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Office of Sponsored Programs

**Annual Report: 2018-19**

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Indiana State  
University



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## **About the Cover**

**The cover was designed by graduate assistant and graphic designer, Sarah Hall, with contributing artwork by Tony Campbell. The cover art features a scene of campus at fall and an image of the sculpture ISU Sphere, as designed by artist Brandon Zebold, located at the south entrance of Holmsted Hall.**

## Office of Sponsored Programs

The ISU Office of Sponsored Programs (OSP) provides administrative pre-award and non-financial post-award services to promote academic excellence and advance faculty, staff, and student research, teaching, public service, and creative activities. OSP also enhances the mission of the institution by maintaining leading standards of research compliance and integrity; administering research policies and procedures; and providing wrap around research training and educational opportunities. OSP services include:

- Finding Funding Opportunities
- Budget Development
- Pre-Award Agency Compliance
- Proposal Narrative Review
- Institutional Routing and Approval
- Authorization and Submission
- Management of Contracts and Agreements
- Ongoing Program Support
- Sponsor Liaison Assistance
- Institutional Grant Archival
- Research Trainings and Workshops
- IRB Administration
- Publications and Reprints
- URC and UAEC Initiatives
- CITI Program and IRBNet Support

## Welcome Letter

The Indiana State University Office of Sponsored Programs (OSP) is pleased to present the Annual Report for Fiscal Year 2018-19. This report presents some of the great success stories of our faculty, staff, and students throughout the year, allowing the greater campus community to learn more about the cutting-edge research, programming, and community initiatives that makes research at Indiana State University truly unique. OSP will continue to expand and enhance services in the coming year by delivering meaningful workshops/trainings and providing one-on-one services to the campus research community to support compliance, the development of individualized research portfolios, and the exploration of funding opportunities to support research at ISU.

OSP was pleased to have developed and hosted the second annual Responsible Conduct of Research training, which was attended by faculty, staff, and students, as well as members from the greater Terre Haute community. The event provided face-to-face training on topics including animal care, biosafety, data management, export control, fraud/ethics, human subject research, peer review/publications, and many more. ISU was also fortunate to host guest speakers from the U.S. Department of Commerce, the U.S. Department of Justice—Federal Bureau of Investigation, the U.S. Department of Health and Human Services—Centers for Disease Control and Prevention, and the Indiana State Department of Health. Moving forward, OSP looks forward to providing the highest quality workshops, in a weekly classroom-based format, on topics that increase the overall performance and administration of research and sponsored programs.

OSP continues its goal to increase knowledge of researchers, improve and broaden services provided by its staff, and increase the quality and quantity of submissions and awards.

Andrew Shepard-Smith

Director

Office of Sponsored Programs

## Mentoring Center



Indiana State University received a \$2.38 million Strengthening Institutions grant award from the U.S. Department of Education to develop a program to support both student and faculty mentoring programs across campus. The grant proposal was authored by Dr. Joshua Powers, Dr. Bailey Bridgewater, and Dr. Kara Harris. Shortly after receiving the award, Dr. Powers accepted a provost position at William Paterson University, advancing Dr. Bridgewater to serve as the Project Director, and Kara Harris as a Co-Director. The day-to-day operations of ISU's new Mentoring Center will be led by Aaron Slocum (Director), with the assistance of Britany Dean (Training Coordinator) and Shay Phillips (Communications and Programs Coordinator).

This project addresses the growing need to support multiple student success activities that were developing across campus. ISU prides itself on its inclusiveness within student enrollment. As a regional state institution with one of the lowest tuition rates, ISU has a long history of service to low-income, minority, and first generation students (approximately 55% of students), with a commitment to having among the lowest class sizes in Indiana, and thus, personalized attention. Included in that personalized attention was each college's commitment to student advising and mentorship. The Strengthening Institutions grant will provide additional resources, including a dedicated staff and a welcoming gathering space, designed to unify and strengthen the ongoing student mentoring efforts of each college.

By providing training and connection to resources in partnership with the Terre Haute community, the Mentoring Center supports the Sycamore family in creating and maintaining engaged relationships that promote academic, professional, and personal development. It is housed on the second floor of the Cunningham Memorial Library. The room is filled with bright engaging colors and furniture that can easily be moved to accommodate any size of discussion group. The activities of the Mentoring Center include providing training and resources for mentors in programs across campus, matching students to mentors, and hiring mentors for areas that currently do not have a program. New mentoring programs are launching for commuters, distance students, veterans, and international students, as well as those who wish to study abroad.





Pictured (left to right) are GA Audrey Smiddy, Provost Licari, President Curtis, Aaron Slocum, Britany Dean, Shay Phillips, and GA Kirk Moore



Pictured (left to right) are Aaron Slocum, Kara Harris, Provost Licari, and President Curtis



**50**

**Awards**

**86**

**Submissions**

**\$14,424,190**

**Amount Requested**

**\$7,096,668**

**Amount Awarded**

**70 ISU Faculty/Staff Administering**

**100 Externally-Funded Projects**

# College of Arts and Sciences



Students in Introduction to Environmental Science Lab (ENVI110L) learn how to fly a quadcopter at Fowler Park, Vigo County, IN.



Advanced GPS Data Collection for Air Photo Referencing, at Deming Park, Terre Haute



Oblique images like these (of Fowler Park, Vigo County, IN), in conjunction with a highly accurate GPS unit, can be used to generate 3D models and 2D air photograph mosaics which are accurate to the centimeter level.



