



# OFFICE OF RESEARCH AND SPONSORED PROGRAMS

## *ANNUAL REPORT* *FISCAL YEAR 2017*

**C** THE UNIVERSITY OF TENNESSEE  
CHATTANOOGA



UTC is a comprehensive, community-engaged campus of the University of Tennessee System.

UTC is an EEO/AA/Titles VI & IX/Section 504/ADA/ADEA institution.  
PUB#: E042005-001-18

## FOREWORD FROM THE VICE CHANCELLOR FOR RESEARCH

I am pleased to present the Office of Research and Sponsored Programs' (ORSP) *Annual Report* for 2016-17, summarizing the outstanding research efforts of UTC's faculty and staff. These efforts translate into support for faculty and student excellence across all disciplines and have significant, positive impacts on our campus, the region, and even across the globe.

The 2016-17 year included many noteworthy accomplishments. Following up on Dr. Hope Klug's first-ever NSF CAREER award to UTC in 2016, Dr. Hong Qin brought another CAREER award to the institution, underscoring the impressive research capacity of UTC's early career scientists. Faculty in the College of Engineering and Computer Science showcased UTC's innovative research capacities in Urban Science, with Dr. Mina Sartipi and Dr. Dalei Wu each securing an award from US Ignite. A team of faculty including Dr. Ethan Carver, Dr. Michelle Deardorff, and Dr. Jennifer Boyd collaborated with UTK to attract scholarship funding for STEM students with a goal of broadening diversity. The College of Health, Education, and Professional Studies continues to be a leader in grant awards, attracting funds that support research, community outreach and service, and workforce development.

The FY17 Annual Report reflects both the diversity and commitment to excellence found among our faculty. The report also captures important information about UTC's investments in our faculty and staff. Since 2015, UTC has seen dramatic year-over-year increases in external funding activities: awards have increased nearly 27% and proposal dollars requested have grown by 85% over the last two fiscal years. In FY17, external awards are up by 13.5% compared to FY16 and proposal dollars requested have increased by nearly 60%. Through all of the excellent sponsored activities represented in this report, UTC has continued to have an impact both regionally and nationally in the areas of innovative education, research, and creative scholarship.

I hope you will join me in congratulating all of the awardees and accept my gratitude for the campus-wide efforts supporting sponsored programs. As we move into fiscal year 2018, the ORSP staff look forward to continuing to expand and extend the reach of their services to all of our faculty, staff, and students!

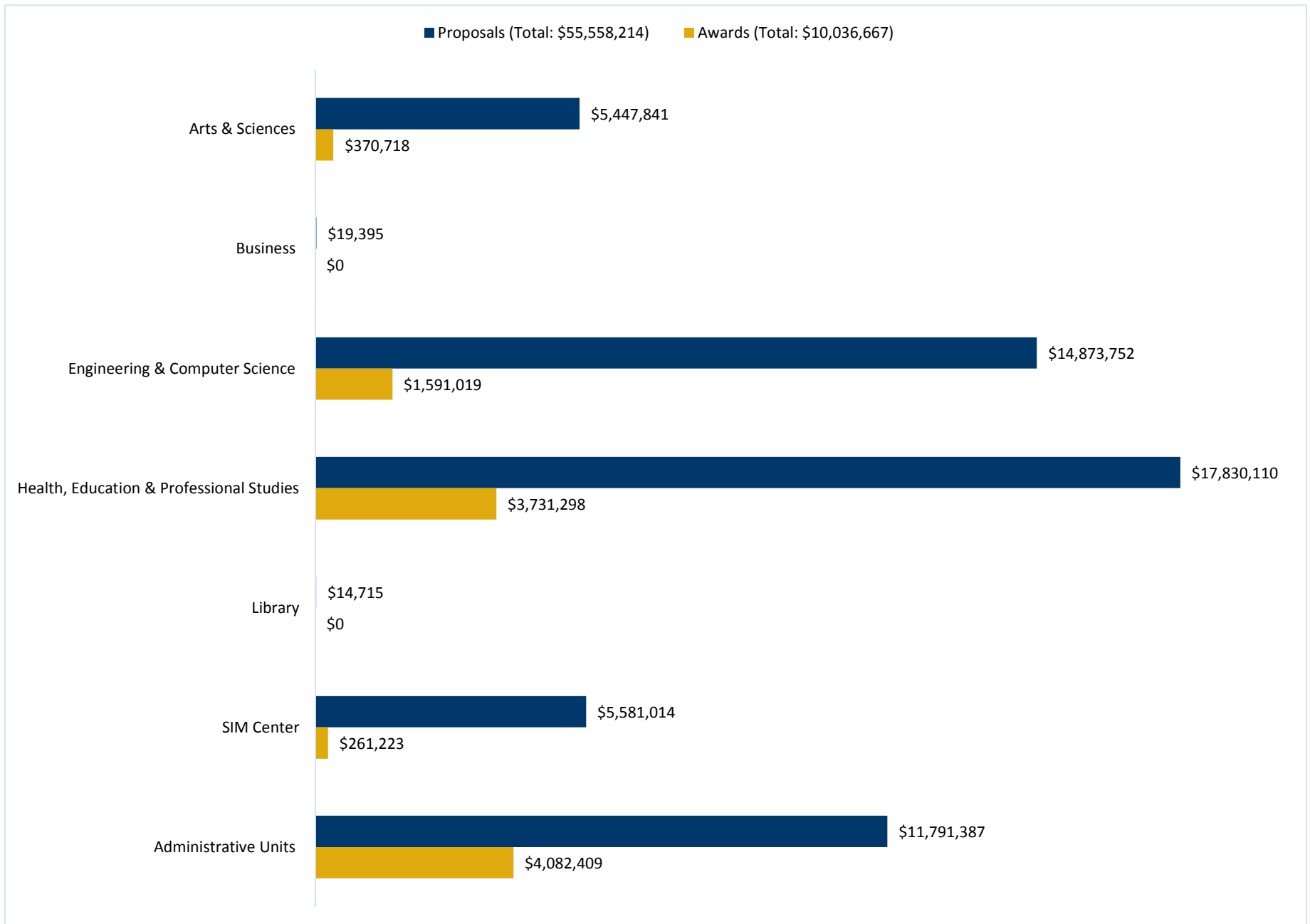
- Dr. Joanne Romagni  
Vice Chancellor for Research & Dean of the Graduate School

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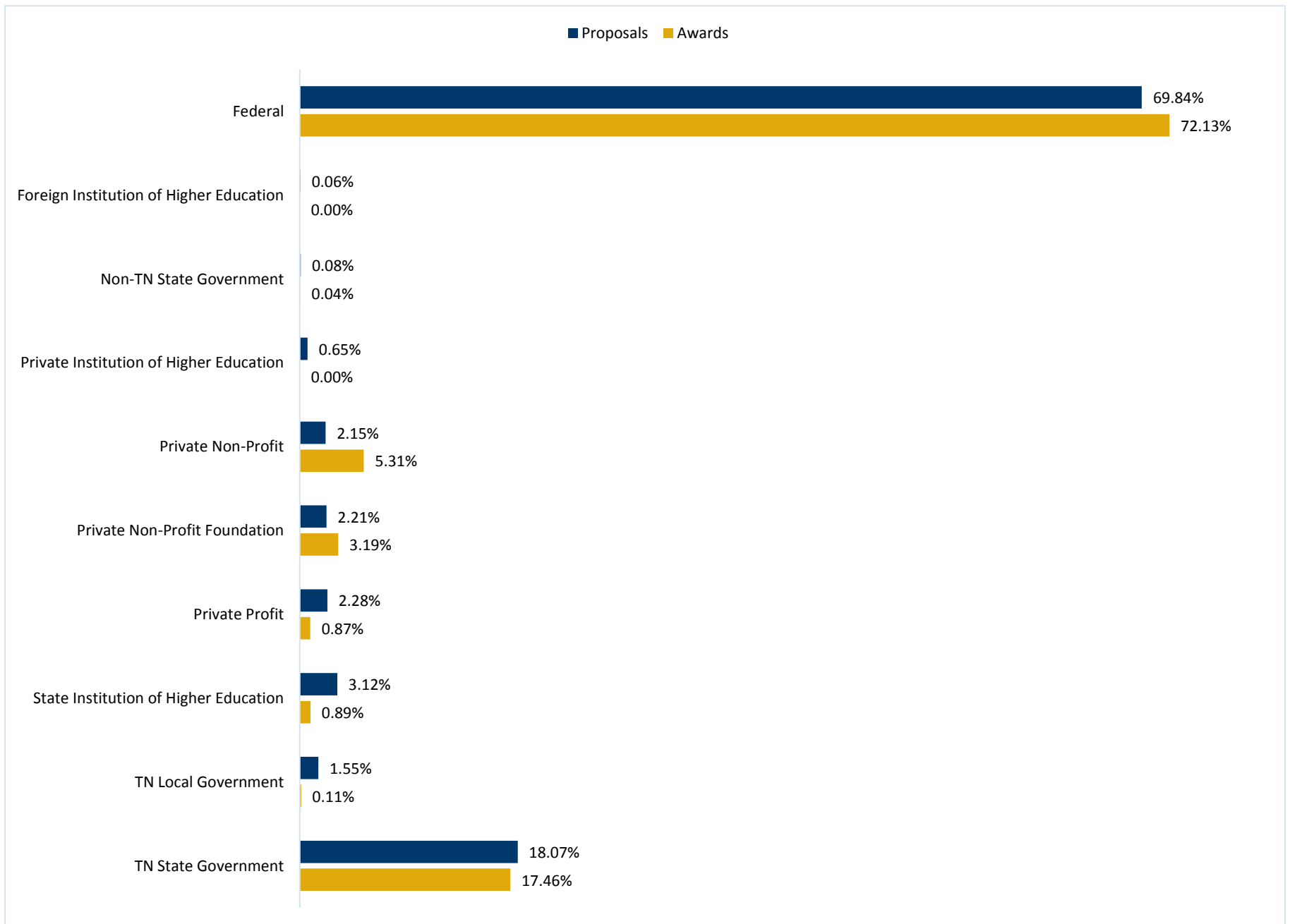
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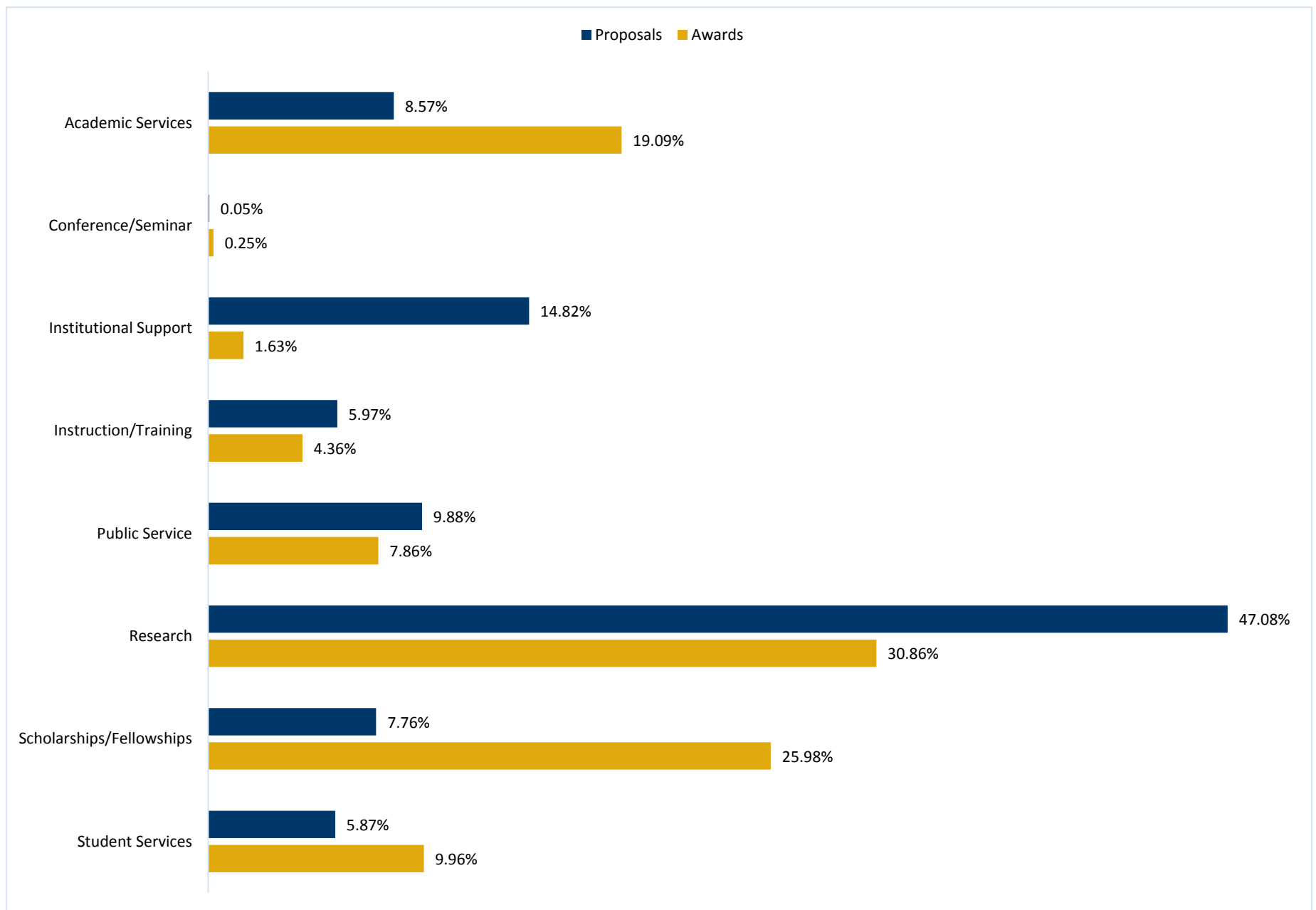
# UTC SPONSORED PROGRAMS – PROPOSALS & AWARDS



# UTC SPONSORED PROGRAMS – PROPOSALS & AWARDS BY SOURCE



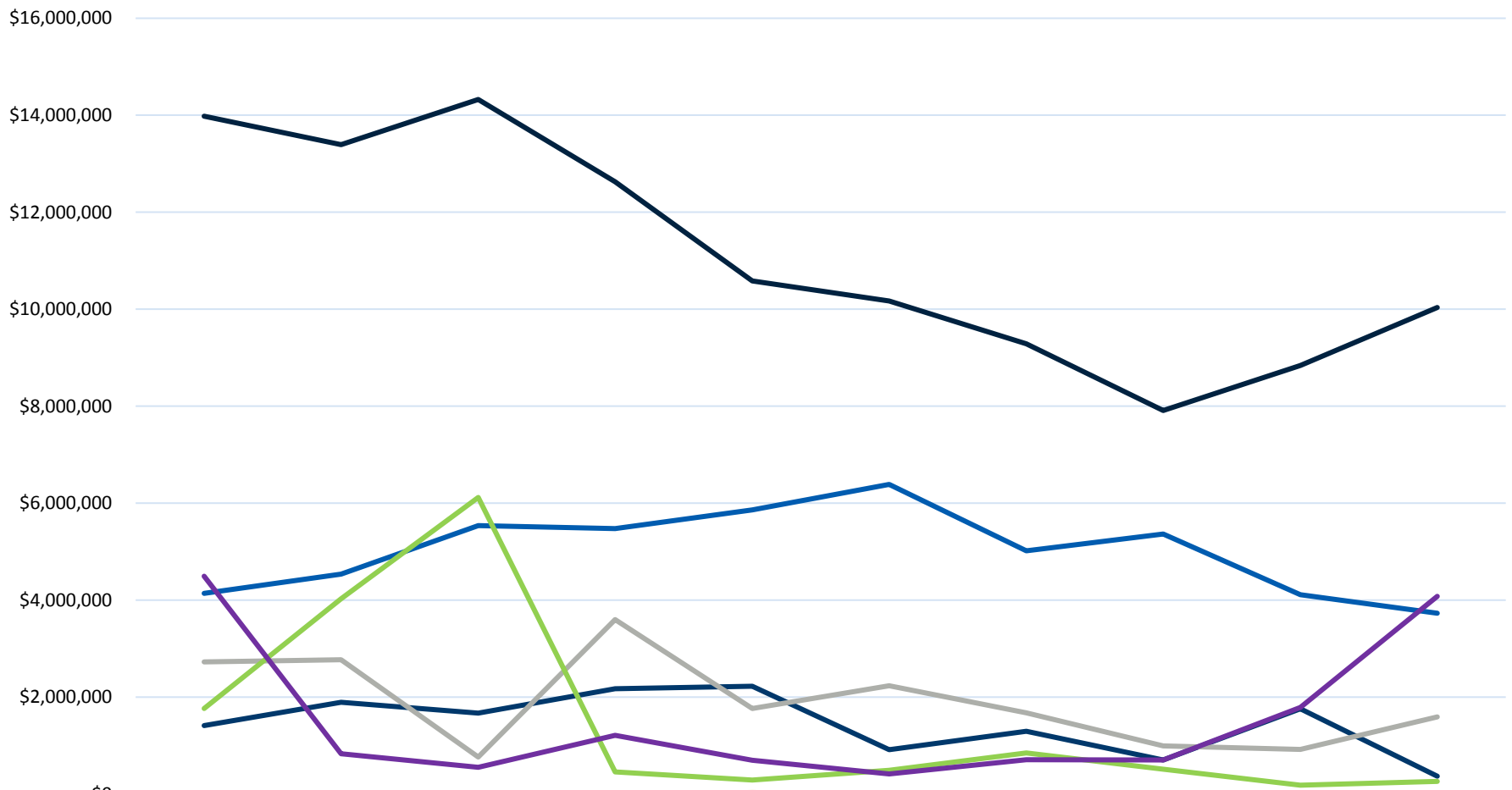
## UTC SPONSORED PROGRAMS – PROPOSALS & AWARDS BY ACTIVITY TYPE\*



\*For Activity Type definitions, see <https://www.utc.edu/research-sponsored-programs/functionalareadefs.php>



