

2020 REPORT

Idaho Math Initiative



IDAHO STATE DEPARTMENT OF EDUCATION
CONTENT & CURRICULUM | MATH INITIATIVE

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LEGISLATIVE INTENT

Idaho Statute 33-1627 provides funding and guidance for the Idaho State Department of Education (SDE) to promote the improvement of mathematical instruction and student achievement through one or more of the following activities:

- a) Provide high quality professional development for teachers that is intensive, ongoing and connected to classroom practice that focuses on student learning, aligns with school improvement priorities and goals, and builds strong working relationships among teachers;
- b) Provide statewide online mathematical instruction programs that furnish mathematical tutoring, remedial instruction and advanced instruction;
- c) Provide formative assessments to assist teachers in identifying student mathematical skill levels, areas of deficiency and areas of advancement.

PROJECT DESCRIPTIONS

Regional Math Centers: Project Cost = \$1,712,386

The Idaho Regional Math Centers (IRMC) provide high-quality professional development in mathematics instruction for Idaho's teachers and leaders in alignment with part (a) of Idaho Statute 33-1627.

The IRMC's are housed within the four-year state colleges and universities in each region of the state. The State Department of Education has collaborative, positive partnerships with University of Idaho, Boise State University, Idaho State University and Lewis Clark State College to oversee the operations of each IRMC, with several advantages to this model of support;

- **Influence** - IRMCs have deep, long-standing relationships with stakeholders and credibility with teachers and district administrators
- **Expertise** -IRMC faculty have experience, credentials, and local knowledge to design and deliver professional development at the highest quality across a variety of contexts
- **Capacity** - Universities provide space, facilities, equipment, and administrative capacity for events, registration, PD credits, accounting
- **Mission** - Universities are tasked by the State as centers for educational innovation, training, and professional development
- **Adaptability** - the IRMC model provides for annual and ongoing opportunities to adapt offerings to SDE goals
- **Multiplier effects** - University faculty conduct research, leverage IRMCs for large federal grants (at least \$10 million so far) that serve local teachers, allowing for many more teachers and students to be served

- **Increased Workload Capacity** - directors (and other faculty and staff) allocate their scholarship and service time to IRMC activities
- **Coordination** - programs are specific to region needs, but similar aspects of work are consistent across state; we support the teacher pipeline as prospective teachers transition into teaching positions
- **Research** - scholarly output demonstrates effectiveness of state-funded programs and raises the national reputation of math education in Idaho
- **Staff Recruitment** - highly qualified teacher leaders are drawn to University positions, often taking reduced pay in exchange for benefits (e.g., PERSI status, reduced tuition, health)

Table 1: IRMC Budgets FY20

Table 1 shows the contract amount for each IRMC for the 2020 Fiscal Year.

University or College	Contract #	FY 2020 Amount
University of Idaho	20-3550	\$345,038
Lewis Clark State College	20-3551	\$258,009
Boise State University	20-3552	\$658,698
Idaho State University	20-3553	\$450,641
Total:		\$1,712,386

PROFESSIONAL LEARNING OPPORTUNITIES

The IRMC’s provide a range of professional development opportunities in their regions. These professional development opportunities may be a combination of face-to-face and virtual activities and include a variety of services such as the following:

- Workshops
- Classes
- Instructional Coaching
- Conferences
- Presentations
- Lesson Study
- Video Analysis
- Resource Development

- Consultation
- Book Studies
- Leadership Development

The IRMC Directors work closely with school and district leaders to meet the unique needs of the region, customizing professional development content and experiences based on background knowledge, culture and geography. The IRMC Directors and SDE Project Coordinator collaborate to ensure that the work of the IIRMC program is aligned to the SDE Strategic Plan and builds a consistent statewide system of support for mathematics education.

