



The Office of Sponsored Programs

Annual Report

Fiscal Year 2023

July 1, 2022 - June 30, 2023

Introduction

It is with great pleasure and enthusiasm that we present the Office of Sponsored Programs (OSP) Annual Report for fiscal year 2023. As we reflect on the past year, we are honored to share the remarkable strides our institution has made in advancing our mission of excellence in education, research, and community engagement. This report serves as a testament to the dedication and collaborative spirit that define our university, as well as the profound impact of the grants and funding we have received from federal, state, and local government agencies and private foundations. Within these pages, you will discover the innovative research, transformative programs, and community impact, all made possible through the vital support of grants. This report is compiled annually and includes comprehensive information for all external and intramural grants, and academic and scholarly activities.

For FY23, a total of 75 proposals were submitted worth \$10,650,359. The total funding received was \$1,662,241 from 50 proposals. From the 2018-2023 university strategic plan, SWOSU Pathway to Excellence, Strategic Goal 3 states that as a university we will increase the Annual Institutional grant portfolio by \$5 million by spring 2023. Thanks to all principal investigators for their efforts to provide these additional opportunities for SWOSU students.

Our office remains committed to the support of faculty, administration, and staff in pursuit of extramural funding by providing proposal preparation support, grant-writing training, researching funding sources, and maintaining compliance with federal, state, and local compliance laws including the university Internal Review Board, BioSafety, Financial Conflicts of Interest, Responsible Conduct of Research and others as applicable.

We are also proud to support the efforts of the University Research and Scholarly Activity Committee (URSAC). URSAC plans the annual SWOSU Research and Scholarly Activity Fair, coordinates the nominee selection for the Research Day at the Capitol undergraduate student to represent SWOSU, and reviews and selects recipients for the faculty Proposal Development Awards.

In 2018, OSP held the inaugural Dr. Blake Sonobe Lecture Series to highlight students involved in high-impact undergraduate research experiences. In FY23, the 5th lecture was presented by Camille Goerend, presenting her work with Dr. Vijay Somalinga.

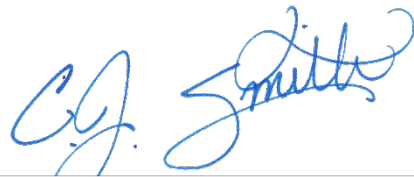
Congratulations to all faculty, staff, administration, and students for all your hard work and dedication in securing resources and contributing to global knowledge. We look forward to continuing support of these endeavors through the coming years.