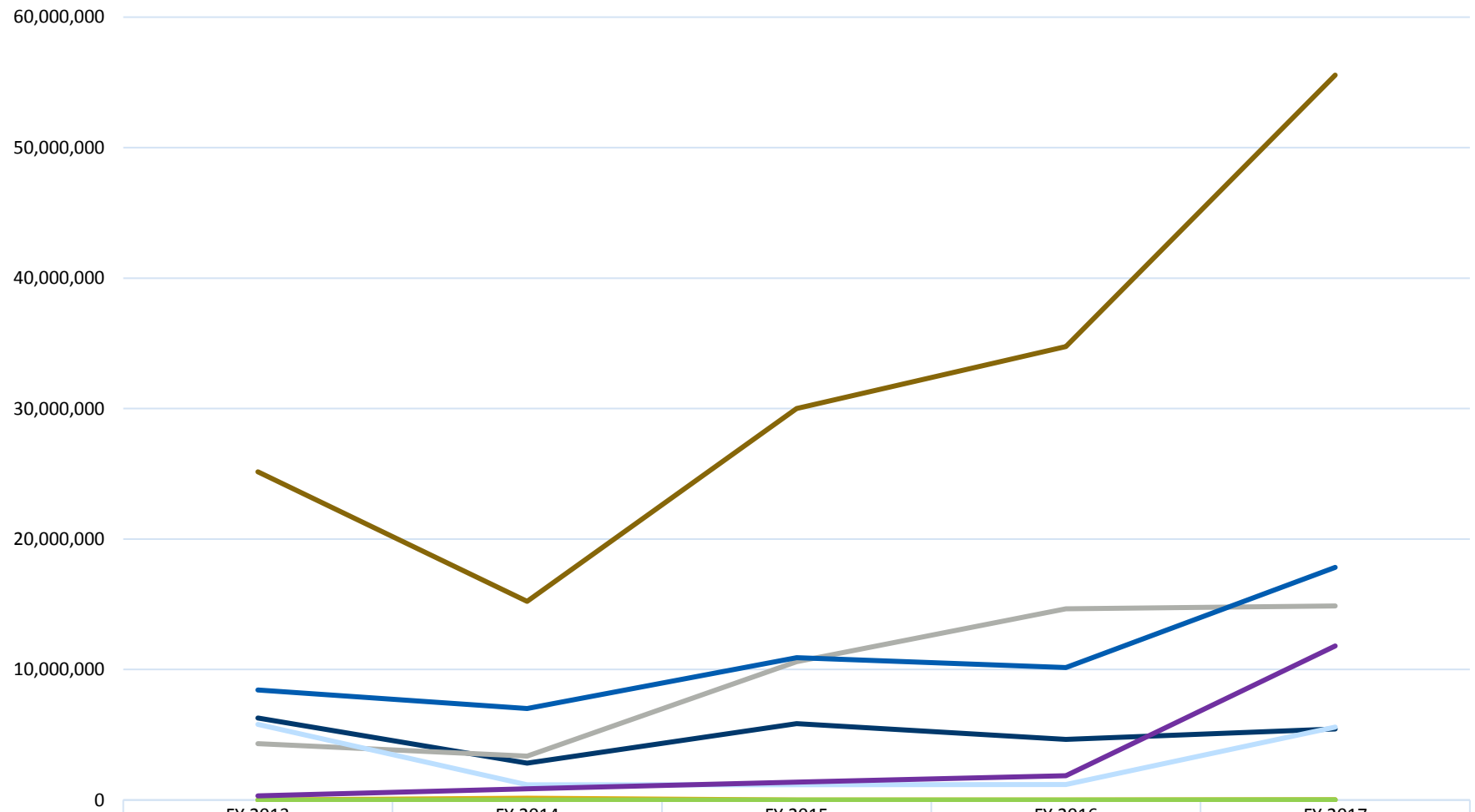
# UTC SPONSORED PROGRAMS – TEN YEAR AWARD TRENDS



	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
CAS	\$1,416,838	\$1,893,981	\$1,669,899	\$2,172,033	\$2,225,390	\$918,065.00	\$1,297,155	\$703,550	\$1,758,153	\$370,718
COB	\$0	\$0	\$0	\$0	\$34,980	\$0	\$0	\$0	\$0	\$0
CECS	\$2,724,912	\$2,772,562	\$766,078	\$3,600,134	\$1,767,314	\$2,236,879	\$1,678,114	\$997,857	\$921,122	\$1,591,019
CHEPS	\$4,142,054	\$4,536,458	\$5,537,208	\$5,477,825	\$5,862,687	\$6,387,753	\$5,018,627	\$5,363,241	\$4,112,572	\$3,731,298
SIM	\$1,765,081	\$4,028,828	\$6,118,823	\$460,000	\$289,159	\$490,649	\$852,175	\$512,551	\$185,461	\$261,223
Admin	\$4,494,416	\$834,095	\$551,701	\$1,214,357	\$698,916	\$417,325	\$708,310	\$704,362	\$1,788,132	\$4,082,409
Total	\$13,982,180	\$13,392,750	\$14,325,312	\$12,630,494	\$10,583,700	\$10,170,926	\$9,289,527	\$7,911,365	\$8,840,482	\$10,036,667

Notes: CAS = College of Arts & Sciences; COB = College of Business; CECS = College of Engineering & Computer Science; CHEPS = College of Health, Education, and Professional Studies; SIM = SIM Center; Admin = Administrative/Other Units.

# UTC SPONSORED PROGRAMS – FIVE YEAR PROPOSAL TRENDS



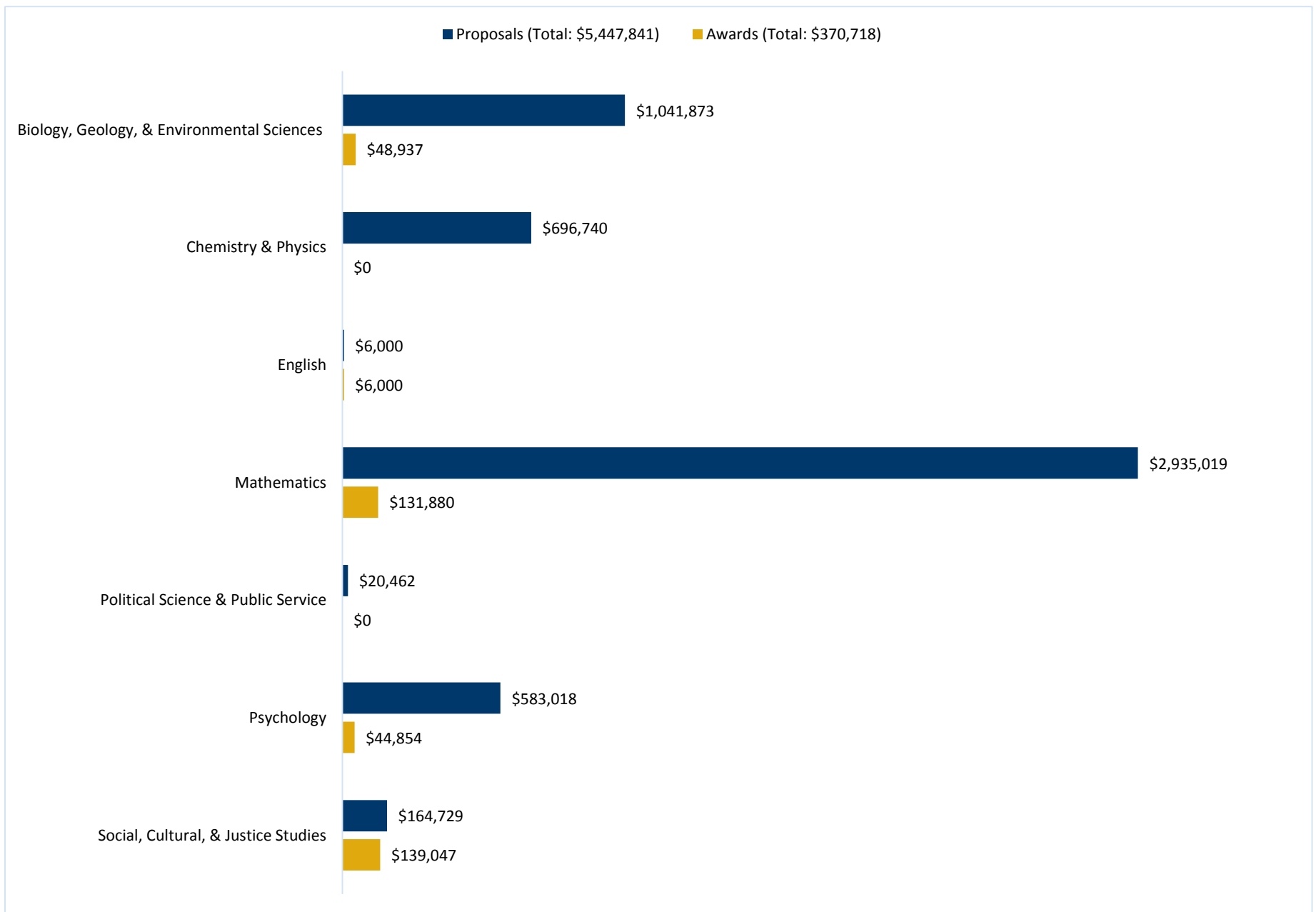
	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
CAS	6,284,875	2,826,583	\$5,856,270	\$4,646,653	\$5,447,841
COBA	\$0	137,814	\$0	\$0	\$19,395
CECS	4,311,130	3,362,737	\$10,607,244	\$14,652,005	\$14,873,752
CHEPS	8,441,651	7,012,399	\$10,912,693	\$10,149,940	\$17,830,110
Library	\$0	\$0	\$0	\$8,726	\$14,715
SIM	\$5,798,044	\$1,175,969	\$1,169,491	\$1,183,066	\$5,581,014
Admin	\$318,839	\$849,927	\$1,365,374	\$1,858,291	\$11,806,101
<b>Total</b>	<b>\$25,154,539</b>	<b>\$15,224,619</b>	<b>\$30,006,994</b>	<b>\$34,758,764</b>	<b>\$55,558,214</b>

# COLLEGE OF ARTS & SCIENCES



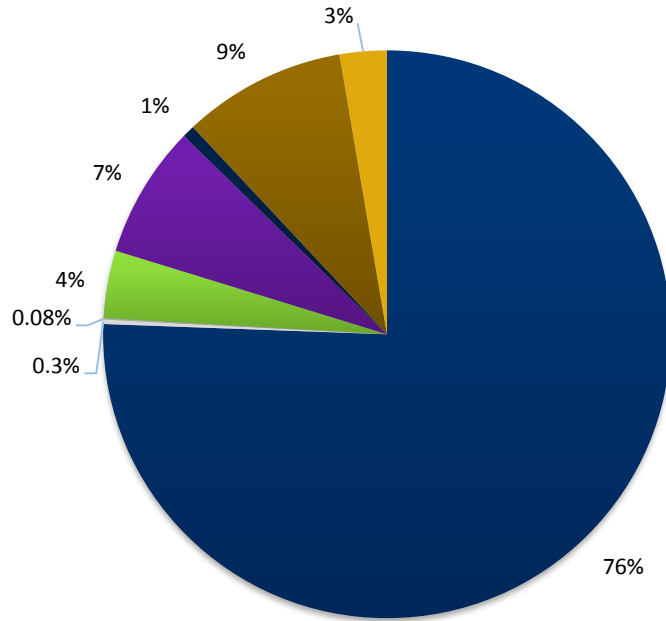


# COLLEGE OF ARTS & SCIENCES – PROPOSALS & AWARDS



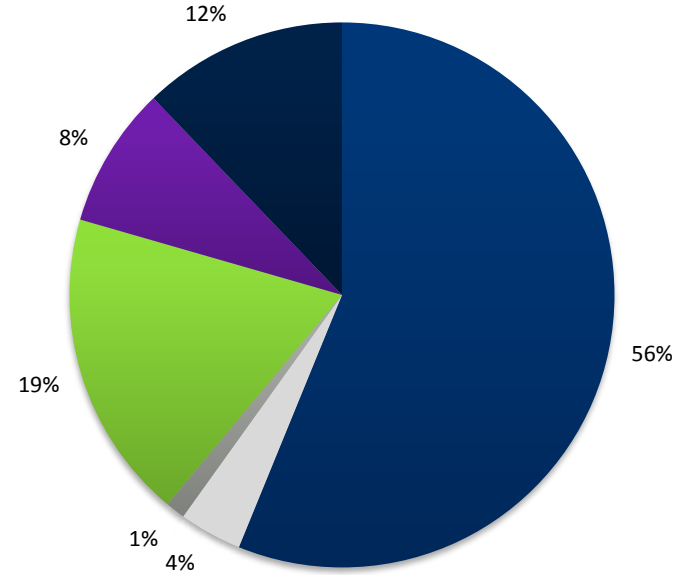
# COLLEGE OF ARTS & SCIENCES – PROPOSALS & AWARDS BY SOURCE

## Proposals



- Federal (\$4,117,260)
- Foreign Institution of Higher Education (\$13,794)
- Non-TN State Government (\$4,322)
- Private Institution of Higher Education (\$0)
- Private Non-Profit (\$209,686)
- Private Non-Profit Foundation (\$411,599)
- Private Profit (\$38,385)
- State Institution of Higher Education (\$506,678)
- TN Local Government (\$0)
- TN State Government (\$146,117)

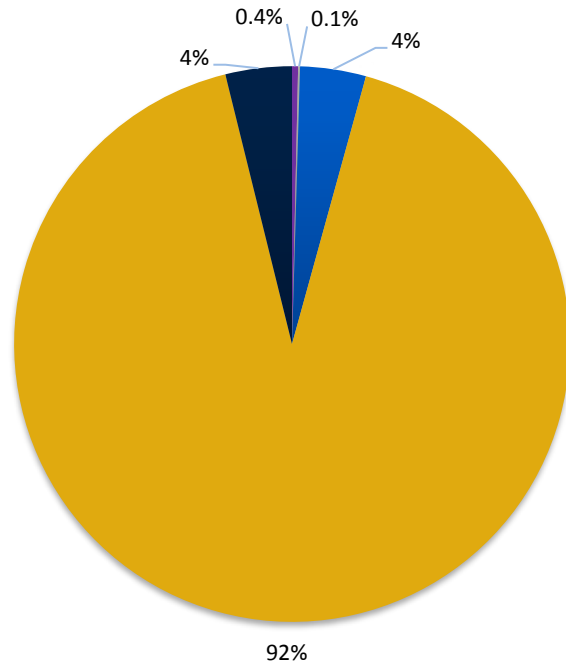
## Awards



- Federal (\$208,268)
- Foreign Institution of Higher Education (\$13,794)
- Non-TN State Government (\$4,322)
- Private Institution of Higher Education (\$0)
- Private Non-Profit (\$68,191)
- Private Non-Profit Foundation (\$31,060)
- Private Profit (\$45,083)
- State Institution of Higher Education (\$0)
- TN Local Government (\$0)
- TN State Government (\$0)

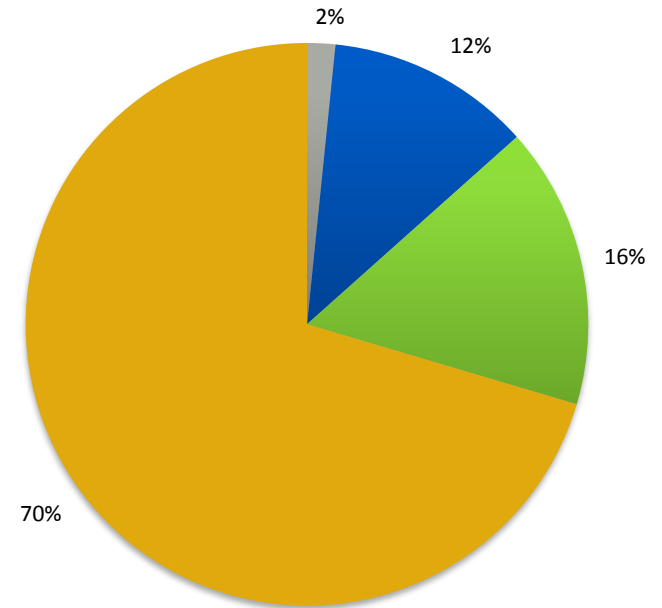
# COLLEGE OF ARTS & SCIENCES – PROPOSALS & AWARDS BY ACTIVITY TYPE

## Proposals



- Academic Services (\$0)
- Conference/Seminar (\$19,211)
- Institutional Support (\$6,000)
- Instruction/Training (\$208,667)
- Public Service (\$0)
- Research (\$5,003,733)
- Scholarships/Fellowships (\$210,230)
- Student Services (\$0)

## Awards



- Academic Services (\$0)
- Conference/Seminar (\$0)
- Institutional Support (\$6,000)
- Instruction/Training (\$43,691)
- Public Service (\$60,000)
- Research (\$261,027)
- Scholarships/Fellowships (\$0)
- Student Services (\$0)

## COLLEGE OF ARTS & SCIENCES – LISTING OF AWARDS

Notes: Activity Type (AT): AS = Academic Services; C/S = Conference/Seminar; IS = Institutional Support; I/T = Instruction/Training; PS = Public Service; R = Research; S/F = Scholarships/Fellowships; SS = Student Services. Awards are listed alphabetically by administering department and name of the lead PI, but many awards represent the collaborative efforts of multiple investigators and departments/units.

