



PARTNERSHIP FOR REFORM IN SCIENCE AND MATHEMATICS (PRISM)

PARTNERS

REGIONAL PARTNERS

❖ METROPOLITAN ATLANTA:

- Atlanta Public Schools
- Georgia State University
- Center for Education Integrating Science, Mathematics, and Computing, Georgia Institute of Technology

❖ NORTHEAST GEORGIA:

- Clarke, Jackson, and Oconee County School Systems
- University of Georgia
- Georgia Perimeter College

❖ EAST CENTRAL GEORGIA:

- Bulloch, Evans, Screven, Candler, Toombs, Vidalia, and Effingham County School Systems
- Georgia Southern University

❖ SOUTHEAST GEORGIA:

- Chatham (Savannah), Bryan, Camden, and Glynn County School Systems
- Armstrong Atlantic State University
- Coastal Georgia Community College

STATE PARTNERS

- ❖ Board of Regents of the University System of Georgia
- ❖ Georgia Department of Education
- ❖ Georgia Council of Teachers of Mathematics
- ❖ Georgia Science Teachers Association

BACKGROUND

PRISM is an initiative, funded by a grant from the National Science Foundation—Math Science Partnership (MSP) program, to improve teaching and learning in mathematics and science at both the P-12 and college level in Georgia. PRISM is being pilot tested in four regions of the state with six colleges and universities and 15 school districts. After the pilot, successful PRISM strategies will be expanding to other regions of the state. PRISM is a collaborative effort among the University System of Georgia (USG), the Department of Education and the participating universities and school districts.

PRISM GOALS

The goals of PRISM are to improve student achievement in science and mathematics and to close the achievement gaps by:

1. (a) providing challenging courses and curricula, specifically the new Georgia Performance Standards (GPS) and (b) raising the awareness of students, parents and the community of the importance of taking challenging courses in science and mathematics.
2. Increasing and sustaining the number, quality and diversity of P-12 teachers teaching science and mathematics by (a) strengthening the content and teaching strategies of current and future teachers, (b) improving the teaching of science and mathematics in college courses, (c) increasing the number and diversity of teachers prepared by USG institutions, and (d) increasing incentives for highly qualified and experienced teachers to stay in the field and to teach in “high needs” schools.
3. Increasing the responsiveness of higher education by (a) involving more college science and mathematics faculty in working with current and future teachers and (b) providing incentives for faculty to engage in research with P-12 schools on effective ways to teach science and mathematics.

PRISM IMPACT

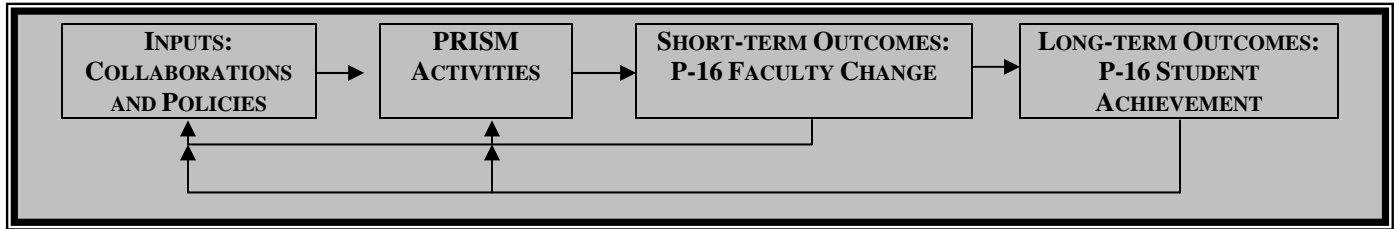
PRISM will impact about 170,000 students and 10,000 teachers in approximately 275 schools within the four regions. Eventually, PRISM will impact the 1.4 million P-12 students in Georgia. At the college level, faculty members teaching and students taking introductory courses in science and mathematics will be impacted as well as the teachers being prepared by the PRISM colleges and universities. The first step toward sustainability of PRISM has already been taken through creation of PRISM Satellites at 10 additional USG institutions to work on teacher recruitment and the preparation and continued professional learning of teachers with the knowledge and skills to teach the new Georgia Performance Standards. All P-12 teachers of science and mathematics who are prepared by the USG will be impacted by PRISM.

CHANGES IN SCIENCE AND MATHEMATICS TEACHING AND LEARNING

Collaborative partnerships as well as the changes in policy and practices are informing PRISM activities. PRISM activities are largely geared towards improving the content and teaching practices of classroom teachers who teach science and mathematics as well as college faculty who teach introductory courses in science and mathematics. The PRISM model shows how these changes will impact teaching and learning in Georgia.

THE PRISM IMPROVEMENT MODEL

The logic below shows how PRISM activities impact teacher and student performance.



INPUTS COLLABORATIONS AND POLICIES

- Collaboration between P-12 and higher education at the regional and state level for planning and development and evaluating effectiveness. *MSP Key feature—Partnership Driven.*
- Rigorous curriculum (new GPS). *PRISM Strategy. 8. MSP key feature—Challenging Courses and Curriculum.*
- Revised reward structure for university faculty. *PRISM Strategy 10. MSP key feature—Institutional Change.*
- New incentives and improved working conditions for P-12 teachers. *PRISM Strategy 6. MSP key features – Teacher Quantity, Quality and Diversity; Institutional Change.*

PRISM ACTIVITIES

- Professional Learning activities for P-12 and college faculty members. *PRISM Strategies 1, 2, 4, and PRISM Satellites. MSP Key Features—Teacher Quality; Evidence-Based.*
- P-12 and higher education participation in learning communities. *PRISM Strategies. 3, 4. MSP Key Features—Partnership-Driven; Teacher Quality; Evidence-Based.*
- Public awareness campaign. *PRISM Strategy 9. MSP Key Feature—Challenging Courses and Curriculum.*
- Regional strategies to recruit teachers. *PRISM Strategy. 7 and PRISM Satellites. MSP Key Feature—Teacher Quality, Quantity and Diversity.*
- Increased science content knowledge for future P-5 teachers. *PRISM Strategy 5, Satellites. MSP Key Feature—Teacher Quality.*

SHORT-TERM OUTCOMES—P-16 FACULTY CHANGES

- Use of effective teaching and learning practices by P-12 and college faculty.
- Increased content knowledge of P-8 faculty.
- Increased awareness of the importance of science and mathematics.
- Increased number and diversity of teachers of science and mathematics.
- Increased use of research and data for planning and evaluating improvement.

LONG-TERM OUTCOMES—P-16 STUDENT CHANGES

- Increased student achievement at P-12 and college level.
- Reduced gap in student achievement among demographic groups.
- Students taking more rigorous courses and curricula in science and in mathematics.
- Improved college student perceptions of science and mathematics teaching as a career.