



**EXTERNALLY FUNDED RESEARCH & PROJECTS REPORT  
PREPARED BY THE OFFICE OF RESEARCH ADMINISTRATION  
FISCAL YEAR (FY) 2017**

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 2016-2017, Missouri State University was awarded **\$20,584,404** to support projects in research, education and service. The number of proposals submitted is the second highest recorded (383). Approximately 16% of faculty were named investigators on awards.

**2017**

<b>SUMMARY OF SPONSORED RESEARCH &amp; PROGRAMS ACTIVITY</b>		
<b>Key Indicators</b>	<b>FY2017 Activity</b>	<b>% Change from FY2016</b>
Proposal Submitted	383	6%
Funds Requested	\$52,298,692	-0.5%
Named Investigators	117	-11%
Grants & Contracts Awarded	285	-1%
Funds Awarded	\$20,584,404	-17%

**FY 2017 PROJECT HIGHLIGHTS**

Faculty and staff from across many areas of the University complete incredible 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 2017:

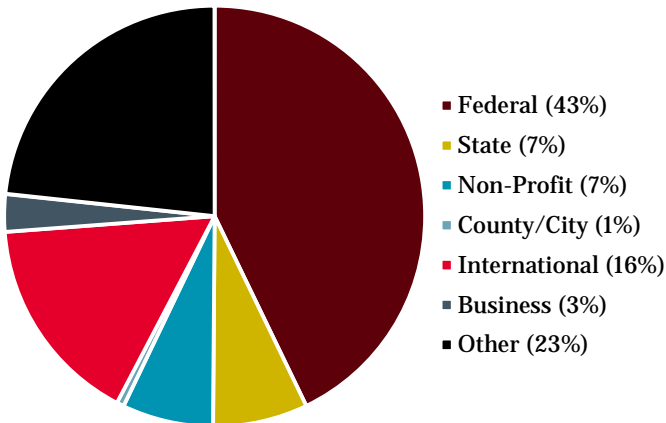
- Funds from the US Department of Education (ED) support the Improving English Language Teaching in the Ozarks (iELT-Ozarks) project, which will provide access to affordable, customizable, state-of-the-art English language teacher training to improve the educational outcomes of the language minority student population in the Ozarks region.
- National Science Foundation funds enable the investigation of the capacity of the rootstock to modulate the scion's response to climatic variation, which is a fundamental question in grape cultivation and is of particular importance due to agriculture facing the environmental consequences of a changing climate.

- The US Department of Agriculture (USDA) provides funds to create hands-on learning experiences for Missouri State students in the area of insect science, which will advance and extend the body of knowledge in a heavily understudied area of insect immunology, by isolating and identifying constituents of a plant essential oil that impair the insect innate immune system.
- Continued funding from ED supports Project ACCESS to provide quality training, education, and resource referral primarily for school district professionals in the education of children with Autism Spectrum Disorder (ASD). The complex nature of the disorder requires significant support for parents, teachers, and other individuals involved in the education of children with an ASD.
- An award from the Missouri Department of Conservation funds research to better understand potential impacts of electrofishing on hellbenders and whether seasonal and/or geographic restrictions for electrofishing may be warranted.
- Funds from the Rural Community College Alliance support an initiative to start a farmers market using the MSU-WP greenhouse. The greenhouse is a working laboratory supporting the effort of educating local agriculturalists to produce and market healthy foods.
- Continued funding from the Corporation for Public Broadcasting provides assistance to Ozarks Public Television with its annual operating costs.
- The Taney County Health Department provides funding for a program to provide professional development to local food producers through a series of workshops and farm tours, implement a marketing and promotion campaign of the benefits of eating whole and local foods, and assist with outreach to local food producers and high school Future Farmers of America and 4H clubs.
- The Mercy Caritas/Catherine McAuley Area of Greatest Need Program funds a program that aims to increase the integrated primary care of uninsured patients at the MSU Care Clinic. The purpose is to enhance the screening and diagnosis of cardiac disease by electrocardiology (EKG) and to monitor diabetic control of patients on diabetic medications who are MSU Care patients.
- An ongoing award from the Community Foundation of the Ozarks supports the Northwest Project, which helps Springfield families overcome the challenges that have kept them living in poverty and sustain their long-term success in emerging from those circumstances.
- An ongoing cooperative agreement with the Department of Defense provides funds to safely develop and deploy nanoscale engineered technologies. This research is important for minimizing, mitigating, or even eliminating the human and environmental risks that may be associated with nanoscale engineered technologies.
- An award from the Presidio Trust of San Francisco funds a project to help reintroduce the native California Floater Mussel to Mountain Lake where it once naturally occurred.
- The US Department of Transportation through the Missouri Department of Transportation provides funds for the principal tasks of updating the regional transportation plan; working with the Transportation Advisory Committee to identify and prioritize regional transportation system needs; and providing technical advisory assistance to local governments on comprehensive planning and transportation planning activities.
- Funding from Google, Inc. supports a Missouri State software engineering course in which students use the Google cloud platform to learn and implement cloud-based projects, host their applications in the cloud, and use the cloud platform to distribute the computing workloads among multiple virtual machines for real-time performance comparison.