Sincerely,



Lori Gwyn

Director



C.J. Smith

Assistant Director



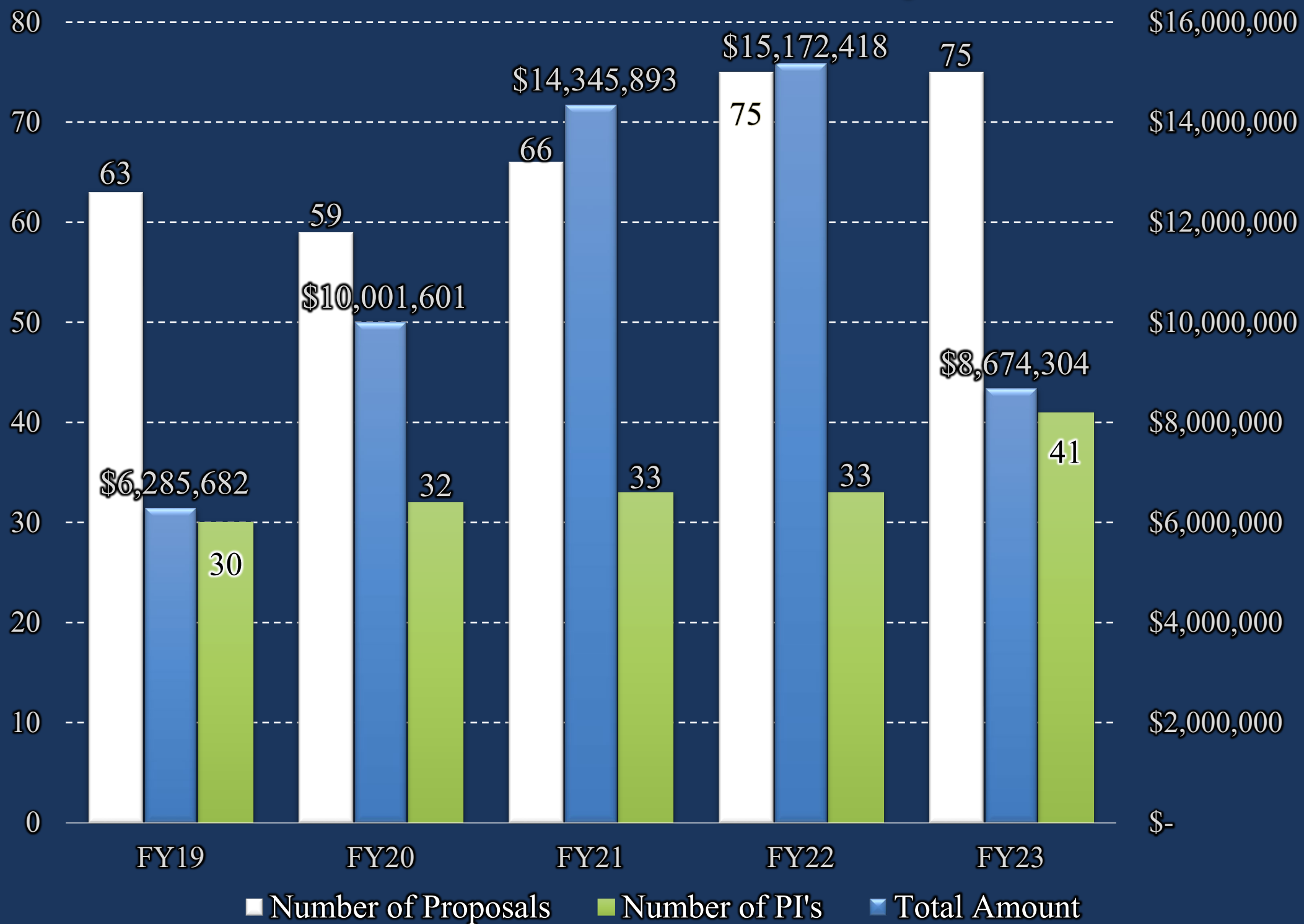
Emma Mullins

Grants and Contracts
Accountant

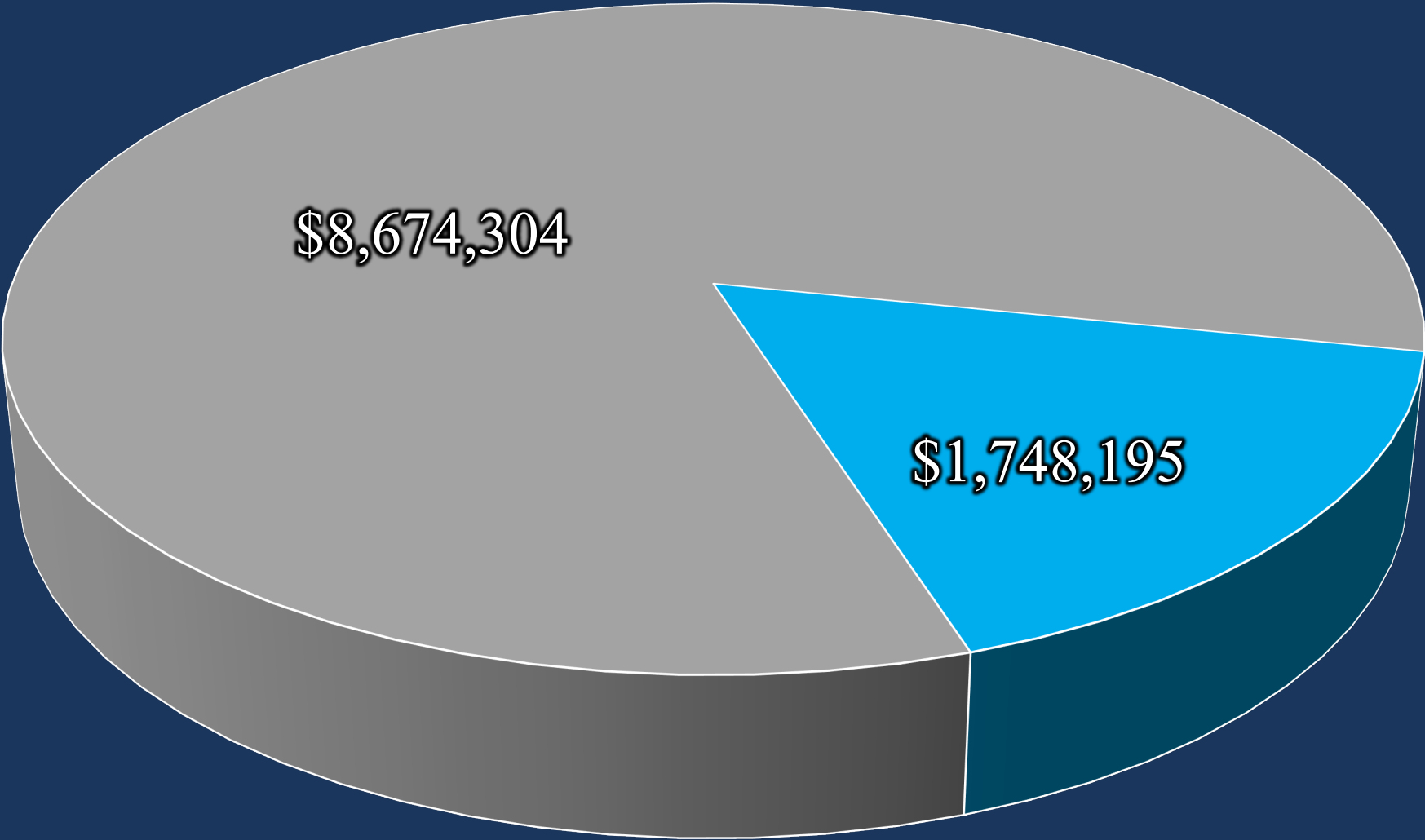
Jamie Wilks

Compliance Specialist

FY23 Pre-Award Activity



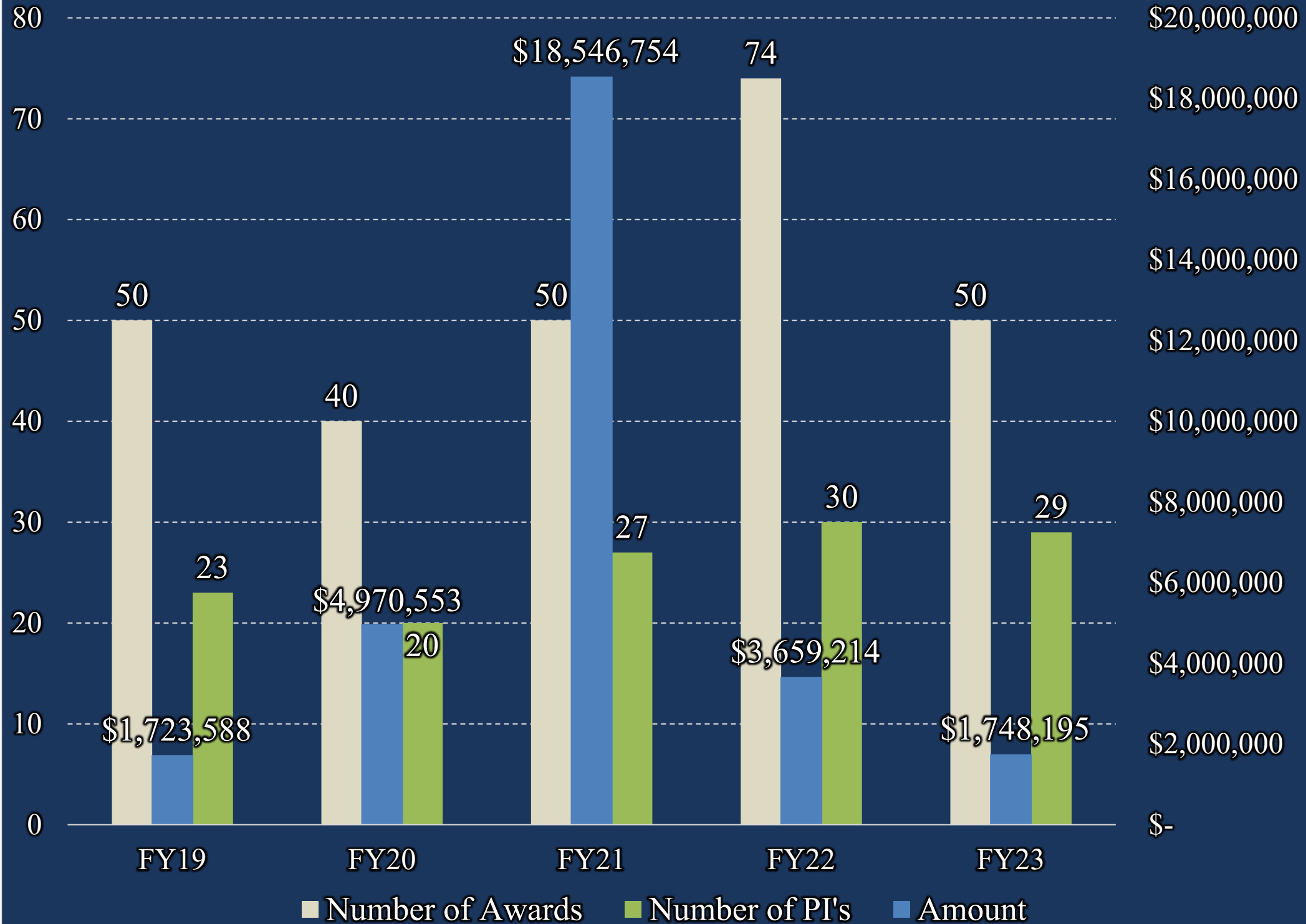
Submitted and Awarded



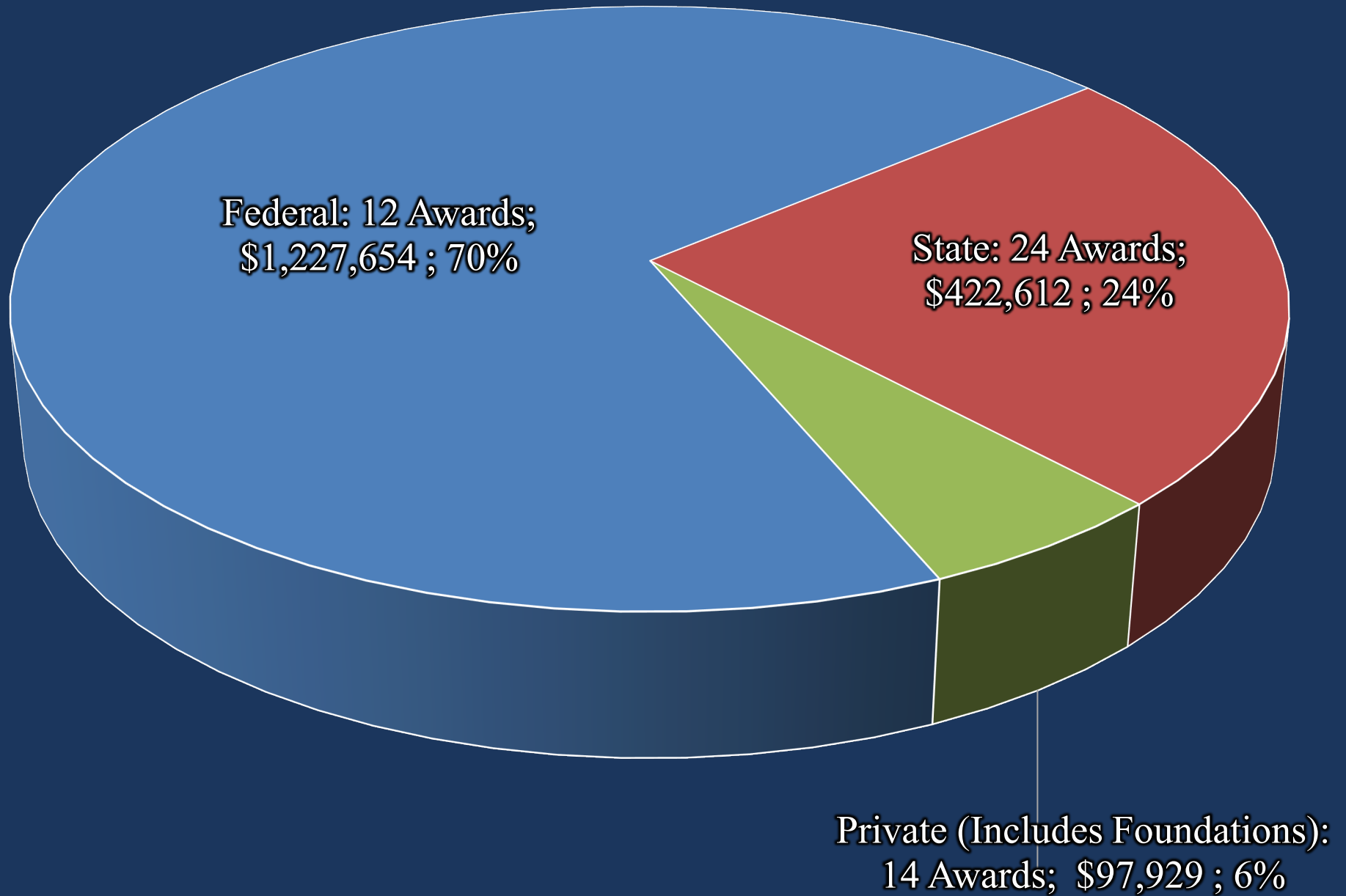
Submitted (75 Proposals)

Awarded (51 Awards)

