COMPLIANCE REPORTS

For the Year Ended June 30, 2023

And Reports of Independent Auditor



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Report of Independent Auditor

To the Board of Trustees Georgia Tech Research Corporation, Georgia Tech Applied Research Corporation, and Georgia Institute of Technology Atlanta, Georgia

Report on the Audit of the Schedule of Expenditures of Federal Awards

Opinion

We have audited the accompanying Schedule of Expenditures of Federal Awards (the "Schedule") of Georgia Tech Research Corporation, Georgia Tech Applied Research Corporation and Georgia Institute of Technology (collectively, the "Organization") for the year ended June 30, 2023, and the related notes to the Schedule.

In our opinion, the accompanying Schedule presents fairly, in all material respects, the expenditures of federal awards of the Organization for the year ended June 30, 2023, in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinion

We conducted our audit in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States; and the audit requirements of Title 2 U.S. *Code of Federal Regulations* Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* ("Uniform Guidance"). Our responsibilities under those standards and the Uniform Guidance are further described in the *Auditor's Responsibilities for the Audit of the Schedule* section of our report.

We are required to be independent of the Organization and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Responsibilities of Management for the Schedule

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

Auditor's Responsibilities for the Audit of the Schedule

Our objectives are to obtain reasonable assurance about whether the Schedule as a whole is free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and, therefore, is not a guarantee that an audit conducted in accordance with generally accepted auditing standards, *Government Auditing Standards*, and the Uniform Guidance will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the Schedule.

In performing an audit in accordance with generally accepted auditing standards, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the Schedule, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the Schedule.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that
 are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness
 of the Organization's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the Schedule.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control related matters that we identified during the audit.

Other Matters

We have audited the financial statements of the business-type activities and each major fund of Georgia Tech Research Corporation and Georgia Tech Applied Research Corporation (collectively, "GTRC") as of and for the year ended June 30, 2023, and the related notes to the financial statements, which collectively comprise GTRC's basic financial statements. We issued our report thereon dated September 15, 2023, which contained an unmodified opinion on those financial statements.

The State of Georgia Department of Audits and Accounts has audited the basic financial statements of Georgia Institute of Technology as of and for the year ended June 30, 2023, and related notes and has issued its report thereon based on the audit of the basic financial statements performed in accordance with auditing standards generally accepted in the United States of America dated December 14, 2023, which expressed an unmodified opinion on those financial statements and reports no findings in relation to internal control over financial reporting or compliance and other matters.

Cherry Bekaert LLP

Atlanta, Georgia January 26, 2024



Report of Independent Auditor on Internal Control over Financial Reporting and on Compliance and Other Matters Based on an Audit of the Financial Statements Performed in Accordance with *Government Auditing Standards*

To the Board of Trustees Georgia Tech Research Corporation and Georgia Tech Applied Research Corporation Atlanta, Georgia

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the business-type activities, and each major fund of Georgia Tech Research Corporation and Georgia Tech Applied Research Corporation (collectively, "GTRC") as of and for the year ended June 30, 2023, and the related notes to the financial statements which collectively comprise GTRC's basic financial statements, and have issued our report thereon dated September 15, 2023.

Report on Internal Control over Financial Reporting

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

Report on Compliance and Other Matters

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

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 GTRC's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering GTRC's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Cherry Bekaert LLP

Atlanta, Georgia September 15, 2023, except for the schedule of expenditures of federal awards which is dated January 26, 2024



Report of Independent Auditor on Compliance for Each Major Federal Program and on Internal Control over Compliance Required by the Uniform Guidance

To the Board of Trustees Georgia Tech Research Corporation, Georgia Tech Applied Research Corporation, and Georgia Institute of Technology Atlanta, Georgia

Report on Compliance for Each Major Federal Program

Opinion on Each Major Federal Program

We have audited the compliance of Georgia Tech Research Corporation, Georgia Tech Applied Research Corporation, and the Georgia Institute of Technology (collectively, the "Organization") with the types of compliance requirements described in the OMB Compliance Supplement that could have a direct and material effect on each of the Organization's major federal programs for the year ended June 30, 2023. The Organization's major federal programs of Auditor's Results section of the accompanying schedule of findings and questioned costs.

In our opinion, the Organization complied, in all material respects, with the types of compliance requirements referred to above that could have a direct and material effect on each of its major federal programs for the year ended June 30, 2023.

Basis for Opinion on Each Major Federal Program

We conducted our audit of compliance in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and the audit requirements of Title 2 U.S. *Code of Federal Regulations* Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* ("Uniform Guidance"). Our responsibilities under those standards and the Uniform Guidance are further described in the *Auditor's Responsibilities for the Audit of Compliance* section of our report.

We are required to be independent of the Organization and to meet our other ethical responsibilities, in accordance with relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion on compliance for each major federal program. Our audit does not provide a legal determination of the Organization's compliance with the compliance requirements referred to above.

Responsibilities of Management for Compliance

Management is responsible for compliance with the requirements referred to above and for the design, implementation, and maintenance of effective internal control over compliance with the requirements of laws, statutes, regulations, rules, and provisions of contracts or grant agreements applicable to the Organization's federal programs.

Auditor's Responsibilities for the Audit of Compliance

Our objectives are to obtain reasonable assurance about whether material noncompliance with the compliance requirements referred to above occurred, whether due to fraud or error, and express an opinion on the Organization's compliance based on our audit. Reasonable assurance is a high level of assurance but is not absolute assurance and, therefore, is not a guarantee that an audit conducted in accordance with generally accepted auditing standards, *Government Auditing Standards*, and the Uniform Guidance will always detect material noncompliance when it exists. The risk of not detecting material noncompliance resulting from fraud is higher than for that resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

Noncompliance with the compliance requirements referred to above is considered material if there is a substantial likelihood that, individually or in the aggregate, it would influence the judgment made by a reasonable user of the report on compliance about the Organization's compliance with the requirements of each major federal program as a whole.

In performing an audit in accordance with generally accepted auditing standards, *Government Auditing Standards*, and the Uniform Guidance, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material noncompliance, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the Organization's compliance with the compliance requirements referred to above and performing such other procedures as we considered necessary in the circumstances.
- Obtain an understanding of the Organization's internal control over compliance relevant to the audit in order to design audit procedures that are appropriate in the circumstances 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 the Organization's internal control over compliance. Accordingly, no such opinion is expressed.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and any significant deficiencies and material weaknesses in internal control over compliance that we identified during the audit.

Other Matters

The results of our auditing procedures disclosed instances of noncompliance which are required to be reported in accordance with the Uniform Guidance and which are described in the accompanying schedule of findings and questioned costs as item 2023-001. Our opinion on each major federal program is not modified with respect to these matters.

Government Auditing Standards requires the auditor to perform limited procedures on the Organization's response to the noncompliance findings identified in our audit described in the accompanying schedule of findings and questioned costs. The Organization's response was not subjected to the other auditing procedures applied in the audit of compliance and, accordingly, we express no opinion on the response.

Report on Internal Control over Compliance

Our consideration of internal control over compliance was for the limited purpose described in the *Auditor's Responsibilities for the Audit of Compliance* section above and was not designed to identify all deficiencies in internal control over compliance that might be material weaknesses or significant deficiencies in internal control over compliance and therefore, material weaknesses or significant deficiencies may exist that were not identified. We did not identify any deficiencies in internal control over compliance that we consider to be material weaknesses. However, as discussed below, we did identify a deficiency in internal control over compliance that we consider to be a significant deficiency.

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 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 is a deficiency, or a combination of deficiencies, in internal control over compliance 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 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. We consider the deficiency in internal control over compliance described in the accompanying schedule of findings and questioned costs as item 2023-001 to be a significant deficiency.

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 GTRC's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering GTRC's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Cherry Bekaert LLP

Atlanta, Georgia September 15, 2023, except for the schedule of expenditures of federal awards which is dated January 26, 2024

YEAR ENDED JUNE 30, 2023

	Federal Assistance	Pass-through	Amount Passed	_
Federal Grantor/Pass-Though Grantor/Cluster or Program Title	Listing Number	Entity ID Number	Through to Subrecipient	Federal Expenditures
Grantor/Cluster or Program Title Research and Development-Cluster:	Number	Number	Subrecipient	Expenditures
Department of Agriculture				
Agriculture and Food Research Initiative (AFRI)	10.310		\$-	\$ 1,086,217
Food Safety Outreach Program	10.328		-	1,815
Wood Utilization Assistance	10.674		-	38,702
Agricultural Research Basic and Applied Research				
Passed through from:				
KWJ ENGINEERING INC/NEWARK, CA OREGON STATE UNIVERSITY/CORVALLIS, OR	10.001 10.001	145131 J2285A-C		21,316
Specialty Crop Block Grant Program - Farm Bill	10.001	02200/10		
Passed through from:				
GEORGIA DEPARTMENT OF AGRICULTURE/ATLANTA, GA	10.170	21SCBPGA1021-00	628	19,053
	10.170	2130BFGA1021-00	020	19,000
Agriculture and Food Research Initiative (AFRI)				
Passed through from:	10.310	AWD-103178-01		77 076
			-	77,875
	10.310	SUB00003042	-	23,627
UNIVERSITY OF TENNESSEE/	10.310	A22-0082-S001	-	62,311
US ENDOWMENT FOR FORESTRY AND COMMUNITIES/GREENVILLE, SC	10.310	23-00490		7,629
Total Department of Agriculture			628	1,338,545
Department of Commerce				
Economic Development_Technical Assistance	11.303		-	(4,623)
Economic Adjustment Assistance	11.307		93,084	1,793,382
Trade Adjustment Assistance for Firms	11.313		229,152	1,050,184
Climate and Atmospheric Research	11.431		-	486,018
Congressionally Identified Awards and Projects	11.469		-	142,137
Measurement and Engineering Research and Standards	11.609		-	1,158,453
Manufacturing Extension Partnership	11.611		-	230,751
Minority Business Resource Development	11.802		76,000	188,435
Integrated Ocean Observing System (IOOS)				
Passed through from:				
SE COASTAL OCEAN OBSERVING REGIONAL ASSN/JOHNS ISLAND, SC	11.012	IOOS.21(097)GT.FZ.GLD.1	-	69,660
SOUTHEAST COASTAL OCEAN OBSERVING REGIONAL ASSOC (SECOORA)/MT PLEASANT,SC/	11.012	IOOS.21(097)GT.KC/ED.WL.1	-	115,956
Economic Development_Technical Assistance				
Passed through from:				
PROFESSIONAL SCIENTIFIC ASSOCIATES INC (PSA)/HERNDON,VA	11.303	K025	-	32,000
TEXAS A & M UNIVERSITY/COLLEGE STATION, TX	11.303	M2203003	-	181,589
UNIVERSITY OF GEORGIA/ATHENS, GA	11.303	SUB00002788	-	54,400
Sea Grant Support				
Passed through from:				
UNIVERSITY OF GEORGIA/ATHENS, GA	11.417	SUB00002257	-	17,075
UNIVERSITY OF GEORGIA/ATHENS, GA	11.417	SUB00002640	-	4,560
UNIVERSITY OF GEORGIA/ATHENS, GA	11.417	SUB00002641	-	(311
Coastal Zone Management Administration Awards				
Passed through from:				
GA DEPT NATURAL RESOURCES/	11.419	AGMT DTD 9/15/2021	-	10,000
GA DEPT NATURAL RESOURCES/	11.419	SUB DTD 9/13/2022	-	12,205
GA DEPT NATURAL RESOURCES/	11.419	SUB DTD 9/19/2022	-	575
GEORGIA SOUTHERN UNIVERSITY/STATESBORO, GA	11.419	39G2905-GATECH	_	58,016
Climate and Atmospheric Research		0002000 0/112011		00,010
Passed through from:				
FLORIDA STATE UNIVERSITY/TALLAHASSEE, FLA	11.431	R000002728	_	124,816
Weather and Air Quality Research	11.401		-	124,010
Passed through from:				
Passed through from: UNIVERSITY CORPORATION FO	11 450	SUBCON002177		53,267
	11.459	SSBCONUZ III	-	53,207
Applied Meteorological Research				
Passed through from:	44.400	B04050		/~~
FLORIDA STATE UNIVERSITY/TALLAHASSEE, FLA	11.468	R01856	-	(28
Unallied Science Program				
Passed through from:				
PRINCE WILLIAM SOUND SCIE	11.472	21-72-01	-	11,426
Integrated Ocean Observing System (IOOS)				
Passed through from:				

Passed through from:

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

Federal Grantor/Pass-Though Grantor/Cluster or Program Title	Federal Assistance Listing Number	Pass-through Entity ID Number	Amount Passed Through to Subrecipient	Federal Expenditures
	11.473	0318.19.066115	·	
NATL FISH & WILDLIFE FOUN/WASHINGTON, DC Center for Sponsored Coastal Ocean Research Coastal Ocean Program	11.473	0316.19.000113	2,704	12,473
Passed through from:				
LEHIGH UNIVERSITY/BETHLEHEM, PA	11.478	543829-78002	_	128,186
Measurement and Engineering Research and Standards				,
Passed through from:				
EMORY UNIVERSITY/ATLANTA, GA	11.609	A391823	-	86,161
COLORADO STATE UNIVERSITY/COLLINS, CO	11.609	G-99042-03	-	152,306
UNIVERSITY OF GEORGIA/ATHENS, GA	11.609	SUB00002891	-	12,965
Arrangements for Interdisciplinary Research Infrastructure				,
Passed through from:				
NIIMBL/WASHINGTON, DC	11.619	PC2.2-122	-	(1,768
Total Department of Commerce			400,940	6,180,266
Department of the Army				
Basic and Applied Scientific Research	12.300		7,843,104	27,582,418
Military Medical Research and Development	12.420		166,692	713,361
Basic Scientific Research	12.431		65,951,722	255,523,564
Basic, Applied, and Advanced Research in Science and Engineering	12.630		1,098,071	17,733,383
Research and Technology Development	12.910		113,243	233,949
Military Medical Research and Development				
Passed through from:				
UNIVERSITY OF MICHIGAN/	12.420	SUBK00013481	-	7,499
Basic Scientific Research				
Passed through from:				
CARBONICS INC/CULVER CITY, CA	12.431	145449	-	51
CORNELL UNIVERSITY/ITHACA, NY	12.431	76091-10525	-	(297
CORNERSTONE RESEARCH GROUP/DAYTON, OH	12.431	PO 2020-1714	-	6,375
ELEMENTUM 3D/ERIE,CO	12.431	149500	-	76,590
FLORIDA STATE UNIVERSITY/TALLAHASSEE, FLA	12.431	#R000002607	-	(48
HARVARD UNIVERSITY/BOSTON, MA	12.431	124397-5121861	-	41,577
MAYO CLINIC/ROCHESTER, MN	12.431	GEO-259318-01	-	147,765
MILLENNITEK LLC/KNOXVILLE, TN	12.431	144639	-	70,745
MILLENNITEK LLC/KNOXVILLE, TN	12.431	147839	-	223,114
PURDUE UNIVERSITY/WEST LAFAYETTE, IN	12.431	13000844-026	-	414,888
SEMI/MILPITAS, CA	12.431	FT-19-20-P198	-	16,410
SEMI/MILPITAS, CA	12.431	FT19-21-206	-	60,642
SEMI/MILPITAS, CA	12.431	PNT22-23-016	-	123,315
SIEMENS CORPORATE RESEARCH/PRINCETON, NJ	12.431	205-2	-	(1,749)
ADVANCED REGENERATIVE MANUFACTURING INSTITUTE/MANCHESTER, NH	12.431	1	-	1,079
UNIVERSITY OF PENNSYLVANIA/PHILADELPHIA, PA	12.431	572622	-	483,463
UNIVERSITY OF WASHINGTON/SEATTLE, WA	12.431	UWSC7915 P.O. # BPO 3109	-	2
Basic, Applied, and Advanced Research in Science and Engineering				
Passed through from: ADVANCED REGENERATIVE MANUFACTURING INSTITUTE/MANCHESTER, NH	12.630	T1075		44,994
BOEING RESEARCH & TECHNOLOGY/SEATTLE, WA	12.630	1982655	_	24,545
DREXEL UNIVERSITY/PHILADELPHIA, PA	12.630	940018	_	59,117
LOUISIANA STATE UNIVERSITY/BATON ROUGE, LA	12.630	PO-0000126336	_	22,404
UNIVERSITY OF CALIFORNIA/SAN DIEGO,CA	12.630	705828	_	35,998
Research and Technology Development	12.000			00,000
Passed through from:				
UNIVERSITY OF TEXAS AT DALLAS/RICHARDSON, TX	12.910	1907638	_	192,242
Total Department of the Army	12.010	1001000	75,172,832	303,837,396
Department of the Navy				
Basic and Applied Scientific Research	12.300		5,154,851	41,597,279
Basic Applied, and Advanced Research in Science and Engineering	12.630			1,593
Air Force Defense Research Sciences Program	12.800		-	304,276
Research and Technology Development	12.910		38,077	198,458
Basic and Applied Scientific Research				
Passed through from:				
ADVANCED TECHNOLOGY INTERNATIONAL/SUMMERVILLE, SC	12.300	2022-398-PROTOTYPE PROJECT 01	-	73,045
AVNOS/VENICE,CA	12.300	IW-ONR-001GT	-	146,479
CLEMSON UNIVERSITY/CLEMSON, SC	12.300	2190-202-2013781	-	59,634

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

ederal Grantor/Pass-Though	Federal Assistance Listing	Pass-through Entity ID	Amount Passed Through to	Federal
Grantor/Cluster or Program Title	Number	Number	Subrecipient	Expenditures
COMBUSTION RESEARCH AND FLOW TECHNOLOGY INC / HUNTSVILLE, AL	12.300	21-C-0336/C828	-	114,853
CORVID TECHNOLOGIES/MOORESVILLE, NC	12.300	#23-017	-	31,000
GEORGE MASON UNIVERSITY/FAIRFAX, VA	12.300	E2060282	-	130,433
GLOBAL TECHNOLOGY CONNECTIONS/ATLANTA, GA	12.300	149448	-	100.04
MAKAI OCEAN ENGINEERING/WAIMANALO, HI	12.300	SUB-2019-002	128,261	132,040
PHASE IV INC/ PHASE IV INC/	12.300 12.300	2022-001 2022-002	-	154,904
PHASE IV INC/ PHOTODIGM INC/RICHARDSON, TX	12.300	PO 10323	-	230,145 728,502
PHYSICAL SCIENCES INC/ANDOVER, MA	12.300	SC-8061-7420-021-001		214,92
PRINCETON UNIVERSITY/PLAINSBORO, NJ	12.300	SUB0000364	-	222,72
QORVO TEXAS LLC/RICHARDSON, TX	12.300	AGR DTD 01-JUL-2022	-	212,43
UNIVERSITY OF CALIFORNIA/SAN DIEGO,CA	12.300	KR 705027	-	75,54
UNIVERSITY OF CONNECTICUT/STORRS, CT	12.300	184733	-	308,30
UNIVERSITY OF MARYLAND/COLLEGE PARK, MD	12.300	95497-Z8318201	-	65,06
UNIVERSITY OF SOUTH CAROLINA/COLUMBIA, SC	12.300	23-5041	-	38,04
UNIVERSITY OF TENNESSEE/	12.300	N00164-20-2008-GEORGIA	-	
UNIVERSITY OF VIRGINIA/CHARLOTTESVILLE, VA	12.300	GG12136.159334	-	30,00
otal Department of the Navy			5,321,189	45,069,67
Department of the Air Force				
Basic and Applied Scientific Research	12.300		1,577,123	12,121,333
Basic, Applied, and Advanced Research in Science and Engineering	12.630		-	5,954,59
Air Force Defense Research Sciences Program	12.800		94,770,140	323,621,09
Mathematical Sciences Grants	12.901		149,881	151,18
Research and Technology Development	12.910		-	(56,63
DOD, NDEP, DOTC-STEM Education Outreach Implementation				
Passed through from:				
UNIVERSITY SPACE RESEARCH ASSOC/	12.560	SUBK-22-0021 PROJ NO 09049	-	76,66
Basic, Applied, and Advanced Research in Science and Engineering				
Passed through from:	10.000			(01.00)
AZIMUTH CORPORATION/BEAVERCREEK, OH	12.630	238-5404-GIT3	-	(31,36
Air Force Defense Research Sciences Program				
Passed through from: ADVANCED TACTICS INC/TORRANCE,CA	12.800	149294	_	164,86
ADVANCED TACTICS INC/TORRANCE,CA	12.800	149295		164,86
AGING AIRCRAFT CONSULTING LLC/WARNER ROBINS, GA	12.800	AF21A-2101		10,96
AMERICA MAKES/YOUNGSTOWN, OH	12.800	20220059	_	154,22
ARCTOS TECHNOLOGY SOLUTIONS LLC/ DAYTON, OH	12.800	165852.03.00.0001.00.31-C1	-	100,73
ARCTOS TECHNOLOGY SOLUTIONS LLC/ DAYTON, OH	12.800	165852-19F5830-19-03-C1	-	(60
ARCTOS TECHNOLOGY SOLUTIONS LLC/ DAYTON, OH	12.800	212014.05.00.2016.00.19-C11	-	33
ARCTOS TECHNOLOGY SOLUTIONS LLC/ DAYTON, OH	12.800	212014.05.00.2016.00.22-C11	-	21,46
ASSURED INFORMATION SECUR	12.800	1159-SB	-	22,67
ASSURED INFORMATION SECUR	12.800	1161-SA	-	52,01
ATLAS DEVICES LLC/BOSTON, MA	12.800	FA864921P0858	-	(1,75
BALL AEROSPACE SYSTEMS DIV/BOULDER, CO	12.800	22S0060C	-	42,36
BIOMADE/MINNEAPOLIS, MN	12.800	T-PC01-A-05-0029	-	108,59
BOOZ, ALLEN AND HAMILTON INC	12.800	A6837	-	540,95
BRYKA SKYSTOCKS LLC/NEWINGTON, CT	12.800	151143	-	33,05
CLEMSON UNIVERSITY/CLEMSON, SC	12.800	2357-200-2015033	-	36,22
CORNELL UNIVERSITY/ITHACA, NY	12.800	89102-11265	-	46,72
CORNELL UNIVERSITY/ITHACA, NY	12.800	90452-11334	-	32,21
CURVE ANALYTICS INC/HUNTSVILLE, AL	12.800	150354	-	43,47
EARTHLY DYNAMICS CORPORATION/ATLANTA,GA	12.800	145780	-	(40,25
EARTHLY DYNAMICS CORPORATION/ATLANTA,GA	12.800	147036	-	(9,95
EARTHLY DYNAMICS CORPORATION/ATLANTA, GA	12.800	148384	-	199,84
ENGINEERING RESEARCH AND ANALYSIS INC./DAYTON, OH	12.800	FA9101-19-C-0033	-	2,33
ENIG AND ASSOCIATES INC/ROCKVILLE, MD	12.800	149440	-	25,25
ENIG AND ASSOCIATES INC/ROCKVILLE, MD	12.800	149738	-	261,51
FLEXTECH ALLIANCE INC/SAN JOSE, CA	12.800	NB18-21-36	-	314,89
FLORIDA INTERNATIONAL UNIVERSITY/MIAMI, FL	12.800	000016	-	103,64
FLORIDA INTERNATIONAL UNIVERSITY/MIAMI, FL	12.800	800011034-01UG	-	8,09
GALACTIV INC/MUNSTER,IN	12.800	150367	-	99,99
INFOSCITEX CORPORATION/ DAYTON, OH	12.800	233231	-	25,484
INFOSCITEX CORPORATION/ DAYTON, OH	12.800	TASK ORDER 0002 (-21-F-2605)	-	134,43
		. ,		

