

UNIVERSITY OF SOUTH CAROLINA
SINGLE AUDIT REPORT
YEAR ENDED JUNE 30, 2022



CPAs | CONSULTANTS | WEALTH ADVISORS

[CLAconnect.com](https://www.CLAconnect.com)

**UNIVERSITY OF SOUTH CAROLINA
TABLE OF CONTENTS
YEAR ENDED JUNE 30, 2022**

INDEPENDENT AUDITORS' REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH <i>GOVERNMENT AUDITING STANDARDS</i>	1
INDEPENDENT AUDITORS' REPORT ON COMPLIANCE FOR EACH MAJOR FEDERAL PROGRAM AND REPORT ON INTERNAL CONTROL OVER COMPLIANCE REQUIRED BY THE UNIFORM GUIDANCE	3
SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS	6
NOTES TO SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS	33
SCHEDULE OF FINDINGS AND QUESTIONED COSTS	35



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

Board of Trustees
University of South Carolina
Columbia, South Carolina

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 the aggregate discretely presented component units of the University of South Carolina (the University), a component unit of the State of South Carolina, as of and for the year ended June 30, 2022, and the related notes to the financial statements, which collectively comprise the University's basic financial statements, and have issued our report thereon dated September 30, 2022.

The financial statements of the School of Medicine Educational Trust; the Beaufort-Jasper Higher Education Commission; the USC Development Foundation; the USC Educational Foundation; the USC Business Partnership Foundation; the Greater USC Alumni Association; the USC Upstate Foundation and Supporting Organization; the Educational Foundation of USC Lancaster; and the Gamecock Club of USC, the discretely presented component units, were not audited in accordance with *Government Auditing Standards* and accordingly this report does not include reporting on internal control over financial reporting or reportable noncompliance associated with the discretely presented component units.

Report on Internal Control Over Financial Reporting

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

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

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies and therefore, material weaknesses or significant deficiencies may exist that were not identified. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. We identified a certain deficiency in internal control, described in the accompanying schedule of findings and questioned costs as item 2022-001 that we consider to be a significant deficiency.

Report on Compliance and Other Matters

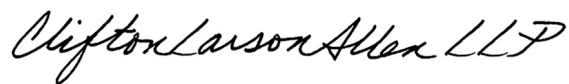
As part of obtaining reasonable assurance about whether the University’s financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material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

University’s Response to Findings

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

Purpose of This Report

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



CliftonLarsonAllen LLP

Charlotte, North Carolina
September 30, 2022



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

Board of Trustees
University of South Carolina
Columbia, South Carolina

Report on Compliance for Each Major Federal Program

Opinion on Each Major Federal Program

We have audited University of South Carolina (the University)'s compliance with the types of compliance requirements identified as subject to audit in the OMB *Compliance Supplement* that could have a direct and material effect on each of the University's major federal programs for the year ended June 30, 2022. The University's major federal programs are identified in the summary of auditors' results section of the accompanying schedule of findings and questioned costs.

In our opinion, the University complied, in all material respects, with the 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, 2022.

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 (GAAS); 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 Auditors' Responsibilities for the Audit of Compliance section of our report.

We are required to be independent of the University 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 University'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 University's federal programs.

Auditors' 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 University'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 GAAS, *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 University's compliance with the requirements of each major federal program as a whole.

In performing an audit in accordance with GAAS, *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 University'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 University'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 University'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.

Report on Internal Control Over Compliance

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

Our consideration of internal control over compliance was for the limited purpose described in the Auditors' 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. Given these limitations, during our audit we did not identify any deficiencies in internal control over compliance that we consider to be material weaknesses, as defined above. However, material weaknesses or significant deficiencies in internal control over compliance may exist that were not identified.

Our audit was not designed for the purpose of expressing an opinion on the effectiveness of internal control over compliance. Accordingly, no such opinion is expressed.

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

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

We have audited the financial statements of the business-type activities and the aggregate discretely presented component units of the University as of and for the year ended June 30, 2022, and the related notes to the financial statements, which collectively comprise the University's basic financial statements. We have issued our report thereon, dated September 30, 2022, which contained unmodified opinions on those financial statements. Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the basic financial statements. The accompanying schedule of expenditures of federal awards is presented for purposes of additional analysis as required by the Uniform Guidance and is not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the schedule of expenditures of federal awards is fairly stated in all material respects in relation to the basic financial statements as a whole.



CliftonLarsonAllen LLP

Charlotte, North Carolina
March 14, 2023

**UNIVERSITY OF SOUTH CAROLINA
SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS
YEAR ENDED JUNE 30, 2022**

Federal Grantor/Pass-Through Grantor/ Program or Cluster Title	Federal Assistance Listing Number	Grant Number	Passed Through to Subrecipients	Total Federal Expenditures
RESEARCH AND DEVELOPMENT CLUSTER				
U.S. Department of Agriculture				
Molecular Basis of Xenobiotic Metabolism and Resistance in <i>Tetranychus urticae</i>	10.310	2020-67014-31179	\$ 101,995	\$ 226,167
Identification and Characterization of the <i>Culicoides</i> Small Non-coding RNA Transcriptions	10.001	58-3020-1-009	-	10,000
Linkages between nutritional outcomes and food and nutrition security	10.250	58-4000-1-0084	-	23,196
Video Representation of NRCS Conservation Practices and Standards	10.912	NR204639XXXXC005	-	50,383
Evaluate, Quantify, and Share Benefits and Outcomes of Soil Health Management Systems	10.902	NR214639XXXXC001	-	76,395
Strategic Planning toward Regenerative Farming for Small Producers	10.912	NR214639XXXXC004	-	61,988
Pass-Through Programs from:				
Clemson University				
Southern Heritage Crops: Developing Economic Potential in a Geographically and Culturally Unique Market Niche for Small and Medium - Sized Farms	10.310	20206800631266/22132072013923	-	1,774
Field Schools and Bus Tours to support 'Advanced Soil Health Training for South Carolina Agriculture Professionals' Proposal for SARE PDP	10.215	2147-215-2013447	-	1,988
Kansas State University				
Advancing Environmental Sustainability Knowledge and Skills of the FANH Sciences Workforce in Hospitality and Retail Industries	10.217	2021-70003-35430 / A22-0208-5001	-	14,499
University of Georgia				
Gullah/Geechee Agro-Culture: Sustaining culture to sustain agriculture in the Lowcountry	10.215	SUB00002606 / 2020-38640-31521	40,381	100,502
University of North Carolina at Charlotte				
Computational Framework for Prediction of Geographical and Temporal Incidence of Mycotoxins in US Crop Fields	10.310	20190583-01-USC	-	5,698
Total U.S. Department of Agriculture			142,376	572,590
U.S. Department of Commerce				
Evaluation of molecular analysis to identify and quantify ichthyoplankton samples	11.RD	1305M218PNFFN0048	-	51,538
Building Adaptive Capacity in the Carolinas: The Carolinas Integrated Sciences & Assessments (CISA) Program	11.431	NA16OAR4310163	148,443	608,928
Novel Approaches to Age Validation in Data-Poor U.S. Caribbean Reef Fishes	11.427	NA18NMF4270203	10,741	16,053
Conservation Genomics and Caribbean Fisheries Management: Stock Structure and Connectivity of Four Parrotfish Species and the Role of MPAs as Recruitment Sources & Filling Critical Life History Information Gaps of Data-Poor Fisheries in U.S. Caribbean Waters: Age, Growth, and Reproduction of Queen Triggerfish and Four Species of Parrotfish	11.433	NA18NMF4330239_NA15NMF4330157	51,455	132,492
The North Inlet-Winyah Bay National Estuarine Research Reserve	11.420	NA18NOS4200009	-	11,842
The North Inlet-Winyah Bay National Estuarine Research Reserve	11.420	NA19NOS4200069	44,000	101,910
Support of the National Estuarine Research Reserve System Centralized Data Management Office and Enhancements to the System-Wide Monitoring Program	11.420	NA19NOS4200105	-	78,553
Shoals and Shipwrecks: Archaeological Explorations off Port Royal Sound, South Carolina	11.011	NA19OAR0110304	-	30,388
Utilizing Drought Forecasts to Develop Decision Calendars for Reoperation of California's Hydroelectric Reservoir Systems and Managed Aquifer Recharge	11.431	NA19OAR4310371	37,968	48,904
North Inlet Winyah Bay NERR FY20 annual operations award proposal	11.420	NA20NOS4200030	-	43,511
Research to operationalize the use of UAS in wetland monitoring in support of the NOS/NERRS science mission	11.478	NA20NOS4780216	-	13,039
Pass-Through Programs from:				
Caribbean Fisheries Management Council				
Lane Snapper: Filling in Critical Gaps for Life History Parameters in U.S. Caribbean Waters	11.441	2021-014	-	23,809
E4 Carolinas, Inc.				
Advanced Nuclear Technologies Research, Development and Planning Project	11.RD	U00030393	-	13,487
Georgia Institute of Technology				
Maryville Coastal Wetland Restoration and Community Resiliency	11.473	0318.19.066115_NA19NOS4730148	-	44,815
National Ocean Service				
North Inlet-Winyah Bay NERR: Climate Vulnerability Web Application Development	11.008	NA21NOS0080191	20,500	30,545
North Inlet-Winyah Bay National Estuarine Research Reserve FY21 Operations Award	11.420	NA21NOS4200039	-	592,682
National Oceanic and Atmospheric Administration				
Continuing Operational support of the National Estuarine Research Reserve System Centralized Data Management Office and Enhancements to the System-Wide Monitoring Program	11.420	NA20NOS4200203	-	357,078
Operational Support of the National Estuarine Research Reserve System Centralized Data Management Office and Enhancements to the System-Wide Monitoring Program	11.420	NA21NOS4200116	26,029	169,907
Addressing Geographical and Social Diversity in Heat-Health Messaging	11.468	NA22NWS4680004	-	950
NC Department of Environmental Quality				
Bridging the gap between quadrats and satellites: assessing utility of drone-based imagery to enhance emergent vegetation biomonitoring	11.419	NA19NOS4190058 CW18050	-	19,487
NC State University				
Creating ShellBase: The Southeast Shellfish Water Quality Database	11.012	2021-1679-01 / NA16NOS0120028	-	8,472
SC Sea Grant Consortium				
SC Sea Grant Consortium - ROI Analysis	11.417	10011200	-	25,000
Creating a GIS-Based Siting Tool for South Carolina Mariculture Site Selection	11.417	A/AQUA20-1a	-	10,397
Get Hurricane Smart: Centering Youth as Ambassadors of Community Hurricane Resilience	11.417	NA18OAR4170091 / M/PM-2B	-	8,380
Evaluating nitrogen removal strategies to improve stormwater management practices in coastal South Carolina	11.417	NA18OAR4170091 / R/ER-53	-	15,371
Studying How Things Fall Apart: Exploring Municipal Services System Failures to Help Develop Science-Based Decision-Points in South Carolina Coastal Communities	11.431	NA21OAR4310271 / R/CPO21-1b	-	35,413
Guiding Successful Applications of Floating Treatment Wetlands in Brackish Coastal Ponds	11.417	NA22OAR4170114 / R/CG-7	-	6,600

See accompanying Notes to Schedule of Expenditures of Federal Awards.

**UNIVERSITY OF SOUTH CAROLINA
SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS (CONTINUED)
YEAR ENDED JUNE 30, 2022**

Federal Grantor/Pass-Through Grantor/ Program or Cluster Title	Federal Assistance Listing Number	Grant Number	Passed Through to Subrecipients	Total Federal Expenditures
RESEARCH AND DEVELOPMENT CLUSTER (CONTINUED)				
U.S. Department of Commerce (Continued)				
Pass-Through Programs from:				
SE Coastal Ocean Observing Regional Association				
Supporting Resilient Ecosystems, Communities and Economies: Integrated Decision Support and Management Tools for Adaptive Public Health Practices: An Early Warning System for Swimming	11.012	IOOS.16(028)USC.DP.MOD.1	\$ 12,467	\$ 42,002
Supporting Resilient Ecosystems, Communities and Economies: Operate and Maintain University of South Carolina IOOS Priority High Frequency Radars in SECOORA	11.012	IOOS.16(028)USC.GV.OBS.1	-	15,282
Integrated Decision Support and Management Tools for Adaptive Public Health Practices: An Early Advisement and Reporting System for Recreational and Shellfish Harvesting Waters of the Southeast	11.012	IOOS.21(097)USC.DP.MOD.1	21,083	56,153
WebCOOS: Development and Transfer of an Operational Situational Monitoring and Reporting System	11.022	NA20NOS0120220	-	84,171
Delivering actionable coastal and ocean information from high-quality science and observations for the Southeast	11.012	NA21NOS0120097	-	14,389
Partnering to meet the needs of coastal communities for actionable information to protect lives and property: SC HF Radar	11.012	NA21NOS0120097	-	94,874
Understanding baseline rhythms of biological sounds and correlations to traditional biodiversity measurements to support long-term sustainable monitoring	11.012	OOS.16(028)USC.EM.SOUND.5	-	35,927
The University of Texas at Austin				
Listen In: Acoustic Monitoring of Estuarine Communities Facing Ecosystem Change	11.419	NA19NOS4190058_UTA20-001035	-	(3,840)
Listen In: Acoustic Monitoring of Estuarine Communities Facing Ecosystem Change	11.419	NA19NOS4190058_UTA20-001036	-	6,002
University Corporation for Atmospheric Research				
Drought Planning in the Southeast United States: An Assessment of State Approaches, Planning Needs and Gaps, and Opportunities for the Southeast Drought Early Warning System	11.431	NA18OAR4310253B	-	18,455
University of Michigan				
Integrating climate change effects into ecosystem-based fisheries management: Penaeid shrimp in the southeast US	11.419	NA19NOS4190058	-	12,614
Total U.S. Department of Commerce			372,686	2,875,580
U.S. Department of Defense				
Predictive Sensing of Aerospace Composite Structures	12.800	FA9550-16-1-0401	-	23,172
Real-Time Edge Computing in Structures Experiencing Shock	12.800	FA9550-20-1-0362	-	86,087
Real-time Model Updating for Structures in Shock Environments	12.800	FA9550-21-1-0083	-	112,530
Context-Aware Data Security for the Internet of Things (IoT)	12.905	H98230-20-1-0367	-	82,923
Highly Effective Computational Methods in Geomagnetic Field Modeling	12.630	HMD04761812002	-	130,471
South Coast Regional Cybersecurity Education and Development Program	12.617	HQ00052110014	232,176	832,784
Processing and Inventory of Charlesfort/Santa Elena Archaeological Records and Collections	12.RD	M0026321P0013	-	10,000
MCRD Parris Island Artifact Curation	12.RD	M0026321P0029	-	42,288
Response of the Bay of Bengal to the Atmospheric Intraseasonal Oscillations	12.300	N00014-17-1-2468	-	102,964
The Pre and Post of Hardware in the Loop Experiments for Power Electronic Power Distribution Systems	12.300	N00014-19-1-2060	-	107,890
Circulation Changes in the Arctic Ocean and Subarctic Seas and their Connections to the Global Ocean and Climate	12.300	N00014-20-1-2680	-	22,422
Influence of Mesoscale and Submesoscale Eddy Structures on the Arabian Sea Mixed Layer Dynamics	12.300	N00014-20-1-2742	-	56,888
Enhancing the Preparation of Next-generation Cyber Professionals through a Hands-on Academic Program, Undergraduate Research Experiences, and Community Partnerships	12.330	N00014-20-1-2797	-	126,010
Discretized Energy Control	12.300	N00014-21-1-2093	-	166,996
Hybrid physics-based AI-enabled crack-length estimation from AE signal signatures	12.300	N00014-21-1-2212	-	220,678
Digital Twins for Navy Power and Energy Systems (NPES)	12.300	N00014-22-C-1003	730,000	946,011
Reliable Perception For Unmanned Maritime Systems	12.RD	N00014-22-C-1011	491,000	554,534
Distributed Condition Prognostics System for Navy Shipboard Machinery	12.300	N000174-17-1-0006	-	83,521
Toward Fully Electrically Reconfigurable Communication System	12.300	N00174-19-1-0015	-	10,573
Understanding Gut-Microbiome links to Gulf War Illness persistence and development of gut-dysbiosis targeted therapy	12.420	W81XWH1810374	84,752	104,467
TP53 Synthetic Lethal Screen in Organoid Avatars to Discover Novel Therapeutic Targets for Colon Cancer	12.420	W81XWH1910847	-	(3,461)
Teriparatide: Stress FracTure Recovery for ReturNinG to Duty (Teriparatide: STRONG)	12.420	W81XWH1920051	4,457	175,707
Dysregulation of eIF2 alpha pathway in drug-induced dystonia (DID) and inherited dystonia 16 (DYT16): testing novel therapeutic interventions.	12.420	W81XWH2210526	-	4,305
Optimal Functionally Graded Cellular Materials (FGCMs) to Mitigate Shock and Impact Loading	12.431	W911NF-18-1-0023	-	22,752
High Efficiency Micro/Nano-pillar UVC Light Emitting Diodes	12.431	W911NF-18-1-0029	-	15,431
How Inequality and Segregation Shape (and are Shaped by) Cooperation and Collective Action	12.431	W911NF1910281	26,752	83,825
E-beam Sub-micron Lithography System for Integrated UVC Applications	12.431	W911NF2010180	-	89,426
Order in Atom Columns-Imaging Beyond the Virtual Crystal Approximation	12.431	W911NF2010318	-	502,252
Processing-Structure-Property Relationships in Ultrahigh Molecular Weight Polyethylene (UHMWPE) Film Composites	12.431	W911NF2020231	-	97,523
Development of AlxGa1-xN Multiple Quantum Well UVC Laser Structures over Pulsed Lateral Epitaxially Overgrown Low-defect density AlN templates	12.431	W911NF2110217	-	94,072
Chemical Functional Group Approach for Low-Temperature Oxidation of Liquid Fuels	12.431	W911NF2110306	-	496,824
Understanding Fundamental Ionic Storage Mechanisms in Atomic Layers of Transition Metal Oxides for Next-Generation Zn-ion Batteries	12.431	W911NF2110308	-	384,815
Development of Electrically Pumped AlxGa1-xN Based UVB-C Laser Structures over Low-defect density AlN	12.431	W911NF2210041	-	68,038
The Use of Biopolymers to Strengthen Earthen Infrastructure	12.RD	W912H221C0067	-	299,505

See accompanying Notes to Schedule of Expenditures of Federal Awards.

**UNIVERSITY OF SOUTH CAROLINA
SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS (CONTINUED)
YEAR ENDED JUNE 30, 2022**

Federal Grantor/Pass-Through Grantor/ Program or Cluster Title	Federal Assistance Listing Number	Grant Number	Passed Through to Subrecipients	Total Federal Expenditures
RESEARCH AND DEVELOPMENT CLUSTER (CONTINUED)				
U.S. Department of Defense (Continued)				
Pass-Through Programs from:				
Advent Innovation Limited Company				
Ensemble Feature Extraction (EFEX) Algorithms and Software for Machine Fault Classification	12.RD	FA857120C0016	\$ -	\$ 6,381
Air Force Research Laboratory				
Efficient visual processing by molluscs with distributed sensor arrays and less-centralized nervous systems	12.630	FA8651-22-1-0008	-	10,952
Atomic-6				
Phase I: Hypersonics	12.RD	FA864922P0552	-	7,956
Next Generation Carbon Fiber Composites for Aircraft	12.RD	U00029990	-	15,000
AFWERX/AFRL Phase II Contract for AFRL Space Vehicles Directorate	12.RD	U00030976	-	20,398
Battelle Memorial Institute				
MOC3HA - Manufacturing of Carbon-Carbon Composites for Hypersonic Applications	12.RD	05174/PO#U5001-0000805174	-	146,855
Brown University				
Fractional PDEs for Conservation Laws and Beyond: Theory, Numerics and Applications	12.431	00001032	-	32,804
Fractional PDEs for Conservation Laws and Beyond: Theory, Numerics and Applications	12.431	Subaward No. 00000851	-	123,109
Carnegie Mellon University				
Near Real Time Assessment of Emergent Complex Systems of Confederates	12.300	1141302-385716	-	63,372
CFD Research Corporation				
A Design Automation Tool for Integrated Nanophotonics based on Compact Modeling and Model Order Reduction	12.RD	20160865	-	2,028
A Plug-and-Play (PnP) Tool based on in-site Adaptive Neural Network Models for Real-Time Monitoring and Control of Mechanical Systems	12.RD	20190772 W9110X-20-C-0005	-	269,001
Transient CFD- and Model Order Reduction-based Solver for Rapid Thermal Signature Prediction	12.RD	20200414 W56HZV-20-C-0086	-	204,669
A Simulation Framework of Multi-objective Evolutionary Algorithms and Surrogate-based Optimization for Guided Weapon Design	12.RD	FA8651-20-C-0017	-	32,006
A Framework for Embedded Statistical Model Validation and Guided Data Collection	12.RD	HQ0860-22-C-7506 / 0000001445	-	27,661
Chromologic				
Oxygen Generation for Deployed Army Casualty Care	12.RD	CLMSA2021-004	-	7,085
Clemson University				
Time for Robotics-Technology in Manufacturing Education for Robotics	12.300	2072-202-2012941	-	34,258
Cornell University				
The Soldier-to-Veteran Transition: A Study of High Risk Behavior	12.420	80583-11224	-	35,015
Defense Threat Reduction Agency				
Societal Impact of Nuclear Detonations Phase 2	12.RD	W15QKN-18-9-1004/S-D00183-04	-	53,902
Directed Vapor Technologies Internation				
High Friction Ballistic Fibers for Improved Ballistic Protection	12.RD	D0168-01	-	(21,704)
Florida State University				
Electric Ship Research and Development Consortium (ESRDC) 2021 – 2025	12.300	N00014-21-1-2124 R000002834	-	4,359
Training Future Navy Workforce II	12.300	N00014-22-1-2117 / R000002980	-	2,573
Electric Ship Research and Development Consortium (ESRDC) 2021 – 2025	12.300	R000002834	-	238,316
Electric Ship Research and Development (ESRDC FY17-21)	12.300	R01851	-	566,883
ESRDC – Support for Undergraduate Research Participants	12.300	R02120 & N00014-19-1-2346	-	14,774
Georgia Institute of Technology				
Leveraging a New Theoretical Paradigm to Enhance Interfacial Thermal Transport In Wide Bandgap Power Electronics	12.300	SUB# AWD-102036-G2	-	179,806
Georgia Southern University				
Jekyll Creek Thin Layer Placement Evaluation and Analysis of Ecosystem Response	12.630	39G9579-001	-	943
Hitron Technologies				
Phase II: Remote Egg-oiling System with Autonomous and Automated Target Object Identification for Nuisance Bird Management	12.RD	N68335-21-C-0069	-	61,343
Louisiana State University				
Developing Composite Time Series Restoration Trajectories in Salt Marsh Habitat	12.630	W912HZ-19-2-0034	-	18,971
Morgan State University				
Cubic Boron Nitride: A New Extreme Semiconductor by Ion-Beam Assisted Chemical Vapor Deposition	12.800	PO# P0019967	-	64,318
National Science Teachers Association				
USC Junior Science and Humanities Symposium	12.630	727325/W911SR-15-2-0001	-	10,688
Navatek, LLC				
Digital Twin Technology for Navy P&E Systems	12.300	SCN09741 10047-00001-0001-0008	176,500	1,734,117
Northeastern University				
Beyond the Cultural Horizon: Mapping Relational Norms Within Social Networks	12.431	504082-78050	-	23,408
Piasecki Aircraft Corporation				
Fuel Cell System Modeling for Electrical Helicopter SBIR	12.RD	AF211-DCS01/86546	-	40,000
Fuel Cell System Modeling STTR	12.RD	PO#85962 FA864921P0131	-	16,179
Raytheon Technologies				
Raytheon - ARM Welding Support	12.RD	1259063/PO#2607781	-	8,127
Spintech, Inc.				
Smart Tooling - Phase 1 SBIR Subcontract - Smart Tooling Evaluation for Automated Thermoplastic Manufacturing	12.RD	2021-003886	-	(1,215)

See accompanying Notes to Schedule of Expenditures of Federal Awards.

