

PROMOTING SCIENCE, TECHNOLOGY, ENGINEERING, MATH & HEALTH EDUCATION



ANNUAL REPORT 2022-2023



HEALTH SCIENCES OFFICE FOR DIVERSITY, EQUITY & INCLUSION



OFFICE OF THE VICE PRESIDENT FOR RESEARCH

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Mission

The UNM STEM-H Center advances STEM-H teaching and learning through outreach, research, and education programs, services, & resources.

Our mission is accomplished by, but not limited to...

- Administering the highest quality STEM-H focused academic competitions for 4th-12th grade students
- Developing, facilitating, and/or coordinating innovative STEM-H Educator Professional Development opportunities
- Developing, facilitating, and/or coordinating STEM-H focused student learning opportunities (workshops, etc.)
- Developing strategic STEM-H education focused partnerships and collaborations among UNM faculty/staff and within the community (public-private) to increase and sustain engagement as well as create opportunities to increase student interest in STEM-H careers
- Engaging in STEM-H education focused policy research and advocacy

Vision

We are a recognized leader in the STEM-H teaching & learning community in New Mexico and beyond.

- We serve as a key player in the coordination of University of New Mexico STEM-H external outreach
 activities in order to support the University as well as the community in its efforts to collectively reach
 key system-wide STEM-H education goals including significantly increasing the recruitment, retention,
 and graduation of STEM-H majors.
- We provide a **comprehensive center** for STEM-H education resources, outreach programs, and support services.
- We are a hub for dissemination of information regarding STEM-H teaching and learning best practices and innovation.
- We facilitate the cultivation and support of strategic STEM-H education focused collaborations & partnerships.

Team Values

We operate with a sense of PURPOSE and the desire to leave a LEGACY in the field of STEM-H education.

- We operate, at all times, with INTEGRITY and COURTESY.
- We conduct our business in the spirit of **COOPERATION**.
- We are open to CHANGE, encourage CREATIVITY, and strive for INNOVATION.
- We are ACCOUNTABLE for our actions and are COMMITTED to the mission of the organization.
- We are **DEPENDABLE** and **COMPETENT**. Our team members, as well as our constituents, know we will deliver what we promise.
- We value WISDOM gathered through experience, seek to instill PASSION in our work, and act with COURAGE as we strive to fulfill our mission and work toward our vision daily.

FROM THE DIRECTOR

Karen Kinsman, MS, PMP, Director/Sr. Program Manager



Woohoo! 2023 saw all our programs back fully in-person with Research Challenge and SW JSHS also continuing a few supplemental virtual elements like the Project Showcases where students' digital project boards, abstracts, etc. are viewable by anyone interested in checking out the AMAZING work they have done. We have also continued the popular Research Challenge Virtual Lobby which substantially expands access to our STEM Career Panels, Grand Awards streaming information, PDF Book of Awards, daily schedule, Projects Showcase, and Community Partners STEM Hall.

I would like to thank everyone who has had a hand in making our efforts a success and ensuring that we are providing high quality programs, services, and resources to all of our stakeholders, but most of all to the students and teachers who are always at the heart of our work.

I want to express an especially heartfelt THANK YOU to all our sponsors/donors who, despite continued post-COVID rebuilding, have taken everything in stride, offered us nothing but continued flexibility and grace, and never wavered in their support. We have even managed to continue bringing on new partners! Without our corporate and individual partners, the STEM-H Center would not be able to offer successful programs for students, educators, and the community as well as work on the development of meaningful strategic collaborations/partnerships. I am humbled and grateful beyond measure. Our programs flourish because of the thousands of hours volunteered by hundreds of people in our community...STEM professionals, educators, business leaders, high school & college students, UNM colleagues, staff spouses/kids, and so many others.

I am amazed by the number of individuals and organizations connected with the UNM STEM-H Center. I am constantly reminded, by our students and alumni, that what we do, as a team, makes a difference in their lives...many times solidifying their decisions to pursue careers in STEM-H fields. If you are already one of our organizational/corporate partners, thank you! If you are already an individual donor, thank you! If you have not joined our team yet, please join us as we work to ensure student success and support STEM educators in the future!