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

Federal Grantor/Pass-Though	Federal Assistance Listing	Pass-through Entity ID	Amount Passed Through to	Federal
Grantor/Cluster or Program Title	Number	Number	Subrecipient	Expenditures
INNOVATIVE SCIENTIFIC SOLUTIONS INC (ISSI)/DAYTON, OH	12.800	SB20251	-	42,660
INNOVATIVE SCIENTIFIC SOLUTIONS INC (ISSI)/DAYTON, OH	12.800	SB20265	-	74,380
INNOVATIVE SCIENTIFIC SOLUTIONS INC (ISSI)/DAYTON, OH	12.800	SB20276	-	88,952
LINCOLN LABORATORY/MASSACHUSETTS INST OF TECH	12.800	7000437192	-	100,230
LINCOLN LABORATORY/MASSACHUSETTS INST OF TECH	12.800	7000566472	-	61,029
LINCOLN LABORATORY/MASSACHUSETTS INST OF TECH	12.800	7000570948	-	33,588
LINQUEST CORPORATION/HERNDON, VA	12.800	10060.2019.012	-	461,496
LONG WAVE INC/OKLAHOMA CITY, OK	12.800	GTRC01-003	-	104,758
LUNA INNOVATIONS/BLACKBURG, VA	12.800	3576.01GATECH	-	165,755
LYNNTECH INC/ COLLEGE STATION, TX	12.800	AF-212 II	-	169,618
MSBA/LOS ANGELES,CA	12.800	150440	-	53,379
NEXTFLEX/SAN JOSE, CA	12.800	AGR DTD 1/26/2022	77,911	295,847
NORTH CAROLINA STATE UNIVERSITY/RALEIGH, NC	12.800	2019-1679-02		69,751
PARTWORKS/ATLANTA, GA	12.800	149951	-	129,387
			-	
RAYTHEON/BBN SYSTEM AND TECHNOLOGIES/CAMBRIDGE, MA	12.800	14787	-	(1,547
SPACE DYNAMICS LAB	12.800	CP0072011	-	217,790
SPACEWORKS ENTERPRISES/ATLANTA, GA	12.800	22-006	-	100,000
SPECTRAL ENERGIES LLC / DAYTON, OH	12.800	SB2122-001-1	-	47,943
TECHNOLOGY HOLDING LLC/SALT LAKE CITY,UT	12.800	148364	-	171,949
THE FLORIDA INSTITUTE FOR HUMAN & MACHINE COGNITION (IHMC)/PENSACOLA, FL	12.800	2022-022-01.5	-	49,817
UES INC/DAYTON, OH	12.800	S-162-11-MR011	-	184,085
UES INC/DAYTON, OH	12.800	S-162-11-MR012	-	130,884
UES INC/DAYTON, OH	12.800	S-162-11-MR017	-	22,223
UES INC/DAYTON, OH	12.800	S-162-11-MR020	-	57,271
UES INC/DAYTON, OH	12.800	S-200-210-001	-	91,029
UNIVERSITY OF BUFFALO/AMHERST, NY	12.800	R1304010	-	144,983
UNIVERSITY OF CALIFORNIA/SANTA BARBARA,CA	12.800	#KK1912	-	16,129
VERUS RESEARCH/ALBUQUERQUE, NM	12.800	1169-00093	-	35,439
VERUS RESEARCH/ALBUQUERQUE, NM	12.800	1177-0096	-	63,360
VISION SYSTEMS INC/RIVERSIDE, RI	12.800	2022- 0529-GTRC	-	62,819
WANG ELECTRO-OPTO CORPORATION/MARIETTA, GA	12.800	FA8651-17-C-0042	-	· -
WHISPER AERO/CROSSVILLE,TN	12.800	148689	-	228,359
Research and Technology Development				
Passed through from:				
UNIVERSITY OF NOTRE DAME/SOUTH BEND, IN	12.910	204368GT (DATTA)	-	139,437
Fotal Department of the Air Force			96,575,055	348,202,640
Department of Defense				
Procurement Technical Assistance For Business Firms	12.002		-	7,255
Basic and Applied Scientific Research	12.300		1,326,924	2,223,090
Scientific Research - Combating Weapons of Mass Destruction	12.351		16,606	54,508
Military Medical Research and Development	12.420		-	26,332
Basic Scientific Research	12.431		-	386,939
Basic, Applied, and Advanced Research in Science and Engineering	12.630		7,077,046	120,973,546
Air Force Defense Research Sciences Program	12.800		1,092,720	3,963,381
Research and Technology Development	12.910		3,445,751	6,090,189
Procurement Technical Assistance For Business Firms				
Passed through from:				
STEVENS INST OF TECHNOLOGY/	12.002	2103318-01	-	99,999
Basic and Applied Scientific Research				
Passed through from:				
ADVANCED TECHNOLOGY INTER	12.300	N660012291010	860,450	1,736,887
AMEWAS INC	12.300	PO23-00633	-	253,154
AMEWAS/CALIFORNIA MD	12.300	PO23-00866	-	51,704
AMEWAS/CALIFORNIA MD	12.300	PO23-00902	-	60,206
AMEWAS/CALIFORNIA MD	12.300	PO23-00906	-	1,365
BAE SYSTEMS	12.300	1177635	-	11,035
BAE SYSTEMS	12.300	975057	-	385
			-	59,821
BOOZ, ALLEN, & HAMILTON	12.300	A7590	-	
CRAFT TECH/HUNTSVILLE, AL	12.300	18-C-0850/C745	-	95,000
DYNETICS INC	12.300	DI-SC-15-05	-	202
DYNETICS INC	12.300	DI-SC-19-40/TO 0001	-	136,708
DYNETICS INC	12.300	DISC2191SBTJ00021	-	
DYNETICS INC DYNETICS INC	12.300 12.300	DISC2191SBTJ00021 HHM40219D0023	-	55,642 63,199

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

deral Grantor/Pass-Though	Federal Assistance Listing	Pass-through Entity ID	Amount Passed Through to	Federal
antor/Cluster or Program Title	Number	Number	Subrecipient	Expenditure
DYNETICS INC	12.300	SBSU00007	-	1,031,20
ENVISIONEERING INC	12.300	S20-16	-	(11
ENVISIONEERING INC	12.300	S22-02	-	74,90
ISLAND CREEK ASSOCIATES	12.300	PO-19C0618-01	-	169,21
J.F. TAYLOR INC/GREAT MII	12.300	JFT-47QF-04	-	472,47
JET PROPULSION LAB/CALIFORNIA INST. OF TECH	12.300	1689065	-	3,71
JOHNS HOPKINS UNIV	12.300	122356		-,
JOHNS HOPKINS UNIV	12.300	174646		5,17
LEIDOS INC	12.300		-	
		P010217722	-	114,44
LEIDOS INC/MCLEAN, VA	12.300	P010230959 TO1	-	65,7
LEIDOS, INC	12.300	RFP-7234-0219-007	-	1
LUNA LABS USA LLC	12.300	3602-NVY-2S/GTRI	-	133,84
Mercury Mission Systems	12.300	PO22-1182	-	310,9
Mercury Mission Systems	12.300	POC# 10201-GTRI	-	28
RAYTHEON COMPANY INDIANAP	12.300	4202675433	-	121,3
R-DEX SYSTEMS/ MARIETTA,	12.300	GTARC 151204 DTD 2-7-2023	-	18,60
R-DEX SYSTEMS/ MARIETTA,	12.300	GTARC 151242 DTD 9-16-2022	-	86,2
SAIC	12.300	P010260127	-	149,4
SYNTEK TECHNOLOGIES	12.300	AGMT DTD 3/31/2022		, .
UNIV OF SO CA	12.300		-	244.2
		127224382	-	244,2
UNIVERSITY CONSORTIUM FOR APPLIED HYPERSONICS (UCAH)/COLLEGE STATION,TX	12.300	M2200275	-	413,2
UNIVERSITY CONSORTIUM FOR APPLIED HYPERSONICS (UCAH)/COLLEGE STATION,TX	12.300	M2200279	162,500	426,4
UNIVERSITY CONSORTIUM FOR APPLIED HYPERSONICS (UCAH)/COLLEGE STATION,TX	12.300	M2201842	-	320,2
UNIVERSITY OF CALIFORNIA/SAN DIEGO,CA	12.300	#108547341	-	150,0
UNIVERSITY OF PENNSYLVANIA/PHILADELPHIA, PA	12.300	578186	-	160,8
UNIVERSITY OF SOUTH CAROLINA/COLUMBIA, SC	12.300	18-3437	-	(12,2
VIASAT INC	12.300	4208464	-	288,9
Scientific Research - Combating Weapons of Mass Destruction				
Passed through from:				
-	40.054	00405 04000		2.0
CORNELL UNIVERSITY/ITHACA, NY	12.351	90425-21229	-	3,6
EMORY UNIVERSITY/ATLANTA, GA	12.351	A316609	-	101,1
ROTC Language and Culture Training Grants				
Passed through from:				
INSTITUTE OF INTERNATIONAL EDUCATION/WASHINGTON, DC	12.357	PGO1801-GT-03-PGO-051-PO3	-	(1
INSTITUTE OF INTERNATIONAL EDUCATION/WASHINGTON, DC	12.357	PG01801-GT-03-PG0-051-PO4	-	39,6
Basic Scientific Research				
Passed through from:				
ADVANCED TECHNOLOGY INTER	12.431	2017-311A PA 5	213,019	1,215,7
ADVANCED TECHNOLOGY INTER			213,019	1,213,7
	12.431	PROJECT AGREEMENT NO 1	-	
CARNEGIE MELLON	12.431	1990785-454320	-	180,7
CASE WESTERN RESERVE UNIVERSITY/CLEVELAND, OH	12.431	RES600318	-	5,6
EARTHLY DYNAMICS CORP	12.431	AGMT DTD 10/27/2021	-	(*
FAMU	12.431	C-5159	-	25,0
GEN ELEC CORP RES & DEVL	12.431	401153380	-	78,2
GEN ELEC CORP RES & DEVL	12.431	401153812	-	6,8
GEN ELEC CORP RES & DEVL	12.431	401153817	-	(*
JOHNS HOPKINS UNIV/BALTIMORE, MD	12.431	2005355675		87,5
			-	
	12.431	41000103	-	10,7
R-DEX SYSTEMS/ MARIETTA,	12.431	GTARC 149029 DTD 6-21-2022	-	139,8
REPUBLIC MISSION SYSTEMS	12.431	AGMT DTD 11/17/2022	-	90,5
ROBOTICS TECHNOLOGY	12.431	70-201708	-	1,2
SCIENTIFIC RES	12.431	SR20201820	-	2
SCIENTIFIC RES	12.431	SR20220019	-	130,9
TEXAS ENGINEERING STATION-TAMU/COLLEGE STATION, TX	12.431	M2203595	-	83,0
UNIVERSITY OF ALABAMA AT BIRMINGHAM/BIRMINGHAM, AL	12.431	000529073-001	-	94,2
SCIENTIFIC RES	12.431	SR20220089	-	127,3
	12.431	51120220003	-	127,3
Basic, Applied, and Advanced Research in Science and Engineering				
Passed through from:				
ADVANCED TECHNOLOGY INTER	12.630	2017-311A PA 06	-	
APPLIED RESEARCH LABORATO	12.630	102768-Z9717201	-	23,4
BAE SYSTEMS	12.630	1115682	-	115,3
BAE SYSTEMS	12.630	1177635	-	83,4
			-	30,5
	12.630	RFP-EMH22-19SCRIMGTARC	-	
BAE SYSTEMS/BURLINGTON MA	12.630	1017356	-	178,7
BAE SYSTEMS/BURLINGTON MA	12.630	1125267		764,2

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

-ederal Grantor/Pass-Though	Federal Assistance Listing	Pass-through Entity ID	Amount Passed Through to	Federal
Grantor/Cluster or Program Title	Number	Number	Subrecipient	Expenditures
BOOZ, ALLEN, & HAMILTON	12.630	A26456	-	569,895
CARNEGIE MELLON INSTITUTE/PITTSBURGH, PA	12.630	21-00038-SUB-000	-	169,705
CHARLES RIVER ANALYTICS INC / CAMBRIDGE, MA	12.630	SC2207702	-	33,766
DEFENSEWERX-ICEWERX/NICEV	12.630	AGMT DTD 2/25/2022	-	180,623
DRAPER LABORATORY	12.630	SC001-0000001394	-	1,487,455
DRAPER LABORATORY/CAMBRIDGE, MA	12.630	B20-2020184G002	-	85,594
DREXEL UNIVERSITY/PHILADELPHIA, PA	12.630	T10048	-	31,108
DYNETICS INC	12.630	DI-SC-15-05 TO 10	(9,719)	(10,688
DYNETICS INC	12.630	DISC2091	-	43,529
DYNETICS INC	12.630	DI-SC-20-91	-	51,395
	12.630 12.630	PO SB80027 AGREEMENT DTD 11/19/2021	-	(1,177
EPIRUS INC/SEGUNDO, CA INFORMATION SCIENCE INSTI	12.630	136299980	-	297,271 14,927
INTEL CORPORATION/	12.630	CW2051835	-	291,172
INTEL CORFORATION	12.630	2509-1	-	2,534,480
JACOS SVERDRUP ADVANCE SY	12.630	1234-01-00-03	-	477,565
JOHNS HOPKINS UNIV/BALTIMORE, MD	12.630	2004731073		119,842
JT4-LLC/LAS VEGAS, NV	12.630	2021JW5124		204,832
JT4-LLC/LAS VEGAS, NV	12.630	2022JW5594	_	(22
KARAGOZIAN AND CASE STRUCTURAL ENGINEERS/GLENDALE. CA	12.630	FFP-149623	_	42,507
KBRWYLE/HUNTSVILLE, AL	12.630	14354.001.001.03	-	(4,670
KBRWYLE/HUNTSVILLE, AL	12.630	HV05000019	-	114,990
KBRWYLE/HUNTSVILLE, AL	12.630	P000045115	-	286.791
KONTRON AMERICA INC	12.630	4500125358	-	53,607
LEIDOS INC	12.630	P010192863	-	8,245
LEIDOS INC	12.630	P010264877	-	235,679
LEIDOS INC	12.630	P010280566	-	328,964
LOCKHEED MARTIN	12.630	4105840017	-	200,994
LOCKHEED MARTIN CORP	12.630	1010121	-	(232
LOCKHEED MARTIN CORP	12.630	6574055372	-	204,727
MACAULAY-BROWN	12.630	DSC2134-01	-	1,558
NEW YORK UNIVERSITY/NEW YORK, NY	12.630	F2265-01	-	107,022
NORTHROP GRUMMAN SYS CORP	12.630	5300029642	-	693,101
NORTHROP GRUMMAN SYS CORP	12.630	PO#5300010064	-	36,616
NORTHROP GRUMMAN/BALTIMORE, MD	12.630	5300039885	-	302,875
NORTHWESTERN UNIVERSITY/EVANSTON, IL	12.630	60060216	-	306,237
NuWave Solutions LLC	12.630	IDIQ TO DTD 6/1/2022	-	247,645
PHYSICAL SCIENCES INC.	12.630	SC-4566-170221-013-001	-	40,256
RAYTHEON	12.630	4202392536	-	746,065
RAYTHEON	12.630	4202392548	-	129,136
RAYTHEON INTELLIGENCE & S	12.630	LTR DTD 31-OCT-2022	-	456,492
RESONANT SCIENCES LLC	12.630	ACL-EM-22-P14817	-	52,172
ROCKWELL COLLINS	12.630	PO 4507393359	-	129,931
SAIC	12.630	P010251920	-	(6,211
SECURIGENCE/LEESBURG, VA	12.630	000000632	-	26,590
SIERRA NEVADA CORPORATION	12.630	SSFNM028	-	99,823
SRI INTERNATIONAL/PRINCETON,NJ	12.630	PO54003	-	(703
SRI INTERNATIONAL/PRINCETON,NJ	12.630	P070745	-	151,307
STEEL FOUNDERS SOCIETY OF AMERICA/	12.630	SPI005	-	119,559
STEVENS INST OF TECH	12.630	2103221-12	-	177,197
STEVENS INST OF TECH	12.630	2103254-01	-	49,936
STEVENS INST OF TECH	12.630	2103373-01	-	114,313
	12.630	2103417	-	100,255
SURVICE ENGINEERING CO	12.630	S22-155007	-	224,936
UNIVERSITY CONSORTIUM FOR APPLIED HYPERSONICS (UCAH)/COLLEGE STATION,TX	12.630	M2200459	33,710	222,502
UNIVERSITY OF CALIFORNIA/SAN DIEGO,CA UNIVERSITY OF ILLINOIS/CHICAGO.IL	12.630 12.630	KR 705371 104071-18540	-	2,570 89,295
UNIVERSITY OF ILLINOIS/CHICAGO,IL UNIVERSITY OF MICHIGAN/	12.630	SUBK00011571	-	89,295
UNIVERSITY OF MICHIGAN/ UNIVERSITY OF NOTRE DAME/SOUTH BEND, IN	12.630	#203278GT-BAKIR	-	267,882
UNIVERSITY OF NOTRE DAME/SOUTH BEND, IN UNIVERSITY OF NOTRE DAME/SOUTH BEND, IN	12.630	#203278GT-BAKIR #203278GT-YU	-	286,390
UNIVERSITY OF NOTRE DAME/SOUTH BEND, IN UNIVERSITY OF NOTRE DAME/SOUTH BEND, IN	12.630	#203278GT-KHAN	-	286,390
UNIVERSITY OF NOTRE DAME/SOUTH BEND, IN UNIVERSITY OF NOTRE DAME/SOUTH BEND, IN	12.630	203278GT-NAEEMI	-	260,740
UNIVERSITY OF NOTRE DAME/SOUTH BEND, IN	12.630	203278GT-Raychowdhury	-	347,502
WECOSO, INC., DBA WEST COAST SOLUTIONS/HUNTINGTON BEACH, CA	12.630	140208	-	(592
WECOSO, INC., DBA WEST COAST SOLUTIONS/HUNTINGTON BEACH, CA	12.630	3214	-	35,264
ZETA ASSOCIATES INC	12.630	173118LS-GTARC-01		144,294

