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# RESEARCH CATALOG



OCTOBER 2016

## PREFACE

### FY 2016 RESEARCH CATALOG

The external resources identified in the *Research Catalog* are an indication of the national competitiveness of the universities in the state of Mississippi and of the quality research and sponsored programs they conduct. These resources provide essential funds to the state's public universities which strengthen the research, teaching, and service missions of the universities.

The *Research Catalog* is mandated by the State through the University Research Center Act of 1988 (§ 37-141-17). The publication lists the funding amounts by the sources of funding and by the university disciplines receiving the funding. It is designed for use by state policy makers, the educational community, economic developers, and the general public as a resource to:

1. Assist in developing strong legislative funding support for research,
2. Improve the regional, national, and international image of Mississippi universities as research institutions,
3. Encourage continued and expanded external funding support for state university research and sponsored programs, and
4. Enhance further development of technology transfer and practical applications of research which impact the state's economy.

The *Research Catalog* includes only external awards and non-appropriated state awards for research and sponsored programs. External funds for student financial aid are not included in the totals.

For more specific information about university research programs, contact the designated research official listed for each university. For additional information about the Research Catalog, contact:

Office of Strategic Research  
3825 Ridgewood Road  
Jackson, MS 39211  
Phone: (601) 432-6288  
[www.mississippi.edu/research](http://www.mississippi.edu/research)

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*Mississippi State University*

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# MISSISSIPPI INSTITUTIONS OF HIGHER LEARNING

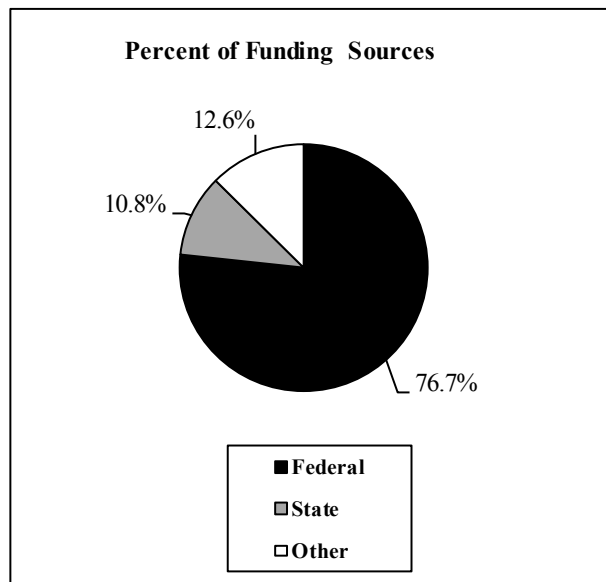
## FY 2016 Research Catalog - IHL System Summary

Dr. Glenn F. Boyce, Commissioner

Period Covered: July 1, 2015 - June 30, 2016

University	Federal	State	Private/ Corporate/Other	Total Funding Awarded
ASU	\$14,730,676	\$727,789	\$806,013	\$16,264,478
DSU	\$2,975,485	\$1,572,876	\$451,423	\$4,999,784
JSU	\$29,085,749	\$1,677,684	\$2,811,923	\$33,575,356
MSU	\$144,955,683	\$15,286,937	\$18,726,126	\$178,968,746
MUW*	\$120,000	\$4,495,000	\$244,180	\$4,859,180
MVSU	\$6,985,659	\$1,174,868	\$1,010,432	\$9,170,959
UM/UMMC	\$77,640,886	\$16,681,362	\$20,254,945	\$114,577,193
USM	\$47,167,787	\$3,765,068	\$8,664,813	\$59,597,668
<b>SYSTEM</b>	<b>\$323,661,925</b>	<b>\$45,381,583</b>	<b>\$52,969,855</b>	<b>\$422,013,364</b>

University	Total Research Projects Supported
ASU	53
DSU	49
JSU	107
MSU	1,351
MUW*	5
MVSU	27
UM/UMMC	605
USM	246
<b>SYSTEM</b>	<b>2,443</b>



\* MUW amount includes funds for the Mississippi School for Math and Science.

# MISSISSIPPI INSTITUTIONS OF HIGHER LEARNING

## System History - Research and Sponsored Programs

### Total External Funding Five-Year Comparison

<b>University</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
ASU	\$29,947,232	\$17,304,430	\$14,056,414	\$13,422,941	\$16,264,478
DSU	\$7,086,255	\$4,184,742	\$4,284,252	\$6,820,389	\$4,999,784
JSU	\$48,664,799	\$36,242,977	\$28,363,681	\$29,466,629	\$33,575,356
MSU	\$134,904,345	\$114,819,900	\$142,914,368	\$167,543,258	\$178,968,746
MUW*	\$6,469,649	\$5,304,013	\$5,564,315	\$5,716,500	\$4,859,180
MVSU	\$7,866,330	\$6,757,655	\$6,523,565	\$6,550,449	\$9,170,959
UM	\$109,859,507	\$106,072,897	\$139,266,227	\$114,139,830	\$114,577,193
USM	\$63,342,586	\$52,195,616	\$58,790,269	\$72,976,047	\$59,597,668
<b>SYSTEM</b>	<b>\$408,140,703</b>	<b>\$342,882,231</b>	<b>\$399,763,091</b>	<b>\$416,636,043</b>	<b>\$422,013,364</b>

### Percent Change in Total External Funding

<b>University</b>	<b>FY 2012 to FY 2013</b>	<b>FY 2013 to FY 2014</b>	<b>FY 2014 to FY 2015</b>	<b>FY 2015 to FY 2016</b>
ASU	-42.2%	-18.8%	-4.5%	21.2%
DSU	-40.9%	2.4%	59.2%	-26.7%
JSU	-25.5%	-21.7%	3.9%	13.9%
MSU	-14.9%	24.5%	17.2%	6.8%
MUW*	-18.0%	4.9%	2.7%	-15.0%
MVSU	-14.1%	-3.5%	0.4%	40.0%
UM	-3.4%	31.3%	-18.0%	0.4%
USM	-17.6%	12.6%	24.1%	-18.3%
<b>SYSTEM</b>	<b>-16.0%</b>	<b>16.6%</b>	<b>4.2%</b>	<b>1.3%</b>

### Percent Change in Total Projects Supported

<b>Fiscal Year</b>	<b># of Projects</b>	<b>% Change</b>
FY 2012	2,392	-5.5%
FY 2013	2,059	-13.9%
FY 2014	2,570	24.8%
FY 2015	2,456	-4.4%
FY 2016	2,443	-0.5%

\* MUW amount includes funds for the Mississippi School for Math and Science.

