



HORIZONS

Expanding Horizons in Science, Technology, Engineering, and Mathematics

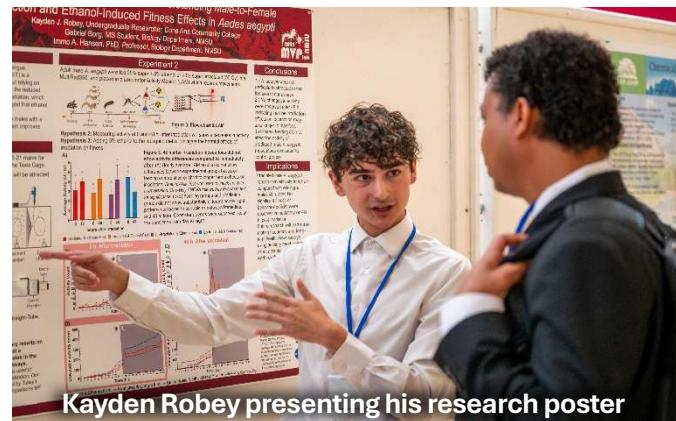
A statewide alliance sponsored by the National Science Foundation and the State of New Mexico

2025 New Mexico AMP Student Research Conference

October 24, 2025, Las Cruces, New Mexico

The 2025 NM AMP Student Research Conference was a wonderful opportunity for students, faculty, instructors, stakeholders, and staff from New Mexico to meet and learn from one another. Students with an interest in Science, Technology, Engineering, and Mathematics (STEM) and those who are pursuing STEM degrees had the opportunity to learn from faculty and peers about their research projects. The conference program included engaging poster presentations, professional development workshops, and opportunities for networking and collaboration. The conference was held at the Corbett Center Student Union in the NMSU Main Campus.

This annual conference was attended by 220 people, including 94 university and college students, 14 community college students, and 52 high school students. The higher education institutions represented were three community colleges, namely Southeast New Mexico College, Doña Ana Community College (DACC), and Luna Community College, and eight universities, including Eastern New Mexico University (ENMU), New Mexico Highlands University (NMHU), New Mexico Institute of Mining and Technology (NM Tech), New Mexico State University, Northern New Mexico College (NNMC), University of New Mexico (UNM), Western New Mexico University, and Universidad Autónoma de Ciudad



Kayden Robey presenting his research poster

Juárez. Students from ten New Mexico high schools participated in the conference, including Mescalero Apache High School, high schools in the NMSU TRIO Upward Bound Program, and high schools in the New Mexico Mathematics, Engineering, and Science

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Message from NM AMP Director, Dr. Paola Bandini

On behalf of the NM AMP Program, I want to thank all who attended the 2025 New Mexico Alliance for Minority Participation (NM AMP) Student Research Conference! The conference was a success thanks to the contributions of the student presenters and their faculty mentors, Institutional Coordinators, speakers, workshop facilitators and panelists, poster judges, program directors, Advisory Board members, university leadership, and the NM AMP team.



The conference provided university, community college and high school students and faculty mentors the opportunity to network, be inspired and learn from one another, develop communication skills, make friends, and participate in a place of belonging and appreciation. Students showcased their undergraduate research in Science, Technology, Engineering, and Mathematics (STEM) fields.

In the 33rd year of NM AMP, we are proud of our students' accomplishments, including participating in research assistantships, internships, presentations at national conferences, and co-authorship of research papers. NM AMP values these accomplishments because undergraduate research experiences and professional activities help cultivate scientific identity and facilitate persistence. NM AMP works to increase the number of students who earn STEM B.S. degrees in New Mexico. We believe that research opportunities encourage retention of students, which influences their progression to graduation.

Save the date: 2026 NM AMP Student Research Conference will be October 23, 2026!

Achievement (NM MESA) Program, including Las Cruces High School, Chaparral High School, Gadsden High School, Mayfield High School, Santa Teresa High School, Organ Mountain High School, Valley High School, Robertson High School, and Centennial High School. Others in attendance were students and/or staff from the New Mexico Space Grant Consortium, the Undergraduate Research Training Initiative for Student Enhancement (U-RISE) Program, TRIO STEM-H Student Support Services, TRIO McNair Scholars Program, and Sandia National Laboratories.