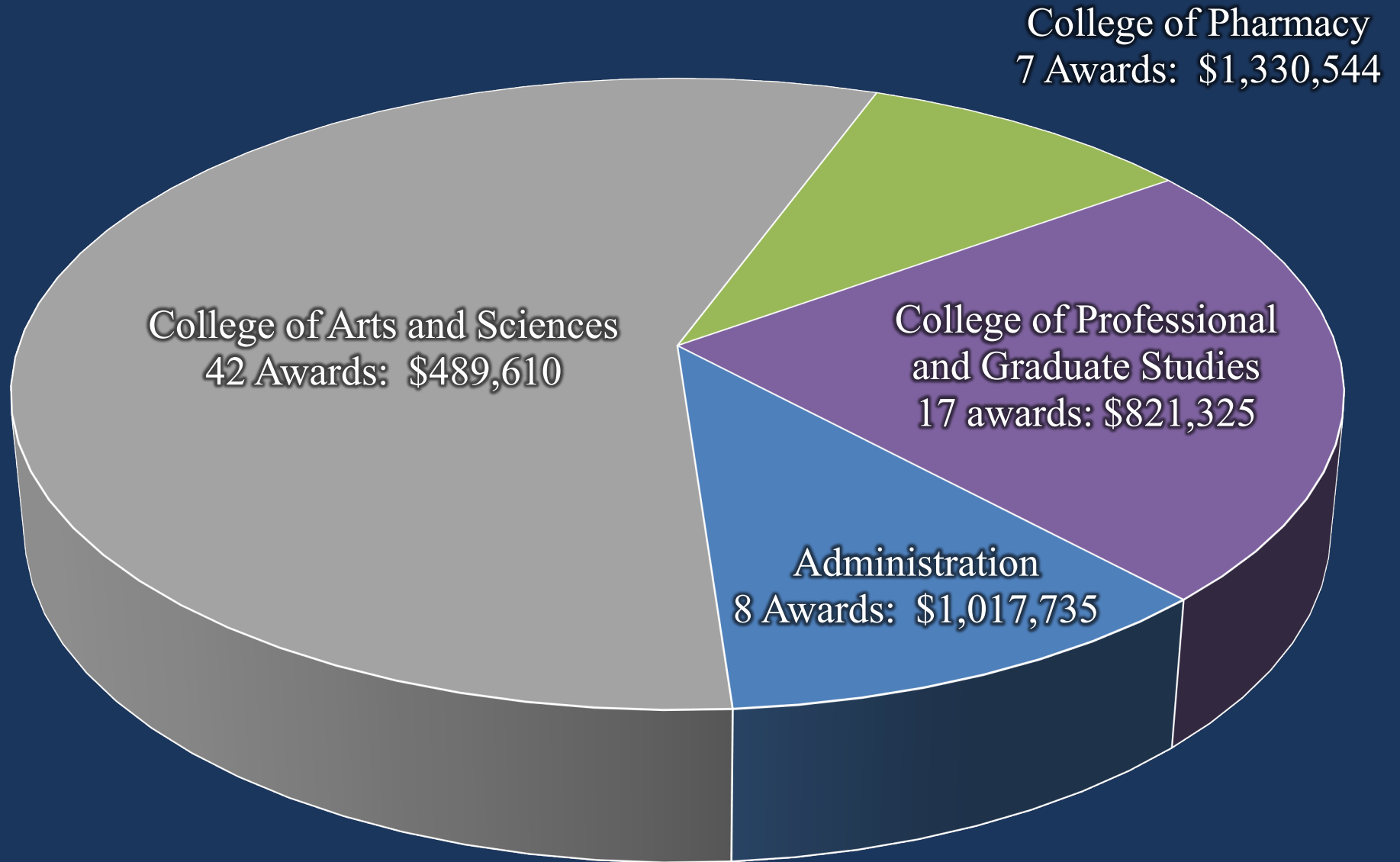
Awards FY19 - FY23



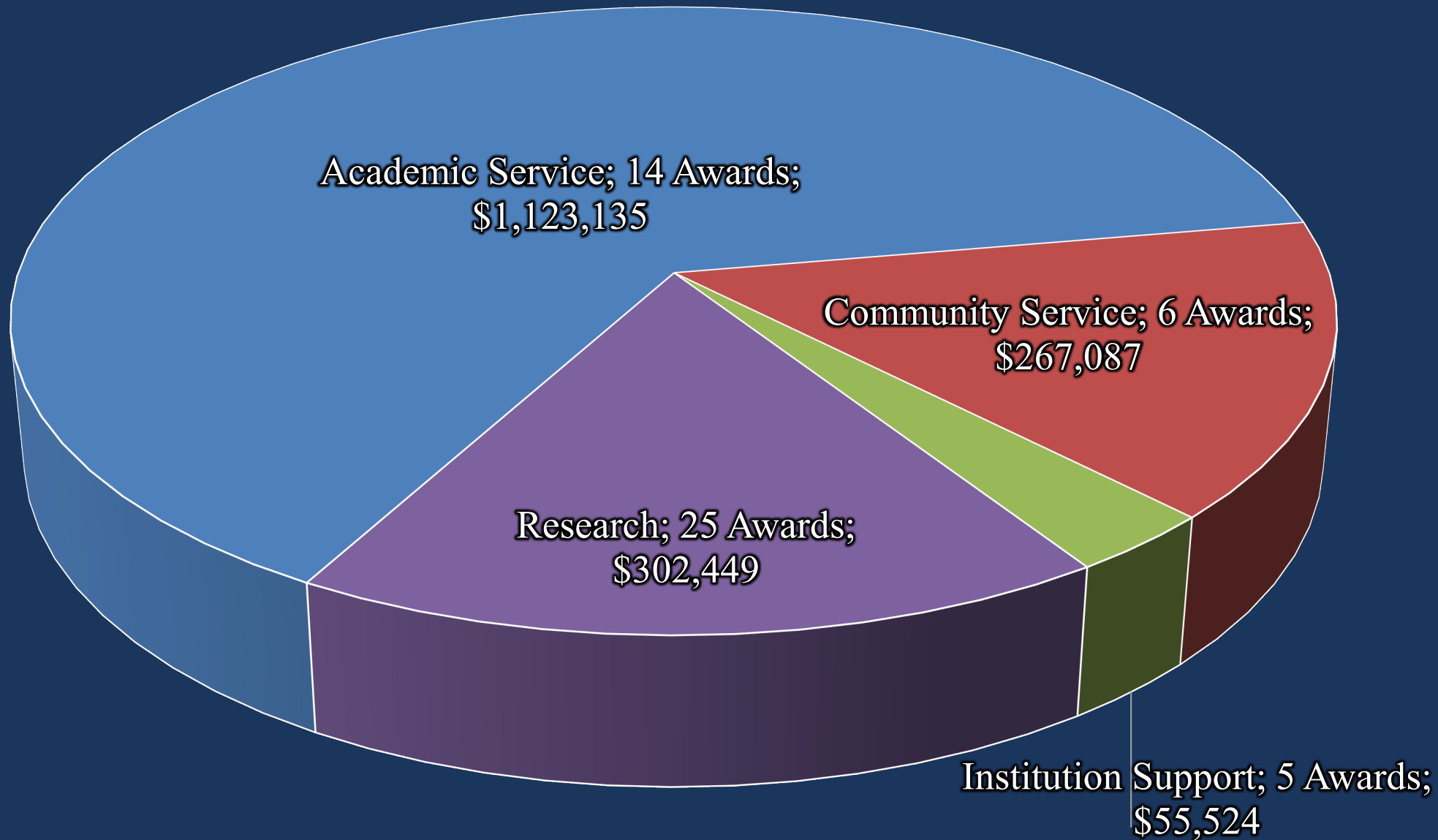
Awards by Source



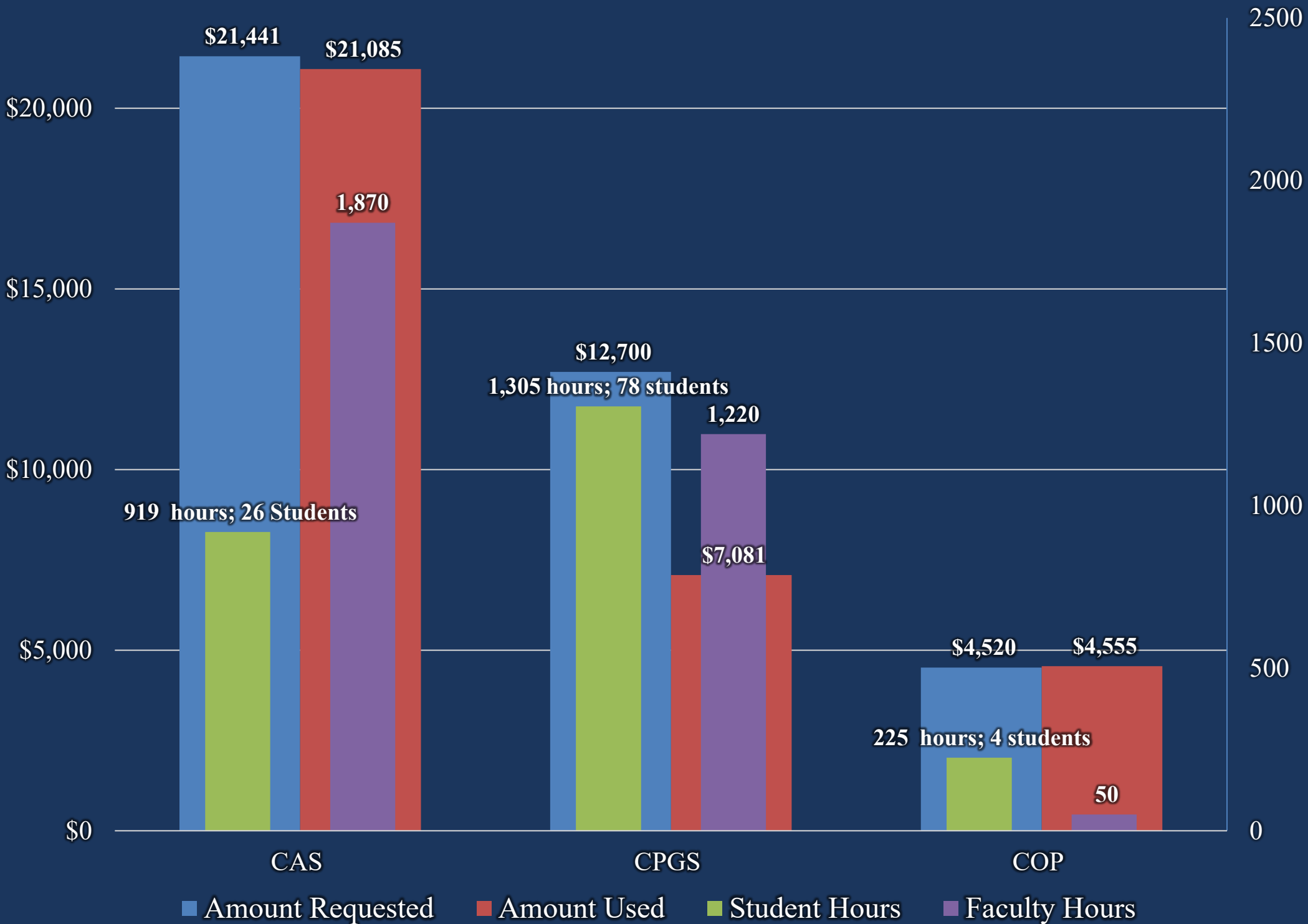
Awards by Division



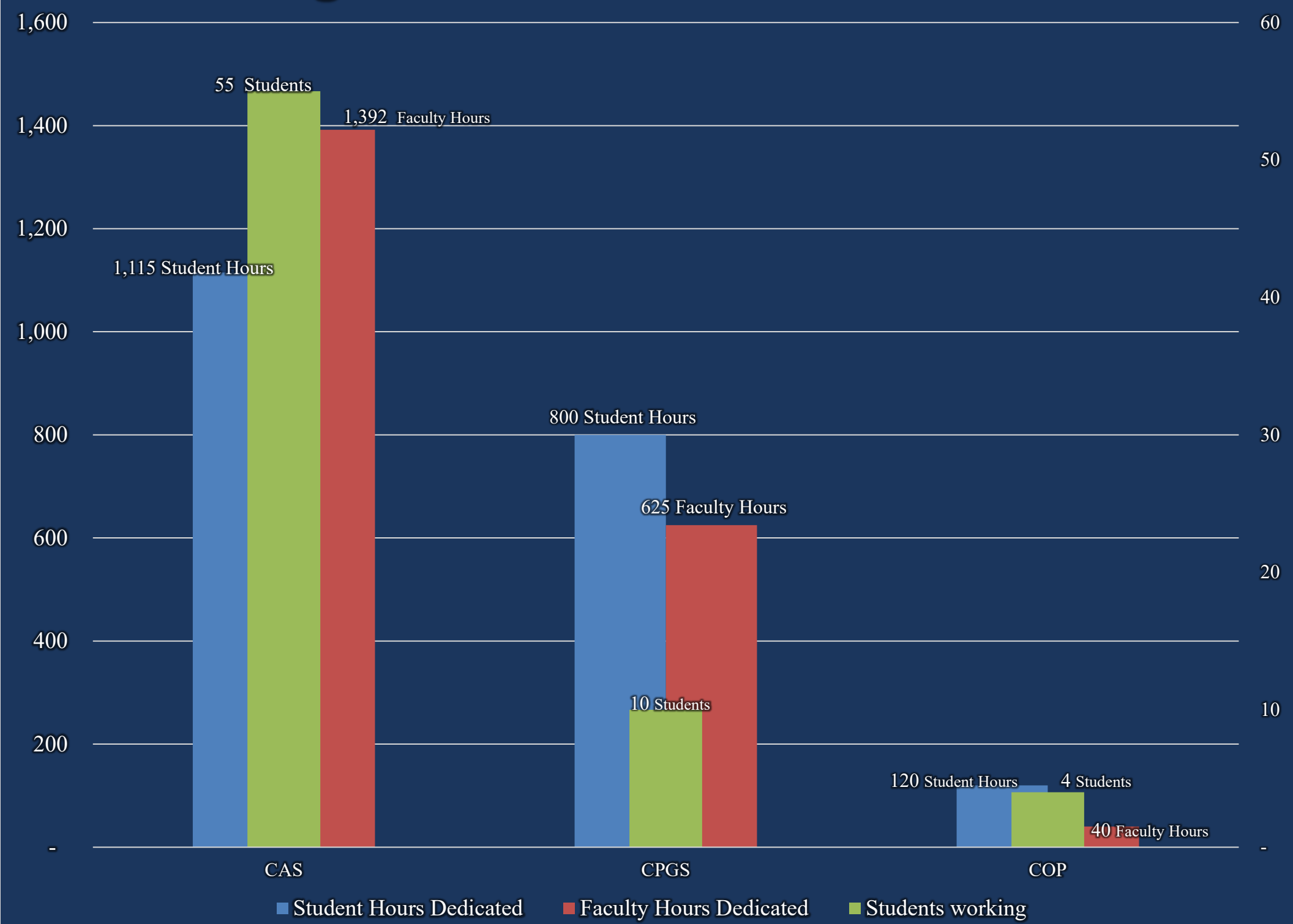
Awards by Function



Organized Research Funds



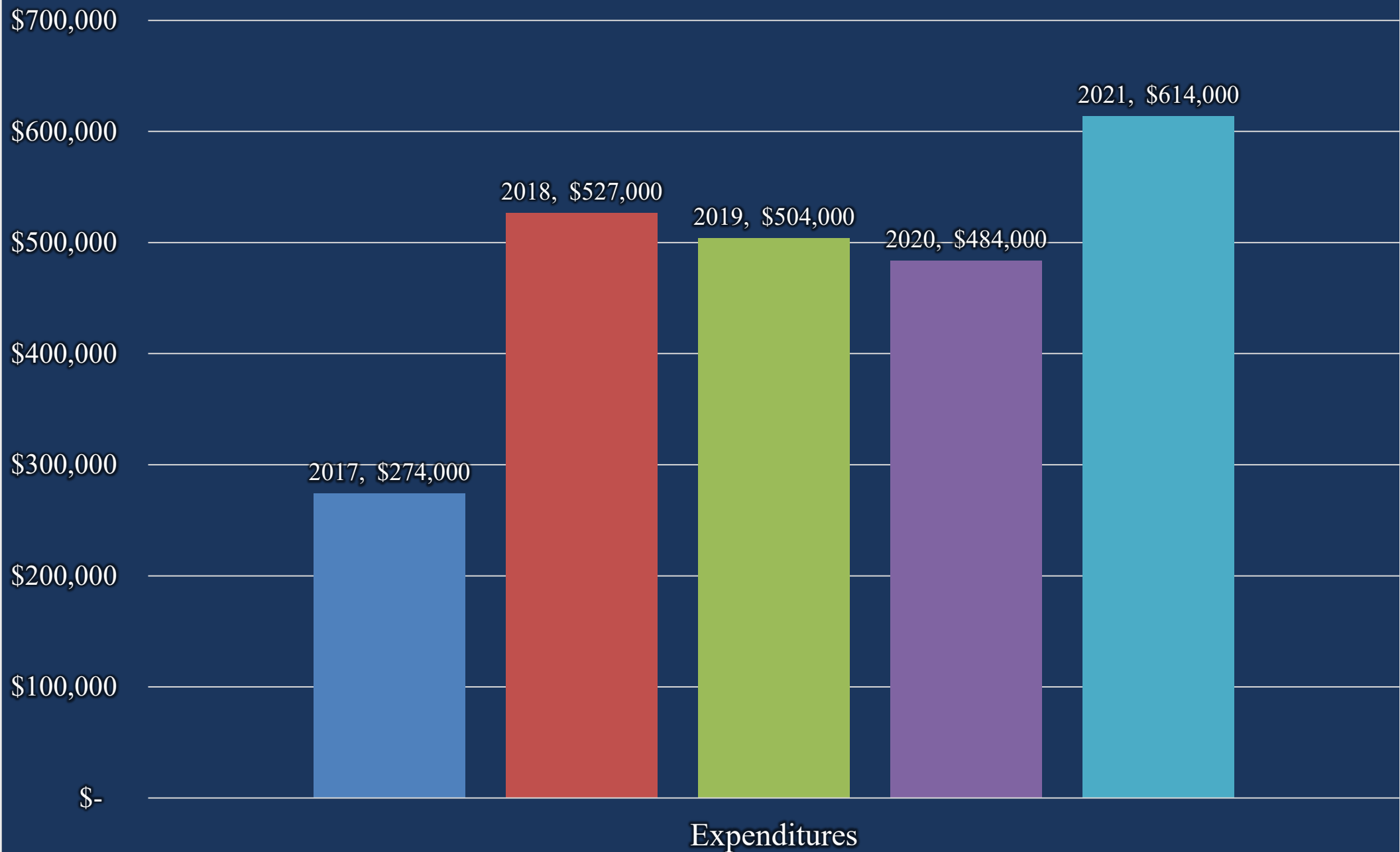
Organized Research Time and Students



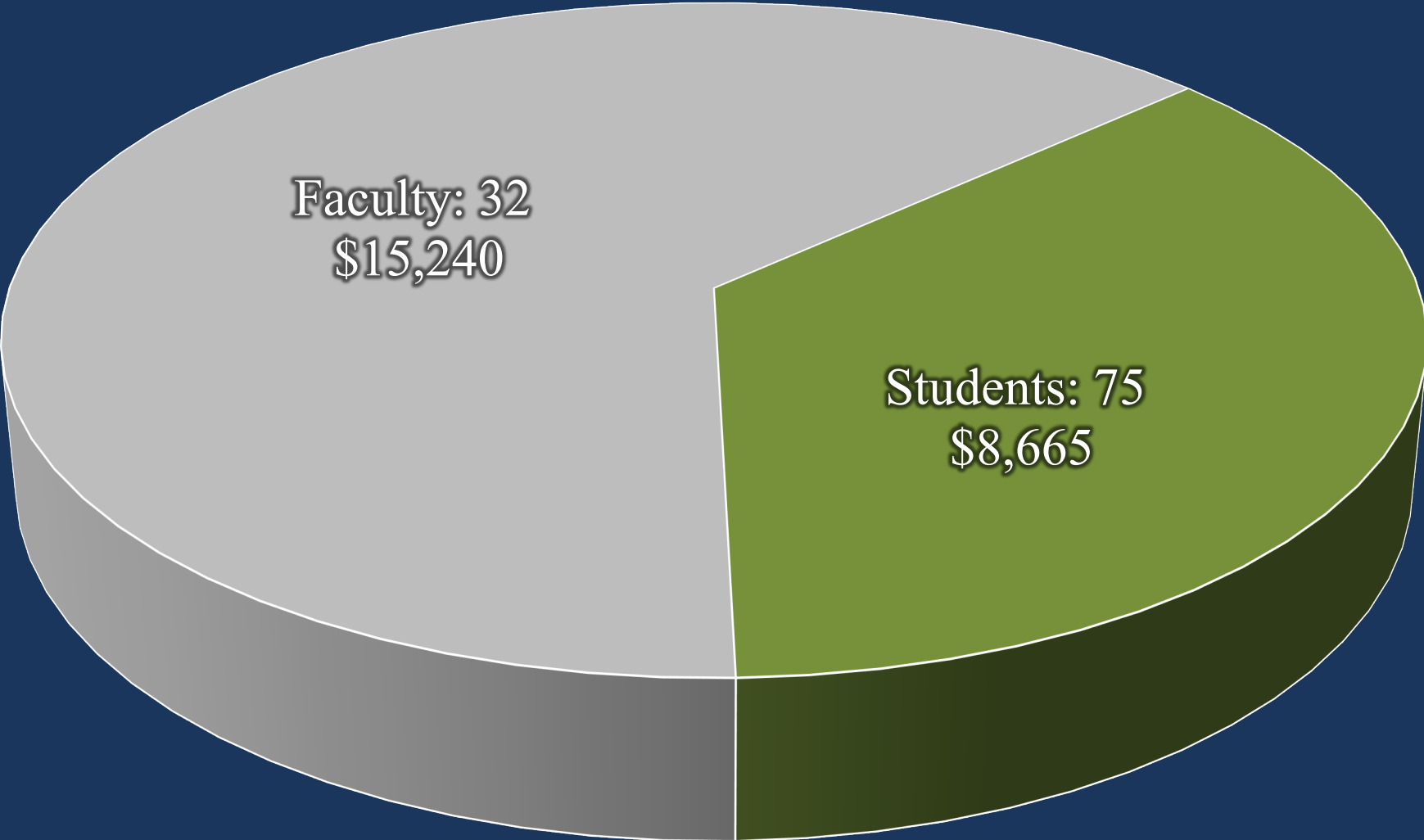
R&D Expenditures by Fiscal Year

Higher Education Research and Development (HERD)

