

University of South Carolina

**Reports Required by *Government Auditing Standards*
and the *Uniform Guidance***

For the year ended June 30, 2021

University of South Carolina

Reports Required by *Government Auditing Standards* and the *Uniform Guidance*

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University of South Carolina
Schedule of Expenditures of Federal Awards
For the year ended June 30, 2021

Federal grantor/pass-through grantor/program title	Federal CFDA number	Grant Number	Passed through to subrecipients	Expenditures
Research and Development Cluster				
US Department of Agriculture				
Molecular Characterization of Regulatory Factors Involved in Aspergillus flavus Development, Secondary Metabolism and Survival	10.001	58-6054-5-031	\$ -	\$ 33,252
Gullah/Geechee Agro-Culture: Sustaining culture to sustain agriculture in the Lowcountry	10.215	2020-38640-31521	-	14,651
Molecular Basis of Xenobiotic Metabolism and Resistance in Tetraonychus urticae	10.310	2020-67014-31179	-	81,908
The CIG that Changed My Life? Capturing Value of Cover Crops and Soil Health	10.902	68-3A75-17-311	-	35,012
Evaluate, Quantify, and Share Benefits and Outcomes of Soil Health Management Systems (SHMS) - (To provide technical assistance to SC NRCS Field Offices)	10.902	NR214639XXXXC001	-	17,061
Video Representation of NRCS Conservation Practices and Standards	10.912	NR204639XXXXC005	-	6,439
Strategic Planning toward Regenerative Farming for Small Producers	10.912	NR214639XXXXC004	-	1,126
Passed through programs from:				
Clemson University				
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	-	8,606
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	-	100,000
Total US Department of Agriculture			-	298,055
US Department of Commerce				
Shoals and Shipwrecks: Archaeological Explorations off Port Royal Sound, South Carolina	11.011	NA190AR0110304	-	10,036
The North Inlet-Winyah Bay National Estuarine Research Reserve	11.420	NA18NOS4200009	-	40,147
Continuing Support of the NERR Centralized Data Management Office	11.420	NA18NOS4200120	-	6,768
The North Inlet - Winyah Bay National Estuarine Research Reserve	11.420	NA19NOS4200069	-	119,806
Support of the National Estuarine Research Reserve System Centralized Data Management Office and Enhancements to the System-Wide Monitoring Program	11.420	NA19NOS4200105	-	448,774
North Inlet Winyah Bay NERR FY20 annual operations award proposal	11.420	NA20NOS4200030	-	595,204
Novel Approaches to Age Validation in Data-Poor U.S. Caribbean Reef Fishes	11.427	NA18NMF4270203	54,759	146,198
Building Adaptive Capacity in the Carolinas: The Carolinas Integrated Sciences & Assessments (CISA) Program	11.431	NA16OAR4310163	198,701	683,354
From Physics to Fisheries: a Social-Ecological Management Strategy Evaluation for the California Current Large Marine Ecosystem	11.431	NA17OAR4310270	-	8,161
Utilizing Drought Forecasts to Develop Decision Calendars for Reoperation of California's Hydroelectric Reservoir Systems and Managed Aquifer Recharge	11.431	NA19OAR4310371	8,186	55,329
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	NA15NMF4330157	12,100	24,163
Conservation Genomics and Caribbean Fisheries Management: Stock Structure and Connectivity of Four Parrotfish Species and the Role of MPAs as Recruitment Sources	11.433	NA18NMF4330239	14,586	110,044
Caribbean Hogfish: Documenting Critical Life History Information For A Data-Poor Species In Collaboration With Puerto Rican Fishers	11.454	NA17NMF4540137	-	(1,883)
Research to operationalize the use of UAS in wetland monitoring in support of the NOS/NERRS science mission – NI-WB NERR sub-award	11.478	NA20NOS4780216	-	11,845
Evaluation of molecular analysis to identify and quantify ichthyoplankton samples	11.RD	1305M218PNFFN0048	-	18,411
Passed through programs from:				
Georgia Institute of Technology				
Maryville Coastal Wetland Restoration and Community Resiliency (SC)	11.473	0318.19.066115_NA19NOS4730148	-	551
Global Foundation for Ocean Exploration				
Sharing Flower Garden Banks with the World Through Telepresence	11.429	PO # 09-01-2020 BRUGLER	-	22,694
Louisiana State University				
EESLR 2016 Dynamic sea level rise assessments of the ability of natural and nature-based features to mitigate surge and nuisance flooding	11.478	PO-0000010922	-	7,177
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	-	222,478
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	-	3,848
NC State University				
Creating ShellBase: The Southeast Shellfish Water Quality Database	11.012	2021-1679-01 / NA16NOS0120028	-	1,050
SC Sea Grant Consortium				
Relating Nonpoint Source BOD Loading to Land-Use and Stormwater Management Practices in Coastal South Carolina	11.417	R/CG-3	-	17,845
SE Coastal Ocean Observing Regional Association				
Demonstrating an Estuarine Soundscape Observatory Network in the Southeast: 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	-	38,799
Integrating Biological Sound and Noise Measurements into Regional Coastal Ocean Observing Systems (RCOOS) in Estuaries of South Carolina	11.012	IOOS.16(028)USC.EM.MOD.1	-	2,065
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	-	149,594
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	11,990	77,809
WebCOOS: Development and Transfer of an Operational Situational Monitoring and Reporting System	11.022	NA20NOS0120220	-	25,261
The University of Texas at Austin				
Listen In: Acoustic Monitoring of Estuarine Communities Facing Ecosystem Change	11.419	NA19NOS4190058 / UTA20-001035	-	18,246
Listen In: Acoustic Monitoring of Estuarine Communities Facing Ecosystem Change	11.419	UTA20-001036	-	1,875
University of Michigan				
A Collaborative Science Program for the National Estuarine Research Reserve System: With End Users Throughout the Applied Research Process	11.419	3003300692	-	4,354
Total US Department of Commerce			300,322	2,869,803
US Department of Defense				
ESRDC - Designing and Powering the Future Fleet; Additional Task 1.4.3 Concept Refinement.	12.300	N00014-14-1-0668	-	(24)
Response of the Bay of Bengal to the Atmospheric Intraseasonal Oscillations	12.300	N00014-17-1-2468	-	104,362
Experimental and Analytical Study of Low Amplitude AE signals due to Rubbing/Clapping of Crack Faying Surfaces	12.300	N00014-17-1-2829	-	109,003
The Pre and Post of Hardware In the Loop Experiments for Power Electronic Power Distribution Systems	12.300	N00014-19-1-2060	-	145,045
Circulation Changes in the Arctic Ocean and Subarctic Seas and their Connections to the Global Ocean and Climate	12.300	N00014-20-1-2680	-	48,398
Influence of Mesoscale and Submesoscale Eddy Structures on the Arabian Sea Mixed Layer Dynamics	12.300	N00014-20-1-2742	-	58,679
Enhancing the Preparation of Next-generation Cyber Professionals through a Hands-on Academic Program, Undergraduate Research Experiences, and Community Partnerships	12.300	N00014-20-1-2797	-	123,876
Facility for Development and Testing of Networked Power Electronics Building Blocks Controls	12.300	N00014-20-1-2830	-	243,985
Discretized Energy Control	12.300	N00014-21-1-2093	-	12,555
Hybrid physics-based AI-enabled crack-length estimation from AE signal signatures	12.300	N00014-21-1-2212	-	34,658
Distributed Condition Prognostics System for Navy Shipboard Machinery	12.300	N000174-17-1-0006	14,616	169,337
Toward Fully Electrically Reconfigurable Communication System	12.300	N00174-19-1-0015	-	89,414
Proposal National Register Evaluations for Five Late Discoveries and Curated Collections Maintenance for the Fort Jackson Cultural Resources Program	12.300	W9126G-19-2-0055	-	21,790
Dysregulation of the PACT-mediated crosstalk between protein kinases PKR and PERK contributes to dystonia 16 (DYT16)	12.420	W81XWH1810088	-	41,288
Understanding Gut-Microbiome links to Gulf War Illness persistence and development of gut-dysbiosis targeted therapy	12.420	W81XWH1810374	46,542	238,078
TP53 Synthetic Lethal Screen in Organoid Avatars to Discover Novel Therapeutic Targets for Colon Cancer	12.420	W81XWH1910847	-	224,573
Teriparatide: Stress Fracture Recovery For Returning to Duty (Teriparatide: STRONG)	12.420	W81XWH1920051	-	226,738
Optimal Functionally Graded Cellular Materials (FGCMs) to Mitigate Shock and Impact Loading	12.431	W911NF-18-1-0023	-	87,296
High Efficiency Micro/Nano-pillar UVC Light Emitting Diodes	12.431	W911NF-18-1-0029	-	144,871
How Inequality and Segregation Shape (and are Shaped by) Cooperation and Collective Action	12.431	W911NF1910281	15,762	124,384
E-beam Sub-micron Lithography System for Integrated UVC Applications	12.431	W911NF2010180	-	41,754
Multiscale 3D Printing System for Fabrication of Next Generation Multiscale Architected Armor Materials	12.431	W911NF2010231	-	160,041
Order in Atom Columns-Imaging Beyond the Virtual Crystal Approximation	12.431	W911NF2010318	-	579,573

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Research and Development Cluster, Continued				
US Department of Defense, continued				
Processing-Structure-Property Relationships in Ultrahigh Molecular Weight Polyethylene (UHMWPE) Film Composites	12.431	W911NF2020231	-	62,545
Chemical Functional Group Approach for Low-Temperature Oxidation of Liquid Fuels	12.431	W911NF2110306	-	67
South Coast Regional Cybersecurity Education and Development Program	12.617	HQ00052110014	-	38,627
Highly Effective Computational Methods in Geomagnetic Field Modeling	12.630	HM04761812002	-	204,510
Predictive Sensing of Aerospace Composite Structures	12.800	FA9550-16-1-0401	-	211,115
Real-Time Edge Computing in Structures Experiencing Shock	12.800	FA9550-20-1-0362	-	108,338
Real-time Model Updating for Structures in Shock Environments	12.800	FA9550-21-1-0083	-	22,421
Context-Aware Data Security for the Internet of Things (IoT)	12.905	H98230-20-1-0367	-	37,290
Passed through programs from:				
Advent Innovation Limited Company				
Ensemble Feature Extraction (EFEX) Algorithms and Software for Machine Fault Classification	12.RD	FA857120C0016	-	39,619
Battelle Memorial Institute				
MOC3HA - Manufacturing of Carbon-Carbon Composites for Hypersonic Applications	12.RD	05174/PO#US001-0000805174	-	56,893
Brown University				
Fractional PDEs for Conservation Laws and Beyond: Theory, Numerics and Applications	12.431	10010340	-	57,297
Fractional PDEs for Conservation Laws and Beyond: Theory, Numerics and Applications	12.431	Subaward No. 00000851	-	35,642
Carnegie Mellon University				
Near Real Time Assessment of Emergent Complex Systems of Confederates	12.300	1141302-385716	-	79,705
CFD Research Corporation				
A Deep Learning Framework for Real-time Health and Security Monitoring and Diagnosis of Manufacturing Systems based on Energy Consumption Auditing	12.RD	20200449 FA8571-20-C-0018	-	34,851
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 W911QX-20-C-0005	-	74,483
A Simulation Framework of Multi-objective Evolutionary Algorithms and Surrogate-based Optimization for Guided Weapon	12.RD	FA8651-20-C-0017	-	123,601
Algorithms and Module Development for Accurate and Rapid Load Analysis and Design of Experiments	12.RD	20180064	-	45,754
Model Order Reduction for Fast and Rapid Simulation of Human and Vehicle Thermal Signatures	12.RD	20190046	-	1,834
Multi-fidelity Surrogate Modeling and Data Fusion for Accurate Structural Buffet Load Prediction	12.RD	20190595	-	1,226
Transient CFD- and Model Order Reduction-based Solver for Rapid Thermal Signature Prediction	12.RD	20200414 W56HZV-20-C-0086	-	12,626
Clemson University				
Time for Robotics-Technology in Manufacturing Education for Robotics	12.300	2072-202-2012941	-	9,792
Cornell University				
The Soldier-to-Veteran Transition: A Study of High Risk Behavior	12.420	80583-11224	-	33,301
Directed Vapor Technologies Internation				
High Friction Ballistic Fibers for Improved Ballistic Protection	12.RD	D0168-01	-	69,415
Florida State University				
Electric Ship Research and Development (ESRDC FY17-21)	12.300	R01851	-	728,823
Electric Ship Research and Development Consortium (ESRDC) 2021 – 2025	12.300	R000002834 / ACRN AA	-	36,685
ESRDC – Support for Undergraduate Research Participants	12.300	R02120 & N00014-19-1-2346	-	1,836
Georgia Institute of Technology				
Leveraging a New Theoretical Paradigm to Enhance Interfacial Thermal Transport In Wide Bandgap Power Electronics	12.300	N00014-18-1-2429	-	281,387
Georgia Southern University				
Jekyll Creek Thin Layer Placement Evaluation and Analysis of Ecosystem Response	12.630	39G9579-001	-	34,790
Hitron Technologies				
A Remote Egg-oiling System with Autonomous and Automated Target Object Identification for Nuisance Bird Management	12.RD	U00026691	-	10,480
Phase II: Remote Egg-oiling System with Autonomous and Automated Target Object Identification for Nuisance Bird Management	12.RD	N68335-21-C-0069	-	38,657
Morgan State University				
Cubic Boron Nitride: A New Extreme Semiconductor by Ion-Beam Assisted Chemical Vapor Deposition	12.800	PO# P0019967	-	49,902
National Science Teachers Association				
USC Junior Science and Humanities Symposium (JSHS) 2020	12.630	20-871-037	-	2,988
USC Junior Science and Humanities Symposium	12.630	727325/W911SR-15-2-0001	-	9,502
Navatek, LLC				
Digital Twin Technology for Navy P&E Systems	12.300	SCN09741 10047-00001-0001-0008	73,000	732,269
Northeastern University				
Beyond the Cultural Horizon: Mapping Relational Norms Within Social Networks	12.431	504082-78050	-	32,608
Piasecki Aircraft Corporation				
Fuel Cell System Modeling STTR	12.RD	PO#85962 FA864921P0131	-	28,821
Raytheon Technologies				
Raytheon - ARM Welding Support	12.RD	1259063/PO#2607781	-	16,448
SC Office of the Adjutant General				
Medium and Large Wildlife Diversity and Abundance at SCARNG Training Sites - 2020	12.RD	4100084826	-	27,181
Spintech, Inc.				
Smart Tooling - Phase 1 SBIR Subcontract - Smart Tooling Evaluation for Automated Thermoplastic Manufacturing	12.RD	2021-003886	-	17,815
Structured Materials Industries				
STTR: Tooling and Processing for Low Temperature Homogeneous Epitaxy of 4H-SiC Using Novel Precursors	12.RD	42139	-	25,542
Tel Aviv University				
Threat monitoring and behavioral health throughout the deployment and career cycles: A translational study	12.420	0610715871	-	16,638
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	-	91,132
The Ohio State University				
AIN-Based Extreme Band Gap mm-wave Electronics	12.300	60063064	-	72,192
UES				
Dendroid Core Detection and Tracking for Directionally Solidified Ni-Based Alloys	12.RD	S-109-5D7-001	-	16,905
Universal Technology Corporation				
Integration of NMR Interpretation Tool in Surrogate Formulation and High Pressure Laminar Flow Reactor for Species Diagnostics in Jet Fuel Combustion	12.RD	17-7900-0006-03-C2	-	50,148
University of Dayton Research Institute				
Real-Time High-rate Decision Making for Functional Prognosis of Complex Mechanical Systems	12.RD	R5C19009	-	(5,480)
University of Pittsburgh				
USMC Gender-Integrated Recruit Training Study	12.RD	M9549420C0021	-	203,965
University of South Florida				
Blood Flow Restriction Training	12.RD	H92405-20-D-0001	-	32,382
Virginia Tech				
The Effect of Humidity and Partide Composition on Partitioning of Volatile Organic Compounds	12.431	45038819545	-	74,646
Wake Forest University Health Sciences				
Influence of Prostate Cancer Treatment on Work Experiences with Focus on Race and Income	12.420	102300-112859	-	21,105
Wichita State University				
Innovation and Collaboration Program: Development of Maintenance Strategies for FVL Platforms	12.630	21-01021 / W911W6-17-3-0001	-	111,638
Total US Department of Defense			<u>149,920</u>	<u>7,151,631</u>
US Department of Interior				
Using Motus stations to conserve endangered shorebirds at priority wetlands of NW-Mexico	15.637	F20AP11520-00	-	6,284
Investigating and Protecting Critical Nocturnal Roosts: Whimbrel at Deveaux Bank	15.663	O111.20.067006	-	56,937
Congaree River Freshwater Mussel Habitat Survey	15.678	F17AC00529	-	2,496
Operation of the Mid-America Integrated Seismic Network – 2020-2024 - USC	15.808	G20AC00033	-	106,167
Identifying the network of migratory stopover sites for Hudsonian Godwits in the Northern Great Plains	15.808	G21AC10159-01	-	14,651
Updating the National Landmark and National Register Nominations for the Camden Battlefield	15.926	P19AP00434	-	11,911
Archaeological Research and Educational Program for the Southern Campaigns	15.945	P16AC01544	-	10,298
Booker T Washington National Monument (BOWA) Archaeological Reanalysis	15.945	P19AC00586	-	15,043
CESU: Connecting African American History to Cumberland Island National Seashore	15.945	P19AC01143	-	11,992

University of South Carolina
Schedule of Expenditures of Federal Awards
For the year ended June 30, 2021

Federal grantor/pass-through grantor/program title	Federal CFDA number	Grant Number	Passed through to subrecipients	Expenditures
Research and Development Cluster, Continued				
US Department of Interior, continued				
Radiogenic Isotope and Platinum Group Element Analyses (RFQ 140G0320Q0039)	15.RD	140G0320P0094	-	19,920
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	-	15,395
SC Department of Natural Resources				
Archaeological Survey of Tom Yawkey Wildlife Center Heritage Preserve	15.957	10010789	-	29,040
Smith College				
Fate and Impacts of Silver Nanoparticles in Treatment Wetlands	15.805	636916-1	-	7,158
Total US Department of Interior			-	<u>307,292</u>
US Department of Justice				
Interconnecting PBIS and School Mental Health to Improve School Safety: A Randomized Trial	16.560	2015-CK-BX-0018	140,056	269,107
Passed 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	-	28,999
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	-	15,290
University at Buffalo, SUNY				
Atypical Work Hours and Adaptation in Law Enforcement: Targets for Disease Prevention - Subcontract W/The Research Foundation for SUNY on behalf of University at Buffalo	16.560	R1218292	-	62,221
Total US Department of Justice			140,056	<u>375,617</u>
US Department of Labor				
Passed through programs from:				
SC State Board for Technical & Comprehension Education				
Apprenticeship Carolina - ROI Analysis	17.268	4000034681	-	33,634
Total US Department of Labor			-	<u>33,634</u>
US Department of State				
Think Tank Capacity Building	19.700	SUMAQM20GR2180	62,685	206,340
Justice Sector Training, Research, and Coordination Plus (JustTRAC+) Program Project 1	19.703	SINLEC18CA2068	-	493,243
Total US Department of State			62,685	<u>699,583</u>
US Department of Transportation				
Passed through programs from:				
Clemson University				
Center for Connected Multimodal Mobility	20.701	1919-211-2021810	-	201,086
Federal Railroad Administration				
Intelligent Abnormal Situation Awareness Platform (i-ASAP)	20.RD	693J620C000021	36,965	51,669
Intelligent Crossing Assessment and Traffic Sharing System (i-CATSS)	20.RD	693J619C000009	-	87,199
Field Implementation of a Digital Image Correlation Enabled Drone for Non-Contacting Measurements of Railroad Infrastructure	20.RD	693J621C000005	-	13,744
Longitudinal Stress Measurements in Rail Using a Non-Contacting Reference-Free Vision-Based Approach	20.RD	693J619C000007	-	68,006
Railroad 4.0: Intelligent Risk Assessment and Prediction System (i-RAPS)	20.RD	693J620C000013	-	41,091
National Academy of Sciences				
Laser-based Non-destructive Spike Defect Inspection System	20.313	PO#SUB0001607 unit no. 913	-	10,853
Total US Department of Transportation			36,965	<u>473,648</u>
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	-	96,663
Compact, Robust Spatial Heterodyne Raman Spectrometer for Planetary Exploration	43.001	80NSSC19K1024	108,246	193,511
ECOSTRESS- Heat and Desiccation Risk Prediction in Intertidal Shellfisheries	43.001	80NSSC20K0074	-	77,356
Probing Dust Properties and Evolution Using Multi-wavelength Measurements of Absorption and Extinction in Galaxies Over the Past ~12 Gyr	43.001	80NSSC20K0887	25,291	52,936
RASPBERRY SI: Resource Adaptive Software Purpose-Built for Extraordinary Robotic Research Yields - Science Instruments	43.001	80NSSC20K1720	22,016	63,861
FINESST 3yr: Optimizing WFIRST Surveys: Precision Cosmology with Gravitationally Lensed Supernovae	43.001	80NSSCK1414	-	40,276
Connecting the Different Signatures of Interstellar Dust at Low Redshift: A Benchmark for Comparison to the Distant Universe	43.001	NNX17AJ26G	5,491	58,911
Synthetic Design Synthesis of Thermoplastic UD Tape based, Fastener-free assemblies for Urban Air Mobility vehicles	43.002	80NSSC20M0165	411,260	781,079
2C22 - TC3 - Design for Manufacturing (DFM) Software Development	43.002	C16-2A38-USCAR	-	(545)
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	354,766	724,328
Effect of External Thermo-Convective Perturbation on Cool Flame Dynamics: A Multidimensional Multi-Physics CFD Analysis	43.007	NNX17AF97A	-	52,194
HICAM 3.07 - DFM & CAPP Tools	43.RD	10010906	-	6,481
HICAM: Assess SOA NDE for Hi-rate Manufacturing	43.RD	10011028	-	717
Research Scientist in Automated Fiber Placement and Associate Technologies	43.RD	T18-606016-USC	-	104,715
Passed through programs from:				
Advent Innovation Limited Company				
Damage Detection Using Two-Stage Compressive Sensing	43.RD	U00026991	-	2,113
Ultrasonic Bessel Beams for Inspection of Multilayered Structures and Attenuative Material Systems	43.RD	80NSSC20C0357	-	19,897
Ultrasonic Energy Interaction with Composite Damage in Both Frequency and Time Domains	43.RD	10011054	-	58
Phase II: Damage Detection Using Two-Stage Compressive Sensing	43.RD	80NSSC20C0200	-	8,633
CFD Research Corporation				
An Intelligent Framework for Integrated State-consistent Aerovoelstic Reduced Order Model Development and Control Synthesis	43.RD	20200610/9456	-	35,145
An Intelligent Framework to Develop Adaptive Parametric Reduced Order Model Database for Aerostructural Control (CFDRC Project No. 9397)	43.RD	20190664	-	71,991
Clemson University				
Peroxide-Producing Microbial Fuel Cells for Space Life Support Systems Applications	43.008	2149-223-2023494	-	9,822
College of Charleston				
MIST 2021: The Bluford x Mae project	43.008	521383-MS-SC002	-	7,500
Advanced Solid Oxide Electrolysis Cells to Support NASA's Planetary Exploration Missions	43.008	521383-RP-USC001	-	3,803
Controls on Floodplain Circulation Defined by In Situ Observations, Numerical Simulations and Remote Sensing	43.008	521253-USC	-	53,505
Development of Data Driven Techniques for Prediction of Defects in Automated Fiber Placement - Anderson, Harik	43.008	521383-UG-SC001 80NSSC20M0054	-	7,500
Dosimetry and Temperature Monitoring of Seeds and Other Biological Materials During Space Flight	43.008	521340-SC003	-	24,003
Enabling Smart Automated Fiber Placement for Optimized Manufacturing by Means of Artificial Intelligence and Digital Twinning (Alex Brasington)	43.008	521193-SC003	-	15,090
Facile and Rapid Detection for Life Exploration in Space by Nanofluidic Electrophoretic Devices	43.008	521340-SC002	-	(738)
Flying Lens Spectrometer for Planetary Exploration	43.008	521179-RP-SC003	-	6,100
Generic Data-Driven Framework via Physics-Informed Deep Learning	43.008	521418-SC	-	62,668
Impacts of Gravity on Dropwise Condensation-Enhanced Heat Pipes	43.008	521419-SC	-	74,079
Inspection Influenced Manufacturing: Characterization of an Automated Fiber Placement System - Godbold, Harik	43.008	521383-UG-SC002 80NSSC20M0054	-	7,500
Kyle Lackey: Unraveling the Structure and Star Formation History of Polar Ring Galaxies	43.008	521383-GRF-USC001	-	16,000
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	-	6,320
Mini-REAP 2020: Developing Advanced Materials for NASA's Mars Oxygen Module	43.008	521179-RP-SC006	-	9,419
Mini-REAP 2020: Modeling Radiation-induced Mutational Signatures in Mammalian Cells	43.008	521179-RP-SC010	-	646
Mini-REAP 2020: Variable Pressure Growth Chamber for Sustainable Sub-Atmospheric Microgreen Crop Science Development	43.008	521179-RP-SC012	-	2,085