New Mexico House Representative Nathan P. Small and U.S. Representative Gabe Vasquez, both of whom spoke during the luncheon session about the importance of higher education in improving the lives of New Mexicans. Attendees shared their impressions about the conference's activities and sessions by completing an evaluation form. Attendees' comments regarding the Keynote Speakers reflected thoughtfulness and engagement:

"Dr. Litvak's presentation was an excellent example of making science accessible and relevant to everyone in the room- and a good model of their poster session."

"I really liked it when the NM representative and congressmen spoke, it was quite inspiring."



KEYNOTE SPEAKERS

Insightful keynote speakers sparked students' interest and motivation in STEM research. The Breakfast Keynote Speaker was Dr. Marcy Litvak, University of New Mexico Professor of Biology and Co-Principal Investigator (Co-PI) of the NSF grant that funds NM AMP (see photograph, right). Dr. Litvak presented an engaging talk on her research titled, "Lessons Learned from the New Mexico Elevation Gradient." The Luncheon Keynote Speakers were

MORNING OPENING AND SESSIONS

At 7:30 a.m., attendees registered and showed enthusiasm for participating in a conference, some of them for the first time. After check-in, attendees began their conference experience at the Breakfast Keynote Session. Dr. Paola Bandini, Director of NM AMP and Co-PI of the NSF grant that funds NM AMP, welcomed the conference attendees and introduced the agenda and the morning speakers. NMSU President, Dr. Valerio Ferme, welcomed the attendees over breakfast and highlighted the importance of programs like NM AMP that support undergraduate students in becoming involved in research and experiential learning. President Ferme emphasized the importance of STEM fields for New Mexico's and the nation's workforce and economic development. NMSU Interim Provost and NM AMP grant PI, Dr. Lakshmi Reddi, addressed the attendees, mentioning the importance of interdisciplinary research to address current societal problems and how programs such as NM AMP can support this effort. Dr. Reddi encouraged NM AMP scholars and other students to continue their academic paths and to draw inspiration from others during the conference. During breakfast, Dr. Marcy Litvak presented her talk focused on semi-arid ecosystems



distributed across New Mexico and the Southwestern U.S., which are diverse ecosystems that sequester carbon from the atmosphere, facilitate groundwater recharge, prevent erosion, and regulate climate. Dr. Litvak discussed how her research team is using a network of sites called the New Mexico Elevation Gradient to quantify these ecosystem processes and how sensitive these processes are to the hotter, drier climate the region has experienced over the last two decades.

Student Workshops

The morning activities for students included three workshop options from which they could choose two, the first one at 9:30 am and the second one at 10:30 am. Each workshop lasted one hour.

- **Student Workshop I** (Senate Chambers) was titled “Communicating your Science” and facilitated by Debbie Lee, Senior Program Manager of the Accelerating Resilience Innovations in Drylands (ARID) Program at UNM and NM AMP Institutional Coordinator (IC) for UNM.

- **Student Workshop II** (Senate Gallery) was titled “Immersive Learning at NMSU: Virtual Reality & Bodyswaps in Action” (see photograph, right) and facilitated by Melinda Cuilty,



Enterprise Instructional Technology Administrator/VR Lead at NMSU.

- **Student Workshop III** (Middle Ballroom) was titled “Cross Over Between Fundamental Research and STEAM Engagement” and facilitated by Dr. Curtis O’Malley, Assoc. Professor in Mechanical Engineering at NM Tech, Director of MechE Mayhem STEAM (Science, Technology, Engineering, Art, and Mathematics) Lab, and NM AMP IC for NM Tech (see photograph below).



Student Workshop III facilitated by Dr. Curtis O’Malley

Students provided positive feedback about the workshops. Students said:

“The workshops were both helpful and innovative to where I gained new knowledge from a research/interview perspective.”

“Debbie’s (Ms. Lee) lecture was extremely helpful. It should be recommended to every presenter before their poster presentation.”

“They had very interesting topics. Dr. O’Malley was the best presenter ever!!! Please have him again next year.”