**UNIVERSITY OF SOUTH CAROLINA
SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS (CONTINUED)
YEAR ENDED JUNE 30, 2022**

Federal Grantor/Pass-Through Grantor/ Program or Cluster Title	Federal Assistance Listing Number	Grant Number	Passed Through to Subrecipients	Total Federal Expenditures
RESEARCH AND DEVELOPMENT CLUSTER (CONTINUED)				
U.S. Department of Defense (Continued)				
Pass-Through Programs from:				
Tel Aviv University				
Threat monitoring and behavioral health throughout the deployment career cycles: A translational study	12.420	0610715871	\$ -	\$ 51,279
Texas Research Institute-Austin, Inc.				
NDE Based Condition Assessment of Sub-Surface Concrete with Limited Access – Phase II	12.RD	F-30141-500-01-SC1784	-	113,380
University of Miami				
Systemic Hypothermia in Acute Cervical Spinal Cord Injury – A Prospective, Multi-center Case Controlled Study	12.420	SPC-002031	17,546	22,108
University of Pittsburgh				
USMC Gender-Integrated Recruit Training Study	12.RD	M9549420C0021	-	256,154
University of South Florida				
Blood Flow Restriction Training	12.RD	H92405-20-D-0001	-	144,277
Wichita State University				
Innovation and Collaboration Program: Development of Maintenance Strategies for FVL Platforms	12.630	21-01021 / W911W6-17-3-0001	-	135,143
Total U.S. Department of Defense			1,763,183	10,930,902
U.S. Department of Interior				
Investigating and Protecting Critical Nocturnal Roosts: Whimbrel at Deveaux Bank	15.663	0111.20.067006	-	26,579
Using Motus stations to conserve endangered shorebirds at priority wetlands of NW-Mexico	15.637	F20AP11520-00	-	7,978
Operation of the Mid-America Integrated Seismic Network – 2020-2024 - USC	15.808	G20AC00033	-	88,970
Identifying the network of migratory stopover sites for Hudsonian Godwits in the Northern Great Plains	15.808	G21AC10159-01	-	33,303
Identifying the network of migratory stopover sites for Hudsonian Godwits in the Northern Great Plains	15.808	G21AC10159-02	-	5,532
Soil Macrofauna Inventory at Congaree National Park	15.945	P17AC00668 P21AC11171-00	-	24,509
Appomattox Court House Historic Park CESU - Archaeological Survey of Hannah Reynolds Site	15.945	P17AC01086	-	6,049
Booker T Washington National Monument (BOWA) Archaeological Reanalysis	15.945	P19AC00586	-	11,578
CESU: Connecting African American History to Cumberland Island National Seashore	15.945	P19AC01143	-	39,647
Updating the National Landmark and National Register Nominations for the Camden Battlefield	15.926	P19AP00434	-	7,320
Passed through programs from:				
Clemson University				
State Water Resources Research Institute Program: Identifying iodine hotspots in freshwater of South Carolina and their impact on iodinated disinfection by-products in drinking water	15.805	2191-213-2021202	-	7,832
NC State University				
Managing Fire in Longleaf Pine Ecosystems: Current Constraints and the Longer-Term Challenges of Landscape Transformation and Anthropogenic Climate Change	15.820	G21AC10709-00 / 2021-0534-01	-	8,325
Pronatura Noroeste A.C.				
The First Automated MOTUS Bird Monitoring Network for Northwest Mexico	15.635	10010801	-	47,462
Smith College				
Fate and Impacts of Silver Nanoparticles in Treatment Wetlands	15.805	636916-1	-	8,242
University of Florida				
The 1614 Spanish Campaign Against the Calusas	15.926	SUB00002408	-	14,023
Total U.S. Department of Interior			-	337,349
U.S. Department of Justice				
Court Decision-Making in Domestic Violence Cases: An Analysis of the Case Processing Pipeline in South Carolina	16.560	15PNUJ-21-GG-02802-REVA	-	52,227
Pass-Through Programs from:				
Michigan State University				
Assessment of Cognitive Performance-based Training to Improve Police Decision-making	16.560	RC110216-SC 2018-75-CX-4030	-	49,131
The City University of New York				
Investigating the Root Causes of School Violence: A Case Control Study of School Violent Offenders, Youth Violent Offenders, and Non-offending Youths	16.560	2020-CK-BX-0003 CM00005838-00	-	46,117
University at Buffalo, SUNY				
Atypical Work Hours and Adaptation in Law Enforcement: Targets for Disease Prevention	16.560	R1218292	-	20,202
Total U.S. Department of Justice			-	167,677
U.S. Department of State				
Think Tank Capacity Building	19.700	SLMAQM20GR2180	83,541	302,008
Empowering Workers for Justice in Bangladesh	19.345	SLMAQM21GR3195	-	111,501
Total U.S. Department of State			83,541	413,509
U.S. Department of Transportation				
Pass-Through Programs from:				
Clemson University				
Center for Connected Multimodal Mobility	20.701	1919-211-2021810	-	181,071
Federal Railroad Administration				
Longitudinal Stress Measurements in Rail Using a Non-Contacting Reference-Free Vision-Based Approach	20.RD	693J0619C000007	-	55,293
Intelligent Crossing Assessment and Traffic Sharing System (i-CATSS)	20.RD	693J0619C000009	-	16,592
Railroad 4.0: intelligent Risk Assessment and Prediction System (i-RAPS)	20.RD	693J0620C000013	-	88,223
Intelligent Abnormal Situation Awareness Platform (i-ASAP)	20.RD	693J0620C000021	23,026	105,862

See accompanying Notes to Schedule of Expenditures of Federal Awards.

**UNIVERSITY OF SOUTH CAROLINA
SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS (CONTINUED)
YEAR ENDED JUNE 30, 2022**

Federal Grantor/Pass-Through Grantor/ Program or Cluster Title	Federal Assistance Listing Number	Grant Number	Passed Through to Subrecipients	Total Federal Expenditures
RESEARCH AND DEVELOPMENT CLUSTER (CONTINUED)				
U.S. Department of Transportation (Continued)				
Pass-Through Programs from:				
Federal Railroad Administration (Continued)				
Field Implementation of a Digital Image Correlation Enabled Drone for Non-Contacting Measurements of Railroad Infrastructure	20.RD	693J621C000005	\$ -	\$ 61,926
Quantitative Assessment of the Influence of Drainage on Track Support	20.RD	693J621C000007	-	77,698
Autonomous Power-efficient Track Inspection System (APTIS)	20.RD	693J621C000011	-	6,555
Satellite Radar Imagery for Ground Hazard Risk Monitoring in Railway Track and Slopes	20.RD	693J621C000013	-	82,892
Optimizing First Responder's Routes Based on Railroad PTC System and Street Traffic Information	20.RD	693J621C000015	-	59,352
A Non-Contacting System for Longitudinal Rail Stress Measurements: Field Deployment and Validation	20.RD	693J621C000028	-	78,145
National Academy of Sciences				
Laser-based Non-destructive Spike Defect Inspection System	20.313	PO#SUB0001607 unit no. 913	-	36,609
University of Illinois				
Development of Performance-Based Concrete Crosstie Specifications for the US – and the Design, Manufacture, and Revenue Service Testing of Prototype Concrete Crossties	20.RD	104653-18546 / 693J621C000009	-	13,115
Total U.S. Department of Transportation			23,026	863,333
National Aeronautics & Space Administration				
Cooperation and adaptability in microbial mats from extreme environments: Quorum sensing and its relation to early life on Earth and elsewhere.	43.001	80NSSC18K1064	-	8,784
Compact, Robust Spatial Heterodyne Raman Spectrometer for Planetary Exploration	43.001	80NSSC19K1024	58,321	163,858
ECOSTRESS- Heat and Desiccation Risk Prediction in Intertidal Shellfisheries	43.001	80NSSC20K0074	-	92,498
Probing Dust Properties and Evolution Using Multi-wavelength Measurements of Absorption and Extinction in Galaxies Over the Past ~12 Gyr	43.001	80NSSC20K0887	13,345	79,275
RASPBERRY SI: Resource Adaptive Software Purpose-Built for Extraordinary Robotic Research Yields - Science Instruments	43.001	80NSSC20K1720	21,382	83,957
Synthetic Design Synthesis of 'Thermoplastic UD Tape based, Fastener-free assemblies' for Urban Air Mobility vehicles	43.002	80NSSC20M0165	1,135,610	1,716,047
HICAM: Assess SOA NDE for Hi-rate Manufacturing	43.RD	80NSSC21M0211	-	115,098
NASA HICAM - PWP 2.4 Thermoplastic Forming	43.002	80NSSC21M0235	-	16,750
NASA HICAM - Thermoplastic AFP - PWP 2.6	43.002	80NSSC21M0243	-	39,132
NASA HICAM - Thermoplastic Assembly - PWP 2.5	43.002	80NSSC21M0287	-	89,124
HICAM 3.07 - DFM & CAPP Tools	43.002	80NSSC21M0314	-	90,592
NASA - Induction Heating Evaluation for braided CF/TP Composites	43.RD	80NSSC229A003	-	12,670
Tri-Carbide Fuel Development	43.012	80NSSC22K0425	-	65,198
Effect of External Thermo-Convective Perturbation on Cool Flame Dynamics: A Multidimensional Multi-Physics CFD Analysis	43.007	NNX17AF97A	-	20,171
Connecting the Different Signatures of Interstellar Dust at Low Redshift: A Benchmark for Comparison to the Distant Universe	43.001	NNX17AJ26G	-	34,125
University Leadership Initiative: Hyper-Spectral Communications, Networking & ATM as Foundation for Safe and Efficient Future Flight: Transcending Aviation Operational Limitations with Diverse and Secure Multi-Band, Multi-Mode, and mmWave Wireless	43.002	NNX17AJ94A	27,285	158,818
Pass-Through Programs from:				
Advent Innovation Limited Company				
Ultrasonic Energy Interaction with Composite Damage in Both Frequency and Time Domains	43.RD	10011054	-	30,690
Ultrasonic Bessel Beams for Inspection of Multilayered Structures and Attenuative Material Systems	43.RD	80NSSC20C0357	-	2,103
Phase II: Damage Detection Using Two-Stage Compressive Sensing	43.RD	80NSSC20C0200	-	92,354
CFD Research Corporation				
Parametric Reduced Order Models-based Uncertainty Quantification in Aeroelasticity	43.RD	000000579 80NSSC20C0161	-	34,161
An Intelligent Framework to Develop Adaptive Parametric Reduced Order Model Database for Aerostructural Control (CFDRC Project No. 9397)	43.RD	20190664	-	124,319
Clemson University				
Peroxide-Producing Microbial Fuel Cells for Space Life Support Systems Applications	43.008	2149-223-2023494	-	52,783
Rapid Laser 3D Printing of Reversible Solid Oxide Electrochemical Cell Stacks for Producing Pure O2 from CO2 and Storing Electricity into Carbon	43.008	521434-CM/80NSSC20M0233	-	19,517
College of Charleston				
REAP 2020-21: Inverse Design of Lightweight 3D Full Carbon Network as High Capacity Energy Storage Materials	43.008	521179-RP-SC005	-	11,783
Mini-REAP 2020: Developing Advanced Materials for NASA's Mars Oxygen Module	43.008	521179-RP-SC006	-	524
Towards Real-time Online Validation of Additively Manufactured Metallic Components	43.008	521179-RP-SC007 / NNX15AL49H	-	4,048
Mini-REAP 2020: Modeling Radiation-induced Mutational Signatures in Mammalian Cells	43.008	521179-RP-SC010	-	9,353
Mini-REAP 2020: Analyzing the Connection between Surface Freshwater Lenses and Hurricanes in the Gulf of Mexico using NASA's SMAP Salinity	43.008	521179-RP-SC011	-	3,638
Mini-REAP 2020: Variable Pressure Growth Chamber for Sustainable Sub-Atmospheric Microgreen Crop Science Development	43.008	521179-RP-SC012	-	5,915
Enabling Smart Automated Fiber Placement for Optimized Manufacturing by Means of Artificial Intelligence and Digital Twinning (Alex Brasington)	43.008	521193-SC003	-	910
Robust Software Testing of Autonomous Aerospace Robotic Systems Using Transfer Learning	43.008	521340-SC001	-	(1,800)
Dosimetry and Temperature Monitoring of Seeds and Other Biological Materials During Space Flight	43.008	521340-SC003	-	997
Monitoring Marine Heatwaves along the US East coast using Satellite Observations and model simulations	43.008	521340-SC004	-	22,554
Wideband nondestructive characterization and defect detection with noncontact laser Lamb waves for advanced composite materials	43.008	521340-SC005	-	20,731

See accompanying Notes to Schedule of Expenditures of Federal Awards.

**UNIVERSITY OF SOUTH CAROLINA
SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS (CONTINUED)
YEAR ENDED JUNE 30, 2022**

Federal Grantor/Pass-Through Grantor/ Program or Cluster Title	Federal Assistance Listing Number	Grant Number	Passed Through to Subrecipients	Total Federal Expenditures
RESEARCH AND DEVELOPMENT CLUSTER (CONTINUED)				
National Aeronautics & Space Administration (Continued)				
Pass-Through Programs from:				
College of Charleston (Continued)				
Kyle Lackey: Unraveling the Structure and Star Formation History of Polar Ring Galaxies	43.008	521383-GRF-USC001	\$ -	\$ 16,000
Modeling and Coin Cell Development of Structural Batteries for Aerospace Applications	43.008	521383-PA-SC002/80NSSC20M0054	-	72
3D Printing of Tungsten via Laser Powder Bed Fusion Additive Manufacturing	43.008	521383-PA-SC003	-	5,000
REAP 2021-22: Novel Utilized Regenerative Solid Oxide Cell to Support NASA's Planetary Exploration Missions	43.008	521383-RP-SC003	-	20,000
In-situ Real-time Defect Detection in Metal-based Additive Manufacturing	43.008	521383-RP-SC005	-	3,398
STEM Outreach Award: Adventures in Computer Gaming: Programming Outreach through Game Design (William Hobbs)	43.008	521383-SOA-SC002	-	6,000
Generic Data-Driven Framework via Physics-Informed Deep Learning	43.008	521418-SC	-	23,297
Impacts of Gravity on Dropwise Condensation-Enhanced Heat Pipes	43.008	521419-SC	-	7,111
Supercritical Combustion Related to Supercritical Water Oxidation Process and Recycling of Non-edible Biomass	43.008	521473-SC	-	34,058
Undergraduate Student Research Awards: Devon Clark, Steve Howard, Nicklaus Johnson, Adam Quin, Drew Sander, Noah Swingle, Kevin Zimovan	43.008	80NSSC20M0054 521383-UG-SC003	-	50,625
Space Grant Campus Director (South Carolina)	43.008	80NSSC20M0054 / 521383-CD-SC	-	666
Advanced Machine and Process Architecture for Refractories via Laser Powder Bed Fusion Additive Manufacturing	43.008	80NSSC21M0148	-	74,237
An Aerial Platform to Navigate the Troposphere of Venus Enabled by New Cellular Materials	43.008	80NSSC21M0154	-	41,176
Augmenting Physics-Based Design and Multi-Physics Based Manufacturing with Data Driven Models to Manufacture Advanced Composites Structures with Automated Fiber Placement	43.008	80NSSC21M0327 / 521485-SC	-	70,957
Georgia Institute of Technology				
Innovative Manufacturing, Operation, and Certification of Advanced Structures for Civil Vertical Lift Vehicles	43.002	80NSSC21M0113/AWD-002709-G4	-	309,070
NanoMEMS Research, LLC				
Quantum Field Communications	43.RD	80NSSC21C0309	-	24,499
Rensselaer Polytechnic Institute				
The DEEP Project: Detecting Extraterrestrial Piezophiles in Ocean World Analogs	43.001	A18-0010-S001	-	16,331
Reconciling Prebiotic Paradigms: Mapping Planetary Reality onto Experimental Strategies	43.001	A19-0117-S004/ PO286657	-	32,350
SC Research Foundation				
Testing Dust Models at Moderate Redshift: Is the z=0.437 DLA toward 3C 196 Rich in Carbonaceous Dust?	43.RD	HST-GO-15092.002-A	-	2,262
Skyre, Inc.				
CO2 Electrochemical Concentration Technology Development	43.RD	U00027208	-	53,118
Space Telescope Science Institute				
The stellar populations of gas-rich absorbing galaxies detected with VLT/MUSE and ALMA: the essential link to the baryon cycle	43.RD	HST-GO-15939.017-A	-	15,137
The Baryonic Content of Galaxies Mapped by MaNGA and Gas Flows Around Them	43.RD	HST-GO-16242.001-A	-	11,583
The Regents of the University of California				
Optimizing the WFIRST Type Supernova Survey	43.RD	A17-0899-S003-P0632067	-	27,130
Woods Hole Oceanographic Institution				
Elucidating Spatial and Temporal Variability in the Export and Attenuation of Ocean Primary Production using Thorium-234	43.001	23175500	-	56,314
Total National Aeronautics & Space Administration			1,255,943	4,121,068
National Endowment for the Humanities				
Developing Training for and Establishing Partnerships between Community Health Workers and Medical Librarians for LGBTQIA+ Health Promotion	45.312	LG-246360-OLS-20	-	228,868
META 2: Furthering Our Understanding of the Economic Value of Public Library Services	45.312	LG-96-18-0240-18	-	68,197
The Revolutionary Era Pinckney Statesmen of South Carolina, A Digital Documentary Edition: Phase 3	45.161	RQ-255751-17	-	6,683
The Revolutionary Era Pinckney Statesmen Of South Carolina: A Digital Documentary Edition – Stage 4 - Final	45.161	RQ-271137-20	-	101,707
Pass-Through Programs from:				
SC Department of Natural Resources				
SnowVision: A Machine Learning-Based Image Processing Tool for the Study of Native American Paddle Designs	45.169	P24011241319/SCDNR FY2020-028	-	78,607
Total National Endowment for the Humanities			-	484,062
National Science Foundation				
ISS: Understanding the Gravity Effect on Flow Boiling Through High-Resolution Experiments and Machine Learning	47.041	2126437	-	54,553
GEO-Scholar: Broadening undergraduate participation in the geosciences	47.076	1458416	-	30,274
UNS: Engineered Nanomaterial Impact on Long-Term Stability of MSW Landfill and Leachate Treatment Pond Geomembrane Liners	47.041	1510869	-	29,462
DIMENSIONS: Links Between Spectral Irradiance and Cryptophyte Biodiversity in Environments from Ponds to Oceans	47.074	1542555	-	145,875
CAREER: Well-Defined Hybrid Materials as a Versatile Tool to Study Energy Transfer Processes	47.049	1553634	-	174,356
CAREER: Detection and Quantification of Metal-Based Engineered Nanoparticles in Surface Waters	47.041	1553909	-	147,885
Mutational Variance of the Transcriptome and the Origins of Phenotypic Plasticity	47.074	1556645	-	100,370
Collaborative Research: Water Concentration and Distribution in the Oceanic Lithosphere	47.050	1624315	-	7,483
CAREER: Revealing the Mechanisms that Determine How an Active DNA Transposable Element Impacts the Genome	47.074	1651666	-	123,625
CAREER: An All-Optical Plasmonic Device to Control and Coupled Quantum Dots for Optical and Quantum Information Processing	47.041	1652720	-	50,641

See accompanying Notes to Schedule of Expenditures of Federal Awards.