## Steve Aldrich and Alex Badillo

Stephen Aldrich and Alex Badillo, faculty in the Department of Earth and Environmental Systems (EES), received a grant from IndianaView (state affiliate of the U.S. Geological Survey) to promote education and training in both drone mapping/remote sensing and augmented reality (AR) visualization techniques. Drones, technically known as Unmanned Aerial Vehicles (UAVs), are used by geospatial consultants and researchers to collect and map datasets on a myriad of topics. Currently,

the UAV industry is advancing faster than education can prepare students for the workforce needs. In response to the need, EES recently developed a curriculum and taught a course on remote sensing and mapping techniques using UAVs and a method called Structure from Motion (SfM) photogrammetry. Additionally, EES is experimenting with advanced visualization techniques such as augmented reality (AR) in order to explore, share, and use digital models of terrain and other three-dimensional GIS data.

The IndianaView grant funds were used to purchase Apple technology, which have been integral for UAV mapping and remote sensing. In addition, they facilitate AR visualization of 3D data.

The next steps for Aldrich and Badillo are to create a series of tutorial videos which describe: 1) best practices in deploying UAVs (to collect 3D datasets of structures, landscapes, and terrain), 2) georeferencing UAV image sets accurately, 3) data management, 4) data processing, and 5) documentation. These videos will be made available on the Sycamore Collaborative Visualization Classroom and Makerspace website, and a YouTube channel associated with the classroom (under development).



# College of Arts and Sciences



Dr. Susan Berta, Hannah Veldhuizen, Bryanna McKinstry, Dr. James H. Speer

## Ouabache Land Conservancy

Throughout 2015, Drs. James H. Speer and Susan Berta worked on the grant writing team to acquire an Indiana Department of Environmental Management (IDEM) 319 grant to improve water quality on the Otter Creek Watershed, located north of Terre Haute. The team was successful, bringing \$114,479 to the Otter Creek Watershed, through the Ouabache Land Conservancy, with \$12,699 coming to ISU as a subaward. That work continued for two years where the team hired a watershed manager, studied E. coli and other water quality indicators, and developed a watershed management plan. During that time, ISU undergraduate students Bryanna McKinstry and Hannah Veldhuizen worked

intensively with watershed manager Sara Peel, resulting in a senior thesis and multiple presentations at national conferences. During the summer of 2019, Speer led a grant writing team to develop an IDEM 319 implementation grant application, for which they just received an award notification that will bring over \$550,000 to the watershed with a subaward to ISU for \$52,566. The Ouabache Land Conservancy will oversee and manage the grant, which will hire a

watershed manager and provide funds to farmers to improve sustainable practices such as no-till, cover crops, and diverse crop rotation to improve soil health, reduce fertilizer run-off, and improve water quality throughout the watershed.



E. coli in blue and other coliform bacteria in red

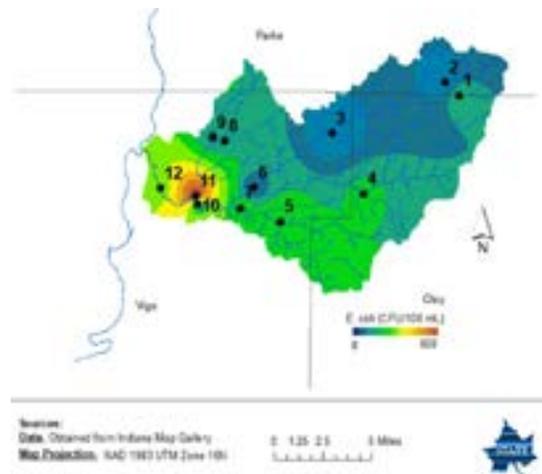




Bryanna McKinstry, Hannah Veldhuizen, Sara Peel (watershed manager)



Hannah Veldhuizen



E. coli map for the Otter Creek Watershed (map produced by Bryanna McKinstry)

# College of Arts and Sciences



## Brian Schaefer

Policing refers to the profession and practice of maintaining social order and enforcing the law through the street-level prevention, detention, and investigation of crime. As society's most visible and contacted legal agents, police officers are empowered by a governmental body with authority to enforce laws and distribute coercive force to achieve their goals. Dr. Schaefer's research seeks to understand how enforcement practices and technologies improve outcomes and effect their interactions and power-relations with the public. Dr. Schaefer uses these projects to provide students research opportunities and to enhance their learning experience in the classroom.

Dr. Schaefer's research has resulted in numerous past and ongoing projects with police agencies, with two recent projects focusing on technology. He recently completed an evaluation of Louisville Metro Police Department's implementation of body-worn cameras (BWCs), finding BWCs led to a significant reduction in officer use of force. Beginning fall 2019, he started a National Science Foundation funded project examining law-enforcement cyber investigations. The project will focus on the perils, pitfalls, failures, and successes of cybercrime

investigations. The findings will produce basic and applied knowledge about the state of cybercrime investigations for policymakers and for students majoring in criminology and cybercriminology.

Two growing areas of police scholarship are the impact of enforcing low-level offenses (misdemeanors and traffic violations) and the growing realm of police-private security partnerships. In studying these two areas, Dr. Schaefer is collaborating with scholars from numerous institutions to understand these issues. First, Dr. Schaefer is exploring the impact of low-level crime enforcement as a member of

the Research Network for Misdemeanor Justice, an eight-city research network housed at John Jay College's Data Collaborate for Justice and funded by Arnold Ventures. Second, Dr. Schaefer was named a Research Fellow at the National Center for Spectator Sports Safety and Security at the University of Southern Mississippi (NSC<sup>4</sup>). He developed a survey of professional sports venue security practices for the NFL, MLB, NBA, NHL, and power 5 conference NCAA basketball and football venues. The survey explores the interaction of private-public security to understand strategies and technologies venues are using to keep the public safe, while also identifying gaps in venue security.



This material is based upon work supported by the National Science Foundation under Grant No. 1916257. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.