PERFORMANCE REPORT

- SDE provided 8.5 FTE to support school districts in each region through the IRMC's.
- SDE funded partial contracts of 4 University professors to provide supervision of the work of the Regional Math Specialists, including budget management, oversight of data collection and connection of the IRMC work to research based teaching practices and professional development.
- In addition to 20 sections of the state required mathematics course, Teaching Mathematical Thinking, the IRMC's provided over 40 mathematics workshops and classes for practicing teachers across the state.
- Collectively, the IRMC's worked with approximately 3228 Idaho educators.
- Collectively, the IRMC's worked with approximately 266 teachers in lesson study cycles with school- based teams.
- Collectively, the IRMC's worked with approximately 64 teachers through professional book studies.
- Collectively, the IRMC's worked with approximately 120 teachers in individual instructional coaching sessions.
- Collectively, the IRMC's facilitated or attended 36 meetings with Regional leaders and administrators in support of mathematics education.
- The IRMC's provided intensive support in a variety of ways to assist districts and teachers in teaching mathematics virtually during the COVID 19 pandemic in Spring of 2020. Examples of support included
 - a. organizing resources, virtual professional development for teachers and paraeducators, webinars to support the shift to online mathematics instruction across the state, Math at Home activities, weekly virtual teaching circles on strategies, new workshops on teaching with technology, converting professional development courses to fully online delivery model, virtual book studies, virtual individual support and instructional coaching to support teachers' virtual instruction.

- Four of our Regional Math Specialists have facilitated and supported the work of the content standards committees.
- The SDE Mathematics Coordinator and the Regional Math Specialists supported 24 teachers from grades 3-6 in developing and delivering math lessons televised on public television for students in remote Idaho locations with limited or no internet access.
- The IRMC's received two additional grants that complement the work of the RMC's.
 - a. The University of Idaho received a grant through the National Science Foundation focused on supporting virtual instructional coaching for rural mathematics instructional coaches.
 - b. Boise State University received a grant through the National Science Foundation focused on improving math achievement in grades 6-8 in modeling and problem solving by studying effective sequencing of instructional strategies.
- The IRMC staff published 14 articles or book chapters and delivered 8 conference presentations.

MoDAL Summer Institute: *Project Cost = \$174,145*

The MoDAL Summer Professional Development program is in alignment with part (a) of Idaho Statute 33-1627.

MoDAL stands for Modeling and Data Analysis. This summer institute was adapted to an online format this year due to the Covid 19 pandemic. The program was hosted by Boise State University for secondary (6-12) mathematics and science teachers. the program focuses on engaging teachers in real world applications of mathematics and science.

PERFORMANCE REPORT

- 87 Secondary Teachers participated in this year's virtual summer institute and completed four modules.
- 98% of participants who completed program evaluations agreed or strongly agreed that the MoDal Summer Institute increased their knowledge about modeling and data analysis.
- 96% of participants who completed program evaluations agreed or strongly agreed that the MoDal Summer Institute increased their ability to teach students about modeling and data analysis.
- 98% of participants who completed program evaluations agreed or strongly agreed that the MoDal Summer Institute improved their use of instructional technologies in the classroom.

Math Transitions Network: *Project Cost = \$0*

The Math Transitions Network is a project co-facilitated by the State Board of Education Chief Academic Officer and the State Department of Education Math Coordinator in alignment with part (a) of the Idaho Statute 33-1627.

The Math Transitions Network is working collaboratively with the Regional Math Center staff as well as math professors from the colleges and universities to facilitate conversations about the challenges students transitioning from high school to college mathematics courses face.

The focus of the work is to create course pathways that span grades 10 through the sophomore year of college. The facilitators formed a steering committee comprised of a representative from each public college and university as well as a K-12 representative from each region. FY2020 was a planning year for this steering committee. The committee attended professional development virtually through the College Board for Mathematical Sciences and wrote an document to define the focus and scope of the work for the State Board of Education and the State Department of Education. As this work continues, there will be professional development activities related to this work in the FY21 school year.

Imagine Math: *Project Cost \$1,200,000*

The Imagine Math project is in alignment with part (b) of Idaho Statute 33-1627.

Funding for the project appropriated in House Bill 623 covers a statewide license for an online supplemental mathematics instructional program to support students in Grade 3 through high school Geometry content.

