

UNIVERSITY OF TENNESSEE AT CHATTANOOGA

SPONSORED PROGRAM ACTIVITY

QUARTERLY REPORT



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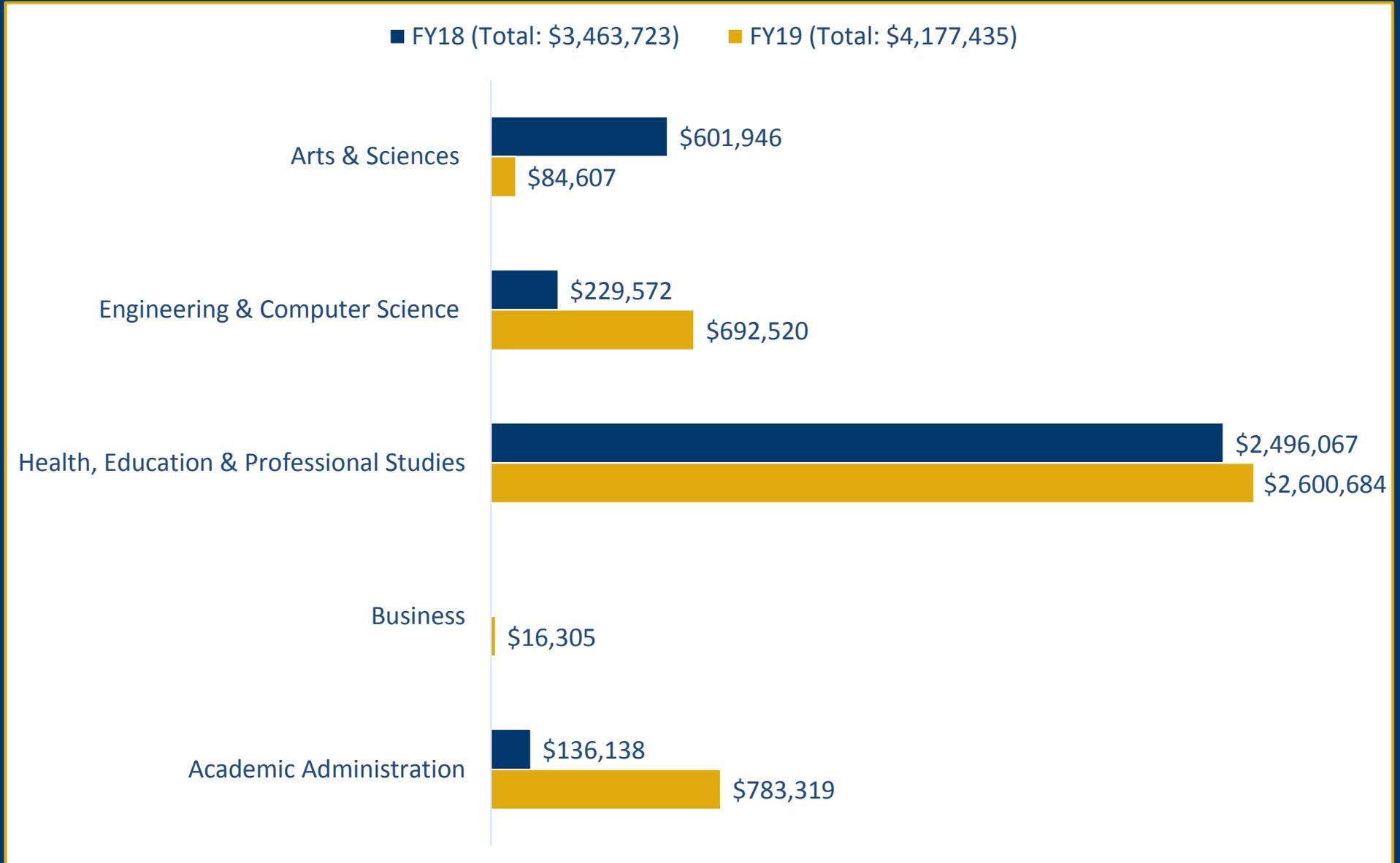
INTRODUCTION