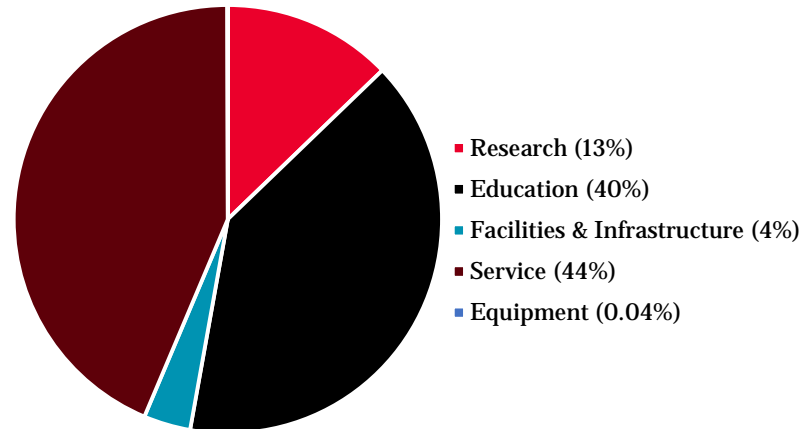
## FY 2017 EXTERNAL FUNDING SUMMARY & TRENDS

In FY2017, federal agencies remain the leading source of grants and contracts. International and Other types of sponsors provide the next largest sources of funding. Service projects make up almost half of the awards that Missouri State receives.

