

**New Mexico AMP CURRENTS**  
**October 2009 Conference Issue**

Approximately 427 New Mexico AMP community college and university students, staff, faculty, and administrators, along with representatives from the New York City, Minnesota, and Florida LSAMPS and from Chihuahua, Mexico attended the 2009 New Mexico AMP Student Research Conference at New Mexico State University (NMSU) on October 2nd. In addition, high school juniors, seniors, and advisors from the New Mexico Math, Engineering, Science Achievement, Inc. (New Mexico MESA) program, attended the event.

Dr. Laura Crossey presented the keynote address that started the conference. Dr. Crossey serves New Mexico AMP as the University of New Mexico's (UNM) Institutional Coordinator and Director of the Bridge to the Doctorate Program. In her current research, Dr. Crossey investigates the role of tectonics on natural CO<sub>2</sub> degassing and its effects on water quality and microbiology in arid regions, both in the western U.S. and Australia. Dr. Crossey discussed this work, in addition to her research on the geomicrobiology and hydrochemistry of springs and caves and her work on the 'Trail of Time' at the Grand Canyon. Dr. Crossey highlighted the opportunities that abound in New Mexico in her talk entitled, "New Mexico: Making a World of Difference," encouraging students to take advantage of these opportunities in the state and at their universities. A thread that ran throughout her address was the importance of mentorship and the 'teachable moments' that present themselves, especially in what she called the "experiential classroom environment," that is "place-based, hands-on, and minds-on." Dr. Crossey ended her talk by encouraging faculty to find 'moments that matter' to students and calling students to take advantage of those moments that will propel their success. At the conference luncheon, the Honorable Debbie Rodella, New Mexico State Representative, shared her own academic journey that took place in New Mexico, and she focused her message on the opportunities that are available to students in science, technology, engineering, and mathematics (STEM) in New Mexico. In an effort to call students to stay the course and remain dedicated to their goals in STEM, she highlighted the dedication of William R. Lovelace II, a native New Mexican who was a pioneer in aerospace medicine. Representative Rodella highlighted the many achievements that are making New Mexico's future in space travel look promising, including the creation of Spaceport America, the "future hub of commercial space travel," which will create a significant number of jobs in STEM. She encouraged students to consider entrance into the New Mexico job market upon graduation, citing job markets that seek their expertise and skills. Rodella summed up the purpose of her talk with the words of Thomas Edison: "Opportunity is missed by most people because it is dressed in overalls and looks like work," a warning that cautions against complacency and laziness and that encourages innovation and spirited discovery.

Student research presentations took place throughout the day, with 19 oral and 40 poster presentations. Sixteen (16) oral presentations and all the poster presentations competed for awards. Winners for the Oral Presentation include the following: 1st Place: April Tafoya, Environmental Science, UNM; 2nd Place: Bridgette Quintero, Civil Engineering, NMSU; 3rd Place 2-way Split/Tie: Melinda Guzman and Jessica Rivas, Computer and Electrical Engineering, NMSU; 3rd Place Tie: Adela Magallanes, Biology, New Mexico Institute of Mining and Technology (New Mexico Tech). Winners for Poster Presentations include the following: 1st Place: Bethany Davis, Mechanical Engineering, NMSU; 2nd Place: Doreen Aboagye, Biochemistry, City University of New York (CUNY), Lehman; 3rd Place Tie: Daniel Trujillo, Fishery and Wildlife Sciences, NMSU; 3rd Place Tie: Ismael Ollivier, Carlos Ayala, Antonio Espino, and Emmanuel Rosendo, Engineering, Universidad Autonoma de Chihuahua.

Students viewed posters and met with NMSU faculty members to discuss their research during the University Research Council (URC) Poster Presentations, then they had the opportunity to attend an NMSU Information Fair, with assistance from several ethnic offices, including the Society of Hispanic Professional Engineers (SHPE), Black Programs, the American Indian Program, and others. Students also had the opportunity to attend a seminar presented by Dr. Dale Alexander, Professor Emeritus of Chemistry at NMSU. In the seminar, a series of integrated demonstration experiments provided a vivid illustration of important chemical and physical properties of gases, including hydrogen, oxygen, carbon dioxide, and propane. The properties illustrated by the demonstration included density, pressure, inertness and flammability. The experiments were discussed in terms of both the macroscopic perspective and the molecular point of view. Students were both entertained and educated at the same time. Importantly, students enjoyed and benefitted from the interactive nature of the seminar in which students participated by asking questions and responding to questions asked of them. Another highlight of the event was held after the seminar. A musical group, Tequila y Ron, comprised of three engineering faculty and one student from the Universidad Autonoma de Chihuahua in Chihuahua, Mexico, provided entertainment the hour before dinner was served. The band entertained with their own unique sound they've created by mixing the Bolero and Cuban styles of music.

Thirty (30) community college students from partner institutions attended a pre-conference workshop that was held before the day of the conference to help them navigate the conference and make the most of the conference experience. The students also attended a post-conference workshop the day after the conference that targeted transfer issues to make the transition easier for students to move from community college to four-year universities.