



EXTERNALLY FUNDED RESEARCH & PROJECTS REPORT
PREPARED BY THE OFFICE OF RESEARCH ADMINISTRATION
FISCAL YEAR (FY) 2024

Externally sponsored grants and contracts enhance the capacity for the University to achieve its mission through education, research, and service projects. External funding enables faculty and staff to address the needs of communities, schools, and businesses throughout southwest Missouri and beyond.

In fiscal year 2024, Missouri State University was awarded \$101,362,431 to support projects in research, education and service. A total of \$1,119,927 came from CARES Act funding, while the remaining \$100,242,504 came from regular research and projects. A total of 261 proposals were submitted.

2024

TABLE 1: SUMMARY OF SPONSORED RESEARCH & PROGRAMS ACTIVITY

Key Indicators	FY2024 Activity		Non-CARES Act % Change from FY2023
	CARES ACT Funding	Non-CARES ACT Funding	
Proposals Submitted	0	317	-3%
Funds Requested	\$0	\$88,588,299	-27%
Named Investigators	2	108	-16%
Grants & Contracts Awarded	1	261	-11%
Funds Awarded	\$1,119,927	\$100,242,504	-5%

FY 2023 PROJECT HIGHLIGHTS

Faculty and staff from across many areas of the University complete innovative and unique projects due in part to the external funding they receive. The following is a sampling of grants and contracts awarded in fiscal year 2024:

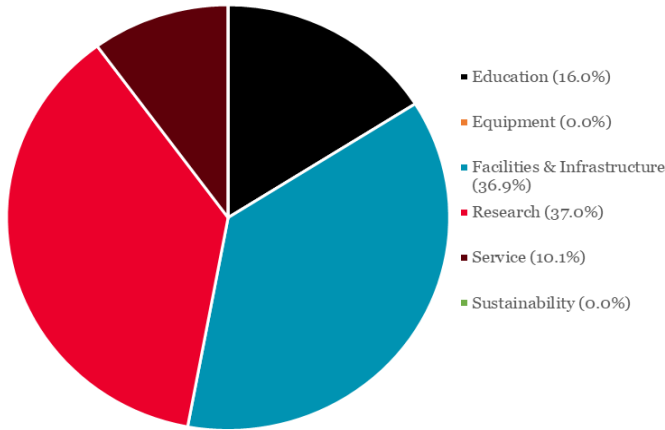
- **Benjamin Onyango**, Professor of Agribusiness, Agricultural Education and Communications, received **\$299,975** from the **US Department of Agriculture** to address food security by expanding American meat protein diet through improvements in public perception and acceptance of goat consumption.
- **Dennis Lancaster**, Chancellor, and **Cathy Boys**, Associate Dean for Career and Technical Education at the West Plains Campus, received **\$437,693** from the **Delta Regional Authority** to establish Registered Apprenticeship Programs which meet the needs of employers by upskilling incumbent workers to perform in jobs that currently are extremely difficult to fill.
- **Chuck Garner**, Director of the Agency for Teaching, Leading & Learning, received **\$3,331,750** from the **US Department of Education** through the **Missouri Department of Elementary and Secondary Education** to fund Regional Professional Development Centers (RPDCs), providing services to districts that support the development and retention of teachers, while the content of the professional development trainings supports at least one category of the following: early learning and literacy, success-ready students, and safe and healthy schools.