"Thanks to Research Challenge and SW JSHS, I have seen places I would never have been able to afford to go, met people I never thought I could have met (including our Congressional delegation AND Ted Danson!!), and continue to ask questions, conduct studies, and feel motivated and supported by the brilliant minds who come to judge & talk with me about my research. Doing real research has set me up for life and shaped me into who I am today. I am going into my senior year watching 5th & 6th graders start their own research projects like I did when I was their age and I see the same spark after they attend these competitions. They hear things being done by fellow scientists and talk to other individuals and it sparks their interest in asking more questions."

Gianna Nilvo, Belen HS Class of 2024 Research Challenge & SW JSHS Alumna STEM-H Center Advisory Council Student Member

OUTREACH

RESEARCH CHALLENGE

The **Central NM STEM Research Challenge** has served students, teachers, and families since 1959. Our alumni include countless individuals who found their way into STEM careers – including a retired NASA Shuttle Astronaut, prestigious researchers, physicians, educators, and many who left NM to pursue their post-secondary education then came home to serve their home communities at Sandia National Labs, Los Alamos National Labs, UNM, and countless other businesses in our community. Several of our alumni return every year as judges to be part of the experience that meant so much to them as pre-college students and a handful are part of our judging leadership team.

Central NM STEM Research Challenge is a three-division (Elementary, Junior, & Senior), multicategory, regional STEM research competition. The **Central NM STEM Research Challenge** qualifies students to participate in the State Science Fair and sends top qualifying students to the International Science & Engineering Fair (ISEF), the world's largest pre-college research competition. Research competitions reward discovery and innovation as well as promoting creativity through the discovery of new problems, inventions, ideas, and solutions. They also provide the perfect way to help students develop the "essential" skills needed to succeed in the workplace (ex: time management, personal organization, oral & written communication skills, project management, etc.). Research Challenge serves students and science teachers, grades 4 - 12. Over 10,000 students in the Central region participate in local school competitions. Schools then qualify students to move on to the regional level. **Approximately 260** 4th through 12th grade students **registered for the 2023 Central NM STEM Research Challenge.** Though participation numbers are still lower than in pre-COVID years, they continued rebounding in 2023.

As an ISEF-Affiliated Fair, the **Central NM STEM Research Challenge** sends 4 projects to ISEF as competing Finalists and, funding allowing, up to two top 8th grade student researchers to ISEF as Student Observers. Our ISEF Finalists from the Central NM Region for 2022 were: **Akilan Sankaran** Albuquerque Academy; **Landon Flemming** Explore Academy; **Eliana Juarez** V. Sue Cleveland High School; and **Aditya Koushik** La Cueva High School. The 2022 Regeneron ISEF was held in Atlanta, Georgia and our Finalists were all able to attend in person. ISEF 2023 will be held in Dallas, TX.







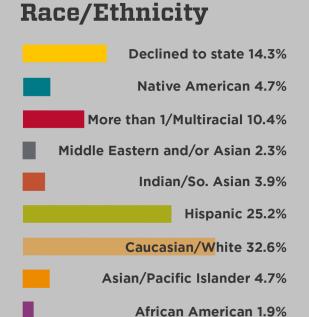




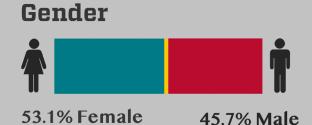


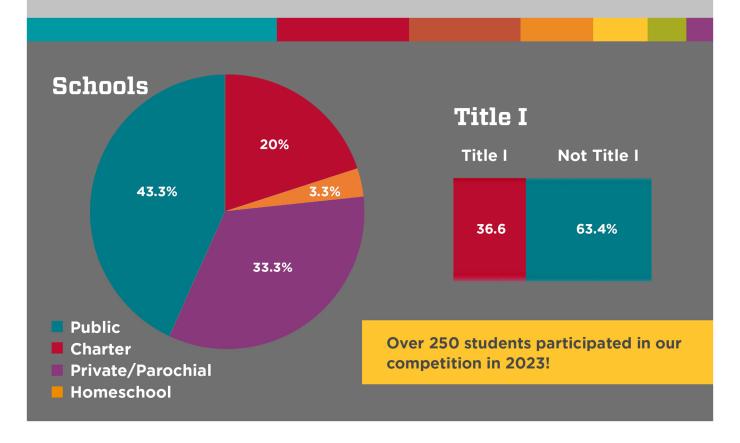


Central NM STEM Research Challenege 2023



New Mexico student competitors were awarded over \$61,000.00!