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Research and Development Cluster, Continued				
National Aeronautics & Space Administration, continued				
Passed through programs from, continued:				
College of Charleston, continued				
Mini-REAP 2020: Active Battery Material Coatings for Carbon Fibers	43.008	521179-RP-SC008	-	9,987
Mini-REAP 2020: The Effects of Ionizing Radiation on Plant Germination	43.008	521179-RP-SC009 / NNX15AL49H	-	10,000
MIST 2020: Controlling the Surface Roughness of Metals Printed Through Powder Bed Fusion	43.008	80NSSC20M0054 521383-MS-SC001	-	7,500
Monitoring Marine Heatwaves along the US East coast using Satellite Observations and model simulations	43.008	521340-SC004	-	2,400
Oxygen Production from Carbon Dioxide to Support Planetary Exploration Missions	43.008	521383-PA-SC001	-	1,771
REAP 2020: Finding Supernovae in Early Universe with JWST and HST	43.008	521383-RP-USC002	-	18,093
REAP 2020-21: Inverse Design of Lightweight 3D Full Carbon Network as High Capacity Energy Storage Materials	43.008	521179-RP-SC005	-	6,633
Robust Software Testing of Autonomous Aerospace Robotic Systems Using Transfer Learning	43.008	521340-SC001	-	1,800
SC Space Grant Consortium Graduate Research Fellowship: SAFE Space Suit: Adaptive and Sensing Garment (NASA Graduate Fellowship for Gabrielle Leith)	43.008	521383-GRF-USC002	-	13,701
Towards Real-time Online Validation of Additively Manufactured Metallic Components	43.008	521179-RP-SC007 / NNX15AL49H	-	4,319
Global Technologies				
Operation-Aware ISHM for Environmental Control and Life Support in Deep Space Habitats	43.RD	NNX17CA31P	-	98,531
Jacobs Technology, Inc.				
Development of a TSA Process for CO2 Removal Using a Structured 13X Adsorbent: Part V	43.RD	PO# 19N0778	-	82,687
NanoMEMS Research, LLC				
Plasmon-Plasmon Scattering Digital Logic	43.RD	U00027122	-	(1,973)
National Institute of Aerospace				
TC1 2C18: Progressive Damage Analysis	43.002	C16-2A38-USCAR	-	(1,540)
Rensselaer Polytechnic Institute				
Reconciling Prebiotic Paradigms: Mapping Planetary Reality onto Experimental Strategies	43.001	A19-0117-5004/ PO286657	-	20,568
The DEEP Project: Detecting Extraterrestrial Piezophiles in Ocean World Analogs	43.001	A18-0010-5001	-	13,135
Rochester Institute of Technology				
Investigating the Role of Pre-Shear and Pre-Stretching in the Transient Extensional Flow of Dilute Polymer Solutions: Modeling Benchmarking and Numerical Simulations	43.003	31991-01	-	1,039
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	-	7,551
Skyre, Inc.				
CO2 Electrochemical Concentration Technology Development	43.RD	U00027208	-	85,329
Develop and Apply Hydrophobic Coating to Cell Support Structures for Skyre Hydrogen Pump	43.RD	80NSSC19C0066	-	1,715
Southeastern Universities Research Association				
Radiation Effects on Pollen, Seeds and Plants	43.RD	C2019-USCC-01	-	18,818
Space Telescope Science Institute				
LensWatch: Time Delay Measurement of a Multiply-Imaged Supernova	43.RD	HST-GO-16264.001-A	-	5,673
SALT3: Taking the Type Ia Supernova Cosmology Workhorse to Longer Wavelengths	43.RD	HST-AR-15808.011-A	-	46,520
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	-	52,560
The Regents of the University of California				
Optimizing the WFIRST Type Supernova Survey	43.RD	A17-0899-S003-P0632067	-	72,893
Woods Hole Oceanographic Institution				
Elucidating Spatial and Temporal Variability in the Export and Attenuation of Ocean Primary Production using Thorium-234	43.001	23175500	-	6,703
Total National Aeronautics & Space Administration			927,070	3,282,035
National Endowment for the Humanities				
Technology, Listening and Labor: Music in New Hollywood Film (1968-1980)	45.160	FEL-262699-19	-	474
NEH Fellowship: Shaking the Empire: Dadabhai Naoroji and the Birth of Indian Nationalism	45.160	FEL-262705-19	-	12,300
The Revolutionary Era Pinckney Statesmen of South Carolina, A Digital Documentary Edition: Phase 3	45.161	RQ-255751-17	-	49,911
The Revolutionary Era Pinckney Statesmen Of South Carolina: A Digital Documentary Edition – Stage 4 - Final	45.161	RQ-271137-20	-	75,886
Evolution in Digital Discourse: Toward a Computational Tool for Identifying Patterns of Language Change in Social Media	45.169	HAA-261240-18	-	19,427
Developing Training for and Establishing Partnerships between Community Health Workers and Medical Librarians for LGBTQIA+ Health Promotion	45.312	LG-246360-OLS-20	-	78,917
META 2: Furthering Our Understanding of the Economic Value of Public Library Services	45.312	LG-96-18-0240-18	-	53,560
Passed 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	SCDNR FY2020-028	-	88,077
Total National Endowment for the Humanities			-	378,552
National Science Foundation				
UNS: Novel Probes to Quantify the Relative Importance of Ion and Particle Uptake When Assessing Nanoparticle Bioavailability	47.041	1508931	-	(150)
UNS: Engineered Nanomaterial Impact on Long-Term Stability of MSW Landfill and Leachate Treatment Pond Geomembrane Liners	47.041	1510869	-	34,647
DMREF: Collaborative Research: Design and Discovery of Multimetallic Heterogeneous Catalysts for a Future Biorefining Industry	47.041	1534260	-	1,906
CAREER: Detection and Quantification of Metal-Based Engineered Nanoparticles in Surface Waters	47.041	1553909	-	109,466
DMREF: Collaborative Research: Designing Optimal Nanoparticle Shapes and Ligand Parameters for Polymer-Grafted Nanoparticle Membranes	47.041	1629052	-	18,690
EAGER: Modulation of the Inflammatory Response for Accelerated Tissue Vasculature and Bone Regeneration	47.041	1631439	-	(7,877)
CAREER: An All-Optical Plasmonic Device to Control and Coupled Quantum Dots for Optical and Quantum Information Processing	47.041	1652720	-	67,320
REU SITE: Collaborative Research: Integrated Academia-Industry Research Experience for Undergraduate in Smart Structure Technology (IAIRESST)	47.041	1659507	-	31,802
SusCHEM: GOALI: Drinking Water Safety and Sustainability: Identifying Key Chemical Drivers of Toxicity for Long-Term Solutions in the United States	47.041	1705206	7,836	3,329
Minority Carriers in Graphene/SiC Schottky Emitter Bipolar Phototransistors for High Gain Visible Blind UV Detection	47.041	1711322	-	104,703
An Integrated Framework for the Optimal Control of Vehicle-to-Grid Systems	47.041	1711767	8,769	87,981
Type I: University of South Carolina I-Corps Site for Entrepreneurship	47.041	1735728	-	1,547
CPS: Medium: Collaborative Research: Against Coordinated Cyber and Physical Attacks: Unified Theory and Technologies	47.041	1739886	-	85,663
CAREER: Quantifying the Response of Rivers and Floodplains to Changes in Climate and Land Use	47.041	1751926	-	112,017
Investigating the Balance of Passive and Active Mechanics in Vascular Remodeling: An Integrated Experimental and Computational Approach	47.041	1760906	-	147,454
Fundamentals of a New All Solid-state Metal-air Redox Battery Operated on Oxide-ion Chemistry	47.041	1801284	-	88,068
GOALI: Collaborative Research: Electrochemical CO2 Separation and Capture through Design of Carbonate-Selective Catalysts and Ionomers	47.041	1803189	-	50,690
Collaborative Research: Understanding and Manipulating the Solvent Microenvironment for Selective, Catalytic Amination of Renewable Oxygenates	47.041	1805307	-	68,768
Ultrawide bandgap AlGaIn photodetectors for solar-blind UV detection and radiation monitoring	47.041	1810116	-	51,576
MRi: Acquisition of Time of Flight-Inductively Coupled Plasma-Mass Spectrometer to support multi-disciplinary research and training in South Carolina and Nationwide	47.041	1828055	-	178,674
NRi: INT: COLLAB: SYNDROME: Synergetic DRone Delivery Network in Metropolis	47.041	1830512	-	72,824
Formation of Environmentally Persistent Free Radicals on Engineered Nanomaterials During Thermal Treatment	47.041	1834638	-	43,504
REU Site: Engineering Medical Advances at the Interface of Experiments and Computation	47.041	1852331	-	63,021
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	-	25,703

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Research and Development Cluster, Continued				
National Science Foundation, continued				
Understanding the Fundamental Mechanisms Governing Tensile Strength of High-Performance Small-Scale Carbon/Glass Fibers	47.041	1915948	-	134,016
A New Class of Chemical Potential Driven Plug Flow Membrane Reactors for Combined Gas Separation and Direct Natural Gas Conversion	47.041	1924095	-	55,995
Planning Grant: Engineering Research Center for Health Care Transformation (ERC-HCT)	47.041	1937107	-	14,483
Center for Rational Catalyst Synthesis (CeRCas) I/UCRC Phase II	47.041	1939876	-	133,240
Investigating the Barriers to Retention and Tenure for Black and Hispanic Engineering Faculty at R1 Institutions	47.041	2001724	-	109,185
I-Corps Proposal - Magnetic Nanoremediation of Crude Oil	47.041	2002629	-	5,802
CAREER: Understanding Interface-Mediated Deformation in Metallic Nanolayered Composites by Experimentally-Validated Multiscale Modeling	47.041	2015598	-	12,580
Career Development Workshop and Forum: Spring Technical Meeting of the Eastern States Section of the Combustion Institute, 2020	47.041	2023772	-	4,000
Understanding the Role of Activated Oxygen Species in the Room Temperature Conversion of Methane to Methanol	47.041	2025709	-	31,667
Unraveling Hidden Physics in Multiphase Combustion: Preferential Vaporization at Elevated Pressure	47.041	2028376	-	140,208
COVID-19 RAPID: Monitoring the Spatial Spread of COVID-19 through the Lens of Population Movement using Big Social Media Data	47.041	2028791	-	29,585
CAREER: Ultrasensitive Multiplex Nanopore Biosensing for Point-of-Care Testing of Infectious Diseases	47.041	2047503	-	23,612
Rapid Collaborative Proposal: Characterization, Quantification, and Transport of Incidental Nanomaterials from Wildland-Urban Fires in Surface Waters	47.041	2101983	-	11,770
I-Corps: Silver Nanoparticles For Elimination Of Fungal Toxins	47.041	2103610	-	10,172
EPRI: On-demand Sweating-Boosted Air Cooled Heat-Pipe Condensers for Green Power Plants	47.041	CBET-1357920	-	(1,593)
Cancer Stem Cell Mechanotransduction in Engineered Matrix	47.041	CBET-1403545	-	(4,880)
Collaborative Research: Processing and Assembly of Devices with Tailored Magnetic Properties	47.041	CMMI-1436560	-	(1,492)
SFSU Subcontract for REU SITE: Collaborative Research: Integrated Academia-Industry Research Experience for Undergraduate in Smart Structure Technology (IAIREST)	47.041	521-0004	-	18,341
REU Site: Undergraduate Research in Physics at the University of South Carolina	47.049	1263047	-	(13,909)
Collaborative Research: On the Origin of Atomic Layer Deposition Enhanced Activity and Stability of Nanostructured Cathodes for Intermediate-temperature Solid Oxide Fuel Cells	47.049	1464112	-	62,787
CAREER: Well-Defined Hybrid Materials as a Versatile Tool to Study Energy Transfer Processes	47.049	1553634	-	139,729
CAREER: Mechanism of Cytochrome P450 Alkene Biosynthesis	47.049	1555066	-	23,469
Molecular Dynamics with Nuclear Quantum Effects: Bridging Classical and Quantum Regimes	47.049	1565985	-	(13,315)
Facial Amphiphilic Antimicrobials Biomaterials Containing Fused Multicyclic Structures	47.049	1608151	-	(27,567)
Equilibrium Thermodynamics of Semiconductor Nanocrystal Ligand and Ion Exchange via Calorimetry	47.049	1613388	-	18,472
Neutrino-less Double-Beta Decay with CUORE and the MAJORANA DEMONSTRATOR	47.049	1614611	-	43,830
Collaborative Research: Equipment for the PSI MUSE Experiment	47.049	1614773	-	(47)
Fractional PDEs and related nonlocal models: fast numerical methods, analysis, and application	47.049	1620194	-	55,100
Hybrid Computational Methods and Algorithms for Complex Biological Systems	47.049	1620212	-	11,564
CAREER: The Fundamental Principles of Modified Carbon Fiber Microelectrodes as Speciation Sensors	47.049	1654111	-	104,486
CAREER: Carborane Cluster Architectures Featuring Multiple Metal-Boron Interactions	47.049	1654301	-	110,104
Plasma Discharge in Liquids: Understanding the Initiation and Formation Mechanisms of Non-Thermal Plasma in Dense Medium	47.049	1707282	-	120,030
Multidimensional Methods for Kinetics in Complex Materials	47.049	1707813	-	96,187
Collaborative Research: Fundamental Understanding of the Environmental Fate of Disinfection By-Products arising from Desalination Plants	47.049	1708461	-	32,859
Comprehensive Models of Non-Covalent Aromatic Interactions	47.049	1709086	-	(9,455)
SusChem: In-situ oligomerization to immobilize contaminants in groundwater.	47.049	1709786	-	(6,161)
Nonlinear Approximation in Geometric, Harmonic and Anisotropic Settings with Applications	47.049	1714369	-	38,151
Collaborative Research: Efficient, Stable and Accurate Numerical Algorithms for a class of Gradient Flow Systems and their Applications	47.049	1720212	-	16,768
Optimal Convergence Rates for hp-Adaptivity	47.049	1720297	-	31,039
CAREER: Multi-scale Modeling of Biological Gels by Coupling Langevin Equations and Fractional Viscoelastic Constitutive Models	47.049	1751339	-	81,557
CAREER: Tunable Isomorphic Architectures	47.049	1752615	-	99,776
Bifunctional Catalysts for Selective Hydrogenation of Biomass Derivatives: Furfural Hydrogenation over Pt-Sn Supported on Titania	47.049	1764164	48,469	99,092
Activation of C-H Bonds at Multinuclear Metal Sites	47.049	1764192	-	120,595
New Lanthanide-Containing Silicate Fluoride Scintillators for Radiation Detection	47.049	1806279	-	147,311
General Strategies Toward Mechanically Robust Biobased Polymers and Composites	47.049	1806792	-	79,663
Collaborative Research: How magnetic nanoparticles organize in extreme force gradients	47.049	1808426	-	104,192
NSF-BSF: The Study of Nuclear Physics with Intermediate Energy Probes	47.049	1812382	-	419,281
Collaborative Research: Computational Modeling of How Living Cells Utilize Liquid-Liquid Phase Separation to Organize Chemical Compartments	47.049	1815921	-	55,609
Study on Localized Exponential Time Differencing Methods for Evolution Partial Differential Equations	47.049	1818438	-	82,734
Collaborative Research: Models, algorithms, simulations, and applications for two-phase ferrofluid flows in contact with a solid surface	47.049	1818783	-	39,847
MRI: Acquisition of a High Resolution, Quadrupole Mass Spectrometer to Enable Research and Education at the Interface of Chemistry and Biology	47.049	1828059	-	1,418
Understanding and Designing Novel Anode Materials for Solid Oxide Fuel Cells	47.049	1832809	-	67,510
Regularity and singularity formations in swarming and related fluid models	47.049	1853001	-	36,421
Mathematical Modeling, Computational and Experimental Investigation of the Dynamics of Heterogeneity in Breast Cancer	47.049	1853365	-	65,167
Spring School Series: Models and Data	47.049	1855853	-	4,000
Exploring and Understanding the Effect of Cation- π Interactions in Asymmetric Catalysis	47.049	1856772	-	113,697
Collaborative Research: Mechanochemistry of Metallocenes	47.049	1904373	-	72,264
Functional Nanotubes from Self-Assembled Bis-Urea Macrocycles	47.049	1904386	-	121,413
EAGER: Thermal Materials Discovery via Deep Learning based High-Throughput Computational Screening	47.049	1905775	-	142,203
Efficient Numerical Simulations of Oceanic Flows with Application to Coastal Modeling	47.049	1913073	-	53,717
Hybrid Multiscale Methods with Applications in Biomaterials and Bioengineering	47.049	1913146	-	44,832
MRI: Acquisition of the NanoFrazor – a unique AFM-based nanolithography tool to support multidisciplinary research and promote nanoscience in South Carolina and beyond	47.049	1920117	-	(37,068)
CAS: Collaborative Research: New Hybrid Catalysts for Sustainable Cross-Coupling Reactions: Using Atomic Layer Deposition to Immobilize and Enhance Molecular Catalysts	47.049	1954850	-	72,825
Molecular dynamics with quantum nuclear effects: bridging the quantum and classical domains	47.049	1955768	-	146,116
Counting Curves Using the Topology of Moduli Spaces	47.049	2001565	-	56,624
Multidimensional and Nonlinear Kinetics in Complex Materials	47.049	2003619	-	79,912
Molecular rotors for studying transition state stabilization by non-covalent interactions	47.049	2003889	-	80,359
Collaborative Research: The Circumgalactic Dictionary: An Interpretation Guide For Circumgalactic Medium Observations	47.049	2007538	-	26,612
Fulfilling the Atomic Physics Needs for Spectroscopic Diagnostics of Cosmic Chemical Evolution	47.049	2009811	-	21,082
State and Parameter Estimation: Variationally Stable Models and Physics-Informed Learning	47.049	2012469	-	14,812
Ligand exchange equilibrium at quantum dot surfaces in polar and aqueous solvent environments	47.049	2109064	-	610
Crystal Growth of Complex Luminescent Oxides	47.049	DMR-1301757	-	(4,271)
Collaborative Research: Equipment for and Running of the PSI MUSE Experiment	47.049	PHY-1401974	-	(27,334)
Collaborative research: Does Dissolved Organic Matter Influence the Concentrations and Distributions of Trace Elements in the Arctic Ocean?	47.050	1504137	-	(2,056)
Collaborative Research: Geochemistry of IODP Site 1438 and West Philippine Basin Volcanic Rocks: Constraints on Subduction Initiation and the Early Development of the Izu-Bonin-Mariana (IBM) Arc	47.050	1537135	-	(181)
Collaborative Research: Generation of Internal Waves Due to the Scattering of Semidiurnal Hybrid Kelvin-edge Waves at Varying Continental Shelf Topography	47.050	1537449	-	730
Collaborative Research: Building an International Component in the Aleutian-Alaska Primary Site through US Participation in Research Cruises of the German R/V Sonne	47.050	1551640	-	(4,967)
Collaborative Research: Water Concentration and Distribution in the Oceanic Lithosphere	47.050	1624315	-	18,948
COLLABORATIVE RESEARCH: SAVANT: Stable Atmospheric Variability AND Transport	47.050	1733746	-	59,332
Collaborative Research: US GEOTRACES PMT: Sources and Rates of Trace Element and Isotope Cycling Derived from the Radium Quartet.	47.050	1736321	-	8,918