- **Alicia Mathis**, Department Head of Biology, received **\$300,274** from the **US Department of the Interior** to continue a collaboration with the National Park Service staff to accomplish annual data collection to monitor trends in fish, aquatic invertebrate, springs, and water quality in 15 NPS units.
- **Rachel Anderson**, Executive Director, and **Chrystal Irons**, Director of Business Support and Training of the efactory, and **Jason Ray**, Director of the Center for Resource Planning and Management, received **\$150,000** from the **Department of Commerce - Economic Development Administration** to establish a statewide partnership that connects, individuals, employers and economic development organizations with university and Southern Missouri Innovation Network resources to advance the region's economic impact.
- **Robert Niezgoda**, Visiting Assistant Professor of Public Health and Sports Medicine received **\$2,175,000** from the **US Department of Health and Human Services** through the **Missouri Department of Health and Senior Services** to coordinate an internship program for the Missouri Department of Health and Senior Services and Local Public Health Agencies.
- **Chin-Feng Hwang**, Chancellor of Mountain Grove, and **Li-Ling Chen**, Clinical Instructor of the School of Agricultural Science and Conservation, received **\$49,353** from the **US Department of Agriculture** to explore the molecular mechanisms related to Botrytis bunch rot resistance, utilizing DNA markers to optimize the production and quality of "Norton"-derived hybrids for future cultivar releases.
- **Kevin Cupka Head**, Director of the Center for Archaeological Research, received **\$395,970** from **The Boeing Company** via **Jacobs Engineering Group, Inc.** to provide a draft archaeological monitoring plan for The Boeing Company Site Expansion in St. Louis Missouri.
- **Kathryn Patterson**, Director, and **Melissa Penkalski**, Associate Professor of the School of Nursing, received **\$394,772** from the **Missouri State Board of Nursing** to hire two faculty to build and teach an accelerated MSN graduate program and to provide scholarship/traineeship funding to qualified students who are interested in teaching and faculty development.
- **Paul Durham**, Distinguished Professor of Biology, received **\$427,500** from the **National Institutes of Health** to better understand the cellular and molecular changes in neuron-glia communication mediated by a polyphenol-enriched grape seed extract (GSE) to reduce the burden of chronic pain.
- **Lisa Wade**, Dean of Nursing and Allied Health, received **\$532,944** from the **Missouri State Board of Nursing** to develop, support, and expand nursing education at Missouri State University – West Plains, ultimately contributing to the reduction of nursing shortages in the state.
- **Denise Cunningham**, Director of the School for Teaching Learning & Developmental Sciences, received **\$617,760** from the **US Department of Education** via the **Missouri Department of Elementary and Secondary Education** to provide tuition and fees for students to take coursework for the Elementary Mathematics Specialist Certificate.
- **Kevin Mickus**, Distinguished Professor of the School of Earth, Environment and Sustainability, received **\$275,996** from the **National Geospatial-Intelligence Agency** to collect gravity and magnetic data in a region of southeastern Egypt where no such data exists. The data will be collected by the Egypt Geological Survey and Missouri State University and will be used to construct gravity anomaly maps and models to determine the Lithospheric structure of this region.
- **Karen Engler**, Clinical Professor of the School of Special Education, Leadership and Professional Studies, received **\$122,900** from the **US Department of Education** through the **Missouri Department of Elementary and Secondary Education** to increase the number of teachers with Missouri teaching certification in Deaf and Hard of Hearing (birth – grade 12).
- **Allen Kunkel**, Associate VP for Economic Development and Director of the Jordan Valley Innovation Center, received **\$2,000,000** from the **US Department of Housing and Urban Development** to construct corporate research labs and offices for 3 to 4 additional corporate research partners to collaborate with Missouri State University and various federal agencies to conduct cutting edge research and technology development.

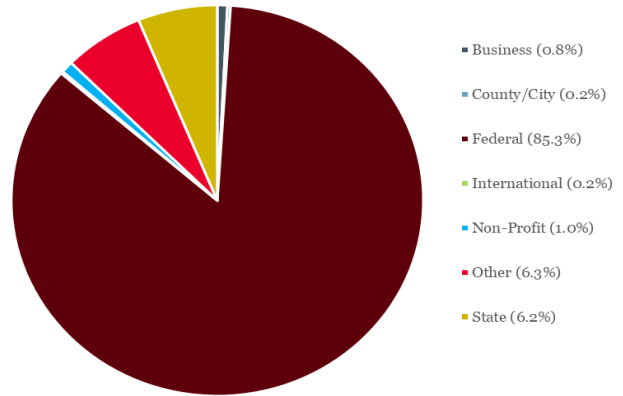
FY 2024 EXTERNAL FUNDING SUMMARY & TRENDS

In FY2024, federal agencies remain the leading source of grants and contracts. Our project types are diverse with the majority going towards research this year, followed by facilities & infrastructure, education, and then service.