Student Workshop I facilitated by Debbie Lee

The morning sessions included an **orientation and workshop for high school students** of the NM MESA Program and NMSU TRIO Upward Bound GISD/LCPS Program, facilitated by Anita Gonzales, NM MESA Deputy Director and New Mexico Representative (District 70), and Robert Gomez, NMSU Director of TRIO Upward Bound GISD/LCPS Program. The high school students participated in activities that helped them navigate the conference and learn from the experience, with exercises on how to read research abstracts and select poster presentations that were most interesting and relevant to them. The students took notes in a booklet log about the events they attended (see photograph below).



Workshop for high school students

During the conference, 9 students from New Mexico community colleges, who had applied and been selected, attended the **NM AMP Conference Community College Professional Development Workshops** and received a stipend for their participation. These workshops are designed for community college students to get a better understanding of the purpose and value of the conference and the transfer process to a university. Michael Voegerl, UNM Director of International Admissions and Recruitment, facilitated the workshops. The Friday workshops were “Navigation of the Conference” and “Reading an Abstract and Abstract Exercises.” In the Saturday workshop, the community

college students worked in groups and discussed the conference's impact on their academic lives and professional futures.

Faculty Workshop

Conference attendees from around the state, including STEM faculty, program staff, and administrators, participated in a workshop on "Effective Mentoring Relationships." Dr. Cecilia Contreras, NM AMP Associate Director, led a panel of faculty from three NM AMP partner institutions (see photograph below): Dr. Brian Pasko, Professor of Mathematics and Department Chair at ENMU and NM AMP IC for ENMU, Dr. Sushmita Nandy, Associate Professor of Biomedical Sciences and Chair of the Department of Biology, Chemistry, and Environmental Science at NNMC (Dr. Nandy was recognized as one of two NM AMP Mentors of the Year in 2024), and Dr. Justine Garcia, Associate Professor of Biology at NMHU.

Faculty Panel (from left): Dr. Brian Pasko, Dr. Sushmita Nandy, and Dr. Justine Garcia



Advisory Board Meeting

The NM AMP Advisory Board met after the Breakfast Session. NMSU Interim Provost and Advisory Board Chair, Dr. Lakshmi Reddi, facilitated the board meeting. NM AMP Director Bandini provided summaries of the program focus and goals for the next five years, program performance, and participant demographics. Dr. Rachel Boren, Director of the Southwest Outreach Academic

Research (SOAR) Evaluation Policy Center, presented evaluation plans and updates for NM AMP. Dr. Stephanie Arnett, NMSU Assistant Professor of Sociology and NM AMP grant Co-PI, is the Lead Researcher of the NM AMP Broadening Participation Project and presented an update on the research project.

LUNCHEON KEYNOTE ADDRESS

At the Conference Luncheon, NM AMP Director Bandini, introduced Clayton Abbey, NMSU Assistant Vice President of Government Relations, who introduced the Honorable New Mexico Representative Nathan P. Small as the Luncheon Keynote Speaker (see photograph below). Rep. Small is the President of the House



Rep. Nathan P. Small

Appropriations and Finance Committee (HAFC). Rep. Small is a third-generation New Mexican, hailing from a family of educators and ranchers. A lifelong outdoorsman with a passion for public service, he has represented District 36

of Las Cruces in the New Mexico House of Representatives since 2016. Rep. Small emphasized the importance of providing opportunities for all New Mexicans and the importance of reflecting on the values of New Mexican working families to better serve their communities. U.S. Representative Gabe Vasquez spoke after Rep. Small during the luncheon session. Rep. Vasquez expressed the importance of higher education for improving the lives of New Mexicans. He shared

personal, academic, and professional experiences with which many in the room related and motivated the students to continue studying and following their dreams. Representatives Small and Vasquez advocate and support higher education and student success across New Mexico.

During lunch, Poster Presentation Judges convened for the Judges Training Session/Luncheon, where they learned about the rules and procedures for the poster presentation competition and judging. The poster sessions and judging activities were coordinated by Graduate Assistant Cyrena Ridgeway. Judges previewed the posters prior to student presentations. Twenty-two STEM faculty and graduate students volunteered as judges (see photograph, right). The top three winners in the categories of Community College students and University students were selected.