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Research and Development Cluster, Continued				
National Science Foundation, continued				
Groundwater Sources of "new" N for Benthic Microalgal Production in the South Atlantic Bight	47.050	1736557	20,856	163,898
Collaborative Research: Investigating Initiation and History of the Aleutian Arc and Composition and Significance of North Pacific Seafloor via Dredge Samples from the R/V Sonne	47.050	1753518	-	7,966
Collaborative Research: Investigating the Fate of Carbon at an Ultraslow Spreading Center	47.050	1801036	-	103,922
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	-	44,596
Collaborative Research: Deployment of Laser Induced Breakdown Spectroscopy System from ROV Jason	47.050	1829327	-	64,213
Next Generation Ramen: Developing a Monolithic Spatial Heterodyne Spectrometer for Multi-Scale Chemical Mapping in Marine Environments	47.050	1829333	-	170,668
Collaborative Research: Assessing the relative importance of small vs large particles as sources of nutrition to abyssal communities	47.050	1829519	-	99,649
Collaborative Research: Shark FEST - Fusing Eocene Shark Tracers: Paleoecology, Ocean Circulation, and Antarctic Glaciation with Geochemistry and Climate Modeling	47.050	1842176	-	59,187
Collaborative Research: Organic and Inorganic Geochemical Investigation of Hydrologic Change in East Antarctica in the 4 Million Years Before Full Glaciation	47.050	1908399	-	56,535
Deconvolving the Southern South American Pleistocene-Holocene Dust Production Pathways	47.050	1910510	-	11,303
Collaborative Research: Characterization of Subduction Channel Processes, Borehole Sampling at Active Serpentinite Mud Volcanoes on the Mariana Forearc	47.050	1921654	-	14,766
Nitrous Oxide Cycling in the Arctic Ocean from Stable Isotopic and Concentration Data	47.050	1927755	-	31,782
Finding hydrothermal chimneys along the Southern East Pacific Rise with machine learning approaches to AUV-based sonar data Distinguishing Sediment, Serpentinite, and Altered Oceanic Crust in the Source of Aleutian Volcanic Rocks Using Boron & Molybdenum Isotopes	47.050	2006265	-	4,698
Bioavailability of Arctic Soil Carbon: Examining the Relationship Between Chemical Composition and Lability During the Holocene	47.050	2050271	-	19,495
II-New: SC-CAN: South Carolina's Wireless Communication and Airborne Networking Collaboratory	47.070	PLR-1417711	-	(3,370)
TWC SBE: Medium: Context-Aware Harassment Detection on Social Media	47.070	1513107	-	(14,020)
NR: Enhancing Mapping Capabilities of Underwater Caves using Robotic Assistive Technology	47.070	1513721	-	6,593
REU Site: Applied Computational Robotics	47.070	1637876	-	(312)
SaTC: CORE: Small: Collaborative: Enabling Precise and Automated Insecurity Analysis of Middleware on Mobile Platforms	47.070	1659514	-	11,647
Cyberinfrastructure Center of Expertise	47.070	1815144	-	99,607
S&AS: FND: COLLAB: Planning Coordinated Event Observation for Structured Narratives	47.070	1829698	23,542	98,536
CRII: CPS: Algorithms and Methodologies for Real-Time Decision-Making of Mission-Critical Structures Experiencing High-Rate Dynamics	47.070	1849291	-	49,691
CRII: SaTC: A Malware-Inspired Approach to Mobile Application Repackaging and Tampering Detection	47.070	1850012	-	45,455
SaTC: CORE: Small: Collaborative: Enabling Precise and Automated Insecurity Analysis of Middleware on Mobile Platforms	47.070	1850278	-	44,146
SHF:Small:A Unified Approach for Scheduling Computer Vision Dataflow Graphs	47.070	1856380	-	53,468
CNS Core: Small: Software-Hardware Reconfigurable Systems for Mobile Millimeter-Wave Networks	47.070	1910748	-	37,681
CC* Networking Infrastructure: Building a Science DMZ for Data-intensive Research and Computation at the University of South Carolina	47.070	1910853	-	110,276
RTML: Small: Collaborative: A programming model and platform architecture for real-time machine learning for sub-second temporal systems	47.070	1925484	-	133,648
Collaborative Research: Integrating Physics and Generative Machine Learning Models for Inverse Materials Design	47.070	1937535	-	77,673
CAREER: Enabling Autonomy via Enhanced Situational Awareness for Underwater Robotics	47.070	1940099	-	139,723
SaTC: CORE: Small: Semantics-Oriented Binary Code Analysis Learning from Recent Advances in Deep Learning	47.070	1943205	-	104,741
Spokes: MEDIUM: MIDWEST: Collaborative: Community-Driven Data Engineering for Opioid and Substance Abuse in the Rural Midwest	47.070	1953073	-	11,257
Collaborative Research: SHF: Medium: Machine Learning on the Edge for Real-Time Microsecond State Estimation of High-Rate Dynamic Events	47.070	1956009	-	64,216
CNS Core: Small: Collaborative Research: SmartSight: an AI-Based Computing Platform to Assist Blind and Visually Impaired People	47.070	1956071	-	50,253
CCRI: Medium: Collaborative Research: Hardware-in-the-Loop and Remotely - Accessible / Configurable / Programmable Internet of Things (IoT) Testbeds	47.070	2007202	-	40,729
MRI: Acquisition of Omniprecipient Chamber for Gathering Ground Truth and Enabling Research on Smart and Connected Things	47.070	2016415	-	32,625
NR: INT: COLLAB: Cooperative Underwater Structure Inspection and Mapping	47.070	2018966	-	45,036
REU Site: Applied Computational Robotics	47.070	2024741	-	61,716
COVID-19 RAPID: Automated discovery of COVID-19 related hypotheses using publicly available scientific literature	47.070	2050896	-	43,878
DIMENSIONS: Links Between Spectral Irradiance and Cryptophyte Biodiversity in Environments from Ponds to Oceans	47.070	UDR0000011	-	1,611
Mutational Variance of the Transcriptome and the Origins of Phenotypic Plasticity	47.074	1542555	-	297,735
CAREER: Revealing the Mechanisms that Determine How an Active DNA Transposable Element Impacts the Genome	47.074	1556645	-	105,602
LTREB: Long Term Studies of Salt Marsh Primary Production	47.074	1651666	-	112,707
Identifying a New Circuit That Controls Feeding Behavior: Leptin and Serotonin Interactions	47.074	1654853	-	125,405
CSBR: Living Stocks Support for the Peromyscus Genetic Stock Center	47.074	1656626	-	126,555
Targeting of Salicylic Acid-Activated NPR1 by a Bacterial Type III Effector	47.074	1755670	-	89,965
Role of miR156-targeted SQUAMOSA PROMOTER BINDING PROTEIN-LIKE transcription factors in floral transition	47.074	1758994	-	59,264
EAGER: Novel approaches to study green leaf volatile perception	47.074	1947274	-	36,389
Regulation of Floral Growth and Patterning in Arabidopsis Thaliana	47.074	2051699	-	1,103
Standardized Goodness of Fit Assessment and Power Computations in Structural Equation Models	47.074	IOS-1354452	7,056	113,464
SBE-RCUK: Diet, Migration, and Health in the Context of Medieval Mortality Crises	47.075	1659936	-	3,191
Technique Development for Caffeinated Beverage Identification	47.075	1722491	-	18,845
Collaborative Research: Socio-Linguistic Analysis of Cross-Cultural Encounters and their Outcomes	47.075	1724426	-	9,526
REU Site: Disparities in the Criminal Justice System	47.075	1823665	-	67,696
Collaborative Research: Decision Making on the U.S. District Courts: Building a Multi-User Database	47.075	1851955	-	41,329
Finance and the reshaping of the U.S. electricity system	47.075	1920991	-	68,665
COVID-19 RAPID: Development and deployment of a digital game to combat COVID-19 misconceptions	47.075	1951102	-	22,813
GEO-Scholar: Broadening undergraduate participation in the geosciences	47.075	2030273	-	123,260
Science Learning+: STEM Teens: Examining the Role of Youth Educators as Learners and Teachers in Informal STEM Learning Sites	47.076	1458416	-	91,317
University of South Carolina Science and Mathematics Teachers Initiative Phase 2 (USC-SMTI P2): Continuing to Improve Teacher Preparation & Retention	47.076	1647131	-	(7,276)
Collaborative Research: Mathematics Graduate Student Peer-Mentorship Program: Impact and Adaptability	47.076	1660700	10,017	324,079
Collaborative Research: Teacher Leadership (T-Lead): Investigating the Persistence and Trajectories of Noyce Master Teaching Fellows	47.076	1725295	-	13,332
Collaborative Research: Capacity Building: Building a Cybersecurity Pipeline through Experiential Virtual Labs and Workforce Alliances	47.076	1758438	-	61,836
Collaborative: Multi-state Community College, University and Industry Collaboration to Prepare Learners for 21st Century IT Jobs	47.076	1822567	-	14,294
(PI - Harris Pastides) LSAMP BD: University of South Carolina-Columbia, LS SCAMP	47.076	1902397	-	18,967
Integrating Scholarships, Academic Assistance, Professional Development, and Wellness to Increase Undergraduate Retention in Engineering and Computing	47.076	1906154	-	455,610
Influence of Inquiry Lab Development and Teaching on TA and Faculty Beliefs About Teaching	47.076	1930492	-	119,553
Bridging Pathways for the Preparation of Highly Qualified Mathematics and Science Teachers	47.076	1933395	-	15,690
Enacting a culturally-sustaining STEM Institute in the Gullah/Geechee Community in the Southeastern United States	47.076	1950204	-	37,697
Collaborative Research: College Mathematics Instructor Preparation Project	47.076	2005810	-	88,329
IGERT: Functional Nanomaterials for Sustainable Energy Solutions	47.076	2020952	-	31,332
NSF Graduate Research Fellowship	47.076	DGE-1250052	-	(1,305)
NSF Graduate Research Fellowship: Maina Handmaker	47.076	DGE-1450810	-	93,566
Developing Master Teachers through the South Carolina Science and Mathematics Teacher Leaders (SC-SMTL) program	47.076	DGE-2034711	-	87,619
NSF EPSCoR Research Infrastructure Improvement (RII) Track 1	47.079	DUE-1439842	-	257,189
NSF EPSCoR Research Infrastructure Improvement (RII) Track 1	47.079	OIA-1317771	-	(5,184)
NSF EPSCoR Research Infrastructure Improvement (RII) Track 1	47.080	13-023/14-017/14-037	-	(3,379)
NSF EPSCoR Research Infrastructure Improvement (RII) Track 1	47.080	13-024/14-018/14-038	-	(26,347)
The Molecular Nature of Environmentally Persistent Free Radicals on Nanoparticles	47.083	1738337	-	73,149

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<u>Federal grantor/pass-through grantor/program title</u>	<u>Federal CFDA number</u>	<u>Grant Number</u>	<u>Passed through to subrecipients</u>	<u>Expenditures</u>
Research and Development Cluster, Continued				
National Science Foundation, continued				
RII Track-4: Molecular Understanding of Salt-induced Selective Aggregation and Selective Sorption of Dissolved Organic Matter and Natural Particles	47.083	1738340	-	35,147
RII Track-4: Using the cryopreservation and microfluidic technologies to engineer bottlenose dolphin ovarian function in vitro for testing marine contaminants female reproductive toxicity	47.083	1832910	-	4,332
26TH NSF EPSCoR NATIONAL CONFERENCE: Science and Partnerships Across Disciplinary Boundaries	47.083	1841103	-	12,087
NSF Convergence Accelerator: Symposium on Big Data & AI-Driven Disaster Management for Planning, Response, Recovery, and Resiliency	47.083	1956285	-	51,200
RII Track 1: Materials Assembly and Design Excellence in South Carolina: MADE in SC	47.083	OIA-1655740	2,158,795	3,522,595
RII Track-2 FEC- Genome to fitness: An analysis of the stress response in Peromyscus	47.083	OIA-1736150	376,581	1,022,413
Passed through programs from:				
Benedict College				
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	-	29,714
Clemson University				
Radioluminescent Particles for Optical Mission in Optogenetics	47.083	1876-206-2011576	-	16,212
Dartmouth College				
RII Track-2 FEC: Computational Methods and Autonomous Robotics Systems for Modeling and Predicting Harmful Cyanobacterial Blooms	47.083	R1303	-	102,665
Marine Biological Laboratory				
ILTER-Plum Island Ecosystems: Dynamics of Coastal Ecosystems in a Region of Rapid Climate Change, Sea-level Rise, and Human Impacts.	47.050	52684	-	42,176
Morgan State University				
Doping cubic boron nitride, an extreme material for power electronics and radiation detection	47.041	USC-183-02	-	49,325
NC State University				
CNS Core: Small: Collaborative: Towards Surge-Resilient Hybrid RF/VLC Networks	47.070	2019-1232-01	-	298
STEM Teens: Examining the Role of Youth Educators in Informal Science Learning Sites Evaluation Plan	47.076	2018-2113-01	-	33,896
Occidental College				
Statistical Modeling (Spatial-Temporal Data Analysis) of the Obesity Epidemic in Lowcountry of South Carolina	47.049	OXY-CURM0041	-	5,077
SC State University				
SCAMP Phase III: Enhancing Opportunities to Transition Students into Successful STEM Pathways	47.076	18-581065-SCAMP-USC-SC	-	2,400
The Ohio State University				
HazardSEES: Social and Physical Sensing Enabled Decision Support for Disaster Management and Response	47.050	60073475	-	38,948
Trustees of Princeton University				
Non-equilibrium misty plasma discharge and reactors for natural gas conversion to liquid products	47.041	EFMA 2029425 SUB0000427	-	29,147
University Corporation for Atmospheric Research				
Teresa Norman- NCAR Fellowship: 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	SUBAWD001569	-	5,679
Teresa Norman- UCAR Fellowship: 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	-	50,791
University of Georgia				
ILTER: Georgia Coastal Ecosystems IV	47.050	SUB00001914	-	24,769
Coupled Long-Term Impacts of Uneven Racial Development, Exurban Growth, and Sea-Level Rise on Land-Use in Coastal Georgia	47.075	SUB00002229	-	25,864
University of Puerto Rico				
RII Track-2 FEC: Center for a Sustainable Water, Energy, and Food Nexus (SusWEF)	47.083	2016-2017-003	-	213,260
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	-	3,464
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	-	7,584
University of Wisconsin-Madison				
COVID-19 Response to COVID-19 Field Research and Education Disruptions: Creating Virtual Field Experiences in Coastal and Estuarine Science	47.050	0000000848	-	13,725
Villanova University				
Collaborative Research: RUI: The Influence of Mangrove Invasion and Rising Temperatures on Belowground Processes in Coastal Ecosystems	47.074	525874	-	84,792
Total National Science Foundation			<u>2,661,921</u>	<u>16,355,764</u>
US Department of Veterans Affairs				
Research statistical, data management, grant proposal and educational support for the Columbia VA Health Care System	64.RD	36C24720P0271/544C05109/544C15081	-	9,116
Institutional Animal Care & Use Committee (IACUC) Program Support Assistant Services for WJB Dorn VA Animal Facility	64.RD	36C24720P1216/544D07011/544D17108	-	16,017
Swine Procurement, Husbandry, and Maintenance for Dorn VA Medical Center	64.RD	36C24E19D0025	-	14,391
Rodent Procurement and Husbandry for Dorn VA Medical Center	64.RD	36C24E20D0009	-	70,855
IACUC Program Support - Administrative Services	64.RD	544D87012/VA-247-17-P-2248	-	5,347
Provision of VMO Services to the Dorn VA Medical Center (2019)	64.RD	544D07000 / 36C24719P0181	-	23,107
Total US Department of Veterans Affairs			-	<u>138,833</u>
US Environmental Protection Agency				
Chemical Analysis to Support Health Assessments	66.RD	68HE0B20P0302	-	6,998
Green plasma technology for siloxane removal and landfill gas upgrade	66.516	83996601	-	8,430
Passed 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	-	821
SC Department of Health & Environmental				
EJ Strong: Strengthening Communities for Disaster Risk Reduction, Response and Recovery in South Carolina	66.312	EQ-1-680	-	6,998
Total US Environmental Protection Agency			-	<u>23,247</u>
US Nuclear Regulatory Commission				
Experimental Testing and Evaluation of Boron Performance in Spent Fuel Storage and Transportation	77.RD	31310018C0003	-	53,275
University of South Carolina Excellence in Nuclear Engineering Fellowship Program	77.008	NR-C-HQ-84-15-G-0022	-	29,328
Total US Nuclear Regulatory Commission			-	<u>82,603</u>
US Department of Energy				
Neutrino and Flavor Physics at the Intensity Frontier (Neutrino Task)	81.049	DE-SC0010073	-	145,004
Research in Neutrinoless Double-Beta Decay	81.049	DESC0012612	-	13,211
Center for Hierarchical Waste Form Materials (CHWM)	81.049	DESC0016574	701,705	1,714,636
Research in Neutrinoless Double-Beta Decay	81.049	DE-SC0018060	-	48,502
Using Crystallization to Control Filler Dispersion and Vice Versa in Polymer Nanocomposites	81.049	DE-SC0018135	-	127,042
Crystal Growth of New Complex Actinide Containing Oxides, Fluorides and Chalcogenides and the Investigation of their Optical and Magnetic Properties	81.049	DE-SC0018739	-	1,139
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	-	186,103
Multimetallic Metal-Organic Frameworks as Tunable, Multifunctional Catalysts for Gas Phase Hydroformylation and Hydrogenation Reactions.	81.049	DE-SC0019360	3,576	295,929
Fundamental symmetries and nucleon interactions	81.049	DE-SC0019647	-	90,245
Efficient and Scalable Time-Stepping Algorithms and Reduced-Order Modeling for Ocean System Simulation	81.049	DE-SC0020270	-	125,487