FIRST QUARTER: JULY 1, 2018 – SEPTEMBER 30, 2018

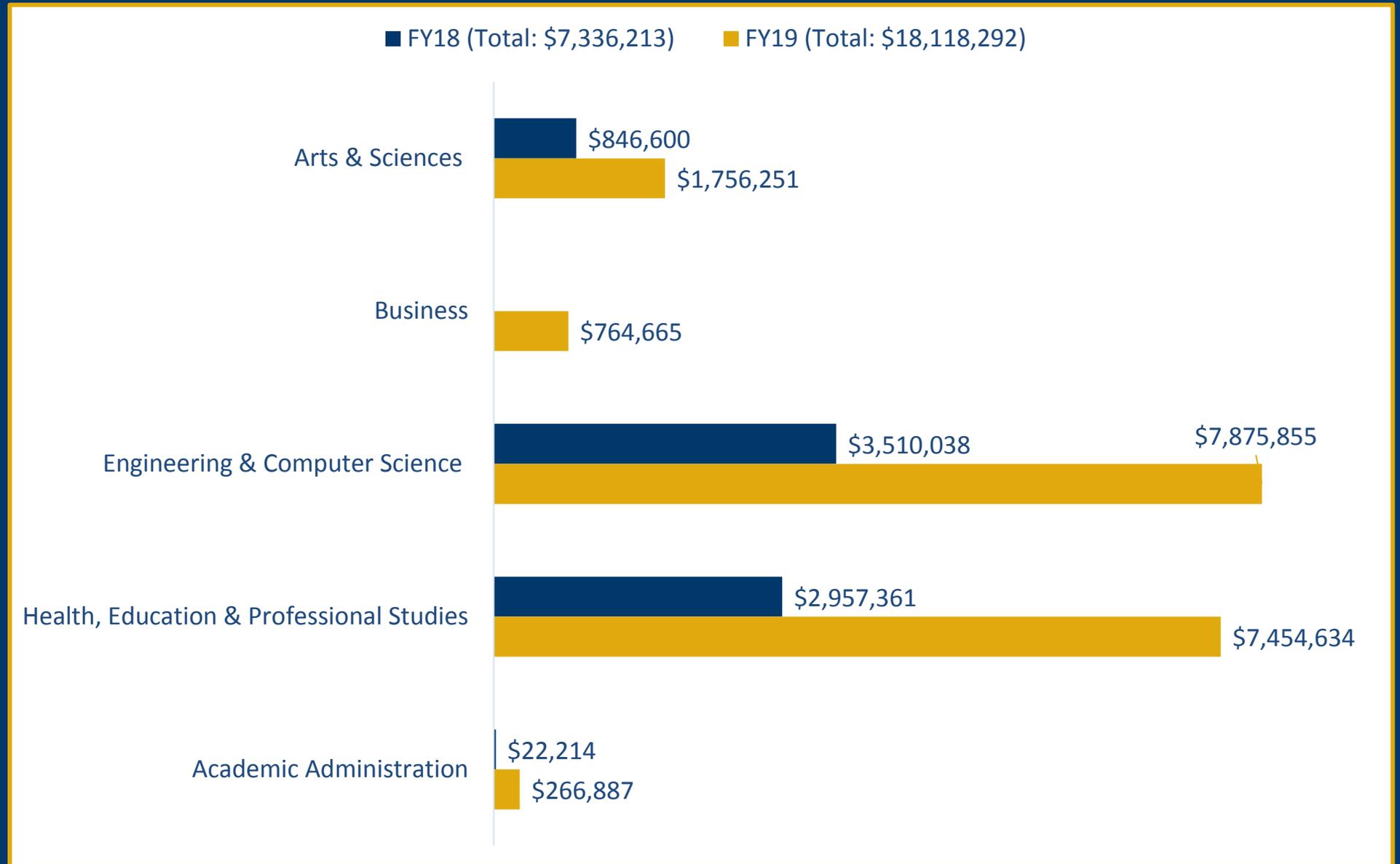
The information contained in this report is drawn from the Cayuse database and provides comparisons of the amounts of external funding for the first quarters of FY 18 and FY 19. This report includes all proposals and awards that were reported and approved by September 30, 2018. Proposals submitted for internal routing but not yet approved and awards not fully processed as of that date will be included in future quarterly reports. If any of the information in this report does not correspond to your records or you have general questions, please notify orsp@utc.edu.



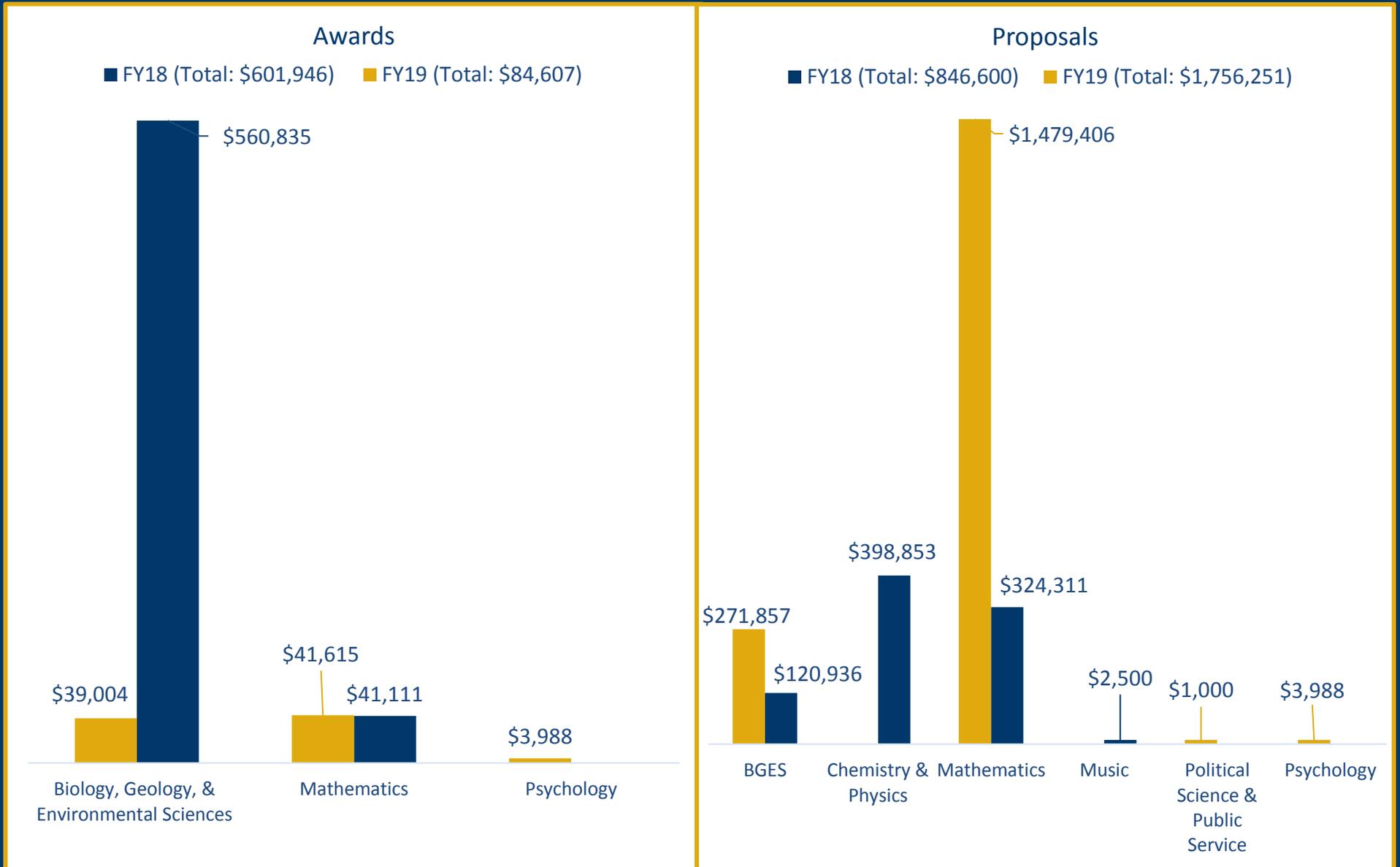
UTC SPONSORED PROGRAMS – AWARDS FY18/FY19 COMPARISON



