JUNE 30, 202

OFFICE OF SPONSOREDGRAN FY2023 ANNUAL REP KENTUCKSTATEINIVERSI

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TRENDLINES

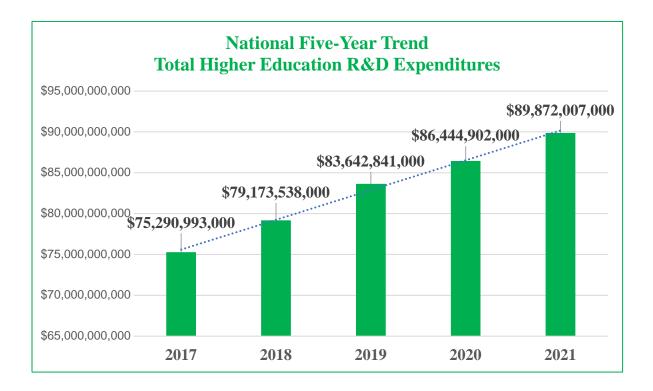
Because of the strength of KSU's land grant programs, KSU is a leader among its peers in obtaining external funding for research and the total amount spent per year on Research & Development (R&D). With this strong foundation, the KSU team is ideally positioned to take advantage of new and emerging funding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

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

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

other federal agencies. The other federal agencies include the U.S. Department of State, the U.S.

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.

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) formv (ge)4 0.-B ed inevxoTj0.07 Tw 03-Tdt-ants.

(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."

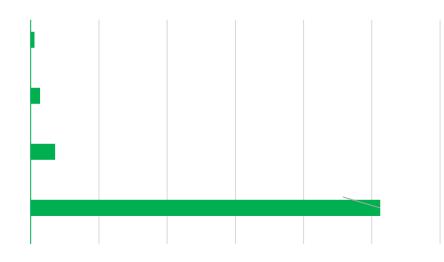
Dr. Kristopher Grimes, Associate Professor of Nutrition and Health and Dual Credit Coordinator, was awarded a CBG of \$600,000 for three years for the project entitled "Development of the Kentucky State University Dual Credit Thorobred Academy to Improve STEAM Enrollment, Retention, and Research Instruction."

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

\$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

OSP staff processed 44 agreements and contracts and assisted 15 PIs with no cost extension