

Fast Facts

Indiana's Mathematics and Science Performance: Do We Measure Up?

What —

The CEEP policy brief, *Indiana's Mathematics and Science Performance: Do We Measure Up?*, by Rosanne W. Chien, Terry E. Spradlin, and Jonathan A. Plucker, discusses Indiana's mathematics and science achievement over time and across grade levels, and compares Indiana's performance to its neighboring states in the Midwest, nationally, and internationally. Additionally, this brief examines state and federal initiatives regarding high school mathematics and science subjects.

Why —

For Indiana to be better prepared to participate and compete in the global economy, the level of student competency in mathematics and science should meet or exceed the student competency levels found in other states. If this goal is accomplished, Indiana will be well positioned to attract employers and therefore acquire an increase in job opportunities in the rapidly changing world.

How —

Evaluation of Indiana's progress over time and across grade levels was completed through analysis of mathematics and science scores on the Indiana Statewide Testing for Educational Progress-Plus (ISTEP+). National and international comparisons were made through analysis of the National Assessment of Education Progress (NAEP) data as well as the Trends in International Mathematics and Science Study (TIMSS) data.

Recommendations —

- A variety of rigorous STEM (science, technology, engineering, and mathematics) courses, including AP and dual credit courses via distance learning opportunities, should be provided to Indiana's students to meet the greater demands placed on our public education system as the global economy becomes increasingly more competitive.
- Current efforts to improve mathematics instruction in middle school and high school should be expanded to include science instruction.
- Indiana must continue to examine its teacher recruitment and retention strategies in order to lessen the need for the issuance of emergency teacher licenses in mathematics and science and to ensure an adequate pool of highly qualified teachers in these subject areas.
- Further research and policy initiatives are needed between Grade 4 and Grade 8 to sustain high achievement outcomes.

To read this Education Policy Brief, go to:
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