Federal Grantor/Pass-Though	Federal Assistance Listing	Pass-through Entity ID	Amount Passed Through to	Federal
Grantor/Cluster or Program Title	Number	Number	Subrecipient	Expenditures
Air Force Defense Research Sciences Program				
Passed through from:				
PURDUE UNIVERSITY/WEST LAFAYETTE, IN	12.800	#13000716-051	-	170,112
FREEDOM PHOTONICS SANTA B	12.800	#\$7200-01	-	168,960
SMART MUNITIONS EXPERTS S	12.800	10/17/22 AGMT	-	24,281
ASSURED INFORMATION SECUR	12.800	1159-SB	-	68,772
ASSURED INFORMATION SECUR	12.800	1161-SA	-	80,142
BINGHAMTON UNIVERSITY/BINGHAMTON, NY	12.800	1170861/92514	-	203,442
ARCTOS TECHNOLOGY SOLUTIONS LLC/ DAYTON, OH	12.800	165852-18F5828-19-16-C1	-	(3,100)
JT4-LLC/LAS VEGAS, NV	12.800	2020JW3092	-	(32)
AEROBOTIX INC MADISON AL	12.800	210331-21667	-	58,304
SMART MUNITIONS EXPERTS S	12.800	3/9/2022 AGMT	-	405
LOCKHEED MARTIN SPACE SYS	12.800	4105205656	-	62,659
L3 TECHNOLOGIES/GREENVILL	12.800	4501766939	-	166
L3 COMMUNICATIONS/ROCKWA	12.800	4501890959	-	233,618
LINCOLN LAB	12.800	7000472951	-	(9)
BOOZ, ALLEN, & HAMILTON	12.800	A8270	-	299,708
MATERIALS TECHNOLOGIES CO	12.800	AGMT DTD 10-18-2021	-	(15,289)
ATC MATERIALS/WESTLAKE OH	12.800	AGMT DTD 11-08-2019	53,402	25,966
CESIUM ASTRO/ AUSTIN, TX	12.800	AGR153702		8,489
MAP LARGE INC/ATLANTA GA	12.800	GTARC 151618 DTD 11-21-2022	-	24,561
MAP LARGE INC/ATLANTA GA	12.800	GTARC 151651 DTD 11-21-2022	-	22,730
STELLAR SCIENCE LTD/ALBU	12.800	GTRC AGMT DTD 11-03-2020	_	26,369
NORTHROP GRUMMAN INNOVAT	12.800	MP00301412	_	331
MAP LARGE INC/ATLANTA GA	12.800	NO. 153666	_	2,939
KBRWYLE DAYTON/OH	12.800	P000055346	_	8,812
CACI	12.800	P000105680	_	1,328,346
SW RES INSTITUTE	12.800	P99026N	_	52,265
PAR TECH CORP	12.800	PGSCSC11137414		137,033
KBRWYLE DAYTON/OH	12.800	PO P000048819		110,032
SAAB INC/EAST SYRACUSE NY	12.800	PO59783		51,114
UNIV OF DAYTON RSCH INST	12.800	RSC22076		198,616
APPLIED RESEARCH SOLUTION	12.800	S03005-01	-	464,717
SCIENTIFIC RES	12.800	SR20201140	-	20
SCIENTIFIC RES	12.800	SR20210482 (J413)	-	17,060
ALION SCIENCE AND TECH	12.800	SUB1148651-002	-	1,146
ALION SCIENCE AND TECHNOL	12.800	SUB1157903	-	320,847
ALION SCIENCE AND TECHNOL	12.800	SUB1157903 RELASE 002	-	185
ALION SCIENCE AND TECHNOL	12.800	SUB1157903 RELEASE 002	- 355,000	2,566,862
ALION SCIENCE AND TECHNOL	12.800		355,000	
TAU TECHNOLOGIES LLC/ALB	12.800	SUB1157903-003	-	7,115,017
BATTELLE	12.800	TAU 2021-003 US001-0000832821	-	(84)
WRIGHT BROTHERS INSTITUTE	12.800	WBSRA23002GTARC	-	(727)
			-	11,534
RINCON RESEARCH CORPOR	12.800	WJR-000998	-	1,624,261
Research and Technology Development				
	12 010	00010318		116 100
UNIVERSITY OF CALIFORNIA/BERKELEY, CA	12.910	00010318	-	116,199
UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN/CHAMPAIGN, IL	12.910	108335-18906	-	159,870
SIEMENS CORPORATE RESEARCH/PRINCETON, NJ	12.910	126-003	-	41
	12.910	204368GT	-	128,742
UNIVERSITY OF COLORADO/DENVER, CO	12.910	FY18.920.001	-	11,441
EMORY UNIVERSITY/ATLANTA, GA	12.910	T680127	-	(2,011)
UNIVERSITY OF WASHINGTON/SEATTLE, WA Total Department of Defense	12.910	UWSC14509	- 14,627,409	92,888 174,968,372
			14,027,403	174,300,372
Department of the Interior				
Assistance to State Water Resources Research Institutes	15.805		241,925	312,862
Earthquake Hazards Program Assistance	15.807		-	53,417
National Center for Preservation Technology and Training	15.923		-	31,176
Cooperative Research and Training Programs – Resources of the National Park System	15.945		-	53,154
Research Grants (Generic)				
Passed through from:				
GALLUP	15.650	HR001119C0135-001		6,863
Total Department of the Interior			241,925	457,472

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Department of Justice				
Body Worn Camera Policy and Implementation	16.835		-	10,460
Coronavirus Emergency Supplemental Funding Program				
Passed through from:				
STATE OF GEORGIA - CRIMINAL JUSTICE COORDINATING COUNCIL/ATLANTA, GA	16.034	B50-8-090	-	3,790
National Institute of Justice Research, Evaluation, and Development Project Grants				
Passed through from:				
THE URBAN INSTITUTE	16.560	101749-0001-GTARC-01	-	58,098
Total Department of Justice			-	72,348
Department of Labor				
Occupational Safety and Health_Susan Harwood Training Grants	17.502		-	151,804
WIOA Adult Program				
Passed through from:				
GA DEPT OF ECONOMIC DEVELOPMENT/ATLANTA, GA	17.258	GA FISCAL IMPACT MODEL	-	11,968
Total Department of Labor			-	163,772
Department of State				
International Programs to Support Democracy, Human Rights and Labor	19.345		24,000	357,968
Cyberspace and Digital Policy	19.665		-	416,420
Middle East Partnership Initiative				
Passed through from:				
AMERICAN UNIVERSITY OF BEIRUT/BERIUT, LABANON	19.500	SNEAAC20CA0028		251,233
Total Department of State			24,000	1,025,621
Department of Transportation				
Air Transportation Centers of Excellence	20.109		1,115,654	6,466,915
Highway Planning and Construction	20.205		-	297,739
Highway Training and Education	20.215		-	14,952
University Transportation Centers Program	20.701		182,888	256,080
Pipeline Safety Research Competitive Academic Agreement Program (CAAP)	20.724		-	46,460
Payments for Essential Air Services	20.901		-	2,587
Air Transportation Centers of Excellence				
Passed through from:				
ARIZONA STATE UNIVERSITY/TEMPE, AZ	20.109	17-166	-	332,122
FLORIDA INST OF TECH/	20.109	232617 (GT)	-	64,781
GEORGIA DEPT OF TRANSPORTATION	20.109	AGR DTD 5/10/2022	-	238,481
GEORGIA DEPT OF TRANSPORTATION	20.109	RP 23-23	-	157,163
GEORGIA DEPT OF TRANSPORTATION	20.109	TASK ORDER NO. 2022-12	-	123,269
NATL ACADEMY OF SCIENCES/	20.109	HR 01-57B	-	40,889
NATL ACADEMY OF SCIENCES/	20.109	NCHRP-226	-	36,617
TEXAS A&M TRANSPORTATION INSTITUTE/COLLEGE STATION, TX	20.109	S230002	-	75,718
UNIVERSITY OF FLORIDA/	20.109	UFDSP00011673	-	315,880
UNIVERSITY OF FLORIDA/	20.109	UFDSP00011673 AMEND. 5	-	88,019
UNIVERSITY OF TEXAS AT ARLINGTON/ARLINGTON, TX	20.109	CTEDD 2022 022-01	-	26,768
Highway Research and Development Program				
Passed through from:				
OKLAHOMA STATE UNIVERSITY/STILLWATER, OK	20.200	1-578560-GTRC	-	42,947

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

	Federal	Deep through	Amount	
Federal Grantor/Pass-Though	Assistance Listing	Pass-through Entity ID	Passed Through to	Federal
Grantor/Cluster or Program Title	Number	Number	Subrecipient	Expenditures
Highway Planning and Construction			· · ·	•
Passed through from:				
GEORGIA DEPT OF TRANSPORTATION	20.205	EMAIL DTD 16 OCT 2018 - T8499	-	(7)
GEORGIA DEPT OF TRANSPORTATION	20.205	TASK ORDER 2014-108, RP 20-22	-	153,571
GEORGIA DEPT OF TRANSPORTATION	20.205	TASK ORDER 2022-06/RP 22-21	-	48,812
GEORGIA DEPT OF TRANSPORTATION	20.205	TASK ORDER NO. 2022-04 RP 22-18	-	46,747
GEORGIA DEPT OF TRANSPORTATION	20.205	TASK ORDER NO. 2022-05 RP 22-20	-	22,184
GEORGIA DEPT OF TRANSPORTATION	20.205	TASK ORDER NO. 2022-08 RP 22-23	-	34,611
GEORGIA DEPT OF TRANSPORTATION	20.205	TASK ORDER NO. 2022-09	-	23,544
GEORGIA DEPT OF TRANSPORTATION	20.205	TASK ORDER NO. 2022-11 RP 22-26	-	47,537
GEORGIA DEPT OF TRANSPORTATION	20.205	TASK ORDER NO. 2022-12 RP 22-30	-	55,427
GEORGIA DEPT OF TRANSPORTATION	20.205	TO 2014-100 RP 20-10	-	(2,661
GEORGIA DEPT OF TRANSPORTATION	20.205	TO 2014-101 RP 20-11	-	92,357
GEORGIA DEPT OF TRANSPORTATION	20.205	TO 2014-102 RP 20-12	-	169,967
GEORGIA DEPT OF TRANSPORTATION	20.205	TO 2014-104, RP 20-15	-	9,379
GEORGIA DEPT OF TRANSPORTATION	20.205	TO 2014-105 RP 20-17	-	(3,213
GEORGIA DEPT OF TRANSPORTATION	20.205	TO 2014-106 RP 20-18	7,514	76,253
GEORGIA DEPT OF TRANSPORTATION	20.205	TO 2014-107 RP 20-19	-	41,226
GEORGIA DEPT OF TRANSPORTATION	20.205	TO 2014-110 RP 20-25	-	47,635
GEORGIA DEPT OF TRANSPORTATION	20.205	TO 2014-76, RES PRO 18-02	-	(2
GEORGIA DEPT OF TRANSPORTATION	20.205	TO 2014-91, RP 19-04	-	11,227
GEORGIA DEPT OF TRANSPORTATION	20.205	TO 2022-07 RP 22-22	807	14,657
	20.205	TO 2022-10 RP 22-25	-	34,534
NATL ACADEMY OF SCIENCES/	20.205 20.205	HR-01-60 A17-0183-S002	26,925	71,935
UNIVERSITY OF CALIFORNIA/DAVIS, CA UNIVERSITY OF FLORIDA/	20.205		-	668,589 95,009
UNIVERSITY OF FLORIDA/	20.205	AMEND 20 (UFDSP00011673) AMENDMENT 24	-	95,009 466
UNIVERSITY OF FEORIDA	20.205	SUB00002399	-	2,303
UNIVERSITY OF GEORGIA ATTENS, GA	20.205	087795-17555	-	2,505
UNIVERSITY OF MARYLAND - BALTIMORE/BALTIMORE, MD	20.205	108649-Z9815201		71,955
Highway Training and Education	20.203	100043-23013201		11,555
Passed through from:				
UNIVERSITY OF FLORIDA/	20.215	AMEND 20- (UFDSP00011673)	_	12,852
University Transportation Centers Program	20.210			12,002
Passed through from:				
MISSOURI UNIVERSITY OF SCIENCE & TECHNOLOGY/ROLLA, MO	20.701	#0055082-02D	-	35,287
MISSOURI UNIVERSITY OF SCIENCE & TECHNOLOGY/ROLLA, MO	20.701	00055082-02C	-	96,515
PURDUE UNIVERSITY/WEST LAFAYETTE, IN	20.701	16100096-024	-	52,838
TEXAS A & M UNIVERSITY/COLLEGE STATION, TX	20.701	12-S171237	-	7,168
Total Department of Transportation			1,333,788	10,746,654
Department of Treasury				
Coronavirus Relief Fund				
Passed through from:				
GA BD OF REGENTS	21.019	EMAIL DTD 4 APR 2020 FORTNER	-	6,100
GA BD OF REGENTS	21.019	FORTNER EMAIL 4 APR 2020	-	19,451
Total Department of Treasury			-	25,551
GENERAL SERVICES ADMINISTRATION				
Disposal of Federal Surplus Real Property	39.002		-	195,303
Disposal of Federal Surplus Real Property				
Passed through from:				
DYNETICS INC	39.002	DI-SC-21-60	-	205,580
ECCALON LLC/HANOVER,MD	39.002	EDUCATIONAL AGMT	-	(32,803
JACOBS TECHNOLOGY INC	39.002	B1244010003	-	349,103
		1153-01-00-06	-	732
JACOS SVERDRUP ADVANCE SY	39.002	4450 04 00 00		
JACOS SVERDRUP ADVANCE SY JACOS SVERDRUP ADVANCE SY	39.002	1153-01-02-06	-	(9,775
JACOS SVERDRUP ADVANCE SY JACOS SVERDRUP ADVANCE SY NORTHROP CORP		1153-01-02-06 5300027015 R1	-	1,760,673
JACOS SVERDRUP ADVANCE SY JACOS SVERDRUP ADVANCE SY	39.002		- - -	1,760,673 2,468,813
JACOS SVERDRUP ADVANCE SY JACOS SVERDRUP ADVANCE SY NORTHROP CORP Total GENERAL SERVICES ADMINISTRATION	39.002			1,760,673
JACOS SVERDRUP ADVANCE SY JACOS SVERDRUP ADVANCE SY NORTHROP CORP	39.002		- - -	1,760,673

	Federal		Amount	
	Assistance	Pass-through	Passed	
ederal Grantor/Pass-Though	Listing	Entity ID	Through to	Federal
Grantor/Cluster or Program Title	Number	Number	Subrecipient	Expenditures
National Aeronautics and Space Administration				
Science	43.001		1,542,583	8,082,582
Aeronautics	43.002		2,083,995	4,137,538
Exploration	43.003		77,665	209,585
Education	43.008		349,126	1,221,194
Space Technology	43.012		1,653,535	3,424,119
Science				
Passed through from:				
ANALYTICAL MECHANICS ASSOCIATES INC/HAMPTON, VA	43.001	RSES.C2.10.00009	-	13,69
BAY AREA ENVIRONMENTAL R	43.001	AGMT DTD 7/14/2022	-	29,66
CONTINUUM DYNAMICS INC/EWING, NJ	43.001	146215	-	129,57
CORNELL UNIVERSITY/ITHACA, NY	43.001	142075-21984	-	181,41
DARTMOUTH COLLEGE/HANOVER, NH	43.001	R1549 147067	-	23,38
EDGEDWELLER INC/ATLANTA, GA	43.001		-	1,06
FLORIDA INTERNATIONAL UNIVERSITY/MIAMI, FL FLORIDA STATE UNIVERSITY/TALLAHASSEE, FLA	43.001 43.001	000640	-	103,74
	43.001	R000003028	-	254,77 38
GLOBAL TECHNOLOGY CONNECTIONS/ATLANTA, GA GLOBAL TECHNOLOGY CONNECTIONS/ATLANTA, GA	43.001	147285 151283	-	50,84
	43.001	21N0146	-	
JACOBS SPACE EXPLORATION GROUP/HUNTSVILLE, AL JACOBS SPACE EXPLORATION GROUP/HUNTSVILLE, AL	43.001	22N00163	-	19 166,25
JACOBS SPACE EXPLORATION GROUP/HUNTSVILLE, AL	43.001	80MSFC18C0011	-	28,60
JACOBS SPACE EXPLORATION GROUP/HUNTSVILLE, AL	43.001	PO23N00028	-	15,95
JACOBS SPACE EXPLORATION GROUP/HUNTSVILLE, AL	43.001	PO23N00028	-	73,38
JET PROP LAB	43.001	1665462	-	249,06
JET PROP LAB	43.001	1695984	_	2,00
JET PROPULSION LAB/CALIFORNIA INST. OF TECH	43.001	1650969	_	17,81
JET PROPULSION LAB/CALIFORNIA INST. OF TECH	43.001	1660879		(4
JET PROPULSION LAB/CALIFORNIA INST. OF TECH	43.001	1670431	_	34,31
JET PROPULSION LAB/CALIFORNIA INST. OF TECH	43.001	1671083	-	16,00
JET PROPULSION LAB/CALIFORNIA INST. OF TECH	43.001	1671441		235,36
JET PROPULSION LAB/CALIFORNIA INST. OF TECH	43.001	1671740	-	25,42
JET PROPULSION LAB/CALIFORNIA INST. OF TECH	43.001	1681593	_	55,66
JET PROPULSION LAB/CALIFORNIA INST. OF TECH	43.001	1693704	_	10,40
LMI/MCLEAN,VA	43.001	PO20-00435; TO02 NASA TO55	-	97,70
MASSACHUSETTS INST OF TECH (MIT)/CAMBRIDGE, MA	43.001	MIT-GT-S5255	-	61,40
MASSACHUSETTS INST OF TECH (MIT)/CAMBRIDGE, MA	43.001	S4102/750175	-	83,48
MASSACHUSETTS INST OF TECH (MIT)/CAMBRIDGE, MA	43.001	S5609 PO# 710872	-	82,98
NATIONAL INSTITUTE OF AEROSPACE/HAMPTON, VA	43.001	201201-GTRC	-	243,35
NATIONAL INSTITUTE OF AEROSPACE/HAMPTON, VA	43.001	202071	-	87,94
NATIONAL INSTITUTE OF AEROSPACE/HAMPTON, VA	43.001	202078-GTRC	-	732,09
NATIONAL INSTITUTE OF AEROSPACE/HAMPTON, VA	43.001	202092-GTRC	-	39
NATIONAL INSTITUTE OF AEROSPACE/HAMPTON, VA	43.001	202105-GTRC	-	125,00
NATIONAL INSTITUTE OF AEROSPACE/HAMPTON, VA	43.001	302001-GTRC	-	124,00
NATIONAL INSTITUTE OF AEROSPACE/HAMPTON, VA	43.001	T13-6500-GT	-	2,614,17
NORTH CAROLINA STATE UNIVERSITY/RALEIGH, NC	43.001	2020-0613-01	-	18,91
OHIO STATE UNIVERSITY/COLUMBUS, OH	43.001	60061601	-	9,09
PENNSYLVANIA STATE UNIV/UNIV PARK, PA	43.001	5953-GTRC-NASA-B50G	-	
PENNSYLVANIA STATE UNIV/UNIV PARK, PA	43.001	S001845-NASA	-	637,99
PHYSICAL SCIENCES INC/ANDOVER, MA	43.001	SC 10-19301-104830-46	-	82,03
PLASMA PROCESSES INC/ HUNTSVILLE, AL	43.001	6006-040-JK-073021	-	128,88
SOUTHWEST RESEARCH INSTITUTE/	43.001	699054X/15.12029	-	167,23
SPACE DYNAMICS LAB	43.001	CP0065524	-	127,36
SPACE TELESCOPE SCIENCE INSTITUTE	43.001	80NSSC21K1053	-	35,64
SPELMAN COLLEGE/ATLANTA, GA	43.001	23040-01-01	-	1,79
UNIVERSITY OF ARIZONA/TUCSON, AZ	43.001	PO# 109150	-	58,21
UNIVERSITY OF CALIFORNIA RIVERSIDE/RIVERSIDE, CA	43.001	S-000728	-	(1,13
UNIVERSITY OF CALIFORNIA RIVERSIDE/RIVERSIDE, CA	43.001	S-001436	-	114,85
UNIVERSITY OF CALIFORNIA/BERKELEY, CA	43.001	00010611	-	37,55
UNIVERSITY OF CENTRAL FLORIDA/	43.001	16306A16	-	234,76
UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN/CHAMPAIGN, IL	43.001	109694-19062	-	29,67
UNIVERSITY OF SOUTHERN CALIFORNIA/LOS ANGELES,CA	43.001	SCON-00003914	-	35,85
VANDERBILT UNIVERSITY/NASHVILLE, TN	43.001	OSA00000129		47,54