## Tonya Balch

Educators are responsible, in part, for graduating students who are prepared to become productive citizens in an ever-changing and complex world. This is increasingly challenging for school counselors, who are tasked with meeting students' mental health needs, as well as their career planning. The mental health needs of K-12 students have increased dramatically in the last few years. The rate of students considering suicide is at a record high. In addition to mental health needs, there has been a clear focus on college as a primary postsecondary option, and a clear lack of general career planning, fueling the need to better understand the myriad of postsecondary options for students. School counselors are in a precarious position of meeting the students' needs while also meeting the current job market demands and fostering quality opportunities for students. As the role of the school counselor has evolved it became evident that it was time to re-evaluate the educational preparation of school counselors and their role in the K-12 community.

To address these concerns and the overall well-being of students, the Lilly Endowment Inc. has invested \$30 million in the school counseling

profession in Indiana as a preventive measure to meet the changing and challenging needs of K-12 students. Dr. Tonya Balch received a grant to revitalize the School Counseling M.Ed. program to ensure school counselors are prepared to meet the academic, social/emotional, and career needs of K-12 students. Five outcomes were identified. All graduate students will: have the skills to develop a comprehensive school counseling program; demonstrate knowledge and skills to work effectively with students in poverty; evidence knowledge and skills to meet K-12 students' social/emotional needs; develop skills to effectively assist K-12 students with career exploration; and graduate students in the School Counseling Program and School Administration and Supervision Program will demonstrate collaboration skills.

Balch developed an Advisory Board consisting of elementary, middle, and high school counselors representing rural, suburban, and urban school districts. They have reviewed current M.Ed. program syllabi, assignments, and field experiences to ensure graduate students are prepared to meet K-12 student needs and the realities of school counseling. Recommendations from the Advisory Board included: ensuring graduate students have the ability to develop a comprehensive school counseling program, meet social/emotional needs of students, and effective skills in career exploration.

The grant funded four course transformations to ensure relevancy in coursework, supported a keynote speaker, Julie Beem, Executive Director of the Attachment and Trauma Network, for Counselor Day on campus. This is a free professional development workshop each year for counselors. The grant also supported the inaugural *Connecting the Dots for Child and Youth Wellness Conference*.

# Summer Undergraduate Research Experiences

## SURE

The Summer Undergraduate Research Experience (SURE) began in 2006 with six chemistry students participating. In 2019, the program has grown to 43 undergraduates participating in 18 research labs in the College of Arts and Science, and one in the College of Health and Human Services. For the summer of 2019, the program had the following participants:

<b>Students</b>	<b>Department</b>
1	Applied Medicine and Rehabilitation (Athletic Training)
9	Biology and The Center for Genomic Advocacy
18	Chemistry and Physics
12	Earth and Environmental Systems
2	Mathematics and Computer Sciences
1	Psychology

The SURE program runs for ten weeks during the summer. In addition to the hands-on research experience, students receive training in biosafety and

research ethics, skill development, presentation, and written skills. The program is designed to build a community among research students. At the end of each week, all SURE participants and their faculty researchers come together to discuss the week's research and other research-related topics. Each student presents their research results and methods to the group three times throughout the summer, in the process practicing their science communication skills. The final presentation is a poster symposium open to the ISU community, parents, and friends, allowing the students to discuss what they have been researching during the summer. Many of these students participate for more than one summer, often continuing to work on their projects throughout the academic year.

There are many laboratory costs related to these full-time research projects. These costs are supported by the departments, the Center for Student Research and Creativity, and other internal funds. In addition, faculty have been able to cover some of the costs through acquiring external grant funds. Some of the funding agencies that currently support SURE research are: National Institutes of Health, National Science Foundation, Indiana Academy of Science, and the Indiana Space Grant Consortium (National Aeronautics and Space Administration).



Faculty and Students of SURE 2019



Charlie Fromm works with Kathleen Dannelly in her Microbiology Lab



Honor student and laboratory technician Mallory Wilson presenting a poster on diatoms



Jerett Posz and Collin Underwood discuss organic chemistry



# College of Technology



Brian James and Allison Sherwood with ICPF donated cutting table

## Brian James

Packaging Engineering Technology is a robust, hands-on program located in the College of Technology. The program has been accredited by the Association of Technology, Management, and Applied Engineering (ATMAE) for numerous years, and has received and maintained accreditation from the Accreditation Board for Engineering and Technology (ABET) since 2014. Accreditation is vital because it demonstrates to students and employers that the program is committed to delivering quality education that prepares students to enter the workforce with the tools they need.

The International Corrugated Packaging Foundation (ICPF) awarded the Packaging program a grant of \$126,375 to support recruitment and retention of students. A deliverable of the grant is to

This program is supported, in part, by a grant award from the International Corrugated Packaging Foundation.

increase enrollment in the program by 15-25% in three years; the program is projected to grow by 150% in six years. ICPF and Indiana State University share the common goal of developing skilled and knowledgeable students to meet the workforce needs of the corrugated packaging and displays industry. The ICPF grant supports the College of Technology's efforts to increase enrollment and student

success, enhance external partnerships with industry and alumni, provide hands-on experience for students, facilitate faculty currency in state-of-the-art technologies, increase recognition and reputation of the College, and enhance alignment of curriculum with real world conditions.

The Packaging Engineering Technology program has earned national respect and recognition. The program offers a number of options for specialization from manufacturing or mechanical technology to graphic/commercial art or marketing. Department facilities feature a packaging laboratory, which includes a classroom area, a test and research workshop space, and an equipment studio. With the International Corrugated Packaging Foundation's aid from their generous grant, the Packaging program will continue striving for cultivated retention, enhanced education, and overall success.