PhD student Emilia Marmolejo served as a Poster Judge

FACULTY MENTORS AND INSTITUTIONAL COORDINATOR OF THE YEAR

Michael Voegerl presented the Faculty Mentors and Institutional Coordinator of the Year Awards for all their hard work and dedication to our NM AMP students:

- **Mentor of the Year: Dr. Brian Pasko**, Professor of Mathematics and Department Chair at ENMU.
- **Mentor of the Year: Dr. Eric O. Lindsey**, Assistant Professor of Earth and Planetary Science at UNM.
- **Institutional Coordinator of the Year: Debbie Lee**, Senior Program Manager of ARID Program at UNM.



2025 Mentors of the Year



Dr. Brian Pasko



Dr. Eric O. Lindsey

POSTER SESSIONS AND BUSINESS MEETINGS

Forty-one students from New Mexico universities, community colleges, and high schools presented their STEM research projects in two poster sessions in the afternoon of the conference (see photograph below). Student researchers demonstrated their presentations



Student Research Poster Session

skills and shared their work with great enthusiasm and professionalism. Some students were presenting for the first time whereas other students had presented at other conferences before, such as previous NM AMP Student Research Conferences and conferences in their fields of study.

The NM AMP Institutional Coordinators (ICs) convened in the afternoon (see photographs below), with Director Bandini facilitating the meeting. After self-introductions, Dr. Bandini presented the recent program data and outcomes. ICs updated the group on the status of their funding, recruitment efforts, and campus-specific outreach. The group shared best practices for running the student programs at their institutions. Director Bandini stressed the importance of continuing the recruitment of STEM faculty mentors and students to expand the scope and visibility of the NM AMP Programs. Dr. Rachel Boren presented evaluation plans for NM AMP and Dr. Stephanie Arnett presented an update on the NM AMP Broadening Participation Research Project.



Institutional Coordinators and NM AMP Team



NM AMP Institutional Coordinators Meeting

FRIDAY CLOSING: AWARDS AND SOCIAL

At the closing ceremony on Friday afternoon, Michael Voegerl announced the raffle ticket winners and the Poster Presentation Awards:

Community College Category Poster Awards

1st Place: Kayden Robey (DACC)

2nd Place: Lane Porter (DACC)

3rd Place: Celeste Mora (DACC)

University Category Poster Awards

1st Place: Francis Silva (NMSU)

2nd Place: Willow Cunningham (UNM)

3rd Place: Riley Morris (NM Tech)

Community College Category Poster Awards



1st Place: Kayden Robey (center), pictured with Cyrena Ridgeway (left) and Dr. Bandini (right)



2nd Place: Lane Porter



3rd Place: Celeste Mora

University Category Poster Awards



1st Place: Francis Silva (center)



**2nd Place:
Willow Cunningham**



**3rd Place:
Riley Morris**

The Brownie-Sundae Bar Celebration created a festive environment that fostered social interactions, camaraderie, and networking among groups and across institutions (see photographs, right and below).



Brownie-Sundae Bar



Some participants said about their conference experience:

“Overall, a great experience as first year-research in college. I have gained valuable knowledge and resources for the workshop and presentations.”

“Thank you for including HS and college students! Great networking opportunities.”

“Thank you for hosting this conference which provides an opportunity for experience to present and embody the identity of a scientist/researcher/STEM professional.”

SATURDAY MORNING WORKSHOP

On Saturday, Michael Voegerl led the second Community College Professional Development Workshop (Colonel Fountain Room) (see photograph below). Students reflected on how the conference impacted them and their career or academic interests. Students worked in groups to discuss what they learned or discovered during the conference, whether their expectations were met, and in which ways the conference changed their understanding of the university education, undergraduate research, and participation in research conferences such as the NM AMP Student Research Conference.



The vision of the New Associate Director, Dr. Cecilia Contreras

As the new Associate Director of NM AMP, I envision the student programs as places of learning, discovery, and enjoyment. I am leading changes and improvements that will allow us to establish fully student-centered programs. The NM AMP Team is updating and strengthening the curricula for the Undergraduate Research Scholars (URS) and STEM PREP, incorporating research and mentoring best practices, and designing the program's evaluation with updated instruments. The feedback that we receive from faculty mentors and students would inform our next steps and approaches.

