



NATIONAL SCIENCE FOUNDATION
INDUSTRY/UNIVERSITY COOPERATIVE RESEARCH CENTERS

FINAL Report

2022-2023 STRUCTURAL INFORMATION¹

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VENTUREWELL

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¹**NOTE:** FY2022-2023 data collected from 74/75 Center Director Surveys (100% response rate)

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IUCRC Structural Data Report – FY2023

Table 1: FY2023 General Center Information (Sorted by Acronym)**

Year Started = The year NSF gave the Center the operating grant under which it was originally established as an IUCRC

Center	Acronym	Year Started	University Name (Site Director)	Partner University 1 (Site Director)	Partner University 2 (Site Director)	Partner University 3 (Site Director)	Partner University 4 (Site Director)
Advanced Mammalian Biomaterial Manufacturing Innovation Center	AMBIC	2016	Johns Hopkins University (Bettenbaugh)	Clemson University (Harcum)	University of Delaware (Lee)	University of Massachusetts-Lowell (Yoon)	University of Maryland-College Park (Bentley)
Alternative Sustainable and Intelligent Computing	ASIC	2018	Duke University (Chen)	Syracuse University (Qiu)	University of Notre Dame (Shi)		
Atomically Thin Multifunctional Coatings	ATOMIC	2015	Pennsylvania State University (Terrones)	Rice University (Lou)	Boise State University (Estrada)		
Building Energy Smart Technologies	BEST	2021	University of Colorado at Boulder (Karti)	CUNY City College (Mohamed)			
Building Reliable Advances and Innovation in Neurotechnology	BRAIN	2017	University of Houston (Contreras-Vidal)	Arizona State University (Santello)			
Broadband Wireless Access and Applications	BWAC	2013	University of Arizona (Krunz)	North Carolina State University at Raleigh (Guvenc)	University of Mississippi (Viswanathan)	Catholic University of America (Liu)	
Stream Health in Place	C2SHIP	2021	University of Arizona (Roveda)	Baylor College of Medicine (Najafi)	University of Southern California (Armstrong)	California Institute of Technology (Daraio)	
Autonomous Air Mobility and Sensing	CAAMS	2022	University of Colorado at Boulder (Ahmed)	Brigham Young University (Beard)	Pennsylvania State University (Langelaan)	University of Michigan-Ann Arbor (Panagou)	Texas A & M Engineering Experiment Station (Valasek)
Cloud & Autonomic Computing	CAC	2008	Texas Tech University (Chen)	University of Arizona (Akoglu)			
Advanced Design and Manufacturing of Integrated Microfluidics	CADMIM	2014	University of California-Irvine (Lee)	University of Illinois at Chicago (Papautsky)			
Advanced Electronics through Machine Learning	CAEML	2016	University of Illinois at Urbana-Champaign (Rosenbaum)	North Carolina State University at Raleigh (Franzon)	Georgia Institute of Technology (Swaminathan)		
Advanced Forestry Systems	CAFS	2007	University of Maine (Weiskittel)	University of Washington-Seattle Campus (Turnblom)	University of Idaho (Nelson)	North Carolina State University at Raleigh (Cook)	Purdue University (Jacobs)
Advanced Knowledge Enablement	CAKE	2008	Florida Atlantic University (Furht)				
Arthropod Management Technologies	CAMTech	2013	University of Florida (Bonning)	University of Kentucky (Palli)			
Advanced Non-Ferrous Structural Alloys	CANFSA	2011	Colorado School of Mines (Clarke, Kaufman)	Iowa State University (Collins)			

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Center	Acronym	Year Started	University Name (Site Director)	Partner University 1 (Site Director)	Partner University 2 (Site Director)	Partner University 3 (Site Director)	Partner University 4 (Site Director)
Advanced Research in Drying	CARD	2016	Worcester Polytechnic Institute (Yagoobi)	University of Illinois at Urbana-Champaign (Lee)			
Advanced Research in Forensic Sciences	CARFS	2017	Florida International University (Cai)	University of South Alabama (Chambers)			
Accelerated Real Time Analytics	CARTA	2018	University of Maryland-Baltimore County (Joshi)	Rutgers University-New Brunswick (Metaxas)	North Carolina State University at Raleigh (Chirkova)	University of Miami (Ogihara)	
Advance the Science of Exploration to Reclamation in Mining	CASERM	2018	Colorado School of Mines (Monecke)	Virginia Polytechnic Institute and State University (Westman)			
Bioplastics and Biocomposites	CB2	2014	North Dakota State University (Webster)	Washington State University (Englund)	Iowa State University (Cochran)	University of Georgia (Locklin)	
Big Learning	CBL	2018	University of Florida (Harley)	University of Missouri-Kansas City (Li)	University of Oregon (Nguyen)		
Bioanalytic Metrology	CBM	2019	University of Notre Dame (Bohn)	Indiana University-Bloomington (Jacobson)	Purdue University (Simpson)		
Cybersecurity Analytics and Automation	CCAA	2013	George Mason University (Jajodia)	University of North Carolina at Charlotte (Lipford)	Colorado State University (Ray)		
Computational Biotechnology and Genomic Medicine	CCBGM	2016	University of Illinois at Urbana-Champaign (Iyer)	Mayo Clinic Rochester (Wang)			
Disruptive Musculoskeletal Innovations	CDMI	2014	University of California-San Francisco (Lotz)	University of Toledo (Goel)	Ohio State University (Marras)		
Dielectrics and Piezoelectrics	CDP	2014	North Carolina State University at Raleigh (Parsons)	Pennsylvania State University (Troler-McKinstry)			
Freeform Optics	CeFO	2013	University of Rochester (Rolland)	University of North Carolina at Charlotte (Suleski)			
Energy Harvesting Materials and Systems	CEHMS	2010	Virginia Polytechnic Institute and State University (Zou)	Columbia University in the City of New York (Yin)	Pennsylvania State University (Rahn)		
Environmental Sustainability through Insect Farming	CEIF	2021	Texas A & M University (Tomberlin)	Indiana University (IUB & IUPUI) (Picard)	Mississippi State University (Jordan)		
Electromagnetic Compatibility	CEMC	2009	Missouri University of Science and Technology (Beetner)	University of Houston (Chen)			
Tire Research	CenTiRe	2012	Virginia Polytechnic Institute and State University (Taheri)	University of Akron (Choi)			
Solid-State Electric Power Storage	CEPS	2021	South Dakota School of Mines and Technology (Smirnova)	Syracuse University (Qiao)	Northeastern University (Mukerjee)		