Packaging booth at the PackExpo in the Chicago McCormick Place Convention Center



Justin Nguyen visiting Welch Packaging for Career Immersion visit



Corrugated Executive desk designed and created by the packaging students



Packaging students cutting diploma holders for the AETM graduates

# College of Technology



## Mark Collins

As our society moves closer to an age where robotic systems will be part of our everyday lives, the Indiana State University's Center for Unmanned Systems (UMS) program is positioning itself to be a world leader in UMS training by forging relationships with industry, government, faculty, and its students to provide courses that will meet the demands of a fast growing industry. The ISU Center for UMS has already made key partnerships that has helped it grow. Some of these relationships are with industry leaders, including Measure UAS, Inc. and AeroVironment Inc. Measure is developing and selling unmanned aircraft system (UAS) fleet management software called Measure Ground Control, and has recently asked the ISU Center for UMS for product user support. This relationship has helped Measure develop better software through ISU student user feedback; ISU provides feedback on the software, and Measure allows ISU's Center for UMS to use the software. As the ISU Center for UMS expands its UAS portfolio, we require a method to control our fleet of UAS, the missions we operate, the students who operate them, and the data they collect. This includes being able

to supervise multiple simultaneous UAS missions while ensuring airspace regulatory compliance and safety of all the missions we operate. Measure Ground Control allows us to do just that. This internet-based software allows us to track drone pilot flight times, flight logs, schedule missions, as well as maintenance schedules, batteries, and other accessories. The flight logs are useful for studying telemetry to help mitigate safety hazards of future UAS missions.

AeroVironment is the largest supplier of small UAS to the U.S. Department of Defense and has recently entered the commercial UAS market with the Quantix UAS. AeroVironment has donated two Quantix UAS to ISU's Center for UMS. This donation includes the aircraft, tablet, batteries, and software to generate 2D maps of the terrain. This is AeroVironment's first commercial aircraft aimed at the agriculture market. AeroVironment's cloud based software performs image processing, analytics, and comparative and historical reporting, which provides actionable intelligence to make smarter, quicker decisions.

Other opportunities include those created by the students of ISU. The students formed a chapter of Association of Unmanned Vehicle System International called ISU AUVSI, which is working with the Vigo County Park and Recreational Department to use drones to help identify Asian Bush Honeysuckle from Hawthorne and Fowler Parks in Terre Haute, IN. They were able to survey the parks with drones to produce maps showing the location of the Asian Bush Honeysuckle so park managers are able to eradicate it.



## Tactical Athletics

The Tactical Athlete Research and Education Center serves as a center for collaboration between researchers and public or private agencies to further the development of new knowledge in health and wellness. It works to improve resiliency and provide leadership through research, education, training, and implementation of new knowledge in order to better serve our civil servants, warriors, veterans, their families, and the community.

The mission of the Tactical Athlete Research and Education Center is to develop and deploy interventions and education focused on injury prevention, physical and technical performance, and health-related quality of life for Tactical Athletes and their families. The Tactical Athletic Research and Education Center bridges physiologic, clinician, and patient rated outcomes to:

- Develop protocols to reduce the number and severity of musculoskeletal injuries;
- Explore, develop, and deploy new strategies to prevent acute and overuse injury;

- Create patient-centered intervention programs to improve return to duty tempo;
- Reduce the long-term impact of musculoskeletal issues on our tactical athletes; and
- Improve the near and long-term quality of life of our tactical athletes

The Tactical Athlete Research and Education Center collaborates closely with the Indiana State University Doctorate of Athletic Training Program to enhance the overall health and well-being of the tactical athletes across the country through scholarship, service, and community engagement.

Tactical athletes include, but are not limited to: Military Service Members across all branches; Public Safety Service Members including fire, police, emergency medical service, special weapons and tactical (SWAT) units, and special response teams (SRT); corrections officers; and Department of Homeland Security Service Members including the Coast Guard, Drug Enforcement Agency, Alcohol, Tobacco, and Firearms, United States Marshall's Services, and Federal Bureau of Investigation.



Doctor of Athletic Training learners pose in front of an engine after a day of data collection with firefighters



Dr. Maura Shea dons firefighter turnout gear to experience the movement challenges firefighters face on a daily basis

# Honors College



## Katie Lugar

As part of its commitment to building healthier communities, CVS Health awarded the Tobacco-Free Generation Campus Initiative

Grant through the CVS Health Foundation to Indiana State University to facilitate the advocacy, adoption, and implementation of a 100 percent smoke- and tobacco-free campus policy, including limiting the use of e-cigarettes. Delivered in partnership with the American Cancer Society and Truth Initiative, the grants are part of Be The First, CVS Health's five-year, \$50 million initiative to deliver the nation's first tobacco-free generation, which is a major program within the company's new \$100 million Building Healthier Communities initiative. While the number of U.S. colleges and universities that are smoke- or tobacco-free has doubled since 2012, approximately half of the nearly 5,000 schools across the country still have no comprehensive policy in place.

Tobacco use is still the leading cause of

preventable death in the U.S. amounting to more than 480,000 annual deaths and nearly 29 percent of all cancer deaths. While conventional cigarette smoking among high school students has fallen by almost 50 percent since 2011, e-cigarette use has surged over the last year, especially among young people—there are 2.8 million young adults aged 18-24 who are current e-cigarette users. The spread of e-cigarettes risks a reversal of the progress made in reducing smoking over the last two decades given that young people who vape are four times more likely to begin smoking cigarettes in the future. College is a transitional period in which young adults are susceptible to developing or perpetuating an addiction to nicotine and tobacco. This initiative seeks to reduce tobacco use among college students, and therefore reduce the number of individuals impacted by tobacco-related diseases.