**FY 2016 Research and Sponsored Programs  
System Trend of Federal External Funding**

<b>Funding Source</b>	<b>2014 Total</b>	<b>2015 Total</b>	<b>2016 Total</b>	<b>2014-16 % Change</b>	<b>2015-16 % Change</b>
Appalachian Regional Commission	\$200,000	\$0	\$10,000	-95.0%	n/a
Corporation for National & Community Service	\$1,028,681	\$1,156,281	\$1,538,277	49.5%	33.0%
Corporation for Public Broadcasting	\$0	\$0	\$128,110	n/a	n/a
Defense Advanced Research Projects Agency	\$3,500	\$7,500	\$0	-100.0%	-100.0%
Delta Regional Authority	\$1,207,323	\$0	\$347,864	-71.2%	n/a
Embassy of the United States of America, Baghdad, Iraq	\$0	\$161,922	\$0	n/a	-100.0%
Engineering Research & Development Center	\$8,118,762	\$0	\$497,798	-93.9%	n/a
Federal Highway Administration	\$232,477	\$0	\$0	-100.0%	n/a
Federal Motor Carrier Safety Administration	\$344,110	\$0	\$0	-100.0%	n/a
Health Resource and Services Association	\$5,457,395	\$4,834,208	\$5,953,917	9.1%	23.2%
Institute of Museum and Library Sciences	\$0	\$0	\$82,251	n/a	n/a
Library of Congress	\$20,000	\$0	\$0	-100.0%	n/a
Missile Defense Agency	\$0	\$4,129	\$0	n/a	-100.0%
National Aeronautics and Space Administration	\$4,544,192	\$5,071,231	\$4,372,318	-3.8%	-13.8%
National Endowment for the Arts	\$68,391	\$46,893	\$51,700	-24.4%	10.3%
National Endowment for the Humanities	\$671,022	\$189,955	\$401,228	-40.2%	111.2%
National Highway Traffic Safety Administration	\$1,421,022	\$966,327	\$717,905	-49.5%	-25.7%
National Institute of Health	\$58,598,333	\$53,066,783	\$39,822,266	-32.0%	-25.0%
National Institute of Justice	\$0	\$843,376	\$0	n/a	-100.0%
National Institute for Occupational Safety & Health	\$0	\$67,455	\$0	n/a	-100.0%
National Library of Medicine	\$0	\$0	\$29,545	n/a	n/a
National Oceanic and Atmospheric Administration	\$0	\$0	\$190,281	n/a	n/a
National Science Foundation	\$22,117,810	\$21,295,910	\$23,735,994	7.3%	11.5%
National Security Agency	\$340,451	\$5,769,480	\$527,955	55.1%	-90.8%
NAVAIR SYSCOM	\$787,773	\$581,093	\$102,767	-87.0%	-82.3%
Nuclear Regulatory Commission	\$199,966	\$314,726	\$21,000	-89.5%	-93.3%
Office of Juvenile Justice and Delinquency Prevention	\$82,000	\$96,547	\$0	-100.0%	-100.0%
Office of Naval Research	\$66,000	\$1,033,998	\$0	-100.0%	-100.0%
Smithsonian Institution	\$0	\$0	\$4,000	n/a	n/a
Substance Abuse & Mental Health Services Administration	\$101,390	\$202,683	\$0	-100.0%	-100.0%
United Sorghum Checkoff Program	\$0	\$37,000	\$0	n/a	-100.0%
U.S. Agency for International Development	\$1,564,269	\$1,094,857	\$417,697	-73.3%	-61.8%
U.S. Army	\$0	\$565,468	\$8,526,817	n/a	1407.9%
U.S. Army Corps of Engineers	\$0	\$8,295,247	\$0	n/a	-100.0%
U.S. Department of Agriculture	\$53,283,422	\$66,761,680	\$75,846,394	42.3%	13.6%
U.S. Department of Commerce	\$14,989,734	\$17,169,938	\$15,356,854	2.4%	-10.6%
U.S. Department of Defense	\$21,275,847	\$16,094,973	\$23,780,225	11.8%	47.7%
U.S. Department of Education	\$27,614,041	\$34,109,070	\$34,182,190	23.8%	0.2%
U.S. Department of Energy	\$5,809,649	\$12,075,071	\$9,387,066	61.6%	-22.3%
U.S. Department of Health and Human Services	\$29,612,507	\$33,133,843	\$50,008,451	68.9%	50.9%
U.S. Department of Homeland Security	\$1,624,454	\$1,603,059	\$13,269,734	716.9%	727.8%
U.S. Department of Housing and Urban Development	\$11,761,009	\$1,485,198	\$1,035,031	-91.2%	-30.3%
U.S. Department of Interior	\$4,107,016	\$3,079,220	\$2,631,347	-35.9%	-14.5%
U.S. Department of Justice	\$165,278	\$215,405	\$1,920,757	1062.1%	791.7%
U.S. Department of Labor	\$1,557,870	\$4,696,867	\$880,000	-43.5%	-81.3%
U.S. Department of State	\$36,119	\$247,000	\$169,750	370.0%	-31.3%
U.S. Department of State Bureau of Educ. & Cult. Affairs	\$0	\$67,084	\$0	n/a	-100.0%
U.S. Department of Transportation	\$2,244,837	\$1,388,997	\$4,227,104	88.3%	204.3%
U.S. Department of the Treasury	\$0	\$0	\$22,150	n/a	n/a
U.S. Department of Veterans Affairs	\$240,987	\$85,500	\$66,813	-72.3%	-21.9%
U.S. Economic Development Administration	\$528,592	\$128,592	\$0	-100.0%	-100.0%
U.S. Environmental Protection Agency	\$669,973	\$1,059,387	\$765,958	14.3%	-27.7%
U.S. Food and Drug Administration	\$305,568	\$381,481	\$0	-100.0%	-100.0%
U.S. Geological Survey	\$0	\$0	\$394,197	n/a	n/a
U.S. Small Business Administration	\$1,276,419	\$2,115,842	\$2,146,213	68.1%	1.4%
United Negro College Fund	\$0	\$0	\$92,000	n/a	n/a
UT-Battelle	\$0	\$102,434	\$0	n/a	-100.0%
Vietnam Education Foundation	\$0	\$56,500	\$0	n/a	-100.0%
<b>Total</b>	<b>\$284,278,189</b>	<b>\$301,760,211</b>	<b>\$323,661,925</b>	<b>13.9%</b>	<b>7.3%</b>