We are also seeking to work more collaboratively with the NM AMP partner institutions and their institutional coordinators to support each other. I developed three surveys to document how the NM AMP programs operate across the seven partner institutions. Another area of improvement is providing useful guidance for faculty mentors and graduate students who work closely with our NM AMP students.

Lastly, due to my expertise in STEM-related research on topics such as students' experiences and identity development, faculty mentoring, and teaching approaches, as well as in peer mentoring in higher education, I look forward to presenting and publishing on these areas on behalf of NM AMP. The first presentation will be on Research Confidence and Career Development among STEM Undergraduate Students in New Mexico at the ASEE Southwest Gulf Conference at Texas A&M University in March 2026. This is a research article developed using a new format of data collection from the URS program.



2025 New Mexico AMP Student Research Conference



NM AMP Undergraduate Research Scholars (URS) presenting at the 2025 NM AMP Student Research Conference: from left, Michael Kerns (NM Tech), Alvin Birmingham-Monroe (NMSU), and Thomas Pierson (NM Tech)

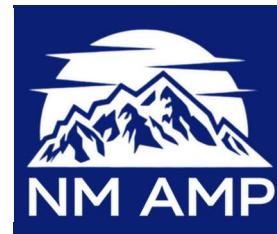
Photos in this newsletter issue are courtesy of New Mexico State University and NM AMP Team

New Mexico AMP Administrative Offices

New Mexico Alliance for Minority Participation (NM AMP)

New Mexico State University
P.O. Box 30001, MSC-3AMP
Las Cruces, NM 88003-8001
Telephone: (575) 646-1847
Fax: (575) 646-2960

Email: nmamp@nmsu.edu
Website: nmamp.nmsu.edu



Key Personnel:

Principal Investigator (PI): Lakshmi N. Reddi, PhD, PE

Director and Co-PI: Paola Bandini, PhD, PE

Associate Director: Cecilia Contreras, EdD

Broadening Participation Project Lead Researcher and Co-PI: Stephanie Arnett, PhD

Co-PI: Marcy Litvak, PhD

Advisor to the Director, Former Director (2021 – 2025): Jeanne Garland

Database Analyst: Florence Nash

Graduate Assistant for Student Programs: Cyrena Ridgeway

Financial Manager: Luis Lopez



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National Science Foundation Louis Stokes Alliances for Minority Participation (LSAMP)

Directorate of STEM Education

2415 Eisenhower Ave, Alexandria VA, 22314

The Louis Stokes Alliances for Minority Participation (LSAMP) program invests in the Nation's colleges and universities to aid student success to create a new generation of STEM discoverers for the national STEM enterprise.



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NM AMP Partner Institutions and Institutional Coordinators

New Mexico State University (Lead Institution)

Cecilia Contreras, NM AMP Associate Director
cecontre@nmsu.edu

Eastern New Mexico University

Brian Pasko, Professor and Head, Department of Mathematics
brian.pasko@enmu.edu

**Michael Voegerl (UNM),
Workshop Lead**



New Mexico Highlands University

*Shantini Ramakrishnan, Conservation and Restoration Education Prog. Mgr., Conservation Science Center
NM Forest & Watershed Restoration Institute*
shantinir@nmhu.edu



New Mexico Institute of Mining and Technology

Curtis O'Malley, Assistant Professor of Mechanical Engineering and Miner Mayhem STEM Outreach Programs Director
curtis.omalley@nmt.edu



Northern New Mexico College

David Torres, Professor and Chair, Department of Mathematics and Physical Science
davytorres@nnmc.edu

University of New Mexico

Debbie Lee, Senior Program Manager, ARID Institute
debbieylee@num.edu



Western New Mexico University

Zenaido Tres Camacho, Professor of Biology
zenaido.camacho@wnmu.edu



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and Mathematics

Program sponsored by the National Science Foundation and the State of New Mexico

Save the date, you are invited!

**The 2026 NM AMP Student Research Conference will be on
Friday, October 23, 2026**

Where: Corbett Center Student Union, NMSU Main Campus, Las Cruces, NM



NM AMP URS students from NMSU attending a Student Workshop at the Conference



NM AMP URS Samantha Martinez (NMHU) presenting her poster



Conference attendees listening Dr. Litvak's Keynote Presentation