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Research and Development Cluster, Continued				
US Department of Energy, continued				
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	-	258,535
Fundamental Neutron Physics: Theory and Analysis	81.049	DE-SC0020687	-	78,329
Creating Novel Gas Separation Constructs by Manipulating Free-Volume Distributions in Polymer-Grafted Nanoparticles	81.049	DE-SC0021252	-	43,689
Orienting Strained Interfaces designed to Direct Energy Flow	81.049	DE-SC0021363	-	191,935
A Multifunctional Isostructural Bilayer Oxygen Evolution Electrode for Durable Intermediate-Temperature Electrochemical Water Splitting	81.087	DE-EE0008842	46,662	179,847
Polymer products from lignin through de-aromatization and COOH functionalization	81.087	DE-EE0008912	36,686	63,537
Developing Accelerated Test Protocols and Tuning Microstructures of the Common Materials to Improve Robustness, Reliability, and Endurance of SOFC Cells	81.089	DE-FE0026097	174,448	174,448
Cost-effective, Thin-film SOFCs for Reliable Power Generation	81.089	DE-FE0031670	22,457	144,817
A Transformational Natural Gas Fueled Dynamic SOFC for Data Center In-Rack Power	81.089	DE-FE0031671	-	26,057
Methane Partial Oxidation over Multifunctional 2-D Materials	81.089	DE-FE0031878	245,827	449,007
AOI 2: Modularization of Ceramic Hollow Fiber Membrane Technology for Air Separation	81.089	ED-FE0031473	-	140,014
Multipurpose, Radiation- and Temperature-Resistant Semiconductor Radiation Detectors for Advanced Process Monitoring and Nuclear Safeguards	81.121	DE-NE0008662	-	173,994
Novel NDE Sensors, Waveforms, Models, and Algorithms for Cable Health Monitoring	81.121	DE-NE0008663	-	123,936
Development of Multi-Axial Failure Criteria for Nuclear Grade SiC-SiC Composites	81.121	DE-NE0008792	22,424	117,674
Remote Laser Based Nondestructive Evaluation for Post Irradiation Examination of ATF Cladding	81.121	DE-NE0008894	-	170,248
Engineered composite patch with NDE inspection for repair and mitigation of SCC in nuclear spent fuel dry storage canister	81.121	DE-NE0008959	-	89,426
Extension of MSTDB to Provide a High-Quality, Validated Thermochemical Database for Predicting/Simulating Corrosion in Molten Salt Reactor Systems	81.121	DE-NE0008985	-	117,450
Development of Next-Generation Heat Exchangers for Hybrid Power Generation	81.135	DE-AR0000958	-	955
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	-	815,722
Compact Catalytic Membrane Reactor for One-Step High-Efficiency Ammonia Synthesis at Moderate Temperatures and Pressures	81.RD	10010963	-	2,619
Passed through programs from:				
Advent Innovations				
PVDF-Film for Robust Online Assessment of Composite Tanks (PROACT)	81.049	U00026745	-	399
Alliance for Sustainable Energy, LLC				
A 1D Mathematical Model for Lithium Polysulfide (PS) Management in Lithium Sulfur Batteries	81.RD	SUB-2019-10013	-	9,639
Modeling and Simulation of Automated Mobility Districts	81.RD	XGZ-9-92299-01	-	(9,437)
American Institute of Chemical Engineers				
Roadmap Development for RAPID: Intensified Process Fundamentals	81.087	DE-EE0007888	-	(9,252)
Ames Laboratory				
Institute for Cooperative Upcycling of Plastics (ICOUPL)	81.049	DE-AC02-07CH11358	-	142,203
Statement of Work for Institute for Cooperative Catalysis in Upcycling of Polymers (ICOUPL)	81.RD	12,5C	-	19,490
Arizona State University				
High Temperature Ceramic-Carbonate Dual-Phase Membrane Reactor for Pre-Combustion Carbon Dioxide Capture	81.089	ASU800000221 JP	-	82,171
Battelle Energy Alliance, LLC				
Aluminum-Clad Spent Nuclear Fuel Management	81.RD	207046	-	125,564
Catalysts Development for Water Splitting Reactions using Solid Oxide Electrolysis Cells (SOECs)	81.RD	216845	-	2,582
Development of Perovskite Fuel Electrode for Solid Oxide Cells	81.RD	237171	-	35,183
Materials Development for Proton-Conducting Solid Oxide Electrolysis Cells	81.121	233438	-	65,864
Chemtronergy, LLC				
Cost-effective, Intermediate-temperature Fuel Cell for Carbon-free Power Generation	81.135	2020-03	-	91,331
Clemson University				
Em-Enhanced HyPOR Loop for Fast Fusion Fuel Cycles	81.135	2288-219-2014490 / DE-AR0001376	-	18,275
Radionuclide Waste Disposal: Development of Multi-scale Experimental and Modeling Capabilities	81.049	1750-219-2020199	-	56,260
Compact Membrane Systems, Inc.				
DOE Phase II: Integrated Membrane Reactor for Enhancing Thermal & Chemical Reactors	81.049	U00027029	-	172,575
Enhanced Oxidative Dehydrogenation of Ethane with Facilitated Transport Membranes for Low Cost Production of Ethylene	81.049	U00027093	-	21,725
Edison Welding Institute				
Machine Learning Enhanced Understanding of Functional Gradient Materials Enabled by Direct Energy Deposition	81.086	58536GTH / PO#219253	-	12,133
Fermi Research Alliance, LLC				
Operations of the NOVA Experiment at Fermilab, and the Study of Coherent Pion Productions Using the NOVA Near Detector Data	81.RD	668850	-	15,000
General Atomics				
Advanced Characterization and Modeling of Larger Length Accident Tolerant SiC Composite Cladding	81.121	4500084479	-	150,926
Response of SiC composite plates during edge-on collision	81.121	PO# 4500086321	-	41,336
Georgia Institute of Technology				
High-Performance AEM LTE with Advanced Membranes, Ionomers and PGM-Free Electrodes	81.087	AWD-000605-G1/PO#_5070026	-	88,369
Greenway Energy, LLC				
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	-	20,000
Michigan State University				
Degradation and Performance Studies of ALD Stabilized Cathodes	81.089	RC107812-USC	-	4,721
Missouri State University				
Multimodal Approach to Modeling Creep Deformation in Ni-Base Superalloys	81.089	18018-3	-	94,750
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	-	49,467
University of South Carolina subcontract in support of Thrust 1, Project 1 associated with LDRD award: 73950 SPP, Discovering Thermomechanical Pathways.	81.RD	462396	-	32,417
RAPID Manufacturing Institute				
MFES for High throughput Modular Process Intensified Gas Separation and Ion Exchange	81.087	DE-EE0007888-08.4	-	226,886
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 And High Selectivity Of	81.087	DE-EE0007888-085.9	-	172,162
Rensselaer Polytechnic Institute				
A Novel Hollow Fiber Membrane Reactor for High Purity H2 Generation from Thermal Catalytic NH3 Decomposition	81.135	A121888	-	13,478
Deposition Tailor-made Size-sieving Sorbents for Post-combustion CO2 Capture	81.089	A20-0008-5001	-	210,145
Sandia National Laboratory				
ORS Domestic: University of South Carolina (Site ID 9396): Cesium Irradiator Replacement Program (CIRP)	81.RD	2161873	-	64,228
Savannah River Laboratory				
A Unified Machine Learning Framework for Corrosion Surveillance and Quality Control in Additive Manufacturing	81.RD	G-SOW-A-02194	-	137,657
Accurate and Efficient Qualification and Acceptance Protocol for Additively Manufactured Alloys	81.RD	G-SOW-A-02254/0000518117	-	49,450
AI Glass Composition	81.RD	G-SOW-A-02235	-	48,400
Component Development for Alkaline URFCs (Pre-Req 2019-000227)	81.RD	G-SOW-A-02197	-	55,210
Critical Element Biomining: SOW 0000552644 to LDRD-2021-00108	81.RD	PRE-REQ-2020-00417	-	14,698
Directed Electromagnetic Thermocatalysis for Selective Conversion of Waste Plastic to High Value Intermediates	81.RD	DE-AC09-08SR22470	-	14,444
Extremely Durable Graphene Oxide Nanoribbon Reinforced Concrete	81.RD	G-SOW-A-00033	-	14,299
Improvements to the ALGE Aqueous Contaminant Transport Model	81.RD	DE-AC09-08SR22470-G-SOW-A-02238	-	25,201
Modeling of Electrolytic Dissolution	81.RD	TOA NUMBER 0000455572	-	70,429
Modification and Characterization of Gold Nanostructures	81.RD	0000472434	-	3,996
Oxyhydroxides Formation Studies and Removal Practices (Pre-req 2018-0000027) G-SOW-A-02125	81.RD	G-SOW-A-02125	-	(1,269)
Subcontract for DOE-SR Public Reading Room at the University of South Carolina Aiken	81.RD	0000389067	-	93,140
Thermocatalytic Depolymerization of Mixed Plastic	81.RD	G-SOW-W-00049	-	65,851
University of South Carolina Darla Moore School of Business – Commercialization Potential of Engineered Cellular Magmatites	81.RD	DE-AC09-08SR22470	-	13,562

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Research and Development Cluster, Continued				
US Department of Energy, continued				
Passed through programs from, continued:				
SC Research Foundation				
DIRC-based PID for the EIC Central Detector	81.RD	218624	-	22,609
DOE Nuclear Engineering Scholarship and Fellowship Program at USC	81.121	DE-NE0000095	-	50,492
Science and Technology Enrichment Program (STEP)	81.RD	0000360508	-	57,334
Theoretical Investigation of Heterogeneous Catalysis at the Solid Liquid Interface for the Conversion of Lignocellulosic Biomass Model Molecules	81.049	DE-SC0007167	-	86,337
SC Universities Research & Education Foundation				
Earthquake Monitoring in South Carolina	81.RD	B139035 TO# 318418	-	81,842
Management of Nuclear Nonproliferation International Safeguards Graduate Fellowship Program (NNIS)	81.RD	B139039 G-SOW-A-02144	-	420,341
Nuclear Energy Advisory Committee (NEAC)	81.RD	DOE001	-	(54)
Nuclear Energy Advisory Committee (NEAC)	81.RD	GS-10F-053AA PMIS III	-	(6,050)
Nuclear Energy Advisory Committee (NEAC)	81.RD	PMISIII	-	25,479
Rickover Fellowship Program in Nuclear Engineering	81.121	NRLF003	-	(5,868)
Rickover Fellowship Program in Nuclear Engineering	81.121	NRLF004	-	760,498
Savannah River Environmental Sciences and Engineering Field Station 2020-21	81.RD	B139040	180,100	339,509
Savannah River Environmental Sciences and Engineering Field Station 2021-22	81.RD	G-SOW-A-02203 B139041	-	106,934
Savannah River Environmental Sciences Field Station 2019-2020	81.RD	B139038	-	(240)
Special Power Sources, LLC				
Next Generation Durable, Cost Effective, Energy Efficient Tubular SOFC	81.089	SPS-USC-08012020	-	104,382
SRS Community Reuse Organization				
USC Aiken's Workforce Opportunities in Regional Careers (WORC)	81.104	DE-EM0004214	-	321,434
Workforce Opportunities in Regional Careers II (WORC II)	81.104	DE-EM0005210	-	123,813
Workforce Opportunities in Regional Careers (WORC I) Renewal	81.104	DE-EM0005227	-	12,602
The Pennsylvania State University				
Novel Anion Exchange Membranes for High-Performance Fuel Cell Devices	81.087	5972-USC-DOE-8433	-	98,444
The University of Nebraska-Lincoln				
Online Monitoring System for Concrete Structures Affected by Alkali-Silica Reaction (ASR)	81.121	25-1120-0014-002	-	17,116
Triad National Security, LLC				
Catalyst and Support Development	81.RD	600060	-	51,889
Development of Thermodynamic Databases for Molten Salts	81.RD	598942	-	141,415
University of Connecticut				
in situ Measurement and Validation of Uranium Molten Salt Properties at Operationally Relevant Temperatures	81.121	5649590/317162	-	108,825
Utah State University				
Separate Effects Tests and Modeling of Fuel Fracture and Cladding Rupture	81.121	200658-343	-	232,242
UT-Battelle, LLC				
Cellular Automata Simulation Models for Non-equilibrium Solidification for The Metal Additive Manufacturing (AM) Process	81.RD	4000171122	-	39,856
Database Development and Modeling of Fuel-Fission Products in High Burnup Systems	81.RD	4000137480	-	(24,526)
Framework for a Molten Salt Reactor Thermochemical Database, Formalisms, and Tabulated Systems of Interest	81.RD	4000160938	-	1,825
Vanderbilt University				
High-dimensional Data-driven Energy Optimization for Multi-Modal Transit Agencies (HD-EMMA)	81.086	UNIV60730	-	28,178
Westinghouse Electric Company, LLC				
Failure Mechanisms of ATF under PCMI and PCCI with U3Si2 Fuel and SiC Composite Cladding	81.121	4500793651	-	214,267
Total US Department of Energy			1,433,885	12,138,880
US Department of Education				
Application for Grants under the Centers for International Business (CIBE) Program (CFDA NUMBER: 84.220A) Funding Opportunity Number: ED-GRANTS-060314-001	84.220	P220A180009	-	108,946
A Psychometric Investigation of Universal Screening for Social-Emotional Development in Preschool Using Parent and Teacher Informants	84.305	R305A150152	14,070	197,121
Morphological Awareness Test for Reading and Spelling (MATRS)	84.305	R305A170065	946	194,826
Investigating Psychometric Properties of BASC-3 Flex Progress Monitoring Forms with Preschool Students	84.324	R324A190066	-	112,449
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	-	278,067
Total US Department of Education			15,016	891,409
National Archives & Records Administration				
The Revolutionary Era Pinckney Statesmen of South Carolina: A Digital Documentary Edition	89.003	PE-102746-19	-	12,341
THE REVOLUTIONARY ERA PINCKNEY STATESMEN OF SOUTH CAROLINA: FINAL STAGE	89.003	PE-103003-20	-	79,850
Total National Archives & Records Administration			-	92,191
US Department of Health & Human Services				
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	1,243,350	1,518,792
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 - ADMIN CORE	93.113	5P01ES028942-02	51,111	69,604
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 - ADMIN CORE	93.113	5P01ES028942-03	270,509	1,149,885
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 - ADMIN CORE	93.113	5P01ES028942-04	-	135
Epigenetic mechanisms in Transgenerational Effects of an Environmental Pollutant	93.113	5R01ES030144-02	-	457,146
Identifying Genetic Loci Associated with Neurocristopathies using the Deer Mouse, Peromyscus maniculatus	93.121	1R03DE028371-01A1	20,177	109,533
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	222	613,395
USC PRC Center and Core Research Project: National Implementation Study of the Faith, Activity, and Nutrition (FAN) Program (Center Core)	93.135	6U48DP006401-01-01	7,519	302,734
Rural Health Research Center Program 2020 (Award Transfer from SCRF to USC)	93.155	-	-	177,818
Copy Number Variation and Lung Cancer: Disease Risk and Mechanisms.	93.172	1R21HG010925-01A1	6,447	88,049
Sensorimotor Processing of Auditory Feedback in Aphasia	93.173	1K01DC015831-01A1	-	119,680
Maximizing Speech Recognition under Adverse Listening Conditions	93.173	1R01DC015465-01	23,876	60,572
Word Learning in Reading and Language Impairment Subgroups	93.173	1R01DC017156-01	177,640	610,900
Core Semantic Systems of the Human Brain	93.173	1R01DC017162-01A1	-	133,254
Early Language and Literacy Acquisition in Children with Hearing Loss	93.173	1R01DC017173-01	120,297	540,865
Neural Bases of Vocal Sensorimotor Impairment in Aphasia	93.173	1R01DC018523-01A1	-	9,604
Neurobehavioral Determinants of Social Communication and Language Impairments in At-Risk Infants	93.173	1R21DC017252-01A1	-	102,703
Defining the Language Phenotype of the FMR1 Premutation	93.173	1R21DC017804-01	-	189,285
Center for the Study of Aphasia Recovery (C-STAR)	93.173	2P50DC014664-06A1	-	3,611
Center for the Study of Aphasia Recovery (C-STAR) - (Admin Core)	93.173	2P50DC014664-06A1	-	210,116
Sensory-Motor Systems and Conceptual Processing in the Healthy and Impaired Brain	93.173	2R56DC010783-07A1	-	90,399
Center for the Study of Aphasia Recovery (C-STAR)	93.173	3P50DC014664-04S1	-	87,518
Center for the Study of Aphasia Recovery (C-STAR)	93.173	5P50DC014664-04	13,511	13,511
Center for the Study of Aphasia Recovery (C-STAR)	93.173	5P50DC014664-05	894,431	1,754,037
8-Prenylaringenin: A Natural Therapy for Estrogen Deficiency	93.213	1K01AT010348-01A1	-	150,354
CAM Center for Epigenetic Regulation of Inflammation (Admin, Core)	93.213	2P01AT003961-06A1	-	484,737
The Effects of Ojeok-San on Neuro-Immune Interactions on Cancer-Induced Visceral Pain	93.213	4R00AT009206-03	-	243,815
Enhancing the Efficacy of 5 Fluorouracil using Emodin as a Complementary Therapeutic	93.213	5F31AT009820-03	-	5,947
The Longitudinal Influence of Home Disorganization on Children's Sleep Variability	93.233	1F32HL154530-01	-	49,963
Physiological Measurement of Attention as a Neurobehavioral Marker of Social Functioning and Emerging ASD Symptomatology in Infancy	93.242	1K23MH120476-01	-	179,639
Muscarinic Modulation of the Basolateral Amygdala	93.242	1R01MH104638-01A1	-	2,904
Progression of Attentional and Executive Function Deficits in HAND	93.242	1R01MH106392-01A1	-	362,375

University of South Carolina
Schedule of Expenditures of Federal Awards
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Federal grantor/pass-through grantor/program title	Federal CFDA number	Grant Number	Passed through to subrecipients	Expenditures
Research and Development Cluster, Continued				
US Department of Health & Human Services, continued				
An in Vivo Voltammetric Serotonin Biomarker for Antidepressant Efficacy	93.242	1R01MH106563-01A1	121,775	217,251
Emergence, Stability and Predictors of Anxiety in Fragile X Syndrome	93.242	1R01MH107573-01A1	15,506	403,308
HIV-Related Stigma and HIV Clinical Outcomes	93.242	1R01MH112376-01	-	128,349
Estrogen Mediated Mechanisms of Stress Susceptibility	93.242	1R01MH113892-01A1	-	439,797
Physiological Measurement of Attention as a Neurobehavioral Marker of Social Functioning and Emerging ASD Symptomatology in Infancy	93.242	3K23MH120476-02S1	-	13,993
Emergence and Stability of Autism in Fragile X Syndrome	93.242	3R01MH090194-08S1	15,766	109,218
HIV-Related Stigma and HIV Clinical Outcomes	93.242	3R01MH112376-04S1	28,100	84,439
K99/R00 Grant Transfer Application: Acceptability and Feasibility of Unsupervised HIV Self-Testing Among Networks of Men in Tanzania	93.242	4R00MH110343-03	-	19,907
Improving the HIV Care Continuum for Youth in the Deep South through Mobile Health Technology	93.242	5K01MH118073-03	-	113,300
Developing a Trauma-Focused Intervention for Older Adults Living with HIV	93.242	7K01MH115794-02	-	113,260
Emergence and Stability of Autism in Fragile X Syndrome	93.242	RMH090194B	-	326,907
Does Preference-based HIV Testing Increase Uptake in High Risk Populations?	93.242	RMH106388B	111,950	129,534
Treatment for Alcohol Use Disorder in Medicaid Managed Care	93.273	1R01AA029097-01	-	8,339
Addiction Treatment in Medicaid Health Homes	93.279	1K01DA041628-01	-	33,217
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	-	71
Knock-in Mouse Model of Dopamine Transporter-Tat Interaction Underlying NeuroAIDS	93.279	1R21DA041932-01	-	(2,512)
Impact of Dead Box RNA Helicase 3 Signaling on HIV-1 Tat- and Cocaine-Induced Neurotoxicity	93.279	1R21DA047936-01	-	136,544
Microglial Modulation of Nicotine Dependence	93.279	1R36DA049087-01A1	-	39,451
HIV/Cocaine Neurotoxicity in Females	93.279	2R01DA011317-16	150,920	387,241
Role of nucleus accumbens D2-expressing neurons in punished cocaine seeking	93.279	4R00DA044331-03	-	597
Addiction Treatment in Medicaid Health Homes	93.279	5K01DA041628-05	-	50,407
Behavioral Health Care in Army Warrior Transition Units	93.279	KDA037412A	-	1,174
Impact of HIV-1 Tat Protein on Cocaine-Dopamine Transporter Interaction	93.279	RDA035714C	260,348	494,759
Developing a Lifestyle Intervention to Reduce Body Weight for Obese African American Men Living in the Rural South	93.307	1K23MD013899-01	-	142,290
Developing a Community-Informed, Peer-to-Peer Intervention to Improve Health-Related Quality of Life among African American Men	93.307	1K23MD016123-01	-	7,699
Hospital quality, Medicaid expansion and racial/ethnic disparities in maternal mortality and morbidity	93.307	1R01MD016012-01	106,123	186,527
Effects of Sleep Deficiency During Parturition on Body Weight and Body Fat Changes in African American and White Women	93.307	R21MD012740	-	71,069
Peridontal treatment to Eliminate Minority Inequality and Rural Disparities in Stroke (PREMIERS)	93.307	RMD009738A	335,832	413,546
(PI - Pamela Wright) Advancing Knowledge about Exercise as a Therapeutic Management Strategy for Women with Polycystic Ovary Syndrome	93.361	1F31NR019206-01A1	-	19,574
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	-	454,547
Central & Peripheral Body Temperature in VLBW Preterm Infants During the Neonatal Period: Relationship to Neonatal Infection and Necrotizing Enterocolitis	93.361	1R01NR017872-01A1	266,653	474,237
Evaluation of Cigarette Package Inserts for Enhanced Communication with Smokers	93.393	1R01CA215466-01A1	166,991	382,450
Targeting the p62 Signosome in Leukemia.	93.393	1R01CA218076-01	-	153,937
Emodin as a Chemopreventive Agent for Breast Cancer	93.393	1R01CA218578-01A1	-	305,379
Role of Circadian Factors in Inflammation and Colorectal Adenoma Risk	93.393	1R01CA231321-01A1	-	184,281
Harnessing the Power of p53 with Panaxynol from American Ginseng to Suppress Colitis and Prevent Colon Cancer	93.393	1R01CA246809-01	-	344,752
A chemopreventive strategy based on edible microRNAs produced in plants	93.393	1R21CA223353-01	-	34,801
Integrated Data Analysis of Determinants of Low-Dose CT Screening for Lung Cancer	93.393	1R21CA234295-01A1	-	112,890
Emodin as a Chemopreventive Agent for Breast Cancer	93.393	3R01CA218578-03S1	-	42,971
Role of Circadian Factors in Inflammation and Colorectal Adenoma Risk	93.393	3R01CA231321-02S1	-	29,662
Addressing Acquiescence: Reducing Survey Error To Promote Latino Health	93.393	5R01CA172283-05	-	(151)
Evaluation of Cigarette Package Inserts for Enhanced Communication with Smokers	93.393	5R01CA215466-02 REVISED	-	98,888
Peers Promoting Exercise Adoption and Maintenance among Cancer Survivors	93.394	1R01CA183849-01A1	19,580	143,205
Peer Coaching for Physical Activity Promotion among Breast Cancer Survivors: Adapting an Efficacious Intervention to Prepare for Implementation	93.394	1R01CA242745-01A1	32,487	70,491
Development of a noninvasive, rapid and affordable method for early detection of colorectal cancer	93.394	1R21CA245651-01A1	-	101,616
RAD51-dependent homologous recombination and thiopurine treatments for cancer	93.395	1R15CA223956-01A1	-	51,559
Nanoparticle-delivered miR-489 rejuvenates anthracycline-based chemotherapy	93.395	1R21CA252360-01	-	168,649
Inhibin function in tumor angiogenesis	93.396	1R01CA219495-01A1	-	(3,933)
Improving Adherence to Adjuvant Hormonal Therapy among Disadvantaged Breast Cancer Survivors	93.398	KCA193667A	-	57,561
Colorectal Cancer Screening Program in South Carolina	93.800	5NU8DP006137-05-00	49,764	63,367
Therapeutic Targeting of Tissue Inhibitor-4 in Hypertrophy and Failure	93.837	1R01HL130972-01A1	46,613	183,843
Molecular Basis of Exercise-induced Changes in HDL Function	93.837	1R01HL146462-01	65,997	285,071
A Meta-Epidemiological Assessment of the Role of Pilot Studies in the Design of Well-Powered Trials – the Pilot Project	93.837	1R01HL149141-01	78,900	440,069
Functional Implications of RyR2 Mutations in Human Cardiomyocytes	93.837	1R56HL147054-01	110,659	275,135
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	-	101,960
Molecular Basis of Exercise-induced Changes in HDL Function	93.837	3R01HL146462-02S1 REVISED	-	54,186
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	5R01HL135220-03	-	2,858
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	-	525,208
A Patient-Centered Asthma Management Communication Intervention for Rural Latino Children	93.837	5R01HL135220-05	-	114,205
Reducing Sedentary Time Using an Innovative mHealth Intervention Among Total Knee Replacement Patients	93.846	1K23HL133596-01A1	-	136,254
Reducing Sedentary Time Using an Innovative mHealth Intervention Among Total Knee Replacement Patients	93.846	1R21AR074780-01A1	23,691	194,228
Vascular Pathogenesis of Port Wine Stain	93.846	5R21AR074780-02	-	17,056
What's UP (Undermining Prevention) with Summer? Etiology of Accelerated Weight Gain during Summer vs. School Year	93.847	7R01AR07172-02	89,219	312,553
Reducing Health Disparities in Childhood Obesity Using Financial Incentives in Low-income Households	93.847	1R01DK116665-01A1	-	933,179
Ensuring the cultural relevance of Dietary Guidelines diet patterns among African Americans: Increasing dietary quality and reducing type 2 diabetes risk	93.847	1R01DK120490-01A1	-	556,050
The Nurse Champion Model for Sickle Cell Disease Early Diagnosis and Care Access	93.847	1R01DK128057-01	-	1,611
Impact of Disparities in Food Security on Glycemic Control and Health Care Utilization Among Youth and Young Adults with Diabetes	93.847	1R21DK125917-01A1	-	2,584
A Screen for Epigenetic Regulators of Hematopoiesis Reveals a Requirement for the Hbo1 Complex during Hematopoietic Stem Cell Specification	93.847	3R01DK117461-03S1	-	40,601
Impact of Disparities in Food Security on Glycemic Control and Health Care Utilization Among Youth and Young Adults with Diabetes	93.847	7K01DK104974-03	-	21,050
Antagonistic Roles of HmD and KSRP for mRNA stability in Neuronal Growth	93.853	RDK117461A	346,636	602,836
Neurobiological Mechanisms of Apathy in HAND	93.853	1R01NS089633-01A1	21,939	29,332
Role of proteoglycan-mediated trans-axonal signaling in pre-target topographic sorting	93.853	1R01NS100624-01A1	-	255,349
Role of Stress Granule Protein Aggregation in Axon Regeneration	93.853	1R01NS109197-01	-	296,487
Validating Neuroelectric Biomarkers of Concussion Recovery	93.853	1R01NS117821-01	169,687	414,114
Anaplerotic Therapy for Mitochondrial Complex I Deficiency	93.853	1R03NS106547-01	-	30,573
Modifying Intrinsic Growth Capacity through Axonal mRNA Translation	93.853	1R56NS116174-01	-	197,115
Kynurenic Acid, Sleep and Cognition	93.853	2R01NS041596-10A1	-	(1,329)
Examining mRNA Localization in Central Sensory Axons after Peripheral Nerve Injury	93.853	7R01NS102209-03	-	331,587
A Solid-State Nanopore Biosensor for Rapid Detection of Mycobacterium tuberculosis Antigens in Pediatric Blood Samples	93.855	KNS105879A	-	90,832
Metalloproteinase and Antibiotic Bioconjugates against Multidrug Resistant Bacteria	93.855	1K22AI136686-01A1	-	12,761
Ahr Ligands in Epigenetic Dysregulation of T Cells	93.855	1R01AI120987-01	-	511
Big Data Analytics of HIV Treatment Gaps in South Carolina: Identification and Prediction	93.855	1R01AI123947-01A1	-	401,425
Epigenetic Mechanisms of T Cell Dysregulation in PTSD	93.855	1R01AI127203-01A1	-	638,676
Control of Facial Amphiphilicity to Tune Macromolecular Interactions with Bacteria	93.855	1R01AI129788-01	105,907	447,609
B-cell-intrinsic MHC1 Signaling is a Diversifying Force of Selection on Iga Repertoires and the Gut Microbiota	93.855	1R01AI149810-01A1	-	275,971
Flexible Biomarker Evaluation Through a Cost-Effective Data Collection Mechanism	93.855	1R01AI155887-01A1	-	2,777
Exploring the Role of Ovary MicroRNAs in Mosquito Reproduction	93.855	1R03AI135614-01A1	-	38,380
Mechanism of MHC Heterozygote Advantage During Anti-Commensal Germinal Center B Cell Selection	93.855	1R21AI139603-01	11,292	30,507
Identification and validation of Zika virus receptor(s) in the midgut lumen of Aedes aegypti	93.855	1R21AI142409-01A1	-	133,141
	93.855	1R21AI151475-01A1	-	10,506