SCIENCE OLYMPIAD

Science Olympiad is an international nonprofit organization devoted to improving the quality of science/STEM education, increasing student interest in STEM and providing recognition for outstanding achievement in science/STEM education by both students and teachers. These goals are accomplished through classroom activities, research, training workshops and the encouragement of intramural, district, regional, state and national tournaments. SO tournaments are rigorous academic interscholastic competitions that consist of a series of events, which students prepare for during the year. Events follow the format of popular board games, TV shows and athletic games. These challenging and motivational events are well balanced between the various STEM disciplines of life sciences, physical sciences, engineering, mathematics, computers, and technology. There is a balance between events requiring knowledge of facts, concepts, processes, skills and science applications. One of the goals of Science Olympiad is to elevate STEM education and learning to a level of enthusiasm and support that is normally reserved only for varsity sports programs...celebrating academic athletes!

In 2023, the **Central NM Science Olympiad** offered **44 events** and had **66 volunteer Event Supervisors, Event Assistants & other volunteers** from UNM and several other area organizations. There were a total of **15 competing teams from 11 middle and high schools** in the region that competed in both virtual and in-person events.

The Albuquerque Academy High School team placed 1st at the state competition and represented New Mexico at the 2023 National Science Olympiad competition. Our Division B top three winners were 1st Cottonwood Classical Prep School, 2nd Wilson Middle School, and 3rd Albuquerque Academy B1. The Division C top three winners were 1st La Cueva High School C1, 2nd Albuquerque Academy C1, and 3rd V. Sue Cleveland High School.

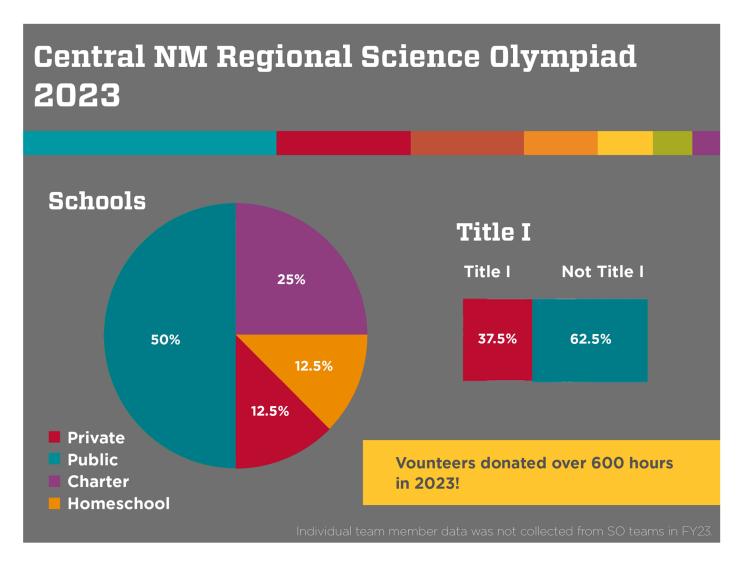












Because the registration process for Science Olympiad takes place through the State Science Olympiad office and individual student demographic information is not collected, at present, we are exploring the best ways to be able to gather the same demographic information on participants as is collected for Research Challenge and SW JSHS. Once we have determined the best mechanism for ensuring accurate data, it will be added to future Annual Reports.



JUNIOR SCIENCE & HUMANITIES SYMPOSIUM

The **Southwest Region Junior Science & Humanities Symposium (JSHS)** has recently been redefined to include the state of New Mexico, all southern Colorado counties bordering NM, and all Texas counties bordering NM to the east & south. This redefinition expanded the reach of our region, so we are hopeful that will, over time, help to grow the program significantly.

The **Junior Science & Humanities Symposium** is a national competition program designed to challenge and engage high school students in STEM research. Individual students compete for scholarships and recognition by presenting the results of their original research efforts before a panel of judges and an audience of their peers. Opportunities for hands-on workshops, panel discussions, career exploration, research lab visits and networking are offered during the competition as well.

JSHS students...

- Participate in a forum honoring individual achievement in STEM;
- Qualify for significant scholarships and other recognition;
- Network to enrich understanding of STEM pursuits beyond high school;
- Advance in statewide, regional, national and international symposia;
- Develop skills to help prepare for undergraduate and graduate pursuits
- Develop skills in the application of science (STEM) content to solve a problem or to gain new knowledge, writing a paper, and communicating results.