**Summary of Federal External Funding by Funding Source  
in Descending Order of Totals by Source, FY 2016**

Funding Source	ASU	DSU	JSU	MSU	MUW	MVSU	UM/UMMC	USM	2016 Total
U.S. Department of Agriculture	\$9,265,812	\$250,000		\$55,346,546		\$0	\$9,425,888	\$1,558,148	\$75,846,394
U.S. Department of Health and Human Services	\$0	\$82,353	\$3,533,656	\$23,642,766	\$20,000	\$0	\$12,966,830	\$9,762,846	\$50,008,451
National Institutes of Health	\$0	\$0	\$2,259,202	\$5,290,921		\$0	\$32,272,143	\$0	\$39,822,266
U.S. Department of Education	\$4,668,093	\$208,537	\$12,156,897	\$7,428,902	\$90,000	\$5,259,215	\$415,245	\$3,955,301	\$34,182,190
U.S. Department of Defense	\$0	\$309,841	\$1,926,143	\$9,166,348	\$0	\$0	\$5,942,663	\$6,435,230	\$23,780,225
National Science Foundation	\$577,661	\$0	\$6,912,372	\$7,413,657	\$0	\$1,251,520	\$5,350,022	\$2,230,762	\$23,735,994
U.S. Department of Commerce	\$0	\$0	\$325,000	\$7,848,107	\$0	\$0	\$714,496	\$6,469,251	\$15,356,854
U.S. Department of Homeland Security	\$0	\$0	\$721,933	\$239,967	\$0	\$0	\$480,753	\$11,827,081	\$13,269,734
U.S. Department of Energy	\$0	\$0	\$87,500	\$7,152,690	\$0	\$0	\$1,911,513	\$235,363	\$9,387,066
U.S. Army	\$0	\$0	\$0	\$8,526,817	\$0	\$0	\$0	\$0	\$8,526,817
Health Resource and Services Administration	\$60,000	\$1,047,024	\$0	\$0	\$0	\$0	\$4,846,893	\$0	\$5,953,917
National Aeronautics and Space Administration	\$0	\$0	\$267,000	\$642,471	\$10,000	\$0	\$1,516,112	\$1,936,735	\$4,372,318
U.S. Department of Transportation	\$0	\$0	\$0	\$4,093,091	\$0	\$0	\$105,642	\$28,371	\$4,227,104
U.S. Department of Interior	\$0	\$72,000	\$0	\$1,690,113	\$0	\$300,000	\$164,500	\$404,734	\$2,631,347
U.S. Small Business Administration	\$0	\$0	\$273,150	\$386,082	\$0	\$0	\$1,039,536	\$447,445	\$2,146,213
U.S. Department of Justice	\$0	\$100,000	\$0	\$1,760,757	\$0	\$0	\$0	\$60,000	\$1,920,757
Corporation for National & Community Service	\$0	\$725,939	\$0	\$113,232	\$0	\$0	\$25,000	\$674,106	\$1,538,277
U.S. Department of Housing and Urban Development	\$0	\$0	\$0	\$20,668	\$0	\$0	\$0	\$1,014,363	\$1,035,031
U.S. Department of Labor	\$0	\$0	\$0	\$880,000	\$0	\$0	\$0	\$0	\$880,000
U.S. Environmental Protection Agency	\$0	\$0	\$399,070	\$366,888	\$0	\$0	\$0	\$0	\$765,958
National Highway Traffic Safety Administration	\$0	\$0	\$0	\$717,905	\$0	\$0	\$0	\$0	\$717,905
National Security Agency	\$0	\$0	\$0	\$527,955	\$0	\$0	\$0	\$0	\$527,955
Engineering Research & Development Center	\$0	\$0	\$0	\$497,798	\$0	\$0	\$0	\$0	\$497,798
U.S. Agency for International Development	\$0	\$0	\$0	\$417,697	\$0	\$0	\$0	\$0	\$417,697
National Endowment for the Humanities	\$0	\$179,791	\$0	\$1,890	\$0	\$0	\$205,897	\$13,650	\$401,228
U.S. Geological Survey	\$0	\$0	\$0	\$394,197	\$0	\$0	\$0	\$0	\$394,197
Delta Regional Authority	\$0	\$0	\$0	\$20,000	\$0	\$174,924	\$152,940	\$0	\$347,864
National Oceanic and Atmospheric Administration	\$0	\$0	\$190,281	\$0	\$0	\$0	\$0	\$0	\$190,281
U.S. Department of State	\$0	\$0	\$0	\$169,750	\$0	\$0	\$0	\$0	\$169,750
Corporation for Public Broadcasting	\$128,110	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$128,110
NAVAIR SYSCOM	\$0	\$0	\$0	\$102,767	\$0	\$0	\$0	\$0	\$102,767
United Negro College Fund	\$0	\$0	\$0	\$0	\$0	\$0	\$92,000	\$0	\$92,000
Institute of Museum and Library Sciences	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$82,251	\$82,251
U.S. Department of Veterans Affairs	\$0	\$0	\$0	\$54,000	\$0	\$0	\$12,813	\$0	\$66,813
National Endowment for the Arts	\$10,000	\$0	\$0	\$31,700	\$0	\$0	\$0	\$10,000	\$51,700
National Library of Medicine	\$0	\$0	\$29,545	\$0	\$0	\$0	\$0	\$0	\$29,545
U.S. Department of the Treasury	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$22,150	\$22,150
Nuclear Regulatory Commission	\$21,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$21,000
Appalachian Regional Commission	\$0	\$0	\$0	\$10,000	\$0	\$0	\$0	\$0	\$10,000
Smithsonian Institution	\$0	\$0	\$4,000	\$0	\$0	\$0	\$0	\$0	\$4,000
<b>Total</b>	<b>\$14,730,676</b>	<b>\$2,975,485</b>	<b>\$29,085,749</b>	<b>\$144,955,683</b>	<b>\$120,000</b>	<b>\$6,985,659</b>	<b>\$77,640,886</b>	<b>\$47,167,787</b>	<b>\$323,661,925</b>

