC	362,485	360,248
USAID	Pass-through	98.001	BHEARD	CIMMYT INC	241,732	-
USAID	Pass-through	98.001	BHEARD	CIMMYT INC	137,626	131,126
USAID	Pass-through	98.001	BHEARD	CIMMYT INC	109,489	79,383
USAID	Pass-through	98.001	BHEARD	CIMMYT INC	71,351	32,268
USAID	Pass-through	98.001	BHEARD	CIMMYT INC	35,015	(504)
USAID	Pass-through	98.001	BHEARD	CIMMYT INC	8,988	-
USAID	Pass-through	98.001	BHEARD	CIMMYT INC	5,673	-
USAID	Pass-through	98.001	BHEARD	CIMMYT INC	4,475	-
USAID	Pass-through	98.001	BHEARD	CIMMYT INC	4,352	-
USAID	Pass-through	98.001	BHEARD	CIMMYT INC	3,806	-
USAID	Pass-through	98.001	BHEARD	CIMMYT INC	1,854	(8,091)
USAID	Pass-through	98.001	BHEARD	CIMMYT INC	1,449	-
USAID	Pass-through	98.001	BHEARD	CIMMYT INC	2	-
USAID	Pass-through	98.001	BHEARD	CIMMYT INC	(11,801)	-
USAID	Pass-through	98.001	BHEARD	CIMMYT INC	(86,370)	-
USAID	Pass-through	98.001	BHEARD	CIMMYT INC	(99,932)	(97,524)
USAID	Pass-through	98.001	BHEARD	CIMMYT INC	(131,833)	-
USAID	Pass-through	98.001	BHEARD	CIMMYT INC	(132,326)	(129,491)
USAID	Pass-through	98.001	BHEARD	CIMMYT INC	(250,532)	(130,142)
USAID	Pass-through	98.001	BHEARD	CIMMYT INC	(412,096)	(313,227)
USAID	Pass-through	98.001	BHEARD	INTL MAIZE & WHEAT IMPROVEMENT CENTER	21	-
USAID	Pass-through	98.001	IQC-TIARD-MSU-005	TETRA TECH INC.	178,909	-
USAID	Pass-through	98.001	SUB-401	CHEMONICS INTERNATIONAL INC	60,118	-
	Pass-through Total				6,339,261	2,651,356
	USAID TOTAL				11,321,774	3,316,619
Vietnam Education Foundation	Direct	85.802	ARF Deposits	VIETNAM EDUCATION FOUNDATION	23,265	-
Vietnam Education Foundation	Direct	85.802	VEF	VIETNAM EDUCATION FOUNDATION	14,155	-
	Health and Human Services Total				37,420	-
	TOTAL OTHER FEDERAL AWARDS				44,249,033	6,806,648
	TOTAL FEDERAL EXPENDITURES				\$ 826,867,728	\$ 54,885,968
SUMMARY OF EXPENDITURES BY FEDERAL AGENCY						
Health and Human Services					\$ 92,656,145	\$ 17,905,298
National Science Foundation					86,502,992	8,433,779
Energy					79,909,344	2,255,520
Agriculture					58,802,994	9,579,808
Education					54,953,315	221,666
USAID					29,785,326	11,771,441
Defense					15,205,601	2,205,258
Justice					5,630,632	1,535,610
National Aeronautics and Space Administration					2,910,841	304,702
Commerce					2,531,475	54,655
Interior					2,393,781	40,145
Transportation					2,004,875	406,679
Environmental Protection Agency					1,213,558	150,952
State					964,754	-
Homeland Security					308,961	20,455
Corporation for National and Community Service					264,105	-
Federal Council on the Arts and Humanities					204,492	-
Federal Communications Commission					207,208	-
Treasury					129,440	-
Housing and Urban Development					38,752	-
Vietnam Education Foundation					37,420	-
Miscellaneous					19,865	-
Library of Congress					11,859	-
					436,687,735	54,885,968
SUMMARY OF LOAN BALANCES BY FEDERAL AGENCY						
Education					378,227,401	-
Health and Human Services					11,952,592	-
					390,179,993	-
TOTAL FEDERAL EXPENDITURES					\$ 826,867,728	\$ 54,885,968

See notes to schedule of expenditures of federal awards.

Notes to Schedule of Expenditures of Federal Awards

Year Ended June 30, 2019

Note 1 - Basis of Presentation

The accompanying schedule of expenditures of federal awards (the "Schedule") includes the federal grant activity of Michigan State University (the "University") under programs of the federal government for the year ended June 30, 2019. 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* (the "Uniform Guidance"). Because the Schedule presents only a selected portion of the operations of the University, it is not intended to and does not present the financial position, changes in net position, or cash flows of the University.

Note 2 - Summary of Significant Accounting Policies

Expenditures reported in the Schedule are reported on the accrual basis of accounting. Such expenditures are recognized following, as applicable, 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*, wherein certain types of expenditures are not allowable or are limited as to reimbursement. Negative amounts shown on the Schedule represent adjustments or credits made in the normal course of business to amounts reported as expenditures in prior years. Pass-through entity identifying numbers are presented where available.

