



 **THE UNIVERSITY OF TENNESSEE**
CHATTANOOGA
Research and Sponsored Programs

ANNUAL REPORT
FISCAL YEAR 2021
JULY 1, 2020 - JUNE 30, 2021



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WELCOME

In these uncertain times, UTC faculty and staff have remained committed to teaching & learning, outreach, creative endeavors, and scholarly inquiry. The 2020 - 2021 ORSP Annual Report documents UTC's sponsored activity achievements, which make invaluable contributions towards UTC's mission and strategic goals. The campus continues to attract external resources that invest in our community, engage research and scholarship across academic disciplines, promote student opportunities, foster innovation through research and development, and grow our capacities in strategic and sustainable ways.

In FY21, UTC faculty and staff prepared and submitted nearly 200 proposals, achieving a high-water mark in UTC'S proposal activity. Even when adjusting for outliers, FY21 proposals reflect a collective potential dollar value in excess of \$82 million - a 34% increase in funds requested over FY20. The good efforts of our faculty and staff were recognized with awards totaling \$13.6 million in funds for outreach, scholarship, and student support, with an additional \$43 million in HEERF funding in response to the COVID-19 pandemic.

While these achievements reflect the meritorious efforts of our faculty, they also underscore the contributions of the many units that support research and sponsored program activity. Please join me in congratulating all of the FY21 awardees for their successes and thanking those who have submitted proposals during FY21. The skill, expertise, and commitment of so many on campus working together is an investment that will pay dividends for our shared future.



Dr. Joanne Romagni

Vice Chancellor for
Research and Dean of
the Graduate School



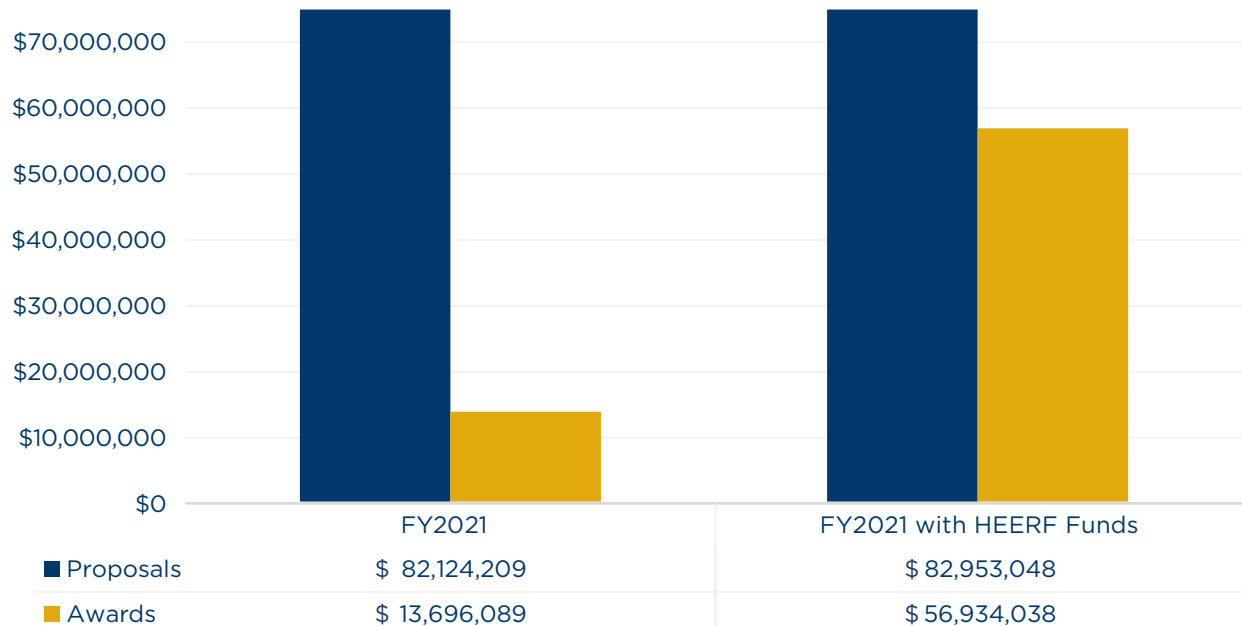
ORSP Staff Members

(From left to right and
front to back)

Meredith Perry,
Terri Bearbower,
Ashley Ledford,
Maria Derrick,
Sam Stanley,
Todd Doman, and
Angie Morelock