**Alcorn State University**  
**Annual Report on Research and Sponsored Programs**  
**July 1, 2015 - June 30, 2016**

**Dr. Alfred Rankins, Jr., President**  
**Phone number: 601-877-6111**

**Mr. Ramesh Maddali, Chief Research Officer**  
**Phone number: 601-877-6123**

I. Funding Distribution - College/Division	Number of Projects	Amount
Office of Community Development	3	\$82,871
School of Agriculture, Research, Extension, and Applied Sciences	35	\$10,084,137
School of Arts and Sciences	5	\$387,667
School of Education and Psychology	3	\$716,989
School of General College of Excellence	3	\$648,311
School of Nursing	2	\$314,000
Title III Strengthening Institutional Programs	2	\$4,030,503
<b>TOTAL</b>	<b>53</b>	<b>\$16,264,478</b>
II. Funding Sources		
FEDERAL External Funding by Agency/Department		
Corporation for Public Broadcasting	1	\$128,110
Health Resource and Services Administration	1	\$60,000
National Endowment for the Arts	1	\$10,000
National Science Foundation	3	\$577,661
Nuclear Regulatory Commission	1	\$21,000
U.S. Department of Agriculture	26	\$9,265,812
U.S. Department of Education	3	\$4,668,093
<b>TOTAL Federal Sources</b>	<b>36</b>	<b>\$14,730,676</b>
STATE, PRIVATE, CORPORATE, OTHER External Funding by		
State Funding [other than general appropriation]	0	\$0
State of Mississippi Agencies	9	\$717,789
Private/Corporate Business and Industry	0	\$0
Foundations and Non-Profit Groups	4	\$614,000
Other State Governments	0	\$0
Other In-State Universities	1	\$10,000
Other Out-of-State Universities	3	\$192,013
Local Governments	0	\$0
Foreign Governments & Organizations	0	\$0
Other [all other sources not listed above]	0	\$0
<b>TOTAL STATE, PRIVATE, CORPORATE, and OTHER Sources</b>	<b>17</b>	<b>\$1,533,802</b>
<b>GRAND TOTAL of ALL EXTERNAL FUNDING</b>	<b>53</b>	<b>\$16,264,478</b>

**Delta State University**  
**Annual Report on Research and Sponsored Programs**  
**July 1, 2015 - June 30, 2016**

**Dr. William N. LaForge, President**  
**Phone number: 662-846-4000**

**Ms. Robin Boyles, Chief Research Officer**  
**Phone number: 662-846-4804**

I. Funding Distribution - College/Division	Number of Projects	Amount
Archives and Museums	1	\$500
Bologna Performing Arts Center	7	\$34,001
Center for Community and Economic Development	6	\$955,392
Coahoma County Higher Education Center	1	\$2,500
College of Arts and Sciences	12	\$642,983
College of Business	3	\$282,124
College of Education and Human Sciences	8	\$2,043,590
Delta Center for Culture and Learning	3	\$252,791
Office of Academic Affairs	1	\$3,500
Robert E. Smith School of Nursing	4	\$723,196
Student Success Center	1	\$52,208
Winning the Race Conference	2	\$7,000
<b>TOTAL</b>	<b>49</b>	<b>\$4,999,784</b>

**II. Funding Sources:**

FEDERAL External Funding by Agency/Department		
Corporation for National & Community Service	2	\$725,939
Health Resource and Services Administration	4	\$1,047,024
National Endowment for the Humanities	1	\$179,791
U.S. Department of Agriculture	1	\$250,000
U.S. Department of Defense	1	\$309,841
U.S. Department of Education	1	\$208,537
U.S. Department of Health and Human Services	1	\$82,353
U.S. Department of Interior	1	\$72,000
U.S. Department of Justice	1	\$100,000
<b>TOTAL Federal Sources</b>	<b>13</b>	<b>\$2,975,485</b>

STATE, PRIVATE, CORPORATE, OTHER External Funding by

State Funding [other than general appropriation]	0	\$0
State of Mississippi Agencies	11	\$1,432,784
Private/Corporate Business and Industry	0	\$0
Foundations and Non-Profit Groups	21	\$451,423
Other State Governments	0	\$0
Other In-State Universities	4	\$140,092
Other Out-of-State Universities	0	\$0
Local Governments	0	\$0
Foreign Governments & Organizations	0	\$0
Other [all other sources not listed above]	0	\$0
<b>TOTAL STATE, PRIVATE, CORPORATE, and OTHER Sources</b>	<b>36</b>	<b>\$2,024,299</b>

<b>GRAND TOTAL of ALL EXTERNAL FUNDING</b>	<b>49</b>	<b>\$4,999,784</b>
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**Jackson State University**  
**Annual Report on Research and Sponsored Programs**  
**July 1, 2014 - June 30, 2016**

**Dr. Carolyn W. Meyers, President**  
**Phone number: 601-979-2323**

**Dr. Loretta A. Moore, Vice President for Research and Federal Relations**  
**Phone number: 601-979-2931**

I. Funding Distribution - College/Division	Number of Projects	Amount
College of Business	3	\$376,950
College of Education & Human Development	13	\$1,367,798
College of Liberal Arts	4	\$116,740
College of Public Service	4	\$132,233
College of Science, Engineering & Technology	58	\$13,815,296
Division of Academic Affairs	4	\$1,450,572
Division of Information Technology	1	\$1,500,000
Division of Institutional Advancement	2	\$336,690
Division of Research and Federal Relations	2	\$749,273
Office of the President	3	\$1,948,122
School of Journalism and Media Studies	1	\$127,621
School of Public Health	9	\$3,026,407
Title III Strengthening Institutional Programs	3	\$8,627,654
<b>TOTAL</b>	<b>107</b>	<b>\$33,575,356</b>