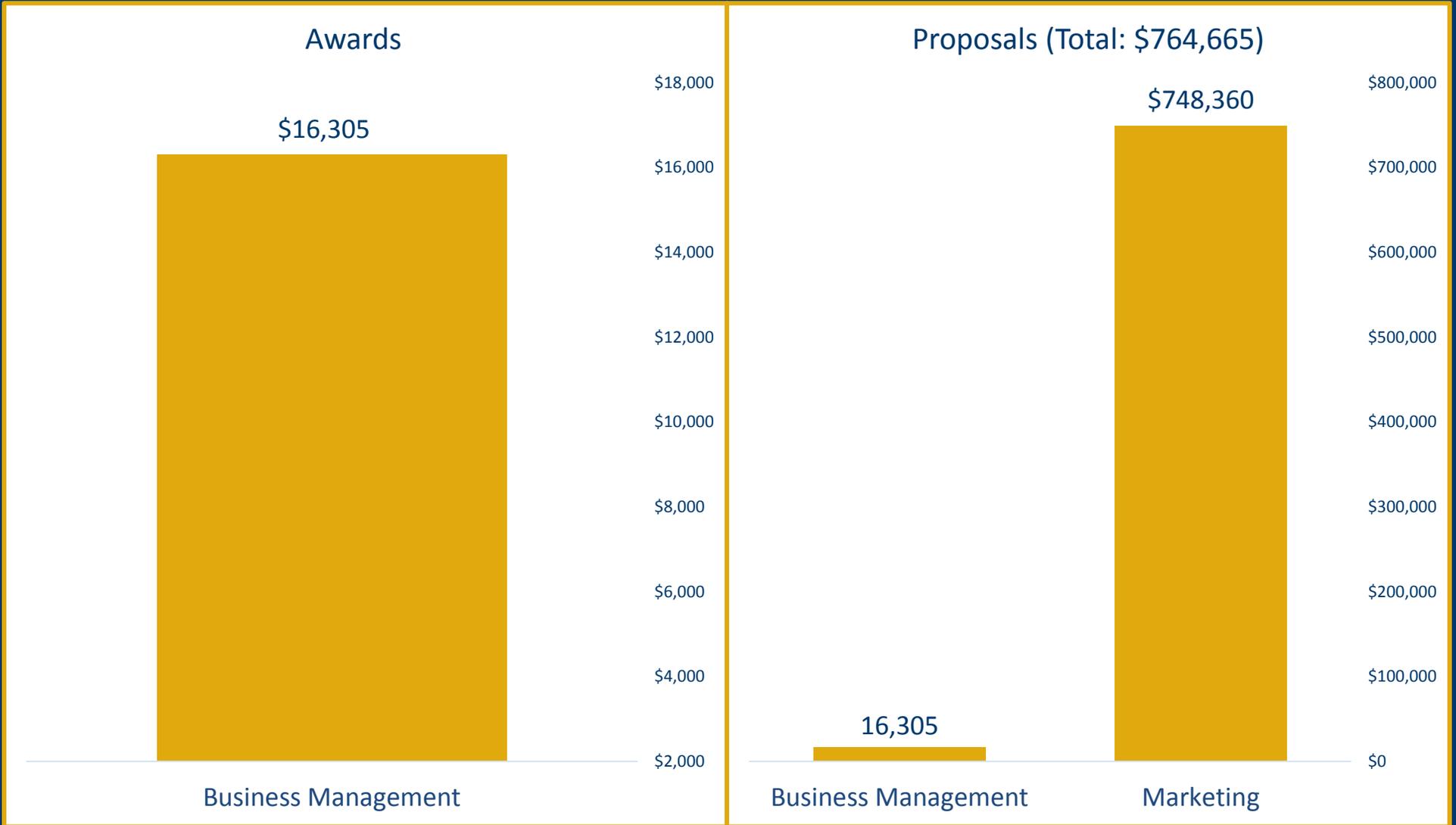
UTC SPONSORED PROGRAMS – PROPOSALS FY18/FY19 COMPARISON