AWARDS BY PROJECT TYPE WITHOUT CARES ACT FUNDING

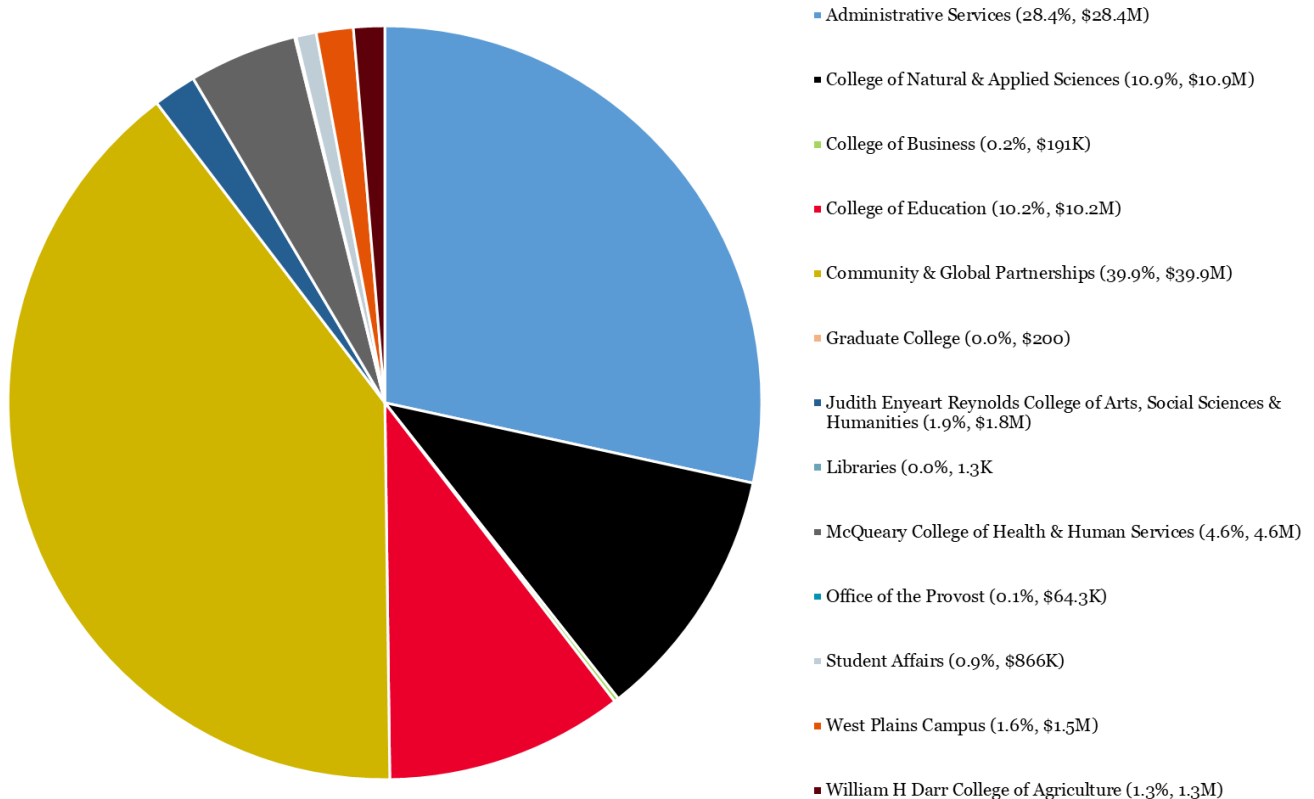


AWARDS BY SPONSOR TYPE WITHOUT CARES ACT FUNDING



Eight of Missouri State’s major units exceeded \$1 million in annual award funding, and University centers continue to be instrumental in acquiring external funding, with approximately \$49.9 million of the total funds awarded in FY 2024.