In the early fall of 2018, President Curtis appointed members of the ISU community to the Tobacco Free Task Force which drafted recommendations for the transition to a tobacco-free campus. In alignment with these recommendations and grant initiatives, the student-led organization Tobacco Free Blue partnered with several different campus entities and student organizations to advocate for tobacco prevention, cessation, and movement towards a tobacco-free campus policy at ISU. In addition to participating in student involvement fairs, wellness programs, and resource fairs in which tobacco prevention/cessation information

Generously supported by the CVS Health Foundation and the American Cancer Society.



WFYI's Side Effects Public Media hosted a live-streamed panel discussing Youth and E-Cigarettes. ISU senior, Olivia Teague, was featured and represented 'Tobacco Free Blue'. Panelists included: Leslie Hulvershorn, Dr. Dana Stewart, Araceli Gomez-Aldana, Olivia Teague, and Deb Robarge

were provided, Tobacco Free Blue also focused on enhancing access to cessation resources and facilitating service activities.

To celebrate the Great American Smokeout, the group coordinated a service event in which a total of 250 Quit Kits were created to assist with tobacco cessation among members of the ISU and greater Terre Haute community. The Quit Kits included information about campus and state tobacco cessation resources, as well as tangible items (e.g. stress balls, cinnamon gum, mints, and stress-relief sensory products) to assist with the cessation process. For the One Day Stand Against Tobacco, Tobacco Free Blue implemented a campus-wide stress relief event to provide education about healthy coping strategies as an alternative to tobacco use. All participants received a free yoga mat to engage in a sleep yoga session, and the attendees participated in a variety of activities with campus partners to learn about positive coping skills as well as ways to prevent and quit the use of tobacco products. Further, the Tobacco Free Blue President partnered with WFYI Radio's Side Effects Public Health for a livestreamed panel about youth and e-cigarette use in Indiana.

Cigarette butts are the most littered item globally, and the filters are not biodegradable. In an effort to address the environmental impact of tobacco use, Tobacco Free Blue facilitated cigarette butt

clean-ups across the university campus. During a one-hour service activity in March 2019, nearly 1,900 cigarette butts were collected around one academic building, one designated smoking area, the library, and one parking lot. To celebrate Earth Day, Tobacco Free Blue facilitated a campus-wide cigarette butt clean-up in which nearly 3,500 cigarette butts were collected across campus in three hours. The cigarette clean-up events were very impactful on perspectives regarding tobacco use on campus – particularly when all the litter collected is used as an educational display at student involvement fairs, resource fairs, and health and wellness events.

Going forward, grant funds will be utilized to help with enhancing access to cessation resources, increasing education about tobacco prevention and cessation, and coordinating communication about the policy. Overall, ISU has gained more support this year from students, faculty, staff, and visitors for a comprehensive tobacco-free policy. Our health and wellness centers offer cessation resources, and several providers are trained in tobacco cessation interventions. The Tobacco Free Blue Team has seen more collaboration among student organizations and campus entities to address tobacco use throughout the 2018-2019 academic year as compared to previous years. The Tobacco Free Task Force is dedicated to continuing the work of the CVS Health, American Cancer Society, and the Truth Initiative to see a tobacco-free generation.



Tobacco Free Blue hosted a cigarette clean-up during Earth Week 2019. As a result of their efforts, nearly 3,500 cigarette butts were collected. Olivia Teague, Tobacco Free Blue President, and Cassidy Brothers, Vigo County Tobacco Prevention and Cessation Intern, helped check-in volunteers for the clean-up



# University Engagement



Doug Stevens (left) and Doug Urban (right) help students discover the difference between healthy and diseased organs.

## Service Learning

Community engagement and experiential learning have long been a tenet of Indiana State's mission and vision. Through its partnership with the Indiana Campus Compact (ICC), the University's faculty, staff and students have been able to find financial and academic support to develop programs that help our community, as well as engage students in a service learning activity. In addition to ICC's support, ISU's Center for Community Engagement has also financially supported many of these projects when the funding request required a cash match from the institution.

The following are three diverse projects that were supported with ICC funding, with additional support from the Center for Community Engagement (CCE).

### **"Healthy Choices" for Terre Haute Boys and Girls Club Participants**

Dan Covert, Doug Urban, and Doug Stevens, all faculty in Applied Medicine and Rehabilitation, combined their skills to help educate youth at the Terre Haute Boys and Girls Club (THBGC) on making healthy choices. With support from the ICC and ISU's Center for CCE, the faculty developed some very special visual aids. ICC funds were

used to purchase materials to preserve real organs that had been removed from cadavers after they were no longer needed for anatomy classes. Over the course of the grant period Covert, Urban, and Stevens selected healthy and diseased organs and then vacuum preserved them for glove free handling, or stored them in re-sealable containers for long-term preservation in accordance with the terms for tissue retention by the State of Indiana.

In the Healthy Choices program at the THBGC, students from the physical therapy (PT) and physician assistant (PA) programs discuss healthy choices with the THBGC youth, such as the dangers of smoking, poor diet, and lack of exercise. Youth ranging from 5 to 13 years are separated according to grade level (elementary school or middle school) for the age appropriate health choices presentation. Youth are presented with normal and diseased organ or tissue specimens. The youth are asked about any differences they notice including color, texture, firmness, etc. Using age appropriate vocabulary, youth are told what the specimens are, led through what each organ does in the body and where they are located. Of note, the differences in color and texture in these anatomical samples are highly related to damage due to disease. Youth are invited to draw conclusions about what they observe. Lastly, the presenter discusses the cause and effect of lifestyle choices with participants. PA and PT presenters also explain the role of health care practitioners in the management of the disease to stimulate interest in health careers. The Healthy Choices program has been well received by the learners, and THBGC educators alike.

