

Federal Research Investment from NSF: MISSOURI

About NSF

As the federal agency charged with the advancement of scientific progress across all of the fields of science and engineering, the National Science Foundation (NSF) is the cornerstone of America's basic scientific research enterprise. NSF's seven directorates fund research in diverse disciplines as well as interdisciplinary, cross-cutting initiatives. Support for education research comes primarily from the Education and Human Resources Directorate and also from the Social, Behavioral and Economic Sciences Directorate.

Examples of NSF-funded Education Research in Missouri

- From Elementary Generalist to Mathematics Specialist:** University of Missouri researchers are investigating student mathematics learning outcomes at the elementary level in relation to teacher expertise and school organization. Findings will provide evidence of the impact of content-specific teacher expertise and a departmentalized school organizational model that offers students access to well-qualified teachers of mathematics with no additional staffing costs. Research findings will also provide evidence on the impact of both certification as an elementary mathematics specialist and teaching in a departmental assignment on student learning. The results will help school and district leaders better plan for assignment of staff to provide all students with access to high quality mathematics instruction.
- The Development of Quantitative Competencies in Preschool Children:** This five-year longitudinal study at the University of Missouri is designed to examine early foundations of formal mathematical learning from preschool through first grade. The goal of this project is to improve the field's understanding of the development of early numeracy development in young children and its relation to school mathematics outcomes. The project aims to shed light on how domain general executive functions, nonverbal intelligence, and verbal intelligence interact with quantitative knowledge to lead to math achievement at the end of kindergarten.



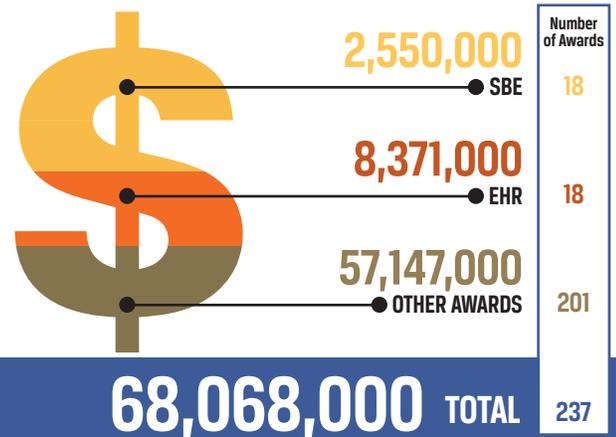
Top 5 NSF-funded Universities in Missouri

1. University of Missouri-Columbia (\$26,038,000)
2. Washington University (\$18,745,000)
3. Missouri University of Science and Technology (\$6,249,000)
4. Saint Louis University (\$2,642,000)
5. University of Missouri-Kansas City (\$1,401,000)

NSF in Missouri

- Missouri received 237 awards in FY 2017.
- Missouri ranks 25th overall in NSF funding.
- Missouri received 1% of the total NSF award budget in 2017.

Missouri Funding



Federal Research Investment from IES: **MISSOURI**

About IES

The Institute of Education Sciences (IES) is the federal research agency within the U.S. Department of Education that builds knowledge and informs understanding of education from early childhood through postsecondary to adult workforce.

Research, statistics, and evaluations funded by IES provide policymakers and practitioners with reliable information on the condition and progress of education, educational practices that support learning and improve academic achievement, and the effectiveness of education programs.

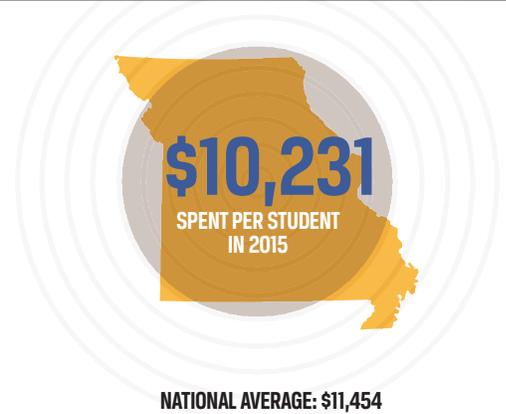
IES Resources for Schools and Educators in Missouri

- The Missouri Comprehensive Data System is being used to track progress of the “Top 10 by 20” initiative, with the goal for Missouri to rank among the top 10 performing states by 2020. The Missouri Department of Elementary and Secondary Education has solicited proposals for this initiative for research needs that include the use of existing Missouri data.
- Missouri is served by the Central Regional Educational Laboratory, which houses several key research alliances, such as the Mathematics and Science Research Alliance, that provide technical assistance to the state.
- Researchers at the University of Missouri examined the effects of the Incredible Years teacher training program on the academic performance of students in kindergarten through third grade and to determine how classroom behavior mediates the relationship between teacher classroom management skills and students’ academic performance in the classroom.

IES Online Resources

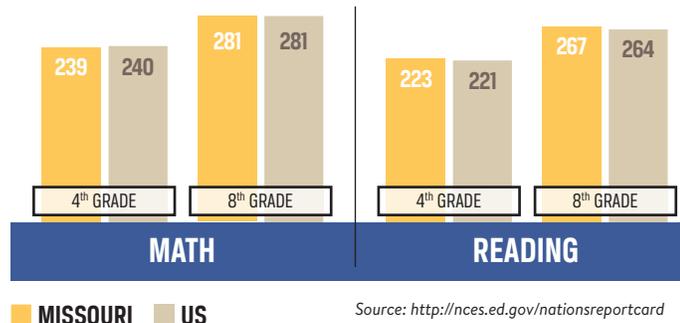
- What Works Clearinghouse:
<http://ies.ed.gov/ncee/wwc/findwhatworks.aspx>
- Education Resources Information Center:
<http://eric.ed.gov>

Average Spending Per Student on Education



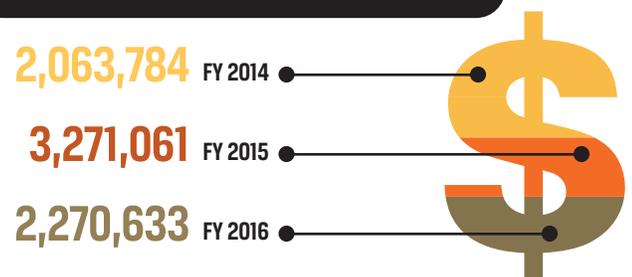
Source: Revenues and Expenditures for Public Elementary and Secondary Education: School Year 2014–15 (Fiscal Year 2015): First Look (NCES 2018-301)

Missouri Performance on the 2015 National Assessment of Educational Progress



Source: <http://nces.ed.gov/nationsreportcard>

Missouri IES Grants



7,605,478 TOTAL