



JUNE 30, 2023

OFFICE OF SPONSORED PROGRAMS
FY2023 ANNUAL REPORT
KENTUCKY STATE UNIVERSITY



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TRENDLINES

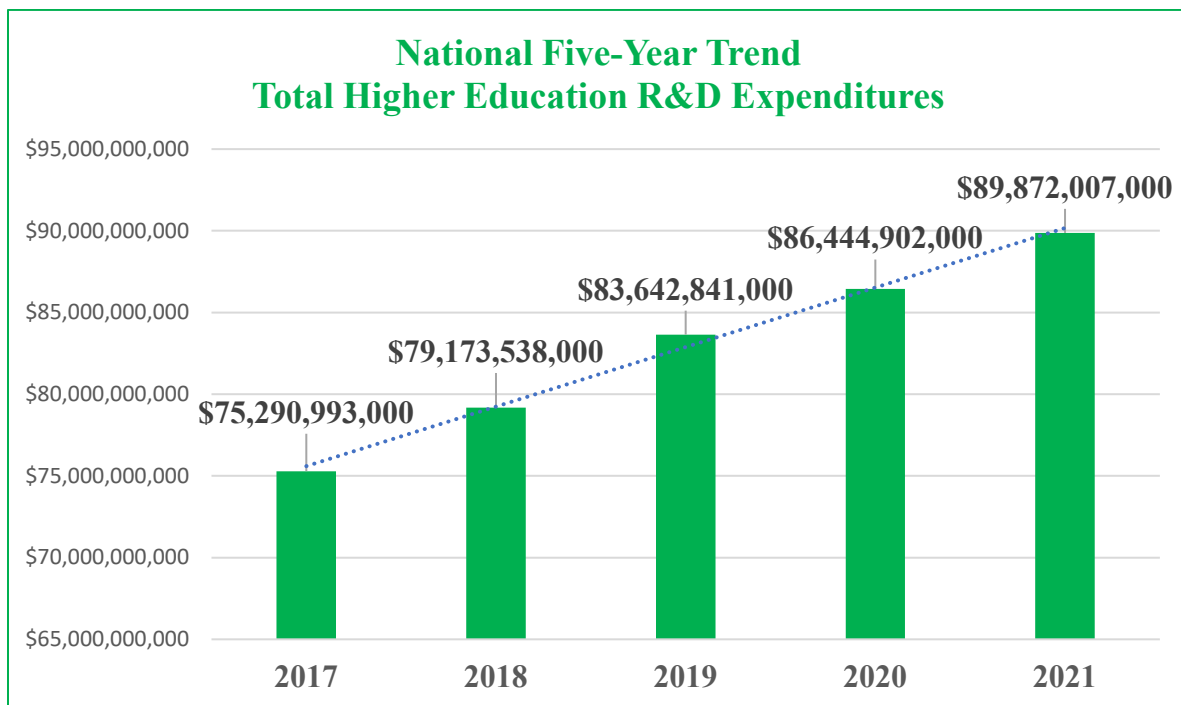
Because of the strength of KSU’s land grant programs, KSU is a leader among its peers in obtaining external funding for research and the total amount spent per year on Research & Development (R&D). With this strong foundation, the KSU team is ideally positioned to take advantage of new and emerging funding opportunities, drive further growth in the number and amount of grants received, and significantly increase R&D expenditures.