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Center	Acronym	Year Started	University Name (Site Director)	Partner University 1 (Site Director)	Partner University 2 (Site Director)	Partner University 3 (Site Director)	Partner University 4 (Site Director)
Rational Catalyst Synthesis	CeRCaS	2015	University of South Carolina-Columbia (Regalbuto)	Virginia Commonwealth University (Gupton)	University of California-Davis (Gates)		
Metamaterials	CfM	2011	University of North Carolina at Charlotte (Aggarwal)				
Geomechanics and Mitigation of Geohazards	CGMG	2018	California Institute of Technology (Avouac)				
High-Frequency Electronics and Circuits for Communication Systems	CHECCS	2021	University of Arkansas (El-Ghazaly)	The University of Tennessee (Fathy)	Florida International University (Volakis)		
Hardware and Embedded Systems Security and Trust	CHEST	2019	University of Cincinnati (Emmert)	Northeastern University (Fei)	University of California-Davis (Homayoun)	University of Connecticut (Chandy)	The University of Texas at Dallas (Makris)
Composite and Hybrid Materials Interfacing	CHMI	2021	Georgia Institute of Technology (Zhang)	Oakland University (Nassar)	The University of Tennessee (Vaidya)		
Integration of Composites into Infrastructure	CICI	2009	West Virginia University (GangaRao)	North Carolina State University at Raleigh (Seracino)	University of Miami (Nanni)	Texas A & M Engineering Experiment Station (Puppala)	
Integrated Material Science and Engineering of Pharmaceutical Products	CIMSEPP	2022	New Jersey Institute of Technology (Dave)	University of Minnesota-Twin Cities (Sun)			
Innovations in Structural Integrity Assurance	CISIA	2021	Louisiana State University and Agricultural & Mechanical College (Khonsari)	Louisiana Tech University (Matthews)			
Identification Technology Research	CITer	2001	Clarkson University (Schuckers)	West Virginia University (Valenti)	University at Buffalo (Govindaraju)	Michigan State University (Ross)	
Infrastructure Trustworthiness in Energy Systems	CITES	2021	University of Illinois at Urbana-Champaign (Nicol)	Florida International University (Mohammed)	University of Arkansas (Li)		
Quantum Technologies	CQT	2022	Purdue University (Kais)	Indiana University (IUB & IUPUI) (Ortiz)	University of Notre Dame (Kogge)		
Resource Recovery and Recycling	CR3	2010	Worcester Polytechnic Institute (Mishra)	Colorado School of Mines (Anderson)			
Research toward Advancing Financial Technologies	CRAFT	2021	Stevens Institute of Technology (Yang)	Rensselaer Polytechnic Institute (Gupta)			
Research in Systems and Storage	CRSS	2013	University of California-Santa Cruz (Long)				
Visual and Decision Informatics	CVDI	2012	University of Louisiana at Lafayette (Raghavan)	Stony Brook University (Kaufman)	University of North Carolina at Charlotte (Dou)		
Data-Driven Drug Development and Treatment Assessment	DATA	2022	University of Michigan-Ann Arbor (Najarian)				
Electronic-Photonic Integrated Circuits for Aerospace	EPICA	2011	Georgia Institute of Technology (Ralph)	University of Central Florida (Delfyett)	Vanderbilt University (Reed)		

(continued)

Center	Acronym	Year Started	University Name (Site Director)	Partner University 1 (Site Director)	Partner University 2 (Site Director)	Partner University 3 (Site Director)	Partner University 4 (Site Director)
Energy-Smart Electronic Systems	ES2	2011	Binghamton University, SUNY (Ghose)	Villanova University (Ortega)	The University of Texas at Arlington (Agonafer)		
Efficient Vehicles and Sustainable Transportation Systems	EV-STIS	2016	Arizona State University (Yu)	University of Louisville (Park)	The University of Alabama (Hong)	The University of Texas at Austin (Matthews)	
Grid-Connected Advanced Power Electronic Systems	GRAPES	2009	University of Arkansas (Zhao)	University of Wisconsin-Milwaukee (Cuzner)			
Novel High-Voltage/Temperature Materials and Structures	HVT	2014	University of Denver (Kumosa)	University of Connecticut (Cao)			
Manufacturing and Materials Joining Innovation Center	Ma2JIC	2010	Ohio State University (Ramirez)	Colorado School of Mines (Yu)	The University of Tennessee (Rawn)	Pennsylvania State University (Palmer)	
Membrane Applications, Science, and Technology	MAST	2010	University of Arkansas (Wickramasinghe)	University of Colorado at Boulder (Ding)	New Jersey Institute of Technology (Sirkar)	Pennsylvania State University (Zydney)	
Materials Data Science for Reliability and Degradation	MDS-Rely	2021	Case Western Reserve University (Bruckman)	University of Pittsburgh-Pittsburgh Campus (Leu)			
Multi-functional Integrated System Technology	MIST	2014	University of Florida (Nishida)	University of Central Florida (Yuan)	University of Virginia (Ghosh)		
Medical Innovations in Extended Reality	MIXR	2022	University of Maryland-College Park (Varshney)	University of Maryland-Baltimore (Murthi)	University of Michigan-Ann Arbor (Reddy)		
High Pressure Plasma Energy, Agriculture, and Biomedical Technologies	PEAB	2018	Drexel University (Fridman)	George Washington University (Keidar)			
Power Management Integration	PMIC	2018	Dartmouth College (Sullivan)	University of California-San Diego (Mercier)			
Pervasive Personalized Intelligence	PPI	2020	University of Colorado at Boulder (Dig)	Oregon State University (Wong)			
Robots and Sensors for the Human Well-being	ROSE-HUB	2014	University of Minnesota-Twin Cities (Morellas)	University of Pennsylvania (Hsieh)	Clemson University (Krovi)	Worcester Polytechnic Institute (Xiao)	
Science of Heterogeneous Additive Printing of 3D Materials	SHAP3D	2018	University of Massachusetts-Lowell (Mead)	University of Connecticut (Ma)	Georgia Institute of Technology (Qi)		
Space, High-Performance, and Resilient Computing	SHREC	2017	University of Pittsburgh-Pittsburgh Campus (George)	University of Florida (Lam)	Brigham Young University (Wirthlin)	Virginia Polytechnic Institute and State University (Feng)	
Science, Management, Application/s, Regulation, and Training	SMART	2021	Georgetown University (Frieder)	University of Notre Dame (Nabrzyski)			
Solar Powered Future	SPF2050	2021	The University of Texas at Austin (Korgel)	Colorado State University (Sampath)	Texas A & M University (Balog)		
Spatiotemporal Thinking, Computing and Application	STCA	2013	George Mason University (Yang)	Harvard University (Subramanian)			
Smart Vehicle Concepts	SVC	2007	Ohio State University (Dapino)				

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Center	Acronym	Year Started	University Name (Site Director)	Partner University 1 (Site Director)	Partner University 2 (Site Director)	Partner University 3 (Site Director)	Partner University 4 (Site Director)
Water Equipment and Policy	WEP	2010	University of Wisconsin-Milwaukee (Liao)	Marquette University (Zitomer)			
Wheat Genetics	WGRC	2013	Kansas State University (Akhunov)				
Wind Hazard and Infrastructure Performance	WHIP	2019	Texas Tech University (Zuo)	Florida International University (Zisis)			
Wind Energy Science, Technology and Research	WindSTAR	2014	University of Massachusetts-Lowell (Niezrecki)	The University of Texas at Dallas (Rotea)			
Wildfire Interdisciplinary Research Center	WIRC	2021	San Jose State University (Clements)				

**Blank rows in subsequent tables indicate that data were not provided by the Center.

International site data not included in this report unless otherwise footnoted. See Table 10 for International Sites

a) Additional universities for Advanced Forestry Systems include Oregon State University (Gonzalez-Benecke) and University of Georgia (Montes).

b) Additional universities for Hardware Embedded Systems Security include University of Virginia (Lambert).

c) Additional universities for Center for Autonomous Air Mobility and Sensing include Virginia Polytechnic and State University (Kochersberger).

