

Alabama State Plan for Progress in Science and Mathematics

Federal Priority

- ▶ College and Career Readiness and Success



The Challenge

The Alabama State Department of Education (ALSDE) was grappling with several key issues:

- ▶ Stagnant science achievement for students in the United States, as measured by the Trends in International Mathematics and Science Study (TIMSS) and the National Assessment of Educational Progress (NAEP)
- ▶ A respectable rate of growth in student achievement for both fourth- and eighth-grade math in the state of Alabama, as measured by NAEP, but below the national average
- ▶ A growing concern about the state's ability to produce graduates capable of competing successfully in fields associated with economic development—science, technology, engineering, and mathematics (STEM)

To address this challenge, Alabama collaborated with the Southeast Comprehensive Center (SECC) to examine instruction and achievement in science and math using evidence-based research.



Our Work

SECC provided technical assistance, facilitation, and dissemination support to ALSDE as follows:

- ▶ Collaboration with the Alabama Science Strategic Planning Committee and the Alabama Mathematics Strategic Planning Committee (each composed of more than 20 members including ALSDE staff, teachers, instructional specialists and coaches, district superintendents, school board members, instructors from higher education, and business community members)
- ▶ Coordination of separate science and math committees to conduct simultaneous literature reviews and research syntheses to inform professional learning for schools, school districts, and institutions of higher education
- ▶ Identification of exceptional programs and strategies for improving science and math instruction (committees recommended state-wide implementation)
- ▶ Completion of [science](#) and [math](#) progress plans for improving instruction and raising achievement



Results

- ▶ Enhanced core knowledge and specific skills of science teachers, math teachers, coaches, and instructors
- ▶ Increased access to high-quality science and math instruction for K–12 students
- ▶ Continued improvement in achievement for science and math, as measured by TIMSS and NAEP



Next Steps

SECC will continue to work with ALSDE to help build instructional knowledge and skills in science and math and to implement evidence-based practices to improve instruction and raise student achievement in the state.

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