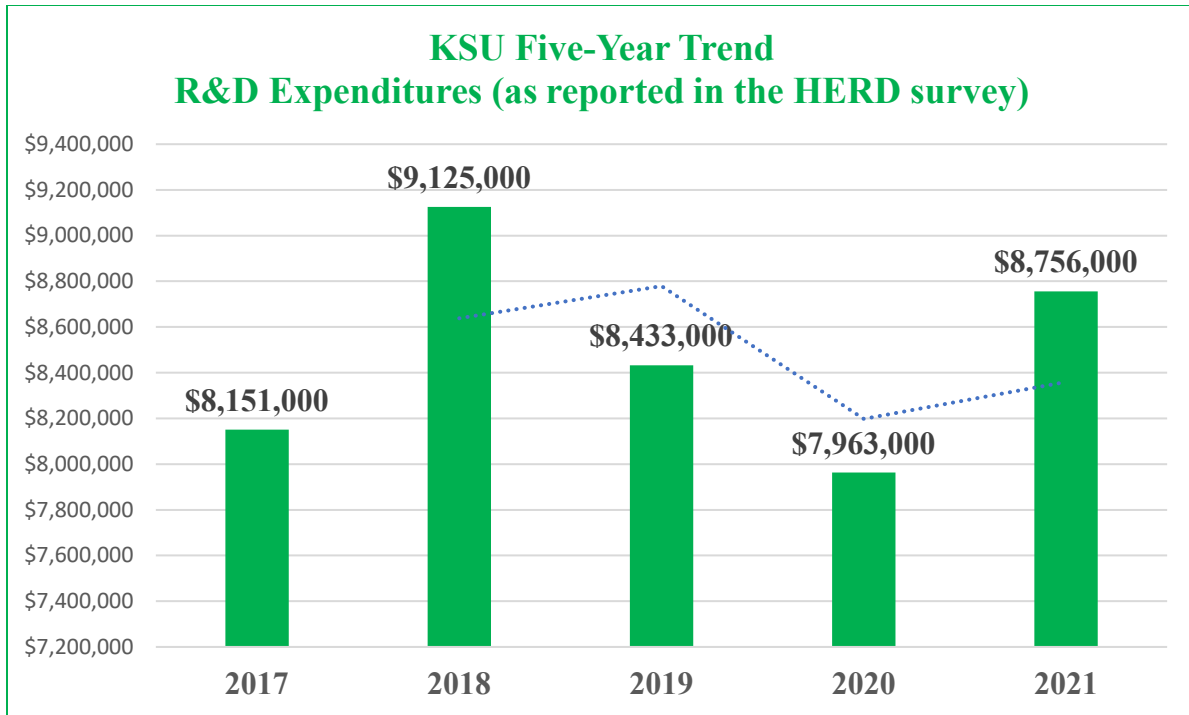
HERD Survey

The National Science Foundation (NSF) collects data every year from institutions across the U.S. for the Higher Education Research and Development (HERD) survey. According to the most recently released HERD data:

- In FY2021, KSU ranked 3rd in R&D expenditures among all institutions of higher education in Kentucky.
- In FY2021, KSU ranked 21st in R&D expenditures among all HBCUs nationwide.

However, the HERD data shows that the growth of R&D expenditures at KSU has been uneven and has not kept pace with national trends, as seen in the charts below. From FY2017 to FY2021, total national higher education R&D expenditures grew from approximately \$75.2 billion to \$89.9 billion, an increase of about 20%. During the same period, KSU R&D expenditures grew from approximately \$8.1 million to \$8.7 million, an increase of about 7%.





Future Growth

In the coming years, higher education R&D expenditures are expected to continue to grow at a rapid rate, especially given that the U.S. Congress has authorized huge increases in the NSF and U.S. Department of Energy budgets from FY2022 through FY2027 (more info [here](#)). Through a comprehensive and coordinated strategy, KSU can build on the strong research foundation that it has already established, further increase external funding for research, and keep pace with the national rate of growth in R&D expenditures.

This year, the Office of Sponsored Programs (OSP) has begun implementing a strategy for growing external funding for research, by improving the efficiency of sponsored programs and research administration, providing proposal development assistance to faculty and staff, and planning improvements in the coordination of university and industry partnerships. OSP staff looks forward to collaborating with faculty and KSU’s leadership on further developing and extending this strategy over the next year and ensuring that faculty have the support they need to pursue grants and participate in research.

OSP DEVELOPMENT

In FY2023, KSU took the important step of rebuilding the OSP, as well as the Office of Grant Accounting, which provides support with managing grant budgets, preparing financial reports on grants, and related compliance issues. In September 2022, **Dr. Ethan Sharp** became the full-time Director of OSP. This was after two years in which the Director of OSP was held by individuals who simultaneously served in other roles at KSU. **Mrs. Dorothy Daley** joined OSP as the full-time Coordinator of Grants and Sponsored Programs in March 2023.

During their time at KSU, OSP staff has participated in professional development and related opportunities to enhance their effectiveness. Dr. Sharp completed a site visit at Central State University to learn from OSP staff there about best practices, and he attended the annual VentureWell and UIDP HBCU Engage conferences to learn about new funding opportunities. Mrs. Daley is currently completing courses for the Grants Management program with Management Concepts to become a Certified Grants Management Specialist.

GrantForward

After several years in which KSU did not have access to a grant opportunity database, OSP acquired a subscription to GrantForward in the spring of 2023. All KSU faculty, staff, and students can use GrantForward to search for grant funding. OSP is also using GrantForward to deliver an e-bulletin, with news about OSP and upcoming grant opportunities, to all faculty and staff.

SuRE OSP Seed Grant

In May 2023, OSP staff applied for an OSP Seed Grant from the NIH-funded SuRE Resource Center at the University of Kentucky. In June, KSU was one of six institutions from across the nation selected to receive the OSP Seed Grant. Over the next fiscal year, the grant will be used for the following initiatives: 1) to hire an external consultant to conduct a comprehensive assessment of sponsored programs administration and provide recommendations to improve efficiency and compliance; 2) to enable OSP and Grant Accounting staff to join NCURA (National Council of University Research Administrators), attend NCURA's FRA (Financial Research Administration) and PRA (Pre-Award Research Administration) meetings in 2024, and receive additional training; and 3) to hire an external consultant to provide a series of trainings for faculty regarding applying for grants, administering grants, and working effectively with OSP. The long-term goal of the OSP Seed Grant is to increase applications for project funding from the NIH.

Kentucky Commercialization Ventures

Dr. Sharp serves as KSU's liaison with Kentucky Commercialization Ventures (KCV), a statewide network funded by the Kentucky Cabinet for Economic Development, that provides KSU and other smaller universities in Kentucky support with technology transfer, industry engagement, translational research education, and related initiatives. **Mr. Jericho Wilkerson** is KCV's designated Licensing and New Ventures Program Manager for KSU. KCV has been an essential partner for OSP, providing access to networking opportunities and information about innovation-related funding opportunities.