### AWARDS BY SPONSOR TYPE

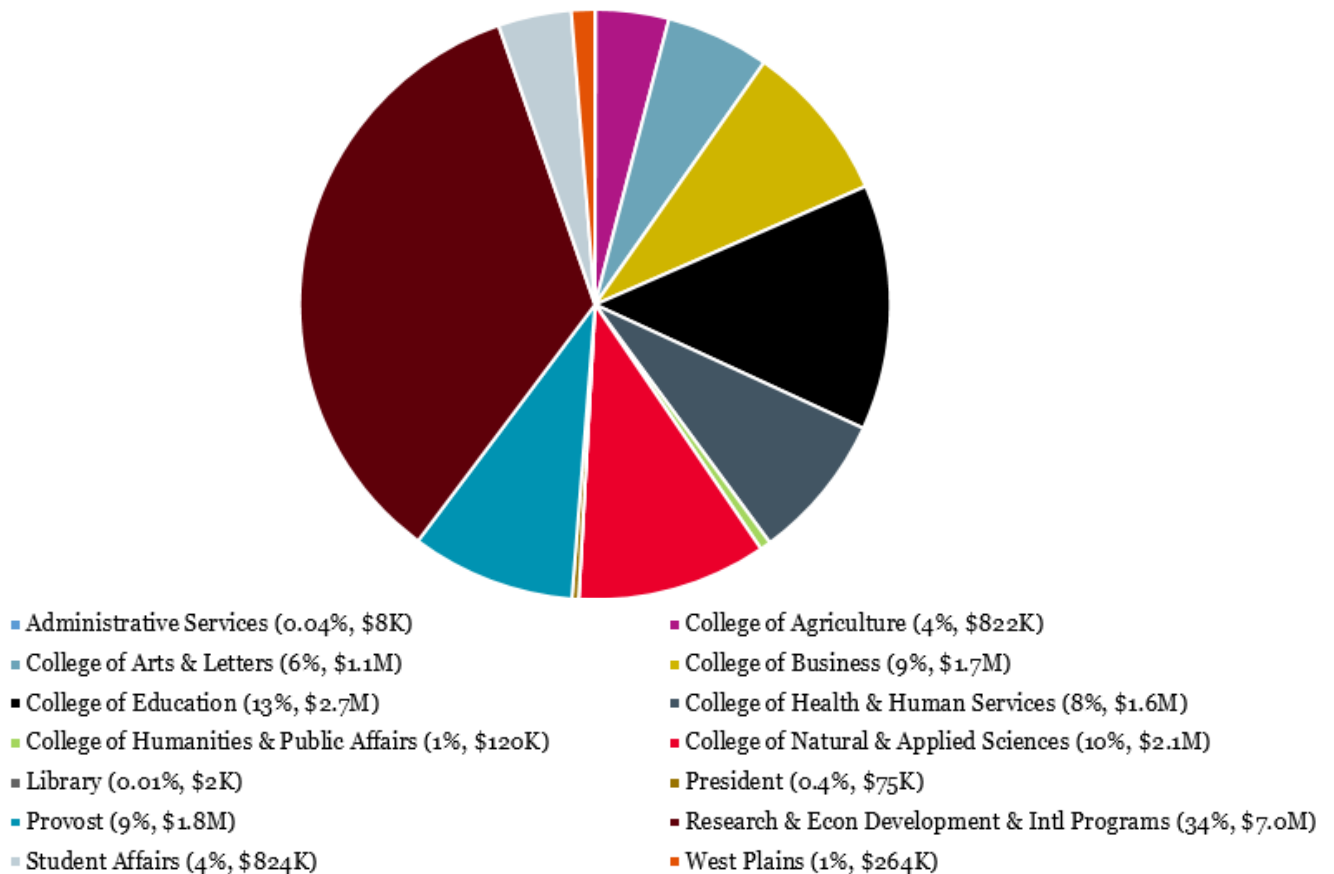


### AWARDS BY PROJECT TYPE



Seven 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 \$8.5 million (41%) of the total funds awarded in FY 2017.

### AWARDS BY UNIT



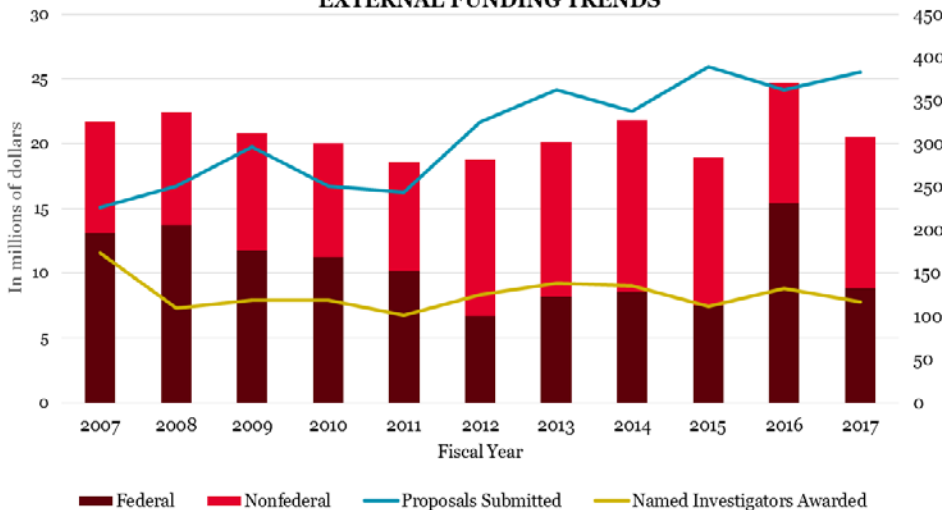
Missouri State University met its 2016-2017 Action Plan externally sponsored research and program goals:

- Maintain external funding through the office of sponsored research and programs at \$20 million or more annually (**\$20.5 million received for FY2017**)
- Maintain the number of grant and contract proposals submitted for external funding through the office of sponsored research and programs at 300 or more proposals (**383 proposals submitted for FY2017**)

Over the last 5 years, over 280 awards have been obtained annually, and faculty and staff have consistently submitted more than 300 proposals annually.