HEERF FUNDING

PROPOSALS & AWARDS WITH HEERF

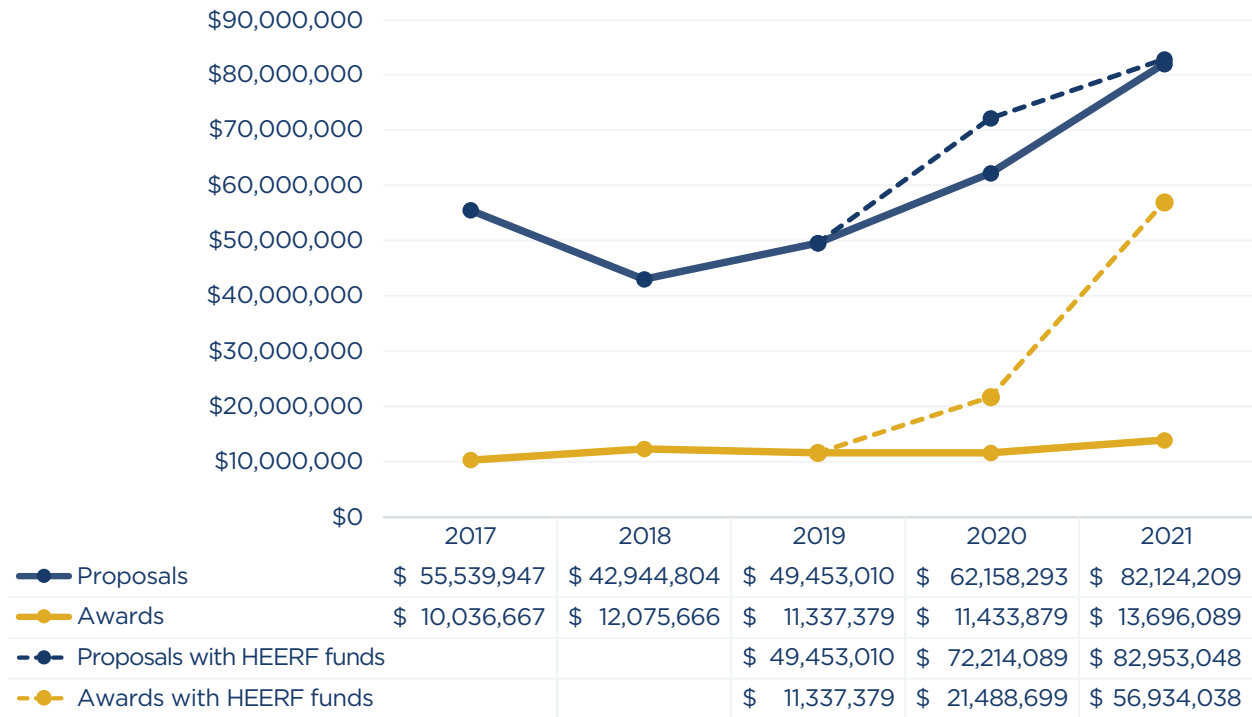


The Higher Education Emergency Relief Fund (HEERF) was passed to provide relief to people experiencing the negative effects of the COVID-19 pandemic. While UTC received funding from HEERF via several federal agencies, these awards are solely to provide relief to students and the university to help our community recover.

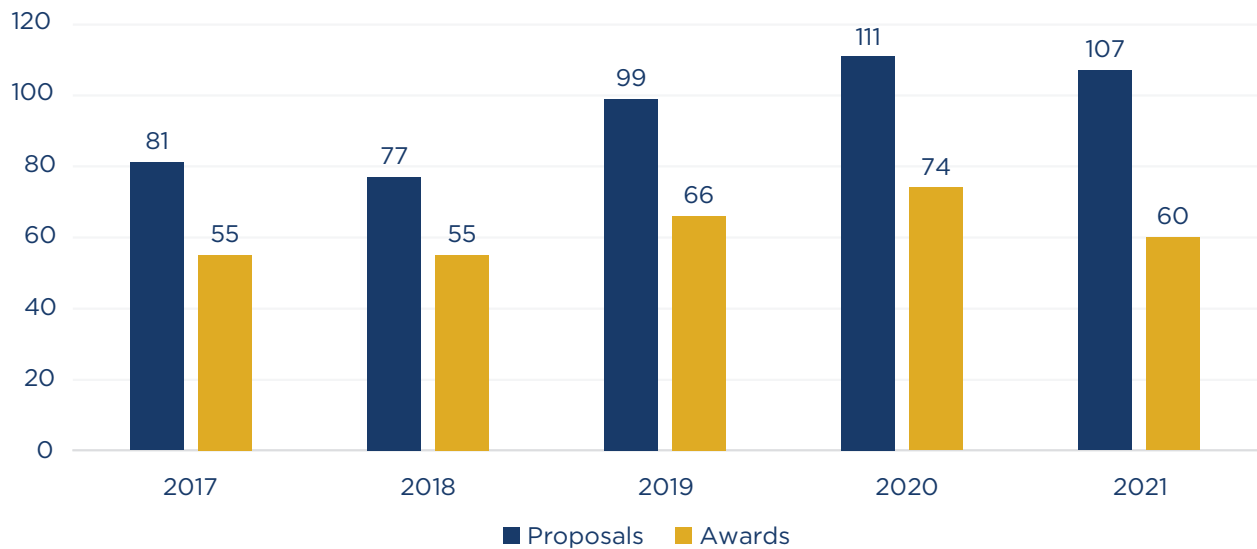
The total award amount excluding HEERF is an accurate representation of the awards that will continue to support research and sponsored program activities. As such, the award amounts reflected in the remainder of this report exclude HEERF.