- CAC did not respond to requests for data and is omitted from subsequent tables.

Table 2: FY2023 Operating Budget and Total Funding

Program Income = Funding provided to the Center by the following sources: Member Fees and Additional Industry.

NSF/IUCRC = Funding provided by the IUCRC program, including operating grant, supplements, and evaluator support.

Member Fees = Funding collected by a Center from membership fees, including Military Interdepartmental Purchase Requests (MIPR) covering membership support.

Additional Industry = Additional member funding (e.g., enhancements, donations, etc.) which is applied to the Center as a whole (e.g., income that results in outcomes shared equally by all Center members).

Other NSF = Funding for the Center provided by other NSF groups or divisions.

State = Funding provided by state government and/or an agency or program funded by state government.

Other Federal = Funding for the Center provided by other Federal funding sources, but does not include funding from NSF.

Non-Federal = Funding for the Center provided by other non-Federal funding sources, foundations, etc.

Center Acronym	Program Income + NSF/IUCRC	NSF / IUCRC	Member Fees	Additional Industry	Other NSF	State	Other Federal	Non-Federal
AMBIC	\$2,730,000	\$ 750,000	\$1,980,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
ASIC	\$1,109,914	\$ 450,000	\$ 659,914	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
ATOMIC	\$ 510,240	\$ 60,240	\$ 450,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
BEST	\$ 631,000	\$ 316,000	\$ 315,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
BRAIN	\$ 661,374	\$ 261,374	\$ 400,000	\$ 0	\$ 238,783	\$ 0	\$ 153,627	\$ 0
BWAC	\$1,140,000	\$ 410,000	\$ 730,000	\$ 0	\$ 0	\$ 62,500	\$ 0	\$ 0
C2SHIP	\$1,335,000	\$ 700,000	\$ 625,000	\$ 10,000	\$ 0	\$250,000	\$ 800,000	\$ 0
CAAMS	\$1,783,908	\$ 998,000	\$ 785,908	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
CADMIM	\$ 762,000	\$ 367,000	\$ 320,000	\$ 75,000	\$ 0	\$ 0	\$ 0	\$ 0
CAEML	\$ 100,000	\$ 100,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
CAFS	\$3,548,843	\$ 700,000	\$2,848,843	\$ 0	\$ 0	\$ 0	\$ 25,000	\$ 0
CAKE	\$ 450,000	\$ 0	\$ 450,000	\$ 0	\$ 480,000	\$ 0	\$ 90,000	\$ 0
CAMTech	\$ 905,000	\$ 270,000	\$ 635,000	\$ 0	\$ 0	\$ 47,500	\$ 0	\$ 0
CANFSA	\$ 816,895	\$ 345,895	\$ 471,000	\$ 0	\$ 0	\$ 0	\$1,436,232	\$155,298
CARD	\$ 656,000	\$ 256,000	\$ 400,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
CARFS	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
CARTA	\$1,336,129	\$ 600,000	\$ 736,129	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
CASERM	\$2,076,292	\$ 729,265	\$ 971,739	\$375,288	\$ 0	\$ 0	\$ 565,094	\$ 0
CB2	\$1,271,481	\$ 466,481	\$ 805,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
CBL	\$ 400,000	\$ 150,000	\$ 250,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
CBM	\$1,126,000	\$ 450,000	\$ 650,000	\$ 26,000	\$ 0	\$ 0	\$ 0	\$ 0
CCAA	\$ 728,158	\$ 328,164	\$ 399,994	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
CCBGM	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
CDMI	\$ 860,000	\$ 300,000	\$ 560,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
CDP	\$1,043,960	\$ 144,320	\$ 899,640	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
CeFO	\$ 855,000	\$ 150,000	\$ 705,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
CEHMS	\$ 640,000	\$ 0	\$ 640,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0

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Center Acronym	Program Income + NSF/IUCRC	NSF / IUCRC	Member Fees	Additional Industry	Other NSF	State	Other Federal	Non-Federal
CEIF	\$ 567,133	\$ 109,133	\$ 458,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
CEMC	\$2,237,500	\$ 100,000	\$2,067,500	\$ 70,000	\$ 0	\$ 0	\$ 70,000	\$ 0
CenTiRe	\$ 720,000	\$ 100,000	\$ 620,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
CEPS	\$ 554,992	\$ 129,992	\$ 425,000	\$ 0	\$ 0	\$900,000	\$ 0	\$ 0
CeRCaS	\$ 715,000	\$ 100,000	\$ 615,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
CfM	\$ 415,898	\$ 50,000	\$ 295,000	\$ 70,898	\$ 0	\$ 0	\$ 160,068	\$ 0
CGMG^^	\$ 826,624	\$ 205,000	\$ 375,000	\$246,624	\$ 0	\$ 0	\$ 0	\$ 0
CHECCS	\$ 550,000	\$ 250,000	\$ 300,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
CHEST	\$2,013,313	\$1,088,313	\$ 925,000	\$ 0	\$ 0	\$ 0	\$ 732,292	\$ 0
CHMI	\$ 855,000	\$ 450,000	\$ 405,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
CICI	\$1,206,030	\$ 118,000	\$1,088,030	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
CIMSEPP	\$ 850,000	\$ 300,000	\$ 550,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
CISIA	\$ 466,000	\$ 66,000	\$ 400,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
CITer^^	\$1,027,285	\$ 116,000	\$ 911,285	\$ 0	\$5,758,333	\$ 0	\$ 992,563	\$155,606
CITES	\$ 675,000	\$ 450,000	\$ 225,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
CQT	\$ 950,000	\$ 450,000	\$ 500,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
CR3	\$ 703,000	\$ 133,000	\$ 570,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
CRAFT	\$ 704,980	\$ 300,000	\$ 404,980	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
CRSS	\$ 515,000	\$ 100,000	\$ 415,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
CVDI	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
DATA	\$ 330,000	\$ 150,000	\$ 180,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
EPICA	\$ 860,000	\$ 200,000	\$ 660,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
ES2^^	\$1,346,260	\$ 150,000	\$ 871,260	\$325,000	\$ 0	\$ 0	\$ 0	\$ 0
EV-STs^^	\$ 500,000	\$ 400,000	\$ 100,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
GRAPES	\$ 733,988	\$ 223,988	\$ 510,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
HVT^	\$ 120,000	\$ 0	\$ 120,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
Ma2JIC	\$1,945,354	\$ 100,000	\$1,845,354	\$ 0	\$ 272,564	\$ 0	\$ 0	\$ 0
MAST^^	\$1,060,000	\$ 100,000	\$ 960,000	\$ 0	\$ 183,502	\$ 0	\$ 0	\$ 0
MDS-Rely	\$ 525,000	\$ 300,000	\$ 225,000	\$ 0	\$ 19,200	\$ 0	\$ 0	\$ 0
MIST	\$1,022,382	\$ 397,382	\$ 625,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
MIXR	\$ 650,000	\$ 450,000	\$ 200,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
PEAB^^	\$ 700,000	\$ 300,000	\$ 400,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
PMIC^^	\$ 430,000	\$ 55,000	\$ 375,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
PPI	\$ 525,000	\$ 300,000	\$ 225,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
ROSE-HUB	\$1,067,000	\$ 455,000	\$ 612,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
SCEMFIS	\$ 568,086	\$ 143,086	\$ 425,000	\$ 0	\$ 0	\$ 0	\$ 0	\$375,788
SHAP3D^^	\$1,218,108	\$ 673,108	\$ 545,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0