AWARDS BY LEAD ADMINISTRATIVE DEPARTMENT				
LEAD PI/PD	FUNDER	TITLE	AMOUNT	AT
<b>Biology, Geology, &amp; Environmental Science</b>				
Spratt, Henry	Plastic Surgery Group	Triple Antibiotic Wash: Fact or Fetish? The Efficacy of Antibacterial Solution Wash during Placement of Breast Prosthesis in Bacterial Load Reduction	\$1,385	R
Spratt, Henry	Richmar Medical Devices	Development of a Protocol to Disinfect GelShot Ultrasound Retaining Clips	\$6,698	R
Shaw, Joey	TN Native Plant Society	A Modern, Online Tennessee Plant Atlas	\$18,500	R
Boyd, Jennifer	US Fish and Wildlife Service	Assessing and enhancing the success of transplantation to support <i>Platanthera integrilabia</i> conservation	\$22,354	R
<b>English</b>				
Noe, Marcia	Society for the Study of Midwestern Literature	Society for the Study of Midwestern Literature Journal Editing	\$6,000	I/T
<b>Mathematics</b>				
Bao, Feng	Oak Ridge Institute for Science and Education	Efficient adaptive backward SDE filter and its applications in material science	\$5,000	R
Ledoan, Andrew	Mathematical Association of America	Chattanooga Math Circle	\$5,966	I/T
Bao, Feng	Oak Ridge National Laboratory	Scattering Research	\$120,914	R
<b>Psychology</b>				
Hood, Ralph	John Templeton Foundation and the Universitat Bielefeld	Developmental Change in Spirituality: Longitudinal study of faith biographies, religious schemata and their psychological correlates and predictors	\$13,794	R

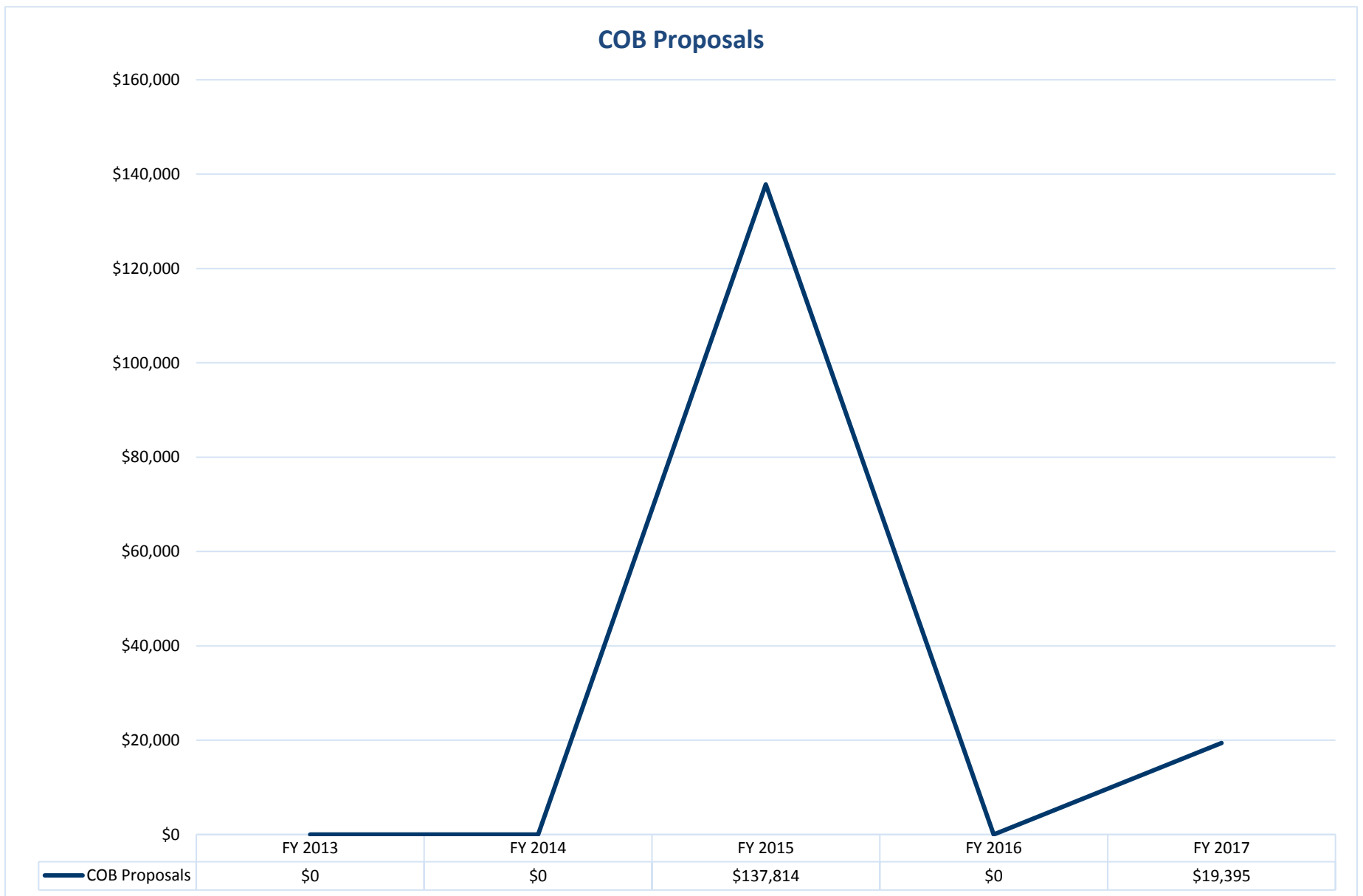
LEAD PI/PD	FUNDER	TITLE	AMOUNT	AT
Hood, Ralph	The Henry M. Jackson Foundation for the Advancement of Military Medicine	Protection of the Force and Family (POTFF) Spiritual Fitness Metrics	\$31,060	R
<b>Social Cultural and Justice Studies</b>				
Bumphus, Victor	International Association of Chiefs of Police	Service, Support & Justice: A Strategy to Enhance Law Enforcement Response to Victims Technical Assistance	\$37,000	R
Eigenberg, Helen	TN Coalition to End Domestic and Sexual Violence	Victim Assistance Academy	\$37,725	I/T
Honerkamp, Nicholas	GA Department of Natural Resources	A Proposal for Conducting Archaeological Survey and Testing at Three Historic Sites, Sapelo Island, Georgia	\$4,322	R
Guo, Zibin	US Dept. of Veteran's Affairs	Wheelchair Tai Chi Chuan as an Adaptive Sport for Veterans with Ambulatory Disability	\$60,000	PS
<b>Arts &amp; Sciences Total Dollars Awarded =</b>			<b>\$370,718</b>	



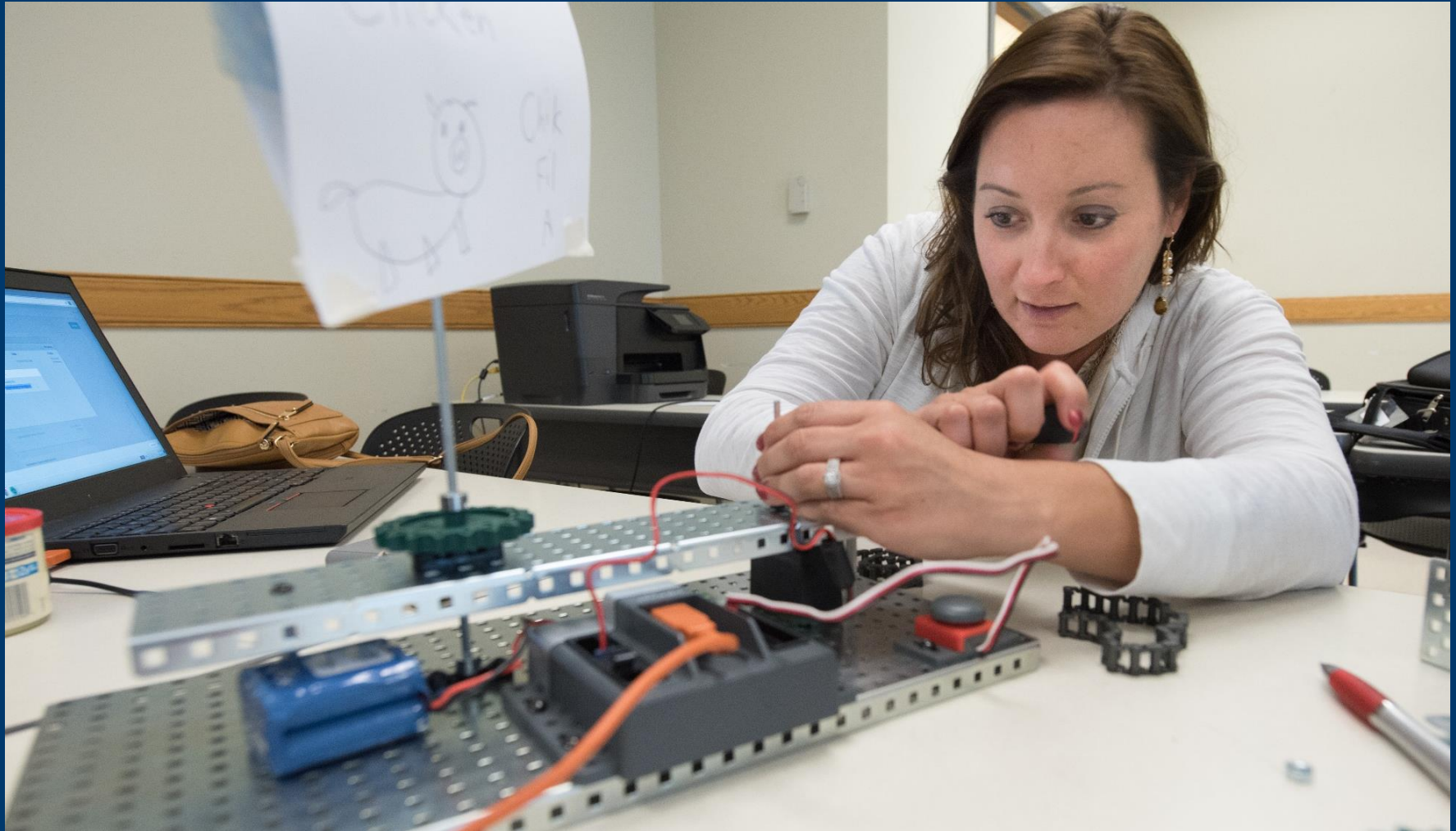
# COLLEGE OF BUSINESS



# COLLEGE OF BUSINESS – FIVE YEAR PROPOSAL TRENDS

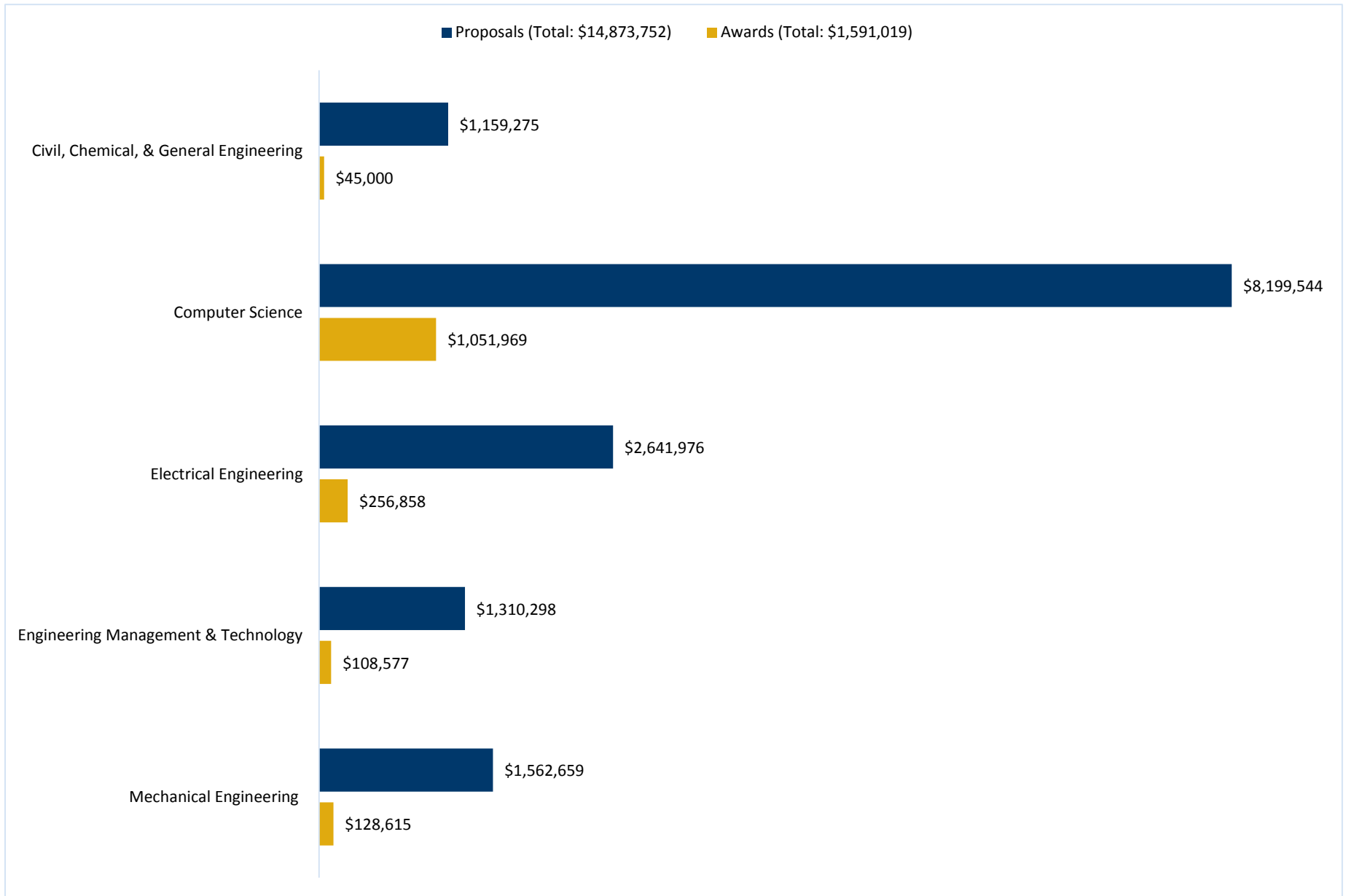


# COLLEGE OF ENGINEERING & COMPUTER SCIENCE



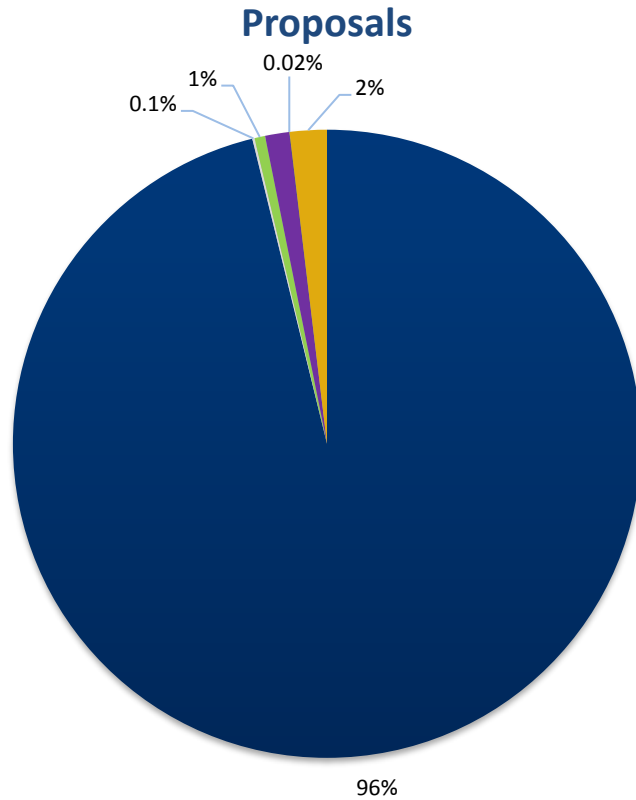
# COLLEGE OF ENGINEERING & COMPUTER SCIENCE – PROPOSALS & AWARDS

*Note: Please see pages 31-32 for additional information regarding CECS faculty awards within the SIM Center.*