In May 2023, Dr. Sharp collaborated with KCV Executive Director **Ms. Kayla Meisner** and other members of the KCV team on an application for the NSF's Growing Research Access for Nationally Transformative Equity and Diversity (GRANTED) initiative. This new initiative is intended to grow research support at emerging and developing research institutions. KCV, as the lead applicant, requested approximately \$10 million over five years to provide research development support to the universities that it works with. If the project is fully funded, KSU will

receive a subaward of approximately \$1 million, which it will use to hire two full-time research development specialists for five years.

FY2023 SUBMISSIONS

The OSP collaborated with faculty and staff on the submission of 62 grant proposals from July 2022 through June 2023, requesting a total of \$43,060,850. Excluding applications for annual federal and state land-grant allocations and other non-competitive grants, the total amount requested was \$32,806,070.

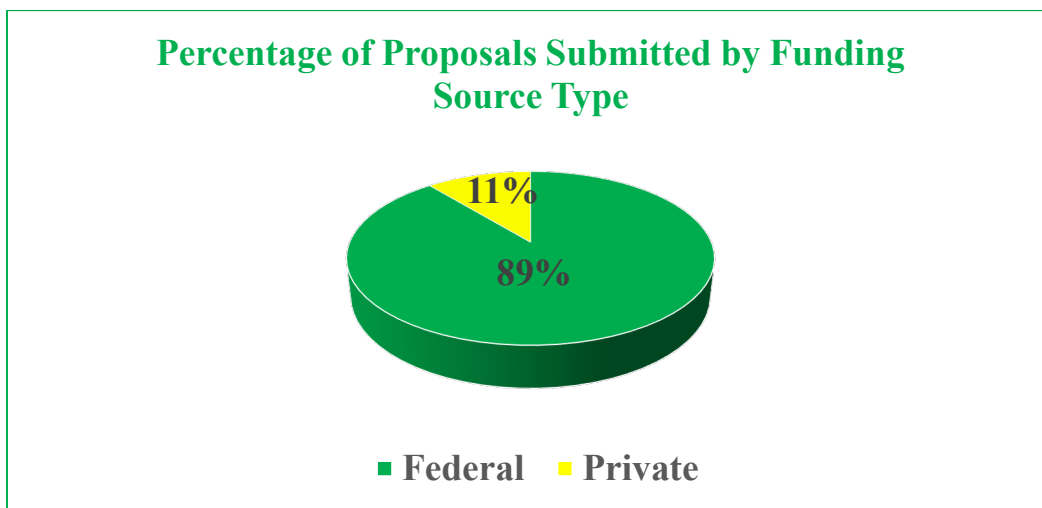
KSU was the lead applicant on 36 of the proposals submitted. KSU partnered with other universities and other types of organizations as a subrecipient on 26 proposals. Partners included, for example, the University of Kentucky, University of Louisville, the University of Maryland – Eastern Shore, and the Kentucky Science and Technology Corporation.

The number of proposals submitted in FY2023 exceeds the total number of proposals submitted in FY2019 (the last time the OSP was fully staffed and prepared an annual report). The amount requested also exceeds the amount requested in FY2019 by over 40%. This increase occurred despite the fact that KSU now has fewer faculty and staff than it did in FY2019.

In FY2023, faculty and staff in the College of Agriculture, Community, and the Sciences and the Cooperative Extension were Principal Investigators (PIs) or Project Directors (PDs) for 54 of the 62 proposals submitted. The remaining eight proposals were submitted by Academic Affairs, Paul G. Blazer Library, OSP, and Online Education staff.