University of South Carolina
Schedule of Expenditures of Federal Awards
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Federal grantor/pass-through grantor/program title	Federal CFDA number	Grant Number	Passed through to subrecipients	Expenditures
Research and Development Cluster, Continued				
US Department of Health & Human Services, continued				
AhR Ligands in Epigenetic Dysregulation of T Cells	93.855	3R01A123947-04S1	-	38,656
AhR Ligands in Epigenetic Dysregulation of T Cells	93.855	3R01A123947-04S2	-	37,933
Big Data Analytics of HIV Treatment Gaps in South Carolina: Identification and Prediction	93.855	3R01A127203-04S1	-	223,810
Mechanism of MHC Heterozygote Advantage During Anti-Commensal Germinal Center B Cell Selection	93.855	5R21A142409-02	-	14,799
Research Center for Child Well-Being--COBRE (Admin Core)	93.859	1P20GM130420-01A1	-	1,299,648
Divergence of Carboxylate-Bridged Diiron Enzymes for Natural Product Biosynthesis	93.859	1R01GM135315-01	-	40,703
Mechanisms of Iron and Thiol Redox Regulation in Yeast	93.859	1R35GM118164-01	-	349,737
South Carolina IDEA Networks of Biomedical Research Excellence (SC INBRE) - Administrative Core - Year 1 of 5 (Competing Continuation)	93.859	2P20GM103499-20	315,089	1,181,889
Center for Targeted Therapeutics	93.859	2P20GM109091-06	-	38,356
South Carolina IDEA Networks of Biomedical Research Excellence (SC INBRE) - Administrative Core - Year 1 of 5 (Competing Continuation)	93.859	3P20GM103499-20S1	-	63,738
Center for Targeted Therapeutics	93.859	3P20GM109091-08S1	-	6,944
South Carolina IDEA Network of Biomedical Research Excellence (INBRE) Admin Core - Year One of Competing Renewal	93.859	5P20GM103499-19	255,071	278,681
COBRE - Center for Dietary Supplements and Inflammation (Admin Core Year 4)	93.859	5P20GM103641-07	-	10,223
COBRE - Center for Dietary Supplements and Inflammation (Admin Core Year 4)	93.859	5P20GM103641-08	-	1,412,447
COBRE - Center for Dietary Supplements and Inflammation (Admin Core Year 4)	93.859	5P20GM103641-09	-	74,214
Center For Targeted Therapeutics - Admin Core (Year 2)	93.859	5P20GM109091-05	-	408
Center for Targeted Therapeutics	93.859	5P20GM109091-07	-	2,066,292
Center for Targeted Therapeutics	93.859	5P20GM109091-08	-	388,038
Research Center for Child Well-Being--COBRE (Admin Core)	93.859	5P20GM130420-02	-	542,932
Biomedical-Behavioral Interface: Prevention and Developmental Sciences Training	93.859	5T32GM081740-12	-	27,463
Biomedical-Behavioral Interface: Prevention and Developmental Sciences Training	93.859	5T32GM081740-13	-	316,532
South Carolina IDEA Network of Biomedical Research Excellence (INBRE) Admin Core - Year One of Competing Renewal	93.859	PGM103499F	914,734	1,107,940
COBRE - Center for Dietary Supplements and Inflammation (Admin Core Year 4)	93.859	PGM103641B	-	229,699
South Carolina Post-Baccalaureate Research Program	93.859	RGM066526D	-	178,176
K99/RO0 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	-	11,476
Promoting Healthy Weight in Pregnancy and Postpartum among Overweight/Obese Women	93.865	1R01HD078407-01A1	-	253,655
Physical Activity, Sedentary Behavior and Weight Status in Early Childhood	93.865	1R01HD091483-01A1	7,210	396,271
Linking Altered Cortical Sensorimotor Integration with Movement Impairments in Back Pain	93.865	1R01HD095959-01	-	251,202
Estimating population level infertility and fertility treatment rates	93.865	1R03HD097287-01	21,704	43,345
Racial/Ethnic Disparities in Care Practices, Outcomes, and Hospital Transfer Among Infants Born at 22-29 Weeks Gestation	93.865	1R03HD097305-01	-	54,589
Aging Language Trajectories in Premutation Carrier Mothers	93.865	1R03HD098291-01	-	58,469
Interventions to Promote Healthy Lifestyle and Academic Performance in Children during the Summer Months	93.865	1R21HD090647-01A1	52,500	142,941
Product Testing Movement Integration Products: Identifying What Works and What Doesn't	93.865	1R21HD091394-01A1	-	68,380
The Development of Sustained Attention in Infants	93.865	2R01HD018942-31	-	435,956
Interventions to Promote Healthy Lifestyle and Academic Performance in Children during the Summer Months	93.865	3R21HD090647-01A1S1	-	(1)
Investigating the Role of Structured Days on Accelerated Weight Gain during Summer: A Natural Experiment	93.865	3R21HD095164-01S1 REVISED	-	1,688
Early Indicators of Autism Risk in Down Syndrome	93.865	5F32HD097877-02	-	33,576
Early Indicators of Autism Risk in Down Syndrome	93.865	5F32HD097877-03	-	32,091
Trials and ReseArch Networks FOR More (TRANSFORM)-South Carolina	93.865	8UG1OD024956-02	312,364	338,718
Investigating the Role of Structured Days on Accelerated Weight Gain during Summer: A Natural Experiment	93.865	RHD095164A	-	122,994
Elucidation of the Mechanism Behind the Pro-Cognitive Effects of Intranasal Insulin	93.866	1F31AG066501-01A1	-	29,331
Brain Targeted Nanoparticle for Alzheimer's Disease Therapy	93.866	1R01AG054839-01A1	-	295,415
Role of Cyclic Nucleotide Signaling in Age-related Decline of Social Memories	93.866	1R01AG061200-01	-	367,485
SCH: INT: Inferring at Home Gait Parameters of Older Adults using Floor Vibrations	93.866	1R01AG067395-01	207,637	287,841
Lamin A and the Fidelity of DNA Double-Strand Break Repair	93.866	1R03AG064525-01A1	-	40,116
Mechanisms of Increased Fall Risk among Older Adults with Depression: A Causal Mediation Analysis	93.866	1R21AG060431-01	-	123,302
Periodontal antibodies to predict Alzheimer's disease mortality	93.866	1R21AG070449-01	-	85,173
Carolina Center on Alzheimer's Disease and Minority Research (CCADMR) - Admin Core	93.866	5P30AG059294-02	-	97,633
Carolina Center on Alzheimer's Disease and Minority Research (CCADMR) - Admin Core	93.866	5P30AG059294-03	70,590	478,138
Epigenetic mechanisms of stress and age-related cognitive decline	93.866	7K01AG061263-02	-	147,189
South Carolina-Advancing Diversity in Aging Research Undergraduate Program	93.866	RAG050484A	-	211,580
Hypocretin/orexin Modulation of Cognitive Correlates of Brain Aging	93.866	RAG050518A	72,888	235,036
DiCAYA: South Carolina Youth (Component A)	93.945	1U18DP006513-01-00	-	13,947
Intersecting Stigma Against MSM in Clinical Settings in Zambia	93.989	1R21TW011064-01A1	-	87,330
Electronic cigarettes in Latin America: Evaluation of impacts and policy options	93.989	RTW010652A	169,170	145,196
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	7,220	101,714
Examining the presence and possible transmission of SARS-CoV-2 within municipal sewage treatment facilities and their employees	93.RD	75D30120P-08501	-	190,980
Insights into Microbiome and Environmental Contributions to Sickle Cell Disease and Leg Ulcers Study (INSIGHTS Study)	93.RD	75N92019P00362	11,500	26,366
Passed through programs from:				
AcePre, LLC				
A novel polymer-metal nanocomplex for ovarian cancer treatment	93.395	1R41CA254500-01A1	-	24,575
Development of dietary quercetin to treat muscle wasting disorders	93.213	1R43AT011171-01	-	34,396
Advanced Smart Systems & Evaluation Technology				
Mitigating Falls in Older Adults through Low-cost, Non-intrusive Activity and Gait Analysis from Floor Vibrations - STTR sub-contract with Advanced Smart Systems and Evaluation Technologies (ASSET)	93.866	1R41AG059475-01A1	-	(2,155)
Agency for Healthcare Research & Quality				
Effect of the patient-centered medical home on geographic and racial disparities in health care access	93.226	1R03HS026263-01A1	-	37,343
Effects of Musculoskeletal Surgery Rate of Medicare Costs	93.226	1R01HS027177-01A1	29,666	99,290
Augusta University				
Damage-Associated Molecular Patterns in Hypertension	93.837	31108-1 / SP01HL134604-05	-	268,097
Implementation of Medical Homes for Evidence Based Care of Adolescents and Adults with Sickle Cell Disease - Diversity Supplement	93.839	35324-1	-	18,951
Implementation of Medical Homes for Evidence Based Care of Adolescents and Adults with Sickle Cell Disease - Diversity Supplement	93.839	36549-1	-	98,536
Thermosensitive TRPM8 Channels and Diabetic Erectile Dysfunction	93.847	32307-72	-	31,546
Beth Israel Deaconess Medical Center				
An Integrated Multilevel Modeling Framework for Repertoire-Based Diagnostics	93.855	01062446	-	14,280
Brandeis University				
Pharmacotherapy for substance use disorder in Medicaid managed care plans: policies and outcomes	93.279	GR404038	-	27,502
Brigham & Women's Hospital				
Knee Arthroplasty Activity (KARAT) Trial - Sub-contract with The Brigham and Women's Hospital, Inc. - U56 Proposal	93.846	1U56AR075288-01A1	-	17,714
Partnership in Implementation Science for Geriatric Mental Health (PRISM) - Administrative Core	93.242	117722 5U19MH113201-04	-	17,030
Partnership in Implementation Science for Geriatric Mental Health (PRISM) - Prism Capacity Building Component	93.242	117729 5U19MH113201-04	-	14,870
Partnership in Implementation Science for Geriatric Mental Health (PRISM) - Prism Scale Up Study	93.242	117730	-	84,823

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Federal grantor/pass-through grantor/program title	Federal CFDA number	Grant Number	Passed through to subrecipients	Expenditures
Research and Development Cluster, Continued				
US Department of Health & Human Services, continued				
Passed through programs from, continued:				
Children's Hospital, PA				
COG: Workload Intensity (NCTN Grant 2U10CA180886)	93.395	FP00026529_SUB279_01	-	3,938
Children's Trust Fund of South Carolina				
Continuing the Examination of SC MIECHV Client and Staff Attrition and the Organizational Factors that Promote Retention	93.870	MIEC-2020-2022-RMHRC-1	-	2,102
MIECHV FY18	93.870	X10MC32219	-	81,216
MIECHV Needs Assessment	93.870	X10MC32219	-	66,926
SC MIECHV Client and Staff Attrition Evaluation	93.870	MIEC-2019-2021-RMHRC-1	-	248,073
SC MIECHV FY19 Evaluation Case Studies	93.870	MIEC-2019-2021-CARE-1	-	72,535
SC MIECHV FY20 Evaluation-- Understanding Organizational Culture	93.870	MIEC-2020-2022-CARE-1	-	211
Understanding How State Level Leadership Influences Implementation of MIECHV: A Study of South Carolina's State Lead Agency	93.870	X10MC32219	-	55,854
Circa Bioscience, LLC				
Development of an Autism Spectrum Disorder Screening Test Based upon Metabolic Profiling of Fresh Blood Samples	93.242	C115642-6/ C115642-3	-	11,399
Clemson University				
Cardiovascular Calcification: Mechanisms and Therapy	93.837	2150-209-2013514	-	49,173
Targeted Therapy to Reverse Vascular Calcification	93.837	2095-209-2023055	-	305,899
Theranostic approach to treat abdominal aortic aneurysms	93.837	1935-209-2011885	-	93,445
Cornell University				
(Supplemental) Modeling Social Behavior for Healthcare Utilization in Depression	93.242	194543 5R01MH105384-0551	-	(141)
Modeling Social Behavior for Healthcare Utilization in Depression	93.242	194536 5R01MH105384-05	-	(6,859)
Davidson College				
Precision Glycopolymers Bacteriochlorin Conjugates for Biomedical Applications	93.859	OGC 2015-16	-	24,285
Duke University				
A Tailored School- Based Intervention to Increase Vaccine Uptake Among Adolescents in the Rural South	93.185	A032051	-	24,196
A Tailored School- Based Intervention to Increase Vaccine Uptake Among Adolescents in the Rural South	93.185	A033950	-	63,702
HRSA Special Projects of National Significance (SPNS) - Strength Through Youth Livin' Empowered 2.0 (STYLE 2.0)	93.928	309-0128	9,083	22,658
NIH Centers for AIDS Research (CFAR) Engaging pharmacies for HIV prevention in South Carolina	93.855	2P30AI064518-16	-	30,020
NIH Centers for AIDS Research (CFAR) Engaging pharmacies for HIV prevention in South Carolina	93.855	A033176 / 5P30AI064518-15	-	(26,986)
Pediatric Migraine Registry: A National Registry of Children and Adolescents with Migraine	93.103	5U18FD006298-02	-	13,000
Pharmacokinetics, Pharmacodynamics, and Safety Profile of Understudied Drugs Administered to Children per Standard of Care II (POPS II)	93.RD	SPS #243797	-	8,416
POPS-Pharmacokinetics of Understudied Drugs Administered to Children per Standard of Care	93.RD	SPS #235432	-	4,481
Subaward: Positive Outcomes for Orphans (POFO): HIV Risk as Young Adults	93.865	A03-2078	-	44,370
TRANScranial Direct Current Stimulation for Post-Stroke Motor Recovery - A Phase II Study (TRANSPORT 2) - Sub-Contract with Duke University	93.853	A033728	-	34,430
Emory University				
Ovarian Cancer Survival in African-American Women	93.393	A359264 1R01CA237318-01A1	38,676	88,879
Reducing Racial Disparities in Access to Kidney Transplantation: the RADIAN Regional Study	93.307	A309703	-	8,660
EnQ, LLC				
eCPAT: Advancing Public Park Information and Technology Resources to Diverse Audiences for Healthy Communities - *Subcontract from EnQ, LLC (SBC) as Part of a STR Application	93.393	11570FB44	4,879	5,176
Environment and Health Group, Inc.				
mHealth for ART adherence by HIV+ African Americans age 45 & older	93.307	2R44MD007161-03	-	12
Fact Forward				
1B Ripple Effect Mapping, 2020	93.297	17P1AH000126-05-00	-	12,481
Expanding Opportunities for Teen Mothers and Families in South Carolina (Evaluation Services for Fact Forward Tier 1 Grant)	93.297	17P1AH000216-01-00	-	50,560
Georgia State University				
Communicating about Nicotine and Differential Risks of Tobacco Products	93.077	SP00014095-01	-	46,420
Communicating about Nicotine and Differential Risks of Tobacco Products	93.077	SP00014490-01	-	119,474
Greenville Health System				
GHS Reach Expansion: A Caregiver Coaching Intervention for High Risk Patient/Caregivers to Extend Dementia Capable Services	93.470	G002219-2	-	43,512
Henry M. Jackson Foundation				
Role of Ly6K in TGF and Immune Escape Pathways of Triple Negative Breast Cancer	93.396	1R01CA227694-01 / 4498	-	18,304
Role of Ly6K in TGF and Immune Escape Pathways of Triple Negative Breast Cancer	93.396	4498-PO #949909	-	97,030
Indoor Biotechnologies, Inc.				
Antigenic determinants of asthma-associated allergens for design of immunotherapy	93.855	2R01AI077653-10A1	-	94,127
Johns Hopkins University				
Evaluation of a New Policy Promoting Nutrition and Physical Activity in Family Child Care in South Carolina - Sub-contract with Johns Hopkins University	93.865	2003548903	-	386,402
Medical University of South Carolina				
(PI - Sijian Fan) Bayesian Modeling for Prenatal, Natal and Postnatal Predictors of Developmental Defects of Enamel in Primary Maxillary Central Incisor Teeth	93.121	A21-0026-S001	-	18,263
Brain Connectivity Supporting Language Recovery in Aphasia	93.173	2R01DC014021-06 / A00-1555-S002	-	158,341
Enhancing School-Based Violence Prevention through Multilevel Racial/Ethnic Discrimination Intervention (Subaward of MUSC)	93.307	A19-0097-S001 / 1R01MD013812-01	-	28,466
Evaluating How Tobacco Control Policies are Shaping the Nicotine Delivery Market	93.393	MUSC16-042-88807 /A00-2527-S011	-	73,107
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-S001	-	19,173
Number, Primary and Secondary Diagnoses, and Costs of Inpatient Hospitalizations in a Population-Based Cohort of People with Spinal Cord Injury	93.433	A00-2862-S001	-	12,597
South Carolina Cancer Health Equity Consortium (SC CHEC)	93.398	MUSC 15-076	-	1,968
South Carolina Clinical & Translational Research Institute (SCTR)	93.350	A00-2219-S006	-	12,962
Speech entrainment for aphasia recovery (SpARc)	93.173	A20-0069-S002 / 5U01DC017521-02	-	303,830
Trials and ReseArch Network FOR even More (TRANSFORM-2)	93.310	A21-0064-S003	-	73,264
Michigan State University				
Effects of bright light on co-occurring symptoms in breast cancer survivors: A personalized intervention	93.361	RC110674USC	-	13,729
Mico Video, LLC				
Coagulation Companion for Kids	93.837	OSP27238-SU54HL143541-03	-	1,544
Mountain Pass Technology				
Development and Testing of a Behavioral Activation Mobile Therapy for Elevated Depressive Symptoms	93.242	10009947	-	16,315
National Jewish Health				
Regulation of Gene Expression in the Anaphylactic Pathway	93.855	20116904/20116902//20116903	-	14,525
National Rural Health Association				
Rural Border Health Chartbook: An Update	93.155	2U16RH03702-17-00	-	63,817
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	-	29,014
Northern Illinois University				
Home COOKING: Creative Culinary Opportunities Offering Kids Inquiry-Based Nutritional Genius	93.859	G1A62667-5	5,116	21,478
Northwestern University				
The Center for Innovation in Point-of-Care Technologies for HIV/AIDS at Northwestern University (C-THAN) RADx Supplemental Request	93.286	60056371 USC 3U54EB027049-0251	14,105	25,122
Oregon Health & Science University				
The Impact of Emergency Medicaid Policy on Reproductive Health Disparities Among New Immigrants	93.307	1013826_SC	-	33,069
Palmetto Care Connections				
Evaluation of the Network Development Grant, Palmetto Care Connections	93.912	D06RH31.064	-	35,247
Palmetto Health				
Sleep for Stroke Management And Recovery Trial (Sleep SMART)	93.853	U00026947	-	567