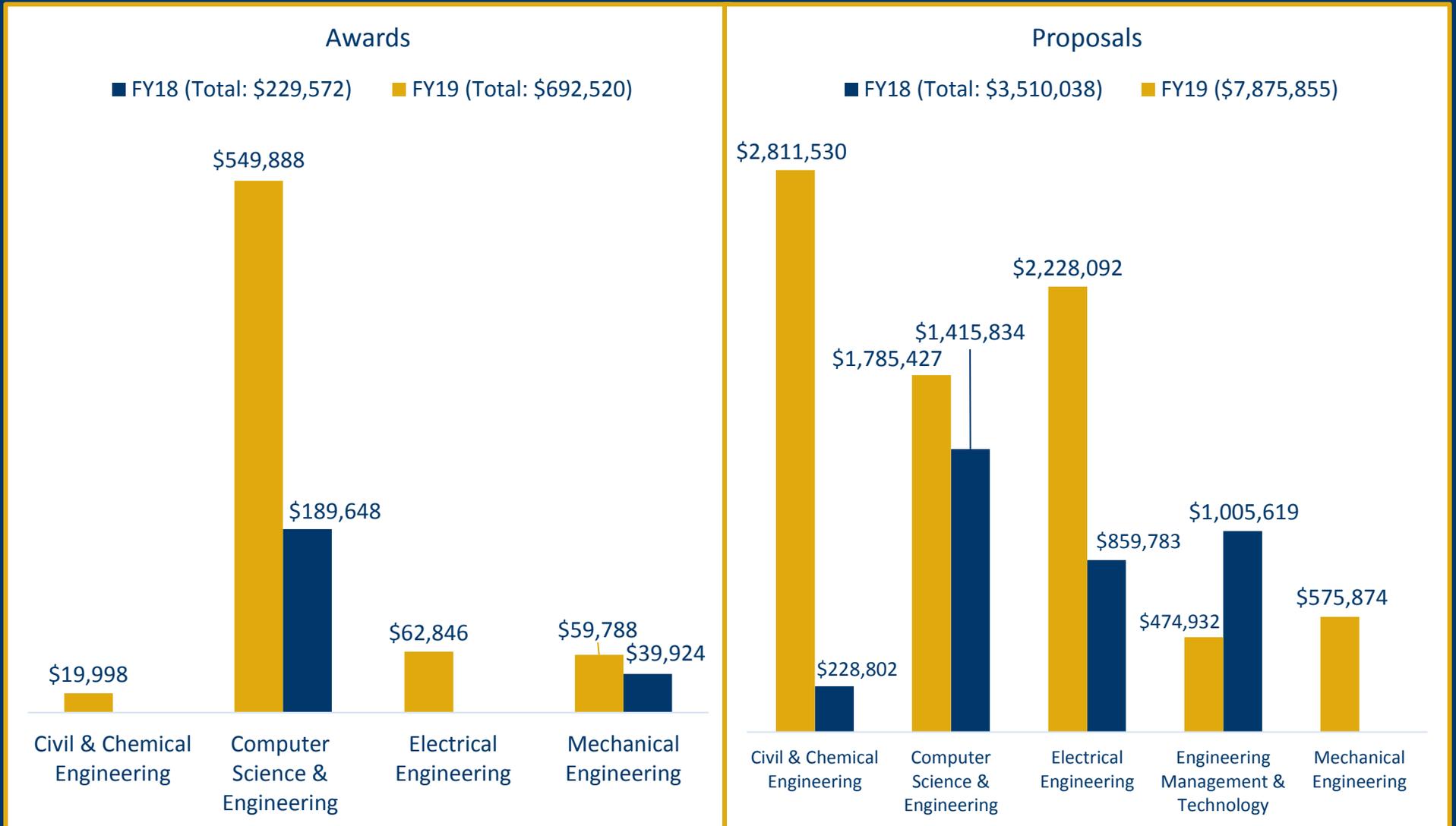
COLLEGE OF ARTS & SCIENCES – AWARDS & PROPOSALS FY18/FY19 COMPARISON



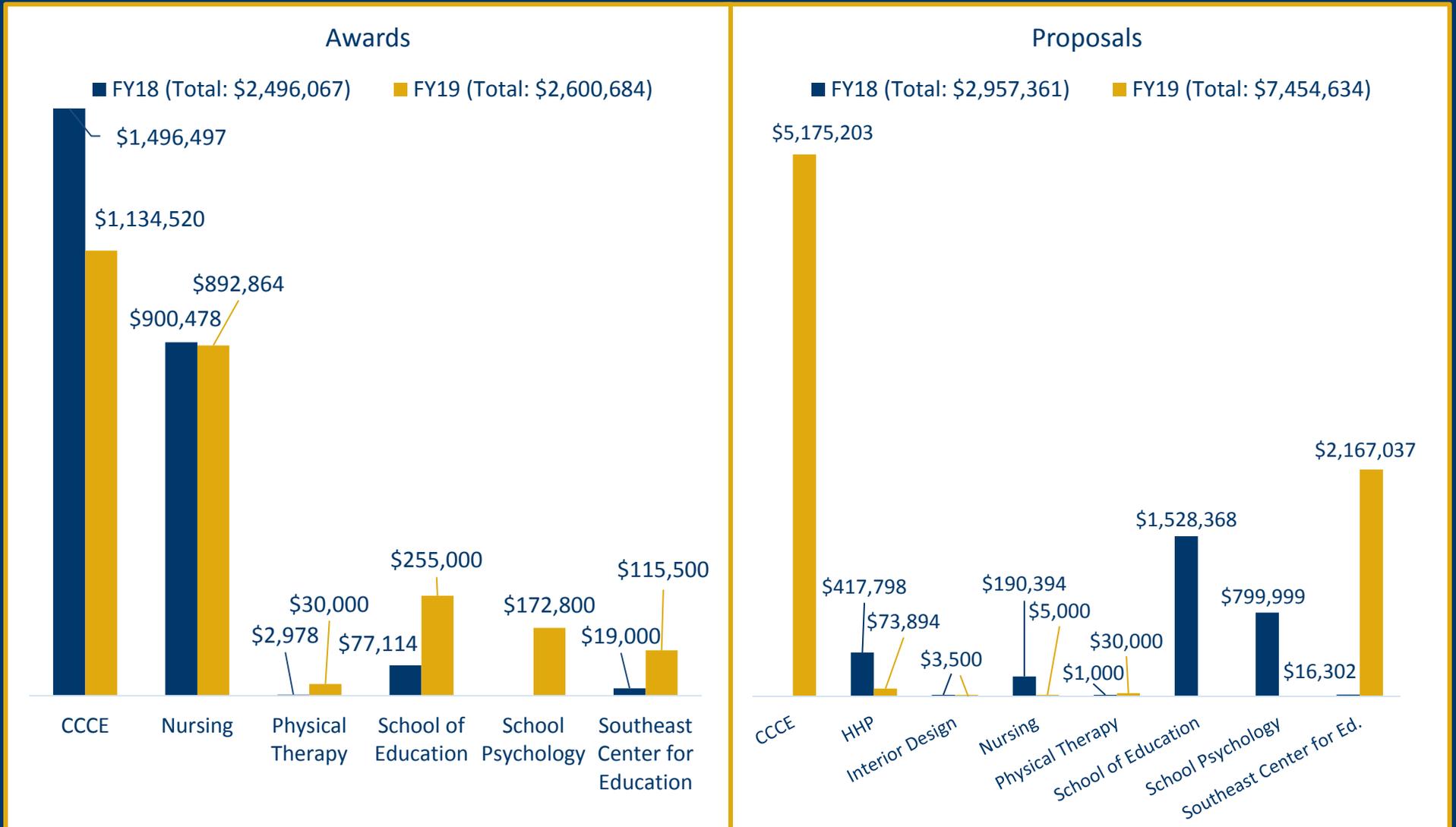
GARY W. ROLLINS COLLEGE OF BUSINESS – AWARDS & PROPOSALS FY19



COLLEGE OF ENGINEERING & COMPUTER SCIENCE – AWARDS & PROPOSALS FY18/FY19 COMPARISON



COLLEGE OF HEALTH, EDUCATION, & PROFESSIONAL STUDIES – AWARDS & PROPOSALS FY18/FY19 COMPARISON



ADMIN UNITS – AWARDS & PROPOSALS FY17/FY18 COMPARISON



LISTING OF AWARDS – FY2019 QUARTER 1

COLLEGE OF ARTS AND SCIENCES

BIOLOGY, GEOLOGY & ENVIRONMENTAL SCIENCE

Dr. Joey Shaw received **\$30,504** from the **National Science Foundation** for the project entitled, “Repair, digitization, and integration of the Southern Adventist University herbarium into the University of Tennessee at Chattanooga herbarium” and received **\$8,500** from the **Association of Southeastern Biologists** for the project entitled, “Graduate Assistantship to Support the Chair of the Wildflower Pilgrimage Organizing Committee.”

MATHEMATICS

Dr. Feng Bao received **\$41,615** from the **National Science Foundation** for the project entitled, “RUI: Efficient Adaptive Backward SDE Methods for Nonlinear Filtering Problems.”

PSYCHOLOGY

Drs. Kristen Black and **Alexandra Zelin** requested and received **\$3,988** from the **Girls Preparatory School** for the project entitled, “Team Building for Faculty at the Girls Preparatory School.”

GARY W. ROLLINS COLLEGE OF BUSINESS

MANAGEMENT

Dr. Hemant Jain received **\$16,305** from the **Public Education Foundation** for the project entitled, “Support of Graduate Student Research on Predictors of College Success.”

COLLEGE OF ENGINEERING AND COMPUTER SCIENCE

CIVIL & CHEMICAL ENGINEERING

Drs. Jejal Reddy Bathi and **Kidambi Sreenivas** (Mechanical Engineering) received **\$19,998** from the U.S. Geological Survey via the **Tennessee Water Research Center** for the project entitled, “FY 2018 Water Resources Research Institute Program.”

ELECTRICAL ENGINEERING

Dr. Thomas Loveless requested and received **\$42,846** from **Vanderbilt University** for the project entitled, “Fundamental Research into Radiation Resiliency of Emerging Circuit Technologies Appropriate to the CWMD Mission.”

COMPUTER SCIENCE AND ENGINEERING