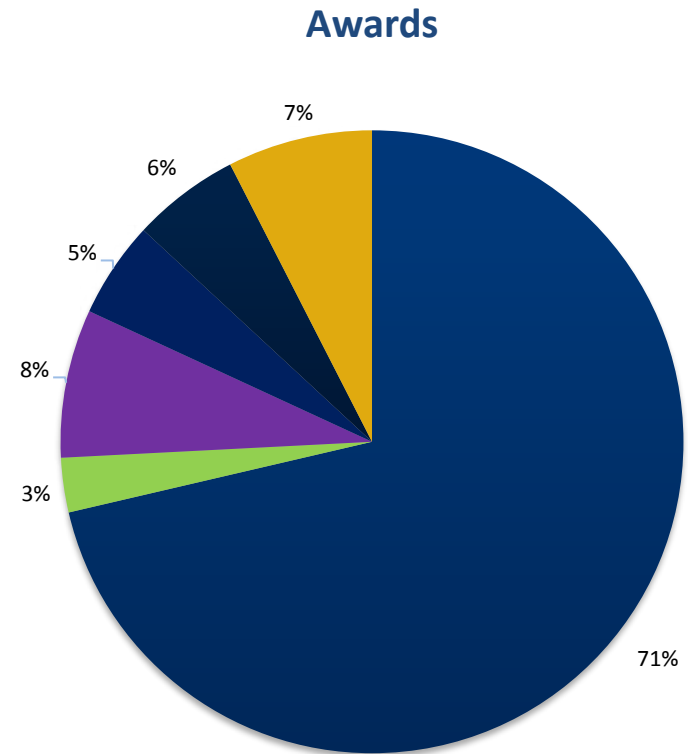




# COLLEGE OF ENGINEERING & COMPUTER SCIENCE – PROPOSALS & AWARDS BY SOURCE



- Federal (\$16,322,083)
- Foreign Institutions of Higher Education (\$19,832)
- Private Institution of Higher Education (\$0)
- Private Non-Profit (\$92,432)
- Private Non-Profit Foundation (\$210,068)
- Private Profit (\$2,978)
- State Institution of Higher Education (\$0)
- TN Local Government (\$0)
- TN State Government (\$323,461)

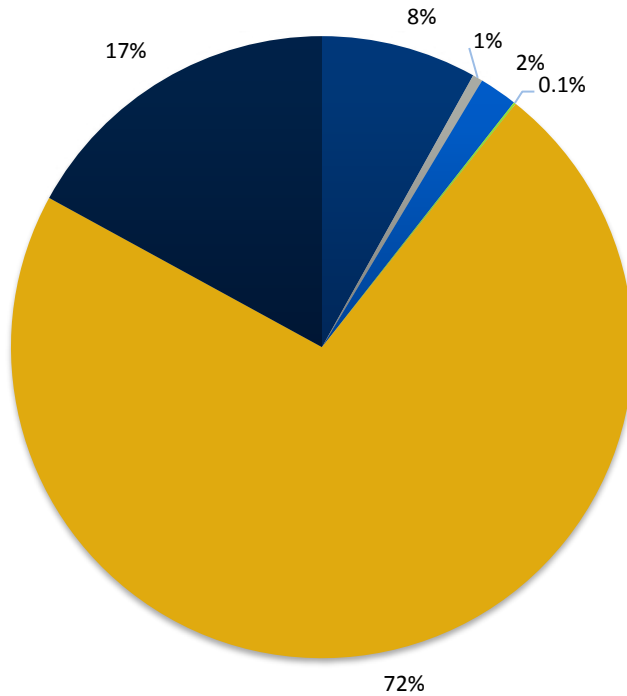


- Federal (\$1,135,258)
- Foreign Institution of Higher Education (\$0)
- Non-TN State Government (\$0)
- Private Non-Profit (\$45,000)
- Private Non-Profit Foundation (\$122,527)
- Private Profit (\$79,615)
- State Institution of Higher Education (\$88,912)
- TN Local Government (\$0)
- TN State Government (\$119,707)



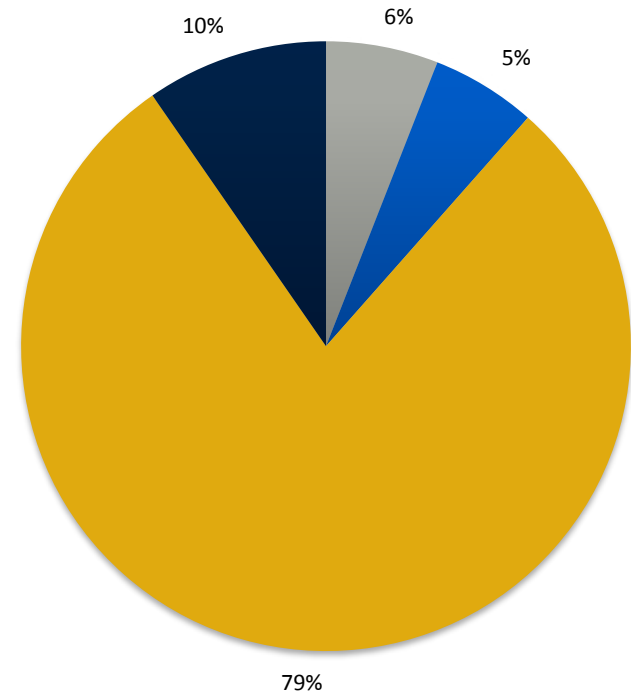
# COLLEGE OF ENGINEERING & COMPUTER SCIENCE – PROPOSALS & AWARDS BY ACTIVITY TYPE

## Proposals



- Academic Services (\$1,201,721)
- Conference/Seminar (\$0)
- Institutional Support (\$78,645)
- Instruction/Training (\$294,238)
- Public Service (\$16,722)
- Research (\$10,748,664)
- Scholarships/Fellowships (\$2,533,762)
- Student Services (\$0)

## Awards



- Academic Services (\$0)
- Conference/Seminar (\$0)
- Institutional Support (\$94,716)
- Instruction/Training (\$88,577)
- Public Service (\$0)
- Research (\$1,254,392)
- Scholarships/Fellowship (\$153,334)
- Student Services (\$0)

## COLLEGE OF ENGINEERING & COMPUTER SCIENCE – LISTING OF AWARDS

Notes: Activity Type (AT): AS = Academic Services; C/S = Conference/Seminar; IS = Institutional Support; I/T = Instruction/Training; PS = Public Service; R = Research; S/F = Scholarships/Fellowships; SS = Student Services. Awards are listed alphabetically by administering department and name of the lead PI, but many awards represent the collaborative efforts of multiple investigators and departments/units.

**Note: Please see pages 31-32 for additional information regarding Engineering Faculty awards within the SIM Center.**

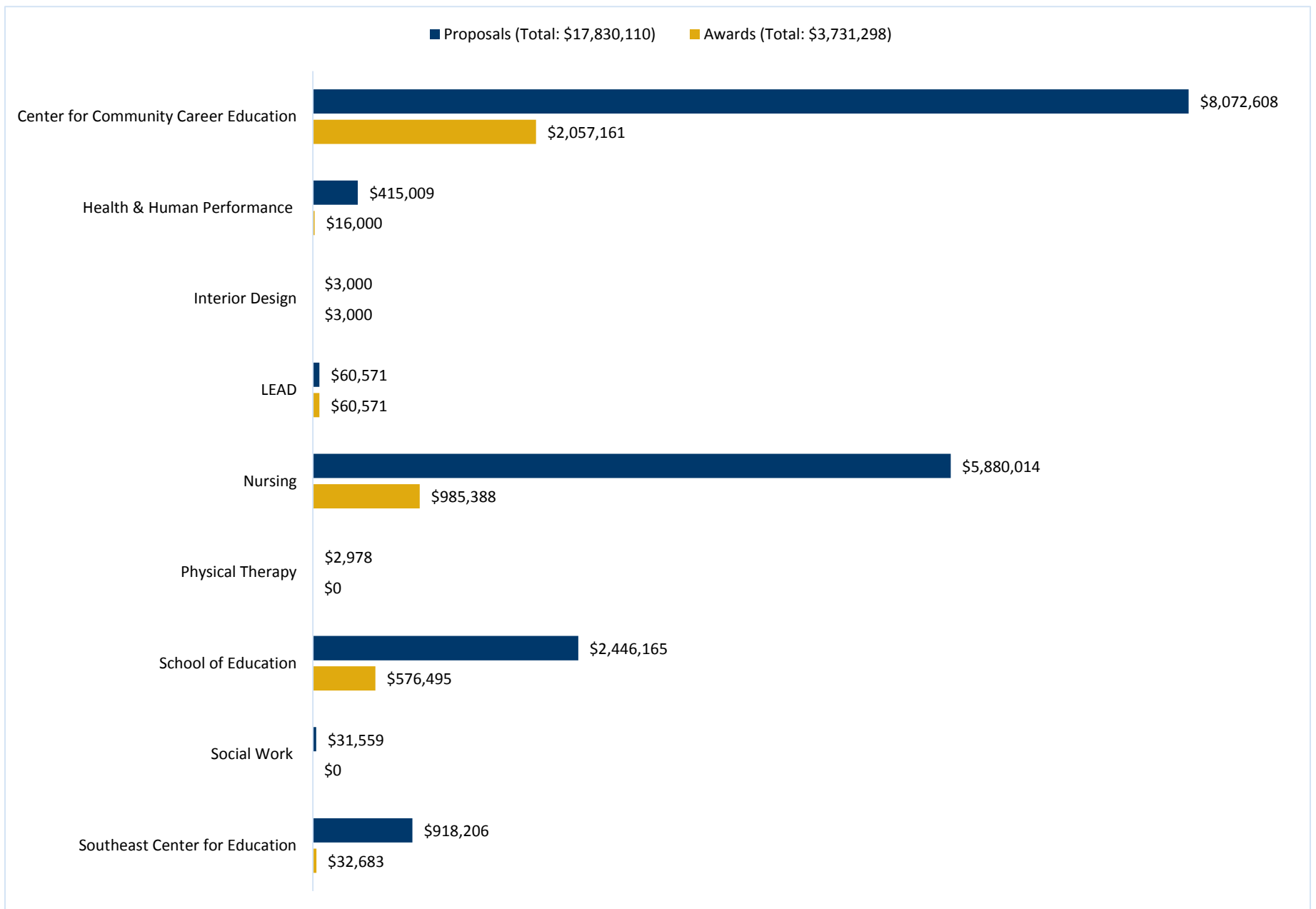
AWARDS BY LEAD ADMINISTRATIVE DEPARTMENT				
LEAD PI/PD	FUNDER	TITLE	AMOUNT	AT
<b>Civil, Chemical, &amp; General Engineering</b>				
Rollins, Alex	Precast/Prestressed Concrete Institute	Efficient Modular Wall Systems for New Construction and Retrofit	\$45,000	R
<b>Computer Science</b>				
Sartipi, Mina	National Science Foundation	US Ignite: Collaborative Research: Focus Area 1: Fleet Management of Large-Scale Connected Autonomous Vehicles	\$298,325	R
	National Science Foundation	REU Supplement: US Ignite: Collaborative Research: Focus Area 1: Fleet Management of Large-Scale Connected and Autonomous Vehicles in Urban Settings	\$15,600	R
	National Science Foundation	Collaborative Research: Robust Asset-and-User-Aware Power Grid Dispatch during Extreme Temperatures	\$119,829	R
Wu, Dalei	National Science Foundation	US Ignite: Collaborative Research: Focus Area 1: Fiber Network for Smart Mapping, Monitoring and Managing Underground Urban Infrastructure	\$299,884	R
Yang, Li	National Science Foundation	CyberCorps: Collaborative Research: Building Security Education Capacity through POGIL	\$164,997	R
	National Science Foundation	Collaborative Research: SFS Program: Strengthening the National Cyber Security Workforce	\$153,334	S/F
<b>Electrical Engineering</b>				
Ahmed, Raga	TN Board of Architectural and Engineering Examiners	Board of Architectural and Engineering Examiners Grant Equipment, Library and Fees	\$25,716	IS
Loveless, Thomas	Vanderbilt University	Fundamental Research into Radiation Resiliency of Emerging Circuit Technologies Appropriate to the CWMD Mission	\$74,964	R
Pack, Daniel	Shared Spectrum Company	Distributed, Large Scale Spectrum Measurement and Analysis - SBIR - Shared Spectrum Company	\$8,325	R
	University of Texas - San Antonio	Cognition and Neuroergonomics Collaborative Technology Alliance Technology Transition Subcontract for Mutually Adaptive Systems	\$88,912	R

LEAD PI/PD	FUNDER	TITLE	AMOUNT	AT
Reising, Donald	Electric Power Research Institute	Learning from Power Quality Wave Forms	\$58,941	R
<b>Engineering Management &amp; Technology</b>				
Alp, Neslihan	Engineering Information Foundation	UTC Girls to Engineers Network (GEN)Funding Priority - Programs to Encourage Middle School Girls in Engineering	\$14,586	I/T
	TN Board of Architectural and Engineering Examiners	Low-Income Community Design Studio	\$20,000	IS
	TN Higher Education Commission	EXCEL: EXploring Clean Energy through hands-on Learning	\$73,991	I/T
<b>Mechanical Engineering</b>				
Elliott, Louie	Gestamp	On the Simulation and Modeling of Sheet Metal Forming for Gestamp Chattanooga	\$79,615	R
Elliott, Trevor	Denso North America Foundation	Baja SAE Capstone Project	\$49,000	IS
<b>Engineering &amp; Computer Science Total Dollars Awarded =</b>			<b>\$1,591,019</b>	

# COLLEGE OF HEALTH, EDUCATION, & PROFESSIONAL STUDIES

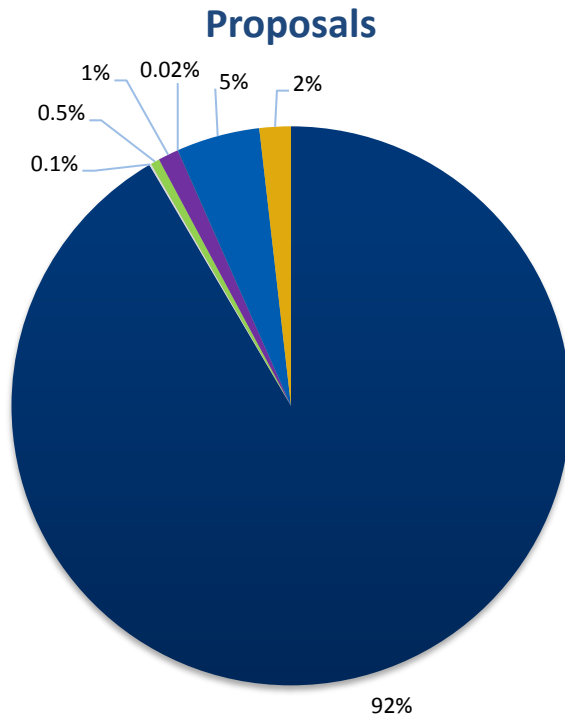


# COLLEGE OF HEALTH, EDUCATION, & PROFESSIONAL STUDIES – PROPOSALS & AWARDS

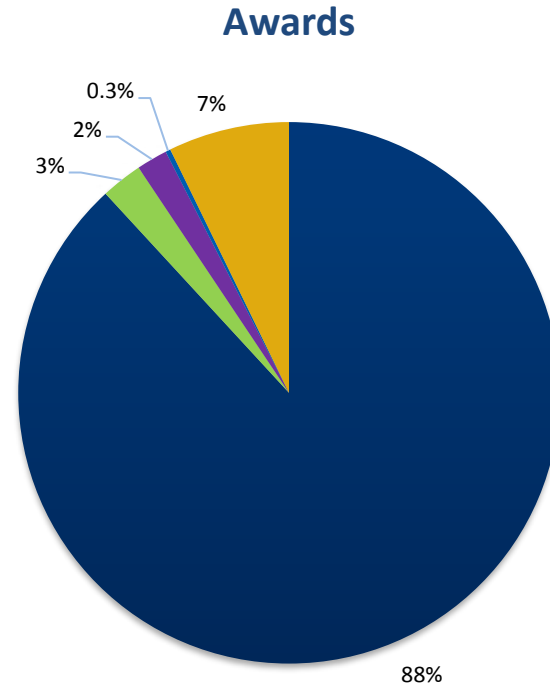




# COLLEGE OF HEALTH, EDUCATION, & PROFESSIONAL STUDIES – PROPOSALS & AWARDS BY SOURCE



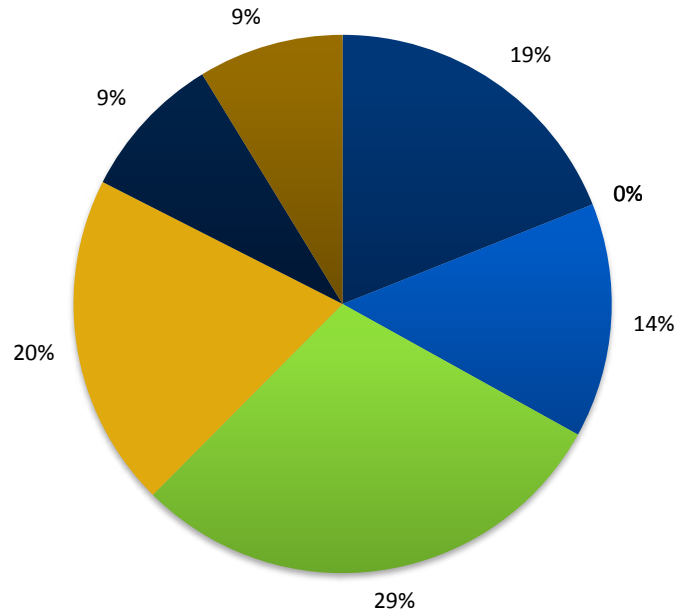
- Federal (\$16,322,083)
- Foreign Institution of Higher Education (\$19,832)
- Non-TN State Government (\$0)
- Private Institution of Higher Education (\$0)
- Private Non-Profit (\$92,432)
- Private Non-Profit Foundation (\$210,068)
- Private Profit (\$2,978)
- State Institution of Higher Education (\$0)
- TN Local Government (\$859,256)
- TN State Government (\$323,461)