AWARDS BY UNIT



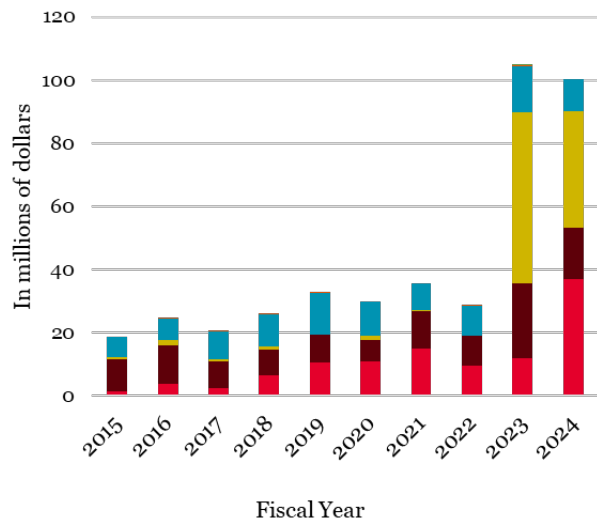
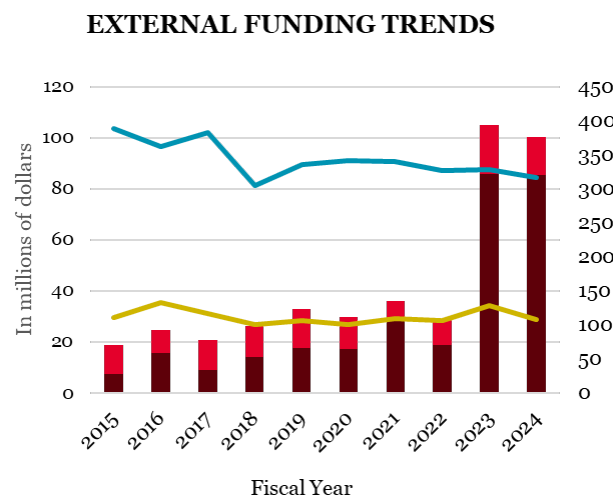
Missouri State University's 2023-2024 Action Plan's external funding goals:

- Maintain external funding through private support, grants, and sponsored contracts of \$55 million or more annually (\$100.2 million from Research Administration and \$35.9 million through the Foundation)

Table 2: HISTORY OF EXTERNAL FUNDING ACTIVITY WITHOUT CARES ACT FUNDING

Fiscal Year	Proposals Submitted	Named Investigators Awarded	Total Awards	Total Requested (millions)	Total Awarded (millions)
2015	389	111	297	\$52.7	\$19.0
2016	362	132	288	\$54.4	\$24.7
2017	383	117	285	\$54.2	\$20.5
2018	305	100	258	\$56.9	\$26.1
2019	336	106	292	\$48.0	\$32.8
2020	342	100	283	\$57.7	\$29.7
2021	340	109	289	\$79.9	\$35.9
2022	327	106	269	\$102.9	\$28.8
2023	328	128	292	\$121.1	\$104.9
2024	317	108	261	\$88.5	\$100.2

PROJECT TYPE HISTORY



■ Nonfederal
■ Federal
— Proposals Submitted
— Named Investigators Awarded

■ Research
■ Education
■ Facilities & Infrastructure
■ Service
■ Equipment
■ Sustainability

Missouri State University FY2024 Grant/Contract Activity by Unit

The numbers of faculty and staff applying and awarded grants and contracts by each unit is presented below. The College of Natural and Applied Sciences had the largest number (61) of faculty & staff applying for external funding and the largest number (71) of awards, based on credit sharing values. Community & Global Partnerships (CGP) obtained the highest value of funding (\$39.9M), with the Center for Applied Science & Engineering receiving \$32.7M of the funding for CGP.