INSTITUTION OVERVIEW

FY17 - 21 PROPOSALS AND AWARDS

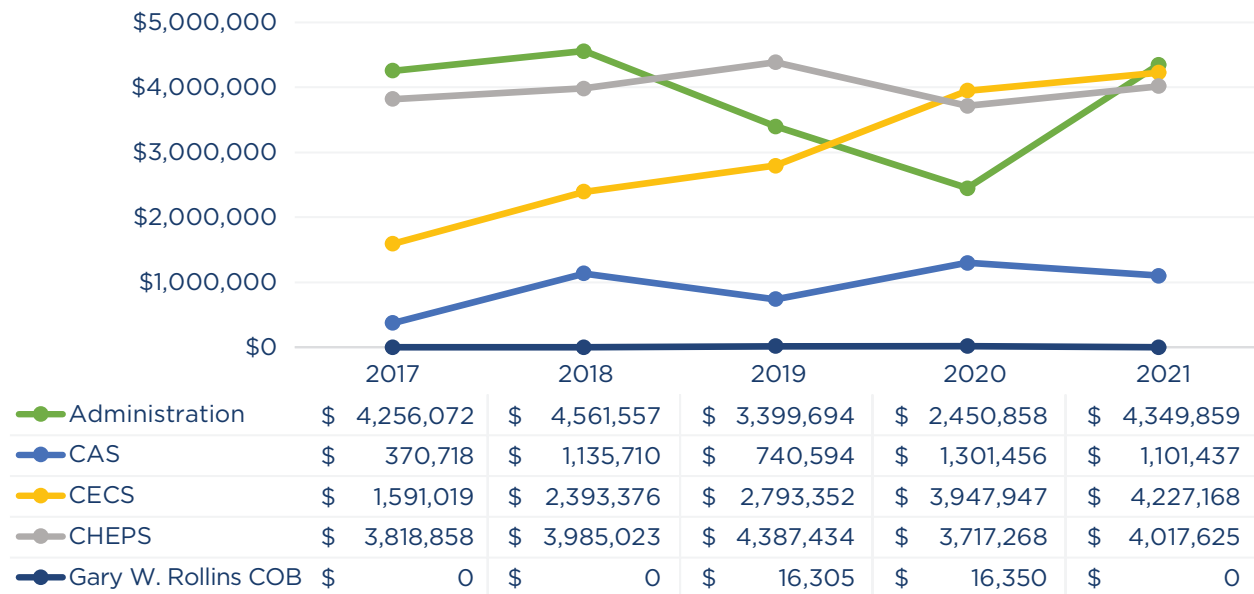


UNIQUE LEAD PRINCIPAL INVESTIGATORS

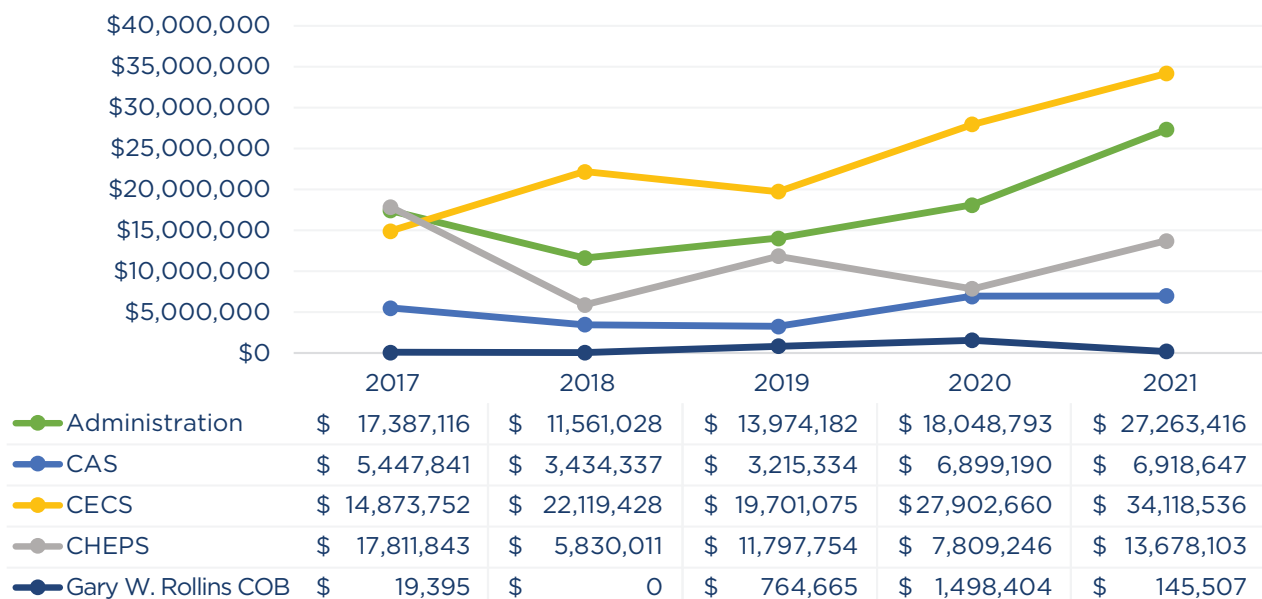


SPONSORED PROGRAM HIGHLIGHTS

FIVE-YEAR TREND - AWARDS

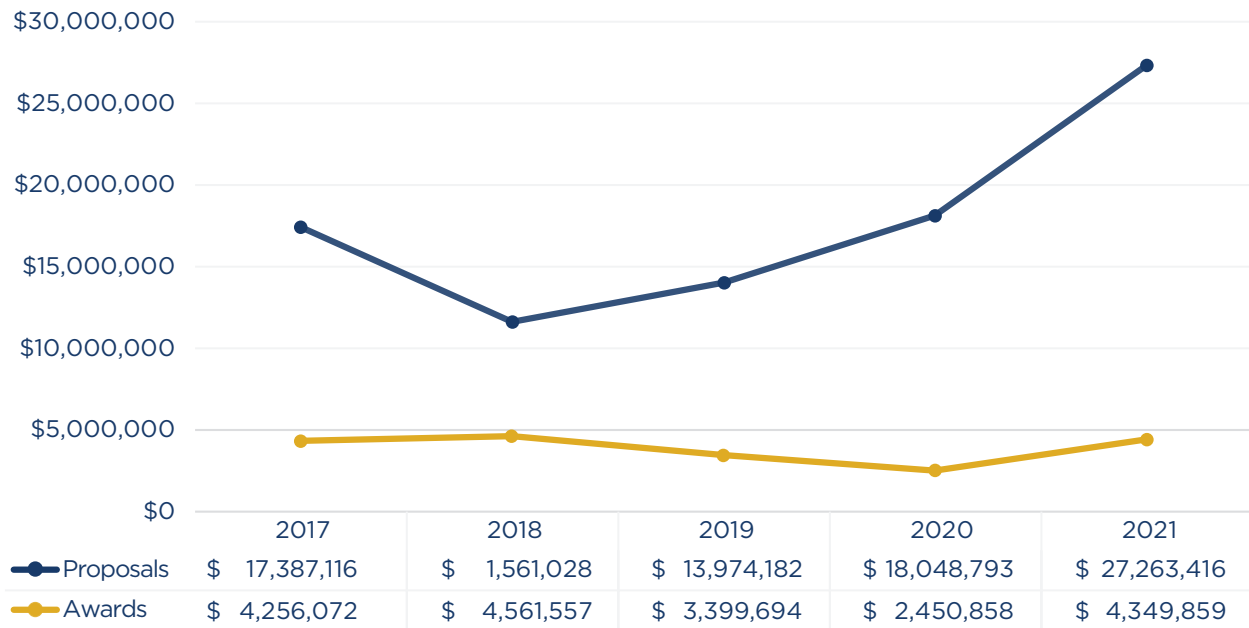


FIVE-YEAR TREND - PROPOSALS

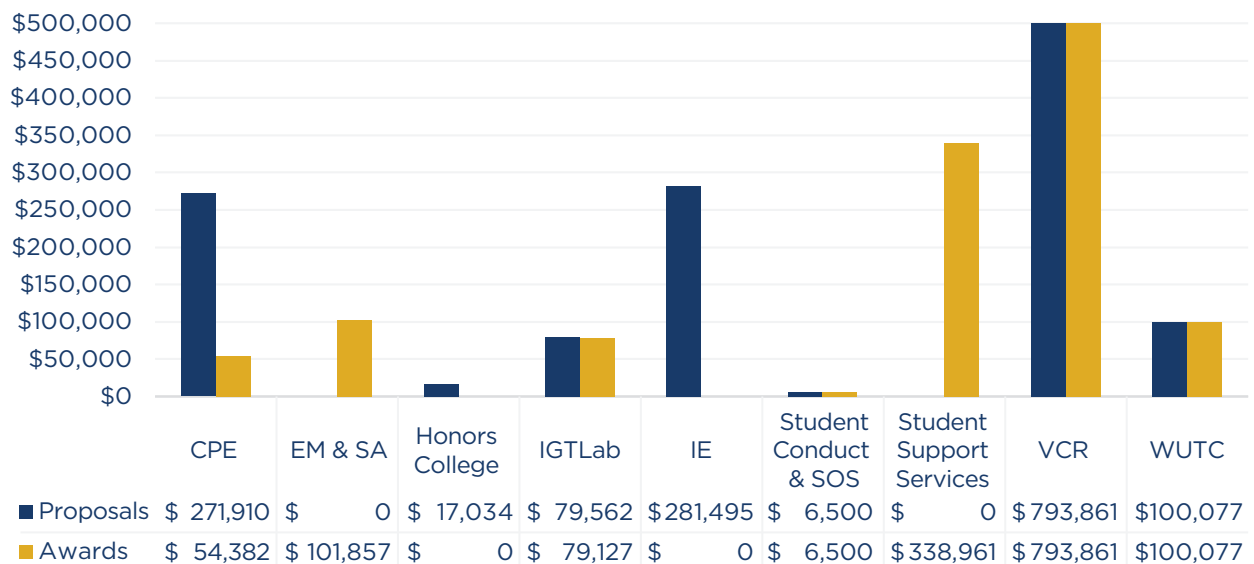


ACADEMIC ADMINISTRATION

FY17 - 21 PROPOSALS AND AWARDS



