

# NebraskaMATH

*A partnership to improve mathematics achievement*

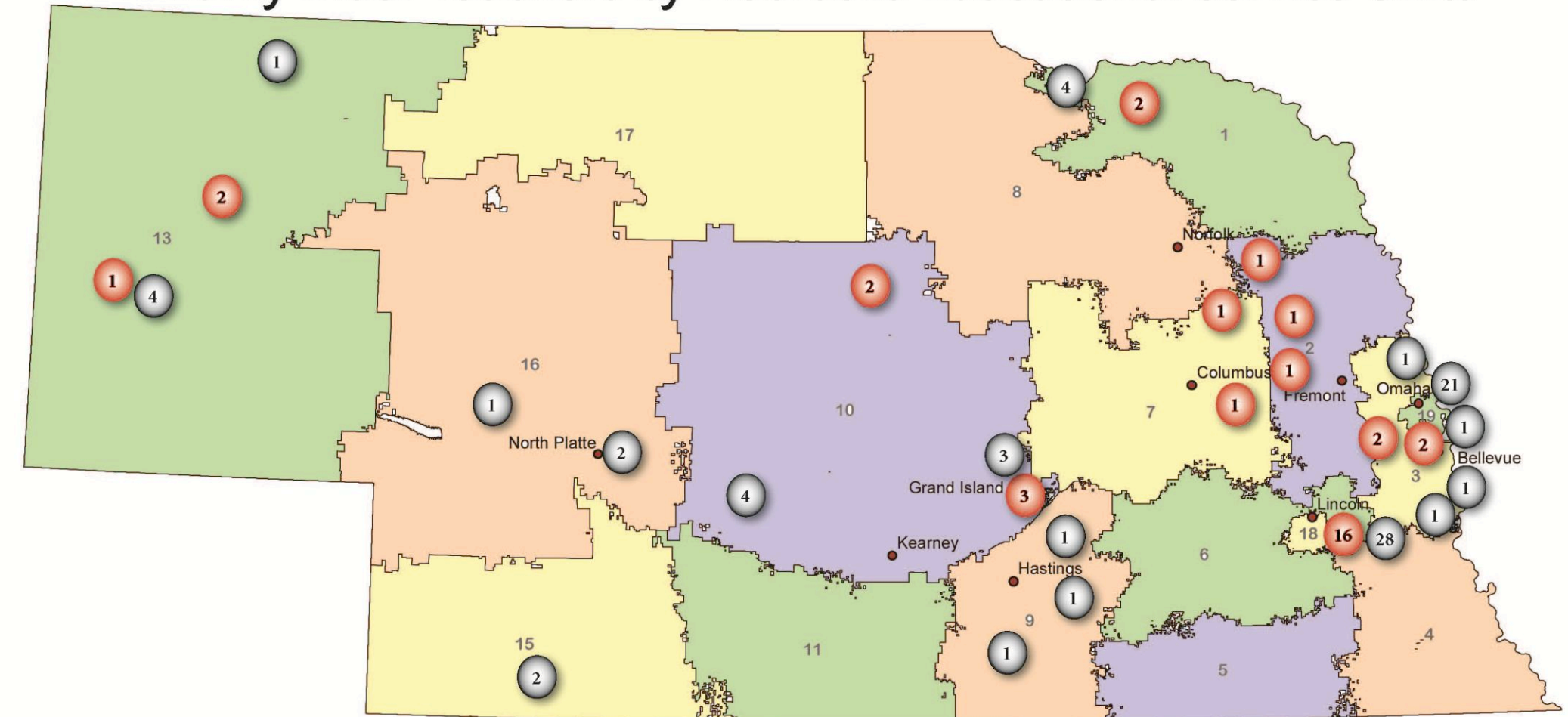


## Principal Investigators:

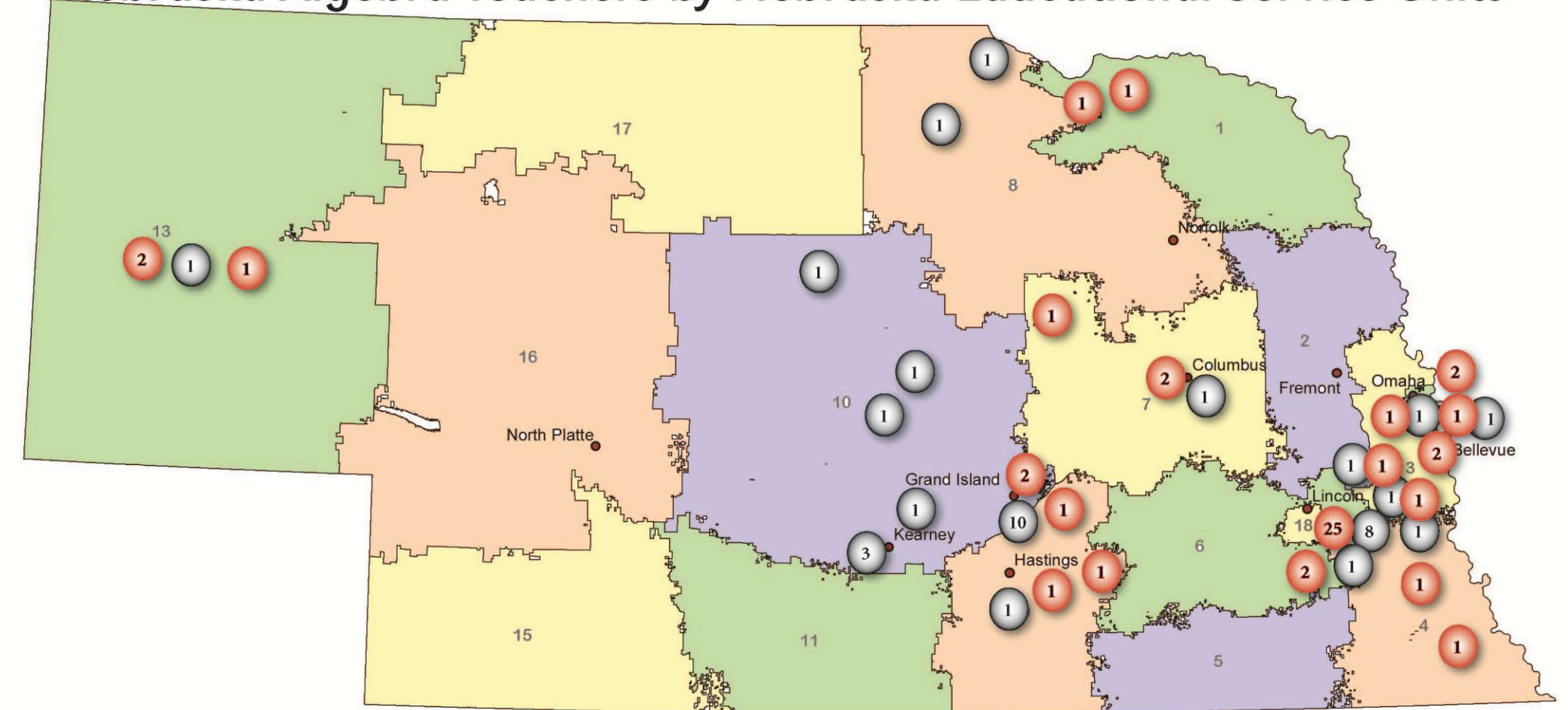
- Jim Lewis, Department of Mathematics, UNL
- Ruth Heaton, Department of Teaching, Learning, and Teacher Education, UNL
- Tom McGowan, Department of Teaching, Learning, and Teacher Education, UNL
- Barb Jacobson, Lincoln Public Schools
- Carolyn Edwards, Department of Psychology and Child, Youth & Family Studies, UNL
- Walt Stroup, Department of Statistics, UNL
- Ira Papick, Department of Mathematics, UNL



Primarily Math Teachers by Nebraska Educational Service Units



Nebraska Algebra Teachers by Nebraska Educational Service Units



## Description

NebraskaMATH is a \$9.2 million, 1-year-old grant from the National Science Foundation that supports a partnership among UNL, Lincoln Public Schools, Grand Island Public Schools, Papillion-La Vista Public Schools, the Omaha Public Schools and Nebraska's Educational Service Units. Over the life of the grant, the partnership will expand to become a statewide partnership that can be sustained after the end of NSF funding. The partnership is working to educate and support students and teachers at critical junctures, with an overall goal of improving achievement in mathematics for all students and narrowing achievement gaps of at-risk populations.