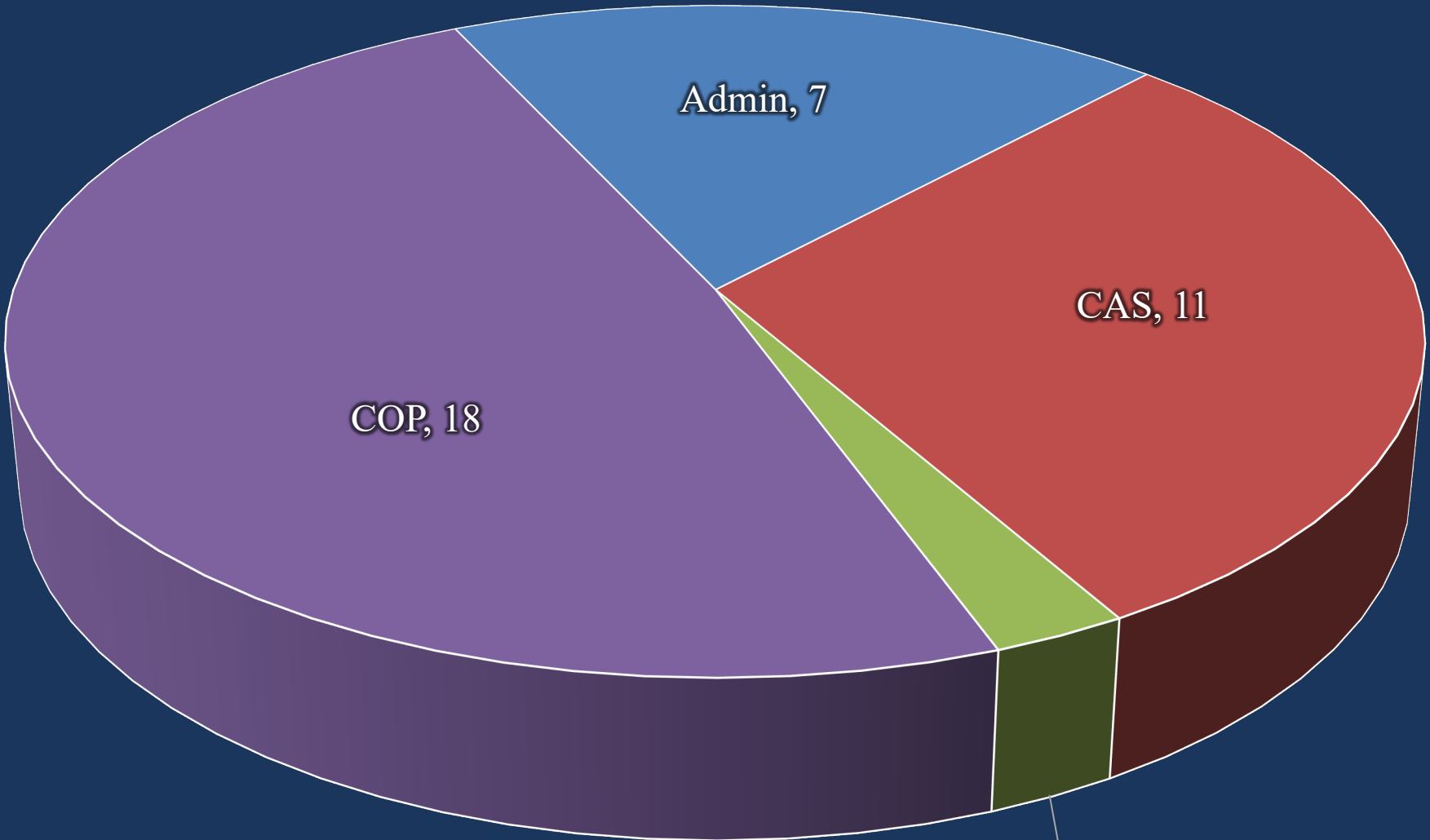
NSF Survey



Financial Assistance



Scholarly & Academic Activity by College



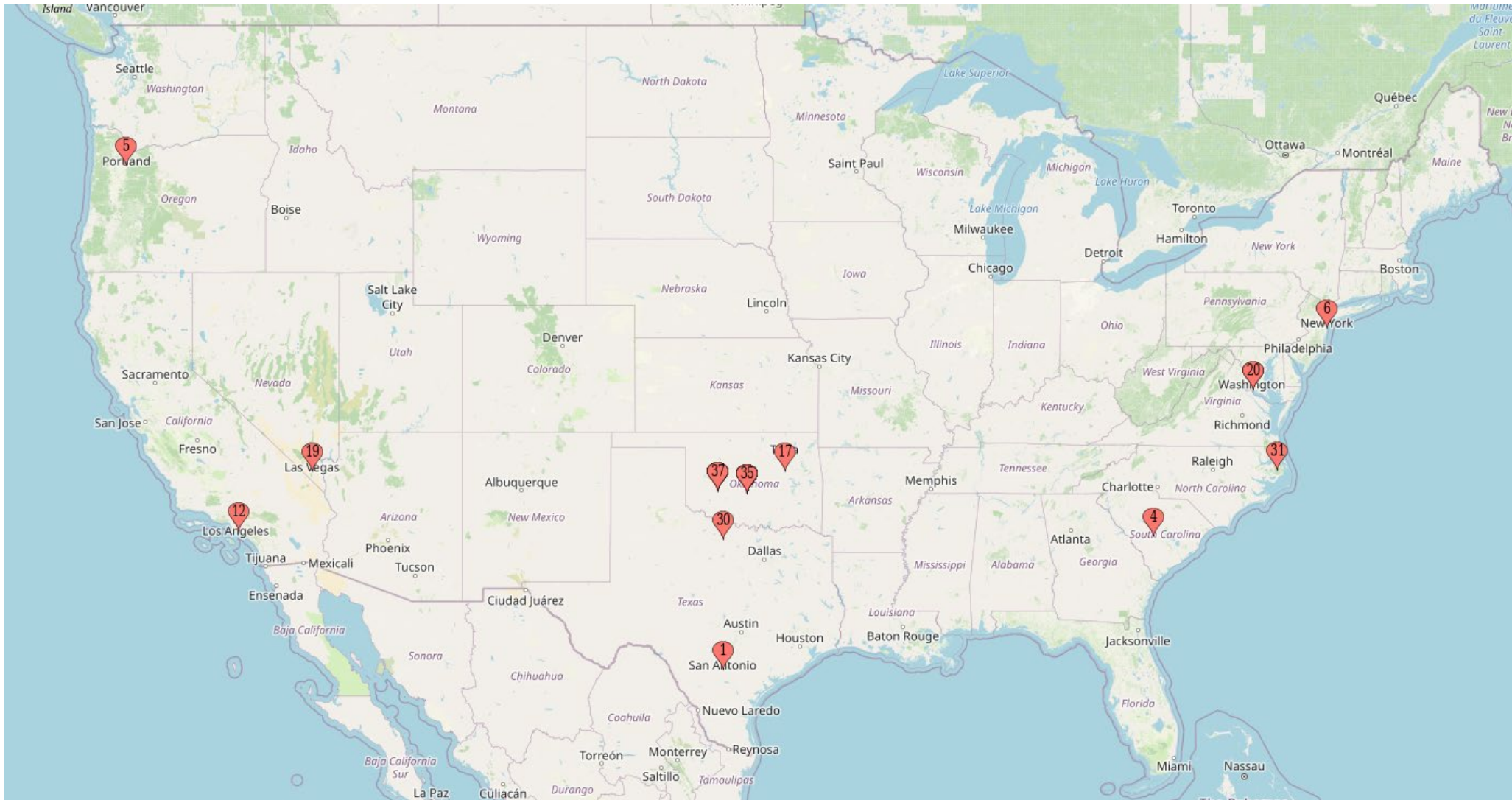
COP, 18

Admin, 7

CAS, 11

CPGS, 1

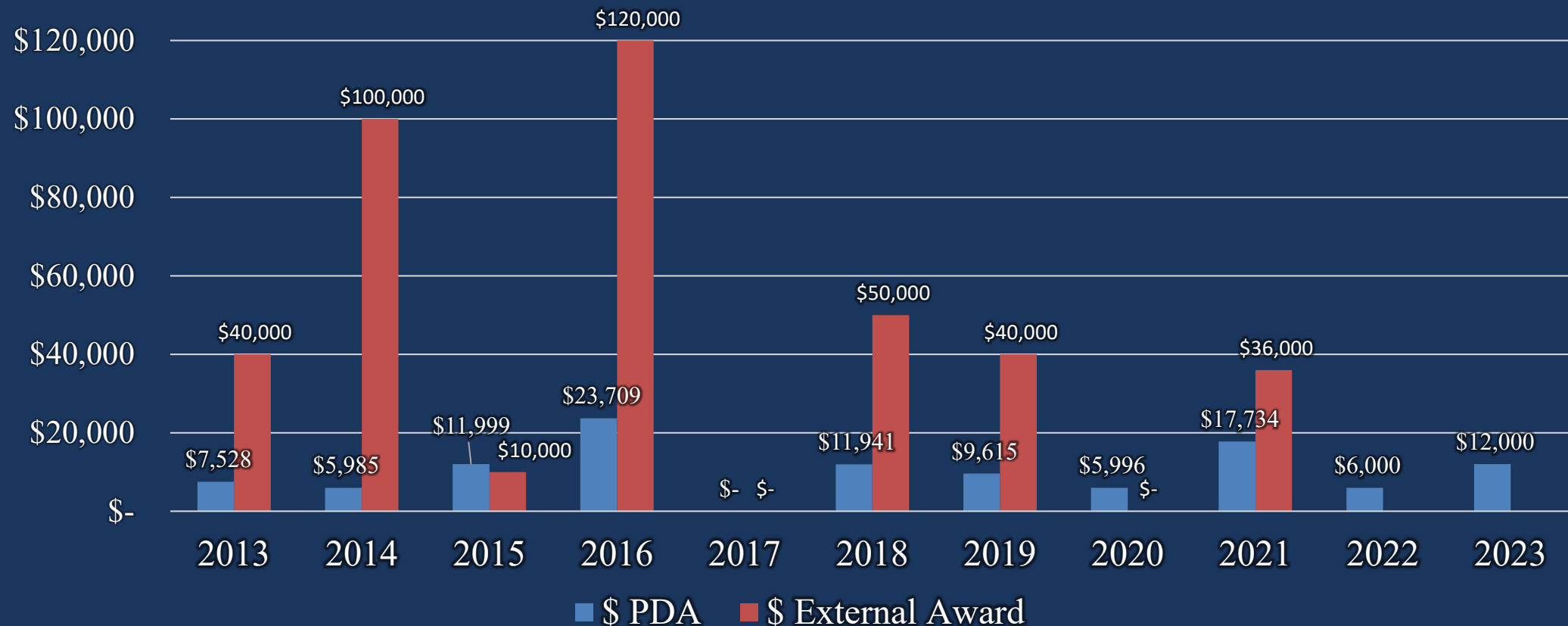
Map of Scholarly and Academic Activity



Proposal Development Awards

The purpose of Proposal Development Awards is to provide financial support for faculty to take time to write, collect data, attend grant writing workshops, visit collaborations and/or visit data centers in order to develop a competitive proposal for an external funding agency. Two to Three awards up to \$6,000 each are available each year. From FY 13 to FY22, the university has invested \$112,507 in this program and has been awarded \$398,200 for 9 projects that support the arts, medical research, and summer student opportunities. This is a 3.9% return on investment in our university and our students!

Proposal Development Awards Internal Awards and External Awards by Fiscal Year



SWOSU Research and Scholarly Activity Fair 2023

SWOSU hosted the 31st Annual Research and Scholarly Activity Fair in the SWOSU Wellness Center on April 20, 2023. Being in-person, there was a very positive atmosphere surrounding the fair. There were 77 poster presentations and 2 oral presentations given by over 130 students and faculty members. For more information, please follow this link to the [Spring 2023 Research and Scholarly Activity Abstract Book](#).

FY23 Compliance Information

SWOSU utilizes Collaborative Institutional Training Initiative (CITI) training to facilitate trainings for SWOSU staff, faculty, and students. Trainings offered through CITI include Financial Conflict of Interest, Institutional Biosafety Committee, Institutional Animal Care and Use Committee, and Institutional Review Board.

The Office of Sponsored Programs Compliance Specialist has updated the following policies in FY23: the Financial Conflict of Interest, and the Institutional Animal Care and Use Committee. The changes to the IACUC policy are as follows:

Anyone seeking to work with live vertebrates, whether for teaching or research purposes, on campus or in the name of Southwestern Oklahoma State University will need to have an approved IACUC protocol before beginning any animal work. This is required by **federal law** regardless of funding source.

All personnel working on an IACUC protocol must complete trainings. The exact modules will depend on the species being studied and the procedures involved. These modules will be completed at <https://about.citiprogram.org/>, and refreshers are **required** every 3 years.

All IACUC records shall be maintained **in perpetuity per Oklahoma state law. Digital and paper files will be maintained in a secure manner to prevent unauthorized access of information.**

The goal will be to review the policy **periodically and/or as federal policies are updated.**

Changes to the FCOI policy are as follows:

The updated disclosure form was loaded into Etrieve for ease of access.

The policy changes are include shortening of the background to:

In accordance with the 2020 Revised Financial Conflict of Interest (FCOI) Regulation, Promoting Objectivity in Research (42 CFR Part 50 Subpart F), the following provides training guidelines to ensure compliance with this regulation for federally funded grants and contracts, including those from the National Institutes of Health (NIH), NSF, Department of Education, OK-INBREE.

It specifies that training and disclosure must be completed at least every 3 years.

Blake Sonobe Lecture Series Fall 2022

Undergraduate Researcher: Camille Goerend
Faculty Mentor: Dr. Vijay Somalinga

“Beta-Carbonic Anhydrase-A potential novel antibacterial target against *Rhodococcus equi*, the causative agent of pneumonia in foals”



Oklahoma Research Day at the Capitol

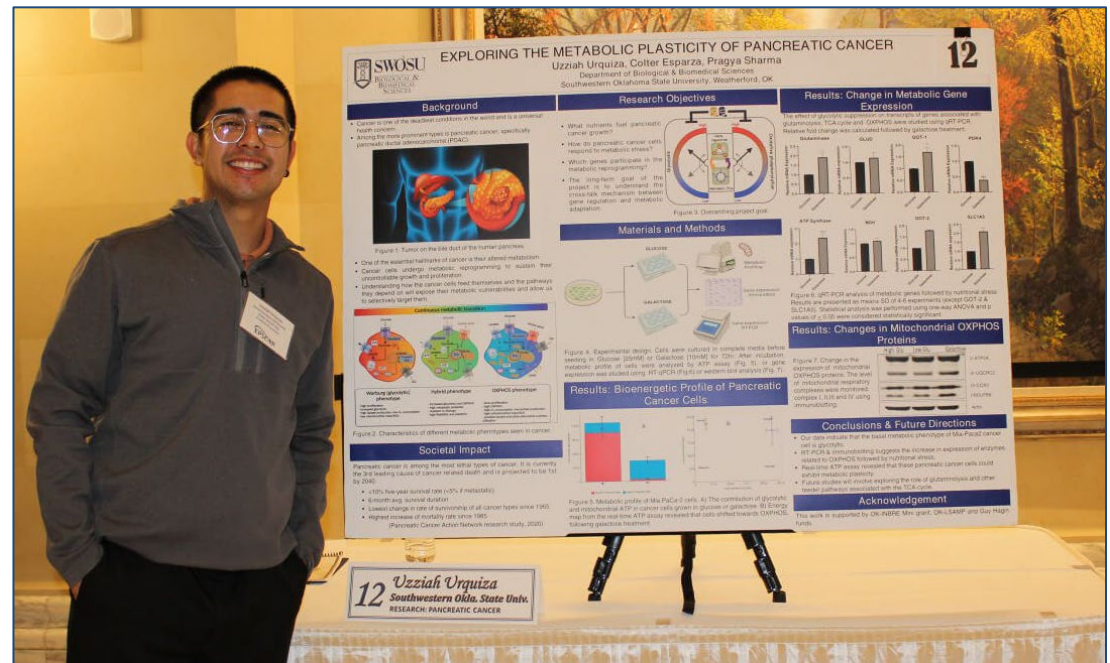
Research Day at the Capitol was established in 1994 to showcase the outstanding undergraduate research being conducted at Oklahoma's colleges and universities in the areas of science, social sciences, technology, engineering and mathematics. Each regional university is allowed one student nomination per school to participate in this prestigious event. This opportunity is sponsored by the Oklahoma State Regents for Higher Education, the Oklahoma Established Program to Stimulate Competitive Research, and the National Science Foundation.