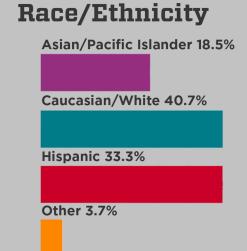
JSHS is a collaborative effort with the research arm of the Department of Defense and administered by the National Science Teaching Association (NSTA) in cooperation with colleges/universities nationwide. JSHS aims to prepare and support students to contribute as future scientists and engineers conducting STEM research on behalf of or directly for the Department of Defense, the Federal research laboratories, or for the greater good in advancing the nation's scientific and technological progress.





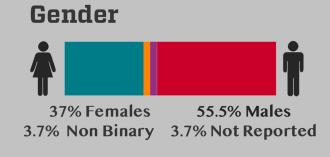
In 2023, the **SW Junior Science & Humanities Symposium** hosted **28 students** at the fully in-person competition. Five students qualified to compete at the **2023 JSHS National Competition** – **Eliana Juarez**, V. Sue Cleveland High School (Rio Rancho, NM); **Aditya Koushik**, La Cueva High School (Albuquerque, NM); **Marissa Martinez**, Monte Vista Senior High School (Monte Vista, CO); **Galilea Rodriguez**, Harmony Science Academy (El Paso, TX); **Henry Tischler**, Academy for Technology & the Classics (Santa Fe, NM). The following students won **2023 Poster Session Awards at SW JSHS** – **George Privett**, Rio Rancho High School (Rio Rancho, NM); **Diego Porras**, Harmony Science Academy (El Paso, TX); **Cassie Sandoval**, School of Dreams Academy (Los Lunas, NM); **Rodrigo Valdes**, Harmony Science Academy (El Paso, TX); **Daniel Kim**, Los Alamos High School (Los Alamos, NM); and **Augustus Miller**, Monte Vista Senior High School (Monte Vista, CO).

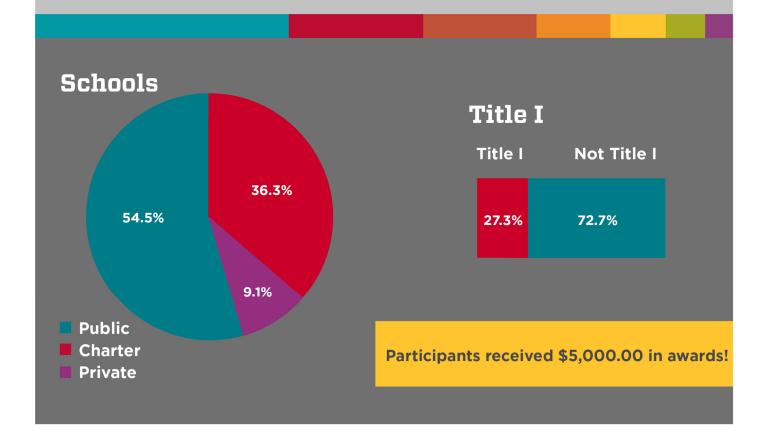
Junior Science and Humanities Symposium 2023



Not Reported 3.7%

In 2023 the SW Region JSHS hosted 27 students from 11 schools





EDUCATION & TRAINING

PROFESSIONAL DEVELOPMENT

The **STEM-H Educator Professional Development Workshops** provide teachers with opportunities to engage in professional development specific to including inquiry-based science/math in their classrooms and supporting students in independent inquiry-based research projects leading to local and/or regional as well as potentially state and/or international competition. By engaging in one or more of the workshops, STEM-H educators can prepare themselves to establish or enhance a student research program in their schools/classrooms.

In 2022-2023, Research Challenge Bootcamp was offered both in-person and online. Educators came from within Central NM, throughout the state of NM, and outside our "Bootcamp provided in-depth, comprehensive coverage of ISEF paperwork & issues related to it. Anyone associated with an ISEF-Affiliated Fair will benefit from Bootcamp - teachers, regional/state science fair directors, parents, mentors, etc."