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Research and Development Cluster, Continued				
US Department of Health & Human Services, continued				
Passed through programs from, continued:				
Partners Healthcare Research Management				
Randomized Trial to Prevent Vascular Events in HIV - REPRIEVE	93.837	225712	-	10,744
PPI Pharmaceuticals, LLC				
Polo-box PLK1 inhibitors target tumors resistant to ATP competitive compounds	93.395	11110-FA87	-	(382)
Prisma Health-Midlands				
Healthy Start Initiative: Eliminating Disparities in Perinatal Health	93.926	51-8781_Contract No._16775	-	104,819
SC Campaign to Prevent Teen Pregnancy				
Expanding the Reach of Effective Teen Pregnancy Prevention Programs in High Need South Carolina Communities (Tier 1B) (OAH1B)	93.297	1TP1AH000133-05-00	-	3,928
SC Center for Fathers and Families				
Fatherhood FIRE/H2O Program Evaluation	93.086	90ZJ0023-01-00	-	16,357
SC Department of Health & Environmental				
CARE Evaluation of DHEC's Division of Oral Health - SC Takes Action to Improve Oral Health Outcomes Grant	93.366	4000045279 MC-20-006	-	45,756
DHEC SARS-CoV-2 Antibody Statewide Surveillance	93.323	DC-1-261	89,919	840,874
SC Muscular Dystrophy Surveillance, Tracking, and Research Network (SC MD STARnet) - DHEC Subcontract SC MD STARnet Component C - Enhanced Dissemination	93.315	PH-0-521 COMP C	-	19,095
SC Muscular Dystrophy Surveillance, Tracking, and Research Network (SC MD STARnet) DHEC Subcontract - SC MD STARnet Component A - Surveillance	93.315	PH-0-520 COMP A	-	75,230
South Carolina Muscular Dystrophy Surveillance System	93.315	MC-20-005/ LR-2020-08	-	10,665
SC Department of Mental Health				
CHR-P Beckman Grant Evaluation	93.243	4400022433/PO#4600796807	-	30,135
CHR-P Beckman Grant Evaluation	93.243	U00027262	-	31,668
Young Lives Matter	93.243	4400011923	-	21,744
Zero Suicide Initiative	93.243	1H795M080341-01	-	70,039
SC Research Foundation				
Rural Health Research Center Cooperative Agreement 2014-2015	93.155	5U1CRH30539-04-00	2,163	244,613
Rural Health Research Center Program 2020	93.155	2U1CRH30539-05-00	-	310,609
Senex Biotechnology, Inc.				
CDK8/19 inhibitors for therapy of advanced prostate cancer	93.395	2R44CA203184-02A1	-	165,616
Southern Research Institute				
Title: Allosteric modulators of dopamine transporter as therapeutic agents for NeuroAIDS	93.279	520-15966USC-01	-	134,623
The Miriam Hospital				
Phone Coaching as a Rescue Strategy for Early Non-responders Enrolled in an Internet-delivered Weight Loss Program - Sub-contract with Brown University - Sub-contract with The Miriam Hospital	93.847	710-7147122	-	39,901
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	-	140,098
The Regents of the University of California				
Advancing Alzheimer's Family Caregiving Interventions and Research Capacity in Vietnam (sub to UC Davis)	93.866	A20-0448-S001	-	84,145
Food is Medicine: Randomized Trial of Medically-Tailored Food Support for Diabetes Health	93.847	12288sc	-	53,895
Integrative Functions of the Planum Temporale	93.173	2015-3293	-	13,607
Intersection of Material-Need Insecurities and HIV and Cardiovascular Health	93.837	12483sc 1R01HL155226-01	-	78,687
Multisectoral Agricultural Intervention to Improve Food Security, Prevent Treatment Failure, and Reduce Co-morbidities Among People Living with HIV in Kenya	93.242	9343sc	-	(23)
Nutrition-Enhanced Wellness DSMP (NEW-DSMP) Study	93.847	11987sc	-	12,170
The University of Alabama				
Conformational Dynamics and Allosteric Regulation During Stress-responsive Metallocofactor Assembly	93.859	R01GM112919	-	151,040
Trustees of Boston University				
Improving Accuracy and Reliability in Cancer Screening Tests	93.393	4500002637	-	22,339
University of Alabama-Birmingham				
Comprehensive Cancer Center Core Support Grant	93.310	000527042-SP031-001	-	23,243
University of Arkansas for Medical Sciences				
Data Coordinating and Operations Center for the ECHO IDeA States Pediatric Clinical Trials Network	93.310	54005-VDORA / 2U24OD024957-03	-	47,364
Data Coordinating and Operations Center for the ECHO IDeA States Pediatric Clinical Trials Network	93.310	8U24OD024957-02	-	42,904
Genetic Variability in DHFR and Folic Acid Supplementation as Novel Risk Factors for Aggressive Prostate Cancer Subcontract w/ University of Ark	93.393	52603-USC	-	32,708
University of California, Davis				
Language in Fragile X Syndrome	93.865	R01HD024356	-	180,323
University of Central Florida				
Project Harmony: Family Strengthening Evaluation Team (FSET).	93.086	90ZB0009-01-00 14276A04	-	64,793
University of Central Florida Subaward: Project HARMONY	93.086	14276042-01	-	38,665
University of Chicago				
JCOIN Coordination and Translation Center - Community Stakeholder	93.279	1U2CDA050097-AWD101172	-	31,331
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	-	2,199
University of Illinois				
Maximizing Speech Recognition under Adverse Listening Conditions	93.173	R01DC015465	-	2,832
University of Iowa				
Neural Mechanisms of Vocal Communication in the Human Brain	93.173	1001620374/W000828030	-	8,245
University of Kansas Center for Research				
Exposure and Emotion Regulation as Predictors of Adjustment to Trauma	93.242	FY2016-116	-	60,122
University of Kentucky				
Dynamic Signaling of NRG3-ErbB4 in the Hippocampus Mediates Nicotine Withdrawal Phenotypes (NIH/NIDA 1R01-DA044311)	93.279	PO 7800004925	-	18,843
University of Kentucky Markey Cancer Center - Cancer Center Support Grant	93.397	01349-20-077/PO7800005000	-	22,535
University of Maryland				
Targeted Manipulation of Brain KYNA by Genetic and Pharmacological Means: Biochemical and Functional Effects	93.242	3000027_Subaward_3782	-	137,587
University of Massachusetts				
National Implementation of FOYC-CImPACT in the Bahamas: implementation strategies and improved outcomes	93.865	OSP2018103	-	21,788
University of Michigan				
The Effect of Built and Social Environments on Childhood Obesity and Racial/Ethnic Disparities in the National Healthy Communities Study - Sub-contract with the University of Michigan	93.837	3005581808	-	(4,939)
The Effect of Built and Social Environments on Childhood Obesity and Racial/Ethnic Disparities in the National Healthy Communities Study - Sub-contract with the University of Michigan	93.837	3006119946	-	23,872
The Effect of Built and Social Environments on Childhood Obesity and Racial/Ethnic Disparities in the National Healthy Communities Study - Sub-contract with the University of Michigan	93.837	SUBK00006463	-	10,958
The Impact of Tobacco Control Policies on Health Equity in the United States	93.393	3004806996	-	5,158
The Impact of Tobacco Control Policies on Health Equity in the United States - Diversity Supplement	93.393	SUBK00010253 PO3005182052	-	34,700
University of Michigan Subaward: A Positive PATH (Promoting Activity and Trajectories of Health) for Children	93.837	3004173082	-	88,500
University of North Carolina at Chapel Hill				
Little Cigar and Cigarillo Warnings to Reduce Tobacco-Related Cancers and Disease	93.077	5115222	-	5,762
Little Cigar and Cigarillo Warnings to Reduce Tobacco-Related Cancers and Disease	93.077	5118450 (Formerly 5115222)	-	17,073
NIH Center for AIDS Research (CFAR) Transforming the Carolinas: Preparing to End the Epidemic for Transgender People of Color				
Population-base Diabetes in Youth Registry	93.855	5115497	-	11,776
Promoting Physical Activity in Young Adult Cancer Survivors using mHealth and Adaptive Tailored Feedback Strategies	93.945	5114241	-	12,429
	93.395	5107125	-	14,907
University of South Dakota				
NRF2 Signaling in the Cross-Talk between Proteasomal and Lysosomal Degradation	93.837	A00-0282-S001	-	150,934

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Research and Development Cluster, Continued				
US Department of Health & Human Services, continued				
Passed through programs from, continued:				
University of Tennessee				
Effectiveness of end-of-life strategies to improve pediatric health outcomes and reduce disparities in rural Appalachia	93.361	A21-0381-5001	-	36,136
R01 Concurrent Care with University of Tennessee Knoxville	93.361	A9-0157-5003	-	46,270
University of Texas Health Sciences Center				
Development and Validation of a Measure of Organizational Readiness (motivation x capacity) for Implementation	93.399	SA000605/0014035A	-	106,558
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	21-85231-01	-	24,429
University of Vermont				
Internet Assisted Obesity Treatment: Enhanced by Motivational Interviewing	93.847	291775U851777-2R0101DK56746-14	9,445	179,383
Upper Midlands Rural Health Network				
Catawba CMHC/Community Medicine Foundation Primary Care Initiative	93.243	U00027034	-	7,988
Evaluation of the Network Development Grant, Upper Midlands Rural Health Network	93.912	U00026648	-	20,318
Vanderbilt University				
Gamifying Social Support to Promote Physical Activity Among Insufficiently Active African American Adults in the Southeast United States: A Mixed-Methods Approach	93.837	3P30DK020593-4251 / VUMC90976	-	13,703
Virginia Commonwealth University				
Research Answers to NCI's Provocative Questions - Role of Circadian Factors in Inflammation and Colorectal Adenoma Risk - VCU Subcontract	93.393	FP00014945_SA001	-	47,664
Wake Forest University Health Sciences				
ImPact: Increased Monitoring of Physical Activity and Calories with Technology	93.847	100750-550121	-	27,673
Limited Competition for the Closeout of the SEARCH for Diabetes in Youth Cohort Study Subcontract with Wake Health	93.847	251-100710-553791	-	57,620
Wright State University				
SCH: KHealth: Semantic Multisensory Mobile Approach to Personalized Asthma Care	93.865	PO# P0063430 671072-1	-	150,585
Yale University				
Image Guided Delivery of Bioresponsive Hydrogels	93.837	GR102135(CON-80001159)	-	47,902
Total US Department of Health & Human Services			<u>8,401,064</u>	<u>49,600,979</u>
US Department of Homeland Security				
Passed through programs from:				
SC Universities Research & Education Foundation				
Nuclear Forensics Graduate Fellowship Program - Formerly MUSC	97.130	2012-DN-130-NF0001	-	38,084
Total US Department of Homeland Security			<u>-</u>	<u>38,084</u>
US Agency for International Development				
Passed through programs from:				
Chemomics International, Inc.				
Rule of Law Certificate Program STO-2	98.RD	SubIQC-168	-	(9,950)
Rule of Law Certificate Program STO-3 in Ukraine	98.RD	SUB-993	-	33,313
Total US Agency for International Development			<u>-</u>	<u>23,363</u>
Total Research and Development Cluster			<u>\$ 14,128,904</u>	<u>\$ 95,255,203</u>
Student Financial Aid Cluster				
US Department of Education				
Federal Supplemental Educational Opportunity Grants	84.007	None	\$ -	\$ 3,294,118
Federal Work-Study Program	84.033	None	-	1,381,426
Federal Perkins Loan Program	84.038	None	-	10,389,562
Federal Pell Grant Program	84.063	None	-	54,320,885
Federal Direct Student Loans	84.268	None	-	296,339,544
Teacher Education Assistance for College and Higher Education Grants (TEACH Grants)	84.379	None	-	140,496
Postsecondary Education Scholarships for Veteran's Dependents (Iraq and Afghanistan Services Grant (IASG))	84.408	None	-	5,971
Total US Department of Education			<u>-</u>	<u>365,872,002</u>
US Department of Health & Human Services				
Nursing Faculty Loan Program	93.264	None	-	816,859
Health Professions Student Loan	93.342	None	-	829,657
Two Year Nursing Loan Program	93.364	None	-	11,353
Four Year Nursing Loan Program	93.364	None	-	861,216
Master Nursing Loan Program	93.364	None	-	192,041
Total US Department of Health & Human Services			<u>-</u>	<u>2,711,126</u>
Total Student Financial Aid Cluster			<u>\$ -</u>	<u>\$ 368,583,128</u>
Education Stabilization Fund under the Coronavirus Aid, Relief, and Economic Security Act Higher Education Emergency Relief Fund				
US Department of Education				
COVID-19 Higher Education Emergency Relief Fund (HEERF) Student Aid Portion	84.425E	None	\$ -	\$ 21,918,500
COVID-19 HEERF Institutional Portion	84.425F	None	-	43,072,972
COVID-19 HEERF Strengthening Institutions Program (SIP)	84.425M	None	-	556,767
COVID-19 HEERF Fund for the Improvement of Postsecondary Education (FIPSE) Formula Grant	84.425N	None	-	42,088
Total US Department of Education			<u>-</u>	<u>65,590,327</u>
Total Education Stabilization Fund under the Coronavirus Aid, Relief, and Economic Security Act Higher Education Emergency Relief Fund			<u>\$ -</u>	<u>\$ 65,590,327</u>
Coronavirus Relief Funds under the CARES Act				
US Department of the Treasury				
Passed through programs from:				
State of South Carolina - Department of Administration				
COVID-19 SC CARES Federal Coronavirus Relief Fund	21.019	None	-	46,871,649
Total US Department of the Treasury			<u>-</u>	<u>46,871,649</u>
Total Coronavirus Relief Funds under the CARES Act			<u>\$ -</u>	<u>\$ 46,871,649</u>
Child Care and Development Block Cluster				
US Department of Health & Human Services				
Passed through programs from:				
SC Department of Social Services				
Emergency Operations Grant Application	93.575	10010471	\$ -	\$ 13,000
Building a Statewide System for Inclusion 2014-15	93.575	4400017016	225,211	879,360
Child Care Data Collection and Analysis	93.575	4400022334	-	384,142
DSS Emergency Operations Grant	93.575	10010830	-	13,192
Emergency Operations Grant Application	93.575	10010953	-	18,496
Improve the Quality of Child Care for South Carolina Families 2019-20	93.575	4400021510	-	182,443
Management & Administration of the Child Care Resource and Referral Network 2014-2015	93.575	4400012827	100,250	2,376,106
Research Services on the ABC Quality Program for 2020	93.575	4400023559	-	134,576
SC Program for Infant Toddler Care: Impact Project for Early Childhood Workforce Development	93.575	4400024140	-	376,085
SC Program for Infant Toddler Care: Infant/Toddler Quality Improvement Initiative	93.575	4400024081	83,255	1,486,308
Total US Department of Health & Human Services			<u>408,716</u>	<u>5,863,708</u>
Total Child Care and Development Block Cluster			<u>\$ 408,716</u>	<u>\$ 5,863,708</u>

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Economic Development Cluster				
US Department of Commerce				
COVID-19 Responding effectively to a crisis. Lessons learned from COVID-19 for SC's tourism and hospitality industry.	11.307	04-69-07566	\$ -	\$ 15,358
Total US Department of Commerce			-	15,358
Total Economic Development Cluster			\$ -	\$ 15,358
Health Center Program Cluster				
US Department of Health & Human Services				
Passed through programs from:				
SC Department of Health & Human Services				
COVID-19 SCaGWHIP-COVID 19 CHW Services	93.224	10010592	\$ -	\$ 9,310
Total US Department of Health & Human Services			-	9,310
Total Health Center Program Cluster			\$ -	\$ 9,310
Highway Planning and Construction Cluster				
US Department of Transportation				
Passed through programs from:				
Clemson University				
Adaptive Signal System Safety Impacts	20.205	1976-223-2012248	\$ -	\$ 16,634
Iowa State University				
Robust wireless skin sensor networks for long-term fatigue crack monitoring of bridges	20.205	022355C	-	17,777
SC Department of Transportation				
Calibration Of The Aashto Pavement Design Guide To South Carolina Conditions - Phase II	20.205	1869	239,325	373,523
Improving SCDOT Project Delivery through Identifying Potentially Suitable Locations for Mitigation and Standardizing Section 401/404 Permit Application Process	20.205	2070	-	130,053
Automatic Extraction of Vehicle, Bicycle, and Pedestrian Traffic from Video Data	20.205	2087 (Project No. 742)	-	31,823
Pavement Performance Curves: Modeling Pavement Deterioration for SCDOT	20.205	2120	-	59,875
Administrative Services for Archeite II, 2020-2022	20.205	PO39906	-	35,118
Development of a Users Manual for Application of the South Carolina Unit Hydrograph Method	20.205	Research Project No. 738	-	16,217
Assessment of Structural Degradation for Bridges and Culverts	20.205	Research Project No. 739	36,105	39,284
Strengthening South Carolina's Bridges	20.205	SPR 4-20	93,838	200,000
Utilization of Traffic Speed Deflectometer for Pavement Management	20.205	SPR 748	-	48,060
Estimating AADT on Non-Coverage Roads	20.205	SPR 749	13,825	47,897
Safe and Cost-Effective Reduction of Load Postings for South Carolina Bridges	20.205	SPR 752	26,203	138,535
Total US Department of Transportation			409,296	1,154,796
Total Highway Planning and Construction Cluster			\$ 409,296	\$ 1,154,796
Medicaid Cluster				
US Department of Health & Human Services				
Passed 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	\$ -	\$ 1,217,986
SC Department of Health & Human Services				
PASOs Cultural Competence Services- DHHS bid	93.778	4400016376	-	39,261
SC Department of Health and Human Services and the Center for Child and Family Studies Medicaid Training for HHS Staff	93.778	A201812936A	-	2,672
For the Purchase and Provision of Education, Training and Management of the Alzheimer's Disease Registry	93.778	A20200088A	-	200,578
Purchase And Provision Of Eligibility, Enrollment And Member Services Training	93.778	A202012936A	-	462,523
SC Department of Health and Human Services Policy and Health Services Consultation Activities	93.778	A202013005A	-	44,471
SF2020 SCDHHS Medicaid Eligibility Monitoring and Quality Improvement Contract	93.778	A20201425A	-	8,235
DHHS/SCCAMRS Administrative Contract 2014/15	93.778	A20211593A	-	274,765
UofSC SOM Access Improvement / Rural Outreach Initiatives In partnership with South Carolina Office of Rural Health	93.778	A20211599A	331,024	1,139,383
Training and Certification for Attendant Care Services	93.778	A20220675A	-	909,211
SFY 2021-22 Medicaid Eligibility Monitoring and Quality Improvement Contract	93.778	A20221425A	-	986,663
Technical Assistance And Support For Policy Research And Evaluation For The SC Medicaid Program	93.778	A202513005A	-	5,466,543
Outpatient Pediatric AIDS Clinic Services FY18-19	93.778	C02746M	-	12,770
Developmental Evaluation Center Services 2015	93.778	C95755M	-	1
Total US Department of Health & Human Services			331,024	10,765,062
Total Medicaid Cluster			\$ 331,024	\$ 10,765,062
SNAP Cluster				
US Department of Agriculture				
Passed through programs from:				
SC Department of Social Services				
Project 1: Statewide SNAP-Ed Priority Indicators Evaluation	10.561	4400022822	\$ -	\$ 47,998
Project 3: Library Nutrition Support Implementation	10.561	4400022876	-	32,954
Project 4: FoodShare SC Maintenance and Sustainability Support	10.561	4400022877	-	25,558
Project 5: Food Policy Council Development, Maintenance, and Sustainability	10.561	4400022914	-	44,105
Project 2: Health Clinic Nutrition Support Implementation	10.561	4400022981	-	24,315
Project 1: Statewide Priority Indicators Evaluation	10.561	4400025129 / SSC430417	-	144,700
Project 5: Food Policy Councils	10.561	4400025148	-	118,664
Project 6: Strengthening and Expanding Transportation	10.561	4400025160	-	40,594
Project 2: Health Clinic Nutrition Support Implementation	10.561	4400025170 / SSC430417	-	89,771
Project 3: Library Nutrition Support Implementation	10.561	4400025341 / SSC430417	-	57,983
Project 4: FoodShare SC	10.561	4400025342 / SSC430417	-	86,493
Total US Department of Agriculture			-	713,135
Total SNAP Cluster			\$ -	\$ 713,135
Special Education Cluster (IDEA)				
US Department of Education				
Passed through programs from:				
SC Department of Education				
Transition Alliance of South Carolina	84.027	10010155	\$ 17,356	\$ 492,016
Evaluation of South Carolina's State Systemic Improvement Plan Initiative	84.027	15290FA20	-	35,198
South Carolina School Behavioral Health Alliance	84.027	FR #4000047465	-	392,570
SC Partnerships for Inclusion	84.027	SC DEPT OF EDUC	-	116,378
Transition Alliance of South Carolina	84.027	TASC-U00026679	-	7
South Carolina School Behavioral Health Alliance	84.027	U00026793	-	(8)
Project CREATE	84.027	None	-	507,610
Total US Department of Education			17,356	1,543,771
Total Special Education Cluster (IDEA)			\$ 17,356	\$ 1,543,771
TRIO Cluster				
US Department of Education				
Student Support Services	84.042	P042A150221	\$ -	\$ 57,717
Student Support Services	84.042	P042A150362	-	28,104
Student Support Services	84.042	P042A150610	-	33,048
Student Support Services 2010-15 Grant-in-Aid	84.042	P042A150625-18	-	16,767
Student Support Services 2010-2015	84.042	P042A151228	-	54,502