Uzziah Urquiza

Faculty Mentor: Dr. Pragma Sharma, Biological Sciences

“Exploring the Metabolic Vulnerabilities of Pancreatic Cancer”

Mr. Uzziah Urquiza, a native of Guymon, was the overall grand prize winner for the 28th Annual Oklahoma Research Day at the Capitol. Mr. Urquiza received a \$500 award, a \$4,000 summer research internship, and \$2,500 for his faculty mentor for research supplies.



FY23 Grants, Research, and Scholarly & Academic Activity Reports



Ms. Taler Alexander

Admissions and Recruitment



Extramural Activity

The Oklahoma State Department of Education awarded \$60,000 to fund the “GEAR UP” project from July 2022 to June 2023. GEAR UP is a federally funded program administered by the Oklahoma State Regents for Higher Education, partners with 10 school districts and five regional colleges throughout the state to prepare nearly 12,000 middle and high school students for college success.

Dr. Lisa Appeddu

Department of Pharmaceutical Sciences



Extramural Activity

The SWOSU Foundation awarded \$1,200 to fund the project, “Investigating potential benefits of mindfulness in SWOSU College of Pharmacy students,” from July 2022 to April 2023. Dr. Appeddu’s Co-PI for this project is Dr. Stephen Drinnon. The goal of this project is to evaluate methods to help the SWOSU College of Pharmacy (COP) promote student wellness and manage stress, with the ultimate goal being to improve on-time graduation rates and student satisfaction. In addition, it will promote meaningful research activities and opportunities for two SWOSU students of minority descent.

The Southwest Alliance for Girls' Enrichment in Science, Technology, Engineering, the Arts / Humanities, and Mathematics (SAGE STEAM) Camp is a week-long residential program held on SWOSU’s Weatherford campus each summer. Students get hands-on experience in science experiments, technology applications, design and building, writing reflections, and math applications while interacting with other girls like them. The SAGE STEAM Camp was funded by the following grants:

- OK-INBRE awarded \$5,000 to support the “SAGE STEAM Camp” 2022 from June 2022 to April 2023.
- The City of Weatherford Hotel/Motel Tax Commission awarded \$5,600 to fund the “SAGE STEAM Camp” from June 2023. Dr. Appeddu’s Co-PI’s for this project is Ms. Kathy O’Neal.

Dr. Appeddu and her Co-PI Ms. Kathy O’Neal applied for \$5,000 from OK-INBRE to provide support for the “SAGE STEAM Camp” from June 2023 to May 2024.

Dr. Appeddu applied for \$18,150 from Devon Energy to fund the “2023 SAGE STEAM Camp and Educators Professional Development Program.”

Ms. Madeline Baugher

SWOSU National Aeronautics and Space Administration (NASA) Coordinator



Extramural Activity

The Oklahoma State Regents for Higher Education awarded \$3,960 to fund the project, “NASA EPSCoR Research Infrastructure Development (RID),” from September 2022 to August 2023.

NASA awarded \$5,742 to fund the project, “NASA EPSCoR Research Infrastructure Development (RID),” from September 2022 to August 2023.

NASA awarded \$1,904 to support the project, “Robust and High-Data-Rate Hybrid RF/Optical Communications for Lunar Missions – Ekin,” from September 2022 to August 2023.

The Oklahoma State Regents for Higher Education awarded \$1,904 to support the project, “Robust and High-Data-Rate Hybrid RF/Optical Communications for Lunar Missions – Ekin,” from September 2022 to August 2023.

NASA awarded \$2,659 to fund the project, “NASA EPSCoR Infrasound Noise Mitigation for Aerial Platforms on Venus – Elbing,” from September 2022 to August 2023.

NASA awarded \$5,699 to support the “Enhanced Active Tissue Equivalent Dosimeter (eATED) for Space Crew Dosimetry” project from June 2022 to July 2023.

NASA awarded \$56,000 to fund the “NASA Oklahoma Space Grant Consortium” from July 2022 to June 2023.

Ms. Baugher applied for \$17,226 from NASA to fund the project, “Vacuum thermal evaporation (VTE) processed perovskite solar cells for in space assembly.”

Ms. Baugher applied for \$3,960 from the Oklahoma State Regents for Higher Education to fund the project, “Vacuum thermal evaporation (VTE) processed perovskite solar cells for in space assembly.”

Ms. Baugher applied for \$2,659 from NASA to fund the project, “R3-Paul Hybrid Electric Aircraft Distributed Power Systems Test Data.”

Ms. Baugher applied for \$5,700 from NASA to support the project, "NASA Oklahoma EPSCoR-ISS: Effect of synergistic space effects on properties of novel polymer composite materials."

Ms. Baugher applied for \$56,000 from NASA to support the project, "National Space Grant College and Fellowship Program- Opportunities in NASA STEM FY 2020-2024 5th Year Extension."

Dr. Andrew Bigley

Department of Chemistry and Physics



Extramural Activity

Dr. Bigley applied for \$379,530 from the National Institutes of Health to support the project, "Characterization and Evolution of Organophosphate Flame Retardant Degrading Diesterases from Sphingomonadaceae."

Dr. Bigley applied for \$29,810 from OK-INBRE to fund the project, "The evolution of organophosphate diesterase activity in the PHP family of enzymes."

Dr. Bigley applied for \$12,000 from Marathon Petroleum Foundation to fund the project, "Summer Undergraduate Research Program."

Organized Research

Dr. Bigley spent \$1,963 in Organized Research funds to sponsor his project, "Multichannel Pipette to Support Enzyme Research." This project facilitated 200 faculty hours and 220 hours for three students. The research in our group focuses on the degradation pathways of organophosphate flame retardants that are found in bacteria. The organophosphate flame retardants are a class of compounds used to control the flammability of plastic and durable foam products such as plastic phone cases and couch cushions.

Dr. Renan Bosque

Department of Biological Sciences



Extramural Activity

Dr. Bosque applied for \$499,877 from the National Science Foundation to fund the project, “BRC-BIO Will coloration affect the extinction risk of squamates?”

Dr. Bosque applied for \$488,785 from the National Science Foundation to fund the project, “BRC-BIO Will coloration affect the extinction risk of squamates?”

Organized Research

Dr. Bosque received and spent \$2,000 in Organized Research Funds to support his project, “The effectiveness of diamond patterns as a strategy for predator deterrence in snakes.” This project, provided two students with approximately 300 research hours. The objective of this project is to investigate the protective effect via aposematism of the coloration patterns found on Viperidae snakes. Specifically, we will investigate the interaction of light conditions and the size of diamonds, and attack rates on *Crotalus atrox* (Western diamondback rattlesnake) replicas.

Proposal Development Award

Dr. Bosque received \$6,000 in a Proposal Development Award to support his research, “BRC-BIO: Will coloration affect the extinction risk of squamates?” The broader impacts of this research includes helping the conservation of squamates at large scales by identifying priority areas for conservation. If external funding is secured, this project will implement a summer exchange program (SWOSUBR program) between SWOSU and UnB where students will learn about niche modeling and methods to assess extinction risk.

Mr. Landry Brewer

Department of Social Sciences



Scholarly and Academic Activity

Mr. Brewer served as a Guest Speaker at the SWOSU Symposium, presenting, "Oklahoma and the Cuban Missile Crisis," in Weatherford, OK

Mr. Brewer published his book, *Cold War Texas*, in Columbia, SC with the publisher, The History Press.

Ms. Kristi Bright

Department of Psychology



Travel Assistance

Ms. Bright received \$500 to travel to the American Education Research Association in Chicago, IL. There, she presented her paper, "Online Teaching Tools: Effects on Students' Perceptions of the Environment and Efficacy for Online Learning."

Dr. Sherri Brogdon

Department of Education



Travel Assistance

Dr. Brogdon received \$500 from OSP to travel to the Association for Educational Communications & Technology in Las Vegas, NV. There she presented, "Managing the Virtual Pandemic Classroom and Beyond: An Analysis of Arising Tech Issues to Maintain Quality Teaching and Learning."

Ms. Kendra Brown

SWOSU Department of Public Safety



Research and Scholarly Activity

Ms. Brown applied for \$800 from the Oklahoma Department of Emergency Management to support the project, "EMPG CSTAR Special Project."

Dr. Raygan Chain

Department of Business

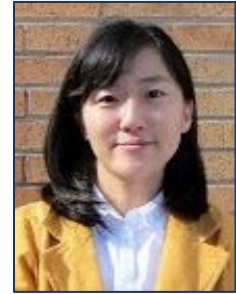


Scholarly and Academic Activity

Dr. Chain presented her paper, "The Equal Pay Act: What Can EEOC v. Verona Area School District Teach Us?," at the Southern Academy of Legal Studies in Business Conference in San Antonio, TX.

Dr. Jieun Chang

Department of Social Sciences



Scholarly and Academic Activity

Dr. Chang presented her paper, "ICT Adoption in Small- and Medium-Sized Firms and Participations in Global Value Chains in Developing Economies," in Portland, OR at the Western Economic International Annual Conference.

Dr. Chang presented her paper, "Information sources and political ideologies," in New York City, NY at the Eastern Economic Association Annual Meeting.

Travel Assistance

Dr. Chang received \$500 to travel to New York, NY to attend the 2023 Eastern Economic Association Meeting and present, "Information sources and the spectrum of political ideology."

Dr. Brandy Chase

Department of Allied Health Sciences



Scholarly and Academic Activity

Dr. Chase presented the poster, "Perceptions of Physical Therapy Clinicians Regarding the Impact of COVID-19 on Patients' Mental Health," at a virtual IPTA conference in Naperville, IL.

Dr. Kevin Collins

Department of Language and Literature



Travel Assistance

Dr. Collins received \$250 to send a student to Baltimore, MD to attend and present at the National Undergraduate Humanities Research Symposium.

Dr. Collins received \$495 to attend and present at the American Literature Association in Boston, MA.

Dr. Rickey Cothran

Department of Biological Sciences

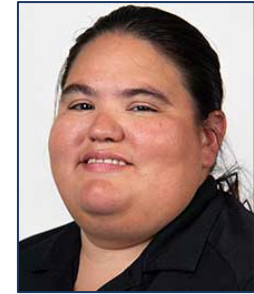


Travel Assistance

Dr. Cothran received \$500 to send two students to attend and present at the SWAN Conference 2023 in San Antonio, TX.

Ms. Amanda Currier

Academic Success Center



Extramural Activity

The SWOSU Foundation awarded \$12,400 to support the project, “Academic Support Center Grant Application to the SWOSU Foundation for 2022-2023 Activities,” from August 2022 to July 2023. The expected outcome of adding these resources to the ASC student programming for the 2022-2023 academic year is that students will engage in the support services offered by the department and that doing so will positively influence their academic performance. By assisting students in achieving greater academic success, the ASC has the opportunity to increase student retention at SWOSU. Current state funding and SWOSU budget restrictions prohibit ASC from purchasing items such as food and giveaways. These items help draw in students who may not otherwise show initiative in accessing academic resources. Further, the department is dedicated to participating in outreach activities for incoming students and awareness activities for current students throughout the year.

The U.S. Department of Education awarded \$448,486 to fund support the “Southwestern Oklahoma State University (SWOSU) Student Success Center” from October 2022 to September 2023. The Student Success Center (SSC) was created to strengthen SWOSU's efforts toward student retention and degree completion. The Center integrates support services provided by the Office of Retention Management, the Student Success Center, and Career Exploration. Student services in the SSC include pre-advising assistance, career exploration services, academic tutoring, peer mentoring, and academic coaching from a professionally trained staff in each of these areas. Students can get assistance with time management, organization, study skills, and major selection.

Dr. Marc DiPaolo

Department of Language and Literature



Organized Research

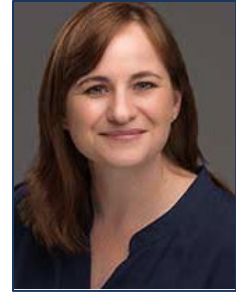
Dr. DiPaolo received and spent \$550 to present, “Race, Class, and Gender Across the Spider-Verse: Heroes, Villains, and Civilians in Spiderman,” at the American Studies Association’s 2022 Annual Meeting in New Orleans, LA.

Travel Assistance

Dr. DiPaolo received \$500 to attend and present, “Race, Class, and Gender Across the Spider-Verse: Heroes, Villains, and Civilians in Spider-Man Adventures,” at the American Studies Association in New Orleans, LA.

Dr. Stacey DiPaolo

Department of Music

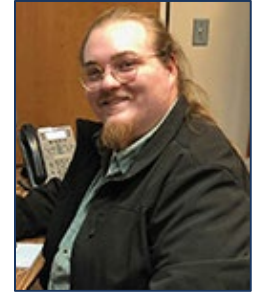


Travel Assistance

Dr. DiPaolo received \$500 to attend and present at the Annual ClarinetFest 2023 in Westminster, CO.

Mr. Benjamin Dressler

Al Harris Library



Travel Assistance

Mr. Dressler received \$500 to attend and present at Mythcon 52 in Albuquerque, NM.

Dr. Stephen Drinnon

Department of Pharmaceutical Sciences



Organized Research

Dr. Drinnon received and spent \$4,520 in Organized Research Funds to support his research project, “Investigating Changes in Salivary Measures as Physiological Indicators of the Potential Benefits of Relaxation Activities – A Continuation.” This project provided four research students with approximately 225 research hours. The objective of this project was to investigate physiological responses by exploring changes in cortisol, alpha-amylase (an indicator of sympathetic nervous system stimulation), and testosterone in saliva samples. The secondary objective was to determine if there is any correlation between the physiological measures and survey results.

Dr. Suzanne Dunai

Department of Social Sciences



Extramural Activity

Oklahoma Humanities awarded \$500 to support the project, “Motherhood and Childrearing in Historical Contexts: Research and Community Engagement,” from June 2023 to October 2023. Dr. Dunai used this grant to travel to Spain and conduct analyze the culture of childhood in Spain during the 1940’s and 1950’s. This research gave Dr. Dunai the opportunity to draft an academic article on the topic of gender history in the 1940’s and 1950’s.

Dr. Jerry Dunn

Department of Social Sciences



Travel Assistance

Dr. Dunn received \$500 to attend and present at the 2023 National Technology and Social Sciences (NSSA) Conference in Las Vegas, NV.