Jennifer Hadley
Operations Manager
Minnesota Academy of Science

great state (including California, Colorado, etc.). Alaka`ina Foundation/Kupono Government Services continued as the sponsor of the UNM STEM-H Center Learning Lab which has allowed us to utilize a robust online learning management system in Moodle Cloud. The STEM-H Educator Professional Development trainings will continue to evolve over time as needs and funding are identified. Thanks to our amazing community partners, we have also continued to build a video library of STEM Careers Panels. Please check out the panels from 2021-2023 on our STEM-H Center YouTube Channel...and share to your heart's content! Our Food Sciences STEM Career Panel partner in 2023 was M'Tuccis Restaurants.

STUDENT RESEARCHER BOOTCAMP



The STEM-H Center's Student Researcher Bootcamp provides 4th-8th grade student researchers with project development skills, support, and resources along with an introduction to topics like Project Idea Development, Responsible Conduct of Research (safety, ethics), Statistics/Data Analysis, Judging Preparation, etc. Student Workshops are conducted in partnership with Explora Science Center which provides the space and facilitators for them. This partnership continued in 2022-2023 with four sessions of the Student Researcher Bootcamps being offered by Explora educators in person. Approximately 48 4th-8th grade students completed Student Researcher Bootcamp in Fall 2022.

STEM-H LENDING LIBRARY

The **UNM STEM-H Lending Library** offers teachers, schools, homeschool/middle/high school students & community groups as well as University level students/faculty the opportunity to borrow small equipment & curriculum materials. The inventory recently moved to the UNM College of Education's Manzanita Hall. A generous donation from **Corning Life Sciences** of both glass & plastic labware (beakers, flasks, etc. in various sizes) was also added to the Lending Library this year.

PARTNERSHIPS/POLICY/ADVOCACY

STRATEGIC PARTNERSHIPS & COLLABORATIONS

Below are examples (not an exhaustive list) of strategic STEM-H Education relationships/collaborations/partnerships that have been developed or are in the process of development out of the STEM-H Center:

- Advancing STEM Research Teaching Program (ASRT)
- Air Force Research Laboratory New Mexico
- APS Engineering the Future Program
- Corning Life Sciences
- ENLACE NM
- EPSCoR
- Explora Science Center
- EXPO NM
- Honeywell/Sandia National Laboratories
- Intel Corporation
- Kupono Government Services
- Los Alamos National Laboratories Foundation
- New Mexico PBS
- NM Academy of Science
- NM MESA
- NM Partnership for Mathematics & Science Education
- NM Public Education Department
- NM Science Teachers Association
- NM Supercomputing Challenge
- Oak Ridge Institute for Science Education (JSTI West)
- Pajarito Powder

- PNM Resources
- Project ECHO Education
- Q Station
- Regeneron ISEF Science Fair Directors Group
- Science Buddies
- Society for Science
- STEM NM Learning Ecosystem
- The Aerospace Corporation
- University of New Mexico
- UNM Engineering Student Services & Outreach Programs
- UNM Biosafety Office
- UNM College of Education
- UNM Health Sciences
- UNM Health Sciences Office for Diversity, Equity & Inclusion
- UNM Human Protections Office
- UNM Health Sciences Institutional Animal Care & Use Committee
- UNM Office of VP for Research
- UNM Responsible Conduct of Research Program
- UNM School of Engineering
- US Army Corps of Engineers ABQ District
- Zancada Fellows Program (UNM)

POLICY/ADVOCACY

Being part of both the HSC Office for Diversity, Equity & Inclusion and the UNM Office for Research, STEM-H Center leadership continued to work with the UNM Office of Government & Community Relations as well as the HSC Office of the Chancellor to support STEM-H education related strategic collaborations, policy research/development as well as with federal and state legislative and executive branch contacts (PED/HED, NM State Legislature, US Congressional offices, and NSF). This work will expand and continue as deemed strategically appropriate and valuable. The STEM-H Center's Director currently serves on several regional and statewide STEM-H education related boards/councils including the NM Partnership for Mathematics & Science Education, the Internal Advisory Committee for the UNM School of Engineering: Center for Water and the Environment - NSF CREST Grant (2014-2024), Leadership Team for the STEM NM Ecosystem, and the NM Public Education Department Secretary's Community Advisory Group.