### **An Intercultural Exploration of Nursing and Healthcare in the United Kingdom and Ireland**

Linda Walters and Donna Crawford, faculty in the Baccalaureate Nursing Program took 7 Bachelor of Science (BSN) nursing students to Ireland and the United Kingdom to learn more about community

This program was funded by Indiana Campus Compact. Opinions or points of view expressed in this document are those of the author(s) and do not necessarily reflect the official position of Indiana Campus Compact.



Campus Compact  
Indiana

health nursing. The addition of a study abroad experience in the course *Nursing 444-Population-focused Community Health Nursing* provided them with a global perspective of the important role nursing plays in community health. In spite of continued increases in spending and constant changes seen in our healthcare system, the United States continues to lag in achieving greater population-based health scores; which continues to create poorer healthcare outcomes as compared to several other countries.

Learning about the history and the current state of healthcare in the United States, and how it compares to other countries, is important for their job-readiness. The project leaders worked with Learn International, who put them in contact with the Community Center in Gweedore, County Donegal, Ireland, to assist with site visits in Ireland.

While in London the students visited the Red Cross Museum, the Florence Nightingale Museum, and the Royal College of Nursing, where they learned the educational pathways for nursing in the UK, and what the UK is doing to address the nation's nursing shortages. While in Ireland, the students had a total immersion into Irish life. To begin with, they had the opportunity to stay with host families during their 5-day stay in Gweedore, County Donegal. During their stay, the students got hands-on experience by providing direct services to clients at the Ionad Naomh Padriag Community Center and the Coiste Curam na Seandaoine Day Center for the Elderly. In their final report back to ICC the project leaders commented, "This community has a high rate of cancer patients. With this being said to be able to hold a cancer pampering day was the

ultimate experience for these students. Not only did they get to use some nursing skills they also were challenged with using their communication skills due to the Irish language that is spoken."

### **Enhancing Pediatric Physical Therapy in Terre Haute and Surrounding Areas**

The Doctoral Physical Therapy (DPT) program at Indiana State University received funding from the ICC to offer a Listening to Communities Event with a focus on collecting information from the community related to pediatric rehabilitation services (identified as underserved) in Terre Haute and surrounding areas. The event was held on the evening of April 30th at the Landsbaum Center for Health Education. Leaders from multiple local organizations with a vested interest in the welfare of children with physical disabilities, along with physical, occupational and speech-language therapists, and a parent of a child with special needs attended the meeting which was organized by Dr. Stasia Tapley, faculty within the DPT program.

This event created a rare opportunity for various stakeholders to meet in person and discuss ways to improve pediatric rehabilitation services in the area. Attendees participated in various problem solving/brain storming sessions and small group work. ISU's DPT students were also involved to provide input and ideas of how they can help support to these children/families in the future. Goals were created with the expectation that the university will partner with these organizations in the future to offer educational events for the general public, specifically children with physical disabilities and their families.



Faculty and Baccalaureate Nursing Students visited the UK and Ireland to learn about community health nursing