Drs. Hong Qin and **Yu Liang**, **Drs. Joey Shaw** and **Azad Hossain** (Biology, Geology and Environmental Science), and **Dr. Karen Adsit** (School of Education) received **\$549,888** from the **National Science Foundation** for the project entitled, “Spokes: MEDIUM: SOUTH: Collaborative: Integrating Biological Big Data Research into Student Training and Education.”

COLLEGE OF HEALTH, EDUCATION, AND PROFESSIONAL STUDIES

CENTER FOR COMMUNITY CAREER EDUCATION

Ms. Twyler Boykin received **\$275,155** from the **U.S. Department of Education** for the project entitled, “Upward Bound Math & Science.”

Ms. Sandra Cole received **\$289,514** from the **U.S. Department of Education** for the project entitled, “Southern Appalachian Educational Opportunity Center.”

Ms. Shirl Gholston received **\$313,396** from the **U.S. Department of Education** for the project entitled, “Student Support Services FY16-FY21.”

Ms. Karen Vann has received **\$256,455** from the **U.S. Department of Education** for the project entitled, “Talent Search.”

PHYSICAL THERAPY

Dr. David Levine and **Drs. Henry Spratt** and **David Giles** (Biology, Geology & Environmental Science) requested and received **\$30,000** from the **Osborne Foundation** in collaboration with the UC Foundation for the project entitled, “Equipment to Support UTC’s Clinical Infectious Disease Control Research Group to Establish a Satellite Lab on the Campus of Erlanger Hospital.”

SCHOOL OF EDUCATION

Dr. Renee Murley received **\$105,000** from the **Community Foundation of Greater Chattanooga** Incorporated for the project entitled, “Chattanooga Teaching Fellows Program” and **\$150,000** from the **Lyndhurst Foundation** for the project entitled, “Residency Model.”

SCHOOL OF NURSING

Dr. Linda Hill received **\$55,989** from the **Health Resources and Services Administration** for the project entitled, “Nurse Anesthesia Traineeship Grant.”

Dr. Amber Roache received **\$836,875** from the **Health Resources and Services Administration** for the project entitled, “Clinical-Academic Network for Developing Leaders.”

SCHOOL PSYCHOLOGY

Dr. Pamela Guess received **\$172,800** from the **Tennessee Department of Education** for the project entitled, “School Psychology Intern Program.”