The grant funds three programs: (1) Primarily Math, an initiative for K-3 teachers; (2) Nebraska Algebra, an initiative for Algebra I teachers; and (3) New Teacher Network, an initiative for new secondary teachers of mathematics. In addition, NebraskaMATH will offer a Summer Institute supported by local funds to continue the program created by its predecessor, Math in the Middle.

• **Primarily Math** is an initiative to strengthen mathematics education in the early grades. We created a 15-month, 18-credit K-3 Mathematics Specialist graduate program at UNL and are educating outstanding primary teachers so that they have the mathematical and pedagogical knowledge needed to return to their schools as instructional coaches, as specialists or as classroom teachers with special strengths in mathematics. Primarily Math includes a support program for participants as they return to their schools and classrooms in order to facilitate continued learning within a professional community as teachers work to translate what they learned in professional development into improved mathematics achievement for all students. Primarily Math also includes a major research project designed to study the impact of Primarily Math on teacher practices, attitudes and leadership, along with student achievement and dispositions. We hope the results of this study will inform others as to the most effective (and financially efficient) approach to strengthening K-3 mathematics education.

• **Nebraska Algebra** is working with Algebra I teachers on content and pedagogical coursework and supporting them as they work to ensure that all students succeed in this important gateway course. The program consists of a two-week summer institute and an academic year initiative in which NebraskaMATH works with partner districts that share the goal of building the capacity to successfully teach Algebra I to all students.

• **New Teacher Network** is a program for newly certified secondary mathematics teachers who want to participate in a mentoring and graduate education program focused on supporting outstanding new mathematics teachers who want a quick start on the journey to become an outstanding master teacher.

• **Nebraska Math and Science Summer Institutes** are a collection of one- and two-week summer professional development courses in which participants earn 3 hours of graduate credit. The Summer Institutes began as a vehicle for offering Math in the Middle courses to Nebraska teachers using local dollars. The Institutes have now expanded to offer 25 math and science courses in summer 2010.

## Indicators of Success

• The overall goal of NebraskaMATH is to **improve achievement in mathematics for all students and to narrow achievement gaps of at-risk populations.** We must develop an active and mature P-16 partnership to improve mathematics education in Nebraska that links mathematics teachers and school administrators with university mathematicians and mathematics educators and that can be sustained by state dollars after the end of NSF funding.

• Since we have just completed Year 1 of this 5-year grant, our achieved successes are commensurate:

- To date, we have chosen 112 teachers for the first three cohorts of Primarily Math and 86 for the first two cohorts of Nebraska Algebra, 15 of whom are also part of the New Teacher Network.
- In September 2009, we hosted a meeting of Educational Service Unit staff developers and math/science leaders from the Nebraska Department of Education to identify a common agenda for meeting the professional development needs of mathematics and science teachers in Nebraska. This successful meeting will significantly advance the development of our statewide partnership.
- On December 14, 2009, we held the Nebraska Summit on Mathematics Education, which successfully brought together the state's education and policy leaders to discuss the strengths and challenges of mathematics education. More than 250 people attended the event. Steering efforts to build a statewide partnership, the Summit featured talks by the Nebraska Governor, the Nebraska Commissioner of Education, the University of Nebraska President, and former NCTM national president Cathy Seeley.

For more information,  
see our Web site: <http://scimath.unl.edu/nebraskamath> or contact us: [nebraskamath@unl.edu](mailto:nebraskamath@unl.edu)

UNIVERSITY OF  
**Nebraska**  
Lincoln