Missouri State University FY 24 Grant/Contract Activity by Unit										
Unit	# Applying		# Awarded		Credit Share*			Actual**		
	Staff	Faculty	Staff	Faculty	# Submitted	# Awarded	\$ Awarded	# Submitted	# Awarded	\$ Awarded
ADMIN - Administrative Services	4	0	7	0	4	8	\$ 28,490,051	3	5	\$ 34,985,051
CGP - Community & Global Partnerships	5	0	4	0	20	17	\$ 1,557,551	18	16	\$ 1,557,551
CASE - Center for Applied Science & Engineering	3	0	4	0	14	13	\$ 32,779,023	11	11	\$ 32,779,023
CBED - Center for Business & Economic Development	3	0	3	0	8	7	\$ 877,990	6	5	\$ 902,990
CBLS - Center for Biomedical & Life Sciences	0	0	0	0	0	0	\$ -	0	0	\$ -
ILTC - International Leadership & Training Center	3	0	3	0	6	6	\$ 994,303	5	5	\$ 994,303
JVIC - Jordan Valley Innovation Center	2	0	2	0	14	13	\$ 3,126,083	13	13	\$ 3,126,083
SBDC - Small Business Development Center	2	0	1	0	11	10	\$ 616,680	11	10	\$ 616,680
CNAS - College of Natural & Applied Sciences	1	50	1	20	100	39	\$ 9,220,659	65	34	\$ 2,725,659
BSFS - Bull Shoals Field Station	0	1	0	1	3	3	\$ 3,793	3	3	\$ 3,793
CRPM - Center for Resource Planning & Management	4	0	2	0	12	9	\$ 769,887	8	7	\$ 719,887
OEWRI - Ozark Environmental Water Research Institute	3	2	2	2	23	20	\$ 980,984	13	10	\$ 980,984
COB - College of Business	0	2	0	2	2	2	\$ 191,670	2	2	\$ 191,670
C-PRIME - Center for Project Innovation & Management Education	0	0	0	0	0	0	\$ -	0	0	\$ -
COE - College of Education	1	12	1	9	34	26	\$ 3,165,367	32	26	\$ 3,165,367
ATLL - Agency for Teaching, Leading and Learning	1	0	1	0	7	7	\$ 7,089,953	7	7	\$ 7,089,953
IPT - Institute for Play Therapy	0	0	0	0	0	0	\$ -	0	0	\$ -
ISI - Institute for School Improvement	0	0	0	0	0	0	\$ -	0	0	\$ -
DCOAG - William H. Darr College of Agriculture	1	10	1	6	21	17	\$ 1,202,085	18	16	\$ 1,202,085
CGB - Center for Grapevine Biotechnology	0	1	0	1	1	1	\$ 25,000	1	1	\$ 25,000
MVEC - Mid-America Viticulture & Enology Center	1	2	1	2	6	8	\$ 112,897	5	6	\$ 112,897
EVP - Office of the Executive Vice President	0	0	0	0	0	0	\$ -	0	0	\$ -
GRAD - Graduate College	0	2	0	1	2	1	\$ 200	2	1	\$ 200
INFO - Information Services	0	0	0	0	0	0	\$ -	0	0	\$ -
LIB - Libraries	0	1	0	1	1	1	\$ 1,300	1	1	\$ 1,300
MCHHS - McQueary College of Health & Human Services	4	16	3	12	36	30	\$ 3,225,144	30	26	\$ 3,225,144
AHEC - Southwest Missouri Area Health Education Center	1	0	1	0	10	10	\$ 357,366	10	10	\$ 357,366
OPHI - Ozarks Public Health Institute	1	0	1	0	5	5	\$ 1,073,095	5	5	\$ 1,073,095
RSTATS - RStats Institute	1	0	0	0	1	0	\$ -	0	0	\$ -
OIE - Office of Inclusive Engagement	0	0	0	0	0	0	\$ -	0	0	\$ -
PRES - Office of the President	0	0	0	0	0	0	\$ -	0	0	\$ -
PROV - Office of theProvost	2	1	1	0	4	1	\$ 64,394	2	0	\$ -
RCASH - Judith Enyeart Reynolds College of Arts, Social Sciences & Humanities	1	13	0	8	21	13	\$ 854,725	16	13	\$ 879,725
CAR - Berniece S. Warren Center for Archaeological Research	0	1	0	1	14	14	\$ 998,086	14	14	\$ 998,086
CDR - Center for Dispute Resolution	0	0	0	0	0	0	\$ -	0	0	\$ -
CWCCC - Center for Writing in College, Career & Community	0	1	0	1	1	1	\$ 4,900	1	1	\$ 4,900
SA - Student Affairs	3	0	3	0	3	4	\$ 705,769	0	2	\$ 609,178
CCE - Center for Community Engagement	1	0	1	0	2	1	\$ 160,985	2	1	\$ 321,970
WP - West Plains Campus	4	3	4	2	14	11	\$ 1,592,564	13	10	\$ 1,592,564
TOTAL	52	118	47	69	400	298	\$ 100,242,504	317	261	\$ 100,242,504