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Center Acronym	Program Income + NSF/IUCRC	NSF / IUCRC	Member Fees	Additional Industry	Other NSF	State	Other Federal	Non-Federal
SHREC [^]	\$2,503,923	\$ 0	\$2,443,923	\$ 60,000	\$ 0	\$ 0	\$ 0	\$ 0
SMART	\$ 508,033	\$ 163,033	\$ 325,000	\$ 20,000	\$ 0	\$ 0	\$ 0	\$ 0
SPF2050	\$ 818,500	\$ 181,000	\$ 637,500	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
STCA	\$ 771,978	\$ 237,000	\$ 534,978	\$ 0	\$ 700,000	\$ 0	\$ 55,000	\$ 0
SVC [^]	\$ 780,600	\$ 0	\$ 762,600	\$ 18,000	\$ 0	\$ 0	\$ 182,215	\$ 0
WEP	\$ 537,385	\$ 37,385	\$ 500,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
WGRC ^{^^}	\$ 550,000	\$ 100,000	\$ 450,000	\$ 0	\$ 0	\$ 0	\$1,750,000	\$ 0
WHIP	\$ 600,000	\$ 300,000	\$ 300,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
WindSTAR	\$ 949,941	\$ 221,003	\$ 728,938	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
WIRC	\$ 611,000	\$ 161,000	\$ 450,000	\$ 0	\$ 161,000	\$ 0	\$ 66,087	\$ 0
Grand Mean	\$895,439	\$266,435	\$611,480	\$17,524	\$105,586	\$17,027	\$95,651	\$9,280
Grand Sum	\$66,262,487	\$19,716,162	\$45,249,515	\$1,296,810	\$7,813,382	\$1,260,000	\$7,078,178	\$686,692

* Report sorted Alphabetically by Center Acronym

[^] Denotes centers on no cost extension, they did not receive any additional NSF IUCRC funding during the reporting period.

^{^^} Denotes centers on a no cost extension that have carried forward funds from the previous year. They did not receive any additional NSF IUCRC funding during the reporting period

Table 3: FY2023 Capital and In-Kind Support

Total Capital In-Kind = Funding for the Center provided by other non-Federal funding sources, foundations, etc.

Admin % = Estimated percentage of the primary site's direct operating budget allocated to administration (e.g., administrative salaries, travel, telephone).

Center Acronym	Program Income + NSF/IUCRC	Capital and In-Kind Support						Admin %
		Total Capital In-Kind	Equipment	Facilities	Personnel	Software	Other Support	
AMBIC	\$2,730,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	12%
ASIC	\$1,109,914	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	24%
ATOMIC	\$ 510,240	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	44%
BEST	\$ 631,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	10%
BRAIN	\$ 661,374	\$ 50,000	\$ 0	\$ 25,000	\$ 0	\$ 25,000	\$ 0	11%
BWAC	\$1,140,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	21%
C2SHIP	\$1,335,000	\$ 950,000	\$ 100,000	\$ 0	\$400,000	\$ 250,000	\$200,000	8%
CAAMS	\$1,783,908	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	50%
CADMIM	\$ 762,000	\$ 60,000	\$ 0	\$ 0	\$ 0	\$ 60,000	\$ 0	33%
CAEML	\$ 100,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	40%
CAFS	\$3,548,843	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	18%
CAKE	\$ 450,000	\$ 50,000	\$ 0	\$ 0	\$ 40,000	\$ 10,000	\$ 0	0%
CAMTech	\$ 905,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	12%
CANFSA	\$ 816,895	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	2%
CARD	\$ 656,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	30%
CARFS	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	0%
CARTA	\$1,336,129	\$ 50,000	\$ 0	\$ 0	\$ 50,000	\$ 0	\$ 0	32%
CASERM	\$2,076,292	\$ 1,100,000	\$1,100,000	\$ 0	\$ 0	\$ 0	\$ 0	8%
CB2	\$1,271,481	\$10,668,417	\$5,282,217	\$5,149,575	\$236,625	\$ 0	\$ 0	32%
CBL	\$ 400,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	76%
CBM	\$1,126,000	\$ 775,000	\$ 775,000	\$ 0	\$ 0	\$ 0	\$ 0	35%
CCAA	\$ 728,158	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	33%
CCBGM	\$ 0	\$ 35,000	\$ 0	\$ 0	\$ 35,000	\$ 0	\$ 0	0%
CDMI	\$ 860,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	34%
CDP	\$1,043,960	\$ 24,000	\$ 24,000	\$ 0	\$ 0	\$ 0	\$ 0	17%
CeFO	\$ 855,000	\$ 46,000	\$ 0	\$ 46,000	\$ 0	\$ 0	\$ 0	27%
CEHMS	\$ 640,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	8%
CEIF	\$ 567,133	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	35%
CEMC	\$2,237,500	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	4%
CenTiRe	\$ 720,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	15%
CEPS	\$ 554,992	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	14%
CeRCaS	\$ 715,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	19%
CfM	\$ 415,898	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	2%

(continued)