II. Funding Sources		
FEDERAL External Funding by Agency/Department		
National Aeronautics and Space Administration	3	\$267,000
National Institutes of Health	2	\$2,259,202
National Library of Medicine	1	\$29,545
National Oceanic and Atmospheric Administration	1	\$190,281
National Science Foundation	18	\$6,912,372
Smithsonian Institution	1	\$4,000
U.S. Department of Commerce	2	\$325,000
U.S. Department of Defense	5	\$1,926,143
U.S. Department of Education	7	\$12,156,897
U.S. Department of Energy	1	\$87,500
U.S. Department of Health and Human Services	12	\$3,533,656
U.S. Department of Homeland Security	3	\$721,933
U.S. Environmental Protection Agency	1	\$399,070
U.S. Small Business Administration	1	\$273,150
<b>TOTAL Federal Sources</b>	<b>58</b>	<b>\$29,085,749</b>

STATE, PRIVATE, CORPORATE, OTHER External Funding by		
State Funding [other than general appropriation]	0	\$0
State of Mississippi Agencies	23	\$1,677,684
Private/Corporate Business and Industry	26	\$2,811,923
Foundations and Non-Profit Groups	0	\$0
Other State Governments	0	\$0
Other In-State Universities	0	\$0
Other Out-of-State Universities	0	\$0
Local Governments	0	\$0
Foreign Governments & Organizations	0	\$0
Other [all other sources not listed above]	0	\$0
<b>TOTAL STATE, PRIVATE, CORPORATE, and OTHER Sources</b>	<b>49</b>	<b>\$4,489,607</b>

<b>GRAND TOTAL of ALL EXTERNAL FUNDING</b>	<b>107</b>	<b>\$33,575,356</b>
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**Mississippi State University**  
**Annual Report on Research and Sponsored Programs**  
**July 1, 2015 - June 30, 2016**

**Dr. Mark E. Keenum, President**  
**Phone number: 662-325-3221**

**Dr. David Shaw, Vice President for Research and Economic Development**  
**Phone number: 662-325-3570**

I. Funding Distribution - College/Division	Number of Projects	Amount
Bagley College of Engineering	153	\$25,627,402
College of Architecture, Art, and Design	17	\$441,195
College of Arts and Sciences	63	\$4,783,592
College of Business	7	\$529,671
College of Education	106	\$9,415,924
College of Forest Resources/Forest Wildlife Research Center	147	\$9,379,558
College of Veterinary Medicine	49	\$4,643,705
Division of Student Affairs	16	\$1,240,744
Mitchell Memorial Library	1	\$3,700
MS Agricultural and Forestry Experiment Station / CALS	353	\$24,754,164
MS State University Extension Service	234	\$47,485,395
Office of Graduate Studies	1	\$63,503
University Branch Campus (Meridian)	3	\$167,000
University Centers and Institutes	193	\$47,444,589
Vice President for Research and Economic Development	7	\$1,432,537
Vice President for Campus Services	1	\$1,556,066
<b>TOTAL</b>	<b>1,351</b>	<b>\$178,968,746</b>

II. Funding Sources		
FEDERAL External Funding by Agency/Department		
Appalachian Regional Commission (ARC)	1	\$10,000
Corporation for National & Community Service	3	\$113,232
Delta Regional Authority	1	\$20,000
Engineering Research & Development Center (ERDC)	1	\$497,798
National Aeronautics and Space Administration	19	\$642,471
National Endowment for the Arts	3	\$31,700
National Endowment for the Humanities	1	\$1,890
National Highway Traffic Safety Administration	3	\$717,905
National Institutes of Health	25	\$5,290,921
National Science Foundation	37	\$7,413,657
National Security Agency	7	\$527,955
NAVAIR SYSCOM	2	\$102,767
U.S. Agency for International Development	4	\$417,697
U.S. Army	31	\$8,526,817
U.S. Department of Agriculture	206	\$55,346,546
U.S. Department of Commerce	57	\$7,848,107
U.S. Department of Defense	41	\$9,166,348
U.S. Department of Education	82	\$7,428,902
U.S. Department of Energy	20	\$7,152,690
U.S. Department of Health and Human Services	41	\$23,642,766
U.S. Department of Homeland Security	4	\$239,967
U.S. Department of Housing and Urban Development	4	\$20,668
U.S. Department of Interior	29	\$1,690,113
U.S. Department of Justice	4	\$1,760,757
U.S. Department of Labor	3	\$880,000
U.S. Department of State	1	\$169,750
U.S. Department of Transportation	19	\$4,093,091
U.S. Department of Veterans Affairs	4	\$54,000
U.S. Environmental Protection Agency	6	\$366,888

**Mississippi State University  
Annual Report on Research and Sponsored Programs  
July 1, 2015 - June 30, 2016**

**Dr. Mark E. Keenum, President  
Phone number: 662-325-3221**

**Dr. David Shaw, Vice President for Research and Economic Development  
Phone number: 662-325-3570**

II. Funding Sources	Number of Projects	Amount
FEDERAL External Funding by Agency/Department Continued		
U.S. Geological Survey	9	\$394,197
<u>U.S. Small Business Administration</u>	<u>5</u>	<u>\$386,082</u>
TOTAL Federal Sources	673	\$144,955,683
STATE, PRIVATE, CORPORATE, OTHER External Funding by		
State Funding [other than general appropriation]	0	\$0
State of Mississippi Agencies	59	\$15,050,723
Private/Corporate Business and Industry	402	\$9,325,459
Foundations and Non-Profit Groups	188	\$8,734,083
Other State Governments	2	\$218,418
Other In-State Universities	2	\$10,825
Other Out-of-State Universities	3	\$168,241
Local Governments	12	\$225,389
Foreign Governments & Organizations	10	\$279,926
<u>Other [all other sources not listed above]</u>	<u>0</u>	<u>\$0</u>
TOTAL STATE, PRIVATE, CORPORATE, and OTHER Sources	678	\$34,013,063
<b>GRAND TOTAL of ALL EXTERNAL FUNDING</b>	<b>1,351</b>	<b>\$178,968,746</b>

