

EDUCATION – POSTER #51

The EPSCoR climate change secondary science teacher professional development program in Southern Nevada: Wrap Up

**Paul Buck, paul.buck@dri.edu
Desert Research Institute**

Co-Authors: Lawrence Rudd, Aubrey Bonde, and Juan McAlister

Project goals included: a replicable professional development model of K-12 climate change science education for Nevada and other institutions; strengthened relationships between secondary school teachers and NSHE climate change researchers; and greater teacher pedagogical content knowledge in climate change science and greater confidence in ability to teach effectively. All teachers participated in at least one (2-week long) summer institute focused on one of two overarching research questions forming the basis of the award. Each teacher/school was assisted by a disciplinary GRA who helped teachers in developing climate change science content and lesson plans, school year field trips, mentoring, and assistance with development and implementation at least one lesson plan in class. We also provided an on-line graduate level college class in climate change science fundamentals. No new curricula were developed—rather, we used existing curricula to create effective lesson plans. Follow-up activities were part of the program during school year; teachers delivered at least one lesson plan in their classroom with classroom visit by staff during lesson plan delivery.

Twenty different teachers from Las Vegas area have taken one or two S.I.'s ; 13 lesson plans have been published on the program website and many are now being formatted and vetted to publish on the data portal. Twenty-five teachers from southern Nevada have taken UNLV's on-line class, and use content learned in the class in their own teaching. Pre-and-post content tests showed a slight but statistically significant increase in understanding of climate change. Overall quality of the institute is rated very highly by the teachers . Classroom visits by staff suggest productive engagement of students and teachers with climate change content and inquiry based activities. No quantitative data were collected about improvements in understanding of K-12 students.