HISTORY OF SPONSORED RESEARCH & PROGRAMS ACTIVITY					
Fiscal Year	Proposals Submitted	Named Investigators Awarded	Total Awards	Total Requested (millions)	Total Awarded (millions)
2007	226	173	154	\$41.20	\$21.70
2008	251	109	141	\$32.10	\$22.40
2009	296	119	196	\$48.30	\$20.90
2010	251	119	184	\$71.80	\$20.10
2011	244	101	153	\$65.70	\$18.70
2012	325	125	245	\$38.00	\$18.90
2013	362	138	289	\$32.40	\$20.10
2014	338	135	289	\$33.50	\$21.90
2015	389	111	297	\$52.70	\$19.00
2016	362	132	288	\$54.50	\$24.70
2017	383	117	285	\$54.20	\$20.50

EXTERNAL FUNDING TRENDS

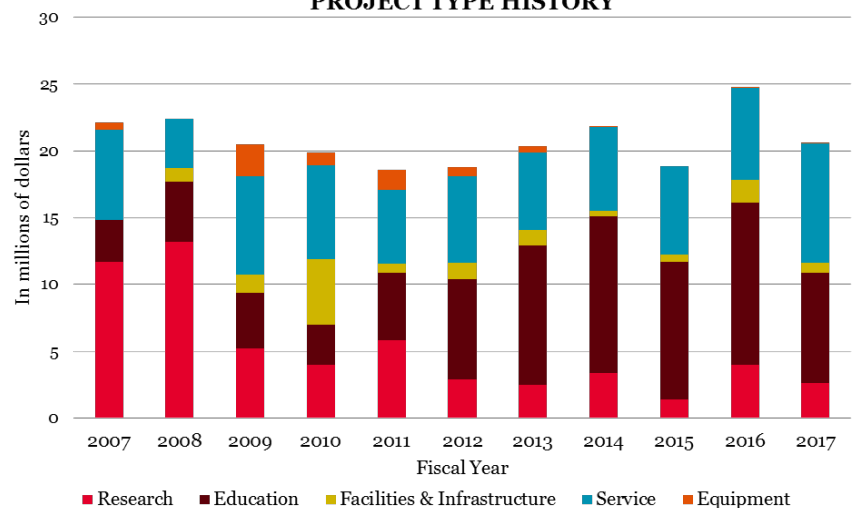


Missouri State received less federal funds than in previous years, but still reached the \$20 million awarded goal by obtaining increased additional state, international, and business funds than last year.

The number of proposals submitted in FY2017 is the second highest recorded.

Over the course of 10 years, Missouri State has increased the number of dollars awarded for service-type projects. In FY2017, approximately \$9 million in service-type funding was obtained.

PROJECT TYPE HISTORY



## Missouri State University FY2017 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 (44) of faculty apply for external funding. The College of Health and Human Services had the largest number (42) of awards, based on credit sharing values. The Research, Economic Development, and International Programs unit obtained the highest value of funding (\$2.6M) of any center, department, or unit.