**Mississippi University for Women  
Annual Report on Research and Sponsored Programs  
July 1, 2015 - June 30, 2016**

**Dr. Jim Borsig, President  
Phone number 662-329-7100**

**Dr. Thomas C. Richardson, Provost & Vice President for Academic Affairs  
Phone number: 662-329-7142**

I. Funding Distribution - College/Division	Number of Projects	Amount
Academic Support*	1	\$4,495,000
Center for Outreach and Innovation	1	\$244,180
College of Arts and Sciences	1	\$10,000
College of Education and Human Sciences	1	\$90,000
College of Nursing & Speech-Language Pathology	1	\$20,000
*Includes total for Mississippi School for Math and Science		\$4,495,000
<b>TOTAL</b>	<b>5</b>	<b>\$4,859,180</b>

II. Funding Sources		
FEDERAL External Funding by Agency/Department		
National Aeronautics and Space Administration	1	\$10,000
U.S. Department of Education	1	\$90,000
U.S. Department of Health and Human Services	1	\$20,000
<b>TOTAL Federal Sources</b>	<b>3</b>	<b>\$120,000</b>
STATE, PRIVATE, CORPORATE, OTHER External Funding by		
State Funding [other than general appropriation]	1	\$4,495,000
State of Mississippi Agencies	0	\$0
Private/Corporate Business and Industry	0	\$0
Foundations and Non-Profit Groups	1	\$244,180
Other State Governments	0	\$0
Other In-State Universities	0	\$0
Other Out-of-State Universities	0	\$0
Local Governments	0	\$0
Foreign Governments & Organizations	0	\$0
Other [all other sources not listed above]	0	\$0
<b>TOTAL STATE, PRIVATE, CORPORATE, and OTHER Sources</b>	<b>2</b>	<b>\$4,739,180</b>
<b>GRAND TOTAL of ALL EXTERNAL FUNDING</b>	<b>5</b>	<b>\$4,859,180</b>

**Mississippi Valley State University  
Annual Report on Research and Sponsored Programs  
July 1, 2015 - June 30, 2016**

**Dr. William B. Bynum, Jr., President  
Phone Number: 662-254-3425**

**Mr. Samuel Melton, Jr., Chief Research Officer  
Phone Number: 662-254-3882**

I. Funding Distribution - College/Division	Number of Projects	Amount
Athletics Administration	1	\$300,000
Department of Business Administration	1	\$174,924
Department of Distance Education	1	\$475,000
Department of Engineering Technology	1	\$389,388
Department of English and Foreign Languages	1	\$10,000
Department of Mathematics and Computer Information Sciences	3	\$1,261,520
Department of Natural Sciences and Environmental Health	2	\$141,000
Department of Teacher Education	3	\$507,996
Division of Student Affairs	7	\$1,668,802
Division of University Advancement	2	\$60,544
Office of the Chief Operating Officer	3	\$730,731
Title III Strengthening Institutions Program	2	\$3,451,054
<b>TOTAL</b>	<b>27</b>	<b>\$9,170,959</b>
II. Funding Sources		
FEDERAL External Funding by Agency/Department		
Delta Regional Authority	1	\$174,924
National Science Foundation	2	\$1,251,520
U.S. Department of Education	6	\$5,259,215
U.S. Department of Justice	1	\$300,000
<b>TOTAL Federal Sources</b>	<b>10</b>	<b>\$6,985,659</b>
STATE, PRIVATE, CORPORATE, OTHER External Funding by		
State Funding [other than general appropriation]	0	\$0
State of Mississippi Agencies	5	\$1,107,768
Private/Corporate Business and Industry	1	\$145,500
Foundations and Non-Profit Groups	6	\$465,544
Other State Governments	0	\$0
Other In-State Universities	3	\$67,100
Other Out-of-State Universities	2	\$399,388
Local Governments	0	\$0
Foreign Governments & Organizations	0	\$0
Other [all other sources not listed above]	0	\$0
<b>TOTAL STATE, PRIVATE, CORPORATE, and OTHER Sources</b>	<b>17</b>	<b>\$2,185,300</b>
<b>GRAND TOTAL of ALL EXTERNAL FUNDING</b>	<b>27</b>	<b>\$9,170,959</b>



**University of Mississippi  
Annual Report on Research and Sponsored Programs  
July 1, 2015 - June 30, 2016**

**Dr. Jeffrey S. Vitter, Chancellor  
Phone number: 662-915-1100**

**Dr. Joseph R. Gladden, Interim Vice Chancellor for Research  
Phone number: 662-915-7583**

**Dr. LouAnn H. Woodward, Vice Chancellor for Health Affairs  
Phone number: 601-984-1058**

**Dr. Richard Summers, Associate Vice Chancellor for Research  
Phone number: 601-815-5000**

I. Funding Distribution - College/Division	Number of Projects	Amount
A. Oxford Campus		
Barksdale Reading Institute	2	\$6,000,000
College of Liberal Arts	83	\$8,554,077
Division of Outreach and Continuing Education	6	\$181,852
Honors College	2	\$32,300
Office of the Chancellor	1	\$252,001
Office of Information Technology	1	\$60,000
Office of the Provost	3	\$55,628
Office of the Vice Chancellor for Research	45	\$6,223,359
Office of the Vice Chancellor for Student Affairs	4	\$334,200
School of Applied Sciences	17	\$8,361,216
School of Business Administration	3	\$1,053,536
School of Education	28	\$7,465,586
School of Engineering	30	\$1,701,203
School of Journalism and New Media	1	\$9,422
School of Law	9	\$646,579
<u>School of Pharmacy</u>	<u>63</u>	<u>\$14,057,260</u>
Total Oxford	298	\$54,988,219
B. Medical Center		
Grenada Medical Center	2	\$155,800
Office of the Vice Chancellor for Health Affairs	1	\$315,080
School of Dentistry	5	\$806,946
School of Medicine	289	\$56,458,935
School of Nursing	6	\$1,338,140
University Research	1	\$147,376
<u>UMMC Hospital Administration</u>	<u>3</u>	<u>\$366,697</u>
Total Medical Center	307	\$59,588,974
<b>TOTAL (UM + UMMC)</b>	<b>605</b>	<b>\$114,577,193</b>