* **Credit Share** - divides the proposals/awards between the PI's, therefore proposals/awards may be reflected in the totals more than once.

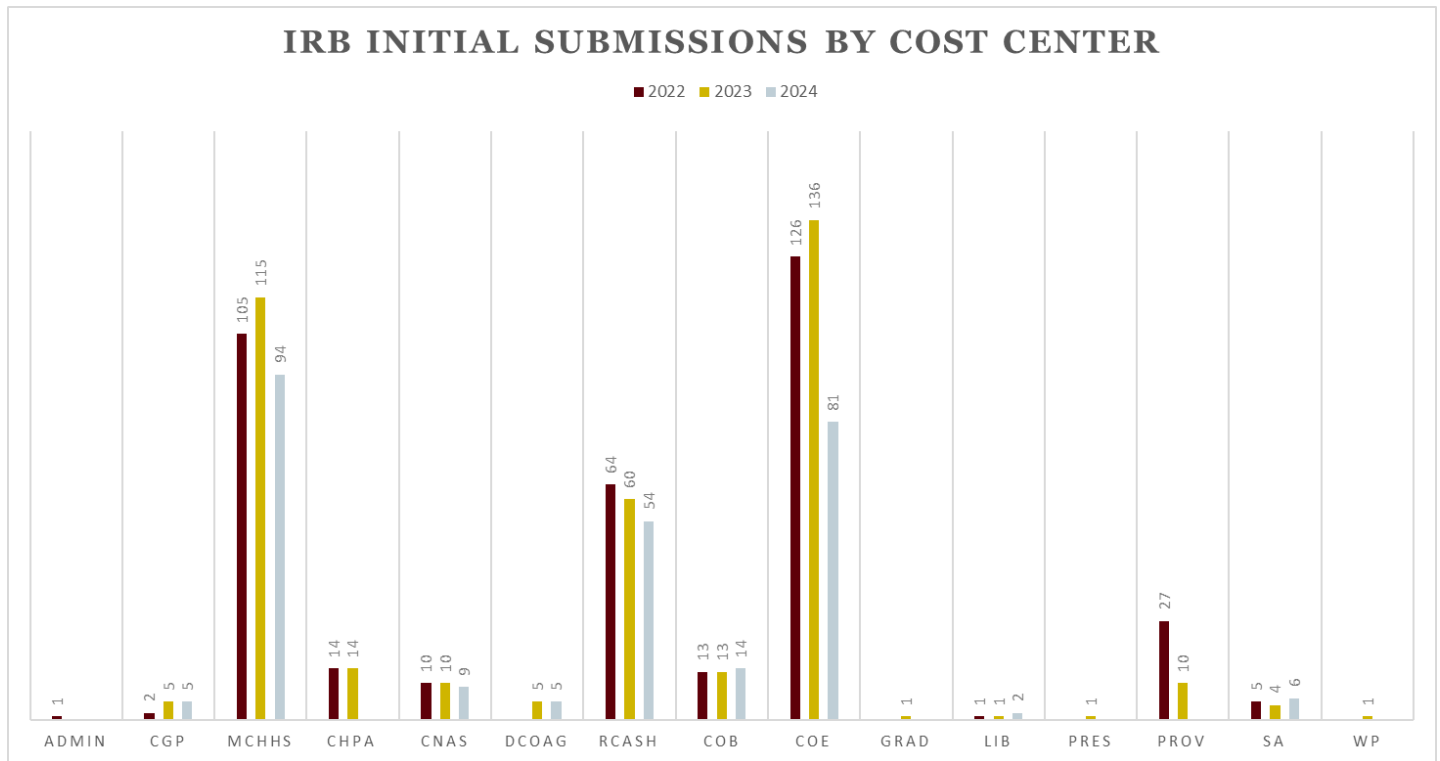
** **Actual** - proposals/awards will only be shown in the originating unit.