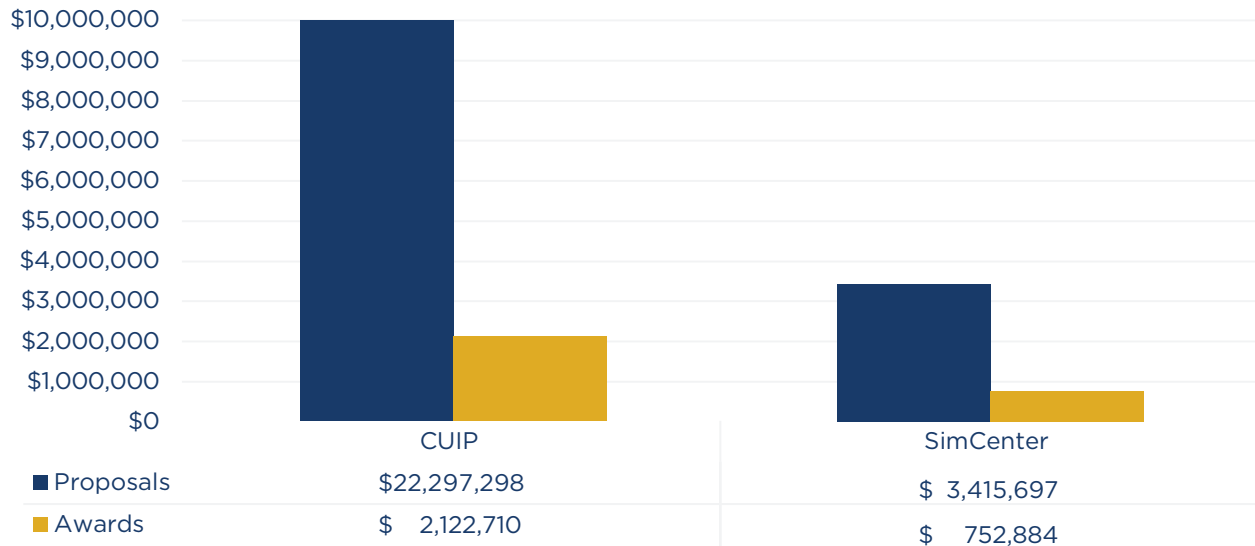
PROPOSALS AND AWARDS BY DEPARTMENT



CPE: Center for Professional Education; EM & SA: Enrollment Management & Student Affairs; IE: International Education; VCR: Vice Chancellor for Research

CORE RESEARCH CENTERS*

PROPOSALS AND AWARDS



*The Research Centers are classified as Administrative departments through the Vice Chancellor of Research for ORSP reporting purposes.