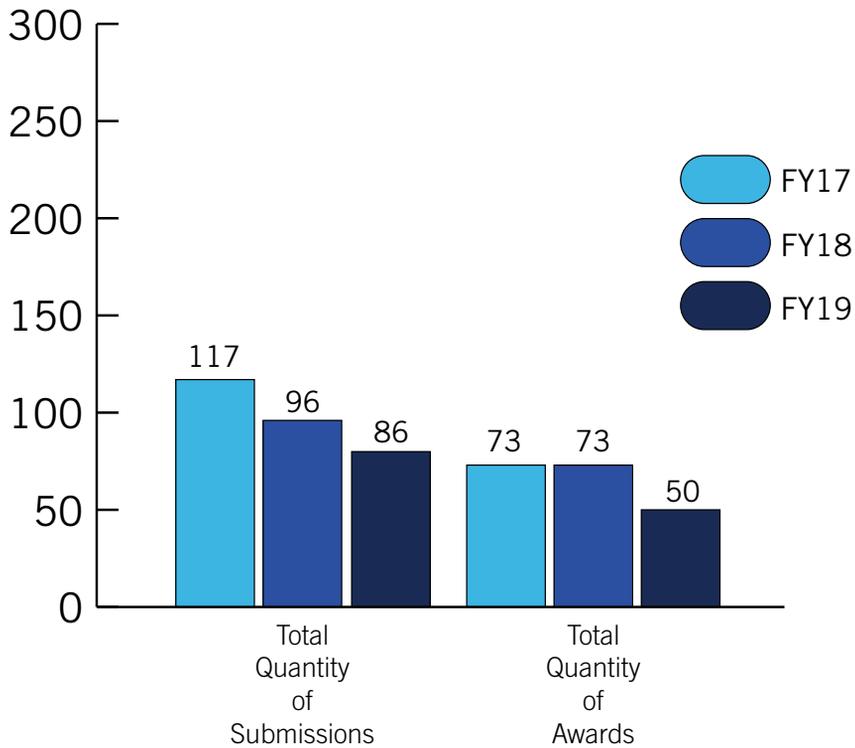


Nursing students help out at a Community Center in Gweedore, County Donegal

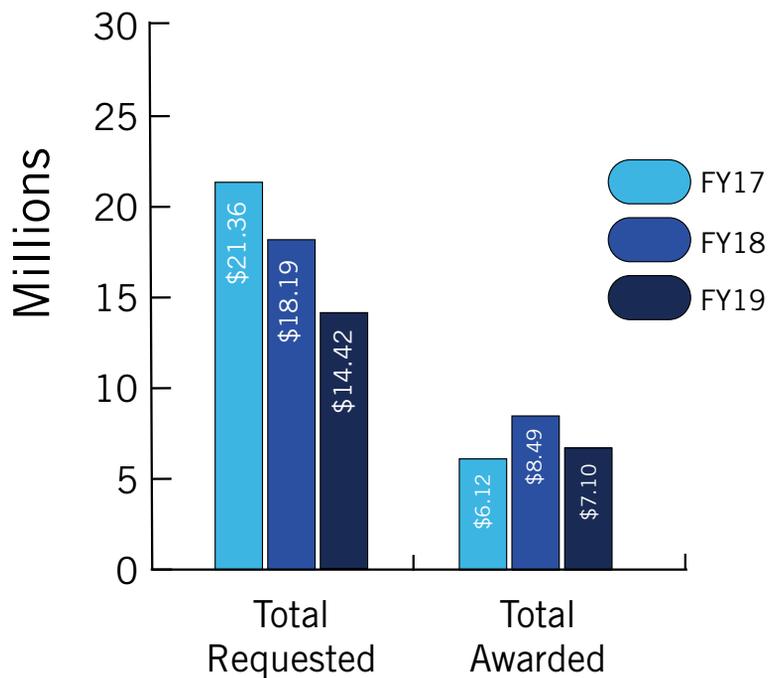


Dr. Stasia Tapley at the DPT Program

# Total Projects, Submissions & Awards



# Total Requested & Awarded



# Award Detail

## Steve Aldrich

Earth and Environmental Systems, Arts and Sciences, CO-PI: Alex Badillo, *Equipment to Support UAV Remote Sensing, Data Provision, and Outreach Efforts*, Purdue University - IndianaView, \$1,500.

## Roberta Allen

Student Success, Academic Affairs, *MOU - 2018-2019 ScholarCorps AmeriCorps Program*, Indiana Commission for Higher Education, \$2,000.

## Lauren Baines

Office of the Dean of Students, Student Affairs, CO-PI: Andy Morgan, *SBIRT Support Grant*, Indiana Family & Social Services Administration, \$100,000.

## Priya Bakshi

Applied Medicine and Rehabilitation, Health and Human Services, *CarFit Event*, Indiana Campus Compact, \$854.

## Sean Bartz

Chemistry and Physics, Arts and Sciences, *High-Powered Rocketry for Introductory Physics*, Mindlin Foundation, \$4,000.

## Robin Bonifas

Social Work, Health and Human Services, *Continuation Proposal for BSW and MSW Education through the Child Welfare Education and Training Partnership*, Indiana University, \$18,324.

## Bailey Bridgewater

Student Success, University College, *Strengthening Institutions Program for Indiana State University: A S.M.A.R.T. Initiative for Student and New Faculty Mentoring*, U.S. Department of Education, \$528,234.

## Keeley Cleghorn\*

Biology, Arts and Sciences, CO-PI: Catherine Steding, *Destabilizing the Stabilizer: Evaluating Microtubule Destabilizing Proteins and Cellular Energetics in Acquired Paclitaxel Chemoresistance*, Indiana Academy of Science, \$2,300.

## Dan Coovert

Applied Medicine and Rehabilitation, Health and Human Services, CO-PI: William Urban and Doug Stevens, *"Healthy Choices" for Terre Haute Boys and Girls Club Participants*, Indiana Campus Compact, \$2,168.

## Holly Curtsinger

Early Childhood Education Center, Education, *Indiana State University Early Childhood Education Center*, Wabash Valley Community Foundation, \$1,200.

## Holly Curtsinger

Early Childhood Education Center, Education, *Child and Adult Care Food Program*, Indiana Department of Education, \$66,900.

\* Denotes a student

### **Shiaw-Fen Ferng**

Applied Health Sciences, Health and Human Services, *Substance Abuse Treatment Telehealth Network Grant Program (Year 2)*, Union Hospital, \$12,000.

### **Anne Foster**

History, Arts and Sciences, *Journal Editorship*, Society for Historians of American Foreign Relations, \$3,000.

### **Anne Foster**

History, Arts and Sciences, *MOA with the Society for Historians of American Foreign Relations (SHAFR)*, Society for Historians of American Foreign Relations, \$62,500.

### **Kurt Fowler**

School of Music, Arts and Sciences, *52nd Annual Contemporary Music Festival*, Indiana Arts Commission, \$4,230.

### **Kurt Fowler**

School of Music, Arts and Sciences, *53rd Annual Indiana State University Contemporary Music Festival*, National Endowment for the Arts, \$10,000.

### **Kenneth Games**

Applied Medicine and Rehabilitation, Health and Human Services, CO-PI: Lindsey Eberman, *Clinical Affiliation and Graduate Assistantship Agreement with Union Hospital*, Union Hospital, \$78,614.

### **Kenneth Games**

Applied Medicine and Rehabilitation, Health and Human Services, CO-PI: Lindsey Eberman, *Amendment to Clinical Affiliation and Graduate Assistantship Agreement*, Franciscan Health Lafayette, \$1,047,740.

### **Rusty Gonser**

The Center for Genomic Advocacy, Arts and Sciences, CO-PI: Jennifer Latimer and Jeff Kinne, *BD4ISU: Big Data for Indiana State University*, National Institutes of Health, \$304,850.

### **Brian James**

Applied Engineering and Technology Management, Technology, *Indiana State University: Corrugated Packaging Outreach and Enrichment*, International Corrugated Packaging Foundation, \$126,375.

### **Jolynn Kuhlman**

Kinesiology, Recreation, and Sport, Health and Human Services, *Coaching Affiliated Site Agreement*, Rose-Hulman Institute of Technology, \$46,551.

### **Andrew Kump\***

Biology, Arts and Sciences, CO-PI: Shaad Ahmad, *Genetic Analysis of Cardiac Progenitor Cell Divisions in Drosophila Mediated by the Forkhead Transcription Factor Jumeau*, Indiana Academy of Science, \$2,269.