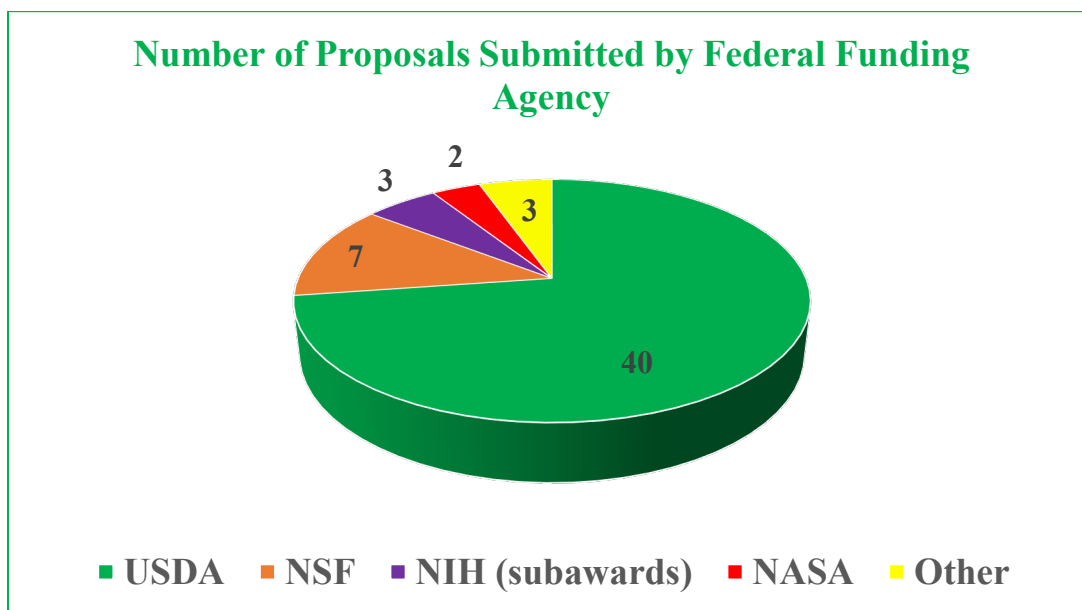
Proposals by Source

55 of the proposals submitted, or 89% of the total, were for federal grants. Seven, or 11%, were for private foundation or corporate grants.



Of the proposals submitted for federal grants, 40 were for USDA grants, seven were for NSF grants, three were for NIH grants (subawards only), two were for NASA grants, and two were for

other federal agencies. The other federal agencies include the U.S. Department of State, the U.S. Department of Energy (DOE), and the U.S. Department of Education (USDE).



FY2023 Proposal Highlights

- **Dr. Buddhi Gyawali**, Professor of Geospatial Applications, Climate Change, and Human Dimensions of the Environment, collaborated with colleagues at the University of Maryland – Eastern Shore (UMES), Florida A&M University, and Southern University on a proposal for the new USDA NextGen program in December 2022. The project was selected for funding in June 2023, and will be led by UMES. KSU will receive \$1.5 million in the form of a subaward from UMES. Dr. Gyawali and the KSU team will use the funds over five years to increase the enrollment, retention, and graduation of underrepresented minority students in the B.S. program in Agriculture, Food and the Environment (AFE) and the M.S. program in Environmental Studies. More news on the NextGen awards can be found [here](#).
- **Dr. Richard Maiti**, Assistant Professor of Computer Sciences, partnered with Dr. Hailong Chen at the University of Kentucky on an application for a NASA EPSCoR Research Award in December 2022. The project, “Investigation of Material Surface Erosion and Failure due to High-Velocity Particle Impact,” was selected for funding in the spring of 2023. Dr. Maiti and computer science students will assist Dr. Chen with software development and coding in the second and third years of the project.
- **Dr. Shawn Lucas**, Assistant Professor of Organic Agriculture, collaborated with Accelerating Appalachia on an application for a USDA NRCS Partnerships for Climate-Smart Commodities

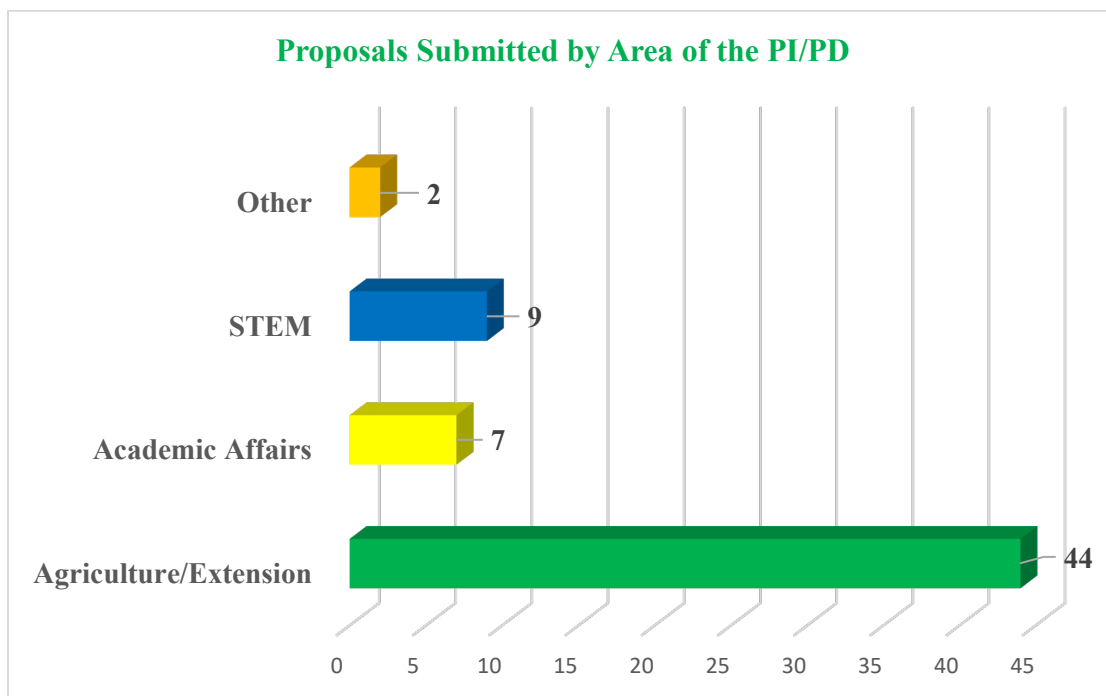
grant. The project, “Building Soil, Building Equity,” was awarded funding earlier this year, and KSU will receive a subaward of approximately \$500,000 over a five-year period.