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TRIO Cluster, Continued				
US Department of Education, continued				
Student Support Services	84.042	P042A200360	-	200,977
Student Support Services Program	84.042	P042A201238	-	273,591
Student Support Services Grant	84.042	P042A201243	-	367,621
USC Salkehatchie Student Support Services (SSS) Program	84.042	P042A201304	-	164,901
Student Support Services 2020-2025	84.042	P042A201686	-	209,758
Talent Search Program	84.044	P044A160017	-	528,854
University of South Carolina Columbia Upward Bound Program	84.047	P047A170639	-	367,777
Upward Bound University of South Carolina Sumter Campus	84.047	P047A171401	-	280,084
USC Lancaster Upward Bound	84.047	P047A171434	-	221,821
2017 Ronald E. McNair Post-baccalaureate Achievement Program	84.217	P217A170015-19	-	193,326
Total US Department of Education			-	<u>2,998,848</u>
Total TRIO Cluster			\$ -	<u>\$ 2,998,848</u>
WIOA Cluster				
US Department of Labor				
Passed through programs from:				
Upstate Workforce Investment Act				
ACHIEVE 2019-20	17.259	19V603C4-UWB	\$ -	\$ 21,537
ACHIEVE 2020-21	17.259	20V603C4-UWB	-	400,796
Total US Department of Labor			-	<u>422,333</u>
Total WIOA Cluster			\$ -	<u>\$ 422,333</u>
Other Programs				
US Department of Agriculture				
Five Acres in the Back 40 - Soil Health Technical Support and Education for Limited Resource and Minority South Carolina Farmers	10.902	68-4639-17-155	\$ -	\$ 93,084
Merit or Myth Social Media Platform to Advance Soil Health in South Dakota	10.924	68-6740-17-009	-	158
Continue Educating on the Value of Soil Health Principles, the Economic and Environmental Benefits for Every Farm, and of the Far-Reaching Benefits of Soil Health for Society	10.924	NR196740XXXXC004	-	52,254
Growing Resilience in South Dakota Grasslands and Farmlands	10.924	NR206740XXXXC005	-	205,500
Passed through programs from:				
SC Department of Agriculture				
Creating a bridge between specialty crop farms and e-commerce through increased branding strategies	10.170	AM180100XXXXG026	-	6,997
SC Department of Health & Environmental				
DHEC WIC and PASOs Contract	10.557	PO# LR-2020-07 WC-20-002	47,749	163,805
Rural Utilities Service				
USC Palmetto College - RUS DLT Grant - 2020	10.855	SC0703-D16	-	25,154
Total US Department of Agriculture			<u>47,749</u>	<u>546,952</u>
US Department of Commerce				
USC Center for Applied Innovation and Advanced Analytics - i6	11.020	ED17HDQ0200091	-	10,498
EDA Grant - University Innovation Center Clusters	11.303	ED17ATL3030040	-	125,957
Passed through programs from:				
SE Coastal Ocean Observing Regional Association				
Southeast Coastal Ocean Observing Regional Association (SECOORA): Hurricane Supplemental - Repairs	11.022	(015)USC.GV.SUP.REPAIRS.1	-	19,560
Total US Department of Commerce			-	<u>156,015</u>
US Department of Defense				
Procurement Technical Assistance Program for Business Firms	12.002	SP4800-18-2-1882	-	(846)
Total US Department of Defense			-	<u>(846)</u>
US Department of Housing & Urban Development				
Passed through programs from:				
City of Columbia				
Housing Opportunities for Persons With AIDS	14.241	50861	143,193	387,103
Housing Opportunities for Persons With AIDS	14.241	SCH20-FHW001	-	46,325
Housing Opportunities for Persons With AIDS	14.241	U00026524	45,788	55,128
SC Department of Administration				
Mitigation Needs Assessment for CDBG-MIT Plan	14.228	U00027132	-	5,533
SC Department of Health & Environmental				
DHEC Housing Opportunities for Persons with AIDS (HOPWA) Funding - Newberry County	14.241	10010806	-	4,596
DHEC Housing Opportunities for Persons with AIDS (HOPWA) Funding - Newberry County	14.241	10010052	-	14,062
Total US Department of Housing & Urban Development			<u>188,981</u>	<u>512,747</u>
US Department of Justice				
Passed through programs from:				
SC Department of Public Safety				
COVID-19 USC DLES COVID-19 Aid	16.034	1CF20014	-	11,845
Connection of Child Maltreatment and Juvenile Delinquency	16.540	1J18004	-	19,890
Deincarceration of Status Offenders in South Carolina	16.540	1J18007	-	39,006
Identifying and Responding to Juvenile Victims and High Risk Juveniles of Sex Trafficking in South Carolina	16.540	1J18003	-	19,045
Identifying and Responding to Juvenile Victims and High Risk Juveniles of Sex Trafficking in South Carolina	16.540	1J18006	-	43,223
2018 Bulletproof Vest Partnership	16.607	10010363	-	18,513
2020 BulletProof Vest Partnership Award	16.607	10011079	-	2,190
SC Office of the Attorney General				
SC VOCA 2019 - Expanding Advocacy at USC	16.575	1V19063	-	(72)
National Court Appointed Special Advocate				
2020 CASA Annual Survey Data Analysis and Reporting	16.756	51542	-	13,027
CASA Annual Survey Data Analysis and Reporting (ASDAR) and Gap Analysis Plus (GAP) Projects	16.756	51479	-	11,627
CASA Gap Analysis Project	16.756	31344	-	20,894
Total US Department of Justice			-	<u>199,188</u>
US Department of State				
Justice Sector Training, Research, and Coordination Plus (JustTRAC+) Program Project 1	19.703	SINLEC18CA2068	-	515,808
Passed through programs from:				
East-West Management Institute, Inc.				
Justice Academy Curriculum Development in Armenia	19.703	SINLEC20CA3226-G1780201003034320	-	2,708
The Asia Foundation				
Building Capacity to Counter Illegal Mining in Mongolia	19.705	32392.600.001	-	8,211
Total US Department of State			-	<u>526,727</u>
National Aeronautics & Space Administration				
Passed through programs from:				
College of Charleston				
SCSGC STEM Outreach Award	43.008	521383-SOA-SC001	-	5,992
Total National Aeronautics & Space Administration			-	<u>5,992</u>
National Endowment for the Humanities				
Conversations in Clay:The Past, Present and Future of Ceramic Art in SC	45.024	1809179-55-18	-	(5,308)
FOLKFabulous at the South Carolina State Fair	45.130	ZR-256701-18	-	16,337
The Digital Piranesi	45.149	PW-264046-19	-	146,431

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Other Programs, Continued				
National Endowment for the Humanities, continued				
America's Reconstruction: The Untold Story	45.163	ES-267039-19	-	26,216
Fabric of the Past: Weaving the Twentieth Century at the Beaumont Mill and Village in South Carolina	45.163	BH-272365-20	-	25,912
Freedom's Lawmakers: Black Leadership during Reconstruction - Misremembering and Reclaiming Black Reconstruction Leadership. (July 5-25 2020)	45.163	ES-267151-19	-	38,090
Free and Equal: The Promise of Reconstruction in America	45.164	10009891	-	(7,250)
Free and Equal: The Promise of Reconstruction in America	45.164	BR-264610-19	84,500	97,652
Historic Southern Naturalists: Bringing Southern History and Natural History Together Online	45.301	MA-30-18-0048-18	6,900	79,401
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	-	54,212
Examining Public Library Service to LGBTQ Communities for Health-related Information	45.313	RE-07-18-0066-18	-	60,410
Passed through programs from:				
SC Humanities Council				
Play on Words: An Aphasic Drama Group	45.129	19-1910-2	-	(573)
SC Humanities Bridge Emergency Relief Grant	45.129	BER 20-81-6	-	4,000
SC Humanities Fast Track Literary Grant: Swan Con	45.129	20-1959-4	-	304
South Carolina Humanities Bridge Emergency Relief Grant	45.129	BER 20-55-6	-	2,000
South Carolina Humanities Council Mini Grant: USC Virtual Interdisciplinary Conference on Race, Identity & Equality	45.129	21-2029-2	-	1,000
USCB Center for the Arts Bridge Emergency Relief Grant	45.129	BER 20-57-6	-	5,000
Total National Endowment for the Humanities			91,400	543,834
Small Business Administration				
CARES Act SBDC Funding Opportunity Announcement (State Director's Office)	59.037	SBAHQ20C0077	-	1,191,344
Office of Small Business Development Centers Program Announcement - 2019 (USC)	59.037	SBAHQ19B0036	-	1,465
Office of Small Business Development Centers Program Announcement-2015 (USC)	59.037	SBAHQ-15-80042	-	(618)
SC Small Business Development Centers Program Announcement - SBA 2020 Funding Opportunity (USC)	59.037	SBAHQ20B0059	-	916,532
SC Small Business Development Centers Program Announcement - SBA 2021 Funding Opportunity (State Director's Office - Lead Center)	59.037	SBAHQ21B0049	-	9,324
FAST-2020-R-0014 - FAST SBA	59.058	SBAOIFT200022-01-00	-	73,719
Federal and State Technology Program (FAST) - FY 2019	59.058	SBAHQ19G0013	-	40,755
Total Small Business Administration				2,232,521
US Department of Education				
The Asa Yoruba Project	84.021	P021A190033	-	650
Rehabilitation Long-Term Training: Expanding the Next Generation of Psychiatric Rehabilitation Professionals	84.129	H129H140008	-	7,000
Vocational Rehabilitation Workforce Development: Increasing the Number of Qualified Vocational Rehabilitation Counselors in South Carolina (RSA LTT)	84.129	H129W150004	-	102,524
Project INSPIRE: Increasing the STEM Potential of Individuals Who Read Braille	84.235	H235E1090003	-	121,637
Carolina Family Engagement Center (CFEC)	84.310	U310A180058	74,652	1,048,397
Project FOCUS: Preparing Special Education Administrators with a Focus on Research to Practice in Transition	84.325	H325D150006	-	90,807
Project FUSION: Preparing Special Education Leaders with a Focus on Research to Practice in Transition	84.325	H325D180021	-	319,378
Project IMPACT: Impacting Adult Life Outcomes for Individuals with Severe Disabilities	84.325	H325K160020	-	187,106
Project Promote: Promoting Policy, Advocacy and Legal Literacy Skills in Special Education Leaders to Serve in Schools and Communities	84.325	H325D180083	-	214,280
Student Parent Support Project	84.335	P335A190262	-	26,798
University of South Carolina - Transition to Teaching Residency (UoSC-T3)	84.336	U336S190031	-	580,206
Project DRIVE- Developing a Robust, Inclusive Vision for Expansion: Moving Beyond Access to Enhanced College Opportunities and Outcomes	84.407	P407A200007	-	148,076
Passed through programs from:				
Richland County School District				
Evaluation of the Med Pro 21 Magnet Program for Richland School District Two	84.165	20001503/19000794	-	111,648
SC Department of Education				
School Improvement Grant (SIG) Evaluation Plan	84.377	H63010010415	-	67,778
SC Department of Health & Human Services				
Team for Early Childhood Solutions Data System Management and Compliance Indicator Analysis	84.181	A202012946A	-	3,651
Team for Early Childhood Solutions Data System Management and Compliance Indicator Analysis	84.181	A202112946A	-	364,453
SC Vocational Rehabilitation Department				
Carolina LIFE-CAP	84.126	11571	-	130,410
Power UPI 2021	84.126	SCVRD #11671	-	1,218
PowerUPI Career Academy for Students with Disabilities 2020: Curriculum, Training, and Logistics Work Scope	84.126	SCVRD #11537	-	46,712
SC VRD Power UPI 2.0 Curriculum Design and Development	84.126	SCVRD #11588	-	126,628
University of Oregon				
Advancing School Mental Health and PBIS Together	84.326	282070H	-	165,395
Total US Department of Education			74,652	3,864,752
US Department of Health & Human Services				
UofSC School of Public Health Maternal and Child Health Catalyst Program	93.110	1T1CMC35361-01-00	-	60,763
Preventive Medicine and Public Health Training Program	93.117	5D33HP26995-04-00	28,446	28,909
Traineeships for Nurse Anesthesia 2015	93.124	2A22HP30940-04-00	-	38,357
Improving the Health of People with Mobility Limitations and Intellectual Disabilities Through State-Based Public Health Programs	93.184	5NU27DD000011-04-00	67,413	131,648
Improving the Health of People with Mobility Limitations and Intellectual Disabilities Through State-Based Public Health Programs	93.184	5NU27DD000011-05-00	145,857	319,587
Screening, Brief Intervention, and Referral to Treatment (SBIRT) Medical Professional Training Program	93.243	14T1025374B	-	(70,823)
Developing a APRN/FQHC Practice Training Partnership	93.247	2794HP30919-03-00	37,104	51,942
Developing a APRN/FQHC Practice Training Partnership	93.247	5 T94HP309190400	109,771	537,550
South Carolina Poison Center Support and Enhancement Project - (Award Transfer from SCRF to UofSC)	93.253	7H48HS45171-01-00	-	69,497
Project Experiential SHINE: Simulation and Social determinants of Health in Nursing Education	93.359	1U4EHR40019-01-00	-	146,719
Rural Interprofessional Behavioral Health Scholars (RIBHS) Program.	93.732	5M01HP31378-03-00	8,000	61,083
Rural Interprofessional Behavioral Health Scholars (RIBHS) Program.	93.732	5M01HP31378-04-00	-	343,446
SC Communities Unite to Increase CRC Screening	93.800	1NUS8DP006766-01-00	162,507	640,660
National Bioterrorism Hospital Preparedness Program	93.889	None	-	519,826
Passed through programs from:				
Administration for Community Living				
South Carolina Assistive Technology Program	93.464	1901SCATSG-00	-	90,100
South Carolina Assistive Technology Program	93.464	2001SCATSG-00	-	445,843
South Carolina Partnership for Inclusive and Healthy Adult Transitions for Young Adults (SCPHAT) with Intellectual Disabilities and Developmental Disabilities (ID/DD)	93.632	90DDUC0087-01-00	-	27,371
South Carolina University Center for Excellence in Developmental Disabilities	93.632	90DDUC0003-03-00	-	1,090
South Carolina University Center for Excellence in Developmental Disabilities	93.632	90DDUC0003-04-00	-	570,608
American Association of Medical Colleges				
Root Cause - Partnering for Community Health	93.967	GT-32016-19-04	-	1,660
CDC Foundation				
CDC Foundation Medicaid Analysis 2019	93.421	4001.01.01.04	-	3,802
Centre for Integrated Health Programs				
Nigeria subcontract	93.067	U2GGH002097-01	-	84,845
Children's Trust Fund of South Carolina				
Community Support for Young Parents (CSYP-II) Evaluation	93.500	11500FL60	-	(37)
Children's Trust MIECHV Expanded Workforce Evaluation Part I	93.870	C-MIEC-F-2018-SCRHC	-	4,629
MIECHV Children's Trust PASOs	93.870	X10MC33608/C-MIECHV-2019-PASOS	-	28,809
PASOs MIECHV 2019-2020	93.870	C-MIEC-F-2018-PASOS	-	17,377
Christopher & Dana Reeve Foundation				
SC Assistive Technology Mobility Independence Project	93.325	90PRRC0002-03-00	-	70,104

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Other Programs, Continued				
US Department of Health & Human Services, continued				
Passed through programs from, continued:				
Clemson University				
Project EMPOWER - Engaging Medicine Providers On Ways to Enhance Recovery	93.243	2063-209-2012877	-	40,677
Fact Forward				
The Hubb at USC Lancaster	93.092	1901SCPREP	-	8,074
emPOWERed SC: Creating Linkages for Youth of Color in South Carolina	93.297	1 TP2AH000064-01-00	-	33,132
Achieving Optimal Health and Preventing Teen Pregnancy in Key Priority Areas (AH-TP2-20-002)	93.297	1 TP2AH000064-01-00	-	15,000
Optimally Changing the Map for Teen Pregnancy Prevention (AH-TP1-20-001)	93.297	1 TP1AH000216-01-00	-	15,000
Family Connection of SC				
Program Evaluation for Family Connection of South Carolina	93.504	15900FL56	-	4,090
LRADAC				
Proposal to Serve as Outside Evaluator on Transitional Youth Services	93.243	10009569	-	1,843
Proposal to Serve as Outside Evaluator on Transitional Youth Services	93.243	10010333	-	9,722
Evaluation Services Proposal for LRADAC's Community Services Department	93.788	10011005	-	1,470
Mary Black Foundation				
Evaluation Services for Mary Black Foundation's OAH1B Grant	93.297	TP1AH000119-01-00	-	(172)
Medical University of South Carolina				
Model State-Supported AHEC Program - USC Subaward	93.107	A00-0136-5001	17,389	38,547
Leadership Education in Neurodevelopmental and Related Disorders (LEND)Subcontract	93.110	5T73MC22233-10-00 A00-0188-5002	-	133,551
National Network of Public Health Institute				
Feasibility of Creating Small Area Estimates Using Weighted, Multilevel Prediction Models: an Application for the National Survey of Children's Health Phase II	93.421	G1418	-	40,867
Palmetto Care Connections				
Evaluation of the Network Development Grant, Palmetto Care Connections	93.912	10010489	-	13,339
Prisma Health - Upstate				
Project TRANSFORM (Teaching Recovery-informed Addiction Care And Negating Stigma FOR Medical Professionals)	93.243	5219-2 H79FG000004	-	40,674
SC Court Administration				
Court Improvement Basic Grant	93.586	2019G996437/2019G996471	-	38,859
Court Improvement Program Training Grant	93.586	2019G991513	-	35,232
Court Improvement Basic Grant	93.586	2020G996437/2020G996471	-	123,540
Court Improvement Training Grant	93.586	2020G991513	-	94,907
SC Department of Alcohol & Other Drug Abuse				
Assessing Alternative Payment Models to Finance Opioid Use Disorder Treatment	93.788	CA-SOR-21	-	24,018
SC Department of Health & Environmental Control				
Evaluation Services for the Personal Responsibility Education Program (PREP)	93.092	MC-1-007/FR#4000046267	-	39,278
Evaluation Services for Sexual Risk Avoidance Education (SRAE)	93.092	MC-1-008/FR#4000046268	-	43,532
Nemours Healthy Kids Healthy Future Technical Assistance Program	93.421	5NU380T000304-03-00	-	9,378
Aeroclave Decontamination Unit	93.889	ML-1-269 / 6U3REP190593-01-03	-	17,002
Ryan White HIV/AIDS Treatment Extension Act - Part B Supplemental Funds	93.917	10010778	-	106,769
Ryan White HIV/AIDS Treatment Extension Act - Part B Supplemental Funds	93.917	10010779	-	76,447
Ryan White HIV/AIDS Treatment Extension Act - Part B Supplemental Funds	93.917	10010780	-	2,065
Ryan White Treatment Extension Act - Part B ADAP Insurance Assistance Program	93.917	HV-0-611	4,205,529	4,205,529
Ryan White HIV/AIDS Treatment Extension Act - Ryan White Part B (Emerging Communities)	93.917	HV-7-778	-	1
Ryan White HIV/AIDS Treatment Extension Act - Part B Supplemental Funds	93.917	HV-9-601/4100081834	803,813	2,013,800
Perinatal HIV Prevention: Comprehensive Risk Counseling and Services	93.940	HV-7-558	-	153,868
Provision of Case Management Training	93.994	MC-17-008 PO#RJN-2017-04	-	26,772
SC Department of Social Services				
Preschool Development Grant (PDG-B5)	93.434	4400025026	430,000	459,528
South Carolina Preschool Development Grant (PDG) Needs Assessment	93.434	4400025205	7,500	212,424
Preschool Development Grant: MIX EC: Multi-Systems Inclusion Expansion for Early Childhood	93.434	4400025218	80,813	375,839
PDG - SC CCR&R Family Child Care Community of Practice	93.575	4400026259	-	2,007
DSS - CIA Operation of CLC	93.643	4400024679	-	171,115
DSS - CIA Support of Task Force	93.643	4400024720	-	86,988
SC Developmental Disabilities Council				
SC Developmental Disability Council Professional Services	93.043	10010296	-	28,752
IMPACT SC Self-Advocacy Initiatives	93.630	10-21-055	-	23,782
Model for Employment Training Advancement	93.630	10-21-0006	-	41,961
SC First Steps				
Countdown to Kindergarten Quasi-Experimental Evaluation	93.434	FR# 4000048258	-	20,285
PASOs Connections for Childhood Development Program and First Steps-PDG	93.434	10010724	-	1,150
SC Research Foundation				
Palmetto Poison Center CARE5 Funding	93.253	1H4CHS37363-01-00	-	69,912
South Carolina Poison Center Support and Enhancement Project	93.253	2H4BHS15545-11-00	-	41,429
South Carolina Poison Center Support and Enhancement Project	93.253	5H4BHS15545-12-00	-	169,692
Spartanburg School District 7				
Mary Black Foundation Implementation of YRBS, School Health Profiles, and Sexual Health Curriculum	93.079	10010484	-	16,310
Mary Black Foundation Implementation of YRBS, School Health Profiles, and Sexual Health Curriculum	93.079	U00027003	-	7,140
Substance Abuse & Mental Health Services				
Garrett Lee Smith Campus Suicide Prevention	93.243	5H79SM080473-02	-	49,671
Garrett Lee Smith Campus Suicide Prevention	93.243	5H79SM080473-03	-	58,375
University of Alabama-Birmingham				
An Innovative Approach to Inclusive Health	93.184	000512145-007	-	(75)
University of Kentucky				
Nurse, Education, Practice, Quality and Retention - Registered Nurses in Primary Care	93.359	PO7800005469 3200003255-21-095	-	34,418
University of North Carolina at Chapel Hill				
Nursing Workforce Diversity - University of North Carolina at Chapel Hill	93.178	5117900 5D19HP308610400	-	23,208
Vanderbilt University				
South Carolina HIV/AIDS Clinical Training Center/Vanderbilt - AETC Base (Competing Renewal)	93.145	U10HA30535 - VUMC56743	4,262	315,689
COVID-19 South Carolina HIV/AIDS Clinical Training Center/Vanderbilt - AETC COVID Supplement	93.145	VUMC85636	-	24,738
Total US Department of Health & Human Services			6,108,404	13,866,514
US Department of Homeland Security				
Disaster Grants - Public Assistance (Presidentially Declared Disasters)	93.036	None	-	20,764
Passed through programs from:				
SC Emergency Management Division				
USC Emergency Sirens and Notifications	93.036	FEMA-4241-DR-SC	-	(3,768)
USC Sumter Emergency Siren	93.036	FEMA-4286-DR-SC	-	(1,001)
Upstate Emergency Siren System	93.039	FEMA-4286-DR-SC	-	(3,060)
USC Aiken Emergency Generator	93.039	FEMA-4286-DR-SC	-	(5)
USC Aiken Emergency Siren	93.039	FEMA-4286-DR-SC	-	(350)
USC Lancaster Emergency Warning System	93.039	FEMA-DR-4166-SC-026	-	998
USC Salkhatchie Hazard Mitigation Emergency Warning System	93.039	4166-DR-SC	-	1,264
USC Union Emergency Notification System	93.039	FEMA-4286-DR-SC	-	(23)
Total US Department of Homeland Security				14,819
Total Other Programs			\$ 6,511,186	\$ 22,469,215
Total Federal Expenditures			\$ 21,806,482	\$ 622,255,843

University of South Carolina

Notes to Schedule of Expenditures of Federal Awards For the year ended June 30, 2021

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, 2021 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, 2020 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.