FY2024 OFFICE OF RESEARCH ADMINISTRATION (ORA) HIGHLIGHTS

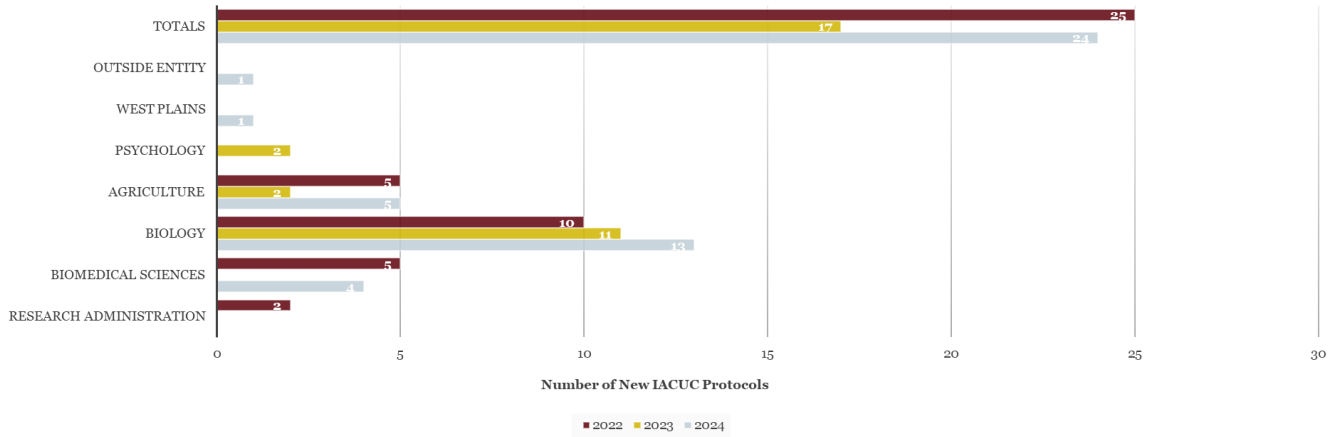
The ORA continues to support faculty and staff in their pursuit of external funding, in addition to considering ways to improve support of faculty and staff. The ORA offers monetary support for travel to send more faculty and staff to conferences focused on grant writing, legislative visits, and meetings with federal and private agencies and program officers. The ORA also offers competitive funding for a summer graduate assistant to help gather information or data needed for a proposal submission. It is the intent of the ORA that these funds are a small investment to stimulate proposal submission, and hopefully increased funding in the future.