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

	Federal Assistance	Pass-through	Amount Passed	
Federal Grantor/Pass-Though	Listing	Entity ID	Through to	Federal
Grantor/Cluster or Program Title	Number	Number	Subrecipient	Expenditures
Aeronautics				
Passed through from:				
CROWN CONSULTING INC/ARLINGTON,VA	43.002	TASK ORDER 02	-	214,418
JACOBS SPACE EXPLORATION GROUP/HUNTSVILLE, AL	43.002	PO # 20N0379	-	14,628
JET PROPULSION LAB/CALIFORNIA INST. OF TECH	43.002	1659103	-	53,380
NATIONAL INSTITUTE OF AEROSPACE/HAMPTON, VA	43.002	602003	-	355,902
NORTH CAROLINA A&T STATE UNIV/GREENSBORO, NC	43.002	220072A	-	591,765
OEWAVES INC./PASADENA, CA	43.002	AGMT. 142585 DATED 04-07-2020	-	4,455
STANFORD UNIVERSITY/STANFORD, CA	43.002	62485886-176172	-	339,561
UNIVERSITY OF TEXAS AT AUSTIN/AUSTIN, TX Education	43.002	#133480	-	(44,608
Passed through from:				
NATIONAL INSTITUTE OF AEROSPACE/HAMPTON, VA	43.008	201089-GTRC	_	18,303
PRAIRIE VIEW A&M UNIVERSITY/PRAIRIE VIEW, TEXAS	43.008	M2000595/S200508	-	66,721
XAVIER UNIVERSITY OF LA/NEW ORLEANS, LA	43.008	ORSP-21-216812-01A	-	43,383
Space Technology				
Passed through from:				
AUBURN UNIVERSITY/AUBURN, ALABAMA	43.012	22-AMSTC-209400-GTRC	-	291,621
BAYLOR UNIVERSITY/WACO, TX	43.012	1001423-01	-	26,940
MASSACHUSETTS INST OF TECH (MIT)/CAMBRIDGE, MA	43.012	S5684 - PO 754493	-	18,774
MICHIGAN TECHNOLOGICAL UNIVERSITY/HOUGHTON, MICH	43.012	1607060Z4	-	119,202
UNIVERSITY OF CALIFORNIA/DAVIS, CA	43.012	A19-2477-S002	-	491,229
otal National Aeronautics and Space Administration			5,706,904	27,423,490
he National Endowment for the Humanities				
Promotion of the Humanities Office of Digital Humanities	45.169		_	71,901
	10.100			,
Promotion of the Humanities_Division of Preservation and Access				
Passed through from:				
UNIV OF GEORGIA	45.149	SUB00001681	-	21,913
Total The National Endowment for the Humanities			-	93,814
lational Science Foundation	47.044		4 74 4 07 4	05 005 400
Engineering Grants	47.041 47.049		4,714,274	25,925,489
Mathematical and Physical Sciences Geosciences	47.049		507,596 1,590,773	12,367,650 12,251,282
Computer and Information Science and Engineering	47.030		2,056,499	19,139,752
Biological Sciences	47.074		348,906	4,379,314
Social. Behavioral. and Economic Sciences	47.075		14,294	1,421,864
Education and Human Resources	47.076		515,996	8,433,060
Polar Programs	47.078		-	326,229
Office of International Science and Engineering	47.079		-	105,710
Office of Integrative Activities	47.083		-	835,319
NSF Technology, Innovation, and Partnerships	47.084		-	85,382
Engineering Grants				
Passed through from: AMERICAN SOCIETY FOR ENG EDU/WASHINGTON, DC	47.041	769-2072		18,553
AMERICAN SOCIETY FOR ENG EDU/WASHINGTON, DC	47.041	769-2108	-	76,775
ARIZONA STATE UNIVERSITY/TEMPE, AZ	47.041	15-741	-	789,376
ARIZONA STATE UNIVERSITY/TEMPE, AZ	47.041	ASUB00001126		35,866
ATMOSPHERIC & SPACE TECHNOLOGY RESEARCH ASSOCIATES/LOUISVILLE, CO	47.041	238-01	_	(4,063
BARNARD COLLEGE/NEW YORK, NY	47.041	GT-1828168	-	24,614
BSCS SCIENCE LEARNING/COLORADO SPRINGS, CO	47.041	2020-20	-	91,798
CARNEGIE MELLON INSTITUTE/PITTSBURGH, PA	47.041	1123649-463151	-	164,006
COLUMBIA UNIVERSITY/NEW YORK, NY	47.041	2(GG013222)	-	25,359
COLOMBIA UNIVERSITI //NEW TORK, INT	47.041	143935-21767	-	12,438
CORNELL UNIVERSITY/ITHACA, NY		000710	-	32,418
	47.041		-	19,086
CORNELL UNIVERSITY/ITHACA, NY	47.041 47.041	18-S10		
CORNELL UNIVERSITY/ITHACA, NY FLORIDA INTERNATIONAL UNIVERSITY/MIAMI, FL		18-S10 49100421C0037	-	750
CORNELL UNIVERSITY/ITHACA, NY FLORIDA INTERNATIONAL UNIVERSITY/MIAMI, FL GEORGE WASHINGTON UNIVERSITY/WASHINGTON, DC	47.041		- 9,533	
CORNELL UNIVERSITY/ITHACA, NY FLORIDA INTERNATIONAL UNIVERSITY/MIAMI, FL GEORGE WASHINGTON UNIVERSITY/WASHINGTON, DC HACKS HACKERS INC	47.041 47.041	49100421C0037	- 9,533 -	199,677
CORNELL UNIVERSITY/ITHACA, NY FLORIDA INTERNATIONAL UNIVERSITY/MIAMI, FL GEORGE WASHINGTON UNIVERSITY/WASHINGTON, DC HACKS HACKERS INC MASSACHUSETTS INST OF TECH (MIT)/CAMBRIDGE, MA	47.041 47.041 47.041	49100421C0037 S4009/ 756419	- 9,533 - -	199,677 41,670
CORNELL UNIVERSITY/ITHACA, NY FLORIDA INTERNATIONAL UNIVERSITY/MIAMI, FL GEORGE WASHINGTON UNIVERSITY/WASHINGTON, DC HACKS HACKERS INC MASSACHUSETTS INST OF TECH (MIT)/CAMBRIDGE, MA MISSISSIPPI STATE UNIVERSITY/MISSISSIPPI STATE, MS	47.041 47.041 47.041 47.041	49100421C0037 S4009/ 756419 011900.327262.02	- 9,533 - - -	199,677 41,670 97,390
CORNELL UNIVERSITY/ITHACA, NY FLORIDA INTERNATIONAL UNIVERSITY/MIAMI, FL GEORGE WASHINGTON UNIVERSITY/WASHINGTON, DC HACKS HACKERS INC MASSACHUSETTS INST OF TECH (MIT)/CAMBRIDGE, MA MISSISSIPPI STATE UNIVERSITY/MISSISSIPPI STATE, MS NORTH CAROLINA A&T STATE UNIV/GREENSBORO, NC	47.041 47.041 47.041 47.041 47.041	49100421C0037 S4009/ 756419 011900.327262.02 281230C	9,533 - - - -	199,677 41,670 97,390 118
CORNELL UNIVERSITY/ITHACA, NY FLORIDA INTERNATIONAL UNIVERSITY/MIAMI, FL GEORGE WASHINGTON UNIVERSITY/WASHINGTON, DC HACKS HACKERS INC MASSACHUSETTS INST OF TECH (MIT)/CAMBRIDGE, MA MISSISSIPPI STATE UNIVERSITY/MISSISSIPPI STATE, MS NORTH CAROLINA A&T STATE UNIV/GREENSBORO, NC NORTH CAROLINA STATE UNIVERSITY/RALEIGH, NC	47.041 47.041 47.041 47.041 47.041 47.041	49100421C0037 S4009/ 756419 011900.327262.02 281230C 2017-2662-01	9,533 - - - - -	750 199,677 41,670 97,390 118 14,374 13,403 115,862

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

	Federal Assistance	Pass-through	Amount Passed	_
eral Grantor/Pass-Though ntor/Cluster or Program Title	Listing Number	Entity ID Number	Through to Subrecipient	Federal Expenditures
PURDUE UNIVERSITY/WEST LAFAYETTE, IN	47.041	10001522-041	- 30.00101011	20,318
PORDOE UNIVERSITY/WEST LAFATETTE, IN ROTOYE LLC/MARIETTA, GA	47.041	P2_GT_LIDAR	-	20,318 66,774
STANFORD UNIVERSITY/STANFORD, CA	47.041	63056934-267352	-	74,025
TEACHERS COLLEGE - COLUMBIA UNIVERSITY/NEW YORK, NY	47.041	513147	-	37
TEXAS TECH UNIVERSITY/LUBBOCK, TX	47.041	21P735-01	-	248,697
TULANE UNIVERSITY/NEW ORLEANS, LA	47.041	TUL-SCC-557922-20-21	-	31,934
UNIVERSITY OF CALIFORNIA/DAVIS, CA	47.041	A18-0727-S001	-	(21,444
UNIVERSITY OF CALIFORNIA/SAN DIEGO,CA	47.041	706142	-	27,459
UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN/CHAMPAIGN, IL	47.041	101397-18222	-	40,797
UNIVERSITY OF KENTUCKY RESEACH FDN/LEXINGTON,KY	47.041	320004377-22-075	-	59,207
UNIVERSITY OF MARYLAND/COLLEGE PARK, MD	47.041	117029-Z4017202	-	52,451
UNIVERSITY OF MASSACHUSETTS/LOWELL, MASSACHUSETTS	47.041	S5210039055A221	-	23,615
UNIVERSITY OF MASSACHUSETTS/LOWELL, MASSACHUSETTS	47.041	S5800041772C521	-	30,011
UNIVERSITY OF MASSACHUSETTS/LOWELL, MASSACHUSETTS	47.041	S5800041772D121	-	31,898
UNIVERSITY OF MASSACHUSETTS/LOWELL, MASSACHUSETTS	47.041	S5800041772S221	-	20,181
UNIVERSITY OF MASSACHUSETTS/LOWELL, MASSACHUSETTS	47.041	S5800041772S222	-	6,601
UNIVERSITY OF MASSACHUSETTS/LOWELL, MASSACHUSETTS	47.041	S5800041772S227	-	13,612
UNIVERSITY OF MINNESOTA/MINNEAPOLIS, MN	47.041	SSA 146903	-	2,808
UNIVERSITY OF TEXAS AT AUSTIN/AUSTIN, TX	47.041	UTA-001387	-	41,633
UNIVERSITY OF TEXAS AT AUSTIN/AUSTIN, TX	47.041	UTAUS-SUB00000185	-	127,840
UNIVERSITY OF TEXAS AT DALLAS/DALLAS, TX	47.041	23011443	-	26,089
UNIVERSITY OF WASHINGTON/SEATTLE, WA	47.041	153525	-	47,172
UNIVERSITY OF WASHINGTON/SEATTLE, WA	47.041	UWSC10741 BPO NO. 34658	-	11,068
UNIVERSITY OF WISCONSIN - MADISON/MADISON WI	47.041	0000002375	-	65,217
UNIVERSITY OF WISCONSIN - MADISON/MADISON WI	47.041	000002543	-	143,411
VORTEX SPACE SYSTEMS/GAITHERSBURG, MARYLAND	47.041	150970	-	8,476
WICHITA STATE UNIVERSITY/WICHITA,KS	47.041	230024-23-00811	-	37,183
Mathematical and Physical Sciences				
Passed through from:				
CORNELL UNIVERSITY/ITHACA, NY	47.049	75548-20733	-	83,966
EMORY UNIVERSITY/ATLANTA, GA	47.049	A373696	-	160,620
FURMAN UNIVERSITY/GREENVILLE, SC	47.049	FU1081-GR	-	34,306
UNIVERSITY OF CALIFORNIA/BERKELEY, CA	47.049	00011130	-	49,485
UNIVERSITY OF ILLINOIS/CHICAGO,IL	47.049	19244	-	14,350
UNIVERSITY OF WASHINGTON/SEATTLE, WA	47.049	UWSC12980	-	94,209
UNIVERSITY OF WISCONSIN - MADISON/MADISON WI	47.049	000000293	-	44,277
UNIVERSITY OF WISCONSIN - MADISON/MADISON WI	47.049	000000841	-	40,309
UNIVERSITY OF WISCONSIN - MADISON/MADISON WI	47.049	000002387	-	130,681
Geosciences				
Passed through from:				
COLUMBIA UNIVERSITY/NEW YORK, NY	47.050	2(GG013237)	-	83,395
UNIVERSITY OF NEBRASKA/LINCOLN, NE	47.050	25-0514-0228-004	-	1,705
UNIVERSITY OF CALIFORNIA/SAN DIEGO,CA	47.050	83829300	-	35,482
Computer and Information Science and Engineering				
Passed through from:				
COMPUTING RESEARCH ASSOCIATION/WASHINGTON, DC	47.070	2021CIF-GEORGIA TECH-38	-	23,706
COMPUTING RESEARCH ASSOCIATION/WASHINGTON, DC	47.070	2021CIF-GEORGIA TECH-39	-	19,583
COMPUTING RESEARCH ASSOCIATION/WASHINGTON, DC	47.070	CIF2020-GT-05	-	145,805
JOHNS HOPKINS UNIV/BALTIMORE, MD	47.070	2005091754	-	71,408
MASSACHUSETTS INST OF TECH (MIT)/CAMBRIDGE, MA	47.070	S4021, PO#243310	-	8,342
NORTHEASTERN UNIVERSITY/BOSTON, MA	47.070	502658-78052	-	61,924
UNIVERSITY OF CALIFORNIA/BERKELEY, CA	47.070	00010542	-	115,658
UNIVERSITY OF CALIFORNIA/SANTA BARBARA,CA	47.070	KK1926	-	130,599
	47.070	AWD064198 (SUB00000575)	-	47,091
UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN/CHAMPAIGN, IL	47.070	083842-16099	-	161,571
UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN/CHAMPAIGN, IL	47.070	108825-18963	-	54,077
UNIVERSITY OF NORTH CAROLINA/CHAPEL HILL, NC	47.070	5115818	-	78,463
	47.070	A19-0308-S001	-	(372
UNIVERSITY OF TEXAS AT AUSTIN/AUSTIN, TX	47.070	SUB00000703	-	46,120
UNIVERSITY OF TEXAS AT AUSTIN/AUSTIN, TX	47.070	UTA19-001218	-	6,110
		10010000 0 = :		
UNIVERSITY OF UTAH/SALT LAKE CITY, UT VIRGINIA TECH/BLACKSBURG, VA	47.070 47.070	10046930-GaTech 480073-19034	-	148,743 7,633

	Federal		Amount	
	Assistance	Pass-through	Passed	E a da ma l
ederal Grantor/Pass-Though Grantor/Cluster or Program Title	Listing Number	Entity ID Number	Through to	Federal Expenditures
	Humber	Number	Subrecipient	Experialtures
Biological Sciences				
Passed through from:				
CORNELL UNIVERSITY/ITHACA, NY	47.074	T.O. 1	-	150,524
UNIVERSITY OF WASHINGTON/SEATTLE, WA	47.074	11361	-	191
Social, Behavioral, and Economic Sciences				
Passed through from:	47.075			50.000
SEARCH TECHNOLOGY INC/ UNIVERSITY OF MICHIGAN/	47.075 47.075	STI-GTRC-18-1	-	50,820 27,628
Education and Human Resources	47.075	SUBK00010837	-	27,020
Passed through from:				
AMERICAN CHEMICAL SOCIETY	47.076	AGMT DTD 5/28/19		21,462
AMERICAN CHEMICAL SOCIETY	47.076	AGMT DTD 6/17/2020		21,402
DUKE UNIVERSITY/DURHAM, NC	47.076	333-2811		72,341
GEORGIA RESEARCH ALLIANCE/ATLANTA, GA	47.076	2112532-GATECH	-	264,872
NORTHWESTERN UNIVERSITY/EVANSTON, IL	47.076	SP0049508-PROJ0013883		(76
UNIVERSITY OF COLORADO/BOULDER, CO	47.076	1559732	-	17,797
UNIVERSITY OF GEORGIA/ATHENS, GA	47.078	SUB00001592	-	102,773
UNIVERSITY OF GEORGIA/ATHENS, GA UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN/CHAMPAIGN, IL	47.078	097202-17661	-	
			-	17,000
WOODS HOLE OCEANOGRAPHIC INSTITUTE/WOODS HOLE, MA	47.076	A101541	-	19,771
Polar Programs				
Passed through from: UNIVERSITY OF KANSAS/LAWRENCE, KS	47.070	FY2022-008		2 520
	47.078	F 12022-008	-	3,536
Office of Integrative Activities				
Passed through from:	47.000	CATC100		(4.055)
EDUWORKS/CORVALLIS,OR	47.083	GAT6120	-	(4,055)
	47.083	GAT9120	-	110,740
UNIVERSITY OF MARYLAND/COLLEGE PARK, MD	47.083	104051-Z3820202	-	121,273
UNIVERSITY OF WISCONSIN - MADISON/MADISON WI iotal National Science Foundation	47.083	0000001913	9,757,871	142,414 91,360,126
DFFICE OF THE DIRECTOR OF NATIONAL INTELLIGENCE Intelligence Community Centers for Academic Excellence	54.001		362,502	565,505
			,	,
Intelligence Community Centers for Academic Excellence				
Passed through from:				
ARIZONA STATE UNIVERSITY/TEMPE, AZ	54.001	ASUB00000950	-	228,159
BROWN UNIVERSITY/PROVIDENCE, RI	54.001	00001811	-	82,409
BROWN UNIVERSITY/PROVIDENCE, RI	54.001	00002059	-	244,718
INTEL FEDERAL LLC/CHANDLER, AZ	54.001	CW2081704	-	181,602
RAYTHEON	54.001	LTR DTD 25-MAR-2023	-	1,121
SRI INTERNATIONAL/MENLO PARK, CA	54.001	PO73868	-	187,860
UNIVERSITY OF MARYLAND/COLLEGE PARK, MD	54.001	152825	-	1,103
otal OFFICE OF THE DIRECTOR OF NATIONAL INTELLIGENCE			362,502	1,492,477
epartment of Veteran Affairs Research and Development	64.054			(12 905)
Research and Development	64.054			(13,805) (13,805)
intal Dopartment of Veteran Affairs			-	(13,805)
otal Department of Veteran Affairs				
otal Department of Veteran Affairs invironmental Protection Agency				
	66.509		-	488,778
nvironmental Protection Agency	66.509 66.511		- 24,998	488,778 321,924
nvironmental Protection Agency Science To Achieve Results (STAR) Research Program			- 24,998 7,527	
nvironmental Protection Agency Science To Achieve Results (STAR) Research Program Office of Research and Development Consolidated Research/Training/Fellowships	66.511			321,924
nvironmental Protection Agency Science To Achieve Results (STAR) Research Program Office of Research and Development Consolidated Research/Training/Fellowships Pollution Prevention Grants Program Office of Research and Development Consolidated Research/Training/Fellowships	66.511			321,924
nvironmental Protection Agency Science To Achieve Results (STAR) Research Program Office of Research and Development Consolidated Research/Training/Fellowships Pollution Prevention Grants Program Office of Research and Development Consolidated Research/Training/Fellowships Passed through from:	66.511 66.708			321,924
nvironmental Protection Agency Science To Achieve Results (STAR) Research Program Office of Research and Development Consolidated Research/Training/Fellowships Pollution Prevention Grants Program Office of Research and Development Consolidated Research/Training/Fellowships Passed through from: GA DEPT NATURAL RESOURCES/	66.511 66.708 66.511	AGR DTD 4/7/2021		321,924 16,996 -
nvironmental Protection Agency Science To Achieve Results (STAR) Research Program Office of Research and Development Consolidated Research/Training/Fellowships Pollution Prevention Grants Program Office of Research and Development Consolidated Research/Training/Fellowships Passed through from: GA DEPT NATURAL RESOURCES/ HEALTH EFFECTS INSTITUTE/CAMBRIDGE, MA	66.511 66.708 66.511 66.511	4988-RFA20-1A/21-11		321,924 16,996 - 208,426
nvironmental Protection Agency Science To Achieve Results (STAR) Research Program Office of Research and Development Consolidated Research/Training/Fellowships Pollution Prevention Grants Program Office of Research and Development Consolidated Research/Training/Fellowships Passed through from: GA DEPT NATURAL RESOURCES/	66.511 66.708 66.511	4988-RFA20-1A/21-11 AGMT DTD 9-29-2021		321,924 16,996
invironmental Protection Agency Science To Achieve Results (STAR) Research Program Office of Research and Development Consolidated Research/Training/Fellowships Pollution Prevention Grants Program Office of Research and Development Consolidated Research/Training/Fellowships Passed through from: GA DEPT NATURAL RESOURCES/ HEALTH EFFECTS INSTITUTE/CAMBRIDGE, MA LAKE MICHIGAN AIR DIRECTORS CONSORTIUM (LADCO)/ROSEMONT, IL UNIVERSITY OF GEORGIA/ATHENS, GA	66.511 66.708 66.511 66.511	4988-RFA20-1A/21-11	7,527	321,924 16,996 - 208,426 6,261 226,983
invironmental Protection Agency Science To Achieve Results (STAR) Research Program Office of Research and Development Consolidated Research/Training/Fellowships Pollution Prevention Grants Program Office of Research and Development Consolidated Research/Training/Fellowships Passed through from: GA DEPT NATURAL RESOURCES/ HEALTH EFFECTS INSTITUTE/CAMBRIDGE, MA LAKE MICHIGAN AIR DIRECTORS CONSORTIUM (LADCO)/ROSEMONT, IL	66.511 66.708 66.511 66.511 66.511	4988-RFA20-1A/21-11 AGMT DTD 9-29-2021		321,924 16,996 - 208,426 6,261
nvironmental Protection Agency Science To Achieve Results (STAR) Research Program Office of Research and Development Consolidated Research/Training/Fellowships Pollution Prevention Grants Program Office of Research and Development Consolidated Research/Training/Fellowships Passed through from: GA DEPT NATURAL RESOURCES/ HEALTH EFFECTS INSTITUTE/CAMBRIDGE, MA LAKE MICHIGAN AIR DIRECTORS CONSORTIUM (LADCO)/ROSEMONT, IL UNIVERSITY OF GEORGIA/ATHENS, GA otal Environmental Protection Agency	66.511 66.708 66.511 66.511 66.511	4988-RFA20-1A/21-11 AGMT DTD 9-29-2021	7,527	321,924 16,996 - 208,426 6,261 226,983
invironmental Protection Agency Science To Achieve Results (STAR) Research Program Office of Research and Development Consolidated Research/Training/Fellowships Pollution Prevention Grants Program Office of Research and Development Consolidated Research/Training/Fellowships Passed through from: GA DEPT NATURAL RESOURCES/ HEALTH EFFECTS INSTITUTE/CAMBRIDGE, MA LAKE MICHIGAN AIR DIRECTORS CONSORTIUM (LADCO)/ROSEMONT, IL UNIVERSITY OF GEORGIA/ATHENS, GA	66.511 66.708 66.511 66.511 66.511	4988-RFA20-1A/21-11 AGMT DTD 9-29-2021	7,527	321,924 16,996 - 208,426 6,261 226,983