**University of Mississippi**  
**Annual Report on Research and Sponsored Programs**  
**July 1, 2015 - June 30, 2016**

**Dr. Jeffrey S. Vitter, Chancellor**  
**Phone number: 662-915-1100**

**Dr. Joseph R. Gladden, Interim Vice Chancellor for Research**  
**Phone number: 662-915-7583**

**Dr. LouAnn H. Woodward, Vice Chancellor for Health Affairs**  
**Phone number: 601-984-1058**

**Dr. Richard Summers, Associate Vice Chancellor for Research**  
**Phone number: 601-815-5000**

II. Funding Sources	Number of Projects	Amount
FEDERAL External Funding by Agency/Department		
Corporation for National & Community Service	1	\$25,000
Delta Regional Authority	1	\$152,940
Health Resource and Services Administration	32	\$4,846,893
National Aeronautics and Space Administration	9	\$1,516,112
National Endowment for the Humanities	2	\$205,897
National Institutes of Health	130	\$32,272,143
National Science Foundation	14	\$5,350,022
U.S. Department of Agriculture	11	\$9,425,888
U.S. Department of Commerce	4	\$714,496
U.S. Department of Defense	23	\$5,942,663
U.S. Department of Education	4	\$415,245
U.S. Department of Energy	8	\$1,911,513
U.S. Department of Health and Human Services	39	\$12,966,830
U.S. Department of Homeland Security	2	\$480,753
U.S. Department of Interior	2	\$164,500
U.S. Department of Transportation	1	\$105,642
U.S. Department of Veterans Affairs	1	\$12,813
U.S. Small Business Administration	2	\$1,039,536
<u>United Negro College Fund</u>	<u>1</u>	<u>\$92,000</u>
TOTAL Federal Sources	287	\$77,640,886
STATE, PRIVATE, CORPORATE, OTHER External Funding by		
State Funding [other than general appropriation]	0	\$0
State of Mississippi Agencies	84	\$16,679,862
Private/Corporate Business and Industry	98	\$8,891,773
Foundations and Non-Profit Groups	107	\$9,984,446
Other State Governments	3	\$111,294
Other In-State Universities	0	\$0
Other Out-of-State Universities	23	\$1,148,036
Local Governments	1	\$1,500
Foreign Governments & Organizations	2	\$119,396
<u>Other [all other sources not listed above]</u>	<u>0</u>	<u>\$0</u>
TOTAL STATE, PRIVATE, CORPORATE, and OTHER Sources	318	\$36,936,307
<b>GRAND TOTAL of ALL EXTERNAL FUNDING</b>	<b>605</b>	<b>\$114,577,193</b>

**University of Southern Mississippi**  
**Annual Report on Research and Sponsored Programs**  
**July 1, 2015 - June 30, 2016**

**Dr. Rodney D. Bennett, President**  
**Phone number: 601-266-5001**

**Dr. Gordon Cannon, Chief Research Officer**  
**Phone number: 601-266-5116**

	Number of Projects	Amount
I. Funding Distribution - College/Division		
College of Arts and Letters	9	\$469,084
College of Business	3	\$3,665,208
College of Education and Psychology	37	\$1,736,286
College of Health	27	\$6,979,908
College of Nursing	2	\$1,811,787
College of Science and Technology	115	\$22,620,987
Office of Student Affairs	6	\$1,107,894
Office of the Provost	3	\$267,837
Office of the Vice President for Administrative Affairs	2	\$11,129,088
Office of the Vice President for External Affairs	2	\$48,371
Office of the Vice President for Research	40	\$9,761,218
<b>Total</b>	<b>246</b>	<b>\$59,597,668</b>
II. Funding Sources		
Federal Funding Source		
Corporation for National & Community Service	3	\$674,106
Institute of Museum and Library Sciences	1	\$82,251
National Aeronautics and Space Administration	10	\$1,936,735
National Endowment for the Arts	1	\$10,000
National Endowment for the Humanities	5	\$13,650
National Science Foundation	18	\$2,230,762
U.S. Department of Agriculture	6	\$1,558,148
U.S. Department of Commerce	20	\$6,469,251
U.S. Department of Defense	12	\$6,435,230
U.S. Department of Education	17	\$3,955,301
U.S. Department of Energy	2	\$235,363
U.S. Department of Health and Human Services	20	\$9,762,846
U.S. Department of Homeland Security	4	\$11,827,081
U.S. Department of Housing and Urban Development	4	\$1,014,363
U.S. Department of Interior	4	\$404,734
U.S. Department of Justice	1	\$60,000
U.S. Department of Transportation	1	\$28,371
U.S. Department of the Treasury	0	\$22,150
U.S. Small Business Administration	3	\$447,445
<b>TOTAL Federal Sources</b>	<b>132</b>	<b>\$47,167,787</b>
STATE, PRIVATE, CORPORATE, OTHER External Funding by		
State Funding [other than general appropriation]	0	\$0
State of Mississippi Agencies	47	\$3,765,068
Private/Corporate Business and Industry	16	\$5,823,134
Foundations and Non-Profit Groups	47	\$2,596,714
Other State Governments	0	\$0
Other In-State Universities	0	\$0
Other Out-of-State Universities	1	\$10,000
Local Governments	0	\$0
Foreign Governments & Organizations	3	\$234,965
Other [all other sources not listed above]	0	\$0
<b>TOTAL STATE, PRIVATE, CORPORATE, and OTHER Sources</b>	<b>114</b>	<b>\$12,429,881</b>
<b>GRAND TOTAL of ALL EXTERNAL FUNDING</b>	<b>246</b>	<b>\$59,597,668</b>

## University Research Groups

## **Mississippi University Research Authority (MURA)**

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The primary role of the Mississippi University Research Authority (MURA), which was authorized in 1992 through the Mississippi University Research Authority Act, is to promote the public welfare and prosperity of the people of Mississippi and to foster economic development within the state by forging links among the state's educational institutions, businesses and industrial communities, and state government through the development of cooperative ventures of innovative technological significance which will advance education, research, or economic development within the state. These ventures facilitate the commercialization of technologies developed or discovered in campus environments and enhance the economic development of the state through such commercialization. Before the MURA Act was passed, the ethics laws of Mississippi effectively prohibited university faculty from commercializing their research. These laws were established to prohibit public servants from engaging in activities which would be in conflict with their public positions. Although the ethics laws were directed toward public officials, the language in the laws is such that attempts to commercialize technology by faculty members of a university could be construed as a violation of the laws.