- **Dr. Richard Maiti** and **Dr. Jyotica Batra**, Assistant Professor of Physics, joined the University of Louisville, the Kentucky Science and Technology Corporation, and other university and industry partners on an application for the new NSF Engines Type II award in January 2023. The project is entitled “Additive Manufacturing Forward Engine (AMFE)” and was chosen as a semifinalist for funding in May 2023. A final decision on funding will come later this year. If funded, KSU will receive a subaward from the University of Louisville in the amount of approximately \$600,000 to involve KSU students in additive manufacturing initiatives. More information on the semifinalist selections can be found [here](#).
- **Dr. Scott Wicker**, Interim Associate Provost and Associate Professor of Chemistry, collaborated with **Dr. Buddhi Gyawali**, Dr. Jerald Brotzge of Western Kentucky University, and other colleagues on an application for an NSF Major Research Instrumentation Track 2 grant in February 2023. The title of the project is “Acquisition of an EXperimental Profiler Atmospheric Network for Science and Education (EXPANSE).” If selected for funding, KSU will permanently station a radiometer on campus and temporarily station a mobile wind radar profiler on campus in coordination with the project consortium members.
- **Dr. Ethan Sharp**, Director of Grants and Sponsored Programs, along with **Dr. Richard Maiti** and **Dr. Chinonso Etumnu**, Assistant Professor of Agribusiness Marketing, submitted an application for a new NSF Enabling Partnerships to Increase Innovation Capacity (EPIIC) grant in May 2023. The application was submitted in consortium with three other HBCUs, Harris-Stowe State University, Florida Memorial University, and Coppin State University. The grant will be \$400,000 over three years and will support the hiring of a full-time staff member dedicated to research development and the coordination of university and industry partnerships.
- In June 2023, **Dr. Atanu Mukherjee**, Assistant Professor in the School of Agriculture, Communities, and the Environment, submitted a proposal for funding from the National Association of State Departments of Agriculture (NASDA) Foundation – EPA Historically Underserved Farmers Grant Program. The proposal, entitled “Evaluation of contrasting farming practices on water quality,” requests \$225,000 for three years.

Proposals by Area

44 proposals were submitted by faculty and staff working in land grant related areas, which include agriculture, aquaculture, food and animal sciences, family and consumer sciences, and the Cooperative Extension. Nine were submitted by faculty in the School of STEM, which encompasses biology, chemistry, physics, and computer sciences. Seven were submitted by faculty and staff in the Division of Academic Affairs. Two were submitted by faculty and staff in other

areas, which include but are not limited to nursing, social work, behavioral and social sciences, education, exercise science, public administration, business, humanities, and the arts.



FY2023 AWARDS

The OSP assisted faculty and staff with the acceptance and processing of 39 new grants awarded between July 2022 through June 2023, totaling \$28,357,842. Excluding annual federal and state land-grant allocations and other non-competitive grants, the total number of new grants received in FY2023 was 28, for a total of \$5,756,711. These figures do not include grants that were officially awarded in previous years and are renewed every fiscal year.

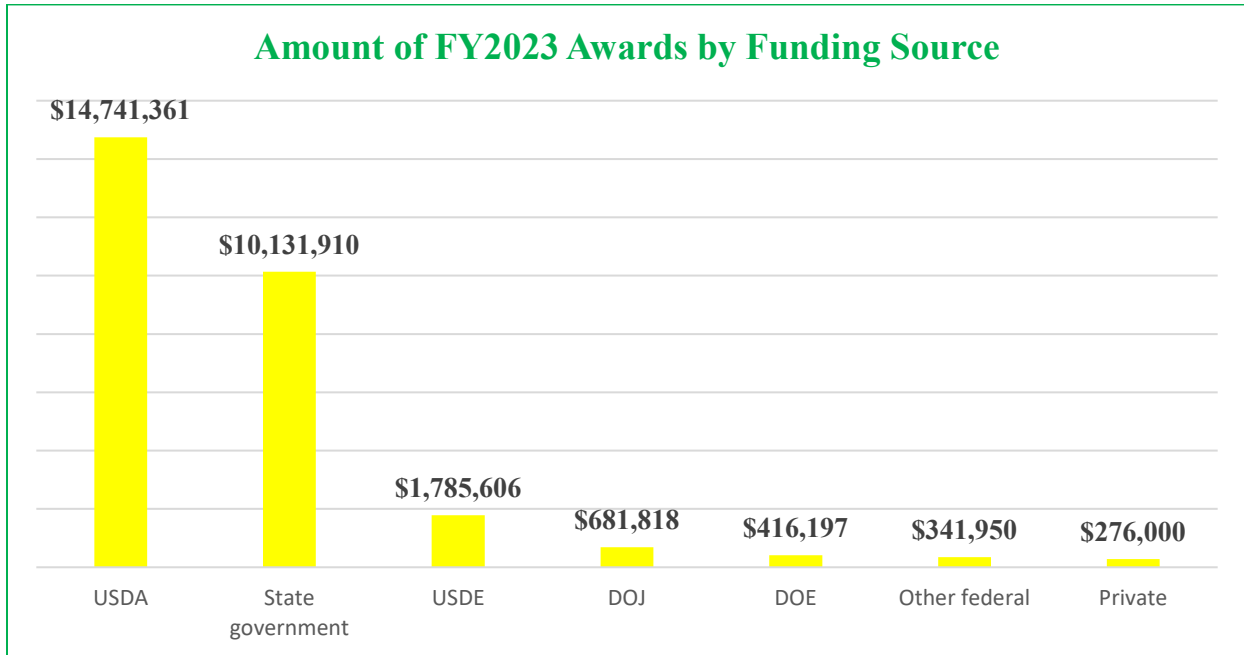
21 of the new grants are multi-year grants to be spent over the next two to five years. 12 of the new grants awarded in FY2023 were subawards. These include, for example, subawards from grants for which the University of Kentucky, the University of Louisville, and North Carolina Agricultural and Technical State University were the lead applicants.