**UNIVERSITY OF SOUTH CAROLINA
SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS (CONTINUED)
YEAR ENDED JUNE 30, 2022**

Federal Grantor/Pass-Through Grantor/ Program or Cluster Title	Federal Assistance Listing Number	Grant Number	Passed Through to Subrecipients	Total Federal Expenditures
RESEARCH AND DEVELOPMENT CLUSTER (CONTINUED)				
National Science Foundation (Continued)				
CAREER: The Fundamental Principles of Modified Carbon Fiber Microelectrodes as Speciation Sensors	47.049	1654111	\$ -	\$ 34,166
CAREER: Carborane Cluster Architectures Featuring Multiple Metal-Boron Interactions	47.049	1654301	-	113,127
LTREB: Long Term Studies of Salt Marsh Primary Production	47.074	1654853	-	10,582
Identifying a New Circuit That Controls Feeding Behavior: Leptin and Serotonin Interactions	47.074	1656626	-	102,322
REU SITE: Collaborative Research: Integrated Academia-Industry Research Experience for Undergraduate in Smart Structure Technology	47.041	1659507	-	35,590
University of South Carolina Science and Mathematics Teachers Initiative Phase 2 (USC-SMTI P2): Continuing to Improve Teacher Preparation & Retention	47.076	1660700	9,983	221,132
Plasma Discharge in Liquids: Understanding the Initiation and Formation Mechanisms of Non-Thermal Plasma in Dense Medium	47.049	1707282	-	83,349
Collaborative Research: Fundamental Understanding of the Environmental Fate of Disinfection By-Products arising from Desalination Plants	47.049	1708461	-	228
Minority Carriers in Graphene/SiC Schottky Emitter Bipolar Phototransistors for High Gain Visible Blind UV Detection	47.041	1711322	-	724
An Integrated Framework for the Optimal Control of Vehicle-to-Grid Systems	47.041	1711767	-	42,281
Nonlinear Approximation in Geometric, Harmonic and Anisotropic Settings with Applications	47.049	1714369	-	615
Optimal Convergence Rates for hp-Adaptivity	47.049	1720297	-	43,830
SBE-RCUK: Diet, Migration, and Health in the Context of Medieval Mortality Crises	47.075	1722491	-	29,366
Collaborative Research: SAVANT: Stable Atmospheric Variability and Transport	47.050	1733746	-	59,380
Collaborative Research: US GEOTRACES PMT: Sources and Rates of Trace Element and Isotope Cycling Derived from the Radium Quartet.	47.050	1736321	-	18,935
Groundwater Sources of "new" N for Benthic Microalgal Production in the South Atlantic Bight	47.050	1736557	17,896	181,071
The Molecular Nature of Environmentally Persistent Free Radicals on Nanoparticles	47.083	1738337	-	12,148
RRI Track-4: Molecular Understanding of Salt-Induced Selective Aggregation and Selective Sorption of Dissolved Organic Matter to Natural Particles	47.083	1738340	-	21,455
CPS: Medium: Collaborative Research: Against Coordinated Cyber and Physical Attacks: Unified Theory and Technologies	47.041	1739886	-	(3,190)
CAREER: Multi-scale Modeling of Biological Gels by Coupling Langevin Equations and Fractional Viscoelastic Constitutive Models	47.049	1751339	-	51,697
CAREER: Quantifying the Response of Rivers and Floodplains to Changes in Climate and Land Use	47.041	1751926	-	179,291
CAREER: Tunable Isomorphous Architectures	47.049	1752615	-	128,600
CSBR: Living Stocks Support for the Peromyscus Genetic Stock Center	47.074	1755670	-	48,422
Collaborative Research: Teacher Leadership (T-Lead): Investigating the Persistence and Trajectories of Noyce Master Teaching Fellows	47.076	1758438	-	106,309
Targeting of Salicylic Acid-Activated NPR1 by a Bacterial Type III Effector	47.074	1758994	-	(8,887)
Investigating the Balance of Passive and Active Mechanics in Vascular Remodeling: An Integrated Experimental and Computational Approach	47.041	1760906	-	8,037
Bifunctional Catalysts for Selective Hydrogenation of Biomass Derivatives: Furfural Hydrogenation over Pt-Sn Supported on Titania	47.049	1764164	55,746	130,259
Activation of C-H Bonds at Multinuclear Metal Sites	47.049	1764192	-	37,126
Collaborative Research: Investigating the Fate of Carbon at an Ultraslow Spreading Center	47.050	1801036	-	55,348
Fundamentals of a New All Solid-state Metal-air Redox Battery Operated on Oxide-ion Chemistry	47.041	1801284	-	112,538
Collaborative Research: High Frequency Hydroclimate Extremes and Synoptic Climate Drivers in Western North America at the End of the Little Ice Age	47.050	1802018	-	12,017
GOALI: Collaborative Research: Electrochemical CO2 Separation and Capture through Design of Carbonate-Selective Catalysts and Ionomers	47.041	1803189	-	90,823
Collaborative Research: Understanding and Manipulating the Solvent Microenvironment for Selective, Catalytic Amination of Renewable Oxygenates	47.041	1805307	-	153,465
New Lanthanide-Containing Silicate Fluoride Scintillators for Radiation Detection	47.049	1806279	-	75,182
General Strategies Toward Mechanically Robust Biobased Polymers and Composites	47.049	1806792	-	147,341
Collaborative Research: How magnetic nanoparticles organize in extreme force gradients	47.049	1808426	-	17,174
NSF-BSF: The Study of Nuclear Physics with Intermediate Energy Probes	47.049	1812382	-	164,152
SaTC: CORE: Small: Collaborative: Enabling Precise and Automated Insecurity Analysis of Middleware on Mobile Platforms	47.070	1815144	-	19,396
Collaborative Research: Computational Modeling of How Living Cells Utilize Liquid-Liquid Phase Separation to Organize Chemical Compartments	47.049	1815921	-	762
Study on Localized Exponential Time Differencing Methods for Evolution Partial Differential Equations	47.049	1818438	-	10,036
Collaborative Research: Models, algorithms, simulations, and applications for two-phase ferrofluid flows in contact with a solid surface	47.049	1818783	-	17,338
Stable and Convergent Computational Algorithms for Current Density Imaging	47.049	1818882	-	18,837
Collaborative Research: Capacity Building: Building a Cybersecurity Pipeline through Experiential Virtual Labs and Workforce Alliances	47.076	1822567	2,594	10,612
Collaborative Research: Socio-Linguistic Analysis of Cross-Cultural Encounters and their Outcomes	47.075	1823665	-	28,535
Collaborative Research: Deployment of Laser Induced Breakdown Spectroscopy System from ROV Jason	47.050	1829327	-	87,035
Next Generation Raman: Developing A Monolithic Spatial Heterodyne Spectrometer For Multi-Scale Chemical Mapping in Marine Environments	47.050	1829333	-	174,786
Collaborative Research: Assessing the relative importance of small vs large particles as sources of nutrition to abyssal communities	47.050	1829519	-	523
Cyberinfrastructure Center of Expertise	47.070	1829698	11,570	137,006
NRI: INT: COLLAB: SYNDROME: Synergetic Drone Delivery Network in Metropolis	47.041	1830512	-	39,559
Understanding and Designing Novel Anode Materials for Solid Oxide Fuel Cells	47.049	1832809	-	167,950
Formation of Environmentally Persistent Free Radicals on Engineered Nanomaterials During Thermal Treatment	47.041	1834638	-	98,926

See accompanying Notes to Schedule of Expenditures of Federal Awards.

**UNIVERSITY OF SOUTH CAROLINA
SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS (CONTINUED)
YEAR ENDED JUNE 30, 2022**

Federal Grantor/Pass-Through Grantor/ Program or Cluster Title	Federal Assistance Listing Number	Grant Number	Passed Through to Subrecipients	Total Federal Expenditures
RESEARCH AND DEVELOPMENT CLUSTER (CONTINUED)				
National Science Foundation (Continued)				
Collaborative Research: Shark FEST - Fusing Eocene Shark Tracers: Paleoecology, Ocean Circulation, and Antarctic Glaciation with Geochemistry and Climate Modeling	47.050	1842176	\$ -	\$ 38,501
S&AS: FND: COLLAB: Planning Coordinated Event Observation for Structured Narratives	47.070	1849291	-	96,587
CRII: CPS: Algorithms and Methodologies for Real-Time Decision-Making of Mission-Critical Structures Experiencing High-Rate Dynamics	47.070	1850012	-	78,199
CRII: SaTC: A Malware-Inspired Approach to Mobile Application Repackaging and Tampering Detection	47.070	1850278	-	123,037
REU Site: Disparities in the Criminal Justice System	47.075	1851955	-	104,414
REU Site: Engineering Medical Advances at the Interface of Experiments and Computation	47.041	1852331	-	90,350
Regularity and singularity formations in swarming and related fluid models	47.049	1853001	-	36,596
Mathematical Modeling, Computational and Experimental Investigation of the Dynamics of Heterogeneity in Breast Cancer	47.049	1853365	-	38,961
SaTC: CORE: Small: Collaborative: Enabling Precise and Automated Insecurity Analysis of Middleware on Mobile Platforms	47.070	1856380	-	38,969
Exploring and Understanding the Effect of Cation- π Interactions in Asymmetric Catalysis	47.049	1856772	-	112,038
Collaborative: Multi-state Community College, University and Industry Collaboration to Prepare Learners for 21st Century IT Jobs	47.076	1902397	-	84,919
INFEWS:US-China: Collaborative Research: Investigating the role of wet wastes in the global circular economy: sustainable conversion to products using hydrothermal carbonization	47.041	1902419	-	21,849
Collaborative Research: Mechanochemistry of Metalocenes	47.049	1904373	-	197,487
Functional Nanotubes from Self-Assembled Bis-Urea Macrocycles	47.049	1904386	-	196,427
EAGER: Thermal Materials Discovery via Deep Learning based High-Throughput Computational Screening	47.049	1905775	-	91,175
(PI - Harris Pastides) LSAMP BD: University of South Carolina-Columbia, LS SCAMP	47.076	1906154	-	454,558
Collaborative Research: Organic and Inorganic Geochemical Investigation of Hydrologic Change in East Antarctica in the 4 Million Years Before Full Glaciation	47.050	1908399	-	33,901
Deconvolving the Southern South American Pleistocene-Holocene Dust Production Pathways	47.050	1910510	-	73,561
SHF-Small: A Unified Approach for Scheduling Computer Vision Dataflow Graphs	47.070	1910748	-	40,927
CNS Core: Small: Software-Hardware Reconfigurable Systems for Mobile Millimeter-Wave Networks	47.070	1910853	-	132,097
Efficient Numerical Simulations of Oceanic Flows with Application to Coastal Modeling	47.049	1913073	-	99,155
Hybrid Multiscale Methods with Applications in Biomaterials and Bioengineering	47.049	1913146	-	50,833
Understanding the Fundamental Mechanisms Governing Tensile Strength of High-Performance Small-Scale Carbon/Glass Fibers	47.041	1915948	-	142,247
Collaborative Research: Decision Making on the U.S. District Courts: Building a Multi-User Database	47.075	1920991	-	32,393
A New Class of Chemical Potential Driven Plug Flow Membrane Reactors for Combined Gas Separation and Direct Natural Gas Conversion	47.041	1924095	-	94,639
CC* Networking Infrastructure: Building a Science DMZ for Data-intensive Research and Computation at the University of South Carolina	47.070	1925484	-	(21,068)
Integrating Scholarships, Academic Assistance, Professional Development, and Wellness to Increase Undergraduate Retention in Engineering and Computing	47.076	1930492	-	155,767
Influence of Inquiry Lab Development and Teaching on TA and Faculty Beliefs About Teaching	47.076	1933395	-	35,304
Planning Grant: Engineering Research Center for Health Care Transformation (ERC-HCT)	47.041	1937107	-	3,104
RTML: Small: Collaborative: A programming model and platform architecture for real-time machine learning for sub-second temporal systems	47.070	1937535	-	84,522
Center for Rational Catalyst Synthesis (CeRCaS) I/UCRC Phase II	47.041	1939876	-	122,241
Collaborative Research: Integrating Physics and Generative Machine Learning Models for Inverse Materials Design	47.070	1940099	-	157,249
CAREER: Enabling Autonomy via Enhanced Situational Awareness for Underwater Robotics	47.070	1943205	-	56,572
Doctoral Dissertation Research: Violence, Structural Inequality, and Institutionalization	47.075	1945777	-	5,388
Role of miR156-targeted SQUAMOSA PROMOTER BINDING PROTEIN-LIKE transcription factors in floral transition	47.074	1947274	-	75,540
Bridging Pathways for the Preparation of Highly Qualified Mathematics and Science Teachers	47.076	1950204	-	87,787
Finance and the reshaping of the U.S. electricity system	47.075	1951102	-	89,120
SaTC: CORE: Small: Semantics-Oriented Binary Code Analysis Learning from Recent Advances in Deep Learning	47.070	1953073	-	54,607
CAS: Collaborative Research: New Hybrid Catalysts for Sustainable Cross-Coupling Reactions: Using Atomic Layer Deposition to Immobilize and Enhance Molecular Catalysts	47.049	1954850	-	134,506
Molecular dynamics with quantum nuclear effects: bridging the quantum and classical domains	47.049	1955768	-	161,682
Spokes: MEDIUM: MIDWEST: Collaborative: Community-Driven Data Engineering for Opioid and Substance Abuse in the Rural Midwest	47.070	1956009	-	53,691
Collaborative Research: SHF: Medium: Machine Learning on the Edge for Real-Time Microsecond State Estimation of High-Rate Dynamic Events	47.070	1956071	-	73,353
Counting Curves Using the Topology of Moduli Spaces	47.049	2001565	-	9,432
Investigating the Barriers to Retention and Tenure for Black and Hispanic Engineering Faculty at R1 Institutions	47.041	2001724	-	82,347
Multidimensional and Nonlinear Kinetics in Complex Materials	47.049	2003619	-	56,257
Molecular rotors for studying transition state stabilization by non-covalent interactions	47.049	2003889	-	141,505
Enacting a culturally-sustaining STEM Institute in the Gullah/Geechee Community in the Southeastern United States	47.076	2005810	-	135,227
Finding hydrothermal chimneys along the Southern East Pacific Rise with machine learning approaches to AUV-based sonar data	47.050	2006265	-	44,906
CNS Core: Small: Collaborative Research: SmarSight: an AI-Based Computing Platform to Assist Blind and Visually Impaired People	47.070	2007202	-	99,659
Collaborative Research: The Circumgalactic Dictionary: An Interpretation Guide for Circumgalactic Medium Observations	47.049	2007538	-	35,409

See accompanying Notes to Schedule of Expenditures of Federal Awards.

**UNIVERSITY OF SOUTH CAROLINA
SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS (CONTINUED)
YEAR ENDED JUNE 30, 2022**

Federal Grantor/Pass-Through Grantor/ Program or Cluster Title	Federal Assistance Listing Number	Grant Number	Passed Through to Subrecipients	Total Federal Expenditures
RESEARCH AND DEVELOPMENT CLUSTER (CONTINUED)				
National Science Foundation (Continued)				
Fulfilling the Atomic Physics Needs for Spectroscopic Diagnostics of Cosmic Chemical Evolution	47.049	2009811	\$ -	\$ 79,736
Variable-Order Fractional Partial Differential Equations: Computation, Analysis, and Application	47.049	2012291	-	27,589
State and Parameter Estimation: Variationally Stable Models and Physics-Informed Learning	47.049	2012469	-	61,957
Collaborative Research: Models, Algorithms, Simulations, and Applications for Three-Phase Systems with Solidification Model and Moving Contact Lines	47.049	2012490	-	24,647
Collaborative Research: Bayesian and semi-Bayesian Methods for Detecting Relationships in High-dimensions	47.049	2015528	-	5,731
CAREER: Understanding Interface-Mediated Deformation in Metallic Nanolayered Composites by Experimentally-Validated Multiscale Modeling	47.041	2015598	-	121,159
CCR: Medium: Collaborative Research: Hardware-in-the-Loop and Remotely-Accessible/Configurable/Programmable Internet of Things (IoT) Testbeds	47.070	2016415	-	26,355
MRI: Acquisition of Omnipercipient Chamber for Gathering Ground Truth and Enabling Research on Smart and Connected Things	47.070	2018966	-	75,536
Collaborative Research: College Mathematics Instructor Preparation Project	47.076	2020952	-	93,698
Stress Neurobiology Workshop	47.074	2021810	-	13,106
NRI: INT: COLLAB: Cooperative Underwater Structure Inspection and Mapping	47.070	2024741	-	167,096
Understanding the Role of Activated Oxygen Species in the Room Temperature Conversion of Methane to Methanol	47.041	2025709	-	54,146
Unraveling Hidden Physics in Multiphase Combustion: Preferential Vaporization at Elevated Pressure	47.041	2028376	-	133,320
RAPID: Monitoring the Spatial Spread of COVID-19 through the Lens of Population Movement Big Social Media Data	47.041	2028791	-	79,132
Thermal Transport in Dynamically Disordered Materials with Frustrated Energy Landscape	47.041	2030128	-	17,641
RAPID: Development and deployment of a digital game to combat COVID-19 misconceptions	47.075	2030273	-	73,507
Collaborative Research: Constraining the thermal conditions of the subduction interface by integrating petrology and geodynamics	47.050	2037543	-	45
RTG: Mathematical Foundation of Data Science at University of South Carolina	47.049	2038080	-	66,704
Collaborative Research: SaTC: TTP: Small: DeFake: Deploying a Tool for Robust Deepfake Detection	47.070	2040125	-	375
CAREER: Topographic Controls on Overmarsh Circulation and Sedimentation Along a Salt Marsh - Forest Continuum	47.050	2041366	-	172,815
Collaborative Proposal: Treatment of Cyanotoxins by UV/Chlorine: Optimizing Removal While Developing Strategies to Minimize Disinfection Byproducts and Toxicity	47.041	2042016	-	26,274
Collaborative Research: US GEOTRACES GP17-OCE and GP17-ANT: Export and remineralization rates of bioactive and particle reactive trace elements using thorium-234	47.050	2046790	-	15,022
CAREER: Ultrasensitive Multiplex Nanopore Biosensing for Point-of-Care Testing of Infectious Diseases	47.041	2047503	-	85,112
Collaborative Research: Foraminiferal Ecological Response to Ocean Conditions in the Northwest Pacific Ocean	47.050	2048785	-	204,673
Distinguishing Sediment, Serpentinite, and Altered Oceanic Crust in the Source of Aleutian Volcanic Rocks Using Boron & Molybdenum Isotopes	47.050	2050271	-	112,911
REU Site: Applied Computational Robotics	47.070	2050896	-	22,731
REU Site: CO2 Chemical Engineering: Opportunities and Challenges	47.041	2050956	-	89,452
EAGER: Novel approaches to study green leaf volatile perception	47.074	2051699	-	74,061
The contribution of introgression to convergent floral evolution in Penstemon	47.074	2052904	-	69,512
Quantitative Methods in Arithmetic Statistics	47.049	2101874	-	9,374
Rapid Collaborative Proposal: Characterization, Quantification, and Transport of Incidental Nanomaterials from Wildland-Urban Fires in Surface Waters	47.041	2101983	-	42,368
I-CORPS: Silver Nanoparticles for Elimination of Fungal Toxins	47.041	2103610	-	15,642
Synthesis of Hierarchical Materials with a Tunable Photoisomerization Response	47.049	2103722	-	57,146
CRII: CNS: Auction Mechanism Design for Energy-Efficient High Performance Computing	47.070	2104925	-	15,172
Sustaining the operation of the Peromyscus Genetic Stock Center	47.074	2105999	-	171,747
Collaborative Research: CNS Core: Medium: Towards Understanding and Handling Problems Due to Coexistence of Multiple IoT Platforms	47.070	2107093	-	35,150
Collaborative Research: SHF: Medium: Causal Performance Debugging for Highly-Configurable Systems	47.070	2107463	-	103,899
Nonlocal Transport Equations in Fluids, Swarming, and Traffic Flows	47.049	2108264	-	5,635
Ligand exchange equilibrium at quantum dot surfaces in polar and aqueous solvent environments	47.049	2109064	-	102,249
Maximum Bound Principle-Preserving Time Integration Methods for Some Semilinear Parabolic Equations	47.049	2109633	-	19,015
Deep Learning Accelerated Inverse Design of Lab-Scale Energy Efficient Heterojunctions for Wide-Bandgap Devices	47.041	2110033	-	41,180
NSF-BSF: The Study of Nuclear Physics with Intermediate Energy Probes	47.049	2111050	-	304,469
Doctoral Dissertation Research: Language Ideologies and Activism in Transgender Communities in the U.S South - Archie Crowley	47.075	2116356	-	3,802
CyberTraining: Implementation: Small: Cybertraining on P4 Programmable Devices using an Online Scalable Platform with Physical and Virtual Switches and Real Protocol Stacks	47.070	2118311	-	16,013
RII Track 2 FEC: Enabling Factory to Factory (F2F) Networking for Future Manufacturing	47.083	2119654	62,969	142,465
Doctoral Dissertation Research: Sex Differentials in Frailty in Medieval Ireland	47.075	2120102	-	17,486
Doctoral Dissertation Research: Histories of Stress: A Life Course Approach to Population Health in Medieval Berlin	47.075	2120106	-	14,044
Collaborative Research: Developing an Integrated Computer Science Curriculum for Culturally and Linguistically Diverse Classrooms at Grades 3-5	47.076	2122013	-	11,525
Collaborative Research: Developing crystal clocks in metamorphic rocks: Using lithium in subduction zone garnets to decipher fluid release timescales	47.050	2122513	-	50,577
High Efficiency UV-LEDs Based on Hybrid 2D/3D Materials.	47.041	2124624	-	76,313
Climate change, community dynamics, and long-distance migratory birds	47.074	2126004	10,485	127,597
Institute for Measurement Methods in Rural STEM Education	47.076	2126060	-	95,628
ISS: Understanding the Gravity Effect on Flow Boiling Through High-Resolution Experiments and Machine Learning	47.041	2126437	-	78,871

See accompanying Notes to Schedule of Expenditures of Federal Awards.

**UNIVERSITY OF SOUTH CAROLINA
SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS (CONTINUED)
YEAR ENDED JUNE 30, 2022**

Federal Grantor/Pass-Through Grantor/ Program or Cluster Title	Federal Assistance Listing Number	Grant Number	Passed Through to Subrecipients	Total Federal Expenditures
RESEARCH AND DEVELOPMENT CLUSTER (CONTINUED)				
National Science Foundation (Continued)				
Fundamental Studies of Process-Material Interactions in Advanced Adhesion-Driven Manufacturing with Automated Placement of Uncured Thermoset Tows as Model Process	47.041	2127361	\$ -	\$ 30,766
Not all who wander are lost – Testing for genes associated with migratory behavior in a peripatetic species	47.074	2129600	-	28,544
EAGER: Advancing Neuro-symbolic AI with Deep Knowledge-infused Learning	47.070	2133842	-	73,891
EAGER-New Search Technique for keV Sterile Neutrinos	47.049	2134505	-	78,870
CAREER: Reactions of volatile organics in aerosol particles as a source of persistent free radicals	47.049	2142825	-	17,622
CAREER: Towards Secure and Usable IoT Authentication Under Constraints	47.070	2144669	-	8,218
CAREER: Crystallization of Chiral Liquid Crystals Under Curved Confinement	47.049	2146428	-	27,792
University of South Carolina Science and Mathematics Teachers Initiative Phase 3 (USC-SMTI): Continuing to Improve Teacher Preparation & Retention (Parent)	47.076	2151036	-	22,487
MSA: Understanding spatial patterns of abundance and occupancy in terms of taxa, traits, and space (Project Transfer from Louisiana State University to UofSC)	47.074	2213878	-	17,355
NSF Graduate Research Fellowship: Maina Handmaker	47.076	DGE-2034711	-	168,437
Developing Master Teachers through the South Carolina Science and Mathematics Teacher Leaders (SC-SMTL) program	47.076	DUE-1439842	-	100,011
Regulation of Floral Growth and Patterning in Arabidopsis Thaliana	47.074	IOS-1354452	5,123	47,638
RII Track 1: Materials Assembly and Design Excellence in South Carolina: MADE in SC	47.083	OIA-1655740	2,209,109	3,793,517
RII Track-2 FEC-Genome to fitness: An analysis of the stress response in Peromyscus	47.083	OIA-1736150	364,047	684,057
Pass-Through Programs from:				
Benedict College				
Excellence in Research: Machine Learning and Applications	47.076	20-88001	-	20,670
Targeted Infusion Project: Infusion of Active and Problem-Based Learning for Teaching and Research in the Context of Transportation Disruptive Technologies	47.076	20-88854	-	1,038
Dartmouth College				
RII Track-2 FEC: Computational Methods and Autonomous Robotics Systems for Modeling and Predicting Harmful Cyanobacterial Blooms	47.083	OIA-1923004 R1303	-	115,819
Marine Biological Laboratory				
LTER-Plum Island Ecosystems: Dynamics of Coastal Ecosystems in a Region of Rapid Climate Change, Sea-level Rise, and Human Impacts.	47.050	52684	-	117,542
Morgan State University				
Doping cubic boron nitride, an extreme material for power electronics and radiation detection	47.041	USC-183-02	-	35,776
NC State University				
STEM Teens: Examining the Role of Youth Educators in Informal Science Learning Sites Evaluation Plan	47.076	2018-2113-01	-	15,191
San Francisco State University				
SFSU Subcontract for REU SITE: Collaborative Research: Integrated Academia-Industry Research Experience for Undergraduate in Smart Structure Technology	47.041	1659877 / S21-0004	-	24,812
SC State University				
SCAMP Phase III: Enhancing Opportunities to Transition Students into Successful STEM Pathways	47.076	18-581065-SCAMP-USC-SC	-	10,000
Texas A&M University				
Paleoepidemiological and ancient DNA study of a potential epidemic site	47.075	BCS-2040388 / M2103226	-	3,108
The Ohio State University				
NSF Convergence Accelerator Track F: Actionable Sensemaking Tools for Curating and Authenticating Information in the Presence of Misinformation during Crises	47.083	2137806/SPC100005635/GR125298	-	72,508
Trustees of Princeton University				
Non-equilibrium misty plasma discharge and reactors for natural gas conversion to liquid products	47.041	EFMA 2029425 SUB0000427	-	139,051
University Corporation for Atmospheric Research				
Understanding the physical and cultural impacts of climate change and adaptation science and policy on non-traditional forms of housing and land tenure among African American coastal communities in the US South	47.050	AGS-1755088 SUBAWD002259	-	7,297
University of Colorado at Boulder				
EFRI E3P: Hydrogenolysis for upcycling of polyesters and mixed plastics	47.041	EFMA 2132033 / 1561125	-	7,072
University of Delaware				
RAPID: Automated discovery of COVID-19 related hypotheses using publicly available scientific literature	47.070	UDR0000011	-	7,522
University of Georgia				
LTER: Georgia Coastal Ecosystems IV	47.050	1832178 / SUB00001914	-	21,218
Coupled Long-Term Impacts of Uneven Racial Development, Exurban Growth, and Sea-Level Rise on Land-Use in Coastal Georgia	47.075	SUB00002229	-	23,875
University of Puerto Rico				
RII Track-2 FEC: Center for a Sustainable Water, Energy, and Food Nexus (SusWEF)	47.083	2016-2017-003	-	766
University of Texas at San Antonio				
OAC Core: Small: Devising Data-driven and Formal Methodologies by Employing Large-scale Empirical Data to Fingerprint, Attribute, Remediate and Analyze Internet-scale IoT Maliciousness	47.070	1000003083	-	45,348
University of the Pacific				
RAPID: Teaching Field Geology Without Classes in the Field: Providing a Robust Educational Experience Through Digital Resources	47.050	2029920- 01	-	1,843
University of Wisconsin-Madison				
Response to COVID-19 Field Research and Education Disruptions: Creating Virtual Field Experiences in Coastal and Estuarine Science	47.050	0000000848	-	11,373
Total National Science Foundation			2,749,522	17,962,201

See accompanying Notes to Schedule of Expenditures of Federal Awards.

