Supporting PreK-12 Mathematics in the Greater Houston Area and Across Texas

1987 - Present
RUSMP
Anne Papakonstantinou, Director
Ngozi Kamau, Director of Research & Evaluation
Richard Parr, Director of Curricular & Instructional Programs
Susan Troutman, Director of Secondary Programs
Robin Ward, Director of Curriculum Integration
Carolyn White, Director of Elementary & Intermediate Programs
Vision and Mission

• Provide a bridge between the Rice University mathematics research community and Houston-area mathematics teachers

• Help teachers and administrators better understand the nature of mathematics, the effective teaching and assessing of mathematics, and the importance of mathematics in today's society
Vision and Mission

• Founded on the belief that sustained instructional changes can best be supported through the development of professionalism among teachers

• Creation of a network of teachers who have extensive knowledge of both mathematical content and pedagogy
Goals

• Increase the mathematical knowledge of teachers

• Promote and model effective teaching and assessment of mathematics with active student involvement in the learning process

• Encourage the appropriate use of technology and manipulatives in the teaching of mathematics
Goals

• Provide strategies to actively engage struggling students, English language learners, and underrepresented minorities in learning mathematics

• Understand and promote research-based teaching and learning of mathematics
Goals

• Encourage classroom teachers to participate in professional organizations and in the mathematics/school reform process

• Provide a forum for communication and collaboration between and among teachers and university mathematicians and scientists
Goals

• Form a local mathematics education network to implement national, state, and local reform efforts in mathematics education

• Develop mathematics teachers' leadership capacity

• Create innovative curricula in mathematics
Goals

• Advise developers of mathematics programs and curricula

• Provide coaching, mentoring, and professional development programs for PreK-12 teachers
RUSMP Summer Campus Program

• Rigorous mathematics and pedagogical instruction for K-12 teachers
• Active approach to learning and teaching mathematics
• Concept-based learning
• Curriculum development using the RUSMP Learning Plan
RUSMP master teachers

Mathematics content and pedagogy

Curriculum development
RUSMP Urban Programs

- Assist teachers in transferring knowledge gained to their classroom teaching
- Model and promote teaching and assessment techniques that increase student involvement
- Foster an increased sense of confidence in students’ abilities to learn mathematics
- Increase students’ mathematical content knowledge
RUSMP support teachers

Summer program for students

Collaborative planning
Fall and Spring Networking Conferences

Keynote presentations from distinguished mathematicians and educators

Activities led by RUSMP alumni, master and support teachers
Academic-Year Programs
Texas Education Agency Collaborations

• Mathematics Instructional Coaches Pilot Program (Galena Park ISD, Galveston ISD, Houston ISD, La Marque ISD, Pasadena ISD, Weslaco ISD)

• Intensive Summer Program (Galveston ISD, Houston Gateway Academy, Pasadena ISD)

• Algebra Readiness (Houston ISD, La Marque ISD)
RUSMP Impact

• Over 7,000 teachers have participated

• Improved teacher knowledge of mathematics

• Increased teacher efficacy

• Teacher classroom beliefs and practices better aligned to the NCTM Standards
RUSMP Impact

• Increased collaboration among teachers
• Improved school-level instructional support
• Expanded school-level mentoring and team leadership
RUSMP Impact

- Increased student learning and achievement in mathematics
- Increased student interest in mathematics
- Decreased student drop-out rates
Recognition of RUSMP

Recognition of RUSMP

Recognition of RUSMP

Visit the Rice University School Mathematics Project web site: http://rusmp.rice.edu