MURA membership is composed of the University Research Vice-Presidents from the three comprehensive public universities and from the urban public university, a representative from the Mississippi Development Authority, the president of the Mississippi Resource Development Corporation, the president of the Mississippi Education Research Group (MERG), and the Vice President of the Board of Trustees of State Institutions of Higher Learning. The Commissioner of Higher Education serves as an ex officio member. The Executive Director is selected by the MURA membership.

MURA was established in such a way that there is an extensive review process for any proposal for technology transfer or commercialization. The process is initiated with the Chief Research Officer of the affected university. The proposal is then recommended to the Institutional Executive Officer, who must certify that there is no conflict with the university and that the participation of the faculty member in the commercialization of the technology will not bring harm to the university or to the economic development of the state. The Institutional Executive Officer then recommends that the proposal be reviewed by the MURA Board, which objectively assesses the nature of the proposed commercialization. This process of full disclosure and evaluation first by the university and then by the MURA Board serves to assure that each proposal is of economic interest to the state and is not in conflict with the interests or commitments of the state, the university, or the faculty member(s).

MURA enables faculty members who conceive of new technologies to copyright and/or patent their discoveries, to participate in the development of the technologies, and to realize some commercial benefit. It allows individuals who have developed or discovered new technologies through campus-based research to be a part of new, spin-off businesses in Mississippi, rather than being forced to channel their discoveries through agencies and businesses outside Mississippi, thus allowing the state to realize the economic benefits of the commercialization. The impact from research at the universities, particularly when commercialization occurs, can be far reaching and long-term. The MURA process for facilitating technology transfer and commercialization holds tremendous future possibilities for the state of Mississippi.

## Mississippi Research Consortium (MRC)

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The Mississippi Research Consortium aims to develop and sustain nationally competitive research programs in the state of Mississippi. Alongside supporting basic and applied research, the consortium has several additional goals: first, to increase public awareness of science, engineering, and mathematics at all educational levels in order to develop a scientifically literate citizenry who can fuel the science and engineering industry in Mississippi with the state's own human resources; second, to establish and maintain a solid scientific infrastructure in our university system by developing equipment and facility resources, collaboration resources, private sector links, and federal laboratory partnerships; and third, to expand the state's economic opportunities through technology and knowledge transfer activities, including greater commercialization, increased technical assistance, and the education of a workforce that can support technology-based industries.

Formed in 1986, the Mississippi Research Consortium (MRC) includes Mississippi's four research universities: Jackson State University, Mississippi State University, the University of Mississippi, and the University of Southern Mississippi. The MRC's Board of Directors is made up of the Chief Research Officers from these institutions. The board serves as the Science and Technology Research Advisors to both the Governor and the Legislature and holds the responsibility of integrating science and technology initiatives with economic development plans in Mississippi. The creation of the Mississippi Universities Research Authority (MURA) Act of 1992 was the product of the Mississippi Research Consortium Technology Transfer Task Force's collaboration with the Board of Trustees of State Institutions of Higher Learning.

## Mississippi Education and Research Group (MERG)

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The Mississippi Education and Research Group (MERG) was established in 1990 with representation from each of the eight public universities in the state. The primary goals of MERG are to promote collaboration, resource sharing, and communication concerning education and research matters that have an impact on all of the public universities. The result of these efforts is that opportunities which would have been outside the budgetary capabilities of an individual university are made available to the universities through MERG.

The conception of and the need for the establishment of MERG originated in the Mississippi Research Consortium (MRC), comprised of the Chief Research Officers of the four research universities (Jackson State University, Mississippi State University, the University of Mississippi, and the University of Southern Mississippi). The MRC had successfully promoted collaborative research and collaborative funding among themselves. However, MRC realized that Mississippi would best be served if a separate organization was created for the coordination of statewide projects. Additionally, this new organization provided a vehicle for sharing the research and education expertise of the research universities with the four other universities (Alcorn State University, Delta State University, Mississippi University for Women, and Mississippi Valley State University).

MERG was initially involved with two projects, the Mississippi Alliance for Minority Participation (MAMP) and the Rural Science Initiative (RSI). However, many new and important outcomes have evolved from the activities of MERG. The accomplishments and initiatives of MERG may best be reviewed in three broad categories: (1) Educational Efforts, (2) Research Efforts, and (3) Administrative and Legal Consulting.

Educational Efforts: MERG served as the coordinating agent for the development of the Mississippi Alliance for Minority Participation, a major grant from the National Science Foundation which provides financial and academic support to under-represented minorities wishing to pursue careers in science, engineering, and mathematics. MERG members worked from a nuclear concept, developing plans for each of the universities and continuing as the primary coordinating group in the oversight of changes and new directions throughout the program's implementation. MERG has also served in the coordinating role for the successful Rural Science Initiative Grant, which supports public school education in Mississippi, Louisiana, and Arkansas, and has developed a proposal for science-humanities initiatives in undergraduate teaching.

Research Efforts: The MRC developed and received major research funding under the Experiential Program to Stimulate Competitive Research (EPSCoR) programs, designed to advance the research capabilities of universities in selected states. Numerous collaborative research projects have resulted among the research universities. MERG has served as a means of disseminating related research opportunities to the regional universities and of sharing both human resources and research facilities among all eight public universities. MERG has also made contacts with the National Science Foundation about developing proposals to support the use of the Internet as a research resource and for research discussion groups.

Administrative and Legal Consulting: Through MERG, the research universities, which have major grants and development offices, have been able to provide assistance to the regional universities concerning grant proposals, rapidly changing federal regulations, and sources of funding.