- Federal (\$3,289,217)
- Foreign Institution of Higher Education (\$0)
- Non-TN State Government (\$0)
- Private Institution of Higher Education (\$0)
- Private Non-Profit (\$92,432)
- Private Non-Profit Foundation (\$68,840)
- Private Profit (\$0)
- State Institution of Higher Education (\$0)
- TN Local Government (\$11,183)
- TN State Government (\$269,626)

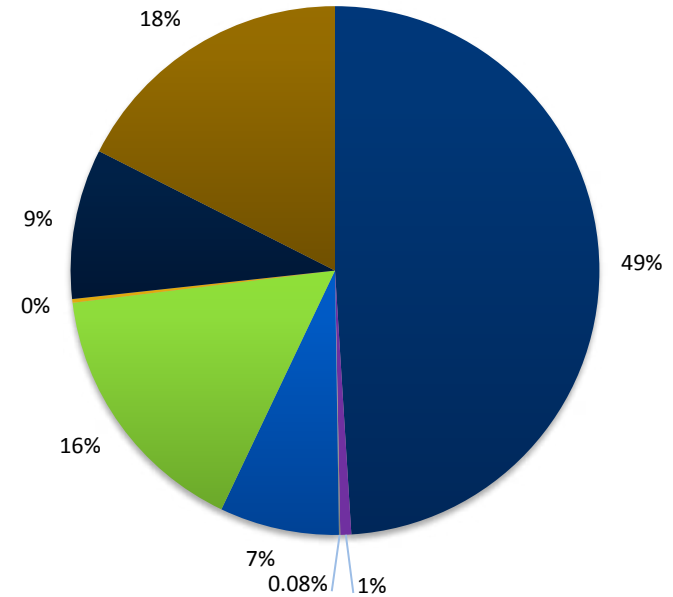
# COLLEGE OF HEALTH, EDUCATION, & PROFESSIONAL STUDIES – PROPOSALS & AWARDS BY ACTIVITY TYPE

## Proposals



- Academic Services (\$3,381,400)
- Conference/Seminar (\$0)
- Institutional Support (\$0)
- Instruction/Training (\$2,514,167)
- Public Service (\$5,239,672)
- Research (\$3,572,050)
- Scholarships/Fellowships (\$1,566,126)
- Student Services (\$1,556,695)

## Awards



- Academic Services (\$1,828,871)
- Conference/Seminar (\$24,844)
- Institutional Support (\$3,000)
- Instruction/Training (\$272,678)
- Public Service (\$596,432)
- Research (\$8,500)
- Scholarships/Fellowships (\$342,354)
- Student Services (\$654,619)

## COLLEGE OF HEALTH, EDUCATION, & PROFESSIONAL STUDIES – LISTING OF AWARDS

Notes: Activity Type (AT): AS = Academic Services; C/S = Conference/Seminar; IS = Institutional Support; I/T = Instruction/Training; PS = Public Service; R = Research; S/F = Scholarships/Fellowships; SS = Student Services. Awards are listed alphabetically by administering department and name of the lead PI, but many awards represent the collaborative efforts of multiple investigators and departments/units.

AWARDS BY LEAD ADMINISTRATIVE DEPARTMENT				
LEAD PI/PD	FUNDER	TITLE	AMOUNT	AT
<b>Center for Community Career Education</b>				
Boykin, Twyler	US Dept. of Education	Upward Bound Math & Science	\$257,500	PS
Brownlee, Belinda	US Dept. of Education	UTC Upward Bound Program	\$311,339	SS
Cole, Sandra	Community Foundation of Greater Chattanooga Incorporated	CK, Now! Expansion	\$10,000	PS
	TN Higher Education Commission	Each One Reach One (EORO)	\$49,992	SS
Gholston, Shirl	US Dept. of Education	Student Support Services FY16-FY21	\$293,288	SS
Huckabay, Hunter	US Dept. of Education	GEAR UP in Hamilton County, TN 2011-2018	\$624,104	AS
Long, Cynthia	US Dept. of Education	Southern Appalachian Educational Opportunity Center	\$270,938	AS
Vann, Karen	US Dept. of Education	Talent Search	\$240,000	PS
<b>Health &amp; Human Performance</b>				
Hamilton, Kara	Playcore	Evaluating Impact of Adult Fitness Zones in Local Parks	\$0	R
Hathaway, Elizabeth	Benwood Foundation	Start-Up Funds for Healthy Living Partnership in Collaboration with Governor's Healthier TN Initiative	\$7,500	PS
Howard-Baptiste, Shewanee	Community Foundation of Greater Chattanooga Incorporated	D.A.N.C.E. - Determining Adolescents' Needs for Culturally-Appropriate Exercises: Investigating the Barriers to Physical Activity for Minority Female Adolescents	\$8,500	R

LEAD PI/PD	FUNDER	TITLE	AMOUNT	AT
<b>Interior Design</b>				
Kendall, Catherine	Tennessee Board of Architectural and Engineering Examiners	TBAEE Grant for Instructional Equipment UTC Interior Design F16	\$3,000	IS
<b>LEAD</b>				
Crawford, Elizabeth	Tennessee Department of Education	Governor's School for Prospective Teachers 2017	\$60,571	I/T
<b>Nursing</b>				
Hill, Linda	Health Resources and Services Administration	CRNAs in 3D: Increasing Diversity, Reducing Disparities, & Understanding the Social Determinants of Health	\$343,633	AS
Smith, Christine	Health Resources and Services Administration	COMPASS Project 2014-2017	\$299,401	AS
	Health Resources and Services Administration	2016 UTC School of Nursing Advanced Education Nurse Traineeships (2016 AENT)	\$342,354	S
<b>School of Education</b>				
Cowan, Kay	TN Higher Education Commission	Using Apps to Support Disciplinary Literacy and STEM Learning	\$74,063	I/T
Ellington, Lucien	Association for Asian Studies, Inc	Education About Asia Journal 2017	\$77,932	PS
	Freeman Foundation	Freeman Foundation Teacher Professional Development Programs 2017-2018	\$17,996	AS
	Charles Koch Foundation	Center for Reflective Citizenship Teaching Fellows Program	\$24,844	C/S
Gamble, Anne	US Dept. of Education	Teachers Helping English Language Proficiency (HELP)	\$272,799	AS
McAllister, Deborah	Vanderbilt University	NASA Mathematics Resources and Super Source Activities for Elementary Grades Preservice Teachers	\$8,861	I/T
	Vanderbilt University	NASA Mathematics Resources and Super Source Activities for Elementary Grades Preservice Teachers	\$25,000	I/T
	TN Higher Education Commission	Leveraging GLOBE Resources to Implement Middle Grades Science and Mathematics Standards	\$75,000	I/T

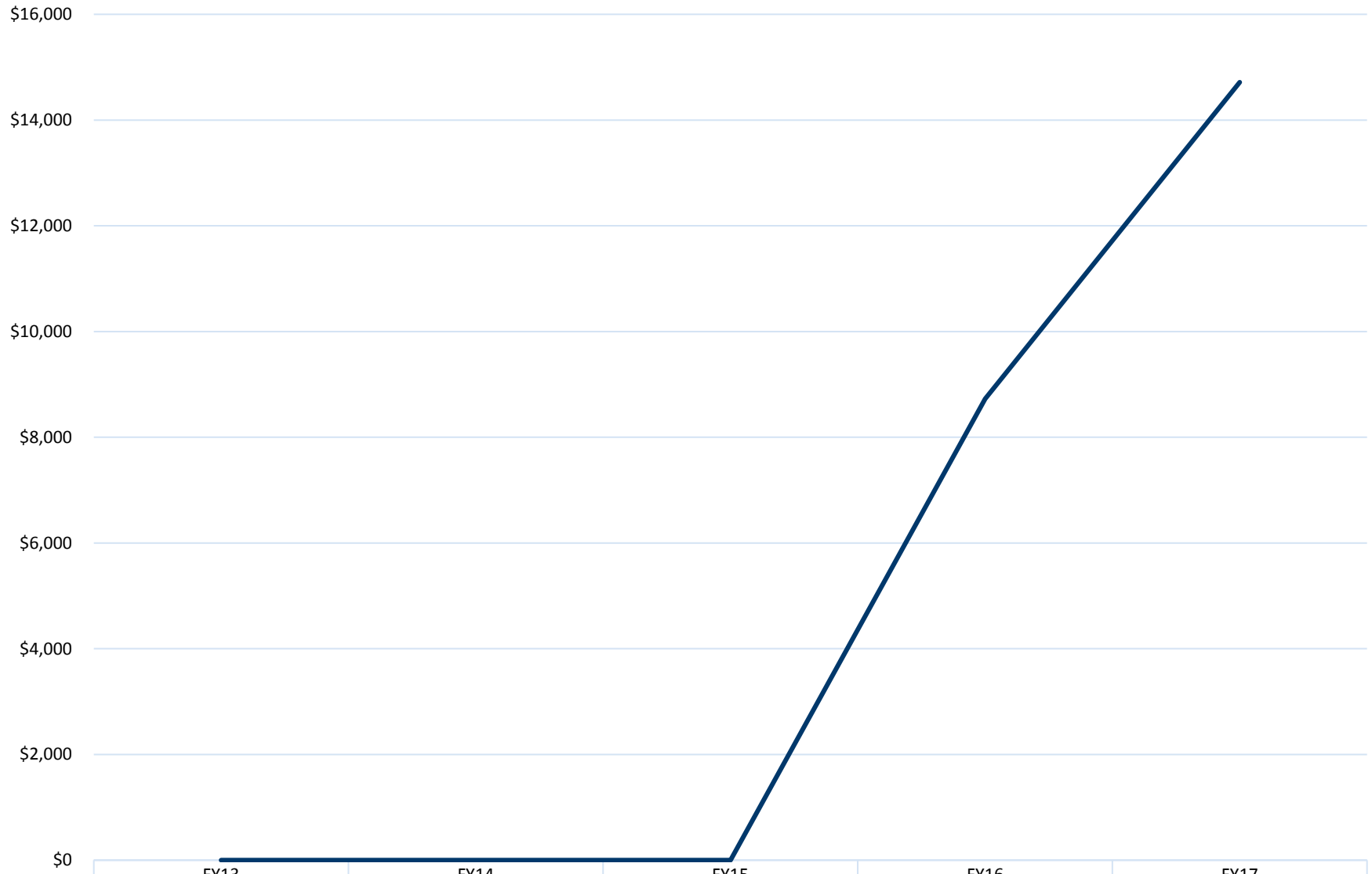
LEAD PI/PD	FUNDER	TITLE	AMOUNT	AT
Southeast Center for Education				
Baxley, Joel	Williamson County Schools	Visual Arts Concept-Based Instruction for K-12 Art Teachers	\$751	I/T
Melnik, Laurie	Hunter Museum of American Art	STEEEP to STEEPPER Medical Student Training	\$11,000	I/T
	ArtsBuild	Support for Visual Arts Artist in Residence Project for Second Grade Students in Hamilton County	\$3,500	PS
	Shelby County Schools	Arts Integration Workshops at Sherwood Elementary School, Memphis TN	\$10,432	I/T
	TN Arts Commission	The 10th Annual Arts & Education Forum Series	\$7,000	I/T
College of Health, Education, & Professional Studies Total Dollars Awarded =			\$3,731,298	



# UTC LIBRARY



# UTC LIBRARY – FIVE YEAR PROPOSAL TRENDS

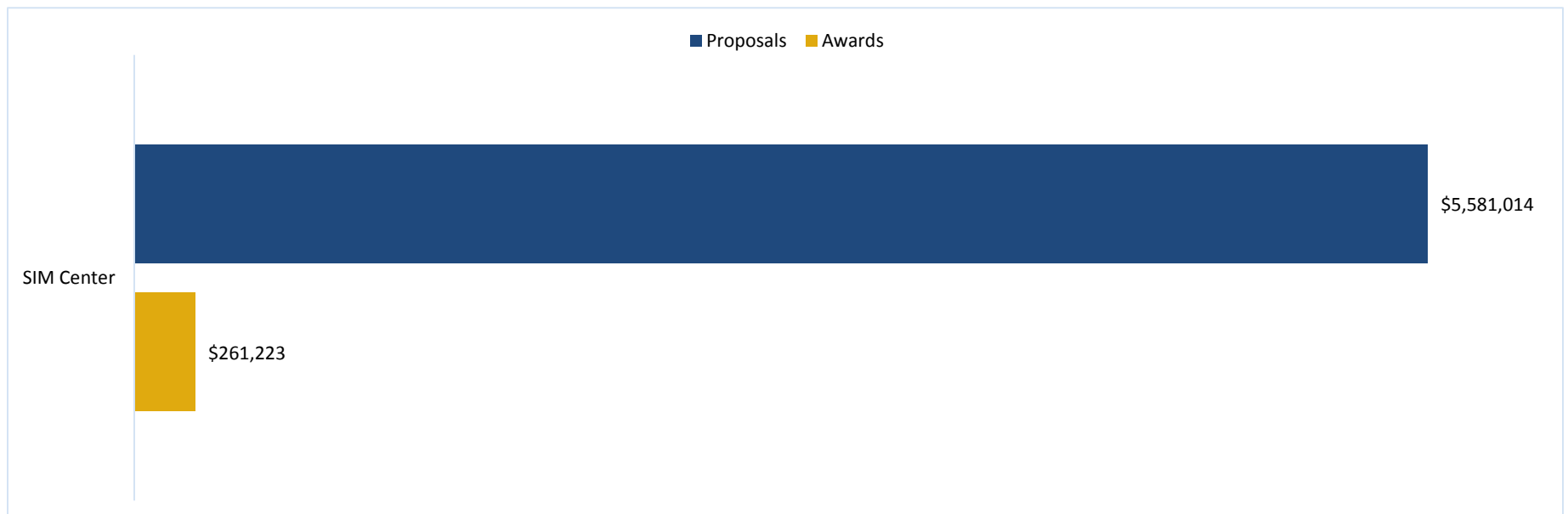




# SIM CENTER



# SIM CENTER – PROPOSALS & AWARDS



AWARDS BY LEAD ADMINISTRATIVE DEPARTMENT				
LEAD PI/PD	FUNDER	TITLE	AMOUNT	AT
<b>Computer Science and Engineering</b>				
Qin, Hong	National Science Foundation	CAREER: A probabilistic gene network model of cellular aging and its application on the conserved lifespan extension mechanisms of dietary restriction	\$257,223	R
<b>Mechanical Engineering</b>				
Sreenivas, Kidambi	Oak Ridge National Laboratory	Simulation of Pelton Turbine	\$4,000	R
<b>SIM CENTER TOTAL</b>			<b>\$261,223</b>	