SOUTHEAST CENTER FOR EDUCATION

Ms. Laurie Melnik received **\$7,500** from the **Tennessee Arts Commission** for the project entitled, “Arts Learning Lab,” **\$90,000** from the **Lyndhurst Foundation** for the project entitled, “Arts Pathways Plan,” and requested and received **\$18,000** from the **Hunter Museum of American Art** for the project entitled, “2018-19 Art of Balance and Diagnosis.”

ACADEMIC ADMINISTRATION

CENTER FOR PROFESSIONAL EDUCATION

Mr. John Freeze received **\$32,620** from the **University of Tennessee – Institute of Public Service** for the project entitled, “Southeastern Command and Leadership Academy (SECLA) and **\$57,960** from the **Tennessee Office of Criminal Justice Programs** for the project entitled, “Crucial Conversations in a Law Enforcement Setting with a Domestic Violence Focus.”

CENTER FOR URBAN INFORMATICS AND PROGRESS

Dr. Mina Sartipi received **\$49,996** for her research efforts.

MANAGEMENT AND STUDENT SUCCESS

Mr. Bryan Bulmer requested and received **\$500** from CashCourse for the project entitled, “Support for Student Financial Education Events.”

OFFICE OF THE VICE CHANCELLOR FOR RESEARCH

Mr. Charles Mix requested and received **\$3,228** from the **American Rivers** for the project entitled, “Tuckasegee River Trail Map Design” and received **\$21,600** from the **Lyndhurst Foundation** for the project entitled, “Interdisciplinary Geospatial Technology Lab (IGT Lab) Support for Thrive Regional Partnership.”

Dr. Joanne Romagni requested and received **\$400,000** from the **UC Foundation** for a number of projects supporting academic initiatives and educational excellence.

SIMCENTER

Dr. Anthony Skjellum received **\$151,938** from the **National Science Foundation** for the project entitled, “SHF: Medium: Collaborative Research: Next-Generation Message Passing for Parallel Programming: Resiliency, Time-to-Solution, Performance-Portability, Scalability, and QoS,” **\$37,477** for the project entitled, “CICI: Data Provenance: Collaborative Research: Provenance Assurance Using Currency Primitives,” and **\$16,000** for the project entitled, “SHF: Small: Collaborative Research: Coupling Computation and Communication in FPGA-Enhanced Clouds and Clusters.”

LISTING OF PROPOSALS – FY2019 QUARTER 1

COLLEGE OF ARTS AND SCIENCES

BIOLOGY, GEOLOGY & ENVIRONMENTAL SCIENCE

Dr. Loren Hayes, Dr. Amanda Clark (Psychology), **Dr. Jennifer Ellis** (School of Education), and **Dr. Shewanee Howard-Baptiste** (Health and Human Performance) requested **\$263,357** from the **National Science Foundation** for the project entitled, “Collaborative Research: IRES Track I: Stronger together: Exploring how communal care reduces individual costs during challenging years.”

MATHEMATICS

Drs. Sumith Gunasekera, and **Lingju Kong** requested **\$99,774** from the **Sony U.S.A. Foundation Inc.** for the project entitled, “Exact Inference of the Youden Index and Its Corresponding Cut-Point Under Multivariate Roc Curve in The Presence of Normally Distributed Biomarkers with Missing Values Using Parallel Programming and Newly Developed Generalized-Multivariate-Youden Platform.”

Drs. Lingju Kong, John Graef, and **Sumith Gunasekera** requested **\$257,720** from the **National Science Foundation** for the project entitled, “REU Site: Differential/Difference Equation Models and Statistics.”

Drs. Andrew Ledoan, Jin Wang, Roger Nichols, and **Dr. Sherry Marlow Ormsby** (Office of Planning, Evaluation & Institutional Research) requested **\$282,659** from the **National Science Foundation** for the project entitled, “REU Site: Research Training for Undergraduates in Mathematical Analysis with Applications in Allied Fields.”

Dr. Jin Wang requested **\$258,667** from the **National Science Foundation** for the project entitled, “Deterministic Models for Waterborne Infections.”

Dr. Lakmali Weerasena requested **\$501,397** from the **National Science Foundation** for the project entitled, “CAREER: Mathematical Framework for Multi-Objective Set Covering Problem with Multifaceted Applications” and **\$79,189** from **Amazon, Inc.** for the project entitled, “Efficient Multi-Objective Approximation Algorithm for Supply Chain Networks.”

POLITICAL SCIENCE & PUBLIC SERVICE

Dr. Amanda Wintersieck and **Dr. Shawn Trivette** (Social, Cultural, and Justice Studies) requested **\$1,000** from the **Civic Nation** for the project entitled, “#MOCtheVote2018 Student Mobilization Project.”

GARY W. ROLLINS COLLEGE OF BUSINESS

MANAGEMENT

Dr. Hemant Jain requested **\$16,305** from the **Public Education Foundation** for the project entitled, “Support of Graduate Student Research on Predictors of College Success.”

MARKETING & ENTREPRENEURSHIP

Dr. Beverly Brockman, **Dr. Reinhold Mann** (Vice Chancellor for Research), and **Dr. Mina Sartipi** (CUIP) requested **\$748,360** from the Economic Development Administration for the project entitled, “Smart Cities Accelerator Leading Entrepreneurship through University Partnerships (SCALE UP).”

COLLEGE OF ENGINEERING AND COMPUTER SCIENCE

CIVIL & CHEMICAL ENGINEERING

Dr. Jejal Reddy Bathi (Civil and Chemical Engineering), **Dr. Cuilan Gao** (Mathematics), and **Dr. Azad Hossain** (Biology, Geology and Environmental Science) requested **\$245,838** from the **Tennessee Department of Transportation** for the project entitled, “Peak Flow Estimation in Urban Drainage Areas.”

Dr. Michael Danquah submitted a preliminary proposal to the **India Ministry of Science and Technology** for the project entitled, “Preliminary Proposal: Anisotropic Nanoparticles Incorporated

Micro/Nanoreactors for CO₂ Capturing and Converting It into Useful Products.”