Unit	# Applying		# Awarded		Credit Share*			Actual**		
	Staff	Faculty	Staff	Faculty	Grants / Contracts		Award	Grants / Contracts		Award
					Submit	Awards	\$	Submit	Awards	\$
Administrative Services	1	0	1	0	1	1	\$ 8,027	1	1	\$ 8,027
College of Agriculture	2	8	0	9	22	19	\$ 598,035	16	14	\$ 598,035
Center for Grapevine Biotechnology	0	1	0	1	3	2	\$ 66,080	3	2	\$ 66,080
Mid-America Viticulture & Enology Center	1	1	1	0	5	4	\$ 157,934	5	4	\$ 157,934
College of Arts & Letters	1	4	1	4	7	7	\$ 787,353	5	4	\$ 783,322
Center for Dispute Resolution	0	1	0	1	5	5	\$ 103,899	5	5	\$ 103,899
Center for Writing in College, Career, & Community	3	2	2	2	29	18	\$ 275,799	16	10	\$ 279,610
College of Business	0	1	0	1	5	5	\$ 1,798,619	5	5	\$ 1,798,619
Center for Project Innovation & Management	0	1	0	0	1	0	\$ -	1	0	\$ -
College of Education	4	13	3	9	31	25	\$ 1,431,603	24	24	\$ 1,399,432
Agency for Teaching, Leading and Learning	3	1	2	1	10	9	\$ 1,333,864	9	8	\$ 1,333,864
Institute for Play Therapy	1	0	1	0	2	2	\$ 550	2	2	\$ 550
Institute for School Improvement	0	0	0	0	0	0	\$ -	0	0	\$ -
College of Health & Human Services	7	17	2	19	49	42	\$ 1,648,452	37	33	\$ 1,652,219
Center for Research & Service	0	1	1	0	1	1	\$ 6,680	1	1	\$ 6,680
College of Humanities & Public Affairs	1	8	1	3	11	5	\$ 24,988	7	3	\$ 37,511
Center for Archaeological Research	2	1	2	1	9	9	\$ 95,510	7	7	\$ 95,509
Center for Community Engagement	1	1	0	0	2	0	\$ -	1	0	\$ -
Center for Economic Research	0	0	0	0	0	0	\$ -	0	0	\$ -
Center for Social Science & Public Policy Research	0	0	0	0	0	0	\$ -	0	0	\$ -
College of Natural & Applied Sciences	2	44	1	18	118	37	\$ 889,004	85	31	\$ 897,424
Bull Shoals Field Station	0	1	1	1	4	6	\$ 45,663	4	5	\$ 45,663
Center for Resource Planning & Management	5	0	5	1	25	22	\$ 790,306	16	14	\$ 890,306
Ozark Environmental Water Research Institute	1	1	1	1	15	15	\$ 410,400	9	9	\$ 321,849
Diversity & Inclusion	0	0	0	0	0	0	\$ -	0	0	\$ -
Graduate College	0	0	0	0	0	0	\$ -	0	0	\$ -
Information Services	2	0	0	0	3	0	\$ -	1	0	\$ -
Library	2	1	1	0	4	1	\$ 2,500	4	1	\$ 2,500
President	1	0	3	0	2	3	\$ 75,156	2	2	\$ 75,156
Provost	2	3	1	1	11	4	\$ 1,171,651	8	4	\$ 1,171,651
Ozarks Public Health Institute	0	1	0	1	13	12	\$ 349,114	11	10	\$ 345,347
Southwest Missouri Area Health Education Center	1	0	1	0	8	7	\$ 327,558	8	7	\$ 327,558
Research & Economic Development	5	0	4	0	25	29	\$ 2,608,427	21	23	\$ 2,608,427
Center for Applied Science & Engineering	3	0	4	0	13	14	\$ 1,194,807	7	8	\$ 1,194,807
Center for Biomedical & Life Sciences	0	1	0	1	23	17	\$ 420,114	23	17	\$ 420,114
International Leadership & Training Center	1	0	1	0	5	5	\$ 1,654,900	5	5	\$ 1,654,900
Jordan Valley Innovation Center	1	0	1	0	9	9	\$ 978,017	9	9	\$ 978,017
Small Business Development & Technology Center	1	0	1	0	9	7	\$ 239,848	9	7	\$ 239,848
Student Affairs	3	0	2	0	4	4	\$ 824,775	3	4	\$ 824,775
West Plains	6	4	3	2	13	6	\$ 264,772	13	6	\$ 264,772
<b>TOTAL</b>	<b>63</b>	<b>117</b>	<b>47</b>	<b>77</b>	<b>497</b>	<b>352</b>	<b>\$ 20,584,404</b>	<b>383</b>	<b>285</b>	<b>\$ 20,584,404</b>

\* 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.