	Federal	-	Amount	
aderal Cranter/Deac Theursh	Assistance	Ū	Passed	Federal
ederal Grantor/Pass-Though irantor/Cluster or Program Title	Listing Number	Entity ID Number	Through to Subrecipient	Federal Expenditures
	Humber	Humber	oubrecipient	Experiance
epartment of Energy	04.000		407.050	700 50
Cybersecurity, Energy Security & Emergency Response (CESER)	81.008		127,959	793,52
Office of Science Financial Assistance Program	81.049		1,424,559	8,721,38
Conservation Research and Development	81.086		144,125	1,962,55
Renewable Energy Research and Development	81.087		664,200	2,682,99
Fossil Energy Research and Development	81.089		556,631	1,680,04
Stewardship Science Grant Program	81.112		-	194,43
Defense Nuclear Nonproliferation Research Energy Efficiency and Renewable Energy Information Dissemination, Outreach, Training and Technical	81.113		3,178,710	4,039,57
Analysis/Assistance	81.117		-	34,85
Nuclear Energy Research, Development and Demonstration	81.121		550,674	1,578,47
Electricity Delivery and Energy Reliability, Research, Development and Analysis	81.122		366,291	526,16
Advanced Research Projects Agency - Energy	81.135		520,784	3,559,74
Office of Science Financial Assistance Program				
Passed through from:				
LAWR LIVERMORE NATL LAB	81.049	B617458	-	(
ADVANCED MATERIALS SCIENTIA LLC/BOTHEL, WA	81.049	DEP2C001	-	23,41
AMERICAN INSTITUTE OF CHEMICAL ENGINEERS (AICHE)/NEW YORK, NY	81.049	Project 7.9	-	74,79
AMES NATIONAL LABORATORY/AMES, IA	81.049	SC-18-463	-	199,15
AMES NATIONAL LABORATORY/AMES, IA	81.049	SC-19-495	-	58,25
ARGONNE NATL LAB/UCHICAGO ARGONNE LLC/ARGONNE, IL	81.049	0F-60145	-	(9,84
ARGONNE NATL LAB/UCHICAGO ARGONNE LLC/ARGONNE, IL	81.049	1F-60591	-	24,74
ARGONNE NATL LAB/UCHICAGO ARGONNE LLC/ARGONNE, IL	81.049	2F-60088	-	90,0
ARGONNE NATL LAB/UCHICAGO ARGONNE LLC/ARGONNE, IL	81.049	3F-60001	-	207,2
ARGONNE NATL LAB/UCHICAGO ARGONNE LLC/ARGONNE, IL	81.049	3F-60014	-	30,1
ARGONNE NATL LAB/UCHICAGO ARGONNE LLC/ARGONNE, IL	81.049	AVTC12	-	56,3
ARGONNE NATL LAB/UCHICAGO ARGONNE LLC/ARGONNE, IL	81.049	AVTC13	-	63,4
BATTELLE PNW	81.049	644573	-	148,1
BERT THIN FILMS LLC/LOUISVILLE, KY	81.049	152691	-	5,2
BROOKHAVEN NATIONAL LAB/UPTON, NY	81.049	343172	-	75,4
BROWN UNIVERSITY/PROVIDENCE, RI	81.049	1289	-	4,2
CONSOLIDATED NUCLEAR SECU	81.049	4300172993	-	70,30
CONSOLIDATED NUCLEAR SECURITY LLC./OAK RIDGE, TN	81.049	4300161789	-	52,2
CONTINUUM DYNAMICS INC/EWING, NJ	81.049	147072	-	146,6
CORMETECH INC/CHARLOTTE, NC	81.049	CM-DOE-002	-	165,3
EXTREME SCALE SOLUTIONS LLC/NEW CASTLE, DE	81.049	149855	-	155,3
FLORIDA STATE UNIVERSITY/TALLAHASSEE, FLA	81.049	R01436	-	24,9
FLUOR MARINE PROPULSION LLC/WEST MIFFLIN, PA	81.049	131210	25,000	207,2
GCAS INCORPORATED/SAN MARCOS, CA	81.049	22-2038-01	-	30,8
GENERAL ELECTRIC TURBINE TECHNOLOGY CTR/GREENVILLE, SC	81.049	AGR DTD 27-SEP-2022	-	195,7
GEORGIA DEPT OF TRANSPORTATION	81.049	2014-111	-	471,0
GEORGIA DEPT OF TRANSPORTATION	81.049	2022-02, RES PROJ 21-06	-	31,5
GEORGIA DEPT OF TRANSPORTATION	81.049	EMAIL DTD 9.19.2018 COST SHARE	-	(1,6
GEORGIA DEPT OF TRANSPORTATION	81.049	TASK ORDER 2022-03 RP 21-09	_	68,1
GEORGIA DEPT OF TRANSPORTATION	81.049	TASK ORDER NO. 2022-01 RP 21-04	_	79,4
GLOBAL TECHNOLOGY CONNECTIONS/ATLANTA, GA	81.049	147590	_	10,2
HALLIBURTON ENERGY SERVICES/DUNCAN, OK	81.049	DE-FG02-01ER54656	_	383,9
HONEYWELL FEDERAL MANUFACTURING AND TECHNOLOGY/KANSAS CITY, MO	81.049	N000421066	_	23,2
HONEYWELL FEDERAL MANUFACTURING AND TECHNOLOGY/KANSAS CITY, MO	81.049	N000423693	_	82,5
HONEYWELL FEDERAL MANUFACTURING AND TECHNOLOGY/KANSAS CITY, MO	81.049	N000424246	_	108,3
HONEYWELL FEDERAL MANUFACTURING AND TECHNOLOGY/KANSAS CITY, MO	81.049	N000429409	_	79,3
HONEYWELL FEDERAL MANUFACTURING AND TECHNOLOGY/KANSAS CITY, MO	81.049	N000469439	_	28,8
HONEYWELL FEDERAL MANUFACTURING AND TECHNOLOGY/KANSAS CITY, MO	81.049	N000485679	_	7,8
HONEYWELL INC	81.049	DE-NA0002839	_	9,5
HONEYWELL INC	81.049	N000037174	_	842,6
			-	
IBM CORPORATION/ IDAHO NATIONAL LAB/BEA/IDAHO FALLS	81.049 81.049	PO DTD 3/2/2022 226040	-	104,3 23,6
IDAHO NATIONAL LAB/BEA/IDAHO FALLS IDAHO NATIONAL LAB/BEA/IDAHO FALLS	81.049		-	
		254172	-	100,6
	81.049	255609	-	6,5
	81.049	256854	-	105,8
IDAHO NATIONAL LAB/BEA/IDAHO FALLS	81.049	273726	-	71,0
IDAHO NATIONAL LAB/BEA/IDAHO FALLS	81.049	279914	-	17,6
	81.049	9/2/2020 ATP	-	96,0
JOHNS HOPKINS UNIV/BALTIMORE, MD	81.049	2004690045	-	23,3
KEY LOGIC/MORGANTOWN, WV	81.049	5000-626-001	-	54,6
KEY LOGIC/MORGANTOWN, WV	81.049	5000-626-002	-	39,6

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

	Federal Assistance	Pass-through	Amount Passed	_
leral Grantor/Pass-Though antor/Cluster or Program Title	Listing Number	Entity ID Number	Through to Subrecipient	Federal Expenditures
LAWRENCE BERKELEY NATIONAL LAB/UNIVERSITY OF CALIFORNIA	81.049	7360408		154,024
LAWRENCE BERKELEY NATIONAL LAB/UNIVERSITY OF CALIFORNIA	81.049	7587697	-	8,965
LAWRENCE BERKELEY NATIONAL LAB/UNIVERSITY OF CALIFORNIA	81.049	7593297	-	93,582
LAWRENCE BERKELEY NATIONAL LAB/UNIVERSITY OF CALIFORNIA	81.049	7616952	-	133,346
LAWRENCE BERKELEY NATIONAL LAB/UNIVERSITY OF CALIFORNIA	81.049	7625419	-	91,166
LAWRENCE BERKELEY NATIONAL LAB/UNIVERSITY OF CALIFORNIA	81.049	7661589	-	19,837
LEIDOS INC/MCLEAN, VA	81.049	P010230959	-	(221
LLNL/LAWRENCE LIVERMORE NATL SEC LLC/LIVERMORE,CA	81.049	B636911	-	58,640
LLNL/LAWRENCE LIVERMORE NATL SEC LLC/LIVERMORE,CA	81.049	B639903	-	6
LLNL/LAWRENCE LIVERMORE NATL SEC LLC/LIVERMORE,CA	81.049	B643120	-	(5,587
LLNL/LAWRENCE LIVERMORE NATL SEC LLC/LIVERMORE,CA	81.049	B644118	-	178,790
LLNL/LAWRENCE LIVERMORE NATL SEC LLC/LIVERMORE,CA	81.049	B650575	-	43,708
LLNL/LAWRENCE LIVERMORE NATL SEC LLC/LIVERMORE,CA	81.049	B650911	-	130,337
LLNL/LAWRENCE LIVERMORE NATL SEC LLC/LIVERMORE,CA	81.049	B651475	-	40,271
LLNL/LAWRENCE LIVERMORE NATE SEC LLC/LIVERMORE,CA	81.049	B653933	-	31,897
LUNL/LAWRENCE LIVERMORE NATL SEC LLC/LIVERMORE,CA	81.049	B655768	-	44,474
LOS ALAMOS NATIONAL LAB/LOS ALAMOS NATIONAL SECURITY (LANS)/LOS ALAMOS, NM LOS ALAMOS NATIONAL LAB/LOS ALAMOS NATIONAL SECURITY (LANS)/LOS ALAMOS, NM	81.049 81.049	613160 628281	-	122,072 26,544
LOS ALAMOS NATIONAL LAB/LOS ALAMOS NATIONAL SECURITY (LANS)/LOS ALAMOS, NM LOS ALAMOS NATIONAL LAB/LOS ALAMOS NATIONAL SECURITY (LANS)/LOS ALAMOS, NM	81.049	633534	-	42,285
LOS ALAMOS NATIONAL LAB/LOS ALAMOS NATIONAL SECONTT (LANS/LOS ALAMOS, NM LOS ALAMOS NATL	81.049	C2103-547813-CW16680-EP50639	-	42,203
LOS ALAMOS NATL	81.049	C33332	-	77,162
LOS ALAMOS NATL	81.049	CW19783		2,372,218
MASSACHUSETTS INST OF TECH (MIT)/CAMBRIDGE, MA	81.049	535932		513,079
NAECO LLC/PEACHTREE CITY	81.049	AGR DTD 12-05-2022	-	36,634
OSAZDA ENERGY LLC./ALBUQUERQUE, NM	81.049	140532	-	(8,286
PACIFIC NW NATL LAB/BATTELLE MEMORIAL INST	81.049	525225	-	27,995
PACIFIC NW NATL LAB/BATTELLE MEMORIAL INST	81.049	535498	-	113,550
PACIFIC NW NATL LAB/BATTELLE MEMORIAL INST	81.049	619752	-	71,304
PACIFIC NW NATL LAB/BATTELLE MEMORIAL INST	81.049	635402	-	23,012
PACIFIC NW NATL LAB/BATTELLE MEMORIAL INST	81.049	649468	-	32,172
PACIFIC NW NATL LAB/BATTELLE MEMORIAL INST	81.049	660906	-	1,194
PACIFIC NW NATL LAB/BATTELLE MEMORIAL INST	81.049	673308	-	35,302
PENNSYLVANIA STATE UNIV/UNIV PARK, PA	81.049	S000014-EARPA	-	148,084
PENNSYLVANIA STATE UNIV/UNIV PARK, PA	81.049	S003204-NSF	-	61,872
PENNSYLVANIA STATE UNIV/UNIV PARK, PA	81.049	S003600-USDOE	-	38,872
PHILLIPS 66 CO/BARTLESVILLE, OK	81.049	GTRC AGMT DTD. 12/08/2020	-	429,808
PRINCETON UNIVERSITY/PLAINSBORO, NJ	81.049	SUB0000518	-	12,070
SAINT GOBAIN RARCH & DEVELOPMENT/NORTHBORO,MA	81.049	AGR DTD 9/17/2021	-	430,963
SANDIA NATL LAB	81.049	2032371	-	41
SANDIA NATL LAB	81.049	2156722	-	196
SANDIA NATL LAB	81.049	2170449	-	59
SANDIA NATL LAB	81.049	2243697	-	14,314
SANDIA NATL LAB	81.049	2382059	-	19,004
SANDIA NATL LAB	81.049	2484695	-	13,318
SANDIA NATL LABS/SANDIA CORP	81.049	2001728	-	(51
SANDIA NATL LABS/SANDIA CORP	81.049	2015247	-	8,079
SANDIA NATL LABS/SANDIA CORP	81.049	2079964	-	48,857
SANDIA NATL LABS/SANDIA CORP	81.049	2080123	-	19,796
SANDIA NATL LABS/SANDIA CORP	81.049	2085524	-	15,444
SANDIA NATL LABS/SANDIA CORP	81.049 81.049	2088470	-	21,756 109,852
SANDIA NATL LABS/SANDIA CORP SANDIA NATL LABS/SANDIA CORP	81.049	2103933 2104076	-	18,634
SANDIA NATE LABS/SANDIA CORP	81.049	2120337	-	56,021
SANDIA NATE LABS/SANDIA CORP	81.049	2146288	-	26,077
SANDIA NATL LABS/SANDIA CORP	81.049	2181623		831
SANDIA NATL LABS/SANDIA CORP	81.049	2197001	-	39,762
SANDIA NATL LABS/SANDIA CORP	81.049	2200840	-	45,125
SANDIA NATL LABS/SANDIA CORP	81.049	2201282	-	35,171
SANDIA NATL LABS/SANDIA CORP	81.049	2204587	-	219,039
SANDIA NATL LABS/SANDIA CORP	81.049	2204644	-	48,233
SANDIA NATL LABS/SANDIA CORP	81.049	2205488	-	91,07
SANDIA NATL LABS/SANDIA CORP	81.049	2205639	-	105,994
SANDIA NATL LABS/SANDIA CORP	81.049	2206492	-	91,770
SANDIA NATL LABS/SANDIA CORP	81.049	2208511	-	56,481
SANDIA NATL LABS/SANDIA CORP	81.049	2208925	-	158,088
	2	2210029		,

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

	Federal	Deep thermal	Amount	
Federal Grantor/Pass-Though	Assistance Listing	Pass-through Entity ID	Passed Through to	Federal
Grantor/Cluster or Program Title	Number	Number	Subrecipient	Expenditures
SANDIA NATL LABS/SANDIA CORP SANDIA NATL LABS/SANDIA CORP	81.049 81.049	2210236 2211212	-	7,061 15,193
SANDIA NATL LABSISANDIA CORP SANDIA NATL LABSISANDIA CORP	81.049	2211212	-	27,228
SANDIA NATL LABS/SANDIA CORP	81.049	2217491	-	28,500
SANDIA NATL LABS/SANDIA CORP	81.049	2220704	-	65,448
SANDIA NATL LABS/SANDIA CORP	81.049	2252364	-	40,814
SANDIA NATL LABS/SANDIA CORP	81.049	2256491	-	88,933
SANDIA NATL LABS/SANDIA CORP	81.049	2295870	-	106,590
SANDIA NATL LABS/SANDIA CORP	81.049	2302413	-	94,884
SANDIA NATL LABS/SANDIA CORP	81.049	2302845	-	96,309
SANDIA NATL LABS/SANDIA CORP	81.049	2303121	-	13,074
SANDIA NATL LABS/SANDIA CORP	81.049	2308639	-	28,635
SANDIA NATL LABS/SANDIA CORP	81.049	2309893	-	9,619
SANDIA NATL LABS/SANDIA CORP	81.049	2311964	-	374,333
SANDIA NATL LABS/SANDIA CORP	81.049	2321430	-	(4,850)
SANDIA NATL LABS/SANDIA CORP	81.049	2322380	-	111,896
SANDIA NATL LABS/SANDIA CORP	81.049	2324303	-	115,781
SANDIA NATL LABS/SANDIA CORP	81.049	2325234	-	90,789
SANDIA NATL LABS/SANDIA CORP	81.049	2333195	24,382	366,911
SANDIA NATL LABS/SANDIA CORP	81.049	2335698	-	194,478
SANDIA NATL LABS/SANDIA CORP	81.049	2337470	-	27,370
SANDIA NATL LABS/SANDIA CORP	81.049	2339702	-	76,852
SANDIA NATL LABS/SANDIA CORP	81.049	2343910	-	23,756
SANDIA NATL LABS/SANDIA CORP	81.049	2354695	-	13,922
SANDIA NATL LABS/SANDIA CORP	81.049	2354877	-	75,000
SANDIA NATL LABS/SANDIA CORP	81.049	2358872	-	87,290
SANDIA NATL LABS/SANDIA CORP	81.049	2359215	-	98,684
SANDIA NATL LABS/SANDIA CORP	81.049	2361199	-	75,000
SANDIA NATL LABS/SANDIA CORP	81.049	2362549	-	36,595
SANDIA NATL LABS/SANDIA CORP	81.049	2407978	-	68,517
SANDIA NATL LABS/SANDIA CORP	81.049	2409015	-	61,289
SANDIA NATL LABS/SANDIA CORP	81.049	2420481	-	201,656
SANDIA NATL LABS/SANDIA CORP	81.049	2421286	-	22,258
SANDIA NATL LABS/SANDIA CORP	81.049	2422655	-	19,093
SANDIA NATL LABS/SANDIA CORP	81.049	2426533	-	3,996
SANDIA NATL LABS/SANDIA CORP	81.049	2426642	-	8,607
SANDIA NATL LABS/SANDIA CORP	81.049 81.049	2427464 2427637	-	13,184
SANDIA NATL LABS/SANDIA CORP SANDIA NATL LABS/SANDIA CORP	81.049	2427721	-	67,980 40,831
SANDIA NATL LABS/SANDIA CORP SANDIA NATL LABS/SANDIA CORP	81.049	2436059	-	40,831
SANDIA NATE LABOISANDIA CORP	81.049	2440677	-	42,780
SANDIA NATL LABS/SANDIA CORP	81.049	2441995	-	49,474
SANDIA NATL LABS/SANDIA CORP	81.049	2446483		36,849
SANDIA NATL LABS/SANDIA CORP	81.049	2447101		12,465
SANDIA NATL LABS/SANDIA CORP	81.049	2449677		16,255
SANDIA NATL LABS/SANDIA CORP	81.049	2459731	_	27,240
SANDIA NATL LABS/SANDIA CORP	81.049	2460443	-	9,347
SANDIA NATL LABS/SANDIA CORP	81.049	PO 2112650	-	29,691
SAVANNAH RIV NATL LAB/SAVANNAH RIV NUCLEAR SOL LLC/AIKEN, SC	81.049	265739	-	122
SAVANNAH RIV NATL LAB/SAVANNAH RIV NUCLEAR SOL LLC/AIKEN, SC	81.049	GT00005	-	71,940
SAVANNAH RIVER NATIONAL LABORATORY/BATTELLE SAVANNAH RIVER ALLIANCE/ AIKEN, SC	81.049	0000546198	-	78,743
SAVANNAH RIVER NATIONAL LABORATORY/BATTELLE SAVANNAH RIVER ALLIANCE/ AIKEN, SC	81.049	0000549431	-	222,860
SAVANNAH RIVER NATIONAL LABORATORY/BATTELLE SAVANNAH RIVER ALLIANCE/ AIKEN, SC	81.049	0000555848	-	27,504
SAVANNAH RIVER NATIONAL LABORATORY/BATTELLE SAVANNAH RIVER ALLIANCE/ AIKEN, SC	81.049	0000583196	-	23,258
SCRIPPS RESEARCH INSTITUTE/ LA JOLLA,CA	81.049	5-57741	-	17,161
SLAC NATIONAL ACCELERATOR LABORATORY/MENLO PARK, CA	81.049	215043	-	97,332
SLAC NATIONAL ACCELERATOR LABORATORY/MENLO PARK, CA	81.049	218262	-	153,604
SLAC NATIONAL ACCELERATOR LABORATORY/MENLO PARK, CA	81.049	222023	-	101,726
SLAC NATIONAL ACCELERATOR LABORATORY/MENLO PARK, CA	81.049	224727	-	29,975
SLAC NATIONAL ACCELERATOR LABORATORY/MENLO PARK, CA	81.049	224919	-	22,291
SOLIDIA TECHNOLOGIES INC/ PISCATAWAY, NJ	81.049	PO NO 013765	-	86,499
SOUTHERN COMPANY SERVICES INC / GEORGIA	81.049	62668	-	(9,575)
	01.010			. ,
STATE UNIV OF NY AT STONY BROOK/STONY BROOK, NY	81.049	68856-TASK 3, PROJ. 1119493	-	2,215
STATE UNIV OF NY AT STONY BROOK/STONY BROOK, NY SUSTAINABLE MANUFACTURING INNOVATION ALLIANCE CORP/WEST HENRIETTA, NY		68856-TASK 3, PROJ. 1119493 1	-	2,215 3,529
	81.049		- -	