Dr. Ignatius Fomunung and **Dr. Aldo McLean** (Engineering Management and Technology) requested **\$147,811** from the **Tennessee Department of Transportation** for the project entitled, “Improvement of Park-and-Ride Facilities and Services in Metropolitan Areas of Tennessee” and requested **\$99,412** (in partnership with **Dr. Joseph Owino**) for the project entitled, “Evaluating Performance and Benefits – Costs of Road Diets in Tennessee.”

Drs. Bradley Harris, **Sungwoo Yang**, **Dr. Rasouli Disfani Vahid** (Electrical Engineering), **Drs. Charles Margraves**, **Trevor Elliott** (Mechanical Engineering), **Dr. Amanda Clark** (Psychology), and **Dr. Jennifer Ellis** (School of Education) requested **\$587,659** from the **National Science Foundation** for the project entitled, “RET Site: Providing Research Experiences and Practicum on Cyber-Physical Systems for Regional Community College Faculty (PREP-CPS).”

Drs. Mbakisya Onyango, **Ignatius Fomunung**, **Joseph Owino**, and **Weidong Wu** requested **\$199,940** from the **Tennessee Department of Transportation** for the project entitled, “Evaluating the Performance of Inverted Pavements in Tennessee,” requested **\$320,000** (in partnership with **Dr. Joseph Owino**, **Dr. Joseph Kizza** (Computer Science & Engineering), and **Drs. Endong Wang** and **Alexandr Sokolov** (Engineering Management and Technology)) for the project entitled, “Network Level Pavement Structural Data,” and requested **\$198,680** (in partnership with **Drs. Endong Wang**, **Weidong Wu** and **Joseph Owino**) for the project entitled, “MEPDG Climate Data Input for The State of Tennessee.”

Drs. Joseph Owino, Ignatius Fomunung, Mbakisya Onyango, and **Weidong Wu** requested **\$195,524** from the **Tennessee Department of Transportation** for the project entitled, “Performance Evaluation of Full Depth Reclaimed (FDR) Pavements in Tennessee.”

Drs. Endong Wang and **Mbakisya Onyango, Dr. Li Yang** (Computer Science & Engineering), and **Dr. Robert Baggett** (Engineering Management and Technology) requested **\$124,986** from the **Tennessee Department of Transportation** for the project entitled, “Developing Safety Metrics and Thresholds for Highway Constructions in Tennessee.”

Dr. Weidong Wu requested **\$516,860** from the **National Science Foundation** for the project entitled, “CAREER: Building a database to boost smarter civil engineering AI/deep learning research and application,”

Drs. Weidong Wu, Mbakisya Onyango, Benjamin Byard, and Joseph Owino (Civil Engineering) have requested **\$219,806** from the **Tennessee Department of Transportation** for the project entitled, “Use of Recycled Concrete Aggregate in New Concrete Mixes.”

COMPUTER SCIENCE & ENGINEERING

Drs. Farah Kandah and Mina Sartipi (Computer Science and Engineering & CUIP) have requested **\$199,936** from the **Tennessee Department of Transportation** for the project entitled, “Travel Survey and Analysis Through Smartphone Apps.”

Drs. Yu Liang, Dalei Wu, Li Yang, and Hong Qin (Computer Science and Engineering) have requested **\$199,960** from the **Tennessee**

Department of Transportation for the project entitled, “A Cooperative Data-Driven Wrong-Way Driving Avoidance System (DWAS).”

Drs. Claire McCullough, Joseph Dumas (Computer Science and Engineering), and **Dr. Amye Warren** (Psychology) have requested **\$392,503** from the **National Science Foundation** for the project entitled, “Science, Technology, Engineering, Art and Math for Underrepresented Students (STEAM for US).”

Drs. Hong Qin (Computer Science & Engineering), **Soubantika Palchoudhury, Bradley Harris** (Civil and Chemical Engineering), **Yu Liang, Dalei Wu, Mengjun Xie** (Computer Science and Engineering), **Hope Klug, Francesca Leasi, Jennifer Boyd, Joey Shaw, Azad Hossain, David Giles, Deanna Beasley** (Biology, Geology, and Environmental Science), and **Jisook Kim** (Chemistry and Physics) have requested **\$359,971** from the **National Science Foundation** for the project entitled, “REU Site: ICompBio – Engaging Undergraduates in Interdisciplinary Computing for Biological Research.”

Dr. Dalei Wu (Computer Science & Engineering) has requested **\$433,069** from the **National Science Foundation** for the project entitled, “CAREER: Towards Adaptive and Cognitive Wireless Video Sensor Networks for Enhanced Situational Awareness.”

Drs. Mengjun Xie, Dalei Wu, and Li Yang (Computer Science and Engineering) have requested **\$199,988** from the **Tennessee Department of Transportation** for the project entitled, “Activity-based Household Travel Survey Through Smartphone Apps in Tennessee.”

ELECTRICAL ENGINEERING

Dr. Daniel Loveless (Electrical Engineering) has requested **\$500,000** from the **National Science Foundation** for the project entitled, “CAREER: Fundamental Reliability Analysis of Si FinFETs and Nanowires through Ionizing Radiation Effects Spectroscopy.”

Drs. Abdul Ofoli, Ahmed Eltom, Vahid Rasouli Disfani (Electrical Engineering), and **Ms. Squoia Holmes** (Student Affairs) have requested **\$1,247,670** from **The Office of Energy Efficiency and Renewable Energy** for the project entitled, “Developing, Training and Bridging the Skills Gap for the Solar Workforce.”

Dr. Daniel Pack (Electrical Engineering) has requested **\$437,576** from the **National Science Foundation** for the project entitled, “Small Cooperative Unmanned Aerial Vehicles to Combat Malaria.”