The ORA is also responsible for research compliance in the areas of human subjects research, animal subjects research, radiation safety, biosafety, export control, responsible conduct of research, conflict of interest, and research misconduct.

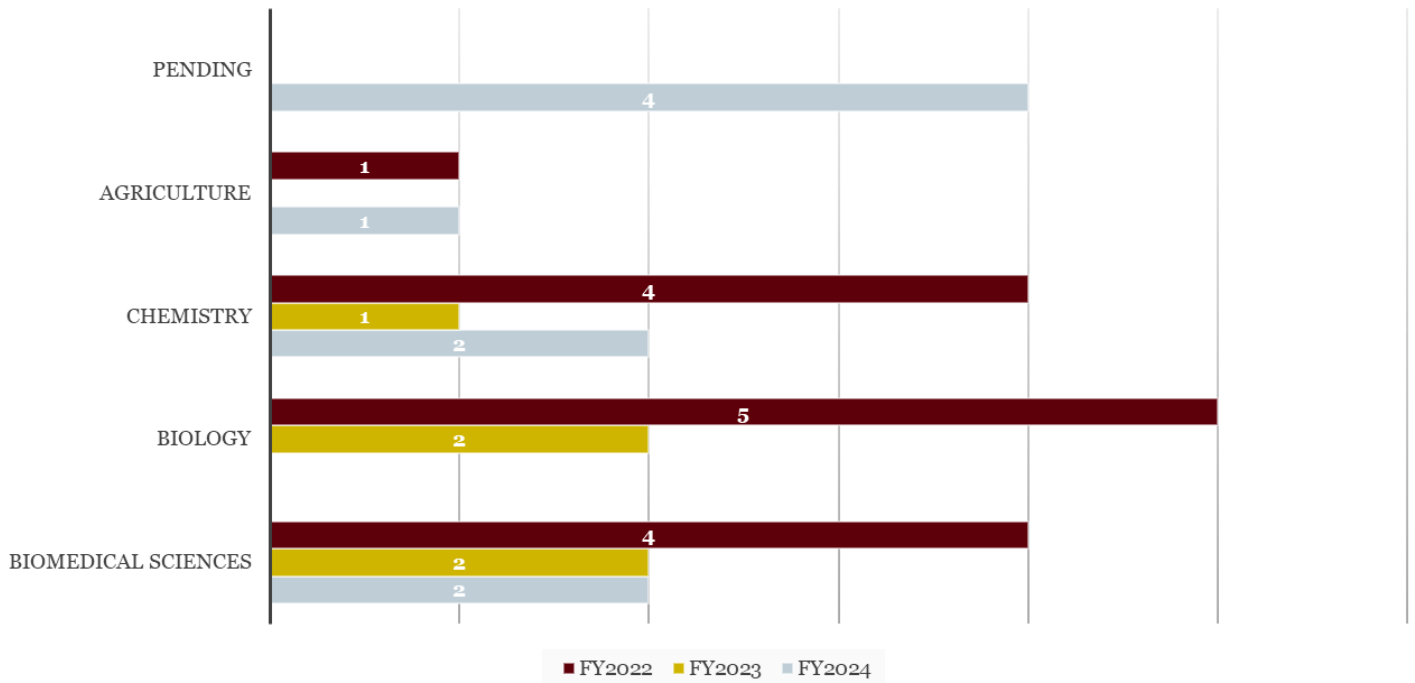
The research compliance committees, Institutional Review Board (IRB) and Institutional Animal Care and Use Committee (IACUC), are responsible for reviewing and approving human subjects and animal subjects research, respectively. In FY2024, the IRB reviewed 270 applications and the IACUC reviewed 24 new applications. Additionally, the Institutional Biosafety Committee (IBC) reviewed 9 new protocols. The following charts provide information on new submissions that occurred in FY2024, in addition to the totals from FY2022 and FY2023, for comparison.



IACUC PROTOCOL SUBMISSIONS



IBC Protocol Submissions



MORE INFORMATION

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