The initial processing of grants involves completing Request for Budget Establishment (RFBE) forms and submitting forms to Grant Accounting to set up grant accounts. RFBE's are also completed to add funds to existing accounts when previously awarded grants are renewed on an annual basis. The OSP completed and submitted a total of 45 RFBEs in FY2023.

Awards by Source

In FY2023, approximately 52% of the total amount of grants awarded to KSU was from the USDA. 36% was from the Commonwealth of Kentucky. 6% was from the U.S. Department of Education

(USDE). 2% was from the U.S. Department of Justice (DOJ). 2% was from the U.S. Department of Energy (DOE). 1% was from other federal agencies, and 1% was from private sources. The total amounts received from each funding source are presented in the following chart.



FY2023 Award Highlights

- KSU received a new Upward Bound grant from the USDE in FY2023, allowing the University to continue the Upward Bound program for another six years. The total amount of the grant for six years is approximately \$1.8 million. KSU’s Upward Bound program provides support to Franklin County high school students in their preparation for college entrance. **Ms. Thea Mason** is director of the Upward Bound program.
- In September 2022, **Dr. Herman Walston**, Professor of Child Development and Family Relations, was awarded a grant from the DOJ Office of Justice Programs for the “Please Call Me Mister or Miss Mentoring Project.” The total amount of the grant is \$681,818 and will support project activities for a three-year period.
- **Dr. Maheteme Gebremedhin**, Associate Professor of Soil Science, was awarded a grant of \$399,197 for a three-year research project from the DOE Office of Fossil Energy and Carbon Management. The project, “Mapping Soil Contamination from Coal Ash with Remote Sensing Analysis to Determine the Spatial Distribution and Impact on Soil Chemistry of Hyper-accumulator Plant Species,” will involve collaborations with colleagues in the School of Agriculture, Communities, and the Environment, as well as colleagues at the University of Illinois Urbana-Champaign.

- KSU received a subaward from the University of Louisville’s Health Resources and Services Administration (HRSA) grant for the Geriatrics Workforce Enhancement Program. **Dr. Mindy Brooks-Eaves**, Assistant Professor of Social Work, is the project director for the subaward, which supports the involvement of social work students in practicums.
- **Dr. Marcus Bernard**, Associate Professor of Agricultural Economics and Rural Sociology and Chair of the School of Agriculture, Communities, and the Environment, is partnering with North Carolina Agriculture and Technical State University (NCATSU) on a grant project funded by the U.S. Department of Commerce entitled “Building Equitable and Inclusive Agriculture and Food Systems through an HBCU Agriculture Business Innovation Center.” Dr. Bernard will receive a subaward totaling \$220,000 over three years.
- **Ms. Alethea Bernard**, Senior Research Associate and State Health Equity Specialist in the College of Agriculture, Community, and the Sciences, was awarded a USDA Agricultural and Food Research Initiative (AFRI) grant as part of AFRI’s rapid response to extreme weather events program. The total amount of the grant is \$300,000. The project, “Mitigating Health Disparities among Flood Victims: The Case of Eastern Kentucky,” will assist with identifying and addressing mental health care needs in populations impacted by the 2022 flooding.
- In January 2023, KSU received a planning grant from VentureWell to create opportunities for first-year students to learn about and become involved in entrepreneurship, through forums involving visiting entrepreneurs and new activities in the KSU 186 course. **Dr. Chinonso Etumnu**, Assistant Professor of Agribusiness Marketing, is the grant project director.
- Three faculty members were awarded grants from the USDA 1890 Institutions Teaching, Research and Extension Capacity Building Grants (CBG) program:

Dr. Anuj Chiluwal, Assistant Professor of Agronomy, received a CBG of \$599,014 for three years for a research and extension project entitled “Optimizing nitrogen management in soybean integrating manual and high throughput aerial phenotyping.”