Center Acronym	Program Income + NSF/IUCRC	Total Capital In-Kind	Equipment	Facilities	Personnel	Software	Other Support	Admin %
CGMG	\$ 826,624	\$ 500,000	\$ 400,000	\$ 0	\$ 0	\$ 100,000	\$ 0	10%
CHECCS	\$ 550,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	20%
CHEST	\$2,013,313	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	21%
CHMI	\$ 855,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	44%
CICI	\$1,206,030	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	8%
CIMSEPP	\$ 850,000	\$ 100,000	\$ 100,000	\$ 0	\$ 0	\$ 0	\$ 0	35%
CISIA	\$ 466,000	\$ 100,000	\$ 100,000	\$ 0	\$ 0	\$ 0	\$ 0	64%
CITer	\$1,027,285	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	5%
CITES	\$ 675,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	57%
CQT	\$ 950,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	31%
CR3	\$ 703,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	6%
CRAFT	\$ 704,980	\$ 488,447	\$ 0	\$ 131,000	\$287,273	\$ 459	\$ 69,715	46%
CRSS	\$ 515,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	9%
CVDI	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	0%
DATA	\$ 330,000	\$ 84,000	\$ 0	\$ 0	\$ 84,000	\$ 0	\$ 0	45%
EPICA	\$ 860,000	\$ 2,385,743	\$1,385,743	\$ 0	\$ 0	\$1,000,000	\$ 0	38%
ES2	\$1,346,260	\$ 1,855,000	\$1,150,000	\$ 570,000	\$135,000	\$ 0	\$ 0	5%
EV-ST5	\$ 500,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	28%
GRAPES	\$ 733,988	\$ 31,250	\$ 17,250	\$ 0	\$ 5,000	\$ 0	\$ 9,000	18%
HVT	\$ 120,000	\$ 10,000	\$ 0	\$ 0	\$ 10,000	\$ 0	\$ 0	5%
Ma2JIC	\$1,945,354	\$ 916,127	\$ 95,000	\$ 0	\$ 0	\$ 546,127	\$275,000	11%
MAST	\$1,060,000	\$ 260,000	\$ 260,000	\$ 0	\$ 0	\$ 0	\$ 0	11%
MDS-Rely	\$ 525,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	60%
MIST	\$1,022,382	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	11%
MIXR	\$ 650,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	69%
PEAB	\$ 700,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	25%
PMIC	\$ 430,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	61%
PPI	\$ 525,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	18%
ROSE-HUB	\$1,067,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	9%
SCEMFIS	\$ 568,086	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	26%
SHAP3D	\$1,218,108	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	17%
SHREC	\$2,503,923	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	8%
SMART	\$ 508,033	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	35%
SPF2050	\$ 818,500	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	1%
STCA	\$ 771,978	\$ 260,000	\$ 110,000	\$ 50,000	\$ 0	\$ 100,000	\$ 0	13%
SVC	\$ 780,600	\$ 60,000	\$ 0	\$ 0	\$ 0	\$ 60,000	\$ 0	7%
WEP	\$ 537,385	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	5%

(continued)

Center Acronym	Program Income + NSF/IUCRC	Total Capital In-Kind	Equipment	Facilities	Personnel	Software	Other Support	Admin %
WGRC	\$ 550,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	5%
WHIP	\$ 600,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	37%
WindSTAR	\$ 949,941	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	16%
WIRC	\$ 611,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	6%
Grand Mean	\$883,500	\$278,120	\$145,323	\$79,621	\$17,105	\$28,688	\$7,383	23%
Grand Sum	\$66,262,487	\$20,858,984	\$10,899,210	\$5,971,575	\$1,282,898	\$2,151,586	\$553,715	N/A%

Table 4: FY2023 Industry Membership Descriptors*FY2023 Memberships*

Current = Number of memberships this year.

Starting = Number of memberships in the previous reporting year.

New = Count of new memberships added this year.

Terminated = Count of terminated memberships this year.

Lifetime Memberships

Starting = Sum of all original memberships.

New = Sum of all original memberships plus all reported new memberships.

Terminated = Sum of all terminated memberships.

Annual Fees = Annual membership fees for respective Center membership types.

Center Acronym	FY2023 Memberships				Lifetime Memberships			Annual Fees		
	Current	Starting	New	Terminated	Starting	New	Terminated	Primary	Secondary	Tertiary
AMBIC	33	30	4	1	16	35	3	\$ 60,000		
ASIC	12	11	3	2	14	22	10	\$ 50,000		
ATOMIC	10	12	0	2	12	23	13	\$ 45,000	\$ 22,500	
BEST	10	11	1	2	11	12	2	\$ 50,000	\$ 25,000	\$ 5,000
BRAIN	12	8	7	2	11	24	14	\$ 50,000	\$ 25,000	
BWAC	15	13	2	4	16	47	35	\$ 50,000	\$ 25,000	
C2SHIP	18	14	5	1	14	19	1	\$ 50,000	\$ 25,000	
CAAMS	26	14	26	0	26	26	0	\$ 50,000		
CADMIM	11	10	1	0	13	25	14	\$ 50,000		
CAEML	12	9	5	2	12	22	9	\$ 60,000		
CAFS	102	103	0	1	68	291	188	\$ 25,000	\$ 12,500	
CAKE	20	43	1	25	10	101	85	\$ 50,000	\$ 25,000	\$ 5,000
CAMTech	13	12	1	0	7	17	4	\$ 55,000	\$ 30,000	
CANFSA	9	15	0	6	9	27	18	\$ 54,000	\$ 18,000	
CARD	12	12	3	3	9	22	9	\$ 50,000	\$ 25,000	\$ 5,000
CARFS	0	8	0	8	17	26	28	\$ 25,000	\$ 5,000	
CARTA	15	19	0	4	11	17	10	\$ 50,000	\$ 25,000	
CASERM	28	23	7	2	7	33	3	\$ 50,000	\$ 25,000	
CB2	27	28	2	3	31	63	36	\$ 35,000	\$ 17,500	
CBL	5	12	0	8	26	38	33	\$ 50,000	\$ 25,000	
CBM	13	12	1	0	12	15	2	\$ 50,000	\$ 25,000	
CCAA	8	8	0	0	7	21	14	\$ 50,000		
CCBGM	3	3	0	0	7	10	7	\$ 50,000		
CDMI	12	10	3	1	7	29	27	\$ 40,000		
CDP	24	26	0	2	24	38	15	\$ 39,690	\$ 13,230	
CeFO	16	16	3	3	7	42	25	\$ 60,000	\$ 30,000	\$ 15,000
CEHMS	16	16	0	0	11	45	29	\$ 40,000	\$ 20,000	
CEIF	16	15	6	4	15	21	4	\$ 50,000	\$ 25,000	
CEMC	31	30	4	3	15	116	75	\$ 70,000	\$ 35,000	

(continued)