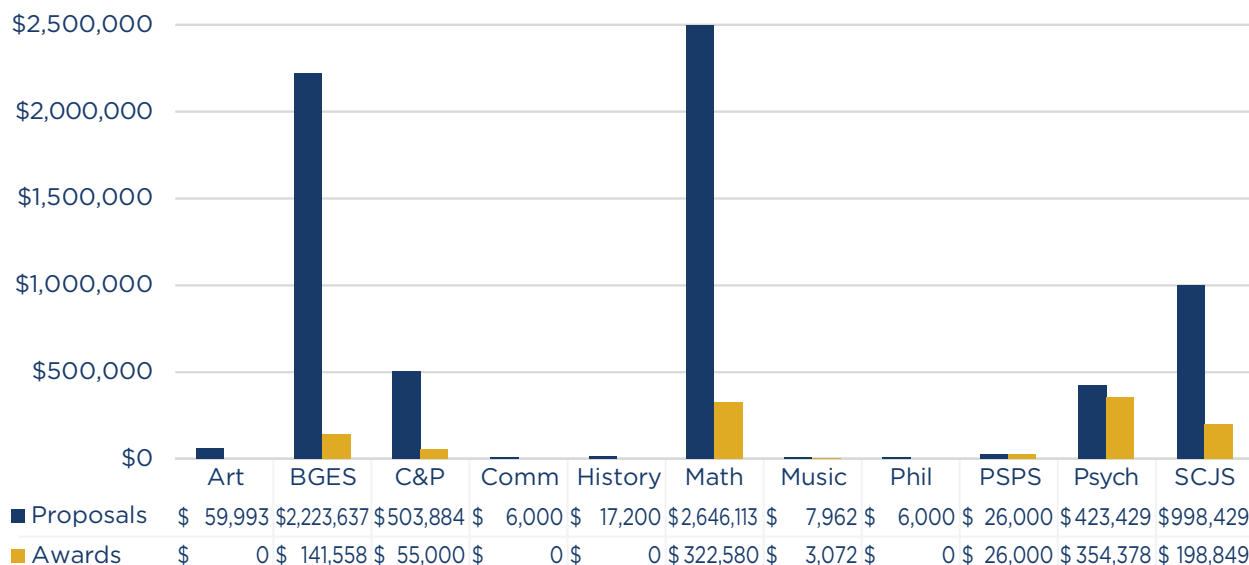
The Center for Urban Informatics and Progress (CUIP), led by **Dr. Mina Sartipi**, is a hub for innovations in response to urban challenges. Dr. Sartipi engaged partners and experts on proposals with a potential value of **\$22.3 million** in FY2021 and has been awarded **\$1.6 million** for her work with energy-conscious traffic signal control systems for optimized fuel consumption.



SimCenter, led by **Dr. Tony Skjellum**, serves as a research accelerator for advanced modeling and simulation, and acts as UTC's core facility for High-Performance Computing. In FY2021, Dr. Skjellum led 7 different R&D projects and was awarded more than **\$700k**. Dr. Skjellum has also submitted proposals valued at **\$3 million** in FY2021.

COLLEGE OF ARTS AND SCIENCES

PROPOSALS AND AWARDS BY DEPARTMENT



BGES: Biology, Geology, and Environmental Science; C&P: Chemistry & Physics; Comm: Communication; PSPS: Political Science & Public Service; SCJS: Social, Cultural, and Justice Studies

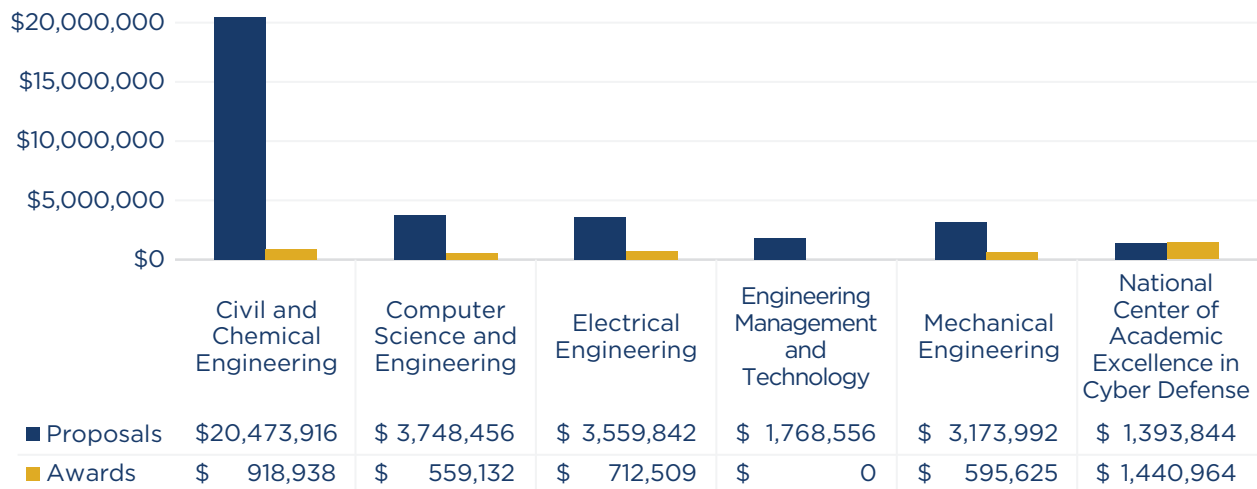
Dr. Zibin Guo (Social, Cultural, and Justice Studies), received an award of **\$139,823** from the U.S. Department of Veteran Affairs to support his Tai Chi Chuan (martial arts) training and outreach program for physically disabled veterans. Dr. Guo's work allows for veterans to transform their assistive device of a wheelchair to a tool of empowerment and artistic expression.