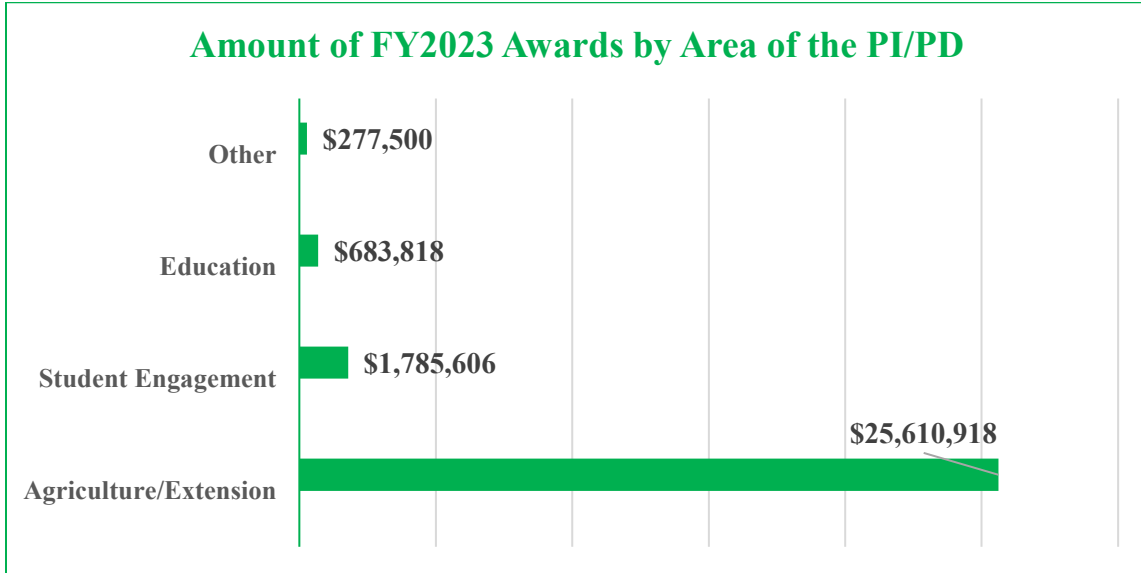
Dr. Kristopher Grimes, Associate Professor of Nutrition and Health and Dual Credit Coordinator, was awarded a CBG of \$600,000 for three years for the project entitled “Development of the Kentucky State University Dual Credit Thoroughbred Academy to Improve STEAM Enrollment, Retention, and Research Instruction.”

Dr. Thomas Webster, Professor of Apiculture and Extension Specialist, received a CBG of \$96,000 for three years for the teaching project entitled “Enhancing Methods in Agricultural and Environmental Science for the Kentucky State University Master’s in Environmental Science Program.”

Awards by Area

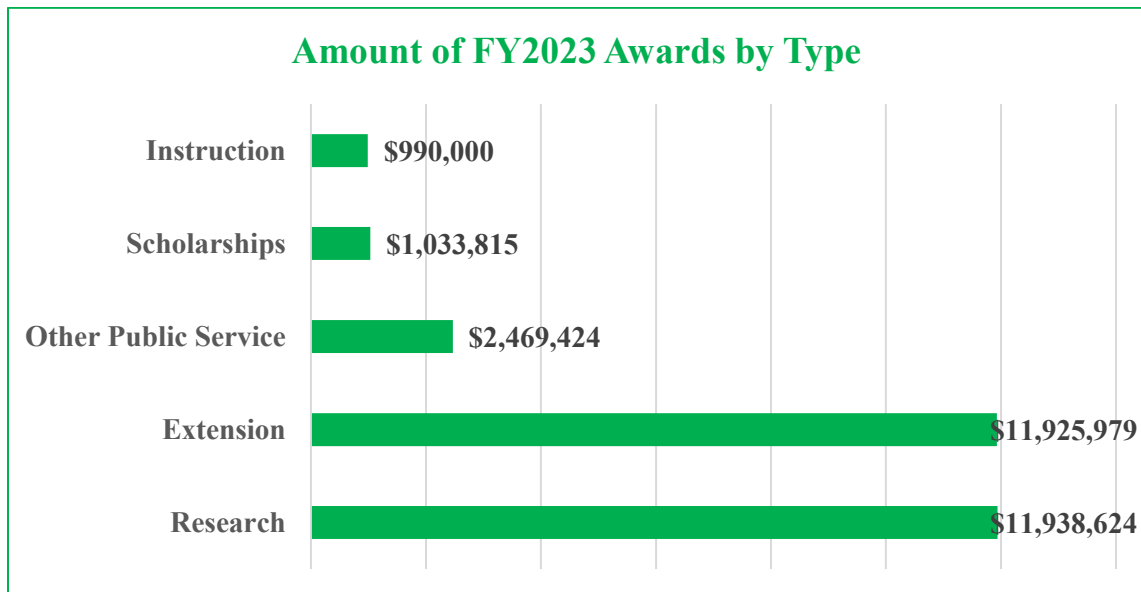
Faculty and staff in land grant related areas received 32 new awards totaling \$25,610,918. Staff in the Division of Student Engagement and Campus Life received one award in the amount of

\$1,785,606. Faculty specializing in education received two awards totaling \$683,818. Faculty in other areas, which include but are not limited to STEM, nursing, social work, behavioral and social sciences, humanities, and the arts, received three awards totaling \$277,500



Awards by Type

Approximately 42% of the total amount of awards received in FY2023 were primarily for research. 42% was for extension. 9% was for other forms of public or community service. 4% was for scholarships, and 3% was primarily for training or teaching projects.