Center Acronym	Current	Starting	New	Terminated	Starting	New	Terminated	Primary	Secondary	Tertiary
CenTiRe	21	19	3	1	18	28	17	\$ 40,000	\$ 20,000	
CEPS	8	11	0	3	11	0	3	\$ 50,000	\$ 25,000	
CeRCaS	17	12	3	1	7	25	12	\$ 50,000	\$ 25,000	
CfM	6	9	1	4	8	23	19	\$ 45,000	\$ 25,000	
CGMG	9	9	0	0	10	13	4	\$ 50,000	\$ 25,000	
CHECCS	8	10	1	2	10	11	2	\$ 50,000	\$ 25,000	\$ 10,000
CHEST	23	23	0	0	24	31	7	\$ 50,000	\$ 25,000	
CHMI	14	13	3	4	13	16	4	\$ 30,000	\$ 15,000	
CICI	41	41	0	0	15	106	68	\$ 30,000	\$ 15,000	\$ 5,000
CIMSEPP	13	13	13	0	13	13	0	\$ 50,000	\$ 25,000	
CISIA	8	8	0	0	8	8	0	\$ 50,000	\$ 25,000	
CITer	22	20	2	0	8	83	68	\$ 50,000	\$ 10,000	
CITES	6	8	0	2	8	8	2	\$ 50,000	\$ 25,000	
CQT	12	12	12	0	12	12	0	\$ 50,000	\$ 25,000	
CR3	15	13	3	1	14	53	38	\$ 40,000		
CRAFT	17	17	2	2	17	19	2	\$ 50,000	\$ 25,000	
CRSS	9	10	0	1	10	28	19	\$ 50,000	\$ 15,000	
CVDI	0	9	0	9	17	49	49	\$ 50,000	\$ 20,000	
DATA	10	10	10	0	10	10	0	\$ 40,000	\$ 20,000	
EPICA	16	13	5	2	13	18	2	\$ 60,000		
ES2	22	30	6	1	15	66	32	\$ 50,000	\$ 25,000	
EV-ST5	2	11	1	10	18	32	31	\$ 50,000	\$ 25,000	
GRAPES	21	19	1	0	17	50	30	\$ 40,000	\$ 5,000	
HVT	11	10	1	0	13	28	16	\$ 40,000	\$ 20,000	
Ma2JIC	36	47	0	14	25	105	77	\$ 55,000	\$ 27,500	
MAST	17	16	2	1	8	39	26	\$ 60,000	\$ 30,000	
MDS-Rely	9	7	2	0	7	9	0	\$ 50,000	\$ 25,000	
MIST	11	7	5	1	10	37	24	\$ 50,000	\$ 25,000	
MIXR	3	3	3	0	3	3	0	\$ 50,000	\$ 25,000	
PEAB	14	14	0	0	9	16	1	\$ 50,000		
PMIC	10	11	2	3	2	15	6	\$ 50,000	\$ 25,000	
PPI	4	5	0	1	7	5	1	\$ 75,000	\$ 37,500	
ROSE-HUB	11	11	0	0	15	48	33	\$ 35,000	\$ 10,000	
SCMFIS	14	14	0	0	9	17	4	\$ 50,000	\$ 25,000	
SHAP3D	15	13	4	2	10	23	8	\$ 50,000	\$ 15,000	\$ 5,000
SHREC	59	22	6	8	35	71	53	\$ 40,000		
SMART	7	7	0	2	7	7	2	\$ 50,000	\$ 25,000	
SPF2050	17	17	0	0	6	54	37	\$ 50,000	\$ 25,000	
STCA	8	9	0	1	10	42	30	\$ 50,000		
SVC	18	17	1	0	14	55	37	\$ 72,600	\$ 48,400	\$ 10,000
WEP	11	11	0	0	6	29	20	\$ 50,000	\$ 25,000	

(continued)

Center Acronym	Current	Starting	New	Terminated	Starting	New	Terminated	Primary	Secondary	Tertiary
WGRC	9	8	1	0	12	17	8	\$ 50,000	\$ 20,000	
WHIP	6	6	0	0	6	8	2	\$ 50,000		
WindSTAR	18	15	4	1	10	27	9	\$ 44,944	\$ 16,854	\$ 5,000
WIRC	9	12	0	3	12	12	3	\$ 50,000	\$ 25,000	
Grand Mean	16	16	2	2	13	35	21	48,733	22,900	7,222
Grand Sum	1,166	1,165	182	169	977	2,596	1,519	NA	NA	NA

Table 5: FY2023 Human Resources

Faculty Scientists = Center Director(s) and Faculty Researchers working on Center-funded projects.

Research Staff = Non-faculty researchers working on Center-funded projects.

Postdocs = Postdoctoral researchers working on Center-funded projects.

Admins = Staff who primarily work on Center administration.

Students = Students working on Center-funded projects.

Center Acronym	Researchers			Admins	Students		
	Faculty Scientists	Research Staff	Postdocs		PhD	Masters	Undergraduate
AMBIC	29	3	3	3	53	7	7
ASIC	19	0	2	1	17	2	0
ATOMIC	16	0	4	5	17	2	5
BEST	10	3	0	1	4	3	3
BRAIN	12	1	1	1	17	14	40
BWAC	22	1	2	2	18	4	0
C2SHIP	30	9	10	4	8	0	8
CAAMS	20	0	0	1	21	10	12
CADMIM	9	1	3	2	14	3	16
CAEML	11	0	1	3	9	5	3
CAFS	26	15	7	10	14	11	20
CAKE	9	0	1	0	4	4	2
CAMTech	24	4	18	2	3	1	12
CANFSA	9	1	5	1	16	13	6
CARD	13	0	0	2	11	1	2
CARFS	26	2	2	3	16	3	9
CARTA	28	2	2	5	23	9	5
CASERM	32	2	0	1	11	15	13
CB2	27	5	7	3	13	0	12
CBL	12	0	3	2	9	0	0
CBM	22	3	2	3	57	0	3
CCAA	17	1	1	1	11	13	7
CCBGM	36	4	3	2	10	0	2
CDMI	28	4	6	5	13	4	2
CDP	13	0	3	2	15	0	1
CeFO	14	2	0	3	27	2	9
CEHMS	17	2	8	3	7	9	6
CEIF	18	2	3	2	7	6	9
CEMC	8	4	3	1	28	6	9
CenTiRe	15	1	0	1	8	10	0
CEPS	17	2	3	1	13	4	12

(continued)

Center Acronym	Faculty Scientists	Research Staff	Postdocs	Admins	PhD	Masters	Undergraduate
CeRCaS	19	1	10	1	10	0	2
CfM	7	0	0	1	9	0	0
CGMG	8	1	11	1	12	0	3
CHECCS	29	0	0	7	17	2	7
CHEST	27	0	0	1	40	13	8
CHMI	17	1	0	4	14	2	6
CICI	16	6	3	1	12	8	12
CIMSEPP	9	1	1	1	8	3	8
CISIA	11	1	3	2	14	5	0
CITer	27	0	3	2	45	20	28
CITES	16	2	3	3	8	5	3
CQT	18	0	2	0	11	0	4
CR3	6	1	0	2	3	2	0
CRAFT	14	1	0	1	9	0	9
CRSS	9	0	0	3	16	0	2
CVDI	16	2	0	4	21	3	1
DATA	5	3	6	1	0	1	0
EPICA	11	1	0	1	11	0	1
ES2	12	0	2	1	24	4	6
EV-STIS	21	2	2	2	14	4	0
GRAPES	11	0	3	2	15	2	1
HVT	5	1	3	0	9	0	0
Ma2JIC	23	2	18	8	2	13	62
MAST	20	1	2	4	28	1	21
MDS-Rely	12	0	1	3	3	2	15
MIST	15	5	0	1	15	1	6
MIXR	7	0	1	2	0	0	0
PEAB	10	2	2	2	5	1	3
PMIC	7	0	1	1	12	0	0
PPI	6	0	0	3	8	6	1
ROSE-HUB	22	3	0	1	11	24	19
SCEMFIS	22	0	0	4	6	7	10
SHAP3D	24	0	6	5	20	3	1
SHREC	18	1	0	4	30	23	22
SMART	6	0	0	2	4	4	8
SPF2050	13	1	3	1	15	2	11
STCA	6	7	2	6	5	3	24
SVC	12	2	2	1	22	1	10