ADVISORY COUNCIL & STAFF

Connie Beimer

VP UNM Alumni Relations
Executive Director UNM Alumni Association

Dr. Reg Bourgeois, PhD

Chief, Strategic Initiatives Group US Army Corps of Engineers - ABQ District

Sofia Chavez

High School Student RC & JSHS Alumna

Dr. Mary Jo Daniel, PhD

Associate Vice President for Research
UNM Office of the Vice President for Research

Robert DeBlassie

Sandia National Laboratories Senior Technical Staff Research Challenge SR Division Master Judge Chair

Dr. Leonard Duda, PhD

Sandia National Laboratories (Retired)
Research Challenge JR Division Master Judge Chair
Central NM Science Olympiad Event Supervisor
SW JSHS Lead Judge

Deborah Green

Science Teacher, St. Pius X High School Reviewer, Regional SRC/IRB Committee

Mary Homan

Retired, NM Gas Company NAIOP NM Research Challenge Committee

Franz Joachim

General Manager, New Mexico PBS Parent, RC Alumnus



Gianna Nilvo

High School Student RC & JSHS Alumna

Jennifer Nilvo

Research Teacher & STEM Coordinator DoD STEM Ambassador Research Challenge ELEM Co-Master Judge Chair

Debra Novak

Director of Education NM Museum of Natural History & Science

Dr. Heather Pratt-Chavez, MD

Associate Professor, Pediatrics, UNM Health Sciences Parent, RC & JSHS Alumna Reviewer, Regional SRC/IRB Committee

Michael Rogers

Engineer Peraton

Dr. Valerie Romero-Leggott, MD

VP & Diversity, Equity, and Inclusion Executive Officer HSC Office for Diversity, Equity & Inclusion Executive Director, UNM BA/MD Program

Gail Vavruska-Marcum

Senior Manager of Compensation Sandia National Laboratories Research Challenge Judge

James Vigerust

Corporate Safety Officer, Aptim Federal Services Research Challenge D&S/Exhibit Halls Manager

STEM-H Center Staff

Karen Kinsman, MS, PMP

Director/Sr. Program Manager

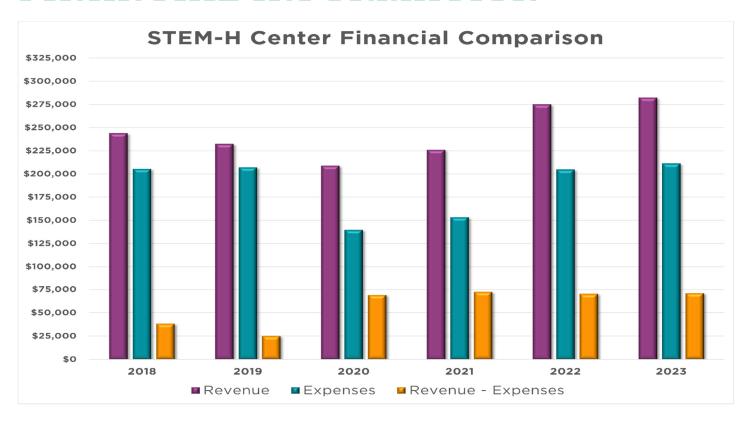
Erin Garcia, JD, MBA Cand.

Asst Director/Program Specialist

Laura Arguelles, MA

Web Developer/LMS Manager

FINANCIAL INFORMATION



The 6-year graph above offers a visual comparison, year to year, of the Center's financial performance since FY18. In FY23, the STEM-H Center team continued to identify efficiencies as well as areas in which additional fundraising efforts could be focused. Given some new funding/sponsorships along with efficient spending and some FY22 funds that came in during FY23, the fiscal year ended again with a comfortable positive balance forward. FY24's budget has been crafted to utilize the balance remaining to support Center operations and our continued commitment to ensuring a robust in-person footprint for all our programs and ongoing virtual options like the Research Challenge Virtual Lobby, STEM Career Panel Videos, a resource-rich website, and SW JSHS Virtual Projects Showcase.

NOTE: The overall revenue/expenses reported for the STEM-H Center in this report do not include the institutional support received from UNM Health Sciences because those funds are part of the Office for Diversity, Equity & Inclusion's budget and not under the control of the STEM-H Center for budgeting & financial tracking purposes. Meaning, the STEM-H Center's true total expenses & revenues are approximately \$97,000 greater than the graph above indicates.

