

Federal Research Investment from NSF: WASHINGTON

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 Washington

- Evaluation of the Sustainability and Effectiveness of Inquiry-Based Advanced Placement Science Courses:** Researchers at the University of Washington, George Washington University and SRI International are conducting this study to examine the impact of the newly revised Advanced Placement (AP) Biology and Chemistry courses on students' understanding of and ability to apply scientific inquiry, on students' confidence in successfully engaging in college-level material, and on students' enrollment and persistence in college STEM majors. The variation in implementation of the AP curricula across the schools in the study is also examined to determine the range of students' opportunity to learn the disciplinary content and the knowledge and skills necessary to engage in inquiry in science.
- Exploring Beginning Mathematics Teachers' Career Patterns:** This research project, based at the University of Washington, seeks to explore patterns in mathematics teachers' career movements; compare qualifications and effectiveness of teachers on different career paths; and test a conceptual model of how policy-malleable factors influence beginning math teachers' performance improvement and career movements. Large-scale federal and state longitudinal data on a cohort of teachers who were first-year teachers in 2007-08 and taught mathematics in grades 3-8 will be analyzed. Researchers will also collect data from the 2015-16 cohort of first-year teachers in North Carolina and follow them for two years. The new data collection will provide detailed and reliable measures on the quality of both pre- and in-service teacher supports in order to understand how they may be linked to teachers' career movements and performance.



Top 5 NSF-funded Universities in Washington

1. University of Washington (\$107,053,000)
2. Washington State University (\$17,475,000)
3. Seattle University (\$3,341,000)
4. Western Washington University (\$3,210,000)
5. Eastern Washington University (\$1,456,000)

NSF in Washington

- Washington received 486 awards in FY 2017.
- Washington ranks 18th overall in NSF funding.
- Washington received 2% of the total NSF award budget in 2017.

Washington Funding



Federal Research Investment from IES: **WASHINGTON**

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.

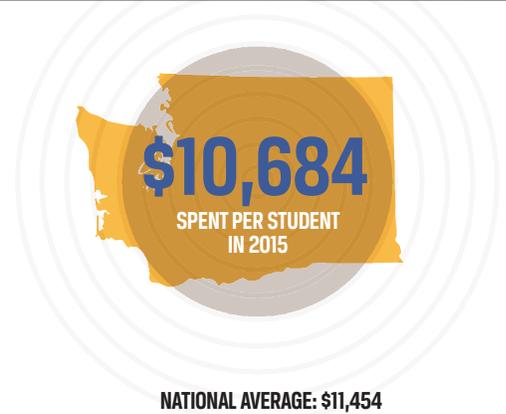
IES Resources for Schools and Educators in Washington

- Washington's statewide longitudinal data system, Comprehensive Education Data and Research System, has been used for state reports that highlight trends in graduation and dropout rates.
- Washington is a state partner of the IES-funded Center for Analysis of Longitudinal Data in Education Research (CALDER). Projects conducted by CALDER researchers have used Washington state data for findings on pension preferences of Washington State public school teachers, patterns of entry into the teaching workforce, and dual enrollment.
- The Road Map for Education Results Project, part of the REL Northwest, is comprised of leaders from seven high-poverty, Seattle-area districts that are addressing English language learner (ELL) issues. Activities include conducting research on the time needed for ELL students in Road Map districts to exit from Washington's Transitional Bilingual Instructional Program.

IES Online Resources

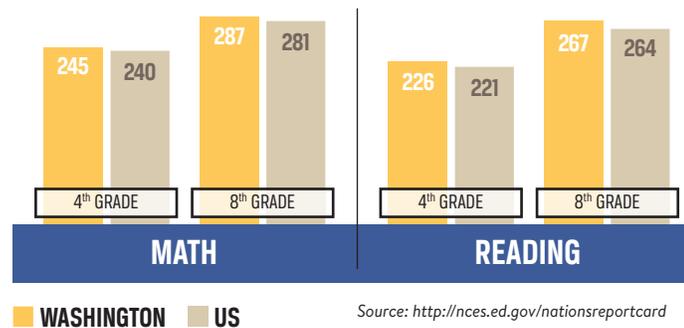
- What Works Clearinghouse:
<http://ies.ed.gov/ncee/wwc/findwhatworks.aspx>
- Education Resources Information Center:
<http://eric.ed.gov>

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)

Washington Performance on the 2015 National Assessment of Educational Progress



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

Washington IES Grants

1,258,428 FY 2014

2,853,806 FY 2015

2,462,416 FY 2016



\$6,574,650 TOTAL