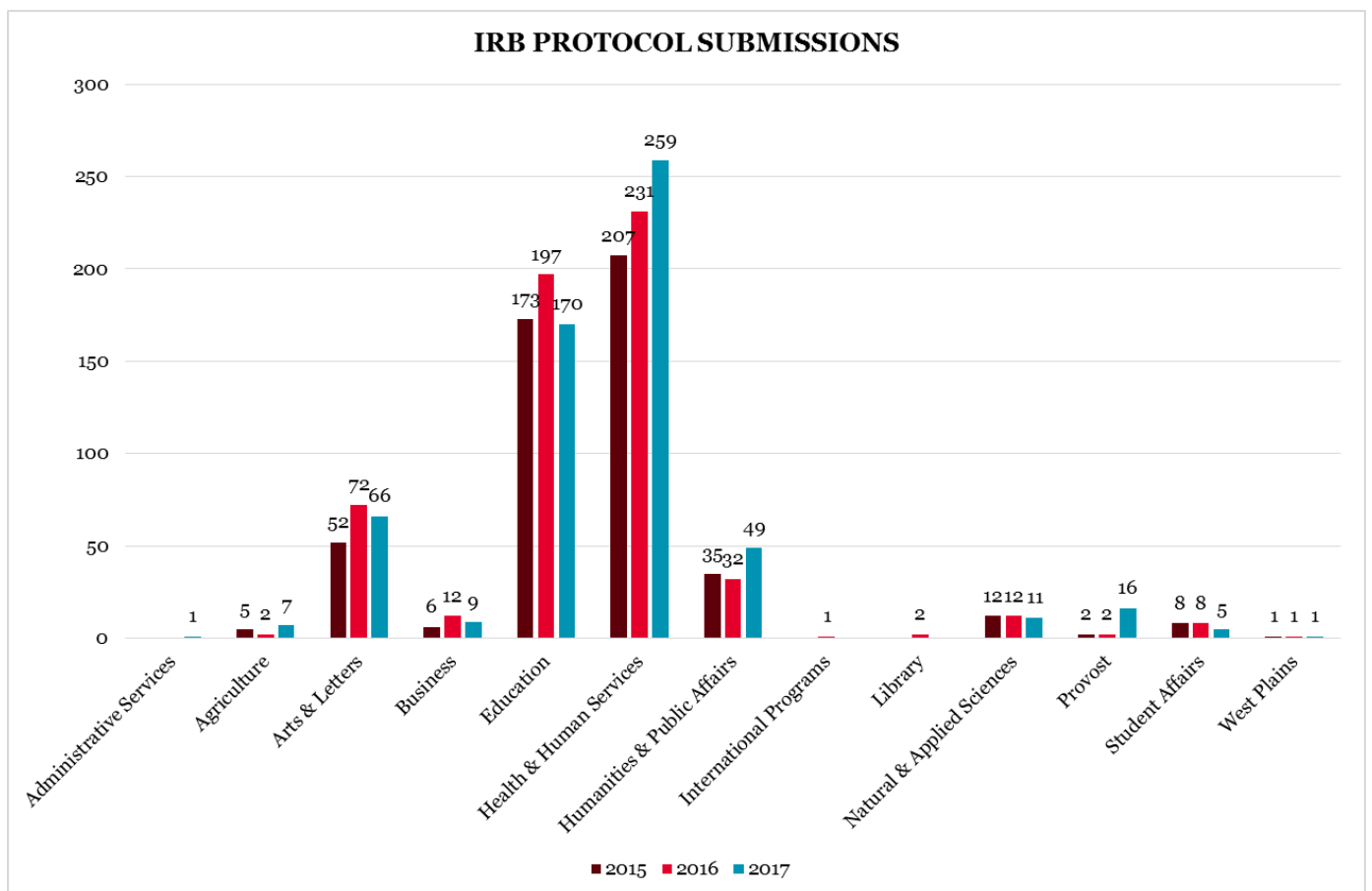
## FY2017 OFFICE OF RESEARCH ADMINISTRATION (ORA) HIGHLIGHTS

The ORA continues to support faculty and staff in their pursuit of external funding, in addition to considering ways to improve their support of faculty and staff. The ORA endeavored to increase the monetary support for travel in 2017 to send more faculty and staff to conferences focused on grant writing and grant getting, legislative visits, and meetings with federal and private agencies and program officers. During FY2017, faculty members were supported to attend the NSF Grants Conference, NIH Grants Conference, and NEH Regional Workshops. In addition, multiple investigators went to Washington DC to visit with legislators and programs officers, with help from the ORA. It is the intent of the ORA that these funds are a small investment for more proposals being submitted and hopefully funded in the future.