Dr. Jin Wang (Mathematics) received an award of **\$200,000** from the NSF to support his research on Deterministic Models for Waterborne Infections. He was also awarded an additional **\$122,000** fr from the NIH to study the impacts of the COVID-19 vaccination campaign on the transmission and spread of SARS-CoV-2 and on the economic growth in the US.

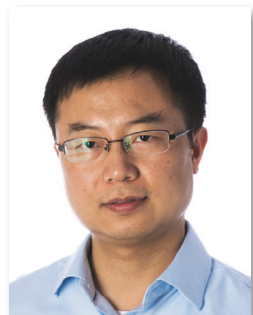
COLLEGE OF ENGINEERING AND COMPUTER SCIENCE

PROPOSALS AND AWARDS BY DEPARTMENT



Note: Dr. Daniel Pack submitted a preliminary proposal for \$98,000,000 not included in the data.

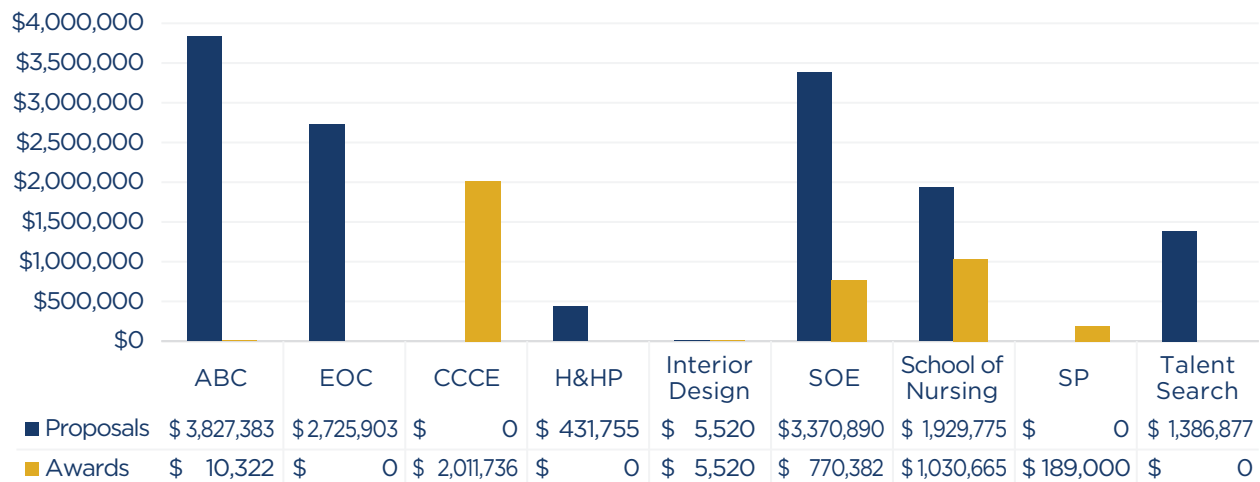
Dr. Brad Harris (Civil and Chemical Engineering) secured more than **\$591k** from the NSF to provide summer research experiences and curricular development activities for regional community college faculty in the field of cyber-physical systems. The project will contribute to new knowledge and technology, and help bridge the preparedness gap among community college transfer students.



Dr. Mengjun Xie (Computer Science and Engineering) brought more than **\$1.2 million** in funding in FY2021. Dr. Xie's endeavors aim to increase interest in Cyber Security among students to fill the much-needed gap of Cyber Defense Professionals in the U.S.

COLLEGE OF HEALTH, EDUCATION AND PROFESSIONAL STUDIES

PROPOSALS AND AWARDS BY DEPARTMENT

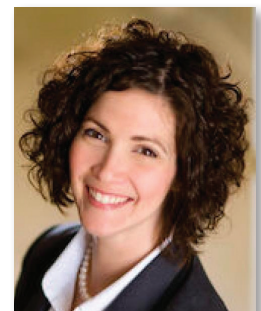


ABC: Arts-Based Collaborative; CCCE: Center for Community Career Education; CC: Challenger Center; H&HP: Health & Human Performance; PT: Physical Therapy; SOE: School of Education; SP: School Psychology