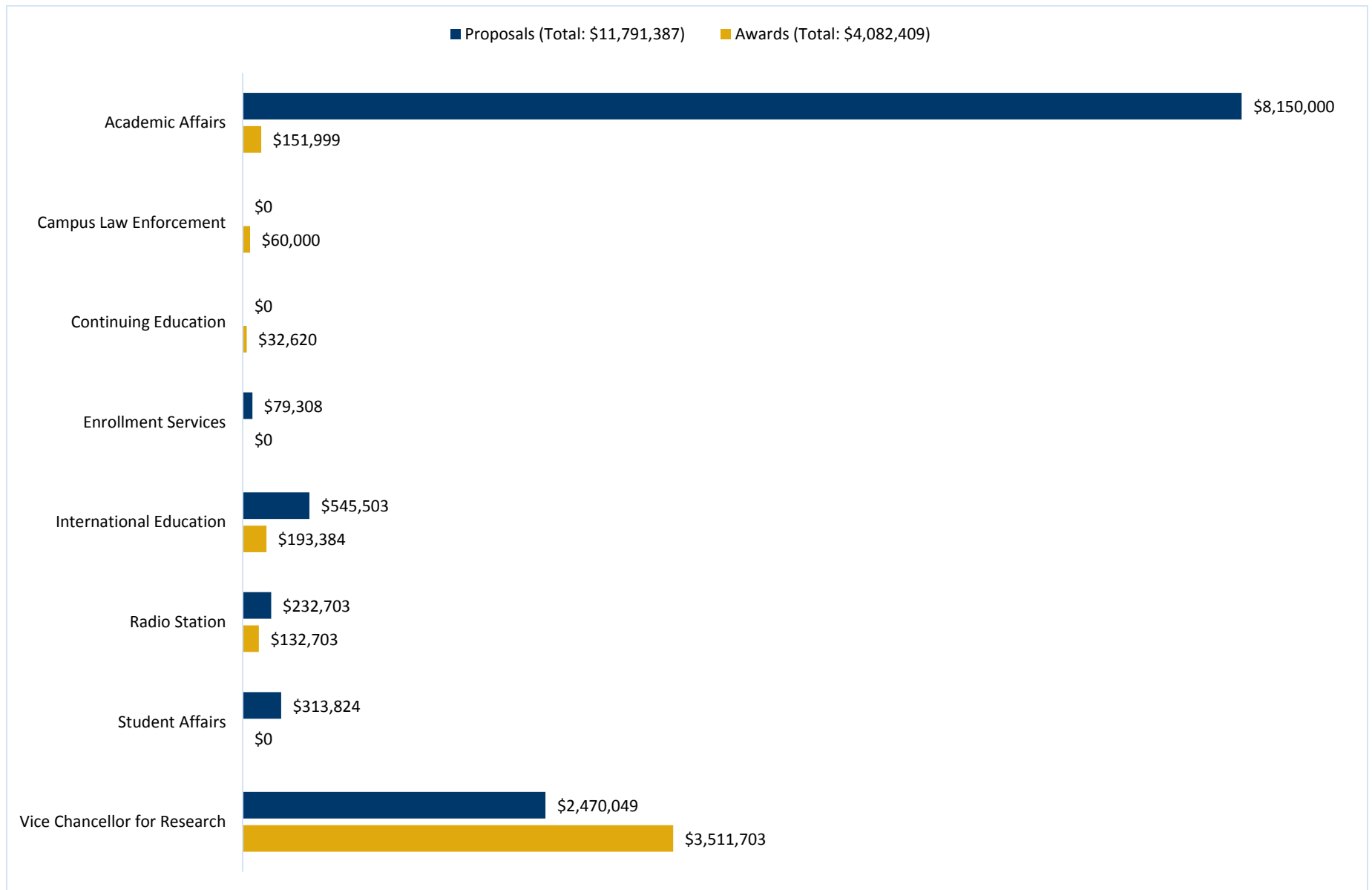


# ADMINISTRATIVE UNITS



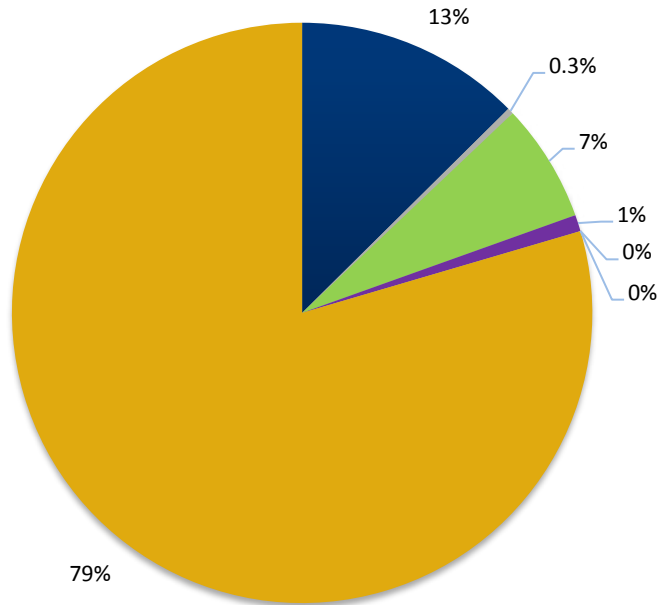
# ADMINISTRATIVE UNITS –PROPOSALS & AWARDS

*Note: Please see pages 31-32 for information on awards from the SIM Center.*



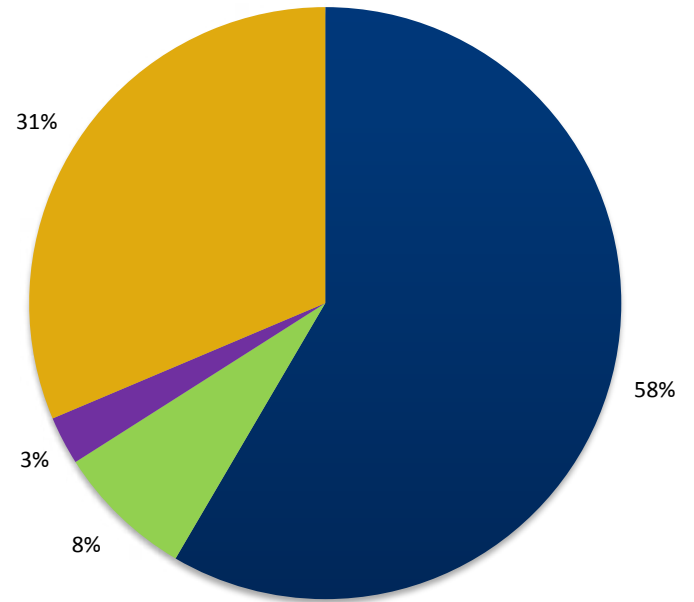
# ADMINISTRATIVE UNITS – PROPOSALS & AWARDS BY SOURCE

## Proposals



- Federal (\$1,483,847)
- Foreign Institution of Higher Education (\$0)
- Non-TN State Government (\$39,916)
- Private Institution of Higher Education (\$0)
- Private Non-Profit (\$779,756)
- Private Non-Profit Foundation (\$107,977)
- Private Profit (\$0)
- State Institution of Higher Education (\$0)
- TN Local Government (\$0)
- TN State Government (\$9,379,891)

## Awards

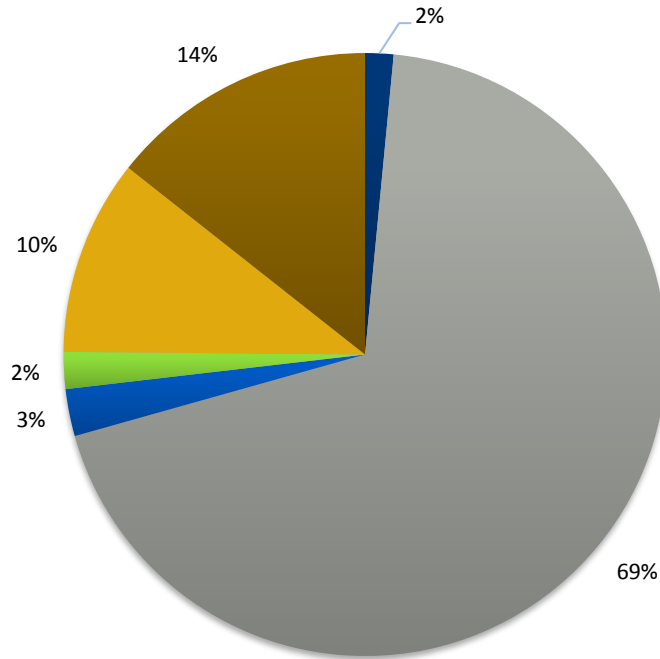


- Federal (\$2,538,413)
- Foreign Institution of Higher Education (\$0)
- Non-TN State Government (\$0)
- Private Institution of Higher Education (\$0)
- Private Non-Profit (\$327,637)
- Private Non-Profit Foundation (\$115,000)
- Private Profit (\$0)
- State Institution of Higher Education (\$0)
- TN Local Government (\$0)
- TN State Government (\$1,362,582)



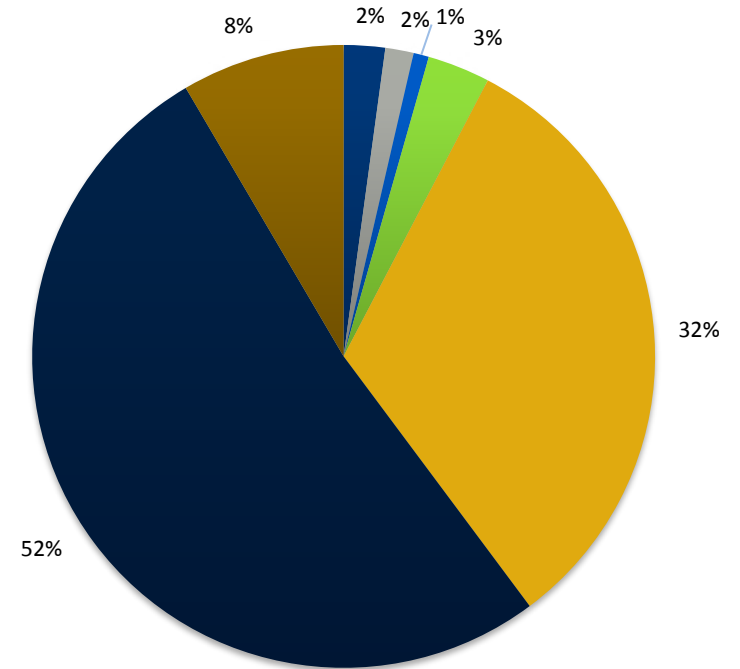
# ADMINISTRATIVE UNITS – PROPOSALS & AWARDS BY ACTIVITY TYPE

## Proposals



- Academic Services (\$179,308)
- Conference/Seminar (\$0)
- Institutional Support (\$8,150,000)
- Instruction/Training (\$297,986)
- Public Service (\$232,703)
- Research (\$1,237,049)
- Scholarships/Fellowships (\$0)
- Student Services (\$1,694,341)

## Awards



- Academic Services (\$87,560)
- Conference/Seminar (\$0)
- Institutional Support (\$60,000)
- Instruction/Training (\$32,620)
- Public Service (\$132,703)
- Research (\$1,312,123)
- Scholarships/Fellowships (\$2,112,010)
- Student Services (\$345,383)

## ADMINISTRATIVE UNITS – LISTING OF AWARDS

Notes: Activity Type (AT): AS = Academic Services; C/S = Conference/Seminar; IS = Institutional Support; I/T = Instruction/Training; PS = Public Service; R = Research; S/F = Scholarships/Fellowships; SS = Student Services. Awards are listed alphabetically by administering department and name of the lead PI, but many awards represent the collaborative efforts of multiple investigators and departments/units.

AWARDS BY LEAD ADMINISTRATIVE DEPARTMENT				
LEAD PI/PD	FUNDER	TITLE	AMOUNT	AT
<b>Academic Affairs</b>				
Rausch, David	TN Higher Education Commission	The Summer Success Experience: Supporting the Progression of Low-Income Students	\$151,999	SS
<b>Campus Law Enforcement</b>				
Hamilton, Craig	TN Office of Criminal Justice Programs	Making our Campus Safer (MOCS)	\$60,000	IS
<b>Continuing Education</b>				
Freeze, John	UT- Inst. of Public Service	Southeastern Command and Leadership Academy (SECLA)	\$32,620	I/T
<b>International Education</b>				
Suzuki, Takeo	FHI 360	Social Entrepreneurship SUSI Institute	\$193,384	SS
<b>Radio Station</b>				
Cantrell, Chuck	Corporation for Public Broadcasting	FY2017 CPB Community Service Grant	\$132,703	PS
<b>Vice Chancellor for Research</b>				
Carroll, Andrew	Tennessee Valley Authority	Application development for TVA Water Trails Project	\$45,000	R
	Friends of Cloudland Canyon State Park	Map Updates for GA DNR and Friends of Cloudland Canyon State Park	\$1,550	R
	Benwood Foundation	Support of Geographic Information System (GIS) services by Center for Academic and Innovative Technologies (CAIT)	\$15,000	R
	Lyndhurst Foundation	Capacity Building for the UTC Interdisciplinary Geospatial Technology Lab	\$100,000	R
Carver, Ethan	National Science Foundation	Appalachian Students Promoting the Integration of Research in Education	\$2,112,010	S/F
Heath, Gregory	NIH - National Center for Research Resources	NIH BRAD - CREATE	\$87,560	AS
Romagni, Joanne	TN Higher Education Commission	Center for Excellence in Applied Computational Science & Engineering	\$1,150,583	R
<b>Administrative Units Total Dollars Awarded =</b>			<b>\$4,343,632</b>	

## UTC INTERNAL COMPETITIONS – CRISP

The Collaborative Research Initiative for Sponsored Programs (CRISP) internal grants program seeks to stimulate collaborative, sponsored research at UTC by providing investigational teams of UTC faculty with resources and coordinated support services to help them build research capacity, create internal and external research collaborations, and establish a multi-disciplinary research team with the primary outcome of submitting competitive research proposals and successfully securing funding from external sources.

### *Congratulations 2016-17 CRISP winners!*

2017 COLLABORATIVE RESEARCH INITIATIVE FOR SPONSORED PROGRAMS AWARD RECIPIENTS		
TEAM MEMBERS	PROJECT TITLE	AMOUNT
<b>Dr. Drew Bailey</b> , <i>Health &amp; Human Performance</i>	“Electroencephalographic (EEG) and physiological tracking of activity and space”	\$10,000
<b>Dr. Christopher Cunningham</b> , <i>Psychology</i>	“Identifying gaps in nursing safety education & practice”	\$7,913
<b>Dr. Bradley Harris</b> , <i>Civil &amp; Chemical Engineering</i> <b>Dr. David Giles</b> , <i>Biology, Geology &amp; Environmental Science</i>	“Physiological & behavioral adaptations of <i>Vibrio cholerae</i> to fatty acids in a continuous culture (bioreactor) model”	\$7,975
<b>Dr. Marcus Mauldin</b> , <i>Political Science, Public Administration, &amp; Nonprofit Management</i> <b>Dr. Shewanee Howard-Baptiste</b> , <i>Health &amp; Human Performance</i> <b>Professor Nicole Brown</b> , <i>Communications</i> <b>Dr. Kara Hamilton</b> , <i>Health &amp; Human Performance</i>	The "Best Town Ever": Where cheap meat and sugary snacks divide cultures	\$1,611
<b>Dr. Deborah McAlister</b> , <i>School of Education</i> <b>Dr. Shannon McCarragher</b> , <i>Social, Cultural, &amp; Justice Studies</i> <b>Instructor Lisa Wilkes</b> , <i>Computer Science &amp; Engineering</i> <b>Ms. Peggy Moyer</b> , <i>Hamilton County Schools</i>	“Lego EV3 robotics and data-logging”	\$8,000
<b>Dr. Sean Richards</b> , <i>Biology, Geology &amp; Environmental Science</i> <b>Dr. Steven Symes</b> , <i>Chemistry &amp; Physics</i>	“Lead concentrations in Hamilton County's school drinking water and associated low birth weight”	\$8,000

TEAM MEMBERS	PROJECT TITLE	AMOUNT
<b>Dr. Mina Sartipi</b> , <i>Computer Science</i> <b>Dr. Zhen Hu</b> , <i>Computer Science</i> <b>Dr. Nancy Fell</b> , <i>Physical Therapy</i> <b>Dr. Greg Heath</b> , <i>Health &amp; Human Performance</i> <b>Dr. Rehan Qayyum</b> , <i>UT College of Medicine at Chattanooga</i>	“Post-stroke management using historical health data and big data analytics”	\$7,500
<b>Dr. Endong Wang</b> , <i>Engineering Management &amp; Technology</i> <b>Dr. Weidong Wu</b> , <i>Civil &amp; Chemical Engineering</i>	“Scaling-up of 3D printing technology for sustainable and resilient construction - Investigation of critical environmental & structural issues”	\$7,813
<b>TOTAL:</b>		<b>\$58,816</b>

## UTC INTERNAL COMPETITIONS – PSRA

The Provost Student Research Awards (PSRA) are designed to provide UTC students with a special opportunity to participate in original research with faculty members.