ENGINEERING MANAGEMENT & TECHNOLOGY

Drs. Wolday Abrha, Aldo McLean (Engineering Management & Technology), and **Mr. Charles Mix** (IGT Lab) have requested **\$84,298** from the **Tennessee Department of Transportation** for the project entitled, “Investigating the Service of App-based Rideshare and Transportation Network Companies in Tennessee.”

Drs. Seong Dae Kim, and Alexandr Sokolov (Engineering Management and Technology) have requested **\$180,394** from the **Tennessee Department of Transportation** for the project entitled, “Investigation On Wrong-Way Prevention Technologies and Systems.”

Drs. Alexandr Sokolov (Engineering Management and Technology), **Endong Wang, Mbakisya Onyango, and Ignatius Fomunung** (Civil Engineering) have requested **\$85,254** from the **Tennessee Department of Transportation** for the project entitled, “Return On Investment (ROI) On Transportation Projects.”

MECHANICAL ENGINEERING

Drs. Louie Elliott, Trevor Elliott, and Charles Margraves (Mechanical Engineering) have requested **\$14,950** from the **Engineering Information Foundation** for the project entitled, “UTC Girls to Engineers Network (GEN) Phase 2.”

Dr. Trevor Elliott (Mechanical Engineering) has requested **\$530,949** from the **National Science Foundation** for the project entitled, “CAREER: To Infinity and Beyond – Combustion Analysis and Control of Additively Manufactured Solid Rocket Fuel Grain Geometries without Conventional Limitations.”

Dr. Charles Margraves (Mechanical Engineering) has requested **\$29,975** from the **Tennessee Board of Architectural and Engineering Examiners** for the project entitled, “Mechanical Engineering TBAEE Grant.”

COLLEGE OF HEALTH, EDUCATION, AND PROFESSIONAL STUDIES

CENTER FOR COMMUNITY CAREER EDUCATION

Ms. Sandra Cole (Center for Community Career Education) has requested **\$14,962** from the **City of Chattanooga** for the project entitled, "College Knowledge, Now! (CK, Now!) 2018-19."

Dr. Hunter Huckabay, Michelle Oliver, Elizabeth Eaves, Keith Mayes, Shamira Freeman (Center for Community Career Education), and **Dr. Sarah Sandefur** (School of Education) have requested **\$5,160,241** from the **U.S. Department of Education** for the project entitled, "UTC GEAR UP Project."

HEALTH AND HUMAN PERFORMANCE

Dr. Karissa Peyer (Health and Human Performance) has requested **\$73,894** from the **William and Ella Owens Medical Research Foundation**, in collaboration with the University of Tennessee – Health Science Center, for the project entitled, "Chattanooga Child Health and wellness Opportunities through Inter-Sectoral Collaboration and Environmental change (CHOICE)."

INTERIOR DESIGN

Ms. Catherine Kendall (Interior Design) has requested **\$3,500** from the **Tennessee Board of Architectural and Engineering Examiners** for the project entitled, "2018 TBAEE NCIDQ Application & Exam Fees and Drawing Enhancement Grant."

SCHOOL OF NURSING

Dr. Priscilla Simms-Roberson (Nursing) has requested **\$5,000** from **CVS Health** for the project entitled, "2018 CVS Health Foundation Family Nurse Practitioner and Physician Assistant Scholarship Program."

SOUTHEAST CENTER FOR EDUCATION

Ms. Laurie Melnik, Dr. Joel Baxley (Southeast Center for Education), **Dr. Lee Harris** (Music Education), **Mr. Thaddeus Taylor** (Challenger Center), and **Ms. Rachel Fleming** (Library) have requested **\$2,149,037** from the **U.S. Department of Education** for the project entitled, "Arts Learning Lab (ALL): A STEAM-Based Arts Integration Project in Rural Education."

ACADEMIC ADMINISTRATION

CENTER FOR URBAN INFORMATICS AND PROGRESS

Dr. Mina Sartipi (CUIP) has requested **\$99,955** from the **Tennessee Department of Transportation** for the project entitled, "Evaluating Performance and Benefits of Road Diets in Tennessee."

Dr. Mina Sartipi (CUIP), and **Mr. Charles Mix** (IGT Lab) have requested **\$144,832** from the **Tennessee Department of Transportation** for the project entitled, "Localization of SPF for Jurisdiction State Routes."

OFFICE OF THE VICE CHANCELLOR FOR RESEARCH

Dr. Gregory Heath (Office of the Vice Chancellor for Research), **Drs. Shewanee Howard-Baptiste, Charlene Schmidt, and Karissa Peyer** (Health and Human Performance) have submitted a preliminary proposal to the **Robert Wood Johnson Foundation** for the project entitled, “Chattanooga Child Health and wellness Opportunities through Inter-Sectoral Collaboration and Environmental change (CHOICE)”.

Mr. Charles Mix (IGT Lab) has requested **\$21,600** from the **Lyndhurst Foundation** for the project entitled, “Interdisciplinary Geospatial Technology Lab Support for Thrive Regional Partnership.”

SIMCENTER

Dr. Anthony Skjellum (SimCenter) has submitted a preliminary proposal with the **University of New Mexico** to the **National Nuclear Security Administration** for the project entitled, “PSAAP-III-RFI: Center for Understandable, Performant Exascale Communication Systems (CUP-ECS)”, and submitted a preliminary proposal to the **National Nuclear Security Administration** for the project entitled, “PSAAP-III-RFI Response (FIC): Message-Passing Parallel Programming Research for Exascale: Performance, Portability, Productivity, Predictability.”

OFFICE OF RESEARCH AND SPONSORED PROGRAMS



109 RACE HALL
(423) 425-4431
www.utc.edu/orsp

Meredith Perry
Executive Director
(423) 425-2232
meredith-perry@utc.edu

Angie Johnson
Assistant Director
(423) 425-5399
angie-johnson@utc.edu

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

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

Tracey Woodbury
Contract Specialist
(423) 425-5968
tracey-woodbury@utc.edu

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