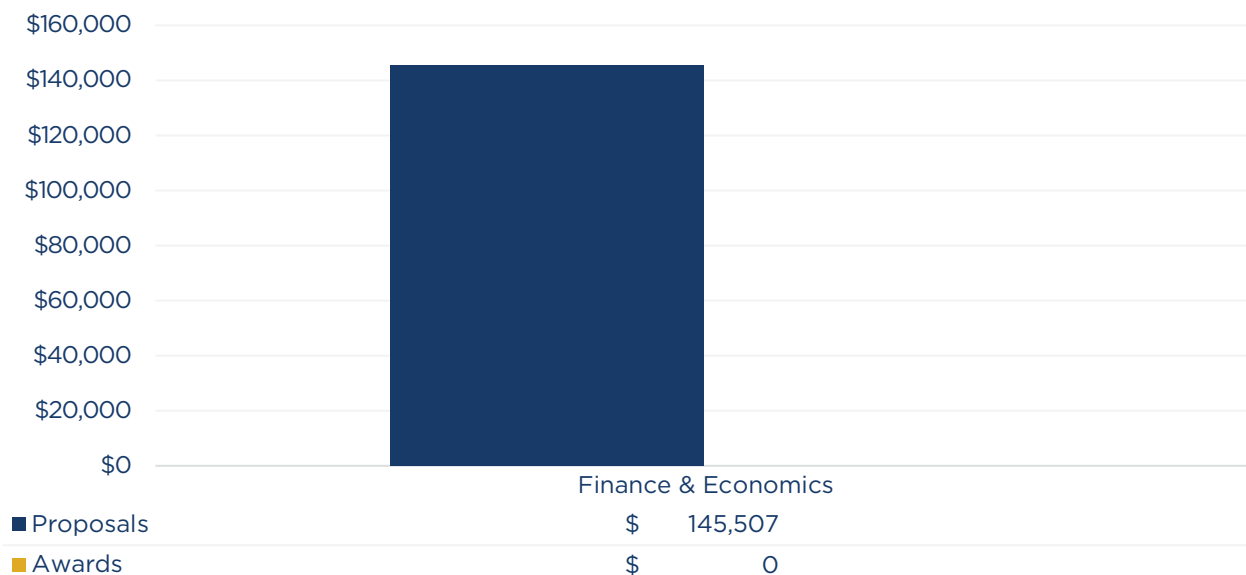
Dr. Kristi Wick (School of Nursing) has received an award of **\$28k** from the Community Foundation of Greater Chattanooga to support her COVID-19 vaccination campaign. Dr. Wick also submitted a proposal with the Tennessee Department of Health to the CDC, which is poised to bring in **\$1.5 million** to address disparities among high-risk populations of COVID-19 including racial and minority populations and rural communities.

Laurie Allen (Art Based Collaborative) has received an award of **\$3,500** from the Alabama Department of Education to support Buckets and Brushes, a whole-school arts integration program designed to increase access to music and visual art.



GARY W. ROLLINS COLLEGE OF BUSINESS

PROPOSALS AND AWARDS BY DEPARTMENT



Dr. Rafayet Alam (Finance and Economics) has submitted a proposal with Prairie View A&M University requesting **\$88k** from the USDA to enhance the financial and technical access of limited resource and/or socially disadvantaged farmers and ranchers through research and education.

Thank you to our research partners!



Bailey Kirby
Grant Administrator,
SimCenter
Bailey-Kirby@utc.edu



Ethan Carver
Assistant Dean,
The Graduate School
Ethan-Carver@utc.edu



Lisa Piazza
Director, Office for
Undergraduate Research
and Creative Endeavor
(URaCE)
Lisa-Piazza@utc.edu



David Deardorff
Interim Director, Office of
Research Integrity
David-Deardorff@utc.edu



Virginia Moore
Director,
Accounting Services
Virginia-Moore@utc.edu

THE UNIVERSITY OF TENNESSEE CHATTANOOGA

Research and Sponsored Programs



Meredith Perry

Assistant Vice Chancellor
for Research
(423) 425-2232
Meredith-Perry@utc.edu

Todd Doman

Grant Specialist
(423) 425-5868
Todd-Doman@utc.edu

Ashley Ledford

Research Development &
Awards Specialist
(423) 425-5968
Ashley-Ledford@utc.edu

Angie Morelock

Assistant Director
(423) 425-5399
Angie-Morelock@utc.edu

Sam Stanley

Grant Specialist
(423) 425-4168
Sam-Stanley@utc.edu

Terri Bearbower

Research Office Manager
(423) 425-1743
Terri-Bearbower@utc.edu

INDIVIDUAL AND INTERNAL AWARDS

UTC Faculty earned scholarly awards as individuals:

- Tatianna Allen, *Chemistry & Physics*, from the U.S. Department of Energy
- Andrew O'Brien, *Art*, from the Tennessee State Government