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

	Federal Assistance	Pass-through	Amount Passed	
Federal Grantor/Pass-Though	Listing	Entity ID	Through to	Federal
Grantor/Cluster or Program Title	Number	Number	Subrecipient	Expenditures
UNIVERSITY OF MINNESOTA/MINNEAPOLIS, MN	81.049	A003127003		23,766
UNIVERSITY OF MINNESOTA/MINNEAPOLIS, MN	81.049	A010319802	-	37,128
UNIVERSITY OF PITTSBURG/PITTSBURG, PA	81.049	AWD00001252 (415707-1)	-	77,728
UNIVERSITY OF WASHINGTON/SEATTLE, WA	81.049	UWSC14090	-	50,696
UNIVERSITY OF WISCONSIN - MADISON/MADISON WI	81.049	0000001272	-	34,115
UT BATTELLE LLC/OAK RIDGE NATL LAB - TN	81.049	4000161873	-	(28,482)
UT BATTELLE LLC/OAK RIDGE NATL LAB - TN	81.049	4000167866	-	1,861
UT BATTELLE LLC/OAK RIDGE NATL LAB - TN	81.049	4000175377	-	19,334
UT BATTELLE LLC/OAK RIDGE NATL LAB - TN	81.049	4000180433	-	169,311
UT BATTELLE LLC/OAK RIDGE NATL LAB - TN	81.049	4000192646	-	33,799
UT BATTELLE LLC/OAK RIDGE NATL LAB - TN	81.049	4000192834	-	155,013
UT BATTELLE LLC/OAK RIDGE NATL LAB - TN	81.049	4000192842	-	14,455
UT BATTELLE LLC/OAK RIDGE NATL LAB - TN	81.049	4000192884	-	12,448
UT BATTELLE LLC/OAK RIDGE NATL LAB - TN	81.049	4000192889	-	87,303
UT BATTELLE LLC/OAK RIDGE NATL LAB - TN	81.049	4000193240	-	28,920
UT BATTELLE LLC/OAK RIDGE NATL LAB - TN	81.049	4000193275	12,881	2,231
UT BATTELLE LLC/OAK RIDGE NATL LAB - TN	81.049	4000193316	-	344,709
UT BATTELLE LLC/OAK RIDGE NATL LAB - TN UT BATTELLE LLC/OAK RIDGE NATL LAB - TN	81.049	4000193660	-	3,080
	81.049	4000193834	-	77,225
UT BATTELLE LLC/OAK RIDGE NATL LAB - TN	81.049	4000194317	-	74,231
UT BATTELLE LLC/OAK RIDGE NATL LAB - TN	81.049 81.049	4000200212/CW34632	-	11,500
UT BATTELLE LLC/OAK RIDGE NATL LAB - TN UT BATTELLE LLC/OAK RIDGE NATL LAB - TN		CW33363/4000204419	-	85,352
UT BATTELLE LLC/OAK RIDGE NATE LAB - TN	81.049 81.049	CW38531/4000200953 CW38531/4000201007	-	5,000 37,167
VANDERBILT UNIVERSITY/NASHVILLE, TN	81.049	#19067-S12	-	271,934
University Coal Research	01.049	#19007-312	-	271,934
Passed through from:				
FAMU	81.057	C-5133	_	69,886
Conservation Research and Development	01.007	0-0100		03,000
Passed through from:				
NIKOLA MOTOR COMPANY/PHOENIX, AZ	81.086	GTRC 141800 DTD 05/26/2021	-	2,604
UNIVERSITY OF TENNESSEE/	81.086	A21-0468-S001	-	127,090
Renewable Energy Research and Development				,
Passed through from:				
AMERICAN INSTITUTE OF CHEMICAL ENGINEERS (AICHE)/NEW YORK, NY	81.087	4	-	1
AMERICAN INSTITUTE OF CHEMICAL ENGINEERS (AICHE)/NEW YORK, NY	81.087	DE-EE0007888-10-5	-	29,474
ARIZONA STATE UNIVERSITY/TEMPE, AZ	81.087	ASUB00000586	-	568,982
ELECTRIC POWER RES INST/	81.087	10012453	-	74,916
GAS TECHNOLOGY INSTITUTE/DES PAINES, IL	81.087	S1082	-	165,559
NORTHWESTERN UNIVERSITY/EVANSTON, IL	81.087	SP0045962-PROJ0012882	-	1,473
TEXAS TECH UNIVERSITY/LUBBOCK, TX	81.087	210345-01	-	1,902
UNIVERSITY OF CALIFORNIA/SAN DIEGO,CA	81.087	1916-1689	-	(69)
UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN/CHAMPAIGN, IL	81.087	101795-18675	-	110,332
UNIVERSITY OF WASHINGTON/SEATTLE, WA	81.087	UWSC11179	-	11,318
Fossil Energy Research and Development				
Passed through from:				
GAS TECHNOLOGY INSTITUTE/DES PAINES, IL	81.089	SR105 PROJ NO 23178	-	39,590
GLOBAL THERMOSTAT/NEW YORK, NY	81.089	AGMT DTD 9/3/2021	-	151,008
Defense Nuclear Nonproliferation Research				
Passed through from:				
UNIVERSITY OF MICHIGAN/	81.113	SUBK0009797	-	177,176
Nuclear Energy Research, Development and Demonstration				
Passed through from:				
AUBURN UNIVERSITY/AUBURN, ALABAMA	81.121	22-MREC-211755-GTRC	-	75,681
SYRACUSE UNIVERSITY/SYRACUSE, NY	81.121	#30308-05133-S01	-	23,376
TEXAS A & M UNIVERSITY/COLLEGE STATION, TX	81.121	M2201185-28-520490-00002	-	86,582
TEXAS A & M UNIVERSITY/COLLEGE STATION, TX	81.121	M2300676	-	21,238
UNIVERSITY OF TENNESSEE/	81.121	A20-0408-S0001	-	124,152
Advanced Research Projects Agency - Energy				
Passed through from:				
CARNEGIE MELLON INSTITUTE/PITTSBURGH, PA	81.135	1070254-427580	-	67,477
LEHIGH UNIVERSITY/BETHLEHEM, PA	81.135	#543891-78003	-	3,169
UNIVERSITY OF MICHIGAN/	81.135	SUBK00010993	-	67,753
UNIVERSITY OF PITTSBURG/PITTSBURG, PA	81.135	AWD00006486 (419518-1)	-	55,564
UNIVERSITY OF WASHINGTON/SEATTLE, WA	81.135	UWSC13102		151,234

ederal Grantor/Pass-Though	Federal Assistance Listing	Pass-through Entity ID	Amount Passed Through to	Federal
rantor/Cluster or Program Title	Number	Number	Subrecipient	Expenditures
epartment of Education				
National Resource Centers Program for Foreign Language and Area Studies or Foreign Language and				
International Studies Program and Foreign Language and Area Studies Fellowship Program	84.015		145,654	271,987
Rehabilitation Services Independent Living Services for Older Individuals Who are Blind	84.177		-	853,963
Graduate Assistance in Areas of National Need	84.200		-	83,52
Centers for International Business Education	84.220		-	383,35
Fund for the Improvement of Postsecondary Education				
Passed through from:				
GWINNETT COUNTY PUBLIC SC	84.116	AGR DTD 6-18-2021	-	(1
Magnet Schools Assistance				
Passed through from:				
CLAYTON COUNTY SCHOOL SYSTEM/FOREST PARK, GA	84.165	152387	-	12,90
Elementary and Secondary School Emergency Relief Fund				
Passed through from:				
GEORGIA STATEWIDE AFTERSCHOOL NETWORK/ATLANTA, GA	84.425U	S425U210012		229,28
otal Department of Education			145,654	1,835,00
epartment of Health and Human Services				
Food and Drug Administration_Research	93.103		-	204,23
Environmental Health	93.113		-	(19
Oral Diseases and Disorders Research	93.121		481,871	1,814,30
Health Program for Toxic Substances and Disease Registry	93.161		1,599,639	6,479,07
Research Related to Deafness and Communication Disorders Immunization Research, Demonstration, Public Information and Education Training and Clinical Skills	93.173		45,168	507,72
Improvement Projects	93.185		4,801	84,37
Mental Health Research Grants	93.242		370,210	939,50
Discovery and Applied Research for Technological Innovations to Improve Human Health	93.286		492,183	3,675,13
Trans-NIH Research Support	93.310		698,616	4,892,72
Cancer Detection and Diagnosis Research	93.394		-	629,64
Cancer Treatment Research	93.395		95,080	2,130,81
Cancer Biology Research	93.396		774,173	1,929,29
Cancer Research Manpower	93.398		-	41,58
ACL National Institute on Disability, Independent Living, and Rehabilitation Research CDC Undergraduate Public Health Scholars Program (CUPS): A Public Health Experience to Expose Undergraduates Interested in Minority Health to Public Health and the Public Health Professions	93.433		740,047	2,382,60
	93.456		57,849	81,72
ACL Assistive Technology	93.464		278,685	739,29
Cardiovascular Diseases Research	93.837		702,315	1,332,39
Lung Diseases Research	93.838		60,728	343,72
Blood Diseases and Resources Research	93.839		11,377	741,03
Arthritis, Musculoskeletal and Skin Diseases Research	93.846		14,234	1,317,26
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847		300,161	885,80
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853		504,376	4,003,98
Allergy and Infectious Diseases Research	93.855		193,623	1,306,67
Biomedical Research and Research Training	93.859		109,364	6,975,92
Child Health and Human Development Extramural Research	93.865		183,609	918,92
Aging Research	93.866		66,186	551,49
Vision Research	93.867		539,680	2,163,30
International Research and Research Training Preventive Health and Health Services Block Grant	93.989 93.991		214,144	3,233,29 35,61
Constal Decement for the Anian Title IV and Title II Discontingent Decision				
Special Programs for the Aging, Title IV, and Title II, Discretionary Projects Passed through from:				
DHS DIVISION OF AGING SERVICES/ATLANTA,GA	93.048	42700-373-0000098226	-	3)
Birth Defects and Developmental Disabilities - Prevention and Surveillance				
Passed through from:				
TASK FORCE GLOBAL HEALTH	93.073	5605	-	101,77
Prevention of Disease, Disability, and Death by Infectious Diseases				
Passed through from:				
Passed through from: EMORY UNIVERSITY/ATLANTA, GA	93.084	A791108	-	29,60

	Federal Assistance		Amount Passed	Enderset
aderal Grantor/Pass-Though rantor/Cluster or Program Title	Listing Number	Entity ID Number	Through to Subrecipient	Federal Expenditure
Food and Drug Administration_Research				
Passed through from:				
CHILDREN'S HOSPITAL OF PHILADELPHIA/PHILADELPHIA, PA	93.103	3201480823/PO 20452775	-	44,73
MASSACHUSETTS GENERAL HOSPITAL/BOSTON, MA	93.103	236632	-	387,56
Environmental Health				
Passed through from:				
EMORY UNIVERSITY/ATLANTA, GA	93.113	A507001	-	50,67
EMORY UNIVERSITY/ATLANTA, GA	93.113	A561670	-	62,29
EMORY UNIVERSITY/ATLANTA, GA	93.113	A662282 (FORMALLY T779501)	-	132,17
EMORY UNIVERSITY/ATLANTA, GA	93.113	A747543	-	315,49
EMORY UNIVERSITY/ATLANTA, GA	93.113	A805215	-	121,0
UNIVERSITY OF WASHINGTON/SEATTLE, WA	93.113	UWSC13766	-	7,4
Oral Diseases and Disorders Research				
Passed through from:				
EMORY UNIVERSITY/ATLANTA, GA	93.121	A659044	-	21,2
EMORY UNIVERSITY/ATLANTA, GA	93.121	A694851	-	88,0
EMORY UNIVERSITY/ATLANTA, GA	93.121	A704848	-	229,9
EMORY UNIVERSITY/ATLANTA, GA	93.121	T825580	_	11,6
Centers for Research and Demonstration for Health Promotion and Disease Prevention	00.121	1020000		11,0
Passed through from:				
MOREHOUSE SCHOOL OF MEDICINE/ATLANTA, GA	93.135	PRC-331		20,0
	93.135	PRC-331	-	20,0
Injury Prevention and Control Research and State and Community Based Programs				
Passed through from:				
EMORY UNIVERSITY/ATLANTA, GA	93.136	A370066	-	19,1
Health Program for Toxic Substances and Disease Registry				
Passed through from:				
BIRKELAND CURRENT/PRUF ENERGY CONTROLS/WACO, TX	93.161	145597	-	24,9
COLORADO STATE UNIVERSITY/COLLINS, CO	93.161	G-64112-03	-	7,8
M S TECHNOLOGIES CORPORATION/ROCKVILLE, MD	93.161	146440	-	245,9
MAYO CLINIC/ROCHESTER, MN	93.161	GEO-234122/PO#68290287	-	18,9
MAYO CLINIC/ROCHESTER, MN	93.161	GEO-259345	-	51,2
NORTH CAROLINA STATE UNIVERSITY/RALEIGH, NC	93.161	2019-2552-01	-	56,3
WEILL CORNELL MEDICAL COLLEGE/NEW YORK, NY	93.161	222489	-	31,8
Research Related to Deafness and Communication Disorders				
Passed through from:				
UNIVERSITY OF TEXAS AT DALLAS/RICHARDSON, TX	93.173	UTA19-001005	-	224,4
Research and Training in Complementary and Integrative Health				
Passed through from:				
EMORY UNIVERSITY/ATLANTA, GA	93.213	A658448	_	17,5
Policy Research and Evaluation Grants	00.210	1000440		17,0
Passed through from:				
UNIVERSITY OF WISCONSIN - MADISON/MADISON WI	93.239	000003367		21,5
	93.239	000002367	-	21,5
Mental Health Research Grants				
Passed through from:				
UNIVERSITY OF PITTSBURG/PITTSBURG, PA	93.242	AWD00005882 (138447-2)	-	8,4
Drug Abuse and Addiction Research Programs				
Passed through from:				
EMORY UNIVERSITY/ATLANTA, GA	93.279	A371765 (A555961 SUPPLEMENT)	-	76,7
EMORY UNIVERSITY/ATLANTA, GA	93.279	A584294	-	115,6
MASSACHUSETTS INST OF TECH (MIT)/CAMBRIDGE, MA	93.279	S50142-PO 453106	-	305,9
RTI INTERNATIONAL/ RESEARCH TRIANGLE	93.279	10-312-0216924-66742L	-	98,4
Discovery and Applied Research for Technological Innovations to Improve Human Health				
Passed through from:				
EMORY UNIVERSITY/ATLANTA, GA	93.286	A325090	-	810,4
EMORY UNIVERSITY/ATLANTA, GA	93.286	A390401	-	56,1
EMORY UNIVERSITY/ATLANTA, GA	93.286	A454923	-	
EMORY UNIVERSITY/ATLANTA, GA	93.286	A454979	-	(3,3
EMORY UNIVERSITY/ATLANTA, GA	93.286	A688441	-	27,2
EMORY UNIVERSITY/ATLANTA, GA	93.286	A689054	-	24,2
EMORY UNIVERSITY/ATLANTA, GA	93.286	A689508	-	48,1
EMORY UNIVERSITY/ATLANTA, GA	93.286	A691299	-	40,1
			-	
	93.286	A735903	-	44,8
	93.286	A776503	-	41,8
MASSACHUSETTS INST OF TECH (MIT)/CAMBRIDGE, MA	93.286	S5408	-	260,7
STANFORD UNIVERSITY/STANFORD, CA	93.286	62440498-142337 AWD00003057(135510-1)	-	54,2 6,8
UNIVERSITY OF PITTSBURG/PITTSBURG, PA	93.286			