**UNIVERSITY OF SOUTH CAROLINA
SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS (CONTINUED)
YEAR ENDED JUNE 30, 2022**

Federal Grantor/Pass-Through Grantor/ Program or Cluster Title	Federal Assistance Listing Number	Grant Number	Passed Through to Subrecipients	Total Federal Expenditures
RESEARCH AND DEVELOPMENT CLUSTER (CONTINUED)				
U.S. Department of Veterans Affairs				
Institutional Animal Care & Use Committee (IACUC) Program Support Assistant Services for WJB Dorn VA Animal Facility	64.RD	36C24720P1216 / 544D27117	\$ -	\$ 23,973
Swine Procurement, Husbandry, and Maintenance for Dorn VA Medical Center	64.RD	36C24E19D0025_544D17106	-	21,237
Rodent Procurement and Husbandry for Dorn VA Medical Center	64.RD	36C24E20D0009	-	96,960
RNA-SEQ Library Preparation and Illumina/Research for the Columbia VA	64.RD	544-22-2-792-0005_C24722P0369	-	3,136
Research statistical, data management, grant proposal and educational support for the Columbia VA Health Care System	64.RD	36C24720P0271_544C25080	-	2,957
Provision of VMO Services to the Dorn VA Medical Center (2019)	64.RD	36C24719P0181_544-D27101	-	32,447
Personal services contract for Dr. Claudia Grillo	64.RD	36C24722C0081_544-D27103	-	15,920
Total U.S. Department of Veterans Affairs			-	196,630
U.S. Environmental Protection Agency				
Chemical Analysis to Support Health Assessments	66.RD	68HE0820P0302	-	53,272
Green plasma technology for siloxane removal and landfill gas upgrade	66.516	83996601	-	8,421
Pass-Through Programs from:				
Florida Fish & Wildlife Conservation				
Characterization of the microbiome of corals with Stony Coral Tissue Loss Disease through space and time: antimicrobial activity	66.436	19172	-	30,229
SC Department of Health & Environmental				
EI Strong: Strengthening Communities for Disaster Risk Reduction, Response and Recovery in South Carolina	66.312	EQ-1-680	18,648	68,829
Total U.S. Environmental Protection Agency			18,648	160,751
U.S. Nuclear Regulatory Commission				
University of South Carolina Next Generation Engineering Fellowship Program	77.008	31310021M0029	-	29,957
Total U.S. Nuclear Regulatory Commission			-	29,957
U.S. Department of Energy				
Neutrino and Flavor Physics at the Intensity Frontier (Neutrino Task)	81.049	DE- SC0010073	-	3,741
A Multifunctional Isostructural Bilayer Oxygen Evolution Electrode for Durable Intermediate-Temperature Electrochemical Water Splitting	81.087	DE-EE0008842	89,557	284,211
Polymer products from lignin through de-aromatization and COOH functionalization	81.087	DE-EE0008912	41,271	59,158
Efficient CO2 and Natural Gas Refinery for Ethylene Production	81.086	DE-EE0009427	-	230,123
South Carolina Institute of Archaeology and Anthropology/Savannah River Archaeological Research Program Cooperative Agreement: United States Department of Energy for FY2019 - FY2023	81.214	DE-EM0005182	-	796,878
Developing Accelerated Test Protocols and Tuning Microstructures of the Common Materials to Improve Robustness, Reliability, and Endurance of SOFC Cells	81.089	DE-FE0026097	48,311	48,311
Methane Partial Oxidation over Multifunctional 2-D Materials	81.089	DE-FE0031878 20FE002223	217,387	288,951
Developing Stable Critical Materials and Microstructure for High-Flux and Efficient H2 production through Reversible Solid Oxide Cells & Cost-effective, Thin-film SOFCs for Reliable Power Generation	81.089	DE-FE0032111_DE-FE0031670	115,511	264,648
Multipurpose, Radiation- and Temperature-Resistant Semiconductor Radiation Detectors for Advanced Process Monitoring and Nuclear Safeguards	81.121	DE-NE0008662	-	68,922
Novel NDE Sensors, Waveforms, Models, and Algorithms for Cable Health Monitoring	81.121	DE-NE0008663	-	115,072
Development of Multi-Axial Failure Criteria for Nuclear Grade SiCf-SiCm Composites	81.121	DE-NE0008792	13,716	87,502
Remote Laser Based Nondestructive Evaluation for Post Irradiation Examination of ATF Cladding	81.121	DE-NE0008894	-	95,355
Engineered composite patch with NDE inspection for repair and mitigation of SCC in nuclear spent fuel dry storage canister	81.121	DE-NE0008959	36,661	207,202
Extension of MSTDB to Provide a High-Quality, Validated Thermochemical Database for Predicting/ Simulating Corrosion in Molten Salt Reactor Systems	81.121	DE-NE0008985	-	165,784
Internal Wireless Sensors for Dry Cask Storage	81.121	DE-NE0009211	-	80,718
Neutrino and Flavor Physics at the Intensity Frontier (Neutrino Task)	81.049	DE-SC0010073	-	173,452
Center for Hierarchical Waste Form Materials (CHWM)	81.049	DESC0016574	914,639	1,701,152
Research in Neutrinoless Double-Beta Decay	81.049	DE-SC0018060	-	125,136
Using Crystallization to Control Filler Dispersion and Vice Versa in Polymer Nanocomposites	81.049	DE-SC0018135	-	117,348
Crystal Growth of New Complex Actinide Containing Oxides, Fluorides and Chalcogenides and the Investigation of their Optical and Magnetic Properties	81.049	DE-SC0018739	-	167,004
Directed Synthesis of New Uranium Containing Materials: The Use of Functional Building Blocks as Synthetic Tools Coupled with Targeted Crystal Growth Methods to Create New Complex U(VI), U(IV) and U(III) Containing Materials	81.049	DE-SC0018739	-	(9,778)
Multimetallic Metal-Organic Frameworks as Tunable, Multifunctional Catalysts for Gas Phase Hydroformylation and Hydrogenation Reactions.	81.049	DE-SC0019360	7,657	115,711
Fundamental Symmetries and Nucleon Interactions	81.049	DE-SC0019647	-	54,825
Efficient and Scalable Time-Stepping Algorithms and Reduced-Order Modeling for Ocean System Simulation	81.049	DE-SC0020270	-	165,882
Data-science enabled investigation of the mechanisms for multiscale ion transport in functional electrolytes and for the radical generation in crystalline assemblies	81.049	DE-SC0020272	-	177,366
Fundamental Neutron Physics: Theory and Analysis	81.049	DE-SC0020687	-	55,065
Creating Novel Gas Separation Constructs by Manipulating Free-Volume Distributions in Polymer-Grafted Nanoparticles	81.049	DE-SC0021252	-	96,079
Orienting Strained Interfaces designed to Direct Energy Flow	81.049	DE-SC0021363	-	139,492
Dynamic Multiscale Digital Twin for a Lung Cancer Patient	81.049	DE-SC0021655	6,632	29,219
Reliable and Efficient Machine Learning for Leadership Facility Scientific Data Analytics	81.049	DE-SC0022254	-	48,297
AOI 2: Modularization of Ceramic Hollow Fiber Membrane Technology for Air Separation	81.089	ED-FE0031473	-	157,907

See accompanying Notes to Schedule of Expenditures of Federal Awards.

**UNIVERSITY OF SOUTH CAROLINA
SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS (CONTINUED)
YEAR ENDED JUNE 30, 2022**

Federal Grantor/Pass-Through Grantor/ Program or Cluster Title	Federal Assistance Listing Number	Grant Number	Passed Through to Subrecipients	Total Federal Expenditures
RESEARCH AND DEVELOPMENT CLUSTER (CONTINUED)				
U.S. Department of Energy (Continued)				
Pass-Through Programs from:				
Alliance for Sustainable Energy, LLC				
Assessment of Marine Hydrokinetic-based Reliable and Resilient Electrification in Alaska	81.RD	DE-AC36-08G028308/SUB-2021-10754	\$ -	\$ 30,000
Ames Laboratory				
Institute for Cooperative Upcycling of Plastics (ICOU)	81.049	DE-AC02-07CH11358	-	155,539
Arizona State University				
High Temperature Ceramic-Carbonate Dual-Phase Membrane Reactor for Pre-Combustion Carbon Dioxide Capture	81.089	ASUB00000221 JP	-	25,613
Battelle Energy Alliance, LLC				
Aluminum-Clad Spent Nuclear Fuel Management	81.RD	207046	-	(9,306)
Materials Development for Proton-Conducting Solid Oxide Electrolysis Cells	81.121	233438	-	4,126
Development of Perovskite Fuel Electrode for Solid Oxide Cells	81.RD	237171	-	50,660
Single Effect Testing of Metal Fuel	81.RD	DE-AC07-05D14517 / 260726	-	13,729
Battelle Savannah River Alliance				
Preparation for the Savannah River Environmental Sciences Field Station Management, Recruitment, and Operation of the Savannah River Environmental Sciences Field Station, 2022	81.RD	0000559422/SOW-602180	-	102,849
Ammonia Decomposition via Metal Catalysts	81.RD	0000561553/SOW-602184	-	104,885
A Unified Machine Learning Framework for Corrosion Surveillance	81.RD	0000551436/SOW-594047	-	19,672
Thermocatalytic Ethylene Production Using Targeted RF Induction Heating TO 0000585742	81.RD	G-SOW-A-02293/0000549215	-	77,869
	81.RD	G-SOW-A-02311/0000548445	-	44,298
Boston College				
Organometallic Catalysis from Molecular Catalysts Non-Covalently Confined in Metal-Organic Frameworks	81.049	5107151-01	-	32,101
Chemtronergy, LLC				
Cost-effective, Intermediate-temperature Fuel Cell for Carbon-free Power Generation	81.135	2020-03	-	261,825
Claflin University				
Development of Robust Cationic Metal-Organic Frameworks for Removing Anionic Radionuclides from Nuclear Waste Streams	81.RD	# 02-20-6050-PO-85788	-	29,725
Clemson University				
Em-Enhanced HyPOR Loop for Fast Fusion Fuel Cycles	81.135	2288-219-2014490 / DE-AR0001376	-	125,432
Compact Membrane Systems, Inc.				
DOE Phase II: Integrated Membrane Reactor for Enhancing Thermal & Chemical Reactors	81.049	U00027029	-	184,584
Enhanced Oxidative Dehydrogenation of Ethane with Facilitated Transport Membranes for Low Cost Production of Ethylene	81.049	U00027093	-	(2,327)
E2HZNANO, LLC				
Compact Catalytic Membrane Reactor for One-Step High-Efficiency Ammonia Synthesis at Moderate Temperatures and Pressures	81.086	S0002	-	175,600
Edison Welding Institute				
Machine Learning Enhanced Understanding of Functional Gradient Materials Enabled by Direct Energy Deposition	81.086	58536GTH / PO#219253	-	145,734
Georgia Institute of Technology				
High-Performance AEM LTE with Advanced Membranes, Ionomers and PGM-Free Electrodes	81.087	AWD-000605-G1/PO#_5070026	-	58,502
Greenway Energy, LLC				
Novel dense-PBI membranes for photoelectrochemical hydrogen	81.RD	10011960	-	23,202
Subcontract Response to DE-FOA-0001647: High temperature reactor catalyst material development for low cost and efficient solar driven sulfur-based processes	81.087	15510FC99	-	77,500
Imagen Energy, LLC				
Compact, High-Power, Direct Medium Voltage Solar PV Inverter	81.087	DE-EE0009637	-	81,857
Missouri State University				
Multimodal Approach to Modeling Creep Deformation in Ni-Base Superalloys	81.089	18018-3	-	17,114
Origen Hydrogen, Inc				
Engineering of Scalable Platinum-free Electrodes for Pure-Water AEM Electrolysis	81.135	DE-FOA-0001954	-	63,016
Pacific Northwest National Laboratory				
Proposed Statement of Work, University of South Carolina, Thrust 1, Project 1 LDRD award: 73950 SPP Discovering Thermomechanical Pathways Phase 2	81.RD	536580	-	10,533
RAPID Manufacturing Institute				
MFES for High throughput Modular Process Intensified Gas Separation and Ion Exchange	81.087	DE-EE0007888-08.4	-	4,997
Modular Catalytic Partial Oxidation Reactors Using Microstructured Catalyst Structures With Combined High Thermal Conductivity And Flame Extinction Capacity To Enhance Process Safety Margins And Enable High Per Pass Conversion	81.087	DE-EE0007888-085.9	-	156,218
Rensselaer Polytechnic Institute				
Deposition Tailor-made Size-sieving Sorbents for Post-combustion CO2 Capture	81.089	A20-0008-S001	-	(15,124)
Beyond-DFT Electrochemistry with Accelerated and Solvated Techniques (BEAST)	81.049	A22-0026-S001/PO296337	-	10,479
Savannah River Laboratory				
Subcontract for DOE-SR Public Reading Room at the University of South Carolina Aiken	81.RD	0000389067	-	73,595
Modification and Characterization of Gold Nanostructures	81.RD	0000472434	-	8,083
Component Development for Alkaline URFCs	81.RD	0000551183	-	19,932
Directed Electromagnetic Thermocatalysis for Selective Conversion of Waste Plastic to High Value Intermediates	81.RD	DE-AC09-08SR22470	-	25,379
University of South Carolina Darla Moore School of Business – Commercialization Potential of Engineered Cellular Magmatics	81.RD	DE-AC09-08SR22470	-	11,404
Improvements to the ALGE Aqueous Contaminant Transport Model	81.RD	DE-AC09-08SR22470/G-SOW-A-02238	-	94,166
A Unified Machine Learning Framework for Corrosion Surveillance and Quality Control in Additive Manufacturing	81.RD	G-SOW-A-02194	-	86,294

See accompanying Notes to Schedule of Expenditures of Federal Awards.

**UNIVERSITY OF SOUTH CAROLINA
SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS (CONTINUED)
YEAR ENDED JUNE 30, 2022**

Federal Grantor/Pass-Through Grantor/ Program or Cluster Title	Federal Assistance Listing Number	Grant Number	Passed Through to Subrecipients	Total Federal Expenditures
RESEARCH AND DEVELOPMENT CLUSTER (CONTINUED)				
U.S. Department of Energy (Continued)				
Pass-Through Programs from:				
Savannah River Laboratory (Continued)				
Component Development for Alkaline URFCs (Pre-Req 2019-000227)	81.RD	G-SOW-A-02197	\$ -	\$ 40,337
Al Glass Composition	81.RD	G-SOW-A-02235	-	21,600
Thermocatalytic Depolymerization of Mixed Plastic	81.RD	G-SOW-W-00049	-	9,148
Accurate and Efficient Qualification and Acceptance Protocol for Additively Manufactured Alloys	81.RD	PO:518117/G-SOW-A-02254	-	185,163
Critical Element Biomining: SOW 0000552644 to LDRD-2021-00108	81.RD	LDRD-2021-00108	-	19,167
SC Research Foundation				
Science and Technology Enrichment Program (STEP)	81.RD	0000360508	-	55,265
DIRC-based PID for the EIC Central Detector	81.RD	218624	-	18,187
DOE Nuclear Engineering Scholarship and Fellowship Program at USC	81.121	DE-NE0000095	-	40,438
Theoretical Investigation of Heterogeneous Catalysis at the Solid Liquid Interface for the Conversion of Lignocellulosic Biomass Model Molecules	81.049	DE-SC0007167	-	159,098
SC Universities Research & Education Foundation				
Earthquake Monitoring in South Carolina	81.RD	B139035 TO# 318418	-	82,457
Savannah River Environmental Sciences and Engineering Field Station 2020-21	81.RD	B139040	-	(781)
Savannah River Environmental Sciences and Engineering Field Station 2021-22	81.RD	G-SOW-A-02203 B139041	188,753	319,558
Special Power Sources, LLC				
Next Generation Durable, Cost Effective, Energy Efficient Tubular SOFC	81.089	SPS-USC-08012020	-	(3,688)
SRS Community Reuse Organization				
WORC	81.104	DE-EM0004214	-	97,494
Workforce Opportunities in Regional Careers II (WORC II)	81.104	DE-EM0005210	-	263,043
The Pennsylvania State University				
Novel Anion Exchange Membranes for High-Performance Fuel Cell Devices	81.087	5972-USC-DOE-8433	-	51,867
The University of Nebraska-Lincoln				
Online Monitoring System for Concrete Structures Affected by Alkali-Silica Reaction (ASR)	81.121	25-1120-0014-002	-	5,895
Triad National Security, LLC				
Development of Thermodynamic Databases for Molten Salts	81.RD	598942	-	8,585
Catalyst and Support Development	81.RD	600060	-	59,702
University of Colorado at Boulder				
Accelerated Selection of Optimal Perovskite Alloys for Solar PV using a Combined Quantum and Machine Learning Hierarchical Approach	81.087	DE-EE0009515 / 1561859	-	40,121
University of Connecticut				
in situ Measurement and Validation of Uranium Molten Salt Properties at Operationally Relevant Temperatures	81.121	5649590/317162/DE-NE0008772	-	44,658
Utah State University				
Separate Effects Tests and Modeling of Fuel Fracture and Cladding Rupture	81.121	200658-343	-	228,704
UT-Battelle, LLC				
Completion of the Molten Salt Thermal Properties Database-Thermochemical	81.RD	CW21750/4000197856	-	74,346
Cellular Automata Simulation Models for Non-equilibrium Solidification for The Metal Additive Manufacturing Process	81.RD	PO # 4000171122	-	14,262
Vanderbilt University				
High-dimensional Data-driven Energy Optimization for Multi-Modal Transit Agencies	81.086	UNIV60730	-	(262)
Westinghouse Electric Company, LLC				
Failure Mechanisms of ATF under PCMI and PCCI with U3Si2 Fuel and SiC Composite Cladding	81.121	4500793651	-	22,562
Impact of Hydride and Hydride Distribution on the Mechanical Strength of Accident Tolerant Fuel Clad	81.121	4500833787	-	86,832
Total U.S. Department of Energy			<u>1,680,095</u>	<u>10,434,246</u>
U.S. Department of Education				
Project IMPACT: Improving the Mental Health of Students with Emotional and Behavioral Disorders by Preparing School Counselors and Special Education Teachers to Collaborate on an Interdisciplinary Team	84.325	H325K190074	-	244,018
Application For Grants Under The Centers For International Business (Cibe) Program Funding Opportunity Number: Ed-Grants-060314-001	84.220	P220A180009	-	257,950
A Psychometric Investigation of Universal Screening for Social-Emotional Development in Preschool Using Parent and Teacher Informants	84.305	R305A150152	(47)	27,357
Morphological Awareness Test for Reading and Spelling (MATRS)	84.305	R305A170065	-	33,328
Investigating Psychometric Properties of BASC-3 Flex Progress Monitoring Forms with Preschool Students	84.324	R324A190066	-	244,683
Pass-Through Programs from:				
East Carolina University				
Improving Social, Emotional, Behavioral, and Academic Functioning of Elementary School Students through the Interconnected Systems Framework	84.324	R324A210179 / AWD-21-0003-S001	-	201,812
Winthrop University				
Evaluation of the Community Assistance for Rural Arts Education (CARE) Project	84.351	U00030553	-	8,610
Total U.S. Department of Education			<u>(47)</u>	<u>1,017,758</u>
National Archives & Records Administration				
The Revolutionary Era Pinckney Statesmen Of South Carolina: Final Stage	89.003	PE-103003-20	-	30,150
Papers of the Revolutionary Era Pinckney Statesmen - FINAL NHRPC proposal	89.003	PE-103181	-	87,530
Total National Archives & Records Administration			<u>-</u>	<u>117,680</u>

See accompanying Notes to Schedule of Expenditures of Federal Awards.