MORE HIGHLIGHTS

KY-INBRE Partnership

KY-INBRE (Kentucky IDeA Networks of Biomedical Research Excellence) is an NIH-funded collaborative network supporting biomedical and related research at universities across Kentucky. In FY2023, the OSP assisted with finalizing an agreement with the University of Louisville allowing KSU to join KY-INBRE. The OSP also participated in the University of Louisville's application to renew funding for KY-INBRE for the next five years. **Dr. Alexander Lai**, Associate Professor of Biology, is KSU's Faculty Lead for KY-INBRE.

Through KY-INBRE, KSU faculty have the opportunity to apply for three different funding opportunities for research. Most applications will be due in December. KSU leadership may also apply for Faculty Recruitment Awards at any time, for hiring new tenure-track faculty. Information on opportunities for faculty can be found [here](#). In addition, KY-INBRE provides valuable training opportunities for KSU STEM students, including the Summer Undergraduate Research Program. Information on opportunities for students can be found [here](#).

Proposal Development

OSP staff is committed to reviewing all grant proposals and budgets prepared by faculty and staff before submission and ensures that proposals include the required information and that budgets follow federal and university guidelines and expectations. As needed and as time allows, OSP staff meets with faculty one-on-one and assists with proposal development by providing feedback on proposal ideas, outlines, and drafts and editing proposals.

In the 2023-2024 academic year, OSP staff will also offer proposal development workshops and other trainings to faculty and staff. The schedule of workshops is currently being developed and will be announced in an e-bulletin and on the OSP website in early August. Furthermore, OSP staff will continue to be directly involved in and lead proposal development on strategic initiatives that have an impact across schools and programs.

Submission Process

In FY2023, the OSP implemented measures to improve the efficiency and accountability of pre-award services, including the creation of an intent to submit form on the OSP website. Beginning in July 2023, all faculty and staff intending to submit a proposal should complete an intent to submit form a month before the proposal due date. The OSP will also require that transmittal forms be completed and signed before the submission of a proposal.

Assistance with Awards

After an award is made, the OSP is responsible for processing and getting the appropriate signatures on subaward agreements and other grant-related contracts and agreements. In FY2023,

OSP staff processed 44 agreements and contracts and assisted 15 PIs with no cost extension requests, changes in PIs, and approvals of significant changes in grant budgets.

In FY 2023, OSP staff also worked closely with the Office of Grant Accounting to address issues with grant accounts that arose when the offices were not fully staffed. This has included, for example, tracking down missing paperwork, getting all relevant agreements signed, and ensuring that budgets are set up correctly and that grant funds are spent in a timely manner.

Indirect Cost Rate Agreement

The OSP obtained an extension of KSU's current indirect cost rate agreement through June 30, 2024, from Cost Allocation Services at the Department of Health and Human Services, KSU's cognizant agency. This extension allows KSU to continue to collect indirect costs at a rate of 51% on salary and wages on most grants through FY2024. KSU will begin the process of negotiating a new indirect cost agreement in January 2024.

Research Integrity Support

The OSP supports research integrity by convening and coordinating the work of the Institutional Review Board (IRB), a committee of KSU faculty and staff that assists researchers with the protection of human subjects. OSP staff educates faculty, staff, and students about regulations concerning research with human subjects; receives applications from researchers seeking IRB approval of research involving human subjects; and conducts an initial review of applications. In FY2023, OSP staff also began reviewing and updating KSU's IRB policies and procedures to ensure they are consistent with current regulations.

In addition, the OSP provides administrative support to the Institutional Animal Care and Use Committee (IACUC), which reviews and approves research and other activities involving animals. OSP staff has collaborated with land grant faculty and staff on reestablishing IACUC, developing policies and procedures for IACUC, and facilitating reviews of animal research. In FY2023, a combined total of 20 projects were reviewed by the IRB and IACUC.

The OSP assists with maintaining KSU's subscription to the Collaborative Institutional Training Initiative (CITI) Program, which provides faculty, staff, and students training in research integrity, safety, and compliance. Currently, KSU personnel have access to CITI training modules in the following areas: Conflicts of Interest, Human Subjects Research, Responsible Conduct of Research, Biosafety and Biosecurity, and Animal Care and Use.

OSP Website Updates

In FY2023, the OSP website was reorganized and thoroughly updated, after several years in which there were no significant changes to the website. KSU faculty, staff, and students can access GrantForward, information needed for the submission of proposals, the intent to submit form, the transmittal form, the RFBE form, CITI training modules, IRB policies and procedures, and other valuable information on the website [here](#).

OFFICE OF SPONSORED PROGRAMS
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