ederal Grantor/Pass-Though	Federal Assistance Listing	Pass-through Entity ID	Amount Passed Through to	Federal
rantor/Cluster or Program Title	Number	Number	Subrecipient	Expenditures
Minority Health and Health Disparities Research				
Passed through from:				
NORTHEASTERN UNIVERSITY/BOSTON, MA	93.307	500759-78052	-	95,978
Trans-NIH Research Support				
Passed through from:				
AMERICAN ASSOCIATION ON HEALTH AND DISABILITY/ROCKVILLE, MD	93.310	151132	-	13,589
ANNOVIANT/ALPHARETTA, GA BMSEED/PHOENIX, AZ	93.310 93.310	147851 R43NS124469	-	118,654 58,266
CELLIA SCIENCE/FAYETTEVILLE,AR	93.310	150779	-	26,164
CHILDREN'S RESEARCH INSTITUTE/WASHINGTON, DC	93.310	30006286-03	-	158,822
CREIGHTON UNIVERSITY/OMAHA,NE	93.310	270766-2-1	-	(72
EMORY UNIVERSITY/ATLANTA, GA	93.310	A373816	-	26,409
EMORY UNIVERSITY/ATLANTA, GA	93.310	A395206	-	22,008
EMORY UNIVERSITY/ATLANTA, GA	93.310	A464642	-	32,450
EMORY UNIVERSITY/ATLANTA, GA	93.310	A513134	-	197,701
EMORY UNIVERSITY/ATLANTA, GA	93.310	A540629	-	32,115
EMORY UNIVERSITY/ATLANTA, GA	93.310	A569656	-	6,240
EMORY UNIVERSITY/ATLANTA, GA	93.310	A576223	16,837	115,031
EMORY UNIVERSITY/ATLANTA, GA	93.310	A577288	-	64,313
EMORY UNIVERSITY/ATLANTA, GA	93.310	A587065	-	6,853
EMORY UNIVERSITY/ATLANTA, GA	93.310	A645895	-	56,904
EMORY UNIVERSITY/ATLANTA, GA	93.310	A651796	-	12,545
EMORY UNIVERSITY/ATLANTA, GA	93.310	A723132	-	20,776
EMORY UNIVERSITY/ATLANTA, GA	93.310	A733023	-	51,937
EMORY UNIVERSITY/ATLANTA, GA EMORY UNIVERSITY/ATLANTA, GA	93.310 93.310	A740489 A748001	-	112,485 39,531
EMORY UNIVERSITY/ATLANTA, GA	93.310	A765205	-	146,271
EMORY UNIVERSITY/ATLANTA, GA	93.310	A785558		157,144
EMORY UNIVERSITY/ATLANTA, GA	93.310	A820959	-	168,169
GEORGIA DEPARTMENT OF PUBLIC HEALTH/ATLANTA, GA	93.310	40500-036-21213723	-	736
IBM CORP/GA	93.310	4700266271	-	9,260
MAYO CLINIC/ROCHESTER, MN	93.310	GEO-281375	-	94,145
MEDICAL COLLEGE OF WISCONSIN/MILWAUKEE, WI	93.310	GTRC 150895	-	102,298
MIRTECH INC/BROCKTON, MA	93.310	150014	-	7,266
MOREHOUSE SCHOOL OF MEDICINE/ATLANTA, GA	93.310	100-ROLLINS	-	70,733
MOREHOUSE SCHOOL OF MEDICINE/ATLANTA, GA	93.310	PRC-703 HENRY AKINTOBI	-	111,766
MS TECHNOLOGIES/ ROCKVILLE, MD	93.310	147901	-	8,570
NORTH CAROLINA STATE UNIVERSITY/RALEIGH, NC	93.310	2022-1752-01	-	35,000
NORTH CAROLINA STATE UNIVERSITY/RALEIGH, NC	93.310	2022-2066-01	-	89,556
NORTHWESTERN UNIVERSITY/EVANSTON, IL	93.310	60058446 GTRC	-	14
OPEN EPHYS/CAMBRIDGE, MA	93.310	149079	-	10,851
PHOTOSOUND TECHNOLOGIES INC./HOUSTON, TX	93.310	149002	-	108,423
SEATTLE CHILDRENS RESEARCH INSTITUTE, SEATTLE, WA SIRPANT/HUMMELSTOWN,PA	93.310 93.310	12856SUB 150780	-	152,763 370,479
TASK FORCE GLOBAL HEALTH	93.310	AGMT DTD 12/17/2021		(10,006
THE MARCUS FOUNDATION INC./ATLANTA, GA	93.310	SUB 1701192	-	175,684
UCLA/LOS ANGELES, CA	93.310	0125 GWD486	-	20,865
UNIVERSITY OF CALIFORNIA	93.310	118211663	-	14,502
UNIVERSITY OF CALIFORNIA AT SAN FRANCISCO/SAN FRANCISCO, CA	93.310	12869SC	-	57,546
UNIVERSITY OF CALIFORNIA AT SAN FRANCISCO/SAN FRANCISCO, CA	93.310	13026SC	-	75,920
UNIVERSITY OF GEORGIA/ATHENS, GA	93.310	SUB00001793	-	(21,420
UNIVERSITY OF GEORGIA/ATHENS, GA	93.310	SUB00001822	-	(2,387
UNIVERSITY OF GEORGIA/ATHENS, GA	93.310	SUB00002784	-	20,370
UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN/CHAMPAIGN, IL	93.310	106390-18695	-	(1,382
UNIVERSITY OF MINNESOTA/MINNEAPOLIS, MN	93.310	N008741501	-	78,604
UNIVERSITY OF OREGON/EUGENE, OREGON	93.310	215830A	-	74,383
UNIVERSITY OF TEXAS AT AUSTIN/AUSTIN, TX	93.310	151551	-	39,421
UNIVERSITY OF WASHINGTON/SEATTLE, WA	93.310	UWSC14052 / 68775	-	16,837
VIRGINIA COMMONWEALTH UNIVERSITY/RICHMOND, VA	93.310	NO. FP00012824_SA001	-	4,883
National Center for Advancing Translational Sciences				
Passed through from:	03 350	4516200		46 044
EMORY UNIVERSITY/ATLANTA, GA EMORY UNIVERSITY/ATLANTA, GA	93.350 93.350	A516200 A737962	-	15,311 369,555

	Federal		Amount	
	Assistance		Passed	
leral Grantor/Pass-Though	Listing	Entity ID	Through to	Federal
ntor/Cluster or Program Title	Number	Number	Subrecipient	Expenditure
Biomedical Advanced Research and Development Authority (BARDA), Biodefense Medical Countermea	asure Development			
Passed through from:				
EMORY UNIVERSITY/ATLANTA, GA	93.360	A710868	-	61,25
LOCKHEED MARTIN CORP	93.360	LM0065920	-	51
Nursing Research				
Passed through from:				
EMORY UNIVERSITY/ATLANTA, GA	93.361	A781720	-	23,1
National and State Tobacco Control Program				
Passed through from:				
UNIVERSITY OF PENNSYLVANIA/PHILADELPHIA, PA	93.387	1RO1HL147256-01	-	249,1
Cancer Cause and Prevention Research				
Passed through from:				
DANA-FARBER CANCER INSTITUTE INC./BOSTON, MA	93.393	1289901	-	67,4
Cancer Detection and Diagnosis Research				
Passed through from:				
NEW YORK UNIVERSITY LANGONE MEDICAL CENTER/NEW YORK, NY	93.394	19-A1-00-1002648	-	211,2
NEW YORK UNIVERSITY LANGONE MEDICAL CENTER/NEW YORK, NY	93.394	21-A1-S2-1002648	-	57,4
Cancer Treatment Research				
Passed through from:				
UNIVERSITY OF MICHIGAN/	93.395	SUBK00008227	-	35,4
Cancer Biology Research				
Passed through from:	00.000	100001 10000		10.0
UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN/CHAMPAIGN, IL	93.396	102664-18602	-	16,6
Cancer Centers Support Grants				
Passed through from:	00 207	A756053		22.0
EMORY UNIVERSITY/ATLANTA, GA	93.397		-	33,8
Strengthening Public Health Systems and Services through National Partnerships to Improve and Prote	ect the Nation's Healt	n		
Passed through from: TASK FORCE GLOBAL HEALTH	93.421	5266		89.8
ACL Assistive Technology	95.421	5200	-	09,0
Passed through from:				
ASSOCIATION FOR ASSISTIVE TECHNOLOGY ACT PROGRAMS/SPRINGFIELD, IL	93.464	AGMT EXEC 9/30/2021		46,0
Medical Assistance Program	00.404			40,0
Passed through from:				
GA DEPT OF BEHAVIORAL HLTH AND DEVP DISABILITIES/ATLANTA,GA	93.778	44100-907-CMA00003193	-	11,6
Opioid STR				, -
Passed through from:				
GA DEPT OF BEHAVIORAL HLTH AND DEVP DISABILITIES/ATLANTA,GA	93.788	44100-906-0000171332	-	73,9
Cardiovascular Diseases Research				
Passed through from:				
BOSTON CHILDREN'S HOSPITAL/BOSTON, MA	93.837	GENFD0001955860	-	19,8
BOSTON CHILDREN'S HOSPITAL/BOSTON, MA	93.837	GENFD0002225634	-	50,3
BRIGHAM AND WOMEN'S HOSPITAL/BOSTON, MA	93.837	126090	-	58,1
BRIGHAM AND WOMEN'S HOSPITAL/BOSTON, MA	93.837	127674	-	144,7
EMORY UNIVERSITY/ATLANTA, GA	93.837	A022924	-	
EMORY UNIVERSITY/ATLANTA, GA	93.837	A092263	-	24,8
EMORY UNIVERSITY/ATLANTA, GA	93.837	A179709	-	(3,2
EMORY UNIVERSITY/ATLANTA, GA	93.837	A575713	-	338,3
EMORY UNIVERSITY/ATLANTA, GA	93.837	A596057	-	37,5
EMORY UNIVERSITY/ATLANTA, GA	93.837	A622631	-	67,1
ROCHESTER INSTITUTE OF TECHNOLOGY/ROCHESTER, NY	93.837	32433-01	-	66,9
UNIVERSITY OF MARYLAND - BALTIMORE/BALTIMORE, MD	93.837	1701192 REQUEST 4732	-	141,3
Lung Diseases Research				
Passed through from:				
PALO ALTO VETERANS INSTITUTE FOR RESEARCH/PALO ALTO, CA	93.838	NIM0003-03	-	20,1
PALO ALTO VETERANS INSTITUTE FOR RESEARCH/PALO ALTO, CA	93.838	NIM0013-03	-	10,9
Blood Diseases and Resources Research				
Passed through from:				
EMORY UNIVERSITY/ATLANTA, GA	93.839	A035610	-	137,2
EMORY UNIVERSITY/ATLANTA, GA	93.839	A690131	-	94,0
OREGON HEALTH & SCIENCE UNIVERSITY/PORTLAND, OR	93.839	1021685 GT		123,0

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

	Federal		Amount	
	Assistance	Pass-through	Passed	Federal
deral Grantor/Pass-Though	Listing	Entity ID	Through to	
rantor/Cluster or Program Title	Number	Number	Subrecipient	Expenditures
Arthritis, Musculoskeletal and Skin Diseases Research				
Passed through from:				
COLUMBIA UNIVERSITY/NEW YORK, NY	93.846	1(GG019022-01)	-	23,247
COLUMBIA UNIVERSITY/NEW YORK, NY	93.846	2(GG014632-01)	-	87,067
EMORY UNIVERSITY/ATLANTA, GA	93.846	A505574	-	44,582
GEORGIA STATE UNIVERSITY/ATLANTA, GA	93.846	SP00015392-02	-	57,67
UNIVERSITY OF OREGON/EUGENE, OREGON	93.846	#217420A	-	137,21
UNIVERSITY OF OREGON/EUGENE, OREGON	93.846	217710A	-	229,46
Diabetes, Digestive, and Kidney Diseases Extramural Research				
Passed through from:				
EMORY UNIVERSITY/ATLANTA, GA	93.847	A375305	-	123,81
EMORY UNIVERSITY/ATLANTA, GA	93.847	A379039	-	(24,97
EMORY UNIVERSITY/ATLANTA, GA	93.847	A380085	-	6,62
EMORY UNIVERSITY/ATLANTA, GA	93.847	A380097	-	41,40
EMORY UNIVERSITY/ATLANTA, GA	93.847	A413173	-	(7,64
EMORY UNIVERSITY/ATLANTA, GA	93.847	A551612	-	29,50
EMORY UNIVERSITY/ATLANTA, GA	93.847	A551759	-	3,80
EMORY UNIVERSITY/ATLANTA, GA	93.847	A552124	-	58,19
EMORY UNIVERSITY/ATLANTA, GA	93.847	A558251	-	7,64
EMORY UNIVERSITY/ATLANTA, GA	93.847	A576210	-	308,50
EMORY UNIVERSITY/ATLANTA, GA	93.847	A732508	-	16,64
GEORGIA STATE UNIVERSITY/ATLANTA, GA	93.847	SP00013928-02	-	2,93
GEORGIA STATE UNIVERSITY/ATLANTA, GA	93.847	SP00015474-02	-	25,47
UNIVERSITY OF VIRGINIA/CHARLOTTESVILLE, VA	93.847	AWD-004183.GR100686	-	59,36
Extramural Research Programs in the Neurosciences and Neurological Disorders				
Passed through from:				
BMSEED/PHOENIX, AZ	93.853	1R43NS124469-01	-	22,56
DREXEL UNIVERSITY/PHILADELPHIA, PA	93.853	900052	-	303,83
EMORY UNIVERSITY/ATLANTA, GA	93.853	A567140	-	189,12
EMORY UNIVERSITY/ATLANTA, GA	93.853	A580374	-	134,33
EMORY UNIVERSITY/ATLANTA, GA	93.853	A657132	-	38,90
ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI	93.853	0255-Z446-4609	-	260,06
MOREHOUSE SCHOOL OF MEDICINE/ATLANTA, GA	93.853	MELLER-370078 R01 GT	-	54,76
UNIVERSITY OF PENNSYLVANIA/PHILADELPHIA, PA	93.853	585719	-	31,35
Allergy and Infectious Diseases Research				
Passed through from:				
BOSTON CHILDREN'S HOSPITAL/BOSTON, MA	93.855	GENFD0002200311	-	21,84
BRIGHAM AND WOMEN'S HOSPITAL/BOSTON, MA	93.855	123439	-	61,51
EMORY UNIVERSITY/ATLANTA, GA	93.855	A085091	-	19,90
EMORY UNIVERSITY/ATLANTA, GA	93.855	A237526	-	139,30
EMORY UNIVERSITY/ATLANTA, GA	93.855	A489074	-	68,55
EMORY UNIVERSITY/ATLANTA, GA	93.855	A540760	-	2,12
EMORY UNIVERSITY/ATLANTA, GA	93.855	A619462	-	53,59
EMORY UNIVERSITY/ATLANTA, GA	93.855	AGREEMENT DTD 8/30/19	-	4,41
GEORGIA STATE UNIVERSITY/ATLANTA, GA	93.855	SP00013700-01B	_	238,81
GEORGIA STATE UNIVERSITY/ATLANTA, GA	93.855	SP00013890-01	_	19,68
MAYO CLINIC/ROCHESTER, MN	93.855	GTR-233617	4,322	36,05
NORTHWESTERN UNIVERSITY/EVANSTON, IL	93.855	60061554 GIT	-	175,91
SCRIPPS RESEARCH INSTITUTE/ LA JOLLA.CA	93.855	5-53830	_	1,71
SCRIPPS RESEARCH INSTITUTE/ LA JOLLA,CA	93.855	5-54752	_	236,95
STANFORD UNIVERSITY/STANFORD, CA	93.855	61989439-131451	_	203,49
UNIVERSITY OF MISSOURI/COLUMBIA, MO	93.855	00071127-1		(47,37
UNIVERSITY OF MISSOURI/COLUMBIA, MO UNIVERSITY OF OKLAHOMA/NORMAN, OK	93.855	2020-77	-	(47,57 44,41
UNIVERSITY OF WASHINGTON/SEATTLE, WA	93.855	UWSC12199	-	132,73
UNIVERSITY OF WASHINGTON/SEATTLE, WA	93.855	0000001696	-	472,29
Biomedical Research and Research Training	93.000	000001080	-	412,23
-				
Passed through from:	03 950	A579704		50.0
EMORY UNIVERSITY/ATLANTA, GA	93.859	A579704 133286-5112927	-	59,97 206,13
				ZUD. 13
HARVARD UNIVERSITY/BOSTON, MA NEW YORK UNIVERSITY LANGONE MEDICAL CENTER/NEW YORK, NY	93.859 93.859	17-A1-00-007405-01; Project # 109740		(6,01

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

	Federal		Amount	
	Assistance	Pass-through	Passed	
Federal Grantor/Pass-Though Grantor/Cluster or Program Title	Listing Number	Entity ID Number	Through to	Federal Expenditures
• •	Indiliber	Nulliber	Subrecipient	Experiatures
Child Health and Human Development Extramural Research				
Passed through from:				
EMORY UNIVERSITY/ATLANTA, GA	93.865	A512754	-	370,155
EMORY UNIVERSITY/ATLANTA, GA	93.865	P16527	-	43,470
INDIANA UNIVERSITY/BLOOMINGTON, IN	93.865	9235_GT	-	15,335
JOHNS HOPKINS UNIV/BALTIMORE, MD	93.865	2005711653	-	668
UNIVERSITY OF ILLINOIS/CHICAGO,IL	93.865	18095	-	(1
Aging Research				
Passed through from:				
EMORY UNIVERSITY/ATLANTA, GA	93.866	A540603	-	71,296
EMORY UNIVERSITY/ATLANTA, GA	93.866	A558275	-	149,651
EMORY UNIVERSITY/ATLANTA, GA	93.866	A634972	-	8,371
EMORY UNIVERSITY/ATLANTA, GA	93.866	A679525	-	20,478
EMORY UNIVERSITY/ATLANTA, GA	93.866	A729257	-	212,327
EMORY UNIVERSITY/ATLANTA, GA	93.866	A772243	-	158,520
FLORIDA STATE UNIVERSITY/TALLAHASSEE, FLA	93.866	R000002734	-	32,937
MAYO CLINIC/ROCHESTER, MN	93.866	GEO-233617/PO#67304962	3,800	226,933
ONECLICK.CHAT/ARLINGTON,VA	93.866	AGR DTD 5/15/2022	-	70,772
UNIVERSITY OF ARIZONA/TUCSON, AZ	93.866	636490	-	140,975
UNIVERSITY OF MICHIGAN/	93.866	SUBK00008360	-	221,502
UNIVERSITY OF NORTH CAROLINA/CHAPEL HILL, NC	93.866	#5111414	-	150,213
UNIVERSITY OF NORTH CAROLINA/CHAPEL HILL, NC	93.866	5118967	-	34,089
UNIVERSITY OF TEXAS AT AUSTIN/AUSTIN, TX	93.866	UTAUS-SUB00000637	-	36,080
Vision Research				
Passed through from:				
CINCINNATI CHILDREN'S HOSPITAL MEDICAL CENTER/CINCINNATI, OH	93.867	314961	-	(3,071
EMORY UNIVERSITY/ATLANTA, GA	93.867	#A043837	-	31,775
EMORY UNIVERSITY/ATLANTA, GA	93.867	A332834	-	703
EMORY UNIVERSITY/ATLANTA, GA	93.867	A621535		19,093
EMORY UNIVERSITY/ATLANTA, GA	93.867	A692670		158,008
EMORY UNIVERSITY/ATLANTA, GA	93.867	A788881		46,790
UNIVERSITY OF TEXAS AT AUSTIN/AUSTIN, TX	93.867	UTA20-000161	_	127,096
Preventive Health and Health Services Block Grant	33.007	01720-000101	_	127,030
Passed through from:	93.991	SD00012351 02		47,334
		SP00013351-03	-	
UNIVERSITY OF LOUISVILLE/LOUISVILLE, KY	93.991	ULRF 17-0029-01		15,246
Total Department of Health and Human Services			8,563,078	67,724,889
Department of Hemeland Security				
Department of Homeland Security	97.005		140 972	276 902
State and Local Homeland Security National Training Program			140,873	276,893
Emergency Management Performance Grants	97.042		-	417,255
Emergency Management Performance Grants				
Passed through from:				
AUBURN UNIVERSITY/AUBURN, ALABAMA	07.042	22 CVM 212016 CTDC		04.000
	97.042	22-CVM-212016-GTRC	-	94,909
AUBURN UNIVERSITY/AUBURN, ALABAMA	97.042	23-CVM-215006-GTRC	-	36,324
RAND CORPORATION/PITTSBURGH,PA	97.042	SCON-00000467	17,800	111,953
SPACE DYNAMICS LAB	97.042	CP0053206	-	16,877
Centers for Homeland Security				
Passed through from:				
UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN/CHAMPAIGN, IL	97.061	077083-16371	-	-
UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN/CHAMPAIGN, IL	97.061	077083-17698	-	129,394
Total Department of Homeland Security			158,673	1,083,605
Agency for International Development				
Agency for International Development				
USAID Development Partnerships for University Cooperation and Development				
Passed through from:		B004004700	aa	
FHI 360/PARTNERS/DURHAM, NC	98.012	P021001722	211,619	853,443
Total Agency for International Development			211,619	853,443
Total Research and Development.Cluster			226 222 200	1 135 406 005
Total Research and Development-Cluster			226,232,788	1,135,406,905

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

	Federal		Amount	
	Assistance	Pass-through	Passed	
Federal Grantor/Pass-Though Grantor/Cluster or Program Title	Listing Number	Entity ID Number	Through to Subrecipient	Federal Expenditures
Student Financial Assistance-Cluster:			oubreelpient	Experiatures
Department of Education				
Federal Supplemental Educational Opportunity Grants	84.007		-	1,043,429
Federal Work-Study Program	84.033		-	233,868
Federal Pell Grant Program	84.063		-	14,319,752
Federal Direct Student Loans	84.268		-	65,106,298
Federal Perkins Loan Program_Federal Capital Contributions	84.038		-	2,645,908
Total Department of Education				83,349,255
Total Student Financial Assistance-Cluster:			-	83,349,255
Other Programs:				
Department of Agriculture				
Food Safety Outreach Program	10.328		-	176,544
Agricultural Desserve Desig and Applied Desserve				
Agricultural Research Basic and Applied Research				
	10.001	2016-65140		101 774
DAVID & LUCILE PACKARD FOUNDATION/LOS ALTOS, CA. Total Department of Agriculture	10.001	2016-65140		131,774 308,318
				,
Department of Commerce Economic Development Technical Assistance	11.303			114 029
BUILD TO SCALE	11.024		- 35,639	114,038 352,075
			35,039	567,522
Economic Adjustment Assistance	11.307		-	
Climate and Atmospheric Research	11.431		-	38,201 3,807,780
Manufacturing Extension Partnership	11.611		- 63,125	219,613
Minority Business Resource Development	11.802			
MBDA Business Center Total Department of Commerce	11.805		173,385 272,149	704,038 5,803,267
Department of the Army				
Procurement Technical Assistance For Business Firms	12.002		-	316,669
Basic, Applied, and Advanced Research in Science and Engineering	12.630		-	1,288
Total Department of Army			-	317,957
Department of the Navy				
Basic and Applied Scientific Research	12.300		-	1,630
Total Department of Navy			-	1,630
Department of the Air Force Air Force Defense Research Sciences Program	12.800			31,260
Total Department of Air Force	12.000			31,260
Department of Defense				
Basic, Applied, and Advanced Research in Science and Engineering	12.630		-	(1,586)
Procurement Technical Assistance For Business Firms	12.002			400,010
ROTC Language and Culture Training Grants			-	398,424
Passed through from:				
INSTITUTE OF INTERNATIONAL EDUCATION/WASHINGTON, DC	12.357	PGO1801-GT-03-PGO-051-PO5		462,802
Total Department of Defense			-	861,226
Department of Labor	47 604			1 000 001
Consultation Agreements	17.504		-	1,869,201
WIOA Dislocated Worker Formula Grants				
NORTHWEST GEORGIA REGIONAL COMMISSION/ROME, GA	17.278	CONTRACT DATED 1 SEPT 2017		86,638
Total Department of Labor			-	1,955,839