**UNIVERSITY OF SOUTH CAROLINA
SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS (CONTINUED)
YEAR ENDED JUNE 30, 2022**

Federal Grantor/Pass-Through Grantor/ Program or Cluster Title	Federal Assistance Listing Number	Grant Number	Passed Through to Subrecipients	Total Federal Expenditures
RESEARCH AND DEVELOPMENT CLUSTER (CONTINUED)				
U.S. Department of Health & Human Services				
Progression of Attentional and Executive Function Deficits in HAND	93.242	10011670	\$ -	\$ 28,907
Elucidation of the Mechanism Behind the Pro-Cognitive Effects of Intranasal Insulin	93.866	1F31AG066501-01A1	-	30,697
Investigating the vagal gut-brain circuit regulating hippocampal neurochemistry and neuroinflammation	93.847	1F31DK131773-01A1	-	4,392
A Positive Deviance Inquiry into the Health Behaviors of Children during Summer	93.865	1F31HD102045-01A1	-	21,925
Predictors of Effective Scaling: A Meta-Epidemiological Study of Bias in Early-Stage Studies to Prevent Chronic Disease	93.837	1F31HL158016-01	-	13,911
Advancing Knowledge about Exercise as a Therapeutic Management Strategy for Women with Polycystic Ovary Syndrome	93.361	1F31NR019206-01A1	-	15,093
The Longitudinal Influence of Home Disorganization on Children's Sleep Variability	93.233	1F32HL154530-01	-	15,733
8-Prenylningerinin: A Natural Therapy for Estrogen Deficiency	93.213	1K01AT010348-01A1	-	157,221
Sensorimotor Processing of Auditory Feedback in Aphasia	93.173	1K01DC015831-01A1	-	128,297
P.A.R.E.N.T.S.S. Project - Parents Adopting Recovery Management through New Technology for Self-Care and Support (for Mothers)	93.279	1K23DA051626-01A1	-	169,125
A Patient-Centered Asthma Management Communication Intervention for Rural Latino Children	93.838	1K23HL133596-01A1	-	142,361
Developing a Lifestyle Intervention to Reduce Body Weight for Obese African American Men Living in the Rural South	93.307	1K23MD013899-01	-	154,452
Developing a Community-Informed, Peer-to-Peer Intervention to Improve Health-Related Quality of Life among African American Men	93.307	1K23MD016123-01	-	93,349
Physiological Measurement of Attention as a Neurobehavioral Marker of Social Functioning and Emerging ASD Symptomatology in Infancy	93.242	1K23MH120476-01	-	179,167
Neurocognitive Impairments Resulting from Adolescent Prescription Opioid Use Disorder: Longitudinal Impact, Neural Mechanisms, and Comorbidities	93.279	1K99DA056288-01	-	15,414
Role of macrophages in CBD mediated attenuation of SEB-induced ARDS	93.859	1K99GM147910-01	-	22,597
K99/R00 The Development of Face-Processing Abilities in Infants: Structural and Functional Brain Changes During the First Year of Life (Application Identifier 599066)	93.865	1K99HD102566-01A1	-	90,821
Early Developmental Determinants and Pathways in Down syndrome	93.865	1K99HD105980-01	-	49,635
Determining and targeting mechanisms controlling cancer cell division	93.396	1P01CA254867-01A1	-	8,699
Treatment for Alcohol Use Disorder in Medicaid Managed Care	93.273	1R01AA029097-01	105,457	312,931
Brain Targeted Nanoparticle for Alzheimer's Disease Therapy	93.866	1R01AG054839-01A1	-	168,783
SCH: INT: Inferring at Home Gait Parameters of Older Adults using Floor Vibrations	93.866	1R01AG067395-01	74,952	229,200
Physical Activity and Weight Loss to Improve Function and Pain after Total Knee Replacement	93.866	1R01AG070004-01A1	58,015	544,762
Aging Symptom Trajectories in Mother Carriers of the FMR1 Premutation	93.866	1R01AG073374-01A1	-	5,000
AhR Ligands in Epigenetic Dysregulation of T Cells	93.855	1R01AI123947-01A1	-	406,836
Big Data Analytics of HIV Treatment Gaps in South Carolina: Identification and Prediction	93.855	1R01AI127203-01A1	12,696	459,062
Epigenetic Mechanisms of T Cell Dysregulation in PTSD	93.855	1R01AI129788-01	130,800	437,330
Control of Facial Amphiphilicity to Tune Macromolecular Interactions with Bacteria	93.855	1R01AI149810-01A1	-	332,686
B-cell-intrinsic MHCII Signaling is a Diversifying Force of Selection on IGA Repertoires and the Gut Microbiota	93.855	1R01AI155887-01A1	-	389,985
Role of the environmental sensor, AhR on colitis	93.855	1R01AI160896-01A1	-	98,378
Patterns and predictors of viral suppression: A Big Data approach	93.855	1R01AI164947-01	-	338,393
Improving mosquito control methodologies through development of technology-driven traps and artificial intelligence guided detection of mosquito breeding habitats	93.855	1R01AI165560-01	64,961	230,156
Peers Promoting Exercise Adoption and Maintenance among Cancer Survivors	93.394	1R01CA183849-01A1	-	133,752
Evaluation of Cigarette Package Inserts for Enhanced Communication with Smokers	93.393	1R01CA215466-01A1	125,067	318,108
Targeting the p62 Signosome in Leukemia.	93.393	1R01CA218076-01	-	307,040
Emodin as a Chemopreventive Agent for Breast Cancer	93.393	1R01CA218578-01A1	-	395,306
Peer Coaching for Physical Activity Promotion among Breast Cancer Survivors: Adapting an Efficacious Intervention to Prepare for Implementation	93.394	1R01CA242745-01A1	32,487	170,471
Harnessing the Power of p53 with Panaxynol from American Ginseng to Suppress Colitis and Prevent Colon Cancer	93.393	1R01CA246809-01	-	271,975
Inhibiting tumor growth and metastasis in highly aggressive breast cancers with centrosome amplification	93.396	1R01CA251374-01A1	-	248,258
Overcoming chemoresistance in triple negative breast cancer	93.395	1R01CA267101-01	-	59,689
Medicaid Managed Care Coverage and Utilization Management of Opioid Use Disorder Treatment	93.279	1R01DA052425-01A1	204,965	372,043
Knowledge discovery and machine learning to Elucidate the Mechanisms of HIV Activity and Interaction with Substance Use Disorder	93.279	1R01DA054992-01	-	90,726
Word Learning in Reading and Language Impairment Subgroups	93.173	1R01DC017156-01	259,345	680,272
Core Semantic Systems of the Human Brain	93.173	1R01DC017162-01A1	-	3,868
Early Language and Literacy Acquisition in Children with Hearing Loss	93.173	1R01DC017173-01	75,239	159,460
Neural Bases of Vocal Sensorimotor Impairment in Aphasia	93.173	1R01DC018523-01A1	47,692	327,700
What's UP (Undermining Prevention) with Summer? Etiology of Accelerated Weight Gain during Summer vs. School Year	93.847	1R01DK116665-01A1	-	541,805
Reducing Health Disparities in Childhood Obesity Using Financial Incentives in Low-income Households	93.847	1R01DK120490-01A1	-	681,089
Ensuring the cultural relevance of Dietary Guidelines diet patterns among African Americans: Increasing dietary quality and reducing type 2 diabetes risk	93.847	1R01DK128057-01	-	456,026
Evaluating nutrition labeling policy changes in the US and Mexico.	93.847	1R01DK128967-01A1	68,812	344,659
Validity and Utility of Consumer-based Wearable Fitness Trackers to Monitor Free-Living Physical Activity	93.847	1R01DK129215-01A1	-	64,771
Targeting important behaviors for weight loss through the use of social gaming and points: The Social Pounds Off Digitally (Social POD) study	93.847	1R01DK129302-01	-	335,438
Understanding Community Obesity Initiatives and Informing Tailored Community Interventions to Reduce Childhood Obesity	93.847	1R01DK129307-01	22,324	229,456
LRRc8 anion channels, superoxide and RhoA in diabetic erectile dysfunction	93.847	1R01DK132948-01	-	10,038
Promoting Healthy Weight in Pregnancy and Postpartum among Overweight/Obese Women	93.865	1R01HD078407-01A1	-	45,899
Physical Activity, Sedentary Behavior and Weight Status in Early Childhood	93.865	1R01HD091483-01A1	-	349,967

See accompanying Notes to Schedule of Expenditures of Federal Awards.

**UNIVERSITY OF SOUTH CAROLINA
SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS (CONTINUED)
YEAR ENDED JUNE 30, 2022**

Federal Grantor/Pass-Through Grantor/ Program or Cluster Title	Federal Assistance Listing Number	Grant Number	Passed Through to Subrecipients	Total Federal Expenditures
RESEARCH AND DEVELOPMENT CLUSTER (CONTINUED)				
U.S. Department of Health & Human Services (Continued)				
Linking Altered Cortical Sensorimotor Integration with Movement Impairments in Back Pain	93.865	1R01HD095959-01	\$ -	\$ 135,771
Therapeutic Targeting of Tissue Inhibitor-4 in Hypertrophy and Failure	93.837	1R01HL130972-01A1	27,077	38,341
Molecular Basis of Exercise-induced Changes in HDL Function	93.837	1R01HL146462-01	263,783	563,191
A Meta-Epidemiological Assessment of the Role of Pilot Studies in the Design of Well-Powered Trials – the Pilot Project	93.837	1R01HL149141-01	76,808	623,239
Functional implications of CPVT1-associated RyR2 mutations in human cardiomyocytes	93.837	1R01HL153504-01A1	87,740	263,584
Metabolic control of vascular smooth muscle cell plasticity	93.837	1R01HL160541-01	-	261,429
The Together Everyone Achieves More Physical Activity Trial (TEAM-PA)	93.837	1R01HL160618-01	-	141,288
Expanding the reach of the Nutritious Eating with Soul program: A Type 2 hybrid effectiveness-implementation trial	93.837	1R01HL163714-01	-	36,405
Hospital quality, Medicaid expansion and racial/ethnic disparities in maternal mortality and morbidity	93.307	1R01MD016012-01	424,875	592,102
Progression of Attentional and Executive Function Deficits in HAND	93.242	1R01MH106392-01A1	-	1,730
Emergence, Stability and Predictors of Anxiety in Fragile X Syndrome	93.242	1R01MH107573-01A1	19,991	342,414
HIV-Related Stigma and HIV Clinical Outcomes	93.242	1R01MH112376-01	-	159,494
Estrogen Mediated Mechanisms of Stress Susceptibility	93.242	1R01MH113892-01A1	-	396,029
ASH1L mediated transcription networks in autism spectrum disorders	93.242	1R01MH127081-01A1	12,477	111,466
Mitigate the effect of HIV-related stigma through a resilience approach	93.242	1R01MH127961-01A1	-	34,256
Connect through P.L.A.Y.: A staff-based intervention targeting social mechanisms for promoting physical activity within after school programs for underserved middle school youth	93.361	1R01NR017619-01	-	460,257
Central & Peripheral Body Temperature in VLBW Preterm Infants During the Neonatal Period: Relationship to Neonatal Infection and Necrotizing Enterocolitis	93.361	1R01NR017872-01A1	278,694	495,656
Neurobiological Mechanisms of Apathy in HAND & Antagonistic Roles of HuD and KSRP for mRNA stability in Neuronal Growth	93.853	1R01NS100624-01A1_1R01NS089633	28,196	502,363
Role of proteoglycan-mediated trans-axonal signaling in pre-target topographic sorting	93.853	1R01NS109197-01	-	263,498
Role of Stress Granule Protein Aggregation in Axon Regeneration	93.853	1R01NS117821-01	203,222	471,078
Investigating Citric Acid Cycle Perturbations in Complex-I Deficient Mitochondrial Encephalopathy	93.853	1R01NS126851-01	-	38,277
Electronic cigarettes in Latin America: Evaluation of impacts and policy options	93.989	1R01TW010652-01	56,076	275,010
Lamin A and the Fidelity of DNA Double-Strand Break Repair	93.866	1R03AG064525-01A1	-	16,625
Flexible Biomarker Evaluation Through a Cost-Effective Data Collection Mechanism	93.855	1R03AI135614-01A1	-	11,863
Identifying Genetic Loci Associated with Neurocristopathies using the Deer Mouse, Peromyscus maniculatus	93.121	1R03DF028371-01A1	47,357	128,060
Ing4-deficiency enhances the regenerative capacity of multipotent progenitor cells	93.847	1R03DK124738-01A1	-	17,405
Estimating population level infertility and fertility treatment rates	93.865	1R03HD097287-01	-	23,129
Racial/Ethnic Disparities in Care Practices, Outcomes, and Hospital Transfer Among Infants Born at 22-29 Weeks Gestation	93.865	1R03HD097305-01	-	35,963
Aging Language Trajectories in Premutation Carrier Mothers	93.865	1R03HD098291-01	-	27,284
Promoting High-Impact Alzheimer's Disease Research through the Use of Statewide Registries: Expanding Diversity in Aging Research	93.866	1R13AG074603-01	-	1,797
RAD51-dependent homologous recombination and thiopurine treatments for cancer	93.395	1R15CA223956-01A1	-	134,333
Mechanisms of Increased Fall Risk among Older Adults with Depression: A Causal Mediation Analysis	93.866	1R21AG064310-01	-	63,913
Periodontal antibodies to predict Alzheimer's disease mortality	93.866	1R21AG070449-01	-	140,432
Mechanism of MHC Heterozygote Advantage During Anti-Commensal Germinal Center B Cell Selection	93.855	1R21AI142409-01A1	-	38,605
Identification and validation of Zika virus receptor(s) in the midgut lumen of Aedes aegypti	93.855	1R21AI151475-01A1	-	167,892
Improving Immunization Information System Implementation in Community Pharmacies	93.855	1R21AI159590-01A1	-	9,361
Integrated Data Analysis of Determinants of Low-Dose CT Screening for Lung Cancer	93.393	1R21CA234295-01A1	-	139,447
Development of a noninvasive, rapid and affordable method for early detection of colorectal cancer	93.394	1R21CA245651-01A1	-	163,131
Nanoparticle-delivered miR-489 rejuvenates anthracycline-based chemotherapy	93.395	1R21CA252360-01	-	120,130
Development of non-ATP competitive chemical biology probes to elucidate mechanisms of PLK1 activation and stability.	93.395	1R21CA263359-01	-	118,108
scDECO: A novel statistical framework to systematically identify differential co-expression gene combinations using single-cell RNA sequencing data	93.396	1R21CA264353-01	7,900	80,525
Impact of Dead Box RNA Helicase 3 Signaling on HIV-1 Tat- and Cocaine-Induced Neurotoxicity	93.279	1R21DA047936-01	-	23,348
Neurobehavioral Determinants of Social Communication and Language Impairments in At-Risk Infants	93.173	1R21DC017252-01A1	-	173,134
Defining the Language Phenotype of the FMR1 Premutation	93.173	1R21DC017804-01	-	216,983
The Nurse Champion Model for Sickle Cell Disease Early Diagnosis and Care Access	93.847	1R21DK125917-01A1	-	10,378
Validity and Utility of a PATCH to Monitor Free-living Energy Expenditure in Children 3 to 8 Years Old	93.847	1R21DK131387-01	-	74,879
Interventions to Promote Healthy Lifestyle and Academic Performance in Children during the Summer Months	93.865	1R21HD090647-01A1	-	6,291
Product Testing Movement Integration Products: Identifying What Works and What Doesn't	93.865	1R21HD091394-01A1	-	76,499
Language difference or difficulty learning? Assessing early language skills to identify risk for reading difficulty among young Spanish-English dual language learners	93.865	1R21HD106072-01	53,073	122,933
Copy Number Variation and Lung Cancer: Disease Risk and Mechanisms	93.172	1R21HG010925-01A1	28,244	98,476
Deciphering the cellular roles of LIS1 in the mature nervous system	93.853	1R21NS123539-01A1	-	23,337
Beyond ephrins: unbiased discovery of novel signaling pathways regulating topographic map formation and maturation in vivo	93.853	1R21NS124542-01	-	24,987
Using LIS1 missense mutations to probe dynein regulatory mechanisms	93.853	1R21NS125481-01	-	53,804
Intersecting Stigma Against MSM in Clinical Settings in Zambia	93.989	1R21TW011064-01A1	43,377	43,377
Promoting diversity in research training and new learning experience for underrepresented minority Students	93.866	1R25AG067934-01	-	290,937
Big Data Health Science Fellow Program for Infectious Diseases (R25)	93.855	1R25AI164581-01	-	252,003
Mechanisms of Iron and Thiol Redox Regulation in Yeast	93.859	1R35GM118164-01	-	19,932
Quantitative genetics and population genomics of repeated complex trait evolution	93.859	1R35GM142636-01	-	233,309
Microglial Modulation of Nicotine Dependence	93.279	1R36DA049087-01A1	-	11,563
Functional Implications of RyR2 Mutations in Human Cardiomyocytes	93.837	1R56HL147054-01	83,098	136,521

See accompanying Notes to Schedule of Expenditures of Federal Awards.

**UNIVERSITY OF SOUTH CAROLINA
SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS (CONTINUED)
YEAR ENDED JUNE 30, 2022**

Federal Grantor/Pass-Through Grantor/ Program or Cluster Title	Federal Assistance Listing Number	Grant Number	Passed Through to Subrecipients	Total Federal Expenditures
RESEARCH AND DEVELOPMENT CLUSTER (CONTINUED)				
U.S. Department of Health & Human Services (Continued)				
Anaplerotic Therapy for Mitochondrial Complex I Deficiency	93.853	1R56NS116174-01	\$ -	\$ 159,193
Big Data Health Science Scholar Program for Infectious Diseases	93.855	1T35A1165252-01	-	126,048
DICAYA: South Carolina Youth (Component A)	93.945	1U18DP006513-01-00	76,780	240,463
CAM Center for Epigenetic Regulation of Inflammation (Admin. Core)	93.213	2P01AT003961-06A1	-	36,014
South Carolina IDeA Networks of Biomedical Research Excellence (SC INBRE) - Administrative Core - Year 1 of 5 (Competing Continuation)	93.859	2P20GM103499-20	2,373,164	3,118,401
Center for the Study of Aphasia Recovery (C-STAR) - (Admin Core)	93.173	2P50DC014664-06A1	966,783	1,972,265
HIV/Cocaine Neurotoxicity in Females	93.279	2R01DA013137-16	142,468	486,249
The Development of Sustained Attention in Infants	93.865	2R01HD018942-31	-	338,231
Destabilization of axonal mRNAs by KHSRP complexes controls axon regeneration	93.853	2R01NS089633-06A1	22,519	227,317
South Carolina - Advancing Diversity in Aging Research Undergraduate Program (Year 6 - Competing Renewal)	93.866	2R25AG050484-06	-	137,496
UofSC Postbaccalaureate Research Education Program	93.859	2R25GM066526-15A1	-	7,177
Mechanisms of Fungal Iron Regulation and Thiol Redox Metabolism	93.859	2R35GM118164-06	-	118,013
Physiological Measurement of Attention as a Neurobehavioral Marker of Social Functioning and Emerging ASD Symptomology in Infancy	93.242	3K23MH120476-02S1	-	39,186
South Carolina IDeA Networks of Biomedical Research Excellence (SC INBRE) - Administrative Core - Year 1 of 5 (Competing Continuation)	93.859	3P20GM103499-20S1	-	51,998
South Carolina IDeA Networks of Biomedical Research Excellence (SC INBRE) - Administrative Core - Year 1 of 5 (Competing Continuation)	93.859	3P20GM103499-21S1	22,008	22,008
COBRE - Center for Dietary Supplements and Inflammation (Admin Core Year 4)	93.859	3P20GM103641-09S1	-	137,937
COBRE - Center for Dietary Supplements and Inflammation (Admin Core Year 4)	93.859	3P20GM103641-09S2	-	250,000
Center for Targeted Therapeutics	93.859	3P20GM109091-08S1	-	359,436
Center for Targeted Therapeutics	93.859	3P20GM109091-08S2	-	248,099
Center for the Study of Aphasia Recovery (C-STAR) - (Admin Core)	93.173	3P50DC014664-06A1S1	-	4,375
Center for the Study of Aphasia Recovery (C-STAR) - (Admin Core)	93.173	3P50DC014664-06A1S2	-	56,417
AhR Ligands in Epigenetic Dysregulation of T Cells	93.855	3R01AI123947-04S1	-	36,690
AhR Ligands in Epigenetic Dysregulation of T Cells	93.855	3R01AI123947-04S2	-	34,233
Big Data Analytics of HIV Treatment Gaps in South Carolina: Identification and Prediction	93.855	3R01AI127203-04S1	-	286,720
Multi-level Determinants of Racial Disparities in Maternal Morbidity and Mortality During the COVID-19 Pandemic	93.855	3R01AI127203-05S2	-	478,179
Emodin as a Chemopreventive Agent for Breast Cancer	93.393	3R01CA1218578-03S1	-	66,798
Harnessing the Power of p53 with Panaxynol from American Ginseng to Suppress Colitis and Prevent Colon Cancer	93.393	3R01CA246809-02S1	-	32,598
Core Semantic Systems of the Human Brain	93.173	3R01DC017162	-	148,265
Core Semantic Systems of the Human Brain	93.173	3R01DC017162-02S1	-	84,775
Impact of Disparities in Food Security on Glycemic Control and Health Care Utilization Among Youth and Young Adults with Diabetes	93.847	3R01DK117461-03S1	-	40,255
A Nutrition-Based Approach to Reduce Heart Disease Risk Among Overweight African Americans: Use of Soul Food Plant-Based or Omnivorous Diets to Address Cardiovascular Disease	93.837	3R01HL135220-04S1	-	88,330
Molecular Basis of Exercise-induced Changes in HDL Function	93.837	3R01HL146462-02S1 REVISED	-	25,154
Emergence and Stability of Autism in Fragile X Syndrome	93.242	3R01MH090194-08S1	4,174	33,758
HIV-Related Stigma and HIV Clinical Outcomes	93.242	3R01MH112376-04S1	-	13,116
Role of Stress Granule Protein Aggregation in Axon Regeneration	93.853	3R01NS117821-02S1	31,512	31,512
Electronic cigarettes in Latin America: Evaluation of impacts and policy options	93.989	3R01TW010652-04S1	52,245	64,865
The Effects of Ojeok-San on Neuro-Immune Interactions on Cancer-Induced Visceral Pain	93.213	4R00AT009206-03	-	139,164
microRNA therapies for advanced brain tumors	93.395	4R00CA245030-02	-	68,268
Role of nucleus accumbens D2-expressing neurons in punished cocaine seeking	93.279	4R00DA044331-03	-	179,122
Autophagy regulates β -hydroxybutyrate synthesis to prevent hypertension-associated premature vascular aging	93.837	4R00HL151889-03	-	191,114
Rural Health Research Center Program 2020 (Award Transfer from SCRF to USC)	93.155	5 U1CRH30539-06-00	49,970	768,976
A Positive Deviance Inquiry into the Health Behaviors of Children during Summer	93.865	5F31HD102045-02	-	7,159
Early Indicators of Autism Risk in Down Syndrome	93.865	5F32HD097877-03	-	17,567
The Longitudinal Influence of Home Disorganization on Children's Sleep Variability	93.233	5F32HL154530-02	-	58,875
Addiction Treatment in Medicaid Health Homes	93.279	5K01DA041628-05	-	19,493
Improving the HIV Care Continuum for Youth in the Deep South through Mobile Health Technology	93.242	5K01MH118073-03	-	150,801
Interactions of Climate Change on Oceans and Human Health (CAPICCOHH): Assessment of Effects on Ocean Health Related Illness and Disease and Development of Prevention Strategies to Better Protect Public Health	93.113	5P01ES028942-03 & -04	320,355	1,185,278
Interactions of Climate Change on Oceans and Human Health (CAPICCOHH): Assessment of Effects on Ocean Health Related Illness and Disease and Development of Prevention Strategies to Better Protect Public Health	93.113	5P01ES028942-05	-	65
South Carolina IDeA Networks of Biomedical Research Excellence (SC INBRE) - Administrative Core - Year 1 of 5 (Competing Continuation)	93.859	5P20GM103499-21	393,086	1,267,516
COBRE - Center for Dietary Supplements and Inflammation (Admin Core Year 4)	93.859	5P20GM103641-08	-	(64)
COBRE - Center for Dietary Supplements and Inflammation (Admin Core Year 4)	93.859	5P20GM103641-09	-	1,998,111
COBRE - Center for Dietary Supplements and Inflammation (Admin Core Year 4)	93.859	5P20GM103641-10	-	51,912
Center for Targeted Therapeutics	93.859	5P20GM109091-08	-	1,616,936
Center for Targeted Therapeutics	93.859	5P20GM109091-09	-	269,759
Research Center for Child Well-Being--COBRE (Admin Core)	93.859	5P20GM130420-02	-	1,922,015
Research Center for Child Well-Being--COBRE (Admin Core)	93.859	5P20GM130420-03	-	574,319
Carolina Center on Alzheimer's Disease and Minority Research (CCADMR) - Admin Core	93.866	5P30AG059294-03	24,942	31,579
Carolina Center on Alzheimer's Disease and Minority Research (CCADMR) - Admin Core	93.866	5P30AG059294-04	87,380	486,571
Center for the Study of Aphasia Recovery (C-STAR) - (Admin Core)	93.173	5P50DC014664-07	-	290,519
Evaluation of Cigarette Package Inserts for Enhanced Communication with Smokers	93.393	5R01CA215466-02 REVISED	-	19,704
Evaluation of Cigarette Package Inserts for Enhanced Communication with Smokers	93.393	5R01CA215466-03	-	15,538

See accompanying Notes to Schedule of Expenditures of Federal Awards.