The project is managed by the SDE Mathematics Coordinator, supported by the IRMC staff and integrated into the work of the Idaho Mathematics Initiative. Therefore, performance on this project is included in this report to show the connection between the Imagine Math project and the Idaho Mathematics Initiative.

PERFORMANCE REPORT

- 37,543 Idaho students in 346 schools in 78 school districts/charter schools used Imagine Math an average of 24 minutes per week during the 2019-20 school year.
- 94 professional development sessions and 240 check-in visits were conducted throughout the state to support the implementation of Imagine Math.
- Correlating the use of Imagine Math to student outcomes on the Idaho Standard Achievement Test in Math was not possible in FY20 due to Covid-19 pandemic and the cancellation of statewide testing in Spring 2020.

K-2 Math Screener by Curriculum Associates: *Project Cost = \$43,000*

The K-2 Math Screener provides a high-quality formative assessment tool for mathematics for students in the primary grades in alignment with part (c) of Idaho Statute 33-1627.

The i-Ready Math Diagnostic, published by Curriculum Associates was chosen by a review team in 2018. This assessment is rated highly for validity and reliability by both the National Center on Intensive Intervention and the Center on Multi-Tiered System of Support. This assessment tool is in the first or second year of the implementation for participating districts who piloted the assessment. This resource will be made available to all schools for the FY21 school year.

PERFORMANCE REPORT

- 10,655 Idaho students in 41 districts and charters in 75 schools used the K-2 math Screener during the 2019-20 school year as a Fall, Winter and Spring benchmark formative assessment.
- 24 professional development sessions were provided throughout the state to support the implementation of Imagine Math.
 - Correlating the use of the K-2 Math Screener to Grade 3 ISAT achievement scores was not possible in FY20 due to the Covid-19 pandemic and the cancellation of statewide testing in Spring 2020.
- D. Qualitative survey data revealed that districts liked the consistency of data from the tool, the specificity of areas of strength and growth and the help for the RTI process and targeted interventions or enrichment.
- E. Qualitative survey data revealed that the biggest challenge districts are facing with the implementation of the K-2 math screener is the length of the computer-based assessment for very young children, lack of understanding about the adaptive capability of the assessment and creating time and processes for analyzing the data.

FY 2021 STRATEGIC PLAN

During FY20, the SDE and the IRMC staff worked collaboratively to write a Math Initiative Strategic Plan to guide the future work of the Idaho Math Initiative. This strategic plan identifies goals specific to mathematics in alignment with the State Department of Education's Strategic Plan. The overarching mission of the Idaho Math Initiative is to support students to achieve in mathematics. The Math Initiative strategic plan outlines specific actions to support that mission that will be priorities in FY21.

- SDE Goal 1: Ensure all Idaho children are reading on grade-level by third grade.
 - A. Develop workshops that help Grade K-3 teachers integrate math and literacy.

- B. Support development of resources for Multi-tiered System of Support for mathematics in collaboration with other departments at the SDE.
- SDE Goal 2; All Idaho students persevere in life and are ready for college and careers.
 - A. Publish an Idaho Mathematics Instructional Framework
 - B. Offer research-based professional development opportunities to support the teaching of core content aligned to Idaho Content Standards in Mathematics.
 - C. Create a centralized repository for teaching resources developed by the Regional Math Centers.
 - D. Develop examples of exemplary, research-based high school course progressions.
- SDE Goal 3: Collaborate with all education stakeholders to support student progress and achievement.
 - A. Support the Stem Action Center I-Stem professional development program
 - B. Support Idaho Council Teachers of Mathematics
 - C. Co-Facilitate the Math Transitions Network
 - D. Facilitate collaborative conversations between stakeholders in each region.
 - E. Establish math leadership networks
- SDE Goal 4: Idaho attracts and retains great teachers and leaders.
 - A. Support new teachers through the Regional Math Centers
 - B. Increase availability of the state Teaching for Mathematical Thinking (TMT) course.
 - C. Clarify outcomes of TMT course and processes for statewide calibration of content
 - D. Clarify pre-service and new to state mathematics competencies aligned to TMT course
 - E. Support teacher pipeline from pre-service to in-service
 - F. Establish math leadership networks