	Federal Assistance	Pass-through	Amount Passed	
Federal Grantor/Pass-Though	Listing	Entity ID	Through to	Federal
Grantor/Cluster or Program Title	Number	Number	Subrecipient	Expenditures
Department of Transportation				
Highway Training and Education	20.215		-	34,070
20				
Passed through from:				
GEORGIA DEPT OF TRANSPORTATION	20.205	AGR DTD 10/05/2017 - T8499	-	(806)
GEORGIA DEPT OF TRANSPORTATION	20.205	TO 2014-103 RP 20-13		102,366
Total Department of Transportation			-	135,630
National Aeronautics and Space Administration				
Science	43.001		-	844
Aeronautics	43.002		-	44,896
Education	43.008		-	30,026
Space Technology	43.012			213,369
Total National Aeronautics and Space Administration			-	289,135
VETERANS ADMINISTRATION				
Research and Development	64.054			72,313
Total VETERANS ADMINISTRATION			-	72,313
Environment Protection Agency				
Environment Protection Agency Pollution Prevention Grants Program	66.708		_	73,241
Total Environment Protection Agency	00.700			73,241
				,=
Nuclear Regulatory Commission				
U.S. Nuclear Regulatory Commission Scholarship and Fellowship Program	77.008			22,115
Total Nuclear Regulatory Commission			-	22,115
Department of Energy				
Defense Nuclear Nonproliferation Research Energy Efficiency and Renewable Energy Information Dissemination, Outreach, Training and Technical	81.113		-	24,082
Analysis/Assistance	81.117		-	82,506
Nuclear Energy Research, Development and Demonstration	81.121			178,427
Total Department of Energy			-	285,015
Department of Education National Resource Centers Program for Foreign Language and Area Studies or Foreign Language and				
International Studies Program and Foreign Language and Area Studies Fellowship Program	84.015		-	40,874
Graduate Assistance in Areas of National Need	84.200		-	708,276
Higher Education Emergency Relief Funding - Institutional Portion	84.425F		-	118,596
Fund for the Improvement of Postsecondary Education				
Passed through from:				
BOARD OF REGENTS OF THE UNIVERSITY SYSTEM OF GA – WEB SERVICES/ATLANTA, GA	84.116	AWD-002607	-	31,801
Passed through from: US DEPT OF EDUCATION/GENERAL	84.334	P334S160030	822,494	2 734 668
Total Department of Education	04.004	1 3340 100030	822,494	2,734,668 3,634,215
			011,101	0,00 ,,210
Department of Homeland Security				
State and Local Homeland Security National Training Program	97.005		87,209	178,066
Homeland Security Grant Program				
GEORGIA EMERGENCY MGMT & HOMELAND SECURITY AGCY/ATLANTA, GA	97.067	GRANT #20	-	(1,206)
GEORGIA EMERGENCY MGMT & HOMELAND SECURITY AGCY/ATLANTA, GA	97.067	GRANT #67	87,209	4,755
			07,209	181,615
Agency for International Development				
USAID Development Partnerships for University Cooperation and Development				
Passed through from:				
FHI 360/PARTNERS/DURHAM, NC	98.012	P021001722		7,931
Total Agency for International Development			-	7,931
Total Other Programs			1,181,852	13,980,707
Total Expenditures of Federal Awards			6 007 444 040	¢4 000 700 007
			\$ 227,414,640	\$1,232,736,867

YEAR ENDED JUNE 30, 2023

Note 1—Basis of presentation

The accompanying schedule of expenditures of federal awards includes the federal grant activity of Georgia Tech Research Corporation ("GTRC"), Georgia Tech Applied Research Corporation ("GTARC"), and Georgia Institute of Technology ("GIT") and is presented on the accrual basis of accounting. The information in the schedule of expenditures of federal awards is presented in accordance with the requirements of Title 2 U.S. *Code of Federal Regulations* Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* ("Uniform Guidance"). Therefore, some amounts presented in this schedule of expenditures of federal awards presented in or used in the preparation of the basic financial statements. Because the schedule of expenditures of federal awards presents only a selected portion of the activities of GTRC, GTARC, and GIT, it is not intended to, and does not, present either the financial position, changes in net position, or cash flows of GTRC, GTARC, and GIT.

Basis of Accounting – Expenditures reported on the schedule of expenditures of federal awards are reported on the accrual basis of accounting. Such expenditures are recognized following the cost principles contained in the Uniform Guidance; wherein certain types of expenditures are not allowable.

Indirect Cost Rate – GTRC, GTARC, and GIT have elected not to use the 10% de minimis indirect cost rate as allowed under the Uniform Guidance.

Negative Expenditures – Negative expenditures reported in the schedule of expenditures of federal awards may be the result of a correction of an expenditure which was originally posted in a prior fiscal year, such as the recording of a refund for goods or services not received. Although the current expenditures on a grant may be negative, the total of all expenditures on the grant is expected to be positive over its entire period of performance.

Note 2—Federal assistance listing numbers

Federal assistance listing numbers ("ALN") that are available for each federal award program are indicated on the schedule of expenditures of federal awards.

Note 3—Student financial aid expenditures

Expenditures for student financial aid programs include the Federal Pell grants to students, the federal share of students' Federal Supplemental Educational Opportunity Grant (FSEOG) program grants, the Federal Work Study (FWS) program earnings, certain other federal financial aid for students, and administrative cost allowances, where applicable. During the fiscal year ended June 30, 2023, GIT disbursed \$65,106,298 in new loans under the Federal Direct Student Loan Programs which included Federal Stafford Loans and Federal PLUS loans. The Federal Perkins Loan Program is administered directly by GIT and balances and transactions relating to the program are included in GIT's financial statements. During the fiscal year ended June 30, 2023, GIT did not disburse new loans under the Federal Perkins Loan Program as under federal law, the authority for schools to make new Perkins Loans ended on Sept. 30, 2017. The balance of loans outstanding under the Federal Perkins Loan Program was \$2,645,908 as of June 30, 2023.

Note 4—Contingencies

These award programs are subject to financial and compliance audits by grantor agencies. The amount, if any, of expenditures that may be disallowed by the grantor agencies cannot be determined at this time, although GTRC, GTARC, and GIT expect such amounts, if any, to be immaterial.

YEAR ENDED JUNE 30, 2023

Note 5—Higher Education Emergency Relief Fund (Federal Assistance Listing Number 84.425)

The Coronavirus Aid, Recovery, and Economic Security Act created a Higher Education Emergency Relief Fund ("HEERF") to provide financial relief to students and institutions who were impacted by the COVID-19 pandemic. The Coronavirus Response and Relief Supplemental Appropriations Act and the American Rescue Plan provided additional rounds of HEERF (II and III) funding. HEERF funding contained three components, an institutional award, a student aid award, and a strengthening institutions award.

The following cumulative amounts have been awarded under HEERF as of June 30, 2023:

	Student		Ir	Institutional		
	P	Portion		Portion		Total
HEERFI	\$	5,194,039	\$	5,194,038	\$	10,388,077
HEERF II		5,194,039		11,269,068		16,463,107
HEERF III	1	4,177,162		14,097,371		28,274,533
	\$2	24,565,240	\$	30,560,477	\$	55,125,717

GIT expended the following amounts under HEERF during the year ended June 30, 2023:

	dent tion	titutional Portion	 Total
HEERF I HEERF II	\$ -	\$ -	\$ -
HEERF III	 	 118,596	 118,596
	\$ -	\$ 118,596	\$ 118,596

YEAR ENDED JUNE 30, 2023

I. Summary of the Auditor's Results

Financial Statements – Georgia Tech Research Corporation and Georgia Tech Applied Research Corporation

The auditor's reports, dated September 15, 2023, express unmodified opinions on whether the financial statements of Georgia Tech Research Corporation and Georgia Tech Applied Research Corporation were prepared in accordance with generally accepted accounting principles ("U.S. GAAP").

No significant deficiencies were disclosed during the audit of the financial statements of Georgia Tech Research Corporation or Georgia Tech Applied Research Corporation. No material weaknesses are reported.

No instances of noncompliance material to the financial statements of Georgia Tech Research Corporation and Georgia Tech Applied Research Corporation, which would be required to be reported in accordance with *Government Auditing Standards*, were reported as a result of those audits.

Financial Statements – Georgia Institute of Technology

The State of Georgia Department of Audits and Accounts' audit report, dated December 14, 2023, expresses an unmodified opinion on whether the financial statements of Georgia Institute of Technology were prepared in accordance with U.S. GAAP.

No significant deficiencies or material weaknesses were disclosed during the audit of the financial statements of Georgia Institute of Technology in the Report of Independent Auditor on Internal Control over Financial Reporting and on Compliance and Other Matters Based on an Audit of the Financial Statements Performed in Accordance with *Government Auditing Standards* issued by the state of Georgia Department of Audits and Accounts dated December 14, 2023.

No instances of noncompliance material to the financial statements of Georgia Institute of Technology, which would be required to be reported in accordance with *Government Auditing Standards*, were reported as a result of the state of Georgia Department of Audits and Accounts audit for the year ended June 30, 2023.

Federal Awards

The auditor's report on compliance for the major federal award programs for Georgia Tech Research Corporation, Georgia Tech Applied Research Corporation, and Georgia Institute of Technology expresses an unmodified opinion on all major programs.

A finding identified in a Georgia Institute of Technology's Department of Internal Audit fiscal year 2022 audit report is reported as a significant deficiency in internal control over major federal award programs in the Report of Independent Auditor on Compliance for Each Major Program and on Internal Control over Compliance Required by the Uniform Guidance. No material weaknesses were reported.

Audit findings that are required to be reported in accordance with 2 CFR Section 200.516(a) are reported in the schedule of findings and questioned costs.

YEAR ENDED JUNE 30, 2023

I. Summary of the Auditor's Results (Continued)

Identification of Major Programs

The programs tested as a major program were:

Federal Assistance Listing Number Name of Federal Program

Various

Research and Development Cluster

The dollar threshold for Type A programs was \$3,698,210.

The auditee did qualify as a low-risk auditee.

II. Financial Statement Findings

Financial Statement Finding – Georgia Tech Research Corporation and Georgia Tech Applied Research Corporation

None reported.

Financial Statement Finding – Georgia Institute of Technology

None reported.

YEAR ENDED JUNE 30, 2023

III. Federal Award Findings and Questioned Costs

Georgia Institute of Technology's ("GIT" or the "Institute") Department of Internal Audit performed an audit on the subcontract, subaward, and subrecipient monitoring process for active subawards related to the fiscal year ended June 30, 2022.

The following finding and related recommendations resulted from their procedures.

Finding #:	2023-001 Subrecipient monitoring
Federal Agencies:	Various
Federal Program:	Research and Development Cluster
Federal Assistance Listing Number:	Various

Compliance Requirement: Subrecipient Monitoring

Conditions: GIT's Department of Internal Audit reported, based on its audit on the subcontract, subaward, and subrecipient monitoring process for active subawards related to the fiscal year ended June 30, 2022, the following conditions:

- Lack of written procedures in compliance with 2 CFR § 200.302 and § 200.303.
- Lack of processes and procedures to ensure compliance with the Institute's Research 5.3 Subrecipient Monitoring policy.
- Non-compliance with 2 CFR § 200.332, which mandates Single Audit monitoring procedures, standards, requirements, and subsequent risk monitoring procedures.

Criteria:

- Uniform Guidance 2 CFR § 200.302 Financial Management
- Uniform Guidance 2 CFR § 200.303 Internal Controls
- Uniform Guidance 2 CFR § 200.332 Requirements for pass-through entities
- Uniform Guidance 2 CFR § 200.403 Factors affecting allowability of costs
- Uniform Guidance 2 CFR § 200.405 Allocable costs
- Uniform Guidance 2 CFR § 200.415 Required certifications
- Uniform Guidance 2 CFR § 200.501 Audit Requirements
- Institute's Research 5.3 Subrecipient Monitoring Policy
- Institute's Administrative Business and Finance Grants and Contracts Accounting Policy 3.4 Allowable Expenses

Cause:

- Lack of effective written procedures and controls, as required by 2 CFR § 200.302 and § 200.303, to
 ensure management of the individual responsibilities and functions of the subrecipient monitoring process
 and overall program compliance.
- Lack of compliance with Institute policy regarding oversight by the Office of Sponsored Programs ("OSP") to ensure compliance for all established federal rules and regulations per 2 CFR § 200.332 as part of the subrecipient monitoring process which is the responsibility of OSP.
- Lack of effective policies, procedures, and internal control measures to ensure invoices are reviewed and all required supporting documentation is both received and meets the established standards to support payments.
- Lack of effective policies, procedures, and control measures to ensure that Uniform Guidance audit reports were adequately reviewed and documented.

YEAR ENDED JUNE 30, 2023

III. Federal Award Findings and Questioned Costs (continued)

- Lack of sufficient training of staff to ensure thorough knowledge of all laws, rules, and regulations governing the processing of invoices associated with the expenditure of federal funds and Single Audit requirements and its impact on award monitoring procedures and risk assessment impacts.
- Lack of a documented procedures and oversight to follow up on audit reports and findings.

Effect: Subrecipients expenditures may not be in compliance with federal or grant award provisions.

Recommendation:

- Document written procedures, with clearly defined roles and responsibilities, for all programs and functions covered by the subrecipient monitoring process and perform annual reviews to ensure established procedures are adequate to address identified risks and meet all standards necessary to ensure compliance with all applicable federal, state, and Institute rules, regulations, and requirements.
- Ensure all employees engaged in the subrecipient monitoring process are aware of established policies and procedures (as well as any revisions made) and are trained on how to properly meet and apply the standards established through clearly defined standard operating procedures ("SOP").
- Improve communication and collaboration among Grants and Contracting, Unit Finance Officers, Principal Investigators ("PI"), and OSP, to establish comprehensive policies and procedures that clearly define the individuals' roles and responsibilities for each section and to include quarterly meetings for key personnel responsible for the subrecipient monitoring as identified in the applicable Institute policies. Further, incorporate and enforce the Institute's Research 5.3 Subrecipient Monitoring policy to establish required reviews with reporting requirements to OSP and the individual PIs.
- Establishment of individual section SOPs to clearly define the individual responsibilities to achieve those
 roles identified in established procedures to ensure compliance with Institute policies. Additional training
 to be completed at least annually to cover regulatory requirements and certification for individuals
 responsible for the verification and approval of allowable costs.
- Develop, implement, and document procedures for an initial and annual review of all applicable audit reports going forward as part of ongoing subrecipient monitoring. Ensure all documentation requirements and evidence of review of audit reports for subrecipients meet all regulatory requirements.
- Ensure the "Subrecipient A-133 Audit Certification Form" is only used as a tool to verify the potential for a Single Audit requirement and for those who do not require a Uniform Guidance audit, request alternative audit reports (i.e., DCAA/DCMA audit, third party financial audit, etc.) or consider reviewing financial statements or administering audit questionnaires.
- Effective annual training requirements and certifications for individuals responsible for the verification of single audits to include how to accurately review financial statements and incorporate into a risk assessment.

Management's Response:

Management agrees with the finding. See management's corrective action plan.

Corrective Action Plan

See attached management's corrective action plan.

YEAR ENDED JUNE 30, 2023

IV. Prior Year Findings

Finding 2022-001 Lack of documentation related to verification of suspension and debarment

Condition: Documentation was not maintained to evidence Georgia Institute of Technology's compliance with the federal regulation that prior to transacting with a non-federal entity verification was performed to ensure the entity was not suspended or debarred.

Current Status: Finding was resolved.

Georgia Institute of Technology

January 24, 2024

SINGLE AUDIT TASK LIST

MANAGEMENT'S CORRECTIVE ACTION PLAN

Finding 2023-001 – Subrecipient Monitoring

Management agrees that during the period under review, July 1, 2021, to June 30, 2022, written procedures were not sufficiently well defined, as they did not address the specific steps necessary for carrying out federal requirements for subrecipient monitoring and processes for annual evaluation of subrecipients. During the period under review, the Office of Sponsored Programs (OSP) Subrecipient team was growing and working to address backlogs and gaps in internal controls. Subsequently, more detailed written procedures were put in place and Management reviewed policies and procedures to ensure appropriate assignment of duties and communication of those duties, including the specific steps required. Management is also addressing a lack of clarity related to OSP's oversight role in the subrecipient monitoring process. OSP is responsible for ensuring the Institute's Subrecipient Monitoring and Management policies are sufficient for the Institute to fulfill its responsibilities for compliance with sponsor requirements, but other offices and individuals have responsibility for other components of ensuring compliance with federal rules and regulations applicable to the subrecipient monitoring process.

Management further agrees that during the period under review, July 1, 2021, to June 30, 2022, OSP did not ensure compliance with the Institute's policies Research 5.3 Subrecipient Monitoring and Administrative Business and Finance Grants and Contracts Accounting (G&CA) 3.4 Allowable Expenses. Policy 5.3 Subrecipient Monitoring required review of each subawardee's expenditures and G&CA Policy 3.4 Allowable Expenses required quarterly allowable cost compliance reviews, which Internal Audit also interpreted as a requirement for review of each subawardee's expenditures. Federal requirements for subrecipient monitoring recognize, however, that it is impractical and unproductive for research organizations that are subject to the same federal requirements, including for internal controls and audits, to monitor and review each other's expenditures in detail. Instead, pass-through entities are required to evaluate the risk of subrecipient non-compliance to determine appropriate subrecipient monitoring monitoring and may "Consider imposing specific subaward conditions upon a subrecipient if

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appropriate as described in § 200.208." (2 CFR 200.332 (c)). 2 CFR 200.208(b) allows the pass-through entity to impose additional subaward conditions "as needed...based on an analysis",

including "Requiring additional, more detailed financial reports" (2 CFR 200.208(c)(3). There is no federal requirement for a pass-through entity to require and review "detailed financial reports", absent an analysis determining that additional conditions should be imposed.

Further, OSP did not obtain sufficient evidence of every subawardee's risk of non-compliance, throughout each period of performance, to rely on the subawardee's internal controls and audits. OSP has worked with stakeholders to review and revise the Institute's Subrecipient Monitoring policy to ensure appropriate stewardship of funds. This includes clarifying roles and responsibilities and modifying requirements that duplicate other internal controls and/or are not federal, state, USG, or sponsor requirements. In compliance with federal requirements, the policy will require OSP to analyze each subrecipient's risk of non-compliance and monitor that risk throughout the life of the project so that the internal controls of low risk subrecipients can be relied on to ensure only charges that are allowable, allocable, reasonable and consistently treated are included in their invoices. The Georgia Tech Research Institute (GTRI) has specific procedures to address the cost principles it follows and the requirements common to its sponsors, which it clearly communicates to responsible personnel. OSP and G&CA will develop and communicate standard instructions for PI and unit review of subrecipient invoices for units other than GTRI. These instructions will be enhanced, as needed, to include a detailed review of expenditures when the subrecipient is other than low risk and OSP has documented as part of its risk analysis that this review is the most appropriate means of mitigating risk. OSP will also consider alternate or additional subaward conditions appropriate for the assessed risk-level of the subawardee as described in 2 CFR 200 section 332(e) and 208(c). Instructions will include communication of subawardee requirements that OSP has included in the subaward due to the risk assessment or conditions of the prime award and for which the PI and/or unit has some responsibility. OSP will continue to monitor subawardee invoices to ensure charges were within the period of performance or, if relevant, preaward spending was authorized. G&CA will work with stakeholders to review and revise the Institute's Administrative Business and Finance G&CA Policy 3.4 Allowable Expenses and related procedures to ensure they enable appropriate stewardship of funds without dictating more subrecipient expenditure review than is either

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required by our sponsors or determined to be appropriate by the Institute's risk assessment process.

GTRI provides appropriate training to its personnel responsible for requirements of Subrecipient Monitoring. OSP and G&CA will provide continuous training to other personnel responsible for requirements of Subrecipient Monitoring.

Target Date for Implementing Corrective Action: By March 31, 2024

Name and Title of Employee(s) Responsible for Implementing Corrective Action: *Cynthia Hope, Associate Vice President – Research Administration Josh Rosenberg, Executive Director – Grants and Contracts*

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Cynthia Hope, Associate Vice President Research Administration

DocuSigned by: Joshua Rosenberg BA564220C324479...

Josh Rosenberg, Executive Director Grants and Contracts

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