### **Jennifer Latimer**

Earth and Environmental Systems, Arts and Sciences, *Recruitment and Retention Through Early Research Experiences for Community College Transfer Students*, Purdue University - Indiana Space Grant Consortium, \$15,000.

### **Katie Lugar**

Honors College, University College, CO-PI: Olabode Ayodele, *Indiana State University: Tobacco Free Blue*, American Cancer Society, \$12,000.

\* Denotes a student

### **Caroline Mallory**

Dean's Office, Health and Human Services, CO-PI: Jackie Mathis, *WCI-AHEC: Year 2 Subaward of Federal Funding*, Indiana University, \$78,400.

### **Cinda May**

Special Collections, Library Services, *Digitizing Letters and Journals of Saint Mother Theodore Guerin*, Indiana State Library, \$15,453.

### **Joseph Newport**

Public Safety, Business Affairs, CO-PI: Tamara McCollough, *Indiana State University Alcohol & Drug Enforcement Project*, Vigo County Local Coordinating Council, \$12,000.

### **Joy O'Keefe**

Biology, Arts and Sciences, CO-PI: Diana Hews, *Indiana Bat Response to Missouri Department of Conservation's Forest Habitat Management*, Missouri Department of Conservation, \$305,847.

### **Cynthia Phillips-Sabla**

Community School of the Arts, University Engagement, *2018 Rock Camp!*, Indiana Arts Commission, \$4,230.

### **Jolly Piersall**

Blumberg Center, Education, *Indiana IEP Resource Center*, Indiana Department of Education, \$2,600,000.

### **Joshua Powers**

Student Success, Academic Affairs, *Donation to Office of Student Success*, Private Fund, \$1,200.

### **Susan Powers**

Academic Affairs, Academic Affairs, *Extending Teacher Creativity 2019*, Lilly Endowment, Inc., \$106,347.

### **Courtney Richey**

West Central Indiana Small Business Development Center, Business, *West Central Small Business Development Center 2019*, Indiana Economic Development Corp, \$129,831.

### **Courtney Richey**

West Central Indiana Small Business Development Center, Business, *West Central Small Business Development Center 2019*, Vigo County Board of Commissioners, \$5,000.

### **Brian Schaefer**

Criminology/Criminal Justice, Arts and Sciences, *SaTC: CORE:Small: Collaborative: Law-Enforcement Cyber Investigations: An In-Depth Qualitative Study*, National Science Foundation, \$106,006.

### **Kristopher Schwab**

The Center for Genomic Advocacy, Arts and Sciences, *The Role of the Zinc Finger Transcription Factor, Znf503, in Mammalian Cardiomyocyte Differentiation*, Indiana Academy of Science, \$3,000.

### **Judy Sheese**

Dean's Office, Education, *Annual Duke Energy Power of Reading and Math Summit*, Duke Energy Foundation, \$80,000.

### **James Speer**

Earth and Environmental Systems, Arts and Sciences, *Training Dendrochronologists: A Workshop Approach to Determine the Drivers of Forest Stress in the Greater Yellowstone Ecosystem*, National Science Foundation, \$59,583.

### **Howell Tapley**

Applied Medicine and Rehabilitation, Health and Human Services, *Balance and Concussion Testing in Vigo County, IN*, Subaru of Indiana Automotive Foundation, Inc., \$8,000.

### **Stasia Tapley**

Applied Medicine and Rehabilitation, Health and Human Services, CO-PI: Howell Tapley, *Enhancing Pediatric Physical Therapy in Terre Haute and Surrounding Areas*, Indiana Campus Compact, \$1,950.

### **Brianne Walters**

Biology, Arts and Sciences, CO-PI: Joy O'Keefe, *Bat survey for the Ransom Road project in Valparaiso, Porter County, Indiana*, Soil Solutions, Inc., \$26,390.

### **Linda Walters**

Baccalaureate Nursing, Health and Human Services, CO-PI: Donna Crawford, *An Intercultural Exploration of Nursing and Healthcare in the United Kingdom and Ireland*, Indiana Campus Compact, \$2,250.

### **Qihao Weng**

Earth and Environmental Systems, Arts and Sciences, CO-PI: Hang Li\*, *Urban dynamics monitoring in Indianapolis using time series of Landsat data from 1998 to 2017*, Purdue University - IndianaView Program, \$1,500.

### **Karlyn Westover**

Earth and Environmental Systems, Arts and Sciences, CO-PI: Jeffery Stone, *Collaborative Research: Spatiotemporal variability and drivers of east-west precipitation anti-phasing in the midcontinental United States during the last 2000 years*, National Science Foundation, \$56,547.

### **Carol Wetherell**

Blumberg Center, Education, *Promoting Achievement for Students with Sensory Loss (PASS)*, Indiana Department of Education, \$350,000.

### **Carol Wetherell**

Blumberg Center, Education, CO-PI: Lisa Poff, *The Indiana Deaf-Blind Services Project*, U.S. Department of Education, \$209,276.

### **Carol Wetherell**

Blumberg Center, Education, *Fannie and Ben Blumberg 2019-2020*, ISU Foundation, \$55,927.

### **Amos Winter**

Earth and Environmental Systems, Arts and Sciences, *Collaborative Research: What is the driver of orbital-scale Central American Monsoon variations? Tests of the insolation and sea surface temperature hypotheses*, National Science Foundation, \$71,849.

### **Rita Worrall**

Student Support Services, Academic Affairs, *Student Support Services at Indiana State University*, U.S. Department of Education, \$352,723.

### **Qiming Zheng\***

Earth and Environmental Systems, Arts and Sciences, CO-PI: Qihao Weng, *2019 IndianaView Student Scholarships*, Purdue University - IndianaView, \$750.

\* Denotes a student



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