Mr. Jason Dupree

Al Harris Library



Extramural Activity

The Oklahoma Historical Society awarded \$19,557 to support the project, “Oklahoma Heritage Preservation Grant Program,” from February 2023 to September 2023. The purpose of this project is to send non-traditional media from our collections (Stafford collection and Football Media collection) to be digitally converted (offsite).

The National Endowment for the Humanities awarded \$9,900 to fund the project, “Preservation of the Stafford Archives,” from February 2022 to October 2022. With this funding, a consultant was hired to evaluate the Stafford collection, create a preservation plan, identify a list of needed supplies and resources to protect the collection, and offer guidance to library staff on the use, handling, and display of the collection for public use. Upon the completion of the consultant’s assessment, library staff will implement the preservation plan, develop policies and procedures for preservation of the Stafford Collection and organize and store the collection with the proper preservation containers and supplies.

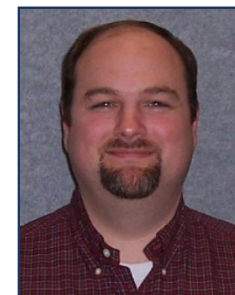
Scholarly and Academic Activity

Mr. Dupree presented, “Telling powerful stories about space exploration: challenges and opportunities in cataloging and translating materials from the Stafford Archive,” at the 25th Annual Central Association of Russian Teachers of America (CARTA) Conference in Oklahoma City, OK.

Mr. Dupree presented his paper, “If You Build It, They Will Come: How Digital Commons Demonstrates the Library's Value in Supporting Campus Initiatives (Co-presented with Phillip Fitzsimmons),” at the OK-ACRL Annual Conference in Weatherford, OK.

Dr. Trevor Ellis

Department of Chemistry and Physics



Extramural Activity

OK-INBRE awarded \$2,000 to fund "Travel to the 2023 Spring National American Chemical Society Meeting in Indianapolis, IN," from November 2022 to April 2023. Dr. Ellis, and his students, attended the 2023 Spring National ACS meeting to present their research conducted on the hypothesis that the steric demand and electronic nature of the aromatic groups surrounding the imine carbon should effect the exchange rate of the amino acid of the Ni(II) complex. The preliminary results indicate that the hypothesis is correct.

OK-INBRE awarded \$4,400 to support the project, "Design and Application of Metal Complexed Nucleophilic Glycine Equivalents for the Preparation of Nonproteinogenic α -Amino Acids," from May 2023 to December 2023. These funds provided two of Dr. Ellis' students with supplies up to \$2,200 each to use for their summer research project.

Travel Assistance

Dr. Ellis received \$1,000 for him and two students to travel and present at the Spring National American Chemical Society Meeting in Indianapolis, IN.

Ms. Susan Ellis

Department of Chemistry and Physics



Extramural Activity

The Oklahoma State Regents for Higher Education awarded \$26,667 to support the SWOSU Food Pantry through the “Hunger Free Campus Grant,” from July 2023 to June 2024. The funds from this grant were used to purchase additional shelves and freezers order to provide students with a higher quantity and a larger variety of options for food and non-food items. Software and equipment will be purchased to make cataloging and inventory management more streamlined. Advertising and educational resources will also be purchased to raise awareness for food insecurity among our students and where they can find help.

Dr. Amanda Evert

Department of Business

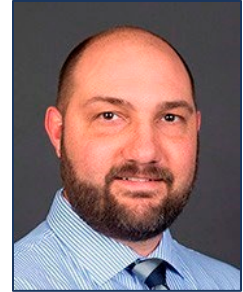


Extramural Activity

The Oklahoma State Regents for Higher Education awarded \$30,000 to fund the project, "SWOSU Request Form for Additional FY23 UpskillOK Scholarship Funds," from February 2023 to May 2023. The goal of this project is to provide scholarships for an expected 100 participants enrolled in micro-credential classes in the spring of 2023.

Dr. Jeremy Evert

Department of Computer Science



Travel Assistance

Dr. Evert received \$500 to attend and present at the Fought National Research Platform meeting.

Mr. Phillip Fitzsimmons

Al Harris Library



Scholarly and Academic Activity

Mr. Fitzsimmons reviewed the book, *Fairy Tale: A Novel by Stephen King*, for the publication, Mythprint Quarterly Bulletin of the Mythopoeic Society Whole no. 403, Vol. 59, no. 4, Winter 2022, in Altadena, CA.

Travel Assistance

Mr. Fitzsimmons received \$500 to attend and present at the Mythcon 52 in Albuquerque, NM.

Ms. Lisa Friesen

Center for Excellence in Teaching and Learning



Extramural Activity

The Oklahoma State Regents for Higher Education awarded \$5,000 to support the project, “OCO Technology Pilot Grant,” from November 2022 to April 2023. This funding allowed the Center for Excellence in Teaching and Learning (CETL) the opportunity to purchase a pilot for UGA, a video recording tool, and Panorama, an accessibility tool; pay for an institutional membership for Quality Matters; purchase a green screen to use in video production; and offer Quality Matters training workshops.

The Oklahoma State Regents for Higher Education awarded \$300 to fund the project, “MOU from OSHRE for travel funds to Oklahoma Learning,” from March 2023 to May 2023. This stipend provided travel to attend the Oklahoma Learning Innovation Summit Meeting.

Ms. Friesen applied for \$1,150,000 from the U.S. Department of Agriculture to fund the project, “SWOSU Virtual Network.”

Dr. Barry Gales

Department of Pharmacy Practice



Scholarly and Academic Activity

Dr. Gales served as a Guest Instructor at the Great Plains Family Medicine Residency Program, presenting the “2022-23 Influenza Season ACIP/CDC Update” in Oklahoma City, OK.

Dr. Gales served as a Guest Speaker, presenting the “2023 GOLD COPD Guidelines Update” at the Great Plains Family Medicine Residency Program Noon Educational Conference in Oklahoma City, OK.

Dr. Gales reviewed the article, “Review of Ruxolitinib for Treatment of Non-Segmental Vitiligo,” for the Annals of Pharmacotherapy in Oklahoma City, OK.

Dr. Mark Gales

Department of Pharmacy Practice

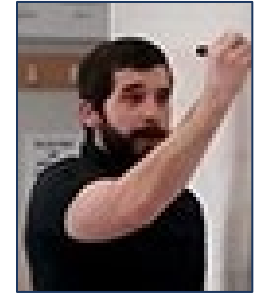


Scholarly and Academic Activity

Dr. Gales reviewed the “Evaluation of the risk of cardiac or cerebrovascular events in romosozumab focusing on comorbidities: analysis of the Japanese Adverse Drug Event Report database” for the Annals of Pharmacotherapy in Oklahoma City, OK.

Dr. Mark Garcia

Department of Biological Sciences



Extramural Activity

OK-INBRE awarded \$1,781 to fund the project, “The Influence of Age on Experience-Induced Behavioral Changes,” during January 2023. The aim of this study is to investigate the effects of age on experience-induced behavioral changes by measuring boldness and risk-taking behaviors of juvenile (2 months of age) and adult (6 months of age) Mangrove Rivulus before and after predation experience.

Organized Research

Dr. Garcia was awarded and spent \$2,000 in Organized Research Funds to support his research project, “The Influence of Age on Experience-Induced Behavioral Changes.” This project provided four students with approximately 200 research hours. The goals of the project is to focus on the mechanisms by which stressful experiences are translated into future behavioral responses.

Proposal Development Award

Dr. Bosque received \$6,000 in a Proposal Development Award to support his research that examines how social experiences effect an individual’s short- and long-term behavioral decisions. This proposal seeks to identify the molecular mechanisms underlying experience effects and whether experiences from multiple contexts, i.e., cross-contextual experience effects, are mediated by a shared network of mechanisms.

Travel Assistance

Dr. Garcia received \$1,250 for him and three students to attend and present at the Society for Integrative and Comparative Biology in Austin, TX. There, they presented their research on “The Influence of Age on Experience-Induced Behavioral Changes.”

Dr. Swarup Ghosh

Department of Mathematics



Organized Research

Dr. Ghosh was and spent \$456 of Organized Research Funds to fund his research project, "Mathematical Analysis of an SEIR Disease Model." This project provided one student with approximately 54 hours of research. This project is a mathematical modeling project of disease dynamics.

Dr. Sunil Giri

Department of Mathematics



Organized Research

Dr. Giri spent \$1,589 to fund his project, "Analysis of SEIR Model with Non-Constant Populations," which provided one student with approximately 54 research hours. The goal of the project was to mathematically model the total population by breaking them down into four non-intersecting classes named, "Susceptible, Exposed, Infected, and Recovered." The students presented this project during the Math Department Seminar and the 2023 SWOSU Research and Scholarly Activity Fair.

Mr. Harold Greb

SWOSU Fine Arts Center



Extramural Activity

Mr. Greb applied for \$7,053 from the Dreyfus Foundation, Max and Victoria to fund the project, "Auditorium accessibility updates."

Dr. Kristin Griffeath

Department of Music



Travel Assistance

Dr. Griffeath received \$500 to travel to attend and present at the Thursday Musical Artist Series in Minneapolis, MN.

Dr. Robin Griffith

Department of Music



Travel Assistance

Dr. Griffith received \$500 to travel to attend and present at the Thursday Musical Artist Series in Minneapolis, MN.

Dr. Lori Gwyn

Office of Sponsored Programs



Extramural Activity

Dr. Gwyn applied for \$95,214 from the Office of Research Integrity to fund the project, "Development of Responsible Conduct of Research resources."

Scholarly and Academic Activity

Dr. Gwyn presented the "Engagement and Outreach for K12 Students and Educators" workshop at the OK IDeA Network of Biomedical Research Excellence (OK-INBRE) in Oklahoma City, OK.

Dr. Aimee Henderson

Department of Rural Health



Extramural Activity

The Oklahoma State Department of Health awarded \$227,000 to fund the project, “Improving the Health of Americans Through Prevention and Management of Diabetes and Heart Disease and Stroke,” from July 2022 to June 2023. The purpose of this project is to educate healthcare professionals on the role of pharmacists in team-based care, offer education and resources to pharmacists on prevention and management of diabetes and cardiovascular disease, and provide technical assistance to rural pharmacies, hospitals and clinics on Diabetes Self-Management Education and Support (DSMES) and Diabetes Prevention Programs (DPP) in the prioritized counties of Caddo, Delaware, Hughes, Lincoln, McIntosh, Muskogee, Pittsburg, Seminole and/or other counties as identified by OSDH.

Dr. Henderson applied for \$227,000 from the Centers for Disease Control to support the project, “A Strategic Approach to Advancing Health Equity for Priority Populations with or at Risk for Diabetes.”

Dr. Jon Henrikson

Department of Chemistry and Physics



Extramural Activity

OK-INBRE awarded \$2,000 to support the project, "Effects of temperature on CBD infused lotions," from November 2022 to April 2023. This funding allowed Dr. Henrikson to travel to the Spring 2023 American Chemical Society National Meeting in October, 2022 to present the results and findings from his research on the "Effects of temperature on CBD infused lotions." Cannabidiol (CBD) is considered to be a non-psychoactive compound, derived from the Cannabis sativa plant, which has antioxidant and anti-inflammatory properties. Currently, there are many commercially available products that are infused with CBD and CBD analogs. In our study, we are looking at the effects of temperature abuse on stability and anti-inflammation effects of retail CBD infused lotions with additional additives through differential chromatography and an antiinflammation bioassay.

Dr. Henrikson applied for \$45,408 from the National Science Foundation to fund the project, "Post-Associate and Post-Baccalaureate Research Experiences for LSAMP Students (PRELS) Supplemental Funding Proposal."

Travel Assistance

Dr. Henrikson received \$750 for him and a student to attend and present at the Spring National American Chemical Society Meeting in Indianapolis, IN. There, they presented "Method development and validation of pKa determination of glycine-metal complexes by ^1H -NMR."

Dr. Jolie Hicks

Department of Language and Literature



Scholarly and Academic Activity

Dr. Hicks presented her paper, "A Place for Sustainability in First-Year Composition," at the National Council of Teachers of English in Weatherford, OK.

Dr. Timothy Hubin

Department of Chemistry and Physics



Extramural Activity

OK-INBRE awarded \$2,000 to fund the project, "INBRE Faculty Travel Grant: 2023 ACS Spring National Meeting in Indianapolis March 26-30," from November 2022 to April 2023. Dr. Hubin used the funds to travel to Indianapolis, Indiana to present at the 2023 Spring National American Chemical Society Meeting.

The National Science Foundation awarded \$54,525 to support the "Louis Stokes Alliance for Minority Participation (LSAMP) Phase VI" from August 2022 to July 2023. The LSAMP-STEM program at SWOSU is designed to address the underrepresented minority students pursuing advanced degrees in science, mathematics, engineering and technology. The ultimate goal of LSAMP-STEM is to encourage minority students to pursue advanced degrees leading to research or teaching positions. To earn stipend support, students must participate in undergraduate research which is designed to help students prepare for success in graduate school. Students are placed with a faculty mentor to carry out research that provides a more heuristic approach to understanding scientific research and builds on the previous seminar experience.

The Oklahoma Center for the Advancement of Science and Technology (OCAST) awarded \$45,000 to fund the project, "Novel dual CXCR4/CXCR7 chemokine receptor antagonists: targeting secondary disease progression in cancer," from the October 2022 to September 2023. CXCR4/CXCR7-CXCL12 chemokine axis plays a pivotal role in breast cancer (BC) growth, survival, therapy-evasion and metastasis. Clinically overexpression of CXCR4/CXCR7-CXCL12 correlates with aggressive BC disease and poor outcome. Evidence suggests cooperativity between CXCR4 and CXCR7 chemokine receptors in governing the precise biological response to CXCL12 stimulation. This will limit the effectiveness of targeting either receptor independently. We have developed first-in-class dual inhibitors of CXCR4 and CXCR7. Pilot studies confirm efficacy against aggressive BC in-vivo. Dual inhibition of CXCR4 and CXCR 7 could elicit profound, pleiotropic anti-cancer effects providing a powerful new line of therapy for BC patients with high risk of progressive disease.

OK-EPSCoR awarded \$72,072 to support the project, "Socially sustainable solutions for Water, Carbon, and Infrastructure Resilience in Oklahoma – SWOSU," from July 2023 to June 2024. This project invests in the identification of solution sets that can achieve a level of

acceptance among our diverse stakeholders that build resilient SSWPs that address the most urgent problems with which Oklahomans grapple. The novelty of S3 OK is that it employs a social science framework inclusive of the public, opinion leaders, and the science community; and builds on theories of policy change to achieve science-based learning and wicked problem resolution at the intersections of four distinct but related focus areas.