(continued)

Center Acronym	Faculty Scientists	Research Staff	Postdocs	Admins	PhD	Masters	Undergraduate
WEP	9	0	3	1	9	1	1
WGRC	12	2	4	1	6	0	10
WHIP	11	5	0	2	11	0	0
WindSTAR	17	0	0	5	25	11	1
WIRC	8	2	2	2	0	7	1
Grand Mean	16	2	3	2	14	5	8
Grand Sum	1183	131	202	176	1053	345	562

Table 6: FY2023 Center Director Descriptor

Time Allocation = Percentage allocation of the primary site director's full-time equivalent for budgetary purposes.

Center Acronym	Time Allocation				
	Center Administration	Other Administration	Research	Teaching	Other
AMBIC	20	0	50	30	0
ASIC	30	5	35	25	5
ATOMIC	10	10	40	20	20
BEST	30	5	30	30	5
BRAIN	25	25	30	10	10
BWAC	15	0	50	15	20
C2SHIP	40	10	40	0	10
CAAMS	5	5	30	40	20
CADMIM	10	25	40	20	5
CAEML	15	0	50	25	10
CAFS	25	25	20	20	10
CAKE	10	5	40	25	20
CAMTech	30	10	60	0	0
CANFSA	15	15	40	20	10
CARD	15	20	45	15	5
CARFS	10	30	20	20	20
CARTA	25	5	40	20	10
CASERM	25	10	40	25	0
CB2	10	23	32	22	13
CBL	8	0	42	40	10
CBM	10	10	55	15	10
CCAA	10	10	75	0	5
CCBGM	15	5	35	20	25
CDMI	5	25	40	20	10
CDP	15	15	50	18	2
CeFO	30	5	50	0	15
CEHMS	20	15	45	20	0
CEIF	60	5	15	10	10
CEMC	15	10	45	20	10
CenTiRe	15	10	55	20	0
CEPS	10	10	35	35	10
CeRCaS	30	10	30	20	10
CfM	10	30	35	15	10
CGMG	4	13	23	60	0
CHECCS	40	0	30	20	10

(continued)

Center Acronym	Center Administration	Other Administration	Reasearch	Teaching	Other
CHEST	10	5	50	25	10
CHMI	25	10	25	25	15
CICI	13	6	45	30	6
CIMSEPP	30	5	35	25	5
CISIA	20	20	60	0	0
CITer	25	0	40	25	10
CITES	3	87	10	0	0
CQT	8	5	50	30	7
CR3	15	15	40	20	10
CRAFT	30	10	0	20	40
CRSS	15	20	25	30	10
CVDI	20	10	35	20	15
DATA	15	1	79	3	2
EPICA	20	30	25	20	5
ES2	10	50	35	0	5
EV-ST5	15	5	50	25	5
GRAPES	15	35	30	10	10
HVT	10	5	40	45	0
Ma2JIC	15	20	45	15	5
MAST	10	5	50	30	5
MDS-Rely	15	10	35	35	5
MIST	8	77	5	5	5
MIXR	10	50	30	0	10
PEAB	10	10	40	40	0
PMIC	24	9	8	59	0
PPI	50	10	30	0	10
ROSE-HUB	15	15	60	0	10
SCMFIS	35	5	45	10	5
SHAP3D	15	27	20	30	8
SHREC	20	40	25	15	0
SMART	10	0	45	25	20
SPF2050	20	15	35	30	0
STCA	20	10	40	20	10
SVC	25	0	40	20	15
WEP	20	5	45	25	5
WGRC	10	10	60	10	10
WHIP	25	5	0	0	70
WindSTAR	15	25	35	15	10

(continued)

Center Acronym	Center Administration	Other Administration	Reasearch	Teaching	Other
WIRC	25	25	25	20	5
Grand Mean	18.24	15.24	37.52	20.16	9.31

* Numbers reported for ES2 correspond to the center director (Sammakia) rather than the primary site director (Ghose) at Binghamton University.

Table 7: FY2023 Center Outcomes

Students Receiving Degree = Number of Center trained Ph.D./M.D.'s, M.S.'s, and B.A./B.S.'s that received a degree during the reporting period.

Students Hired by Members = Number of Ph.D./M.D.'s, M.S.'s, and B.A./B.S.'s that were hired by industry and government members during the reporting period.

Publications = Publications in the open literature the Center researchers produced based on Center research, including publications reported that have a Center member as an author.

Presentations = Presentations made about Center projects.

Projects = Research projects funded by either: a) IAB member fees, b) NSF IUCRC support, or c) any other support that would not have been obtained without the existence of the Center AND the results of which are shared with ALL Center members.

Center Acronym	Students Receiving Degree			Students Hired by Members			Publications			Projects
	BS Grad	MS Grad	PhD Grad	BS Hired	MS Hired	PhD Hired	w/ Ctr Research	w/ IAB Members	Presentations	
AMBIC	1	4	11	0	1	5	13	0	20	30
ASIC	0	1	4	0	0	0	11	6	32	8
ATOMIC	0	2	6	0	0	0	10	0	39	8
BEST	0	2	0	1	1	0	3	2	3	6
BRAIN	3	0	2	0	0	1	2	2	11	7
BWAC	0	7	9	0	2	5	30	8	19	13
C2SHIP	0	0	3	0	0	0	8	2	29	12
CAAMS	3	0	3	0	0	0	0	0	0	13
CADMIM	15	4	11	0	0	0	13	0	40	14
CAEML	0	2	1	0	2	1	20	7	16	10
CAFS	7	9	3	7	4	3	46	3	74	21
CAKE	3	3	1	2	1	0	5	3	3	5
CAMTech	7	0	0	0	0	0	6	0	5	18
CANFSA	6	4	4	0	1	1	25	5	73	27
CARD	0	1	7	0	0	0	6	0	3	10
CARFS	5	2	5	0	0	2	10	2	62	10
CARTA	0	6	12	0	2	1	56	31	53	18
CASERM	5	3	0	0	0	0	34	0	42	16
CB2	7	1	4	4	0	2	11	2	20	11
CBL	0	0	1	0	0	1	29	15	25	7
CBM	3	0	11	0	0	1	24	5	46	25
CCAA	7	3	3	0	0	0	28	0	22	6
CCBGM	2	0	0	0	0	0	12	8	10	2
CDMI	0	1	0	0	0	0	0	0	7	25
CDP	0	1	2	0	0	0	29	6	67	14
CeFO	0	2	5	0	0	3	11	2	147	9
CEHMS	0	8	2	0	1	1	41	8	40	9
CEIF	1	0	0	0	0	0	1	1	4	8
CEMC	0	3	9	0	0	3	45	31	11	10
CenTiRe	1	0	3	0	0	1	5	1	4	11

