

The West Cook and South Cook Mathematics Initiatives



What are the West Cook (WCMI) and South Cook Mathematics Initiatives (SCMI)?

WCMI and SCMI are partnerships among 32 high-needs school districts in west and south Cook County to improve the teaching and learning of mathematics in grades 6 through 9. Districts work in collaboration with the University of Illinois at Chicago Learning Sciences Research Institute and the West and South Cook Intermediate Service Centers (ISCs), with funding provided by the Searle Funds at The Chicago Community Trust and direction provided by the Trust's program officers.

The initiatives promote a comprehensive strategy for improving mathematics teaching and learning, with an emphasis on strong, instructional leadership that supports high-quality instruction leading to improved student achievement.

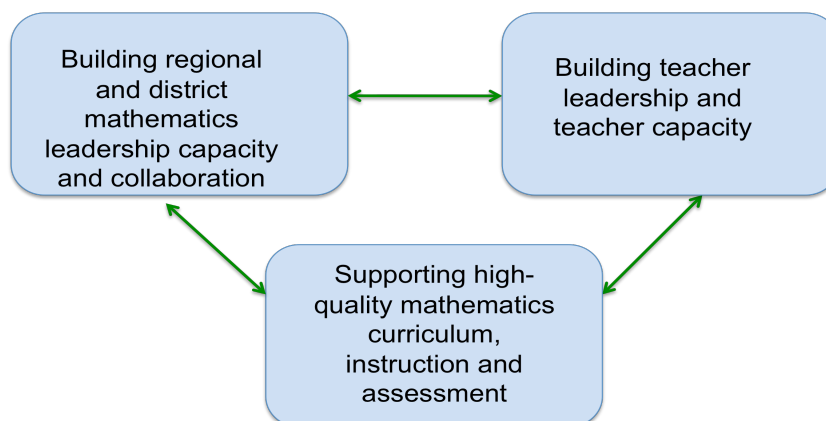
What are the project goals?

- Establish communities of school districts and practitioners in west and south Cook County that work together on mathematics improvement.
- Develop joint solutions to commonly held problems involving the preparation for algebra in the middle grades and the teaching of algebra in 8th and 9th grades.
- Build districts' capacity to gain a deeper understanding of the Common Core State Standards for Mathematics (CCSSM) and expand their capacity to implement the CCSSM in their districts, schools and classrooms.
- Strengthen the districts' capacity to support improved mathematics instruction and retain highly qualified staff.
- Support a range of mathematics improvement activities as part of a common, comprehensive mathematics initiative among participating districts.
- Improve student outcomes and success in mathematics.

Who is involved?

- In 32 participating districts: superintendents and district administrators, administrators and teacher leaders from 82 schools, approximately 480 teacher leaders and teachers who teach more than 20,000 students in grades 6 to 9 (While only students and teachers in grades 6 to 9 participate in the initiatives, constituent districts enroll over 66,000 students; approximately 80 percent are from traditionally underrepresented groups.)
- At the University of Illinois at Chicago (UIC): project director, UIC coaches and UIC faculty
- At the University of Chicago: founding director
- At the ISCs: ISC executive directors and system of support coordinators
- At The Chicago Community Trust: education program officers
- Logos Consulting Group, LLC: project evaluator
- External partners: nationally known experts in implementing effective mathematics instructional practices and programs

What are the key components?



The project components are designed to improve mathematics teaching and learning and support the transition to the Common Core State Standards for Mathematics by:

- **Building regional and district mathematics leadership capacity and collaboration**
Principals and district leaders participate in core professional development programs (24 hours in 2010-2011 and six to 12 hours in 2011-2012), with a goal of developing a community of administrators who have the knowledge and tools to support continuous improvement in mathematics and high-quality mathematics instruction. Superintendents from participating districts comprise Advisory Boards for each initiative, setting the project direction and ensuring that the components remain a high priority in their respective districts. Each district designates a district lead, who spearheads the implementation of WCMI and SCMI programs in their districts and promotes cross-district collaboration. Districts establish District Leadership Teams designed to drive mathematics improvement in the district and support the implementation; members of the District Leadership Teams engage in activities to promote cluster articulation.
- **Building teacher leadership and teacher capacity**
Ongoing core professional development for **classroom teachers** (30 hours in 2011-2012) and **teacher leaders** (90 hours in 2010-2011 and 42 hours in 2011-2012) creates communities of educators in west and south Cook County with the knowledge, skills and experience to improve mathematics instruction in their buildings and classrooms, with additional professional development opportunities targeting support for English language Learners and students with disabilities. In-school implementation support by UIC coaches helps teachers improve their practice and provides guidance for teacher leaders and school administrators. Teachers and teacher leaders have opportunities to enhance their credentials and knowledge through a series of UIC courses.
- **Supporting high-quality curriculum, instruction and assessment**
Teachers implement a series of high-quality formative assessments—MARS tasks—using a carefully designed process that involves collaboration with other colleagues and promotes changes in instruction. Other instructional tools, such as Math Talks and Problems of the Month, promote increased critical thinking and reasoning. These assessments and other tools create a common experience across districts and a context for cross-district collaboration and discussion.

What are some initial outcomes of the project?

- Responses through numerous data strands, including surveys and focus groups, indicate extremely high satisfaction of participants in terms of the quality of the professional development they have received. Many respondents indicate that they now regularly discuss and collaborate with their colleagues about mathematics teaching and learning, which is a significant increase in collaboration related to mathematics since their participation in the project.
- There is increased collaboration across districts to support mathematics improvement, including a decision to implement a common cross-district performance assessment in April 2013.
- Collaboration opportunities increased at district and school levels as teachers jointly scored and analyzed student work and planned lessons to address student misconceptions.
- The ongoing use of high-quality formative assessments and the use of related re-engagement strategies to meet the needs of all students have been implemented by approximately 480 teacher leaders and teachers.
- Classroom observations by outside evaluators of lessons involving MARS tasks documented a trend toward teachers changing their instructional practice and increasing student engagement in classrooms, with more students engaged in practices required by the CCSSM.
- Seventy-five teachers enrolled in the university courses during the first two years either to pursue their middle grade mathematics endorsements or master's degrees in mathematics education.
- The project leveraged additional support from two districts in 2011-2012 to expand the initiative into grades K-5; additional districts are interested in providing funding to support K-5 activities during the 2012-2013 school year.
- Districts are sharing information about the initiative with their school boards, and teachers are sharing instructional strategies and MARS tasks with teachers from grade levels who are not participating in WCMI or SCMI.
- Project participants are becoming part of the broader mathematics education community and are sharing their knowledge and experiences outside of the project at conferences, such as the April 2012 National Council of Supervisors of Mathematics Annual Conference, where four teacher leaders made joint presentations with project staff.