**UNIVERSITY OF SOUTH CAROLINA
SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS (CONTINUED)
YEAR ENDED JUNE 30, 2022**

Federal Grantor/Pass-Through Grantor/ Program or Cluster Title	Federal Assistance Listing Number	Grant Number	Passed Through to Subrecipients	Total Federal Expenditures
RESEARCH AND DEVELOPMENT CLUSTER (CONTINUED)				
U.S. Department of Health & Human Services (Continued)				
Reducing Health Disparities in Childhood Obesity Using Financial Incentives in Low-income Households	93.847	5R01DK120490-03	\$ -	\$ 18,399
Epigenetic mechanisms in Transgenerational Effects of an Environmental Pollutant	93.113	5R01ES030144-02	-	410,700
Physical Activity, Sedentary Behavior and Weight Status in Early Childhood	93.865	5R01HD091483-04	-	30,948
A Nutrition-Based Approach to Reduce Heart Disease Risk Among Overweight African Americans: Use of Soul Food Plant-Based or Omnivorous Diets to Address Cardiovascular Disease	93.837	5R01HL135220-04	-	(17)
A Nutrition-Based Approach to Reduce Heart Disease Risk Among Overweight African Americans: Use of Soul Food Plant-Based or Omnivorous Diets to Address Cardiovascular Disease	93.837	5R01HL135220-05	-	511,804
Molecular Basis of Exercise-induced Changes in HDL Function	93.837	5R01HL146462-03	-	11,671
Molecular Basis of Exercise-induced Changes in HDL Function	93.837	5R01HL146462-04	-	7,621
Mechanism of MHC Heterozygote Advantage During Anti-Commensal Germinal Center B Cell Selection	93.855	5R21AI142409-02	-	45
Reducing Sedentary Time Using an Innovative mHealth Intervention Among Total Knee Replacement Patients	93.846	5R21AR074780-02	18,527	120,390
Reducing Sedentary Time Using an Innovative mHealth Intervention Among Total Knee Replacement Patients	93.846	5R21AR074780-03	-	4,319
South Carolina - Advancing Diversity in Aging Research Undergraduate Program (Year 6 - Competing Renewal)	93.866	5R25AG050484-07	-	9,735
Biomedical-Behavioral Interface: Prevention and Developmental Sciences Training	93.859	5T3ZGM081740-13	-	41,525
Biomedical-Behavioral Interface: Prevention and Developmental Sciences Training	93.859	5T3ZGM081740-14	-	397,481
Coordinating Center for Research to Promote the Health of Children with Birth Defects and People with Developmental and Other Disabilities	93.073	5U19DD001218-03-00	847,875	1,276,100
Rural Health Research Center Program 2020 (Award Transfer from SCRF to USC)	93.155	5U1CRH30539-06-00	-	18,576
USC PRC Center and Core Research Project: National Implementation Study of the Faith, Activity, and Nutrition (FAN) Program (Center Core)	93.135	5U48DP006401-02-00	9,368	362,874
USC PRC Center and Core Research Project: National Implementation Study of the Faith, Activity, and Nutrition (FAN) Program (Center Core)	93.135	5U48DP006401-03-00	3,676	749,807
USC PRC Center and Core Research Project: National Implementation Study of the Faith, Activity, and Nutrition (FAN) Program (Center Core)	93.135	6U48DP006401-02-01	129,314	392,536
USC PRC Center and Core Research Project: National Implementation Study of the Faith, Activity, and Nutrition (FAN) Program (Center Core)	93.135	6U48DP006401-03-01	-	63,023
Socio-Ecological Coupling of Antibiotic Resistance and the Potential Risk of Human Exposure to AR Pathogens in Bioaerosols Generated During Wastewater Treatment	93.RD	75D30118C02903	-	120
Examining the presence and possible transmission of SARS-CoV-2 within municipal sewage treatment facilities and their employees	93.RD	75D30120P_08501	-	161,914
Insights into Microbiome and Environmental Contributions to Sickle Cell Disease and Leg Ulcers Study	93.RD	75N92019P00362	28,000	42,263
Dyadic Influence Processes Among Heavy Drinking Couples	93.273	7K01AA027547-03	17,647	147,085
Epigenetic mechanisms of stress and age-related cognitive decline	93.866	7K01AG061263-02	-	199,439
A Screen for Epigenetic Regulators of Hematopoiesis Reveals a Requirement for the Hbo1 Complex during Hematopoietic Stem Cell Specification	93.847	7K01DK104974-03	-	15,739
Developing a Trauma-Focused Intervention for Older Adults Living with HIV	93.242	7K01MH115794-02	-	110,931
Intrarenal Arteries Sense N-Formyl Peptides Leading to Vascular Injury in Sepsis	93.859	7R00GM118885-06	-	61,568
Vascular Pathogenesis of Port Wine Stain	93.846	7R01AR073172-02	35,308	127,784
Formyl peptide receptor activation induces vascular plasticity and remodeling in hypertension	93.837	7R01HL149762-02	-	301,037
Kynurenic Acid, Sleep and Cognition	93.853	7R01NS102209-03	-	219,432
Improving Adherence to Adjuvant Hormonal Therapy among Disadvantaged Breast Cancer Survivors	93.398	KCA193667A	-	13,953
Examining mRNA Localization in Central Sensory Axons after Peripheral Nerve Injury	93.853	KNS105879A	-	99,067
COBRE - Center for Dietary Supplements and Inflammation (Admin Core Year 4)	93.859	P20GM103641	-	12,687
South Carolina-Advancing Diversity in Aging Research Undergraduate Program	93.866	RAG050484A	-	8,351
Hypocretin/orexin Modulation of Cognitive Correlates of Brain Aging	93.866	RAG050518A	5,972	41,016
Impact of HIV-1 Tat Protein on Cocaine-Dopamine Transporter Interaction	93.279	RDA035714C	240,450	502,481
Impact of Disparities in Food Security on Glycemic Control and Health Care Utilization Among Youth and Young Adults with Diabetes	93.847	RDK117461A	274,460	567,420
PeriOral treatment to Eliminate Minority Inequality and Rural disparities in Stroke (PREMIERS)	93.307	RMD009738A	179,783	248,102
Emergence and Stability of Autism in Fragile X Syndrome	93.242	RMH090194B	-	300,308
Does Preference-based HIV Testing Increase Uptake in High Risk Populations?	93.242	RMH106388B	17,723	20,287
Electronic cigarettes in Latin America: Evaluation of impacts and policy options	93.989	RTW010652A	-	15,806
Pass-Through Programs from:				
AcePre, LLC				
A novel polymer-metal nanocomplex for ovarian cancer treatment	93.395	1R41CA254500-01A1	-	102,247
Development of dietary quercetin to treat muscle wasting disorders	93.213	1R43AT011171-01	-	65,190
Advanced Smart Systems & Evaluation Technology				
Mitigating Falls in Older Adults through Low-cost, Non-intrusive Activity and Gait Analysis from Floor Vibrations	93.866	2R42AG059475-02A1	-	65,086
Agency for Healthcare Research & Quality				
Effects of Musculoskeletal Surgery Rate of Medicare Costs	93.226	1R01HS027177-01A1	43,170	240,481
Effect of the patient-centered medical home on geographic and racial disparities in health care access	93.226	1R03HS026263-01A1	-	20,517
Effects of Musculoskeletal Surgery Rate of Medicare Costs	93.226	5R01HS027177-02	68,928	156,449
Augusta University				
Damage-Associated Molecular Patterns in Hypertension	93.837	31108-1 / 5P01HL134604-05	-	603,676
Thermosensitive TRPM8 Channels and Diabetic Erectile Dysfunction	93.847	32307-72	-	8,148
Implementation of Medical Homes for Evidence Based Care of Adolescents and Adults with Sickle Cell Disease - Diversity Supplement	93.839	3U01HL134004-06S2 / 36549-1	-	105,105
Beth Israel Deaconess Medical Center				
An Integrated Multilevel Modeling Framework for Repertoire-Based Diagnostics	93.855	01062446	-	14,282
Biochemical profiling to identify cardiometabolic responsiveness to an endurance exercise intervention	93.361	01063198	-	65,391

See accompanying Notes to Schedule of Expenditures of Federal Awards.

**UNIVERSITY OF SOUTH CAROLINA
SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS (CONTINUED)
YEAR ENDED JUNE 30, 2022**

Federal Grantor/Pass-Through Grantor/ Program or Cluster Title	Federal Assistance Listing Number	Grant Number	Passed Through to Subrecipients	Total Federal Expenditures
RESEARCH AND DEVELOPMENT CLUSTER (CONTINUED)				
U.S. Department of Health & Human Services (Continued)				
Pass-Through Programs from:				
Brandeis University				
Alcohol treatment in Medicaid Managed Care Plans: Disparities in Policies and Outcomes	93.273	1R01AA029821-01 /GR404254_USC	\$ -	\$ 8,602
Examining opioid use disorder treatment in Medicaid managed care plans: policies and outcomes	93.279	GR404038	-	37,853
Brigham & Women's Hospital				
Partnership in Implementation Science for Geriatric Mental Health (PRISM) - Administrative Core	93.242	117722 5U19MH113201-05	-	20,150
Partnership in Implementation Science for Geriatric Mental Health (PRISM) - Prism Capacity Building Component	93.242	117729 5U19MH113201-04	-	791
Partnership in Implementation Science for Geriatric Mental Health (PRISM) - Prism Capacity Building Component	93.242	117729 5U19MH113201-05	-	16,112
Partnership in Implementation Science for Geriatric Mental Health (PRISM) - Prism Scale Up Study	93.242	117730	-	84,510
Knee Arthroplasty Activity (kArAT) Trial - U56 Proposal	93.846	1U56AR075288-01A1	-	8,684
CDC Foundation				
Improving STD Prevention and Care Through Partnerships	93.421	6NU380T000288-04-01	-	91,708
Children's Hospital, PA				
COG: Per Case Reimbursement (NCTN Grant 2U10CA180886)	93.395	FP00026529_SUB104_01	-	36,212
COG: Workload intensity (NCTN Grant 2U10CA180886)	93.395	FP00026529_SUB279_01	-	10,012
Children's Trust Fund of South Carolina				
SC MIECHV FY19 Evaluation Case Studies	93.870	MIEC-2019-2021-CARE-1	-	40,292
SC MIECHV Client and Staff Attrition Evaluation	93.870	MIEC-2019-2021-RMHRC-1	-	86,239
SC MIECHV FY20 Evaluation-- Understanding Organizational Culture	93.870	MIEC-2020-2022-CARE-1	-	59,009
Continuing the Examination of SC MIECHV Client and Staff Attrition and the Organizational Factors that Promote Retention	93.870	MIEC-2020-2022-RMHRC-1	-	272,110
MIECHV Coordinated State Evaluation FY 2021 (2021-2023)	93.870	MIEC-2021-2023-CARE-1	-	10,254
FY 2021 MIECHV Coordinated Evaluation Project	93.870	MIEC-2021-2023-RMHRC-1	-	495
Clemson University				
Theranostic approach to treat abdominal aortic aneurysms	93.837	1935-209-2011885	-	16,673
Targeted Therapy to Reverse Vascular Calcification	93.837	2095-209-2023055	-	121,233
Cardiovascular Calcification: Mechanisms and Therapy	93.837	2150-209-2013514	-	33,576
Duke University				
Health system outreach to eliminate disparities in living kidney transplants	93.847	1U01DK127918-01	-	8,141
NIH Centers for AIDS Research (CFAR) Engaging pharmacies for HIV prevention in South Carolina	93.855	2P30AI064518-16	-	(20)
HRSA Special Projects of National Significance (SPNS) - Strength Through Youth Livin' Empowered 2.0	93.928	309-0128	4,017	6,887
Pediatric Migraine Registry: A National Registry of Children and Adolescents with Migraine	93.103	5U18FD006298-02	-	10,226
Positive Outcomes for Orphans (POFO): HIV Risk as Young Adults	93.865	A03-2078	-	38,407
TRANScranial Direct Current Stimulation for Post-Stroke Motor Recovery - A Phase II Study (TRANSPORT 2)	93.853	A033728	-	49,947
A Tailored School- Based Intervention to Increase Vaccine Uptake Among Adolescents in the Rural South	93.185	A033950	-	104,162
Pharmacokinetics, Pharmacodynamics, and Safety Profile of Understudied Drugs Administered to Children per Standard of Care II (POPS II)	93.RD	SPS #243797	-	900
East Carolina University				
Homeostatic Reset as a New Therapeutic Paradigm for Slow Progression Diseases	93.859	1R01GM14625701/AWD2101075001	-	41,270
Emory University				
Ovarian Cancer Survival in African-American Women	93.393	1R01CA237318-01A1 A359264	27,921	77,344
Fact Forward				
1B Ripple Effect Mapping, 2020	93.297	1TP1AH000126-05-00	-	36
Georgia State University				
Communicating about Nicotine and Differential Risks of Tobacco Products	93.077	3R01CA239308-03S2/SP00015176-01	-	9,639
Communicating about Nicotine and Differential Risks of Tobacco Products	93.077	5R01CA239308-03/SP00015131-01	-	66,327
Communicating about Nicotine and Differential Risks of Tobacco Products	93.077	SP00014490-01	-	34,088
Health Research, Inc.				
Multi-ethnic high-throughput study to identify novel non-HLA genetic contributors to mortality after blood and marrow transplantation	93.393	465-01	-	27,201
Henry M. Jackson Foundation				
Role of Ly6K in TGF and Immune Escape Pathways of Triple Negative Breast Cancer	93.396	1R01CA227694-01_HJF#65590	-	59,148
Role of Ly6K in TGF and Immune Escape Pathways of Triple Negative Breast Cancer	93.396	4498-PO #949909	-	16,882
Indoor Biotechnologies, Inc.				
Antigenic determinants of asthma-associated allergens for design of immunotherapy	93.855	2R01AI077653-10A1	-	65,374
International Agency for Research on Cancer				
InterLymph Consortium: interrogating pleiotropy and gene by environment interactions among hematopoietic malignancies	93.393	CRA-GEM-2021-9	-	13,120
Johns Hopkins University				
Evaluation of a New Policy Promoting Nutrition and Physical Activity in Family Child Care in South Carolina	93.865	2003548903	-	84,192
Kent State University				
Pathways regulating fear in the nucleus accumbens	93.242	R15MH118705 / 403044-USC	-	44,091
Leidos Biomedical Research, Inc				
Dynamic Multiscale Digital Twin for a Lung Cancer Patient	93.RD	21X130F	6,632	29,150

See accompanying Notes to Schedule of Expenditures of Federal Awards.

**UNIVERSITY OF SOUTH CAROLINA
SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS (CONTINUED)
YEAR ENDED JUNE 30, 2022**

Federal Grantor/Pass-Through Grantor/ Program or Cluster Title	Federal Assistance Listing Number	Grant Number	Passed Through to Subrecipients	Total Federal Expenditures
RESEARCH AND DEVELOPMENT CLUSTER (CONTINUED)				
U.S. Department of Health & Human Services (Continued)				
Pass-Through Programs from:				
Medical University of South Carolina				
Predicting and Understanding the Use of Nicotine Products in a Rapidly Evolving Nicotine Marketplace:				
The International Nicotine Product, Regulatory Policy, and Market (INPRAM) Study.	93.393	2P01CA200512-06/A00-2527-5021	\$ -	\$ 9,525
Brain Connectivity Supporting Language Recovery in Aphasia	93.173	2R01DC014021-06 A00-1555-5002	-	40,466
Trials and ReseArch Network FOR even More (TRANSFORM-2)	93.310	5UG1OD024956-04 A21-0064-5003	-	62,627
Southeast Collaborative Alliance for Stroke Trials (SE-CoAST)	93.853	A00-3810-5001	47,558	66,001
Enhancing School-Based Violence Prevention through Multilevel Racial/Ethnic Discrimination Intervention	93.307	A19-0097-5001 / 1R01MD013812-01	-	28,248
Speech entrainment for aphasia recovery (SpARc)	93.173	A20-0069-5002 / 5U01DC017521-02	-	62,187
Speech entrainment for aphasia recovery (SpARc)	93.173	A20-0069-5002 / 5U01DC017521-03	-	158,045
Number, Primary and Secondary Diagnoses, and Costs of Emergency Department Visits in a Population-based Cohort of People with Spinal Cord Injury	93.433	A20-0086-5001	-	25,410
Bayesian Modeling for Prenatal, Natal and Postnatal Predictors of Developmental Defects of Enamel in Primary Maxillary Central Incisor Teeth	93.121	A21-0026-5001	-	8,394
Trials and ReseArch Network FOR even More (TRANSFORM-2)	93.310	A21-0064-5003	-	19,380
Evaluation Plan for MUSC Teen Science Ambassador Program	93.859	A22-0088-5001	-	24,257
Southeast Collaborative Alliance for Stroke Trials (SE-CoAST)	93.853	MUSC18-109-8D574	-	12,307
Micro Vide, LLC				
Coagulation Companion for Kids	93.837	OSP27238_5U54HL143541-03	-	28,256
Mountain Pass Technology				
Development and Testing of a Behavioral Activation Mobile Therapy for Elevated Depressive Symptoms	93.242	2R42MH108219-02	-	19,077
National Jewish Health				
Regulation of Gene Expression in the Anaphylactic Pathway	93.855	20116904/20116902//20116903	-	15,408
National Rural Health Association				
Rural Border Health Chartbook: An Update	93.155	2U16RH03702-17-00	25,920	111,051
Northern California Institute for Research & Education				
Program to Avoid Cerebrovascular Events Through Systematic Electronic Tracking and Tailoring of an Eminent Risk-factor (PACESETTER)	93.307	OV82163-02	103,159	130,099
Northern Illinois University				
Home COOKING: Creative Culinary Opportunities Offering Kids Inquiry-Based Nutritional Genius	93.859	G1A62667-5	1,039	6,451
Oregon Health & Science University				
The Impact of Emergency Medicaid Policy on Reproductive Health Disparities Among New Immigrants	93.307	1013826_SC	-	27,186
SWOG NCORP Research Base	93.399	1014562_SC	-	16,331
Palmetto Health				
Sleep for Stroke Management And Recovery Trial (Sleep SMART)	93.853	U00026947	-	24,022
Partners Healthcare Research Management				
Randomized Trial to Prevent Vascular Events in HIV - REPRIEVE	93.837	225712	-	4,310
Prisma Health-Midlands				
Healthy Start Initiative: Eliminating Disparities in Perinatal Health	93.926	16775	-	105,224
SC Department of Health & Environmental				
South Carolina SARS-CoV-2 Wastewater Surveillance	93.323	DC-1-###	-	18,508
DHEC SARS-CoV-2 Antibody Statewide Surveillance	93.323	DC-1-261	184,744	704,914
South Carolina's Initiative to Address COVID-19 Health Disparities Among Populations at High-Risk and Underserved, Including Racial and Ethnic Minority Populations and Rural Communities	93.391	DC-2-293	22,406	1,720,513
Tobacco Use Among Hispanic/Latinos in SC	93.387	DC-2-578	-	365
(SOF5: Supplement to CDC-RFA-PS19-1901, Strengthening STD Prevention and Control for Health Departments) Perinatal HIV Prevention: Comprehensive Risk Counseling and Services, and HIV PrEP Uptake, and DIS Training	93.997	HV-2-432	-	2,702
PASOs-DHEC Vaccine Outreach	93.323	NU50CK000542 / CBO-2-018	15,000	46,192
SC Muscular Dystrophy Surveillance, Tracking, and Research Network - SC MD STARnet Component A – Surveillance	93.315	PH-0-520 COMP A	-	60,747
SC Muscular Dystrophy Surveillance, Tracking, and Research Network SC MD STARnet Component C – Enhanced Dissemination	93.315	PH-0-521 COMP C	-	10,418
Activation and Expansion of the Libraries and Health Innovations Program	93.391	PH-2-340	-	9,922
SC Department of Health & Human Services				
Development and Implementation of a SC School Behavioral Health Academy	93.RD	A202415010A	-	12,652
Senex Biotechnology, Inc.				
CDK8/19 inhibitors for therapy of advanced prostate cancer	93.395	2R44CA203184-02A1	-	188,402
South Carolina Center for Fathers and Families				
Fatherhood FIRE/H2O Program Evaluation	93.086	90ZJ0023-01-00	-	12,952
Fatherhood FIRE/H2O Program Evaluation Year 2	93.086	90ZJ0023-02-00 / ACF FIRE 2022-5	-	57,548
Southern Research Institute				
Title: Allosteric modulators of dopamine transporter as therapeutic agents for NeuroAIDS	93.279	S20-15966USC-01	-	303,688
The Miriam Hospital				
Phone Coaching as a Rescue Strategy for Early Non-responders Enrolled in an Internet-delivered Weight Loss Program	93.847	5R01DK117843-02 / 710-7147122	-	10,023
The Pennsylvania State University				
Test of an Innovative, Scalable Support Program for Parents with a Young Child Recently Diagnosed with Autism Spectrum Disorder	93.865	S000852-DHHS / HD099295	65,762	202,208

See accompanying Notes to Schedule of Expenditures of Federal Awards.