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, 2021 consists of:

<u>Number</u>	<u>Program Name</u>	<u>Outstanding Balance at June 30, 2021</u>
84.038	Federal Perkins Loan	\$ 7,037,939
93.364	Nursing Student Loans	931,774
93.342	Health Professions Student Loans	728,263
93.264	Nurse Faculty Loan Program	727,014

University of South Carolina

Notes to Schedule of Expenditures of Federal Awards For the year ended June 30, 2021

Note 3. Federal Student Loan Programs, Continued

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, 2021. 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 non-compliance. 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.

**Independent Auditor's 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***

The 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), as of and for the year ended June 30, 2021, and the related notes to the financial statements, which collectively comprise the University's basic financial statements, and have issued our report thereon dated September 30, 2021. Our report includes a reference to other auditors who audited the financial statements of the South Carolina Research Foundation; University of South Carolina School of Medicine Educational Trust (the Trust); the University of South Carolina Educational Foundation; the Greater University of South Carolina Alumni Association; the USC Upstate Foundation and Supporting Organization; and the Educational Foundation of the University of South Carolina-Lancaster, (collectively referred to as the Trust and the Foundations), as described in our report on the University's financial statements. This report does not include the results of the other auditors' testing of internal control over financial reporting or compliance and other matters that are reported on separately by those auditors. The financial statements of the Trust, the Beaufort-Jasper Higher Education Commission, the Gamecock Club of the University of South Carolina, and the Foundations, excluding the South Carolina Research Foundation, were not audited in accordance with *Government Auditing Standards*.

Internal Control Over Financial Reporting

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

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

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

Compliance and Other Matters

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

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of 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 University's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

A handwritten signature in black ink that reads "Elliott Davis, LLC". The signature is written in a cursive, flowing style.

Columbia, South Carolina
September 30, 2021

**Independent Auditor's Report on Compliance for Each Major Federal Program;
Report on Internal Control Over Compliance; and
Report on Schedule of Expenditures of Federal Awards
Required by the Uniform Guidance**

The Board of Trustees
University of South Carolina
Columbia, South Carolina

Report on Compliance for Each Major Federal Program

We have audited the University of South Carolina's (the University) compliance with the types of compliance requirements described in *the U.S. Office of Management and Budget (OMB) Compliance Supplement* that could have a direct and material effect on each of the University's major federal programs for the year ended June 30, 2021. The University's major federal programs are identified in the summary of auditor's results section of the accompanying Schedule of Findings and Questioned Costs.

The University's basic financial statements include the operations of the South Carolina Research Foundation (the Foundation), which expended approximately \$1.1 million in federal awards which is not included in the Schedule of Expenditures of Federal Awards during the year ended June 30, 2021. Our audit, described below, did not include the operations of the Foundation because the component unit engaged other auditors to perform an audit of compliance.

Management's Responsibility

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

Auditor's Responsibility

Our responsibility is to express an opinion on compliance for each of the University's major federal programs based on our audit of the types of compliance requirements referred to above. We conducted our audit of compliance in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and the audit requirements of Title 2 U.S. *Code of Federal Regulations* Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance). Those standards and the Uniform Guidance require that we plan and perform the audit to obtain reasonable assurance about whether noncompliance with the types of compliance requirements referred to above that could have a direct and material effect on a major federal program occurred. An audit includes examining, on a test basis, evidence about the University's compliance with those requirements and performing such other procedures as we considered necessary in the circumstances.

We believe that our audit provides a reasonable basis for our opinion on compliance for each major federal program. However, our audit does not provide a legal determination of the University's compliance.

Opinion on Each Major Federal Program

In our opinion, the University complied, in all material respects, with the types of compliance requirements referred to above that could have a direct and material effect on each of its major federal programs for the year ended June 30, 2021.

Other Matters

The results of our auditing procedures disclosed instances of noncompliance, which are required to be reported in accordance with the Uniform Guidance and which are described in the accompanying Schedule of Findings and Questioned Costs as items 2021-001, 2021-002 and 2021-003. Our opinion on each major federal program is not modified with respect to these matters.

The University's response to the noncompliance findings identified in our audit is described in the accompanying Schedule of Findings and Questioned Costs. The University's response was not subjected to the auditing procedures applied in the audit of compliance and, accordingly, we express no opinion on the response.

Report on Internal Control Over Compliance

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

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

Our consideration of internal control over compliance was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control over compliance that might be material weaknesses or significant deficiencies and therefore, material weaknesses or significant deficiencies may exist that have not been identified. However, we did identify certain deficiencies in internal control over compliance, described in the accompanying Schedule of Findings and Questioned Costs as items 2021-001, 2021-002 and 2021-003, that we consider to be significant deficiencies.

The University's response to the internal control over compliance findings identified in our audit are described in the accompanying Schedule of Findings and Questioned Costs. The University's response was not subjected to the auditing procedures applied in the audit of compliance and, accordingly, we express no opinion on the response.

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, a component unit of the State of South Carolina, as of and for the year ended June 30, 2021, and have issued our report thereon dated September 30, 2021, which contained unmodified opinions on those financial statements. We did not audit the financial statements of the South Carolina Research Foundation; the University of South Carolina School of Medicine Educational Trust; the University of South Carolina Development Foundation; the University of South Carolina Educational Foundation; the Greater University of South Carolina Alumni Association; the USC Upstate Foundation and Supporting Organization; and the Educational Foundation of the University of South Carolina-Lancaster, which are discretely presented component units of the University. Those statements were audited by other auditors whose reports have been furnished to us, and our opinions, insofar as they relate to the amounts included for these discretely presented component units, are based solely on the reports of the other auditors. Our audit was conducted for the purpose of forming opinions on the financial statements as a whole. The accompanying Schedule of Expenditures of Federal Awards is presented for purposes of additional analysis as required by the Uniform Guidance and is not a required part of the financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. The information has been subjected to the auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the Schedule of Expenditure of Federal Awards is fairly stated in all material respects in relation to the financial statements as a whole.



Columbia, South Carolina
March 30, 2022

University of South Carolina
Schedule of Findings and Questioned Costs
For the year ended June 30, 2021

I. Summary of Auditor's Results

Financial Statements

- (a.) Type of auditor's report: Unmodified
- (b.) Internal control over financial reporting:
 - 1) Material weaknesses identified? No
 - 2) Significant deficiencies identified? None reported
- (c.) Noncompliance material to financial statements noted? No

Federal Awards

- (a.) Internal control over major federal programs:
 - 1) Material weaknesses identified? No
 - 2) Significant deficiencies identified? Yes
- (b.) Type of auditor's report issued on compliance for major federal programs: Unmodified
- (c.) Audit findings that are required to be reported in accordance with 2 CFR 200.516 (a)? Yes
- (d.) Identification of major federal programs:

<u>CFDA Numbers</u>	<u>Name of federal program or cluster</u>
84.007; 84.033; 84.038; 84.063; 84.268; 84.379; 84.408; 93.264; 93.342; 93.364	Student Financial Assistance Cluster
93.778	Medicaid Cluster
21.019	COVID-19 - Coronavirus Relief Fund
84.425E; 84.425F; 84.425M; 84.425N	COVID-19 - Education Stabilization Fund

- (e.) Dollar threshold used to distinguish between type A and type B programs: \$3,000,000
- (f.) Auditee qualified as low risk auditee? No

University of South Carolina
Schedule of Findings and Questioned Costs
For the year ended June 30, 2021

II. Financial Statement Findings

None reported.

III. Federal Award Findings and Questioned Costs

Finding 2021-001 Fiscal Operations Report and Application to Participate (FISAP)

Federal Agency: Department of Education

Program: Student Financial Assistance Cluster (all programs)

Criteria or Specific Requirement: According to 34 CFR 673.3, an institution is required to file an application to participate in the Federal Perkins Loan (FPL), Federal Work-Study (FWS), and Federal Supplemental Education Opportunity Grant (FSEOG) programs, which includes all information required by the Department of Education. In addition, Uniform Guidance in 2 CFR 200.303, requires nonfederal entities receiving federal awards to establish and maintain effective internal control designed to reasonably ensure compliance with federal laws, regulations and program compliance requirements. Effective internal controls should include procedures to ensure amounts reported in the FISAP are adequately supported.

The 2020-2021 FISAP instructions for the 2019-2020 Operations Report for Part II, Section E, Line 24, require institutions to report the amount of state grants and scholarships expended for the award year, excluding any state awards for which the school has the final decision on which students receive the funds.

Condition/Context: The FISAP is submitted annually to report award expenditures for the previous year and to apply to participate in the following year. The University submits five separate FISAPs: one for each four-year campus (Columbia, Aiken, Beaufort, and Upstate), and one that includes all of the two-year campuses (Regionals). During our testing of the FISAPs for the award year ended June 30, 2020, we noted that USC Upstate improperly excluded Teaching Fellows from Part II, Section E, Line 24 of the report submitted, thereby understating expenditures on this line by \$225,150.

Cause: USC Upstate did not have adequate internal controls in place to allow for proper review and verification of the report's accuracy.

Effect: Although this finding has no current year impact on funding, errors in the amounts reported on the FISAP result in noncompliance and inhibit the ability of the Department of Education to properly monitor and evaluate the performance of the campus-based programs. The lack of internal controls over the FISAP preparation and review process could result in misstated line items that do impact the amount of funding awarded to the University.

Questioned Costs: \$0

III. Federal Award Findings and Questioned Costs, Continued

Finding 2021-001 Fiscal Operations Report and Application to Participate (FISAP), Continued

Identification as a repeat finding, if applicable:

Not a repeat finding.

Recommendation:

We recommend that procedures be implemented and internal controls strengthened to ensure that the information on the FISAP is accurately reported in accordance with the FISAP instructions and agrees to the University's records.

Views of Responsible Officials:

Management agrees with the finding and recommendation and has strengthened the process that was implemented for the FISAP review. Additional staff have been trained in the FISAP reporting requirements, to include review of past FISAPs to ensure a thorough understanding of categories to be reported, and now collaborate on the review process prior to signing off on the report prior to submission. These procedures will be followed, and the multi-layered review will further improve controls over the annual review process.

Finding 2021-002 Enrollment Reporting

Federal Agency:

Department of Education

Program:

Student Financial Assistance Cluster – Federal Pell Grant Program (CFDA No. 84.063) and Federal Direct Student Loans (CFDA No. 84.268)

Criteria or Specific Requirement:

The National Student Loan Data System (NSLDS) is the U.S. Department of Education's centralized database for students' enrollment information. For students who receive Title IV aid, the University is required to report enrollment status changes to the NSLDS in a timely and accurate manner. These changes include reductions or increases in attendance levels, withdrawals, graduations, or approved leaves-of-absences. The University utilizes the National Student Clearinghouse (the "Clearinghouse") as a service provider for transmissions of its enrollment reporting changes to the NSLDS. The University is ultimately responsible for the timeliness and accuracy of this information even when a third-party servicer is used as an intermediary to report on the University's behalf.

Condition:

The USC Aiken and USC Columbia campuses each reported an incorrect withdrawal date to the NSLDS for a student who received Title IV aid and withdrew during the fiscal year ending June 30, 2021.

III. Federal Award Findings and Questioned Costs, Continued

Finding 2021-002 Enrollment Reporting, Continued

Cause: The University receives the Enrollment Reporting Roster every 60 days and updates it for changes in student status. The file is sent to the Clearinghouse, and NSLDS pulls from the Clearinghouse the first business week of each month. When students unofficially withdraw, the University is typically not aware until after the semester has ended, when various procedures are done to identify these students. Therefore, the responsible personnel must manually update NSLDS retroactively for these students' withdrawal dates. In both instances noted in the condition above, the student unofficially withdrew and the correct withdrawal date was reported initially, but was subsequently overridden with another (incorrect) date. These campuses did not have adequate internal controls in place over the enrollment reporting processes to allow for proper review of these manual updates.

Effect: A student's enrollment status determines eligibility for in-school status, deferment, and grace periods, as well as for the payment of interest subsidies to FFEL Program loan holders by ED. Inaccurate reporting of student enrollment status changes could result in incorrect deferment, grace periods, billing, and repayment of student loans.

Questioned Costs: \$0

Identification as a repeat finding, if applicable: Although some circumstances may differ, this finding is substantially the same as finding 2020-001 that was reported the prior year.

Context: Of the 877 students who received Title IV aid and withdrew during the period July 1, 2020 through June 30, 2021, we examined 60 students' files and determined that incorrect withdrawal dates were reported to the NSLDS for 2 students. Differences in dates ranged from 30 days to 46 days.

Recommendation: Regular internal review of students who unofficially withdrew and are manually updated in NSLDS is recommended to ensure that the procedures in place are operating effectively and that federal requirements are being met.

Views of Responsible Officials: Management agrees with the finding. Fall 2020 was the first term the new Unofficial Withdrawal process started. This process used an existing Banner System Title IV report as well as manually looking up withdrawn information from a course registration audit Banner form.

At the time, manually updating included: Updating Banner Enrollment Status for Course Registration and Student Withdrawal (FA) to Unofficial Withdrawal status. Updating NSLDS by each campus and then providing the students and dates to Columbia Registrar's office to update the Clearinghouse.

III. Federal Award Findings and Questioned Costs, Continued

Finding 2021-002 Enrollment Reporting, Continued

The two students (one by Aiken and one by Columbia) with the incorrect dates were manual updates to NSLDS. The correct dates were initially entered, but by rechecking the list of students, the incorrect date was entered with another student's date that was either above or below the line the on the spreadsheet. Aiken and Columbia will make corrections.

Finding 2021-003 Lost Revenue

Federal Agency: Department of Education

Program: COVID-19 HEERF Institutional Portion (CFDA No. 84.425F)

Criteria or Specific Requirement: The Coronavirus Response and Relief Supplemental Appropriations Act, 2021 (CRRSAA) section 314(d)(2) allowed for previously awarded Coronavirus Aid, Relief, and Economic Security (CARES) Act funds to be retroactively used for the allowable uses under CRRSAA, including reimbursement of lost revenue. Lost revenue refers to those revenues an institution of higher education otherwise expected but were reduced or eliminated as a result of the novel coronavirus 2019 (COVID-19) pandemic. As such, lost revenues can only be estimated. Certain potential sources of lost revenue were not reimbursable under the HEERF grant program.

Condition: Original calculations prepared by the University included certain sources of lost revenue which were not considered to be reimbursable under the HEERF grant program.

Cause: Lost revenue was newly allowable for reimbursement in fiscal year 2021 with limited guidance, which is constantly evolving.

Effect: The University's lost revenue calculations required revision to align with the applicable compliance requirements and exclude certain sources of lost revenue which were not considered to be reimbursable under the HEERF grant program.

Questioned Costs: \$0

III. Federal Award Findings and Questioned Costs, Continued

Finding 2021-003 Lost Revenue, Continued

Identification as a repeat finding, if applicable:

Not a repeat finding.

Context:

We recognize that this is a unique calculation and is subject to interpretation. Based on our interpretation of the guidance, of the five campuses selected for testing, one of the campuses' calculations for lost revenues required revisions.

Recommendation:

Continue to monitor compliance requirements and review the lost revenue calculations, including any interpretive guidance issued, to ensure that federal requirements are being met.

Views of Responsible Officials:

Management believes the lost revenue calculations are in full compliance with HEERF Lost Revenue Guidelines and FAQs provided by the awarding agency, US Department of Education (USDE). The University has communicated with the awarding agency and received guidance that the items identified were an allowable methodology and acceptable calculation for lost revenue. The University will continue to follow all compliance requirements and will seek interpretations for this compliance from USDE as needed to ensure all federal requirement are being met.



Vice President for Finance &
Chief Financial Officer

Summary Schedule of Prior Audit Findings for the year ended June 30, 2021

In accordance with *Government Auditing Standards*, issued by the Comptroller General of the United States, the following is the status of known material findings and recommendations from prior year audits:

Finding 2020-001: Enrollment Reporting:

Condition: The Beaufort, Lancaster, Salkehatchie, and Union campuses reported incorrect withdrawal dates to the NSLDS for students who received Title IV aid. Additionally, the Beaufort and Lancaster campuses did not report withdrawal dates for students who received Title IV aid to the NSLDS in a timely manner.

Current Action Taken/Current Status: There is a similar finding for the current year for the Columbia and Aiken campuses (See item 2021-002 beginning on page 28). The campuses included in the prior year finding had no exceptions noted during the current year audit.

With guidance from the Columbia campus Registrar, new procedures and processes are currently in place for accurately and timely reporting the last day of attendance to the Clearinghouse and NSLDS for students who unofficially withdraw. In addition, an internal review is performed periodically throughout the academic year for a sample of students who have withdrawn to determine that the current procedures are operating as intended to ensure compliance with federal requirements.

Finding 2020-002: Return of Title IV Funds – Timely Return of Funds

Condition: As part of its corrective action taken in response to prior year finding 2019-009, the University performed manual R2T4 calculations using the correct payment period for the students who withdrew in Fall of 2019, as it was too late to change this within Banner, the University's student information system used to administer student financial assistance. The corrected payment period included more days than the payment period used in the previous calculation, and therefore, the percentage of aid earned decreased, resulting in additional amounts due to the Department of Education. As these manual recalculations were not completed until February 2020, they were returned outside of the required 45-day window.

Current Action Taken/Current Status: This finding has been cleared.

Because this was a unique one-time finding due to the implementation of a correction plan from a prior year finding, no corrective action plan was needed.

Summary Schedule of Prior Audit Findings, Continued

Finding 2020-003: Calculations of Return of Title IV Funds

Condition: As part of its corrective action taken in response to prior year finding 2019-009, the University performed manual calculations outside of Banner using the correct payment period for students who withdrew in the Fall of 2019 semester. We noted that in three of these four instances, the student withdrew in the Fall of 2019 semester, and the underlying cause of the improper calculation was human error as these calculations were performed manually.

Current Action Taken/Current Status: This finding has been cleared.

The University developed and implemented new procedures to ensure no manual calculations are performed and internal reviews are performed on a monthly basis to ensure accuracy.

Finding 2019-004: Drug and Alcohol Abuse Prevention Program

Condition:

- A. For the Aiken, Columbia, Beaufort, Upstate, Sumter, Salkehatchie, Union, and Lancaster Campuses, there was no annual distribution in writing to each student and employee that contained all the required elements.
- B. For the Upstate, Salkehatchie, and Lancaster Campuses, the biennial review did not contain information detailing the types of sanctions that were imposed by the school as a result of drug and alcohol-related violations.

Current Action Taken/Current Status:

- A. This finding has been cleared. All campuses sent emails at the beginning of each semester addressing all the required elements
- B. This finding has been cleared. All biennial reviews were updated to include all required information.

Finding 2019-005: Use of Federal Work Study Funds

Condition: During the review of the Fiscal Operations Report and Application to Participate (FISAP) for Award Year July 1, 2018 through June 30, 2019, the University of South Carolina – Beaufort (USCB) was not in compliance with the FWS Community Service requirement that at least seven percent of the sum of its initial and supplemental Federal Work Study (FWS) allocations for an award year be used to compensate students employed in community service activities; and did not obtain a waiver from the Department of Education.

Current Action Taken/Current Status: This finding has been cleared.

Although the USC Beaufort campus requested a waiver for the current year, measures to promote community service jobs will stay in place and every effort will be made to meet or exceed the seven percent requirement.