*Congratulations to the 2017 Provost Student Research Award recipients!*

2017 PROVOST STUDENT RESEARCH AWARD RECIPIENTS			
STUDENT	PROJECT TITLE	FACULTY ADVISOR	AMOUNT
<b>Biology, Geology, &amp; Environmental Science</b>			
Jessica Ammon	Molecular Monitoring of MRSA: Identification and Prevention in Healthcare Settings	Dr. David Giles	\$565.80
Andrea Kur	An Investigation of Southern Appalachian Pteridophytes	Dr. Joey Shaw	\$836.00
Sara Grillo	Effect of predation risk and prey boldness on prey stress response in a small mammal, <i>Octodon degus</i>	Dr. Loren Hayes	\$1,000.00
Kirsten Hein	Implementing Early Screening Methods on First-Backcross Chinese-American Chestnut Hybrids for Resistance to <i>Phytophthora cinnamomi</i>	Dr. Hill Craddock	\$1,000.00
<b>Chemical Engineering</b>			
Chris Purvis	Studying <i>Aeromonas salmonicida</i> Growth and Membrane Permeability in Continuous Culture	Dr. Bradley Harris	\$946.00
Cooper Thome	Biodiesel Production in Microreactors using Heterogeneous Catalysis	Dr. Bradley Harris	\$1,000.00
<b>Chemistry &amp; Biochemistry</b>			
Connor Frye	Exploring the Potential of Cheap Cobalt Complexes as Homogeneous Catalysts for the Selective Oxidation of Hydrocarbons to Alcohols	Dr. John Lee	\$1,000.00
Tyler Khan	Study of the Photoacoustic Effect in Carbon Dioxide	Dr. Han Park	\$1,000.00
Jacob Ewald	Fluorescence Studies of Lysozyme Modifications Induced by Quinones	Dr. Titus Albu	\$1,000.00
Neethu Kurien	SDS-PAGE analysis of naphthoquinone-induced protein modifications and the effect of pH	Dr. Jisook Kim	\$1,000.00
Will Robinson	Bismuth Triflate-Catalyzed Evans-Tishchenko Reaction	Dr. Kyle Knight	\$1,000.00
<b>Civil &amp; Chemical Engineering</b>			
Reed Boeger	Studying <i>Vibrio cholerae</i> Adaptations to Improve Cholera Prevention	Dr. Bradley Harris	\$1,000.00
<b>Criminal Justice</b>			
Zachary Rush	Examination of Millennials' Perceptions of Corporal Punishment	Dr. Christina Policastro	\$405.00
<b>Health &amp; Human Performance</b>			
Damon Sowers	Influence of concussion history on reactive agility performance among elite boxers and wrestlers	Dr. Shellie Acocello	\$1,000.00

STUDENT	PROJECT TITLE	FACULTY ADVISOR	AMOUNT
<b>Physics</b>			
Alexandra Waters	Electrical Conductivity Evolution Under Thermal Cycling in Novel Fe-Dy-Tb-O Thin Films	Dr. Tatiana Allen	\$999.95
<b>Psychology</b>			
Margaret Dempsey	The Twelve Tribes: Ethnographic Conversion Stories of Current Members	Dr. Ralph Hood	\$998.00
Jared Dirghalli	Quantifying and Qualifying the Links that Bind: A Conceptual Map of the Workplace Experience	Dr. Christopher Cunningham	\$1,000.00
Jessica Hacker	Motivation and Environmental Cues: Predictors of Prospective Memory Performance	Dr. Jill Shelton	\$1,000.00
Amanda Schwartz	Language Patterns and Invisible Disabilities	Dr. Amye Warren	\$1,000.00
Drake Terry	A Noble Task: Work Stress, Sense of Coherence, and Work-Nonwork Conflict in Christian Ministers	Dr. Christopher Cunningham	\$1,000.00
Amanda Warner	Detecting Deception: The Accuracy of the Good Judge	Dr. Kate Rogers	\$1,000.00
<b>Social Work</b>			
Kaila Northcutt	Vicarious Trauma in Social Workers	Dr. Morgan Cooley	\$667.00
Erin Thomas	Improving No-Show Rates in a Community Health Clinic	Dr. Morgan Cooley	\$827.00
<b>Theatre and Speech</b>			
Joyce McPherson	Shakespeare Pedagogy: Active Learning in the Theatre Arts	Dr. Anne Swedberg	\$1,000.00
			<b>TOTAL: \$22,244.75</b>

## UTC INTERNAL COMPETITIONS – CEACSE

The strategic goal of Center of Excellence in Applied Computational Science & Engineering (CEACSE) program is to enhance and expand UTC’s strength in all aspects of applied computational science and engineering, thereby gaining national recognition as a premier multidisciplinary research and education center for applied computational science and engineering. The primary goal of this program is to enable development of new capabilities and extramural projects in the area of Computational Sciences.

### *Congratulations to the 2016-17 CEACSE winners!*

2017 UTC CENTER OF EXCELLENCE IN APPLIED COMPUTATIONAL SCIENCE & ENGINEERING AWARD RECIPIENTS		
TEAM MEMBERS	PROJECT TITLE	AMOUNT
<b>Dr. Feng Bao</b> , <i>Mathematics</i> <b>Dr. Kidambi Sreenivas</b> , <i>Mechanical Engineering</i> <b>Dr. Jin Wang</b> , <i>Mathematics</i>	“Computational Modeling and Uncertainty Quantification for Wave Energy”	\$84,771
<b>Dr. Bradley Harris</b> , <i>Civil &amp; Chemical Engineering</i> <b>Dr. David Giles</b> , <i>Biology, Geology &amp; Environmental Science</i> <b>Dr. Ethan Hereth</b> , <i>SIM Center</i>	“A Computational Study of the Impact of Fatty Acid Substitutions on the <i>Vibrio cholerae</i> Outer and Inner Membranes”	\$27,481
<b>Dr. Hope Klug</b> , <i>Biology, Geology &amp; Environmental Science</i> <b>Dr. Jennifer Boyd</b> , <i>Biology, Geology &amp; Environmental Science</i> <b>Dr. Hong Qin</b> , <i>Computer Science</i>	“The Development and Application of Computational Tools to Address Fundamental Questions in Ecology and Evolution”	\$88,998
<b>Dr. Soubantika Palchoudhury</b> , <i>Civil &amp; Chemical Engineering</i> <b>Dr. Abdollah (Abi) Arabshahi</b> , <i>Mechanical Engineering</i>	“Computational Fluid Dynamic Approach to Predict Transport and Distribution of Nanodrugs”	\$89,211
<b>Dr. Hong Qin</b> , <i>Computer Science</i> <b>Dr. Craig Tanis</b> , <i>Computer Science</i>	“Connecting the Control Theory of Engineering to a Network Theory of Cellular Aging in Biology”	\$91,906
<b>Dr. Donald Reising</b> , <i>Electrical Engineering</i> <b>Dr. Daniel Loveless</b> , <i>Electrical Engineering</i>	“Unlocking the Secrets of RF-DNA Fingerprinting”	\$91,978
<b>Dr. Mina Sartipi</b> , <i>Computer Science</i> <b>Dr. Farah Kandah</b> , <i>Computer Science</i> <b>Dr. Zhen Hu</b> , <i>Computer Science</i>	“Enabling Wireless 3C Technologies for Smart and Connected Cities”	\$92,000

**2017 UTC CENTER OF EXCELLENCE IN APPLIED COMPUTATIONAL SCIENCE & ENGINEERING AWARD RECIPIENTS**

<b>TEAM MEMBERS</b>	<b>PROJECT TITLE</b>	<b>AMOUNT</b>
<b>Dr. Kidambi Sreenivas</b> <i>Mechanical Engineering</i> <b>Dr. Abdollah (Abi) Arabshahi</b> <i>Mechanical Engineering</i>	“Development of Computational Aeroacoustics Capability for Aerospace/Defense Applications”	\$68,085
<b>Dr. Endong Wang,</b> <i>Engineering Management &amp; Technology</i> <b>Dr. Neslihan Alp,</b> <i>Engineering Management &amp; Technology</i>	“Robust Multifactor Framework for Large-scale Fault Detection and Diagnosis in Energy Systems of the U.S. Commercial Buildings”	\$49,902
	<b>TOTAL:</b>	<b>\$684,332</b>



## UTC INTERNAL COMPETITIONS – FACULTY PREP

UTC’s faculty members are its most important intellectual resources. Hiring and mentoring new faculty requires a substantial investment of time and money by the Institution and the Department. As a means of further ensuring success towards promotion and tenure, the Office of the Vice Chancellor for Research is piloting the Faculty Pre-Tenure Enhancement Program (PREP) to support pre-tenure faculty in bolstering their research portfolio in anticipation of the promotion and tenure process.

*Congratulations to the 2016-17 Faculty PREP winners!*

2017 FACULTY PRE-TENURE ENHANCEMENT PROGRAM AWARD RECIPIENTS		
FACULTY PI	PROJECT TITLE	AMOUNT
<b>Dr. Bradley Harris,</b> <i>Civil &amp; Chemical Engineering</i>	“Studying the Physiological and Behavioral Adaptations of Pathogenic Bacteria in an Effort to Improve Disease Control Strategies”	\$14,991
<b>Dr. Park Han,</b> <i>Chemistry &amp; Physics</i>	“Photoacoustic Microscopy Experiment with Gold Nanostructures: Sound Generation by Precious Metal”	\$7,000
<b>Dr. Catherine Rogers,</b> <i>Psychology</i>	“Forming First Impressions: Examining Who and How?”	\$7,358
<b>Professor Christina Vogel,</b> <i>Art</i>	“Humble and Heroic: New Perceptual Paintings”	\$11,500
<b>Dr. Amanda Wintersieck,</b> <i>Political Science &amp; Public</i>	“Fact-Checking the 2016 Presidential Election”	\$13,629
		<b>TOTAL: \$54,478</b>

## UTC SPONSORED PROGRAMS – PROPOSALS BY COLLEGE AND DEPARTMENT

LEAD PI/PD	FUNDER	TITLE	AMOUNT
<b>COLLEGE OF ARTS &amp; SCIENCES</b>			
<b>BIOLOGY, GEOLOGY, &amp; ENVIRONMENTAL SCIENCE</b>			
Boyd, Jennifer	US Fish and Wildlife Service	Assessing and enhancing the success of transplantation to support <i>Platanthera integrilabia</i> conservation	\$22,354
	National Science Foundation	RUI: Collaborative Research: Reasons for Rarity? Exploring Acclimatory and Adaptive Constraints to Commonness	\$356,009
Brock-Hon, Amy	American Chemical Society Petroleum Research Fund	A field and laboratory study to characterize depressions and faults atop the Mormon Mesa geomorphic surface in Nevada	\$70,000
Giles, David	Cystic Fibrosis Foundation	qPCR and Structural Analyses of <i>P. aeruginosa</i> Following Fatty Acid Exposure	\$106,619
Hayes, Loren	National Science Foundation	Preliminary proposal: Does communal breeding offset costs of reproduction when food is scarce?	\$0
	The Hearst Foundation, Inc.	Minority Women in Science Endeavor (M-WISE)	\$210,230
	Alliance of Women Philanthropists - Giving Circle	Minority Women in Science Endeavor (M-WISE)	\$24,825
Hossain, Azad	University of Mississippi	Monitoring groundwater storage changes in the Mississippi Delta using downscaled GRACE data to support sustainable agricultural water management	\$231,951
Shaw, Joey	Tennessee Native Plant Society	A Modern, Online Tennessee Plant Atlas	\$18,500
Spratt, Henry	Plastic Surgery Group	Triple Antibiotic Wash: Fact or Fetish? The Efficacy of Antibacterial Solution Wash during Placement of Breast Prosthesis in Bacterial Load Reduction	\$1,385
<b>CHEMISTRY &amp; PHYSICS</b>			
Kim, Jisook	National Science Foundation	Acquisition of a High Resolution Accurate Mass QTOF LC-Mass Spectrometer	\$392,587
Lee, John	American Chemical Society Petroleum Research Fund	Using Earth Abundant Cobalt to Explore Precious Metal Homogeneous Catalysis Involving Inert Chemical Bonds	\$70,000
Symes, Steven	National Science Foundation	MRI: Acquisition of ICP-MS for Use in Environmental, Geochemical, and Human Health Research at UTC	\$234,153

LEAD PI/PD	FUNDER	TITLE	AMOUNT
ENGLISH			
Noe, Marcia	Society for the Study of Midwestern Literature	Society for the Study of Midwestern Literature Journal Editing	\$6,000
MATHEMATICS			
Bao, Feng	Oak Ridge National Laboratory	Scattering Research	\$59,945
	Oak Ridge National Laboratory	Modification 1 to Scattering Research	\$60,970
	National Science Foundation	RUI: Efficient Adaptive Backward SDE Methods for Nonlinear Filtering Problems	\$133,512
	Oak Ridge Institute for Science and Education	Efficient adaptive backward SDE filter and its applications in material science	\$5,000
Barioli, Francesco	TN Higher Education Commission	Algebra and Pre-Algebra Applications for Learning and College Readiness Assessment Exam (ACT) Preparation	\$74,854
Jackson, Billy	National Science Foundation	Preparing the University of Tennessee Chattanooga for STEM Teacher Leadership	\$48,204
	TN Higher Education Commission	Putting STEM Into STEM	\$71,263
Ledoan, Andrew	National Science Foundation	REU Site: Number Theory, Probability Theory, and Dynamical Systems	\$274,727
	Mathematical Association of America	Chattanooga Math Circle	\$5,966
	American Mathematical Society	Chattanooga Math Circle Summer Camp	\$13,245
Wang, Jin	National Institutes of Health	Mathematical and Computational Modeling of Waterborne Diseases	\$1,165,172
	National Science Foundation	Investigating the Pathogen Evolution in Waterborne Enteric Infections	\$1,022,161
POLITICAL SCIENCE & PUBLIC SERVICE			
Mauldin, Marcus	UT Alliance of Women Philanthropists	Remedying Chattanooga Food Deserts Through Understanding, Awareness, Education and Advocacy	\$20,462
PSYCHOLOGY			
Foerder, Preston	International Primatological Society	Personality and Cooperative Tasks in Bottlenose Dolphin ( <i>Tursiops truncatus</i> ) Dyads	\$5,158
	Sea World Busch Gardens Conservation Fund	Protection of the Force and Family (POTFF) Spiritual Fitness Metrics	\$31,060
Hood, Ralph	John Templeton Foundation and the Universitat Bielefeld	Developmental Change in Spirituality: Longitudinal study of faith biographies, religious schemata and their psychological correlates and predictors	\$13,794
Shelton, Jill	National Science Foundation	NSF Career – Revealing the Dynamic Nature of Prospective Memory	\$531,511

LEAD PI/PD	FUNDER	TITLE	AMOUNT
<b>SOCIAL, CULTURAL, &amp; JUSTICE STUDIES</b>			
Bumphus, Victor	International Association of Chiefs of Police	Year Two Funding for Service, Support & Justice: A Strategy to Enhance Law Enforcement Response to Victims Technical Assistance	\$37,000
Eigenberg, Helen	Tennessee Coalition to End Domestic and Sexual Violence	Victim Assistance Academy	\$37,725
Guo, Zibin	US Dept. of Veteran's Affairs	Wheelchair Tai Chi Program Expansion	\$85,682
Honerkamp, Nicholas	Georgia Department of Natural Resources	A Proposal for Conducting Archaeological Survey and Testing at Three Historic Sites, Sapelo Island, Georgia	\$4,322
<b>COLLEGE OF BUSINESS</b>			
<b>ADMINISTRATION</b>			
Culpepper, Sue	UT Alliance of Women Philanthropists	UTC College of Business Student Career Closet Renovation	\$9,895
<b>MANAGEMENT</b>			
Jain, Hemant	Georgia Tech Research Corporation	Big Data Infrastructure for Smart City Pre-Proposal	\$0
<b>MARKETING</b>			
Brockman, Beverly	UT Alliance of Women Philanthropists	Southeast Entrepreneurship Conference Proposal	\$9,500
<b>COLLEGE OF ENGINEERING AND COMPUTER SCIENCE</b>			
<b>COMPUTER SCIENCE</b>			
Kandah, Farah	Human Animal Bond Research Initiative (HABRI) Foundation	uACT: Utilizing Advanced-Computing towards Human-Animal Virtual Therapy	\$59,919
	National Science Foundation	CC* Networking Infrastructure: Bandwidth Obtained for Learning Science, Technology, Engineering, and Research (BOLSTER)	\$492,885
	National Science Foundation	CAREER: Adopted Networking Design to Improve the Network Performance in Crowded and Critical Situations	\$536,368
	Office of Science	Preliminary Proposal: Software Defined Network Utilization to Improve the Network Performance in Collaborative Virtual Labs	\$0
	US Dept. of Energy	Software Defined Network Utilization to Improve the Network Performance in Collaborative Virtual Labs	\$806,400
Liang, Yu	National Science Foundation	BIGDATA: IA: Collaborative Research: Multiscale Data-Driven Healthcare of Aging Bridges	\$617,818