**UNIVERSITY OF SOUTH CAROLINA
SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS (CONTINUED)
YEAR ENDED JUNE 30, 2022**

Federal Grantor/Pass-Through Grantor/ Program or Cluster Title	Federal Assistance Listing Number	Grant Number	Passed Through to Subrecipients	Total Federal Expenditures
RESEARCH AND DEVELOPMENT CLUSTER (CONTINUED)				
U.S. Department of Health & Human Services (Continued)				
Pass-Through Programs from:				
The Regents of the University of California				
Nutrition-Enhanced Wellness DSMP (NEW-DSMP) Study	93.847	11987sc	\$ -	\$ 13,610
Food is Medicine: Randomized Trial of Medically-Tailored Food Support for Diabetes Health	93.847	5R01DK124630-02 / 12288sc	-	3,064
Intersection of Material-Need Insecurities and HIV and Cardiovascular Health	93.837	5R01HL155226-02 / 12483sc	-	74,213
The University of Alabama				
Conformational Dynamics and Allosteric Regulation During Stress-responsive Metallocofactor Assembly	93.859	R01GM112919	-	94,547
The University of Nebraska-Lincoln				
Group testing for infectious disease detection	93.855	R01AI121351 / 24-6225-0056-003	-	14,110
Trustees of Boston University				
Mechanisms of drug-coated balloon therapy	93.837	1R01HL159620-01 / 4500004164	-	61,095
Improving Accuracy and Reliability in Cancer Screening Tests	93.393	4500002637	-	(2,799)
University of Alabama-Birmingham				
Comprehensive Cancer Center Core Support Grant	93.310	000527042-SP031-SC001	-	12,268
University of Arkansas for Medical Sciences				
Genetic Variability in DHFR and Folic Acid Supplementation as Novel Risk Factors for Aggressive Prostate Cancer	93.393	52603-USC PO# G190121120	-	7,282
Data Coordinating and Operations Center for the ECHO IDEa States Pediatric Clinical Trials Network	93.310	54005-VDORA / POWG218700089	-	44,040
University of California, Davis				
Improving WIC Services: Identifying Children at Risk for Obesity in the First 24 Months of Life	93.837	A22-0459-S001	-	4,080
Language in Fragile X Syndrome	93.865	R01HD024356	-	254,983
University of Central Florida				
Project Harmony: Family Strengthening Evaluation Team (FSET)	93.086	14276A04	-	130,666
University of Chicago				
JCOIN Coordination and Translation Center - Community Stakeholder	93.279	1U2CDA050097 AWD101172	-	64,521
University of Connecticut				
Multi-Sectoral Agricultural Intervention to Improve Nutrition, Health, and Developmental Outcomes of HIV-infected and Affected Children in Western Kenya	93.242	R01MH109506-01	-	56,992
University of Illinois				
Maximizing Speech Recognition under Adverse Listening Conditions	93.173	R01DC015465	-	503
University of Iowa				
Neural Mechanisms of Vocal Communication in the Human Brain	93.173	1001620374/W000828030	-	47,388
University of Kansas Center for Research				
Exposure and Emotion Regulation as Predictors of Adjustment to Trauma	93.242	FY2016-116	-	11,535
University of Kentucky				
University of Kentucky Markey Cancer Center - Cancer Center Support Grant	93.397	01349-20-077/PO7800005000	-	21,716
Dynamic Signaling of NRG3-ErbB4 in the Hippocampus Mediates Nicotine Withdrawal Phenotypes (NIH/NIDA 1R01-DA044311)	93.279	PO 7800004925	-	34,945
University of Louisville Research Foundation				
Global significance test based on quantile regression with applications to genomic studies of Alzheimer's disease	93.866	1R21AG070659-01A1/UULRF21040501	-	26,121
University of Maryland				
Targeted Manipulation of Brain KYNA by Genetic and Pharmacological Means: Biochemical and Functional Effects	93.242	3000027_Subaward_3782	-	136,444
University of Massachusetts				
National implementation of FOYC+CImPACT in the Bahamas: implementation strategies and improved outcomes	93.865	OSP2018103	-	19,718
University of Michigan				
The Impact of Tobacco Control Policies on Health Equity in the United States	93.393	1R01CA214787-01A1/3004806996	-	33,070
Structural Racism and Adverse Birth Outcomes in the US South: A Multigenerational Perspective	93.307	1R01MD016046-01/SUBK00013085	-	16,152
A Positive PATH (Promoting Activity and Trajectories of Health) for Children	93.837	3004173082	-	17,143
University of Mississippi				
Placental ischemia, hypertension, and hemodynamics	93.837	5R01HL136684-04 / SP10900-581	-	49,449
University of North Carolina at Chapel Hill				
Promoting Physical Activity in Young Adult Cancer Survivors using mHealth and Adaptive Tailored Feedback Strategies	93.395	5107125	-	2,588
Little Cigar and Cigarillo Warnings to Reduce Tobacco-Related Cancers and Disease	93.077	5118450 (Formerly 5115222)	-	11,358
Strengthening Cigar Warnings to Prevent Adolescent Use	93.077	5122831	-	18,978
Little Cigar and Cigarillo Warnings to Reduce Tobacco-Related Cancers and Disease	93.077	5R01CA240732-03 / 5122220	-	29,800
University of South Dakota				
NRF2 Signaling in the Cross-Talk between Proteasomal and Lysosomal Degradation	93.837	A00-0282-S003	-	2,633
University of Tennessee				
Effectiveness of end-of-life strategies to improve pediatric health outcomes and reduce disparities in rural Appalachia	93.361	A21-0381-S001	-	18,125
R01 Concurrent Care with University of Tennessee Knoxville	93.361	A9-0157-S003	-	17,897
University of Texas Health Sciences Center				
Development and Validation of a Measure of Organizational Readiness (motivation x capacity) for Implementation	93.399	5R01CA228527-04 / SA0000605	-	75,291
Development and Validation of a Measure of Organizational Readiness (motivation x capacity) for Implementation	93.399	SA0000605/1R01CA22852701A1	-	93,882
University of Texas Medical Branch at Galveston				
Enhancement of stem cell regenerative properties by hydrogen sulfide: a novel wound dressing to augment stem cell therapies	93.859	1R01GM136877 / 21-85231-01	-	54,100

See accompanying Notes to Schedule of Expenditures of Federal Awards.

**UNIVERSITY OF SOUTH CAROLINA
SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS (CONTINUED)
YEAR ENDED JUNE 30, 2022**

Federal Grantor/Pass-Through Grantor/ Program or Cluster Title	Federal Assistance Listing Number	Grant Number	Passed Through to Subrecipients	Total Federal Expenditures
RESEARCH AND DEVELOPMENT CLUSTER (CONTINUED)				
U.S. Department of Health & Human Services (Continued)				
Pass-Through Programs from:				
University of Vermont				
The evolution of copy number variations in the AT-rich Plasmodium genome	93.847	29177SUB51777/2R0101DK56746-14	\$ -	\$ 8,012
University of Virginia				
The evolution of copy number variations in the AT-rich Plasmodium genome	93.855	GB10954.PO#2340504	-	38,988
Vanderbilt University				
Gamifying Social Support to Promote Physical Activity Among Insufficiently Active African American Adults in the Southeast United States: A Mixed-Methods Approach	93.847	3P30DK020593-44S1 VUMC90976	-	72,900
Virginia Commonwealth University				
Research Answers to NCI's Provocative Questions - Role of Circadian Factors in Inflammation and Colorectal Adenoma Risk	93.393	7R01CA23132103/FP00014945SA001	-	200,609
Role of Circadian Factors in Inflammation and Colorectal Adenoma Risk	93.393	7R01CA23132103/FP00014945SA002	-	52,444
Wake Forest University Health Sciences				
ImPact: Increased Monitoring of Physical Activity and Calories with Technology	93.847	100750-550121	-	4,935
Limited Competition for the Closeout of the SEARCH for Diabetes in Youth Cohort Study	93.847	251-100710-553791	-	6,701
Wright State University				
SCH: kHealth: Semantic Multisensory Mobile Approach to Personalized Asthma Care	93.865	PO# P0063430 671072-1	-	(115)
Yale University				
Imaging and Targeting Lung Proteolysis in Models of ARDS and Microembolization	93.838	CON-80003372 (GR113905)	-	41,655
Image Guided Delivery of Bioresponsive Hydrogels	93.837	GR102135(CON-80001159)	-	44,917
Total U.S. Department of Health & Human Services			<u>10,016,545</u>	<u>59,605,050</u>
U.S. Agency for International Development				
Pass-Through Programs from:				
Chemionics International, Inc.				
Rule of Law Certificate Program STO-3 in Ukraine	98.RD	AID-OAA-I-13-00032	-	26,520
Sri Lanka Efficient and Effective Justice (EEJ) subaward from Chemionics International Inc.	98.RD	SUBIQC – 539/STO #1	-	22,927
Total U.S. Agency for International Development			<u>-</u>	<u>49,447</u>
Total Research and Development Cluster			<u>18,105,518</u>	<u>110,339,790</u>
STUDENT FINANCIAL AID CLUSTER				
U.S. Department of Education				
Financial Aid SEOG Grant	84.007	None	-	2,820,232
Financial Aid Federal Work Study	84.033	None	-	2,777,209
Federal Perkins Loan Program	84.038	None	-	7,865,562
Financial Aid Pell Grant	84.063	None	-	53,076,921
Financial Aid Direct Loans	84.268	None	-	285,379,249
Financial Aid TEACH Grant	84.379	None	-	139,280
Financial Aid Iraq & Afghanistan	84.408	None	-	12,250
Total U.S. Department of Education			<u>-</u>	<u>352,070,703</u>
U.S. Department of Health & Human Services				
Nursing Faculty Loan Program	93.264	None	-	989,685
Health Professions Student Loan	93.342	None	-	831,763
Two Year Nursing Loan Program	93.364	None	-	11,353
Four Year Nursing Loan Program	93.364	None	-	857,999
Master Nursing Loan Program	93.364	None	-	213,337
Total U.S. Department of Health & Human Services			<u>-</u>	<u>2,904,137</u>
Total Student Financial Aid Cluster			<u>-</u>	<u>354,974,840</u>
COVID-19 EDUCATION STABILIZATION FUND				
U.S. Department of Education				
COVID-19 Higher Education Emergency Relief Fund (HEERF) II Student Aid Portion	84.425E	None	-	773,563
COVID-19 HEERF III Student Aid Portion	84.425E	None	-	48,839,136
COVID-19 HEERF II Institutional Portion	84.425F	None	-	10,678,670
COVID-19 HEERF III Institutional Portion	84.425F	None	-	43,429,369
COVID-19 HEERF II Strengthening Institutions Program (SIP)	84.425M	None	-	582,936
COVID-19 HEERF III Strengthening Institutions Program (SIP)	84.425M	None	-	1,178,293
Pass-Through Programs from:				
SC Arts Commission				
COVID-19 SC Arts Grow 2021-2022 (Evaluation)	84.425U	FY22-SPE-009	-	57,909
Total U.S. Department of Education			<u>-</u>	<u>105,539,876</u>
Total Education Stabilization Fund under the Coronavirus Aid, Relief, and Economic Security Act Higher Education Emergency Relief Fund			<u>-</u>	<u>105,539,876</u>

See accompanying Notes to Schedule of Expenditures of Federal Awards.

**UNIVERSITY OF SOUTH CAROLINA
SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS (CONTINUED)
YEAR ENDED JUNE 30, 2022**

Federal Grantor/Pass-Through Grantor/ Program or Cluster Title	Federal Assistance Listing Number	Grant Number	Passed Through to Subrecipients	Total Federal Expenditures
COVID-19 SHUTTERED VENUE FUNDS UNDER THE CARES ACT				
Small Business Administration				
COVID-19 Shuttered Venue Operators Grant	59.075	SBAHQ21SV005945	\$ -	\$ 962,385
COVID-19 Shuttered Venue Operators Grant	59.075	SBAHQ21SV008841	-	105,275
COVID-19 Small Business Association Shuttered Venue Grant	59.075	SBAHQ21SV009665	-	358,692
Total Small Business Administration			-	1,426,352
U.S. Department of the Treasury				
Pass-Through Programs from:				
Lee County				
COVID-19 Pearl Fryar Topiary Garden Capital Investment	21.027	U00030200	-	13,948
Total U.S. Department of the Treasury			-	13,948
U.S. Department of Justice				
Pass-Through Programs from:				
SC Department of Public Safety				
COVID-19 USC DLES 2021 Aid	16.034	2020-VD-BX-0099 1CF20071	-	56,116
Total U.S. Department of Justice			-	56,116
Total Shuttered Venue Funds under the CARES Act			-	1,496,416
CHILD CARE AND DEVELOPMENT BLOCK CLUSTER				
U.S. Department of Health & Human Services				
Pass-Through Programs from:				
SC Department of Social Services				
DSS Emergency Operations Grant	93.575	10010830	-	6,808
Emergency Operations Grant Application	93.575	10010953	-	2,504
Emergency Operations Grant	93.575	10011265	-	37,000
Emergency Operation Grant	93.575	U00030061	-	40,000
Total U.S. Department of Health & Human Services			-	86,312
Total Child Care and Development Block Cluster			-	86,312
ECONOMIC DEVELOPMENT CLUSTER				
U.S. Department of Commerce				
Responding effectively to a crisis. Lessons learned from COVID-19 for South Carolina's tourism and hospitality industry	11.307	04-69-07566	-	35,068
Pass-Through Programs from:				
Lower Savannah Council of Governments				
Lower Savannah Council of Governments: Post-COVID Assessment of Six-County LSCOG Region	11.307	U00029981	-	101,412
Total U.S. Department of Commerce			-	136,480
Total Economic Development Cluster			-	136,480
HEALTH CENTER PROGRAM CLUSTER				
U.S. Department of Health & Human Services				
Pass-Through Programs from:				
SC Primary Healthcare Association				
COVID 19 SC AgWHP CHW Services	93.224	10010952	-	47,441
SC AgWHP Enabling CHW Services	93.224	10011945	-	5,974
Total U.S. Department of Health & Human Services			-	53,415
Total Health Center Program Cluster			-	53,415
HIGHWAY PLANNING AND CONSTRUCTION CLUSTER				
U.S. Department of Transportation				
Pass-Through Programs from:				
Iowa State University				
Robust wireless skin sensor networks for long-term fatigue crack monitoring of bridges	20.205	022355C	-	14,058
SC Department of Transportation				
Calibration Of The AASHTO Pavement Design Guide To South Carolina Conditions - Phase II	20.205	1869	163,872	258,314
Total U.S. Department of Transportation			163,872	272,372
Total Highway Planning and Construction Cluster			163,872	272,372
MEDICAID CLUSTER				
U.S. Department of Health & Human Services				
Pass-Through Programs from:				
Francis Marion University				
Department of Health and Human Services Grant for a Branch Medical Campus of the SOM in Florence, SC	93.778	FRANCIS MARION	-	1,201,781
Total U.S. Department of Health & Human Services			-	1,201,781
Total Medicaid Cluster			-	1,201,781

See accompanying Notes to Schedule of Expenditures of Federal Awards.

**UNIVERSITY OF SOUTH CAROLINA
SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS (CONTINUED)
YEAR ENDED JUNE 30, 2022**

Federal Grantor/Pass-Through Grantor/ Program or Cluster Title	Federal Assistance Listing Number	Grant Number	Passed Through to Subrecipients	Total Federal Expenditures
SNAP CLUSTER				
U.S. Department of Agriculture				
Pass-Through Programs from:				
SC Department of Social Services				
Project 1. Statewide Priority Indicators Evaluation	10.561	4400025129 / SSC430417	\$ -	\$ 40,898
Project 5: Food Policy Councils	10.561	4400025148	-	45,647
Project 6: Strengthening and Expanding Transportation	10.561	4400025160	-	74,946
Project 2: Health Clinic Nutrition Support Implementation	10.561	4400025170 / SSC430417	-	34,641
Project 3: Library Nutrition Support Implementation	10.561	4400025341 / SSC430417	-	23,006
Project 4: FoodShare SC	10.561	4400025342 / SSC430417	-	107,354
Project 5: Local Food Policy Councils	10.561	4400027928	-	94,222
Project 6: Strengthening and Expanding Transportation	10.561	4400027929	-	115,574
Project 1. Statewide Priority Indicators Evaluation	10.561	4400027993	-	107,709
Project 4. State Food Policy Council	10.561	4400028033	-	117,045
Project 3. FoodShare SC	10.561	4400028034	-	84,332
Project 2. Library Nutrition Support Implementation	10.561	4400028035	-	68,837
Total U.S. Department of Agriculture			-	914,211
Total SNAP Cluster			-	914,211
TRIO CLUSTER				
U.S. Department of Education				
Student Support Services	84.042	P042A200360	-	298,674
Student Support Services Program	84.042	P042A201238	-	325,637
Student Support Services Grant	84.042	P042A201243	-	359,376
USC Salkehatchie Student Support Services Program	84.042	P042A201304	-	291,949
Student Support Services 2020-2025	84.042	P042A201686	-	332,046
Total ALN 84.042			-	1,607,682
Talent Search Program	84.044	P044A160017	-	115,907
Talent Search Program	84.044	P044A210512	-	436,576
Total ALN 84.044			-	552,483
University of South Carolina Columbia Upward Bound Program	84.047	P047A170639	-	319,294
Upward Bound University of South Carolina Sumter Campus	84.047	P047A171401	-	340,665
USC Lancaster Upward Bound	84.047	P047A171434	-	259,732
Upward Bound	84.047	P047A220741	-	10,918
2022 Upward Bound Program	84.047	P047A221161	-	33,739
Total ALN 84.047			-	964,348
2017 Ronald E. McNair Post-baccalaureate Achievement Program	84.217	P217A170015-19	-	56,245
2017 Ronald E. McNair Post-baccalaureate Achievement Program	84.217	P217A170015-21	-	244,467
Total ALN 84.217			-	300,712
Total U.S. Department of Education			-	3,425,225
Total TRIO Cluster			-	3,425,225
WIOA CLUSTER				
U.S. Department of Labor				
Pass-Through Programs from:				
Upstate Workforce Investment Act				
USC Upstate ACHIEVE 2020-21	17.259	20Y603C4-UWIB	-	23,718
USC Upstate ACHIEVE 2021-22	17.259	21Y603C4-UWIB	-	468,555
Total U.S. Department of Labor			-	492,273
Total WIOA Cluster			-	492,273
OTHER PROGRAMS				
U.S. Department of Agriculture				
Growing Resilience in South Dakota Grasslands and Farmlands	10.924	NR206740XXXXC005	-	104,500
Growing Resilience in Our Soils	10.924	NR216740XXXXG003	-	257,091
Pass-Through Programs from:				
Rural Utilities Service				
USC Palmetto College - RUS DLT Grant - 2020	10.855	SC0703-D16	-	306,652
Total U.S. Department of Agriculture			-	668,243
U.S. Department of Commerce				
EDA Grant - University Innovation Center Clusters	11.303	ED17ATL3030040	-	166,043
South Carolina Rising: a seed fund and commercialization support structure	11.024	ED21HDQ0240107	-	158,970
Total U.S. Department of Commerce			-	325,013
U.S. Department of Defense				
Pass-Through Programs from:				
Defense Logistics Agency				
University of South Carolina OEE PTAC	12.002	SP4800-212-2182	-	447,509
Total U.S. Department of Defense			-	447,509

See accompanying Notes to Schedule of Expenditures of Federal Awards.

**UNIVERSITY OF SOUTH CAROLINA
SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS (CONTINUED)
YEAR ENDED JUNE 30, 2022**

Federal Grantor/Pass-Through Grantor/ Program or Cluster Title	Federal Assistance Listing Number	Grant Number	Passed Through to Subrecipients	Total Federal Expenditures
OTHER PROGRAMS (CONTINUED)				
U.S. Department of Housing & Urban Development				
Pass-Through Programs from:				
City of Columbia				
Housing Opportunities for Persons With AIDS	14.241	50861	\$ -	\$ 228
Housing Opportunities for Persons With AIDS	14.241	10011188	134,589	366,101
Housing Opportunities for Persons With AIDS	14.241	SCH20-FHW001	-	850
SC Department of Health & Environmental				
DHEC Housing Opportunities for Persons with AIDS (HOPWA) Funding - Newberry County	14.241	HV-9-583/4000048436	-	5,225
Total ALN 14.241			<u>134,589</u>	<u>372,404</u>
SC Research Foundation				
Emergency Solutions Grant - CV Phase II	14.231	E-20-DW-45-0001	70,170	210,624
Total U.S. Department of Housing & Urban Development			<u>204,759</u>	<u>583,028</u>
U.S. Department of Interior				
Pass-Through Programs from:				
National Park Service				
NPS Historic Preservation Fund - Booker T. Washington High School Auditorium Building	15.904	P20AP00144	-	17,217
Total U.S. Department of Interior			<u>-</u>	<u>17,217</u>
U.S. Department of Justice				
Pass-Through Programs from:				
National Court Appointed Special Advocate				
CASA Gap Analysis Project	16.756	31344	-	43,003
2020 CASA Annual Survey Data Analysis and Reporting	16.756	51542	-	791
Total ALN 16.756			<u>-</u>	<u>43,794</u>
SC Department of Public Safety				
Identifying and Responding to Juvenile Victims and High Risk Juveniles of Sex Trafficking in South Carolina	16.540	1118006	-	9,419
Deincarceration of Status Offenders in South Carolina	16.540	1118007	-	23,041
De-incarcerating South Carolina's Status Offenders	16.540	5J000319	-	67,899
Total ALN 16.540			<u>-</u>	<u>100,359</u>
SC Network of Children's Advocacy Center				
South Carolina Network of Children's Advocacy Centers Contract	16.758	COLU-SC-3SP21	-	9,344
Total U.S. Department of Justice			<u>-</u>	<u>153,497</u>
U.S. Department of State				
Justice Sector Training, Research, and Coordination Plus (JusTRAC+) Program Project 1	19.703	SINLEC18CA2068	-	864,805
Pass-Through Programs from:				
American Bar Association				
Supporting Criminal Justice Reform and Strengthening Anticorruption Efforts in Moldova	19.703	SINLEC21GR3052 CON-G-02772	-	128,395
East-West Management Institute, Inc.				
Justice Academy Curriculum Development in Armenia	19.703	SINLEC20CA3226-G178020100303420	-	11,374
Total ALN 19.703			<u>-</u>	<u>1,004,574</u>
FHI 360				
Study of the U.S. Institutes for Student Leaders from Europe University of South Carolina - Civic Engagement	19.009	PO19002773/Proj#102536	-	136,970
The Asia Foundation				
Building Capacity to Counter Illegal Mining in Mongolia	19.705	32392.600.001	-	88,447
Total U.S. Department of State			<u>-</u>	<u>1,229,991</u>
National Endowment for the Humanities				
FOLKFabulous at the South Carolina State Fair	45.130	ZR-256701-18	-	1,326
NEH Preservation Assistance Grants for Smaller Institutions to Purchase Materials and Supplies for the Long-Term Care of Folklife Collections at McKissick Museum	45.149	PG-280774-21	-	3,195
The Digital Piranesi	45.149	PW-264046-19	-	24,931
Virtual bench: a hybrid research and computation platform for digital surrogates of motion picture films	45.149	PR-284350-22	-	9,254
Total ALN 45.149			<u>-</u>	<u>37,380</u>
America's Reconstruction: The Untold Story	45.163	ES-267039-19	-	109,235
America's Reconstruction: The Untold Story	45.163	ES-281208-21	-	33,608
Fabric of the Past: Weaving the Twentieth Century at the Beaumont Mill and Village in South Carolina	45.163	BH-272365-20	-	14,027
Freedom's Lawmakers: Black Leadership during Reconstruction - Misremembering and Reclaiming	45.163	ES-267151-19	-	134,352
Black Reconstruction Leadership. (July 5-25 2020)	45.163		-	-
Total ALN 45.163			<u>-</u>	<u>291,222</u>
Free and Equal: The Promise of Reconstruction in America	45.164	BR-264610-19	27,266	32,123
Historic Southern Naturalists: Bringing Southern History and Natural History Together Online	45.301	MA-30-18-0048-18	166	11,389
Educational Quality through Instructional Partnerships (EQuIP): Assessing the Efficacy of Collaboratively Implemented Guided Inquiry Design on K-12 Student Learning	45.313	RE-14-19-0001-19	-	64,739
Examining Public Library Service to LGBTQ Communities for Health-related Information	45.313	RE-07-18-0066-18	-	47,276
Online Ready: Designing Culturally Competent and Impactful K-12 Online Learning	45.313	RE-250017-OLS-21	-	72,927
Total ALN 45.313			<u>-</u>	<u>184,942</u>

See accompanying Notes to Schedule of Expenditures of Federal Awards.