APPENDIX

Lead Investigator	Total Award Amount	Total Proposal Amount	Lead Investigator	Total Award Amount	Total Proposal Amount
<i>Alakaam, Amir</i>		\$17,464	<i>Guo, Zibin</i>	\$123,028	\$164,513
<i>Alam, Rafayet</i>		\$88,097	<i>Harris, Brad</i>	\$591,489	\$519,232
<i>Alda-Pons, Fernando</i>		\$4,944	<i>Hayes, Loren</i>	\$46,000	\$46,000
<i>Allen, Laurie</i>	\$6,520	\$3,823,582	<i>Henderson, Tricia</i>	\$101,857	
<i>Barbosa, Jose</i>		\$72,797	<i>Hill, Linda</i>	\$23,602	
<i>Black, Kristen</i>		\$63,863	<i>Hood, Ralph</i>	\$347,878	\$353,066
<i>Boykin, Twyler</i>	\$297,601		<i>Howard-Baptist, Shewanee</i>		\$78,000
<i>Bridges, Keith</i>	\$313,131	\$2,725,903	<i>Hubbard, Latisha</i>	\$6,000	\$6,500
<i>Brock-Hon, Amy</i>		\$887,211	<i>Huckabay, Hunter</i>	\$751,637	
<i>Cepak, Anthony</i>		\$6,000	<i>Hunt, Nyssa</i>		\$377
<i>Cooper, Kody</i>	\$1,000	\$1,000	<i>Ibrahim, Hamdy</i>	\$60,500	\$402,700
<i>Dakhila, Sami</i>		\$57,410	<i>Kandah, Farah</i>	\$67,003	\$1,381,711
<i>Danquah, Michael</i>	\$45,453	\$3,183,620	<i>Kaplanoglu, Erkan</i>		\$109,666
<i>Deardorff, Michelle</i>	\$25,000	\$25,000	<i>Kendall, Catherine</i>	\$5,520	\$5,520
<i>DeVries, Stephanie</i>	\$21,435	\$49,739	<i>Kim, Seong Dae</i>		\$50,000
<i>Dittmar, Angela</i>	\$3,802	\$3,801	<i>Klug, Hope</i>	\$11,389	\$11,389
<i>Duncan, Kendra</i>		\$25,000	<i>Kong, Lingju</i>		\$431,958
<i>Ellington, Lucien</i>	\$104,138	\$128,151	<i>Lane, Bryan</i>	\$240,391	\$240,391
<i>Elliott, Trevor</i>		\$542,220	<i>Leasi, Francesca</i>		\$943,831
<i>Ellis, Jennifer</i>		\$2,496,922	<i>Laseter, Melissa</i>	\$338,961	
<i>Elverd, Katherine</i>		\$4,890	<i>Liang, Yu</i>		\$1,212,530
<i>Fomunung, Ignatius</i>	\$271,996	\$4,999,246	<i>Loveless, Daniel</i>	\$454,279	\$507,187
<i>Forrest, Tyler</i>	\$43,097,635	\$688,525	<i>Mahtabi Oghani, Mohammad</i>		\$532,268
<i>Frost, Linda</i>		\$7,500	<i>Mansouri Boroujeni, Misagh</i>		\$14,986
<i>Gaudin, Timothy</i>	\$8,183	\$8,183	<i>McAllister, Deborah</i>	\$35,807	\$15,000
<i>Guess, Pamela</i>	\$189,000		<i>McLean, Aldo</i>		\$61,737

<i>Michael, Jaclyn</i>		\$6,000	<i>Shaw, Joey</i>	\$18,551	\$199,543
<i>Mix, Charles</i>	\$79,127	\$79,185	<i>Shelton, Jill</i>	\$6,500	\$6,500
<i>Mohammed, Abdelrahman</i>		\$105,143	<i>Shi, Yunye</i>		\$199,523
<i>Murillo, Krysta</i>		\$100,000	<i>Simms-Roberson, Priscilla</i>	\$3,000	\$5,000
<i>Murley, Renee</i>	\$360,521	\$545,246	<i>Simoni, Zachary</i>		\$6,021
<i>Newman, James</i>	\$535,125		<i>Skjellum, Tony</i>	\$714,916	\$2,977,714
<i>O'Brien, Andrew</i>		\$5,000	<i>Smith, Christine</i>	\$342,816	\$342,816
<i>Onyango, Mbakisya</i>		\$9,612,556	<i>Smith, Morgan</i>	\$34,990	\$521,258
<i>Osman, Osama</i>		\$14,999	<i>Sreenivas, Kidambi</i>		\$1,492,211
<i>Pack, Daniel</i>	\$58,250	\$99,976,161	<i>Suzuki, Takeo</i>		\$281,495
<i>Palchoudhury, Sou</i>	\$10,000	\$697,573	<i>Tantawi, Khalid</i>		\$1,485,863
<i>Panagiotou, Eleni</i>		\$616,852	<i>Tejero, Nikolasa</i>	\$3,072	\$3,072
<i>Park, Han Jung</i>		\$9,920	<i>Thompson, Michael</i>		\$17,200
<i>Persons, Brooke</i>		\$187,806	<i>Tyndall, Laura</i>		\$14,470
<i>Peyer, Karissa</i>		\$500	<i>Vann, Karen</i>	\$277,375	\$1,386,877
<i>Philipp, Stephanie</i>	\$269,916		<i>Varol, Serkan</i>		\$46,304
<i>Pienkos, Jared</i>	\$55,000	\$493,964	<i>Wang, Jin</i>	\$322,580	\$869,004
<i>Policastro, Christina</i>	\$40,831	\$40,831	<i>Wang, Yingfeng</i>	\$284,098	\$528,978
<i>Qin, Hong</i>	\$245,999	\$832,276	<i>Watson, William</i>	\$54,382	\$271,910
<i>Ranjan, Reetesh</i>		\$5,000	<i>Weerasena, Lakmali</i>		\$728,299
<i>Rasouli Disfani, Vahid</i>		\$516,193	<i>Wick, Kristina</i>	\$84,500	\$1,567,489
<i>Reese, Rachel</i>		\$54,993	<i>Wilkerson, Gary</i>		\$413,791
<i>Reising, Donald</i>	\$199,980	\$1,103,737	<i>Williams, Sherese</i>		\$9,534
<i>Roache, Amber</i>	\$576,747		<i>Wingate, Kimberly</i>		\$60,571
<i>Romagni, Joanne</i>	\$793,861	\$793,861	<i>Xie, Mengjun</i>	\$1,255,017	\$1,438,823
<i>Sartipi, Mina</i>	\$2,122,710	\$22,297,298	<i>Yang, Li</i>	\$185,947	\$185,947
<i>Schorr, Mark</i>	\$36,000		<i>Yang, Sungwoo</i>		\$1,446,690
Note: Dr. Daniel Pack submitted a preliminary proposal for \$98,000,000 not included in the data.			Grand Total	\$56,934,038	\$82,953,048

NOTES:

