



## Northern New Mexico Math & Science Academy for Teachers (MSA)



### Program Description

MSA is an intensive and comprehensive professional development program for K-12 teachers. Participants commit to attend a three-week Summer Institute for three years during which they study best practices in math and science education. Teachers also receive instructional support and additional math and science content workshops during the school year.

### Program Objectives

1. To increase teachers' content knowledge of math and science
2. To increase teachers' use of research-based practices to conduct effective, inquiry-based math and science lessons in their classrooms
3. To increase school and district leadership capacity so schools can make continuous improvements in math and science
4. To ultimately improve student learning and achievement in math and science in northern New Mexico

### Data/Impacts

**LANL funding in FY12:** \$500,000 (staff support)

**Non-LANL funding in FY12:** \$50,000

LANS; \$25,000 Chevron Corporation

**Non-LANL funding in FY13:** \$50,000  
Chevron Corporation

**Program cost in FY12:** \$800,000 annually

**Cost per participant in FY12:** Districts pay \$2,000 per teacher over the course of 3 years in stipends

**Duration of program:** 3 years

**Teacher/faculty participants in FY12:** 4

LANL staff and 1 LANL student intern

**Hours of training:** 130/year/teacher participant

**Graduation numbers:** More than 300 educators in northern New Mexico have graduated over the 12-year history of program; 42 teachers graduated in the FY 2010-2012 cohort



## Northern New Mexico Math & Science Academy for Teachers (continued...)

**Number of Master Degrees earned in  
Teaching Math and Science (2005-2009):**  
57

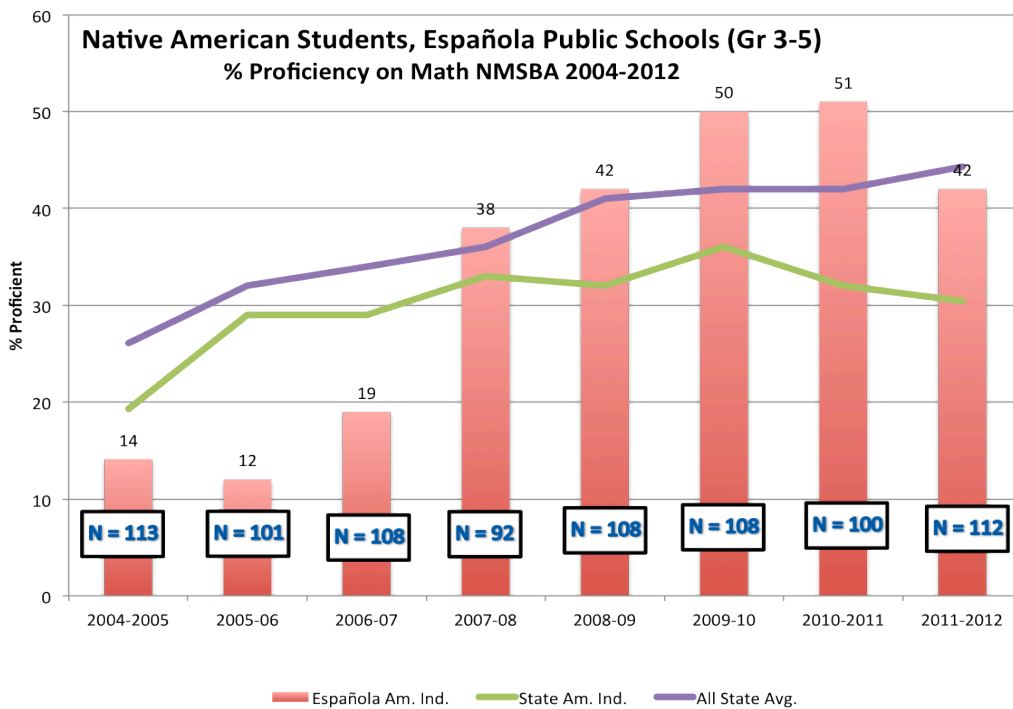
**Higher education Partnerships:** 6 Bureau  
of Indian Education teachers in University  
of New Mexico Leadership Masters  
Program; 8 MSA teacher and principals  
enrolled in Educational Doctorate in  
Leadership in Math Education

### Teacher Participants 2012-2013

- 22 Southern Bureau of Indian Education K-8 teachers (from San Felipe and Jemez Elementary Pueblo Schools)
- 18 Española Public Schools K-12 teachers
- 58 additional Española Public Schools teachers attend MSA Math Writing workshops bimonthly

### Continuous Teacher Professional Development in Math Impacts Native American Student Achievement

The MSA program has worked extensively with Española Public School teachers and, in particular, schools with high Native American student populations. Native American student achievement in mathematics has increased 30 percentage points over seven years and exceeds or matches state averages (see figure below).



Program Coordinator: Carole Rutten  
Email: [crutten@lanl.gov](mailto:crutten@lanl.gov)  
Phone number: 664-0275