**UNIVERSITY OF SOUTH CAROLINA
SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS (CONTINUED)
YEAR ENDED JUNE 30, 2022**

Federal Grantor/Pass-Through Grantor/ Program or Cluster Title	Federal Assistance Listing Number	Grant Number	Passed Through to Subrecipients	Total Federal Expenditures
Pass-Through Programs from:				
SC Humanities Council				
Justice for All, Traveling Exhibit	45.129	19-1935-1	\$ -	\$ 8,000
Carolina Knives: Handcrafted Traditions	45.129	21-2041-1	-	6,165
The Changing Cultural Climate in Museums	45.129	21-2065-2	-	2,000
Second Founding of America - Project Reconstruction Archive	45.129	ZSO 21-25-7	15,000	15,000
Total ALN 45.129			15,000	31,165
University at Buffalo, SUNY				
Identifying Opportunities for Retention of BIPOC Librarians Using Survival Analysis	45.313	R1288890	-	6,345
Total National Endowment for the Humanities			42,432	595,892
OTHER PROGRAMS (CONTINUED)				
Small Business Administration				
SC Small Business Development Centers Program Announcement - SBA 2020 Funding Opportunity (USC)	59.037	SBAHQ20B0059	-	472,104
CARES Act SBDC Funding Opportunity Announcement (State Director's Office)	59.037	SBAHQ20C0077	-	706,869
SC Small Business Development Centers Program Announcement - SBA 2021 Funding Opportunity (State Director's Office - Lead Center)	59.037	SBAHQ21B0049	-	765,721
Total ALN 59.037			-	1,944,694
FAST-2020-R-0014 - FAST SBA	59.058	SBAOIFT200022-01-00	-	(73,719)
FAST-2020-R-0014 - FAST SBA	59.058	SBAOIFT200022-02-00	-	74,541
Total ALN 59.058			-	822
Pass-Through Programs from:				
SC Association for Community Economic Development				
Community Navigator Pilot Program	59.077	SBAHQ22CNP0014	-	22,205
Total Small Business Administration			-	1,967,721
U.S. Department of Energy				
Pass-Through Programs from:				
SRS Community Reuse Organization				
Workforce Opportunities in Regional Careers (WORC I) Renewal	81.104	DE-EM0005227	-	239,373
Total U.S. Department of Energy			-	239,373
U.S. Department of Education				
The Asa Yoruba Project	84.021	P021A190033	-	90,271
Vocational Rehabilitation Workforce Development: Increasing the Number of Qualified Vocational Rehabilitation Counselors in South Carolina (RSA LTT)	84.129	H129W150004	-	26,200
Project INSPIRE: Increasing the STEM Potential of Individuals Who Read Braille	84.235	H235E1090003	-	109,646
Carolina Family Engagement Center (CFEC)	84.310	U310A180058	38,765	1,065,223
Project FOCUS: Special Education - Personnel Development to Improve Services and Results for Children with Disabilities	84.325	H325D150006	-	10,355
Project FUSION: Special Education - Personnel Development to Improve Services and Results for Children with Disabilities	84.325	H325D180021	-	289,088
Project PROMOTE: Special Education - Personnel Development to Improve Services and Results for Children with Disabilities	84.325	H325D180083	-	193,341
Project IMPACT: Special Education - Personnel Development to Improve Services and Results for Children with Disabilities	84.325	H325K160020	-	93,164
Total ALN 84.325			-	585,948
Student Parent Support Project	84.335	P335A190262	-	17,640
University of South Carolina - Transition to Teaching Residency (UofSC-T3)	84.336	U336S190031	-	743,216
Project DRIVE- Developing a Robust, Inclusive Vision for Expansion: Moving Beyond Access to Enhanced College Opportunities and Outcomes	84.407	P407A200007	-	484,270
Pass-Through Programs from:				
Lancaster County Partners for Youth				
Lancaster Promise Neighborhood	84.215	10012090	-	4,320
National Institute for Excellence in Teaching				
NIET Supporting Effective Educator Development	84.423	S423A200043	-	1,667
Supporting Effective Educator Development (SEED) 2020	84.423	U00029652	-	10,000
Total ALN 84.423			-	11,667
Richland County School District				
Evaluation of the Med Pro 21 Magnet Program for Richland School District Two	84.165	20001503/19000794	-	138,898
University of Oregon				
Advancing School Mental Health and PBIS Together	84.326	282070H	-	118,938
Total U.S. Department of Education			38,765	3,396,237
U.S. Department of Health & Human Services				
Maternal and Child Health Federal and Consolidated Programs	93.110	1T16MC41744-01-00	-	137,650
Maternal and Child Health Federal and Consolidated Programs	93.110	5 T1CMC35361-02-00	-	87,351
Maternal and Child Health Federal and Consolidated Programs	93.110	5 T16MC41744-02-00	-	2,000
Total ALN 93.110			-	227,001

See accompanying Notes to Schedule of Expenditures of Federal Awards.

**UNIVERSITY OF SOUTH CAROLINA
SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS (CONTINUED)
YEAR ENDED JUNE 30, 2022**

Federal Grantor/Pass-Through Grantor/ Program or Cluster Title	Federal Assistance Listing Number	Grant Number	Passed Through to Subrecipients	Total Federal Expenditures
Traineeships for Nurse Anesthesia 2015	93.124	5A22HP30940-05-00	\$ -	\$ 14,316
HOPE (Holistic Opportunities & Partnerships that Empower) Nursing Success Project	93.178	1D19HP42048-01-00	-	381,649
Improving the Health of People with Mobility Limitations and Intellectual Disabilities Through State-Based Public Health Programs	93.184	5NU27DD000011-05-00	68,820	189,452
Developing a APRN/FQHC Practice Training Partnership	93.247	5 T94HP309190400	30,234	31,323
Developing a APRN/FQHC Practice Training Partnership	93.247	5T94HP30919-05-00	113,467	563,058
Total ALN 93.247			143,701	594,381
South Carolina Poison Center Support and Enhancement Project	93.253	7H4BH545171-01-00	-	302,240
Project Experiential SHINE: Simulation and Social determinants of Health in Nursing Education	93.359	1U4EHP40019-01-00	-	251,934
HOPE-WWR Health Occupations Providing Excellence in Workforce Wellness and Resilience	93.732	1U3NHP45420-01-00	-	74,198
Rural Interprofessional Behavioral Health Scholars (RIBHS) Program	93.732	5M01HP13178-04-00	8,000	69,825
Total ALN 93.732			8,000	144,023
SC Communities Unite to Increase CRC Screening	93.800	1NUS8DP006766-01-00	37,518	52,022
SC Communities Unite to Increase CRC Screening	93.800	5NUS8DP006766-02-00	180,231	728,716
Total ALN 93.800			217,749	780,738
Pass-Through Programs from:				
Administration for Community Living				
South Carolina Assistive Technology Program	93.464	1901SCATSG-00	-	444
South Carolina Assistive Technology Program	93.464	2001SCATSG-00	-	118,269
South Carolina Assistive Technology Program	93.464	2101SCATSG-00	-	460,157
Total ALN 93.464			-	578,870
South Carolina Expanding Disabilities Networks Access to COVID 19 Vaccine	93.632	90DDCS0021-01-00	55,279	59,701
South Carolina Community Living Partnership (SC CLP)	93.632	90DDCB0001-01-00	24,461	51,293
South Carolina University Center for Excellence in Developmental Disabilities	93.632	90DDUC0003-04-00	-	(511)
South Carolina University Center for Excellence in Developmental Disabilities	93.632	90DDUC0003-05-00	-	544,445
South Carolina Partnership for Inclusive and Healthy Adult Transitions for Young Adults (SCPIHAT) with Intellectual Disabilities and Developmental Disabilities (ID/DD)	93.632	90DDUC0087-01-00	-	6,217
Total ALN 93.632			79,740	661,145
American Association of Medical Colleges				
Root Cause - Partnering for Community Health	93.967	GT-32016-19-04	-	352
OTHER PROGRAMS (CONTINUED)				
U.S. Department of Health & Human Services				
Pass-Through Programs from:				
American College Health Association				
CoVAC Mini Grant	93.318	53	-	2,993
Centre for Integrated Health Programs				
Nigeria subcontract	93.067	NU2GGH002097-01	-	8,495
Nigeria subcontract	93.067	U2GGH002097-01	-	29,570
Total ALN 93.067			-	38,065
Children's Trust Fund of South Carolina				
MIECHV Children's Trust PASOs	93.870	X10MC33608/C-MIECHV-2019-PASOS	-	54,346
MIECHV Children's Trust PASOs 2021-2022	93.870	X10MC39714/C-MIECHV-2020-PASOS	-	27,377
Total ALN 93.870			-	81,723
Christopher & Dana Reeve Foundation				
SC Assistive Technology Mobility Independence Project	93.325	90PRRC0002-03-00	-	4,438
Clemson University				
Project EMPOWER - Engaging Medicine Providers On Ways to Enhance Recovery	93.243	2063-209-2012877	-	20,249
Fact Forward				
The Hubb at USC-Lancaster	93.092	1901SCPREP	-	21,389
emPOWERed SC: Creating Linkages for Youth of Color in South Carolina	93.297	1 TP2AH000064-01-00	-	44,683
Expanding Opportunities for Teen Mothers and Families in South Carolina (Evaluation Services for Fact Forward Tier 1 Grant)	93.297	1TP1AH000216-01-00	-	43,584
Total ALN 93.297			-	88,267
Family Connection of SC				
South Carolina Youth in Transition Training Program	93.243	10012046	-	11,667
LRADAC				
Proposal to Serve as Outside Evaluator on Transitional Youth Services	93.243	10010333	-	24,536
Proposal to Serve as Outside Evaluator on Transitional Youth Services	93.243	10011282	-	9,586
Total ALN 93.243			-	45,789
Evaluation Services Proposal for LRADAC's Community Services Department	93.788	10011005	-	26,409
Medical University of South Carolina				
Leadership Education in Neurodevelopmental and Related Disorders	93.110	5T73MC22233-10-00/A00-0188-5002	-	463
Leadership Education in Neurodevelopmental and Related Disorders (LEND)	93.110	A00-0188-5004	-	152,583
Total ALN 93.110			-	153,046

See accompanying Notes to Schedule of Expenditures of Federal Awards.

**UNIVERSITY OF SOUTH CAROLINA
SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS (CONTINUED)
YEAR ENDED JUNE 30, 2022**

Federal Grantor/Pass-Through Grantor/ Program or Cluster Title	Federal Assistance Listing Number	Grant Number	Passed Through to Subrecipients	Total Federal Expenditures
Model State-Supported AHEC Program	93.107	SU77HP03019-28-00/A00-0136-5001	\$ 12,092	\$ 35,765
National Opinion Research Center				
National Opinion Research Center Consultant Contract	93.U01	8943.CCFS.01	-	15,000
Palmetto Care Connections				
Evaluation of the Network Development Grant, Palmetto Care Connections	93.912	10010489	-	4,906
SC Department of Alcohol & Other Drug Abuse				
Primary Prevention Strategies for South Carolina Colleges and Universities	93.788	B08T1083544-01 / USCA-Covid-22	-	54,189
SC Department of Health & Environmental Control				
Evaluation Services for the Personal Responsibility Education Program (PREP)	93.092	1NU58DP006616 / MC-2-330	-	44,761
Evaluation Services for Sexual Risk Avoidance Education (SRAE)	93.092	1NU58DP006616 / MC-2-356	-	44,572
Total ALN 93.092			-	89,333
SC Nursing Initiative to Address COVID-19 Health Disparities & Inequities	93.391	CDCRFAOT212103/PH2339/4000050455	-	48,671
Ryan White Treatment Extension Act - Part B ADAP Insurance Assistance Program	93.917	HV-0-611	4,364,545	4,364,545
Ryan White Part B Funding - Part B Federal Base	93.917	HV-2-548	-	476,632
Ryan White HIV/AIDS Treatment Extension Act - Part B Supplemental Funds	93.917	HV-9-601	1,298,573	1,940,848
Total ALN 93.917			5,663,118	6,782,025
Perinatal HIV Prevention: Comprehensive Risk Counseling and Services	93.940	HV-7-558	1,000	111,519
Evaluation Services for the Personal Responsibility Education Program (PREP)	93.092	MC-1-007/FR#4000046267	-	26,045
Evaluation Services for Sexual Risk Avoidance Education (SRAE)	93.092	MC-1-008/FR#4000046268	-	23,341
Total ALN 93.092			-	49,386
South Carolina's Strategies to Maintain HIV Viral Suppression Among State Prison Inmates Released to the Community (CDC-RFA-PS20-2011)	93.941	NU62P5924645/HV1656/4100089361	80,217	144,052
SC Department of Social Services				
DSS - CIA Support of Task Force	93.643	4400024720	-	76,203
DSS - CIA Operation of CLC	93.643	4400024861/4400024679	-	174,589
Total ALN 93.643			-	250,792
SC Developmental Disabilities Council				
SC Developmental Disability Council Professional Services	93.630	10010296	-	(1,738)
SC Developmental Disability Council Professional Services	93.630	10011242	-	29,435
IMPACT SC Self-Advocacy Initiatives	93.630	2001SCBSDD 11-21-0055	-	22,356
Model for Employment Training Advancement	93.630	2001SCBSDD 11-21-0006	-	32,676
Six Sixties: Learning How to Fill the Gaps	93.630	2101SCSCDD / 11-21-0065	-	1,010
Total ALN 93.630			-	83,739
Spartanburg School District 7				
Mary Black Foundation Implementation of YRBS, School Health Profiles, and Sexual Health Curricula - Year 3	93.079	10010484	-	4,336
Mary Black Foundation Implementation of YRBS, School Health Profiles, and Sexual Health Curricula - Year 4	93.079	U00030010	-	18,916
Covid 1807 Supplement Evaluation Services	93.079	U00030570	-	14,505
Total ALN 93.079			-	37,757
Prisma Health - Upstate				
Project TRANSFORM (Teaching Recovery-informed Addiction Care And Negating Stigma FOR Medical Professionals)	93.243	5219-2 H79FG000004	-	34,067
Substance Abuse & Mental Health Services				
Project EXPAND: Enriching eXperiences by Providing Addiction learning in New Directions	93.243	1H79TI084136-01	3,129	85,357
Garrett Lee Smith Campus Suicide Prevention	93.243	5H79SM080473-03	-	37,159
Garrett Lee Smith Campus Suicide Prevention	93.243	6H79SM080473-03M002	-	24,576
Total ALN 93.243			3,129	181,159
OTHER PROGRAMS (CONTINUED)				
U.S. Department of Health & Human Services				
Pass-Through Programs from:				
University of Kentucky				
Nurse, Education, Practice, Quality and Retention - Registered Nurses in Primary Care - Subaward	93.359	3200003255-21-095	-	1,604
Nurse, Education, Practice, Quality and Retention - Registered Nurses in Primary Care - Subaward	93.359	3200004046-22-048	-	31,269
Total ALN 93.359			-	32,873
Vanderbilt University				
South Carolina HIV/AIDS Clinical Training Center/Vanderbilt - AETC Base (Competing Renewal)	93.145	SU10HA30535-06-00 / VUMCS6743	9,787	287,870
Wisconsin Department of Health Services				
Envision Equitable Healthy Communities (EEHC)	93.495	435100-G22-ChronDisPre-10/53985	-	58,630
Total U.S. Department of Health & Human Services			6,287,353	12,876,135
Total Other Programs			6,573,309	22,499,856
Total Federal Expenditures			\$ 24,842,699	\$ 601,432,847

See accompanying Notes to Schedule of Expenditures of Federal Awards.

UNIVERSITY OF SOUTH CAROLINA
NOTES TO SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS
YEAR ENDED JUNE 30, 2022

NOTE 1 BASIS OF PRESENTATION

The accompanying Schedule of Expenditures of Federal Awards (the Schedule) includes the federal award activity of the University of South Carolina (the University) under programs of the federal government for the year ended June 30, 2022, and is presented on the cash basis of accounting. The information in the Schedule is presented in accordance with the requirements of Title 2 U.S. Code of Federal Regulations Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance). Because the Schedule presents only a selected portion of the operations of the University, it is not intended to and does not present the financial position, changes in net position, or cash flows of the University.

NOTE 2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES FOR EXPENDITURES OF FEDERAL AWARDS

Expenditures in the Schedule are determined using the cost accounting principles and procedures set forth in OMB Circular A-21, *Cost Principles for Educational Institutions* or in Uniform Guidance, as applicable, wherein, certain expenditures are not allowable or are limited as to reimbursement.

Negative amounts shown on the Schedule represent adjustments or credits made in the normal course of business to amounts reported as expenditures in prior years.

Expenditures for student financial aid programs include the federal share of students' Federal Supplemental Educational Opportunity Grant (FSEOG) program grants and Federal Work Study (FWS) program earnings, certain other federal financial aid for students and administrative cost allowances, where applicable.

Expenditures for nonfinancial aid awards include indirect costs, related primarily to facilities operation and maintenance and general, divisional and departmental administrative services, which are allocated to direct cost objectives (including federal awards) based on negotiated formulas commonly referred to as facilities and administrative cost rates. Facilities and administrative costs allocated to such awards for the year ended June 30, 2022, were based on predetermined fixed rates negotiated with the University's cognizant federal agency. The University has elected not to use the 10 percent de minimis indirect cost rate as allowed under the Uniform Guidance.

**UNIVERSITY OF SOUTH CAROLINA
NOTES TO SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS
YEAR ENDED JUNE 30, 2022**

NOTE 3 FEDERAL STUDENT LOAN PROGRAMS

The federal student loan programs listed subsequently are administered directly by the University and the balances and transactions relating to the programs are included in the University's financial statements. Federal expenditures reported on the face of the Schedule include loans outstanding at the beginning of the year, loans made during the year, loan cancellations, interest subsidies and administrative expenses. The balance of loans outstanding at June 30, 2022, consists of:

Number	Program Name	Outstanding Balance at June 30, 2022
84.038	Federal Perkins Loan	\$ 4,935,037
93.364	Nursing Student Loans	931,695
93.342	Health Profession Student Loans	759,711
93.264	Nurse Faculty Loan Programs	973,304

Due to the expiration of the Federal Perkins Loan Program on September 30, 2017, the University did not disburse any Perkins loans to students during the year ended June 30, 2022. Schools have the option of continuing to collect on outstanding loan balance or can voluntarily liquidate the program. The University has no current plans to begin the Perkins liquidation process. However, the University is required to periodically return excess cash on hand from the program to the Department of Education.

The University also participates in the Federal Direct Student Loans (Direct Loans) Program (CFDA Number 84.268) of the Department of Education, which includes subsidized and unsubsidized Federal Stafford Loans and Federal PLUS Loans. Under the Direct Loans Program, the University is responsible only for certain administrative duties; accordingly, the disbursements under the Direct Loans Program and the outstanding loan balances are excluded from the financial statements of the University.

NOTE 4 CONTINGENCIES

The University receives funds under various federal grant programs, and such awards are to be expended in accordance with the provisions of the various grants. Compliance with the grants is subject to audit by various government agencies which may impose sanctions in the event of noncompliance. Management believes that they have complied with all aspects of the various grant provisions, and the results of adjustments, if any, relating to such audits would not have any material financial impact.

**UNIVERSITY OF SOUTH CAROLINA
SCHEDULE OF FINDINGS AND QUESTIONED COSTS
YEAR ENDED JUNE 30, 2022**

Section I – Summary of Auditors’ Results

Financial Statements

1. Type of auditors’ report issued: Unmodified
2. Internal control over financial reporting:
- Material weakness(es) identified? _____ yes x no
 - Significant deficiency(ies) identified? x yes _____ none reported
3. Noncompliance material to financial statements noted? _____ yes x no

Federal Awards

1. Internal control over major federal programs:
- Material weakness(es) identified? _____ yes x no
 - Significant deficiency(ies) identified? _____ yes x none reported
2. Type of auditors’ report issued on compliance for major federal programs: Unmodified
3. Any audit findings disclosed that are required to be reported in accordance with 2 CFR 200.516(a)? _____ yes x no

Identification of Major Federal Programs

Assistance Listing Number(s)	Name of Federal Program or Cluster
84.425E, 84.425F, 84.425M, 84.425U	COVID 19 – Education Stabilization Fund
84.042, 84.044, 84.047, 84.217	TRIO Cluster
Various	Research and Development Cluster

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

\$ 3,000,000

Auditee qualified as low-risk auditee?

 x yes _____ no

**UNIVERSITY OF SOUTH CAROLINA
SCHEDULE OF FINDINGS AND QUESTIONED COSTS (CONTINUED)
YEAR ENDED JUNE 30, 2022**

Section II – Financial Statement Findings

2022-001

Type of Finding: Significant Deficiency in Internal Control over Financial Reporting

Criteria or specific requirement: Management is responsible for establishing and maintaining internal controls to ensure fair presentation of its financial statements, in conformity with accounting principles generally accepted in the United States of America.

Condition: The University did not recognize revenue timely for certain capital appropriation reserve funds in the year appropriated which was a departure from GASB Statement No. 33. GASB Statement No. 33 states that capital appropriations and other similar transactions (referred to as voluntary nonexchange transactions) should be recognized when all eligibility requirements are met. GASB 33 eligibility requirements includes a) required characteristics of the recipient, b) time requirements, c) reimbursement requirements, and d) contingencies.

Context: This condition, which was identified by the University, resulted in an understatement of revenues in the amount of \$26,250,000 relating to years prior to Fiscal Year 2022 (FY22). Capital appropriation revenues were adjusted in FY22 to recognize these amounts.

Cause: The University was using a more conservative approach of recording the revenue when funds were drawn down from the state, which resulted in not properly applying GASB Statement No. 33.

Effect: Fiscal year 2022 capital appropriations revenue includes \$26,250,000 that should have been recognized in prior years. By recognizing this amount in the current year, ending net position will be correct.

Repeat Finding: No

Recommendation: The University should ensure revenue recognition processes follow GASB Statement No. 33 and develop a process to review all capital appropriations annually to ensure timely revenue recognition.

Views of responsible officials and planned corrective actions: University management agrees with the audit finding and will ensure appropriate processes are in place for timely revenue recognition. The University has subsequently taken steps to ensure the appropriate processes are in place to perform these tasks.

Action taken in response to finding: The University identified during fiscal year-end prior year capital appropriations that had not been drawn due to projects not being established. In response to this, the University discussed with SC Comptroller General's Office how the State of South Carolina was treating these appropriations. It was determined that the University would need to recognize these capital appropriations from prior years in FY22. The University recorded the \$26,250,000 and recognized revenue in FY22. The University established a procedure to record all capital appropriations as revenue during the year that appropriated.

**UNIVERSITY OF SOUTH CAROLINA
SCHEDULE OF FINDINGS AND QUESTIONED COSTS (CONTINUED)
YEAR ENDED JUNE 30, 2022**

Section II – Financial Statement Findings (Continued)

2022-001 (Continued)

Name of the contact person responsible for corrective action: Mandy Kibler, Associate Vice President and University Controller.

Planned completion date for corrective action plan: The University recorded prior year capital appropriations in FY22 during our fiscal year-end close process.

Section III – Findings and Questioned Costs – Major Federal Programs

Our audit did not disclose any matters required to be reported in accordance with 2 CFR 200.516(a).