LEAD PI/PD	FUNDER	TITLE	AMOUNT
McCullough, Claire	National Science Foundation	One Small STEP (STEM Enhancement Program) to Mars	\$296,965
	Alliance of Women Philanthropists - Giving Circle	Plugging the Leaky Pipeline: Increasing Women's Participation in Computer Science	\$16,722
Sartipi, Mina	NSF -Directorate for Computer and Information Science and Engineering	REU Supplement for NSF Award#1647161 - US Ignite: Collaborative Research: Focus Area 1: Fleet Management of Large-Scale Connected and Autonomous Vehicles in Urban Settings	\$15,600
	Tennessee Valley Authority	TVA Power Billing Dashboard for Error Detection and Correction Project	\$23,564
	Electric Power Board	Preliminary Proposal: Chattanooga Wireless Testbed	\$0
	NSF -Directorate for Computer and Information Science and Engineering	Health-Centric Multi-Modal Mobility	\$99,787
	National Science Foundation	SCH: INT: RUI: Collaborative Research: Improving Post-stroke Management Efficiency and Patient Outcomes through Analytics	\$869,784
Wu, Weidong	National Science Foundation	CAREER: Small Scale Lab Experiments and Computer Methods for Levee and Dam Rapid Repair Technologies	\$547,414
Yang, Li	National Science Foundation	Building Capacity of Secure Software Development with Industry Best Practices	\$200,000
	National Institute of Standards and Technology	Building Fire Resilient Communities with Emerging Computing Technologies	\$1,508,098
	Prairie View A and M University	Capacity Building on Privacy Education through Curriculum Development	\$39,750
	Prairie View A and M University	Developing Innovative Privacy Learning Modules to Engage Students in Cybersecurity Education	\$75,000
	The National Institute For Hometown Security	Deployable Critical Infrastructure Data Viewer Incorporating Unmanned Systems Feeds	\$315,864
	National Science Foundation	Collaborative Research: SFS Program: Strengthening the National Cyber Security Workforce	\$1,540,766
	National Institute of Standards and Technology	RAMPS: Building a Regional Partnership to Increase Cybersecurity Workforce project.	\$136,840
<b>CIVIL &amp; CHEMICAL ENGINEERING</b>			
Fomunung, Ignatius	National Science Foundation	UTC-ASSETS: Academic Intervention Social Supports, and Scholarships for Engineering Transfer Students	\$992,996
Harris, Bradley	Oak Ridge Associated Universities	Investigating the effects of environmental lipids on <i>Vibrio cholerae</i> virulence	\$5,000
Rollins, Alex	Precast/Prestressed Concrete Inst.	Efficient Modular Wall Systems for New Construction and Retrofit	\$45,000
	Pincelli and Associates, Inc.	Applied Research in Materials Testing	\$116,279

LEAD PI/PD	FUNDER	TITLE	AMOUNT
<b>ELECTRICAL ENGINEERING</b>			
Ahmed, Raga	TN Board of Architectural and Engineering Examiners	Grant Equipment, Library, and Fees	\$29,645
	TN Higher Education Commission	ASTUTE Teachers and Students: Applying STEM-Theme Unified Teaching to Empower Teachers and Students	\$68,821
Loveless, Daniel	National Science Foundation	REU Site: An Interdisciplinary CubeSat Research and STEM Education Platform at the University of Tennessee at Chattanooga (UTChattSat)	\$322,155
	National Science Foundation	CAREER: Maximizing Computational Performance and Reliability in State-of-the-Art Near-Threshold Computing Technologies through Stochastic Modeling	\$500,000
	Nu-Trek, Inc	Characterization of Radiation Effects in a 180 nm Low-Resistance Semiconductor Process at Cryogenic Temperatures	\$79,750
	National Reconnaissance Office	Preliminary Proposal: Development of a Stochastic-Based Reliability Modeling Tool for Emerging IC Technologies	\$254,355
	Vanderbilt University	Fundamental Research into Radiation Resiliency of Emerging Circuit Technologies Appropriate to the CWMD Mission	\$360,614
Pack, Daniel	University of Texas - San Antonio	Cognition and Neuroergonomics Collaborative Technology Alliance Technology Transition Subcontract for Mutually Adaptive Systems	\$88,912
	Shared Spectrum Company	SB162-011 Shared Spectrum Subcontract	\$233,297
Reising, Donald	Electric Power Research Institute	Learning from Power Quality Wave Forms	\$58,941
	University of Illinois at Urbana-Champaign	Critical Infrastructure Resiliency Through RF-DNA Fingerprints	\$127,249
	National Reconnaissance Office	Preliminary Proposal - Wireless Device ID Using Compressive Sensing	\$181,916
	National Science Foundation	GOALI - Making the Smart Grid "Smarter" Through Real-Time Electrical Disturbance Identification	\$336,321
<b>ENGINEERING MANAGEMENT &amp; TECHNOLOGY</b>			
Alp, Neslihan	National Science Foundation	EXCEL: EXploring Clean Energy through hands-on Learning	\$1,192,081
	UT Alliance of Women Philanthropists	Project-Based Learning (PBL) STEM Immersion	\$9,640
	TN Board of Architectural and Engineering Examiners	Low-Income Community Design Studio	\$20,000
	TN Higher Education Commission	EXCEL: EXploring Clean Energy through hands-on Learning	\$73,991
	Engineering Information Foundation	UTC Girls to Engineers Network (GEN) Funding Priority - Programs to Encourage Middle School Girls in Engineering	\$14,586

LEAD PI/PD	FUNDER	TITLE	AMOUNT
<b>MECHANICAL ENGINEERING</b>			
Elliott, Louie	Gestamp	On the Simulation and Modeling of Sheet Metal Forming for Gestamp Chattanooga	\$79,615
	The PT Solution, LLC	PT Ribbon Rail Applied Research Proposal	\$259,877
Elliott, Trevor	Denso North America Foundation	Baja SAE Capstone Project	\$49,000
Goulet, Ronald	Missile Defense Agency	Optimizing Flowability & Related Material Properties of Thermal Battery Powders	\$31,360
Margraves, Charles	National Science Foundation	Using a Zero+ Energy Building as a Pathway to STEM Careers	\$1,142,807
<b>COLLEGE OF HEALTH, EDUCATION, &amp; PROFESSIONAL STUDIES</b>			
<b>CENTER FOR COMMUNITY CAREER EDUCATION</b>			
Boykin, Twyler	US Dept. of Education	Upward Bound Math & Science	\$1,287,500
Brownlee, Belinda	US Dept. of Education	UTC Upward Bound Program	\$1,556,695
Cole, Sandra	Community Foundation of Greater Chattanooga Incorporated	CK, Now! Expansion	\$10,000
	Alliance of Women Philanthropists - Giving Circle	CK, Now!	\$6,000
	TN Higher Education Commission	Each One Reach One	\$99,984
Huckabay, Hunter	US Dept. of Education	UTC GEAR UP	\$5,112,429
<b>HEALTH &amp; HUMAN PERFORMANCE</b>			
Hamilton, Kara	Playcore	Evaluating Impact of Adult Fitness Zones in Local Parks	\$0
Hathaway, Elizabeth	Benwood Foundation	Start-Up Funds for Healthy Living Partnership in Collaboration with Governor's Healthier TN Initiative	\$7,500
Howard-Baptiste, Shewanee	Community Foundation of Greater Chattanooga Incorporated	D.A.N.C.E. - Determining Adolescents' Needs for Culturally-Appropriate Exercises: Investigating the Barriers to Physical Activity for Minority Female Adolescents	\$16,091
Wilkerson, Gary	National Institutes of Health	A New Paradigm for Sport Injury Prevention and Reduction of Risk for Disability	\$391,418



LEAD PI/PD	FUNDER	TITLE	AMOUNT
<b>INTERIOR DESIGN</b>			
Kendall, Catherine	TN Board of Architectural and Engineering Examiners	TBAEE Grant for Instructional Equipment UTC Interior Design F16	\$3,000
<b>LEAD</b>			
Crawford, Elizabeth	TN Department of Education	Governor's School for Prospective Teachers 2017	\$60,571
<b>SCHOOL OF NURSING</b>			
Fell, Nancy	National Institutes of Health	mStroke: development and clinical feasibility pilot testing of a post-stroke comprehensive mobile health management system	\$324,687
Hill, Linda	Health Resources and Services Administration	CRNA3D MAPS to Success - Mentorships, Admissions, Partnerships & Student Support	\$1,999,690
	Health Resources and Services Administration	Nurse Anesthesia Traineeship Grant	\$18,267
Kemplin, Kate	Queen's University	Queen's Alumnae Research Award	\$19,832
	Department of Defense	Preliminary Proposal: HeartRate Variability as a Covariate Performance Predictor in Special Operations Military Medics Delivering Prolonged Field Care.	\$0
	Department of Defense	Military Medics Evaluative Diagnostic In Clinical Simulation (MMEDICS) Predictive Performance Assessment Model	\$959,449
	Department of Defense	Prolonged & Extended Care Military Medics Evaluative Diagnostic (PECMED): Training & Performance Assessment Model	\$1,169,414
	Health Resources and Services Administration	FNP CANDL: Clinical-Academic Network for Developing Leaders	\$1,388,675
<b>PHYSICAL THERAPY</b>			
Levine, David	Goodhew	Effectiveness of Sockwell Compression Socks: A White Paper on Vascular Effects	\$2,978
<b>SCHOOL OF EDUCATION</b>			
Cowan, Kay	TN Higher Education Commission	Using Apps to Support Disciplinary Literacy and STEM Learning	\$74,906
Ellington, Lucien	Freeman Foundation	Freeman Foundation Teacher Professional Development Programs 2017-2018	\$17,996
	Charles Koch Foundation	2017-2018 Center for Reflective Citizenship Programs	\$76,214
	Association for Asian Studies, Inc	Education About Asia Journal 2017	\$77,932

LEAD PI/PD	FUNDER	TITLE	AMOUNT
Ellis, Jennifer	National Science Foundation	Collaborative Research: STEM-MS Chattanooga: Transforming Middle Grades Education Through a STEM-Infused Learning Model	\$629,534
	National Science Foundation	UTChattanooga STEM Education Noyce Scholarship Program	\$1,447,875
McAllister, Deborah	NASA	GLOBE Aerosols for Elementary Pre-service Teachers	\$2,000
	TN Higher Education Commission	Leveraging GLOBE Resources to Implement Middle Grades Science and Mathematics Standards	\$75,000
Tucker, James	Spencer Foundation	An Assessment Concerning the Efficacy of Incremental Rehearsal for Improving the Academic Performance of both Struggling and Learning Disabled Students in a Tier 1, Inner City School.	\$44,708
<b>SOCIAL WORK</b>			
Cooley, Morgan	Community Foundation of Greater Chattanooga Incorporated	Expanding Mental Health First Aid Chattanooga	\$9,248
	Alliance of Women Philanthropists - Giving Circle	Mental Health First Aid Training for College Students	\$13,063
	Community Foundation of Greater Chattanooga Incorporated	Expanding Mental Health First Aid Chattanooga	\$9,248
<b>SOUTHEAST CENTER FOR EDUCATION IN THE ARTS</b>			
Baxley, Joel	National Endowment for the Arts	Chattanooga Area Arts Education Needs Assessment	\$13,939
	Williamson County Schools	Visual Arts Concept-Based Instruction for K-12 Art Teachers	\$751
Melnik, Laurie	Shelby County Schools	Arts Integration Workshops at Sherwood Elementary School, Memphis TN	\$10,432
	Hunter Museum of American Art	STEEP to STEEPER Medical Student Training	\$11,000
	ArtsBuild	Support for Visual Arts Artist in Residence Project for Second Grade Students in Hamilton County	\$3,500
	Tennessee Arts Commission	Arts Learning Lab	\$10,000
	National Endowment for the Arts	I Come From a Place: A cross-generational, multidisciplinary in-school residency.	\$20,511
	Hamilton County Public Schools	Arts Pathways	\$848,073
<b>LIBRARY</b>			
Runyon, Carolyn	UT Alliance of Women Philanthropists	Voices of African American Women Oral History Project	\$14,715

LEAD PI/PD	FUNDER	TITLE	AMOUNT
<b>SIM CENTER</b>			
Hereth, Ethan	Pacific Engineering, Inc	Generation of meshes in support of amphibious vehicle simulations	\$10,127
Newman, James	University of Dayton Research Institute	Reusable Hypersonic Vehicle Structures	\$893,239
	NASA - Langley Research Center	Revolutionary Computational Aerosciences (RCA) Institute Support: Visitors and Faculty Engagement	\$14,948
	Pointwise, Inc	High Fidelity Mesh and Geometry Tools	\$24,975
Qin, Hong	National Science Foundation	CAREER: A probabilistic gene network model of cellular aging and its application on the conserved lifespan extension mechanisms of dietary restriction	\$527,903
	National Science Foundation	REU Site: IComputeB2 - Engaging Undergraduates in Interdisciplinary Computing for Biological and Biomedical Research	\$321,489
	National Institute on Aging	Connecting the emergent aspects of gene networks to cellular aging	\$3,362,336
Sreenivas, Kidambi	Oak Ridge National Laboratory	Simulation of Pelton Turbine	\$3,996
Webster, Robert	Engility Corporation	Heterogeneous HPC for High-order Stabilized Finite-elements on Moving and Deforming Domains	\$422,001
<b>ADMINISTRATIVE UNITS</b>			
<b>ACADEMIC AFFAIRS</b>			
Benkert, Stuart	Tennessee Higher Education Commission	MacLellan Student Success Center: A Major Renovation of MacLellan Gymnasium	\$8,150,000
<b>ENROLLMENT SERVICES</b>			
Freeman, Yancy	TN Higher Education Commission	UTC Veteran Reconnect	\$79,308
<b>INTERNATIONAL EDUCATION</b>			
Suzuki, Takeo	FHI 360	Social Entrepreneurship SUSI Institute	\$198,428
	FHI 360	Young Transatlantic Leader Exchange: Entrepreneurship and Innovation	\$49,089
	FHI 360	NEA/AC Student Leaders Program	\$297,986
<b>RADIO STATION</b>			
Cantrell, Chuck	Corporation for Public Broadcasting	FY2017 CPB Community Service Grant	\$132,703
Miller, Michael	Public Radio Exchange	Muslims in the Bible Belt Podcast	\$100,000

LEAD PI/PD	FUNDER	TITLE	AMOUNT
<b>STUDENT AFFAIRS</b>			
Henderson, Tricia	Substance Abuse and Mental Health Services	UTC GLS Suicide Prevention Project	\$305,847
Henkle, Jennifer	UT Alliance of Women Philanthropists	UTC Food Pantry	\$7,977
<b>VICE CHANCELLOR FOR RESEARCH</b>			
Carroll, Andrew	Lyndhurst Foundation	Interdisciplinary Geospatial Technology Lab Support Year 3	\$100,000
	Friends of Cloudland Canyon State Park	Map Updates for GA DNR and Friends of Cloudland Canyon State Park	\$1,550
	Tennessee Valley Authority	Application development for TVA Water Trails Project	\$45,000
	North Carolina Wildlife Resources Commission	Conservation Web Map for the Little Tennessee River Native Fish Conservation Area Partnership (NFCA)	\$39,916
Romagni, Joanne	TN Higher Education Commission	Center for Excellence in Applied Computational Science & Engineering	\$1,150,583
	Howard Hughes Medical Institute	Preliminary Proposal – Pathways to Advance Science Success (PASSport)	\$0
	US Dept. of Education	Ronald E. McNair Post baccalaureate Achievement Program	\$1,133,000
<b>Total Proposed Funding</b>			<b>\$55,558,214</b>

# UTC OFFICE OF RESEARCH & SPONSORED PROGRAMS

## How we can help:

The Office of Research & Sponsored Programs (ORSP) seeks to promote scholarship, research, creative activities, and engagement by encouraging and providing comprehensive support to faculty and staff in the pursuit of sponsored programs.

### Identifying Funding Opportunities

Helping you locate the right funding agency and Program. ORSP hosts the Pivot searchable database and helps faculty create profiles to generate information on funding opportunities. We can conduct funding opportunity searches and meet with faculty to provide advice and guidance in identifying an individual research plan. Your research plan may include internal as well as external funding opportunities.

### Supporting Proposal & Research Development

Helping you develop a competitive proposal. The earlier we become involved in the proposal process, the more help we can provide to improve your chances for funding. We offer the following services:

- Provide you with resources before you begin your proposal, including previously funded proposals, application guidelines, and “tip” sheets for specific agencies.
- Support your participation in grant-writing workshops, professional development opportunities, and funding agency seminars related to research and sponsored programs.
- Arrange for experienced proposal writers or disciplinary experts to read and critique your draft proposal prior to submission.
- Review your proposal narrative and offer editorial assistance and feedback on project design, administration, budgeting, and grantsmanship.

### Coordinating Submission and Award

- Help complete agency forms and submit the proposal to the funding agency, with sufficient lead time.
- Review and approve proposals before submission to ensure compliance with UT policies and sponsor requirements.
- Administer the UTC internal proposal approval process through the online Evisions system.
- Review, negotiate, and process contracts and sub-contracts awarded to the university.

### Enabling & Celebrating Research Success

- Coordinate internal grant opportunities to “seed” research and sponsored programs activity.
- Recognize faculty achievements both within UTC and to the community through email announcements, website postings, and campus events.

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