Dr. Hubin applied for \$72,073 from the National Science Foundation to support the project, "OK-EPSCoR Year 4."

Dr. Heather Katz

Department of Social Sciences



Travel Assistance

Dr. Katz received \$500 to attend and present at the American Political Science Association Annual Conference in Los Angeles, California.

Dr. Kalie Kerth

Department of Rural Health



Extramural Activity

Dr. Kerth applied for \$5,000 from the Women's Foundation of Oklahoma, through their Single Parent's Network, to fund the project, "Southwestern Oklahoma State University Single Parent Network Childcare Scholarship Program."

Dr. Kristina Kirk

Department of Language & Literature

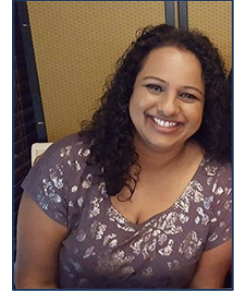


Travel Assistance

Dr. Kirk received \$1,000 for four of her students to attend the Sigma Tau Delta meeting in Denver, CO.

Dr. Sunu Kodumthara

Department of Social Sciences



Travel Assistance

Dr. Kodumthara received \$500 to attend and present at the Multi-Ethnic Literature of the United States (MELUS) 2023 Conference in Indianapolis, IN.

Dr. Howard Kurtz

Department of Social Sciences



Extramural Activity

Dr. Kurtz applied for \$15,000 from the Oklahoma State Regents for Higher Education to support the project, “Studies and Applied understanding of Prisoner Culture.”

Scholarly and Academic Activity

Dr. Kurtz presented his paper, “Deadly Jail: What went wrong in Super Modern Jail,” at the Academy of Criminal Justice Sciences Annual Meeting in National Harbor, MD.

Dr. Kurtz presented his paper, “Terror Tags and School Board Violence,” at the National Social Science Association National Meeting in Las Vegas, NV.

Dr. Kurtz served as a National Panel Chair for Jail Management and Mortality at the 60th Annual Academy of Criminal Justice Sciences Annual Meeting in National Harbor, MD.

Dr. Sharon Lawrence

Department of Allied Health Sciences



Extramural Activity

Dr. Lawrence applied for \$3,600,000 from the U.S. Department of Labor to support the project, "Medical Laboratory Technology Expansion at SWOSU."

Dr. ChihChen Sophia Lee

Department of Music



Travel Assistance

Dr. Lee received \$500 to attend and present at the Southwestern Region of the American Music Therapy Association (SWAMTA) Conference in Austin, TX.

Dr. Hsuon-Yu Alex Lee

Department of Music



Travel Assistance

Dr. Lee received \$2,150 to allow 43 students to attend and present at the Oklahoma Music Educators Conference in Tulsa, OK.

Dr. Doug Linder

Department of Chemistry and Physics

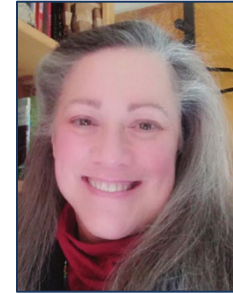


Extramural Activity

OK-INBRE awarded \$2,000 to support the project, "2023 OK-INBRE Travel Grant," from March 2023 to July 2023. This funding provided Dr. Linder with the opportunity to travel to the Northwest Regional Meeting (NORM) of the American Chemical Society in Bozeman, Montana to present research about the role of the γ -ZN(II) in the Hydrolysis of Phosphate Esters by PHP.

Dr. Kelley Logan

Department of Language and Literature



Scholarly and Academic Activity

The Oklahoma State Regents for Higher Education awarded \$20,000 to support the “Writing for the FBI Entrance Exam micro credential” project from July 2022 to June 2023.

Dr. Philip Martinson

Department of Music



Extramural Activity

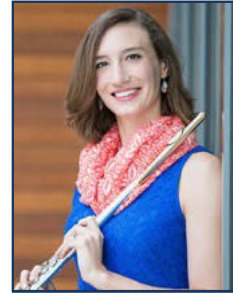
The Presser Foundation awarded \$4,000 to support the “Presser Scholar Undergraduate” program from November 2022 to June 2023. This purpose of this grant is to encourage and support, in a special way, the education of a music student who exemplifies high academic accomplishment, leadership, and citizenship. This award gives a SWOSU student the opportunity to be recognized as an elite Presser Scholar.

Organized Research

Dr. Martinson spent \$588 in Organized Research funds to fund his project, “Publishing Works for Trombone.” The aim of the project was to facilitate the publication of several compositions. Dr. Martinson used these funds to professionally present several pieces he has written. He revised two trombone quartets into a trombone octet (Anthems of a Fantasy Battle) and sextet (Contrary Lullaby).

Dr. Shelley Martinson

Department of Music



Extramural Activity

The Kirkpatrick Foundation provided \$4,587 to fund the “2023 SWOSU Flute Day” in February 2023. Established in 2016, the Southwestern Oklahoma State University (SWOSU) Flute Day is an annual community event that promotes the flute, music, and arts education in western Oklahoma and the surrounding regions. This free event includes more than 20 different activities taught by 11 different clinicians and will run from 12-6pm. A typical Flute Day features 20 different events taught by 11 different clinicians and welcomes approximately 100 middle and high school flutists to campus. Activities include workshops/classes, flute choir, solo and ensemble piece coachings, and performances. This year’s featured guest artist will be Dr. Hannah Leffler of University of Texas at Arlington.

Organized Research

Dr. Martinson spent \$588 to fund the “Commissioning New Music for Flute Choir” project. This project gave nine students approximately 15 hours of experience. The goal of the project was to fill the void in the canon of literature currently available for flute choir. Students were given the opportunity to participate in the commissioning process and communicate their interests and desires with award-winning American composer Kimberly Osberg. Kimberly Osberg was commissioned to write a 6-minute work for three C flutes, also, bass, and optional contrabass. The resulting work is titled, *The Running Eye*, and is inspired by Oklahoma weather.

Travel Assistance

Dr. Martinson received \$500 for the SWOSU Flute Choir to travel and perform *Borealis* by Alexandra Molnar-Suhajda at the Flute Fair in Norman, OK.

Dr. David Martyn

Department of Chemistry and Physics



Extramural Activity

OK-INBRE awarded \$2,200 to fund the project, "Synthesis of amine functionalized cholesterol derivatives for use in metal-complex based imaging agents," from May 2023 to August 2023. This funding provided Dr. Martyn's student with \$2,200 for supplies to use on their summer research project, "Synthesis of amine functionalized cholesterol derivatives for use in metal-complex based imaging agents." The goal of this project is to seek the development of metal complex-based cholesterol-derived tetraazamacrocycle for use in diagnostic imaging.

Dr. Martyn applied for \$55,927 from the National Science Foundation through the EPSCoR program to fund the project, "Enhanced Polymeric Macrocyclic Transition Metal Complexes as Recyclable Oxidation Catalysts for Water Purification."

Travel Assistance

Dr. Martyn received \$1,000 for him and two students to attend and present, "Synthesis of amine functionalized cholesterol derivatives for use in metal-complex based imaging agents," at the Spring National American Chemical Society Meeting in Indianapolis, IN.

Ms. Jessica Salmans Meditz

Department of Arts, Communication & Theatre



Extramural Activity

The SWOSU Foundation awarded \$10,700 to fund the “MELUS Travel Grant” during April 2023. This funding gave Ms. Meditz and some of her colleagues the opportunity to travel to Indianapolis, Indiana to attend the Multi-Ethnic Literature of the United States (MELUS) Conference.

Ms. Salman Meditz applied for \$10,150 from the Oklahoma Arts Council to fund the “Musical Theatre Bridge Program.”

Dr. Nolan Meditz

Department of Language & Literature



Travel Assistance

Dr. Meditz received \$500 to attend and present at the American Writers Program Conference in Seattle, WA.

Ms. Emma Mullins

Business Services

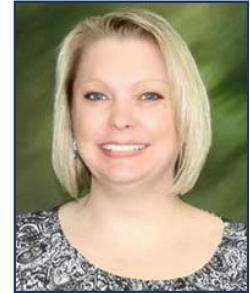


Scholarly and Academic Activity

Ms. Mullins presented, "Post Award Overview: Great News, Your Institution has Received a Funding Notification. Now What?," at the National Council for University Research Administrators Region V Fall 2022 Meeting in Sugar Land, TX.

Ms. Jamie Novey

Upward Bound



Extramural Activity

The U.S. Department of Education awarded \$450,677 to support the “Upward Bound” program at SWOSU from September 2022 to August 2023. SWOSU’s Upward Bound Program for college-bound high school students is an empowering and motivational initiative that helps students succeed in a postsecondary education setting. The Upward Bound Program is a federally funded and state supported educational program that provides academic and counseling services to students in preparation for college. Qualified high-school students are recruited and are provided with tutoring, personal, career and academic counseling during the academic year as well as during a summer session. What’s more, Saturday Academies are provided bi-monthly during the academic year to strengthen the students’ performance in their classes. During the six-week summer session students engage in an intense academic and cultural experience that helps prepare them for college life.

Dr. Taylor Orgeron

Department of Language and Literature



Extramural Activity

The Oklahoma State Regents for Higher Education provided \$20,000 to support the project, “Reading and Analyzing Academic Research,” from July 2022 to June 2023. In this micro-credential course, participants will learn strategies for the effective critical reading and analyzing of academic research articles. Participants will learn how the various academic disciplines complete research studies and publish peer-reviewed articles, including how the peer-review process works, and how other ethical processes concerning academic research (IRB and IACUC) function. Participants will also learn how peer-reviewed articles differ in form from one discipline to another, including research completed in the Natural Sciences, Social Sciences, Humanities and Applied Fields, and what writing features these disciplines have in common. In completing this micro-credential course, participants will have a better understanding of how academic research is conducted, how to effectively understand academic research, and how to prepare to conduct academic research themselves.

Organized Research

Dr. Orgeron spent \$1,300 in Organized Research funds to travel to the College English Association (CEA) 2023 National Conference in San Antonio, Texas and present her paper titled, “Establishing a Culture of Writing Program Assessment at a Regional university.” The CEA is an organization that seeks to develop collegiality among college teacher-scholars and administrators of English and English departments. With her paper, Dr. Orgeron was able to share, with other teacher-scholars, the successes in realigning departmental assessment procedures for the General Education course, ENGL 1113: Composition I, to best practices, establish a culture of assessment which allows faculty to view required assessment as a form of professional development, and offer advice for other Assessment Coordinators wishing to do the same.

Scholarly and Academic Activity

Dr. Orgeron presented her paper, "Establishing a culture of writing program assessment at a regional university," at the College English Association 52nd Annual Conference in Weatherford, OK.

Dr. Bo Pagliasotti

Department of Education



Extramural Activity

Dr. Pagliasotti applied for \$99,516 from the Oklahoma State Department of Education to fund the “Leg-Up After School Program.”

Ms. Marla Pankratz

Department of Education



Extramural Activity

Ms. Pankratz applied for \$250,000 from the U.S. Department of Education to fund the “SWOSU Ccampus” project.

Ms. Pankratz applied for \$75,000 from the Oklahoma State Department of Education to support the “ESSER After School and Summer Learning LEG-UP” project.

Travel Assistance

Ms. Pankratz received \$500 to attend and present at the National Association for the Education of Young Children (NAEYC) in Washington, D.C.

Dr. Todd Parker

Department of Arts, Communication & Theatre



Travel Assistance

Dr. Parker received \$500 to attend and present, "Finding your Story in Art History," at the FATE's 2023 National Biennial Conference in Denver, CO.

Dr. Edna Patatanian

Department of Pharmacy Practice



Scholarly and Academic Activity

Dr. Patatanian reviewed "Pharmacological support for the treatment of obesity - present and future" for the Healthcare Journal; Manuscript ID: healthcare-2068029, in Oklahoma City, OK.

Dr. Patatanian served as a guest speaker, presenting, "PD Pharmacotherapy," at the Parkinson's Road Map to Education and Support, "PRESS" in Tulsa, OK.

Dr. Patatanian reviewed "The relationship between depressive symptoms, rumination, and suicide ideation in patients with Depression" for the IJERPH; Manuscript ID: 1947536 in Oklahoma City, OK.

Dr. Patatanian reviewed "Risk factors for developing maternal postpartum depression: Retrospective study" for Manuscript ID: CEOG 15365 in Oklahoma City, OK.

Dr. Patatanian served as a session chair for the session, "In caring for Older People in Low- and Middle-Income Countries, DO Older Caregivers have a High Level of Care Burden and Psychological Morbidity Compared to Younger Caregivers?," for the International Journal of Environmental Research and Public Health (IJERPH); Manuscript ID: 2030817, in Oklahoma City, OK.

Dr. Patatanian reviewed "Melatonin Alleviates Peri-menopausal Sleep Disorders by Regulating the Expression of MTNR1A and Hormone Level" for Clinical and Experimental Obstetrics and Gynecology (CEOG); Manuscript ID: CEOG15401 in Oklahoma City, OK.

Dr. Patatanian reviewed "Modulation of gut microbiota through low-calorie and two-phase diets in obese individuals" for Nutrients; Manuscript ID: nutrients-2303143 in Oklahoma City, OK.

Dr. Patatanian reviewed the article, "Safety and feasibility of opening tamsulosin capsules for enteral feeding tube administration" for the Hospital Pharmacy Journal; Manuscript ID: HPX-23-0054 in Oklahoma City, OK.

Dr. Patatanian reviewed the article, "Translation, cultural adaptation and validation of the General Medication Adherence Scale

(GMAS) in Moroccan patients with Type 2 Diabetes,” for the Healthcare Journal; Manuscript ID: healthcare-2247200.

Dr. Patatanian reviewed the article, “Towards Clinical Sensor-Based Fall Risk Assessment at an Orthopedic Clinic: A Case Study of the Staff's Views,” for the Sensors (MDPI) Journal; Manuscript ID: Sensors-2169984.