Note 3 - Indirect Costs

The University has elected not to use the 10 percent *de minimis* indirect cost rate to recover indirect costs, as allowed under the Uniform Guidance.

Included as federal expenditures are indirect costs of \$76,106,691, which are based on the approved university rate agreement negotiated with the cognizant agency. The negotiated rate was effective from July 1, 2016 through June 30, 2019. The University has negotiated a new rate agreement effective July 1, 2019 through June 30, 2023.

Note 4 - Commingled Funds

Certain miscellaneous pass-through funds consist of commingled funds from federal and nonfederal sources. The commingled component cannot be separated to specify the individual funding sources; therefore, the total amount is included in the schedule of expenditures of federal awards.

Note 5 - Catalog of Federal Domestic Assistance (CFDA) Numbers

All programs with identifiable CFDA numbers have been listed separately. Award numbers have been provided for all programs for which CFDA numbers were not available. Programs without an identifiable CFDA number are identified by agency number only. If the agency number is not known, the program is listed using an agency number of 99.

Notes to Schedule of Expenditures of Federal Awards

Year Ended June 30, 2019

Note 6 - Federal Student Loans Granted and Outstanding

As part of the Student Financial Assistance Cluster, the University participates in the Federal Perkins Loan Program through the U.S. Department of Education and the Health Professional Student Loan Program, Nursing Student Loan Program, and Nurse Faculty Loan Program, all through the U.S. Department of Health and Human Services. These loan programs are directly administered by the University and are considered revolving loan programs where collections received on past loans, including interest, and new funds received from federal agencies with university matching requirements are loaned out to current students. The loans disbursed during the year and year-end outstanding balances for these loans are disclosed below:

CFDA Number	Loan Program	Loan Issued	Loan Balances
84.038	Federal Perkins Loan	\$ -	\$ 24,492,018
93.264	Nurse Faculty Loan	40,416	306,001
93.342	Health Professional Student Loan	2,472,622	10,178,169
93.364	Nursing Student Loans	-	3,611
		<u>\$ 2,513,038</u>	<u>\$ 34,979,799</u>

The Federal Perkins Loan Program expired on September 30, 2017, which ended the issuance of new loans under this program and disallowed any new disbursements after June 30, 2018. The University continues to service outstanding loans in accordance with program specifications, as permitted by the federal government.

The University participates in the Federal Direct Student Loan Program (FDLs). A total of \$347,578,050 of the amount presented in the schedule of expenditures of federal awards represents the value of the new FDLs accepted by students during the year ended June 30, 2019.

The University had participated in the discontinued U.S. Department of Education Federal Family Education Loan Program and continues to hold and service loans with a total outstanding balance of \$496,157 at June 30, 2019.

Note 7 - Federal Work-Study Program Adjustments and Transfers

During the year ended June 30, 2019, certain Federal Work-Study funds were transferred in accordance with federal guidelines. The transfers were as follows:

Transferred from	Amount	Transferred to
Federal Work-Study 2018-2019	\$ 742,400	Federal Supplemental Educational Opportunity Grant 2018-2019
Federal Work-Study 2017-2018	125,290	Federal Work-Study 2018-2019
Federal Work-Study 2018-2019	<u>205,461</u>	Federal Work-Study 2019-2020
Total	<u>\$ 1,073,151</u>	

Schedule of Findings and Questioned Costs

Year Ended June 30, 2019

Section I - Summary of Auditor's Results

Financial Statements

Type of auditor's report issued:

Unmodified

Internal control over financial reporting:

- Material weakness(es) identified? ☐ Yes ☒ No
- Significant deficiency(ies) identified that are not considered to be material weaknesses? ☐ Yes ☒ None reported
- Noncompliance material to financial statements noted? ☐ Yes ☒ None reported

Federal Awards

Internal control over major programs:

- Material weakness(es) identified? ☐ Yes ☒ No
- Significant deficiency(ies) identified that are not considered to be material weaknesses? ☐ Yes ☒ None reported
- Any audit findings disclosed that are required to be reported in accordance with Section 2 CFR 200.516(a)? ☐ Yes ☒ No

Identification of major programs:

CFDA Number	Name of Federal Program or Cluster	Opinion
98.001	USAID Foreign Assistance for Program Overseas	Unmodified
Various	Research and Development Cluster	Unmodified
10.511	Smith-Lever Extension Program	Unmodified
84.032	Federal Family Education Loan Program - Lenders	Unmodified

Dollar threshold used to distinguish between type A and type B programs:

\$3,000,000

Auditee qualified as low-risk auditee?

☒ Yes ☐ No

Section II - Financial Statement Audit Findings

Reference Number	Finding
Current Year	None

Section III - Federal Program Audit Findings

Current Year None