(continued)

Center Acronym	BS Grad	MS Grad	PhD Grad	BS Hired	MS Hired	PhD Hired	w/ Ctr Research	w/ IAB Members	Presentations	Projects
CEPS	4	3	3	0	0	0	12	2	21	1
CeRCaS	2	0	5	1	0	3	6	3	25	10
CfM	0	0	1	0	0	1	4	0	6	9
CGMG	0	0	0	0	0	0	13	3	45	10
CHECCS	2	3	5	0	0	0	12	0	20	8
CHEST	2	9	9	1	3	1	29	3	40	24
CHMI	0	1	0	0	0	0	6	0	14	7
CICI	5	2	4	0	0	1	27	16	44	16
CIMSEPP	2	0	0	0	0	0	7	0	11	8
CISIA	0	1	2	0	0	0	4	0	4	6
CITer	9	10	11	0	0	0	32	3	53	8
CITES	1	0	1	0	0	0	10	0	3	5
CQT	0	0	0	0	0	0	0	0	0	7
CR3	0	1	3	0	0	0	14	0	46	8
CRAFT	7	0	0	0	0	0	16	0	67	11
CRSS	0	0	0	0	0	0	0	0	0	10
CVDI	1	2	3	0	0	0	113	0	0	0
DATA	0	0	0	0	0	0	0	0	1	4
EPICA	0	0	0	0	0	0	11	1	15	6
ES2	0	5	2	0	1	2	45	23	54	11
EV-ST5	1	3	3	0	0	0	12	4	11	2
GRAPES	0	3	5	1	0	3	30	7	63	16
HVT	0	0	3	0	0	0	28	1	9	8
Ma2JIC	18	10	6	0	1	5	10	0	23	29
MAST	0	1	7	0	0	1	26	4	31	21
MDS-Rely	0	1	0	0	0	0	2	1	10	6
MIST	2	1	1	0	0	2	3	3	4	15
MIXR	0	0	0	0	0	0	0	0	0	2
PEAB	0	1	2	0	0	0	7	1	5	5
PMIC	0	0	3	0	0	2	7	0	12	15
PPI	0	4	0	0	0	0	3	0	15	4
ROSE-HUB	14	13	0	1	13	0	10	1	15	2
SCEMFIS	3	4	2	0	0	0	4	0	21	30
SHAP3D	0	3	6	0	0	1	3	0	14	9
SHREC	7	17	8	1	2	7	21	4	37	5
SMART	2	2	0	1	0	0	6	1	21	10
SPF2050	6	2	7	1	0	3	7	1	15	15
STCA	5	2	1	2	2	2	25	11	29	9
SVC	2	0	4	0	0	1	51	2	45	16
WEP	1	1	2	0	1	0	2	0	3	9

(continued)

Center Acronym	BS Grad	MS Grad	PhD Grad	BS Hired	MS Hired	PhD Hired	w/ Ctr Research	w/ IAB Members	Presentations	Projects
WGRC	0	0	1	0	0	1	10	0	7	7
WHIP	0	0	5	0	0	1	7	7	10	6
WindSTAR	0	1	8	0	0	1	6	0	26	11
WIRC	0	0	0	3	0	0	10	0	8	8
Grand Sum	172	175	245	26	38	69	1185	252	1830	812
Grand Mean	2	2	3	0	1	1	16	3	25	11

Table 8: FY2023 Alumni Career Outcomes

Table 8a: Centers Reporting One or More Alumni Career Outcome Last Fiscal Year

Alumni Outcome	Number of Centers	Percent of Centers
Hired by Industry Members	34	45
Hired by Government Members	19	25
Hired by Non-Industry Members	50	67
Hired by Non-Member Governmental Agency	10	13
Faculty Positions	16	21
Postdoc Positions	21	28
Continuing Education	43	57

Table 8b: Total Number and Means of Alumni Career Outcomes Last Fiscal Year

Alumni Outcome	Total for All Centers	Mean for All Centers
Hired by Industry Members	110	1.47
Hired by Government Members	23	0.31
Hired by Non-Industry Members	236	3.15
Hired by Non-Member Governmental Agency	14	0.19
Faculty Positions	22	0.29
Postdoc Positions	35	0.47
Continuing Education	123	1.64

Table 9: Intellectual Property & Commercialization Events

Table 9a: Centers Reporting One or More Intellectual Property and Commercialization Event Last Fiscal Year

Intellectual Property Event	Number of Centers	Percent of Centers
Invention Disclosures	20	27
Patent Applications	28	37
Patents Granted/Derived	13	17
Licensing Agreements	7	9
Royalties Realized	1	1
Software copyrights	4	5
Spinoff Companies Formed	4	5

Table 9b: Total Number and Means of Intellectual Property and Commercialization Events Last Fiscal Year

Intellectual Property Event	Total for All Centers	Mean for All Centers
Invention Disclosures	50	0.67
Patent Applications	81	1.08
Patents Granted/Derived	27	0.36
Licensing Agreements	9	0.12
Royalties Realized	1	0.01
Software copyrights	7	0.09

Table 10: International Sites

Acronym	International Site Name	Country
BRAIN	Universidad Miguel Hernandez de Elche	Spain
BRAIN	Tecnologico de Monterrey	Mexico
CAC	University of Sonora	Mexico
CARTA	Tel Aviv University	Israel
CDP	University of Sheffield	United Kingdom
CITer	Idiap	Switzerland
CR3	KU Leuven	Belgium
CVDI	Tampere University	Finland
MAST	R & D Center for Membrane Research	Taiwan
Ma2JIC	University of Waterloo	Canada
PEAB	Plasma Bioscience Research Center (PBRC)	Korea

Appendix

NOTES AND SPECIAL CONSIDERATIONS

1. All averages and sums exclude missing data. With the exception of percentages, data from multi-university centers has been aggregated across universities; percentages represent averages for the reporting universities.
2. This report includes only data on Centers which were actively funded or under a no cost extension in the NSF IUCRC Program during FY2023.
3. Starting with FY2016 we are no longer capturing university contributions nor other cash support. Because we are no longer capturing these funding sources, the total funding for the center is not comparable to reports produced prior to FY2016.