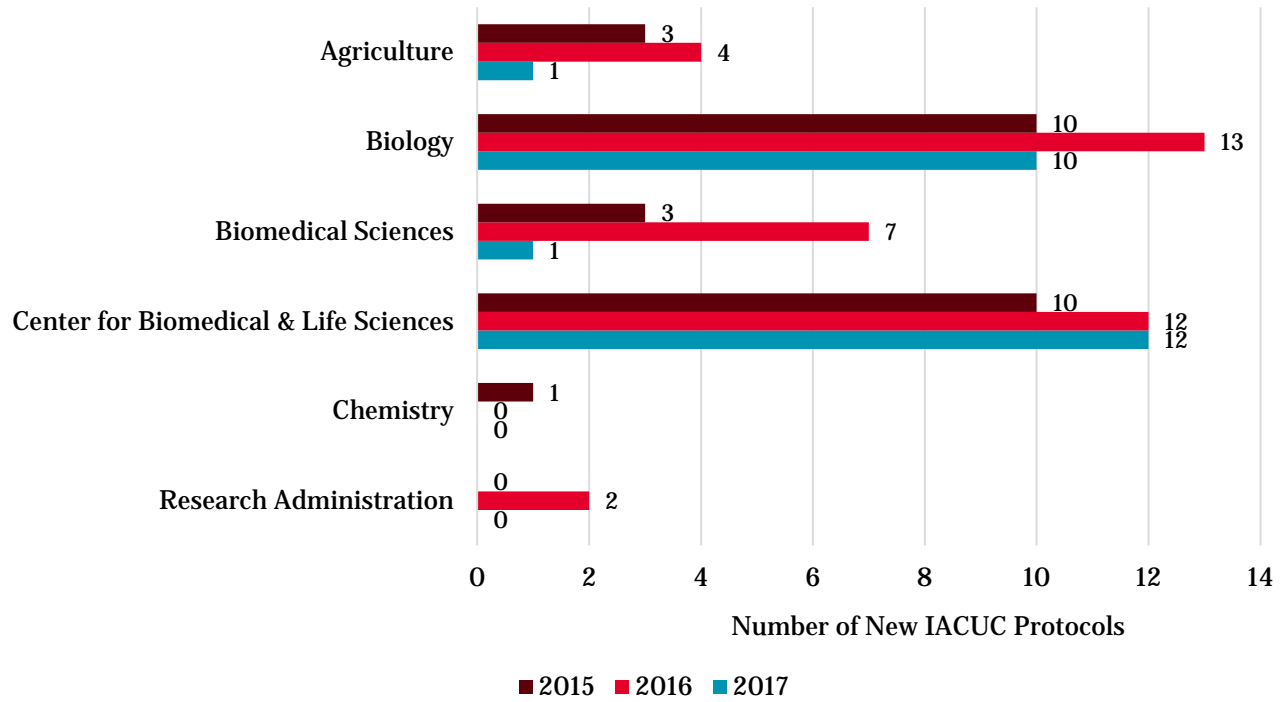
Starting in June 2016, the Graduate College and ORA initiated a pilot program to provide summer graduate assistantships (GAs) to assist faculty members with completing their research during the summer months. By providing an additional semester of support for GAs, more graduate students receive summer support and researchers can increase their research productivity which may allow for faster time to publications, data collection for grant proposals, and then grant proposal submissions and awards. This program was formalized during 2016/17 and was offered across all units for the summer of 2017. Three GAs were provided support for the summer of 2017.

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 FY2017, the IRB reviewed 594 applications and the IACUC reviewed 24 new applications. The following charts provide information on submissions that occurred in FY2017, in addition to the totals from FY2015 and FY2016, for comparison.



## IACUC PROTOCOL SUBMISSIONS



**MORE INFORMATION**

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[ora.missouristate.edu](http://ora.missouristate.edu)

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