Dr. Robert Pippin

Department of Music



Organized Research

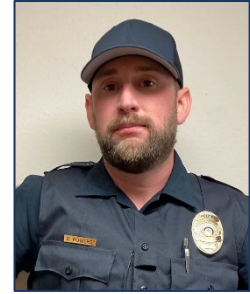
Dr. Pippin spent \$2,000 to support the project, “Composition Commission of a New Work for Concert Band and Electronics by Robert Langenfeld. The funds were used to secure composer, Robert Langenfeld, to compose a new work for concert band and electronics written at a difficulty level appropriate for smaller or less-experienced bands typical of rural communities in western Oklahoma. The piece composed by Mr. Langenfeld will be premiered by the SWOSU Symphonic Band on November 29th in the Fine Arts Auditorium. Through this consortium project, more than a dozen nation-wide band directors will have the performance rights to perform after the SWOSU premier. Once the project is completed, the piece will be published and available worldwide, bringing attention to SWOSU as the lead program in the commissioning project.

Travel Assistance

Dr. Pippin received \$1,160 to send 10 students to attend and present at the OKMEA Intercollegiate Honor Band held during the Oklahoma Music Educators Association Convention in Tulsa, OK.

Mr. Blake Powers

SWOSU Department of Public Safety



Extramural Activity

Mr. Powers applied for a \$5,000 "USDSA Cash Grant" from the United States Deputy Sherriff's Association.

Mr. Powers applied for a "USDSA Equipment Donation" to provide PBT to combat drunk driving/underage drinking and trauma medical kits for Officers.

Dr. Pamela Rose

Department of Allied Health



Organized Research

Dr. Rose served as a Session Chair for the “Rhetoric and Composition Sessions Panels” at the Conference of College Teachers of English in Wichita Falls, TX.

Dr. Rose was appointed as “Webmaster” for the Conference of college Teachers of English in Texas.

Travel Assistance

Dr. Rose received \$500 to attend and present at the 52nd Annual College English Association Conference in San Antonio, TX.

Dr. Tugba Sevin

Department of Language & Literature



Extramural Activity

The Oklahoma State Regents for Higher Education awarded \$4,500 to support the “Open Educational Resources Faculty Grant Initiative” from January 2023 to September 2023. The purpose of this project was to support the creation or adoption of an openly-licensed, zero-cost textbook for the course, Hispanic Life and Culture, taught by Dr. Sevin.

Travel Assistance

Dr. Sevin received \$195 to attend and present her paper, “Toledo: la ciudad con memoria e historia única,” at the XXXI Congresos Internacionales de Literatura y estudios hispanicos (CILH) virtual conference.

Dr. Sevin also received \$50 for her student to attend and present at the 43rd Cincinnati Conference on Romance Languages and Literatures virtual meeting.

Dr. Horrnick Sharma

Department of Pharmaceutical Sciences



Extramural Activity

Dr. Sharma applied for \$2,200 from OK-INBRE to fund the project, "Targeting Cancer Metabolism in Pancreatic Cancer Cell Lines."

Dr. Sharma applied for \$12,571 from OK-INBRE to support the project, "Study of the mitochondrial changes induced by a novel LDHA inhibitor in MIA PACa-2 cells by Flow Cytometry."

Dr. Sharma applied for \$139,298 from OK-INBRE to support the project, "Development of a Novel Class of LDH Inhibitors Against Pancreatic Cancer (RPI)."

Dr. Pragma Sharma

Department of Biological Sciences



Extramural Activity

OK-INBRE awarded \$2,200 to fund the project, “Understanding the metabolic dependencies of pancreatic cancer cells (SURP),” from June 2023 to July 2023. This funding provided Dr. Sharma’s student with \$2,200 in supplies for their summer research project, “Understanding the metabolic dependencies of pancreatic cancer cells.” In this research project, Dr. Sharma’s student identified the gene regulatory network and cell signaling pathway involved in metabolic plasticity. These preliminary studies will contribute to exploring altered tumor metabolism in pancreatic cancer models and has the potential to advance our understanding of therapeutic strategies targeting metabolic vulnerabilities in cancer cells.

OK-INBRE provided \$6,000 to support the project, “Investigating the metabolic vulnerabilities of Pancreatic Ductal Adenocarcinoma (SMaRT),” from May 2023 to August 2023. The aim of this research is to identify specific nutrients that fuel and sustain pancreatic cancer proliferation and growth. Specifically, this proposal seeks to investigate the interplay between the Warburg effect, glutaminolysis, and OXPHOS in pancreatic cancer cells. The results of this study will lead to a better understanding of how cancer cells adapt to different nutrient environments under stress.

NSF (EPSCoR) awarded \$6,500 to fund the project, “Investigating the Molecular Mechanisms of Metabolic Reprogramming in Pancreatic Cancer,” from May 2023 to July 2023. The aim of this research is to explore how glutaminolysis is affected when glycolysis and mitochondrial respiration are suppressed in Mia-Paca2 cells. The goal is to understand how pancreatic cancer cells under nutrient-deprived conditions use alternate metabolic fuels to exhibit plasticity.

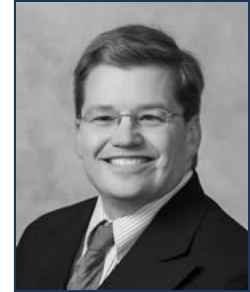
Organized Research

Dr. Sharma spent \$2,000 in Organized Research funds to fund her project, “Metabolic Plasticity in Pancreatic Cancer.” This project provided five students with approximately 70 research hours. The goal of this project is to understand the mechanism of metabolic plasticity in pancreatic cancer cells. Identifying specific nutrients that fuel and sustain pancreatic cancer cell growth presents new

opportunities to target pancreatic cancer. With the funds, preliminary data was generated and used to train undergraduate students in basic cell biology and molecular biology techniques.

Dr. Randall Sharp

Department of Pharmacy Practice



Scholarly and Academic Activity

Dr. Sharp reviewed "Anti-ischemic and Pleiotropic Effects of Ranolaxine in Chronic Coronary Syndromes" for the Current Pharmaceutical Design in Oklahoma City, OK.

Dr. Sharp published the journal article, "Understanding and Treating Chylothorax," for the U.S. Pharmacist in Oklahoma City, OK.

Dr. Sharp reviewed "Unusual Case of Left-Sided Hydropneumothorax" for the Journal of Pharmacy Practice in Oklahoma City, OK.

Dr. Vijay Somalinga

Department of Biological Sciences



Extramural Activity

The Tribeta Biological Honors Society awarded \$400 to fund the project, “Structural characterization of NfCA1, an alpha-carbonic anhydrase homolog from *Naegleria fowleri*,” from November 2022 to August 2023. The goals of this project are to purify NfCA1 α , standardize crystallization conditions, and elucidate its crystal structure using X-diffraction techniques.

OK-INBRE, through their Summer Undergraduate Research Program (SURP), awarded \$2,200 to support the project, “Structural and Biochemical Characterization of an alpha-carbonic anhydrase homolog from a eukaryotic pathogen, *Naegleria fowleri* (SURP),” from May 2023 to July 2023. OK-INBRE provided Dr. Somalinga’s student \$2,200 in supplies to use for their summer research project. The goal of this project is to ascertain the structural and biochemical properties of *N. fowleri* α -CA homolog to better understand the role this protein plays in the physiology of this organism.

OK-INBRE, through their Summer Mentoring and Research Training (SMaRT) program, provided \$6,000 to fund the project, “Elucidating the physiological functions of SSA_0908, an uncharacterized substrate binding protein from *Streptococcus sanguinis*. (SMaRT),” from June 2023 to July 2023. This project provided a SWOSU student with the opportunity to be exposed to microbiology and molecular biology techniques in addition to experiences in data interpretation and analysis, experimental design and scientific communication.

OK COBRE awarded \$63,390 to support the project, “Structural and Functional Characterization of Proteins Essential for Metabolism and Virulence in *Streptococcus sanguinis*,” from August 2022 to August 2023. Data obtained through these studies will be utilized to further characterize proteins involved in amino acid transport, metabolism and in small molecule biosynthesis which will require extensive biochemical and structural studies. In addition, work outlined here will also help in providing research opportunities in structural biology to undergraduates from minority serving-primarily undergraduate institutions.

Dr. Somalinga applied for \$1,000 from the Tribeta Biological Honors Society to fund the project, “Identification and Biochemical Characterization of an Alpha-Carbonic Anhydrase Homolog from a Pathogenic Amoeboflagellate, *Naegleria fowleri*.”

Dr. Somalinga applied for \$39,635 from OK-INBRE to support the project, “Structural and Functional Characterization of Proteins

Essential for Metabolism and Virulence in *Streptococcus sanguinis*.”

Organized Research

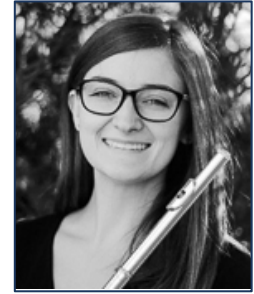
Dr. Somalinga spent \$588 in Organized Research funds to support his project, “Identification and Characterization Carbonic Anhydrases from *Naegleria fowleri*...”. This project provided one student with approximately six research hours. The goal of this project is to over-express, purify, and ascertain the carbonate dehydratase activity and elucidate the structure of *N. Fowleri* α -CA homolog henceforth referred to as NfCA1.

Travel Assistance

Dr. Somalinga received \$1,250 to attend and present at the American Society for Microbiology Conference in Manhattan, KS.

Ms. Hayden Stephenson

Department of Music



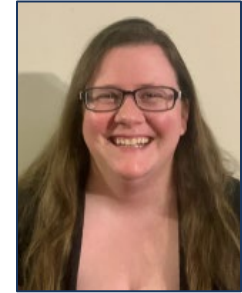
Extramural Activity

Ms. Stephenson applied for \$5,000 from OneOK to support the “SWOSU Music Academy Scholarship Fund.”

Ms. Stephenson applied for \$25,485 from the Oklahoma Arts Council to fund the program, “Scholarship and Operating Funds for SWOSU Music Camps.”

Ms. Katherine Tennison

SWOSU Libraries



Scholarly and Academic Activity

Ms. Tennison presented her poster, “OverDrive User Experience Within a Small, Rural Academic Library,” at the Library Assessment Conference in Weatherford, OK.

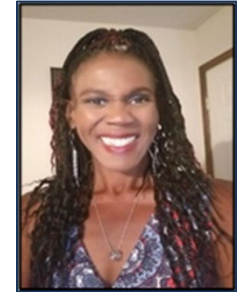
Ms. Tennison presented “Creating a Work-Life Balance: Lessons from a First-Year Librarian” at the Northwest Interlibrary Loan & Resource Sharing Virtual Conference in Weatherford, OK.

Travel Assistance

Ms. Tennison received \$500 to attend and present, “OverDrive User Experience Within a Small, Rural Academic Library,” at the Virtual Library Assessment Conference.

Ms. Natasha Tinsley

Department of Language and Literature



Organized Research

Ms. Tinsley spent \$1,240 to support her project, "Writing Center Pop-Ups." With this funding, Ms. Tinsley was able to assist with a Writing Center Pop-Up Project at the Conference on College Composition and Communication conference themed, "Doing Hope in Desperate Times." The pop-ups were created to assist interested people in learning about Land and Water acknowledgements and answer any questions and help create and/or consult on drafts.

Travel Assistance

Ms. Tinsley received \$500 to attend and present at the 2023 Conference on College Composition and Communication.

Dr. Richard Tirk

Department of Music



Extramural Activity

The 53rd Annual SWOSU Jazz Festival hosted the Tia Fuller Duo. The Tia Fuller Duo presented a free concert in the Berrong Recital Hall; provided two free jazz clinics; and joined the SWOSU Jazz Ensemble 'A' in concerts. The 53rd Annual SWOSU Jazz Festival was funded by the following grants:

- The City of Weatherford Hotel/Motel Tax Commission awarded \$4,000 to fund the 53rd Annual SWOSU Jazz Festival from July 2022 to June 2023.
- The Oklahoma Arts Council awarded \$3,650 to support the "53rd Annual SWOSU Jazz Festival," from February 2023 to April 2023.

The SWOSU Foundation provided \$2,416 to fund travel to the "SWOSU Trumpet Ensemble to 47th Annual International Trumpet Guild Conference," from May 2023 to June 2023. With this funding, Dr. Tirk was able to take students to attend and perform at an international conference, greatly raising the visibility of SWOSU and SWOSU's music program. The conference provided opportunities for SWOSU students to network with other trumpet professionals, including potential professors for graduate work.

Dr. Tirk applied for \$12,000 from the Oklahoma Arts Council to support the "54th Annual SWOSU Jazz Festival."

Organized Research

Dr. Tirk spent \$588 to support the project, "Recording of Oklahoma composers for trumpet." This project consisted of preparing, rehearsing, and recording Dr. Marvin Lamb's piece, 'Dance Set' for trumpet and clarinet. The funds were used for the recording and editing fees of Andriotis Music. The work is expected to be published on various social media sites and music sites, such as Bandcamp and Soundcloud.

Travel Assistance

Dr. Tirk received \$500 for the SWOSU Trumpet Ensemble to attend and present at the 47th Annual International Trumpet Guild Conference in Minneapolis, MN.

Dr. Matthew Tracy

Department of Music



Organized Research

Dr. Tracy spent \$588 to fund his project, "Modus Tollens: Album Recording." With these funds, Dr. Tracy traveled to Lansing, Michigan to record this new work along with three other works from the saxophone repertoire. These recordings will be collected on an album, Modus Tollens, to be released in Fall 2023. This album will serve as an important model for saxophone students and help guide their interpretation of future performances of Modus Tollens and other works included on the album.

Mr. Michael Visnieski

Department of Athletics



Extramural Activity

The City of Weatherford Hotel/Motel Tax Commission awarded \$15,000 to support the “50th Annual SWOSU College Rodeo,” from November 2022 to April 2023. The SWOSU Annual NIRA College brings between 400 and 600 contestants to Weatherford for a three day rodeo.

Dr. Trisha Wald

Department of Business

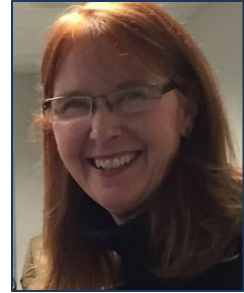


Extramural Activity

The SWOSU Foundation awarded \$4,519 to fund the project, “Engineering Technology Student Presentation at 2023 National Conference on Undergraduate Research,” from March 2023 to April 2023. This award supported the travel of a SWOSU Engineering Technology student to travel to the NCUR conference to present their research on aerospace applications.

Dr. Sherry Westmoreland

Department of Computer Science



Travel Assistance

Dr. Westmoreland received \$500 for her and her student to attend and present at the National Council on Undergraduate Research in Eau Claire, WI.