CURRENT FINANCIAL IMPLICATIONS

The STEM-H Center team has continued to work very hard to identify areas in which savings could be realized and costs could be held steady or reduced while still providing the highest quality programs and services possible. A portion of the FY23 Balance Forward represents FY22 funds received after July 1, 2022 (ex: JSHS final annual distribution to regions). What's the bottom line? The STEM-H Center continues to be in solid financial condition entering the first quarter of FY24. The team will continue to be good stewards of the funding dollars received and work to provide the highest quality programs, services, and resources while ensuring fiscal responsibility. Some of the residual FY23 funds will be allocated to contracting with an instructional designer to expand the Center's professional development offerings and with an evaluation coordinator who will work with stakeholders to complete some focused program evaluation activities.

APPENDICES

FY23 Programs Impact Grid
Schools Served
Business/Community Group Donors
Individual Donors
In-Kind Door Prize Donors
Volunteer Hours & Value of Time
Awards Values
Award Donors - Organizations & Individuals





PROMOTING SCIENCE, TECHNOLOGY, ENGINEERING, MATH & HEALTH EDUCATION

FY23 STEM-H Center Impact Grid

| PROGRAM | 4 th -12 th Grade Students Directly OR Indirectly Impacted | Educators Directly Impacted | Volunteer Judges & Event Supervisors |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|-----------------------------------|-----------------------------------------------|
| Central NM Science Olympiad (6 th -12 th Grade; Spring 2023) | 157 | 15 | 66 |
| SW Jr Science & Humanities Symposium (9 th -12 th Grade; Spring 2023) | 28 | 5 | 15 |
| Central NM STEM Research Challenge (4 th -12 th Grade; Spring 2023) | 258 | 125 | 200 |
| Research Challenge Bootcamps (Gr 4-12 Teachers; Fall 2022) Fall/Winter 2022 Teacher PD; online course was left open until March 2023; INDIRECT IMPACT determined based on teacher reported # of students worked with regularly. Totals are projected total based on % of participating teachers who completed evaluation surveys & provided student impact numbers averaged over total # of registered teachers. | 12,494 (Indirect Impact) | 60 (In-Person & Online) | N/A |
| Student Researcher Bootcamps (4 th -8 th Grade Students; Fall 2022) | 48 | 2 | N/A |
| TOTAL IMPACT #'S FOR FY23 PROGRAMS = | 12,985 | 153 | 281 |

FY23 SCHOOLS SERVED

ALL public, private, parochial, charter, and home schools in Central New Mexico are eligible to participate in Research Challenge and Science Olympiad. Participation in SW Junior Science & Humanities Symposium is open to high school students throughout NM, west Texas, and southern Colorado (south of Route 50). All participating schools along with the programs in which their students participated, the type of school, and the school's Title 1 status are indicated (Title 1 defined below the table).

| REGISTERED SCHOOLS | Research Challenge Bootcamp (PD Training) | Central NM STEM Research Challenge (MS/HS) | Central NM STEM Research Challenge (4th-5th Gr) | Central NM Science Olympiad | SW JSHS | School Type | Title I School |
|-----------------------------------------|----------------------------------------------------|--------------------------------------------------------|-------------------------------------------------------------|-----------------------------------|------------|------------------------|-------------------|
| Academy for Technology & Classics | | | | | Χ | CHARTER | * |
| Alamo Navajo Schools | Х | | | | | BUREAU OF INDIAN ED | √ |
| Albuquerque Academy | | Х | | X4 | Χ | PRIVATE | * |
| Albuquerque Area Homeschoolers | | | | X ² | | HOME | * |
| Albuquerque High School | | Х | | | | PUBLIC | √ |
| Albuquerque Institute of Math & Science | X | Х | | | Х | CHARTER | ✓ |
| Albuquerque School of Excellence | Х | Х | Х | X | | CHARTER | ✓ |
| Albuquerque Sign Language Academy | X | × | X | | | CHARTER | ✓ |
| The ASK Academy | Х | Х | | | | CHARTER | √ |
| Bosque Farms Elementary | Х | Х | Х | | | PUBLIC | √ |
| Cibola High School | Х | | | | | PUBLIC | × |
| Cottonwood Classical | | | | X ² | | CHARTER | × |
| Cuba Independent Schools | Х | | | | | PUBLIC | √ |
| Desert Ridge Middle School | | Х | | | | PUBLIC | × |
| Eisenhower Middle School | Х | Х | | | | PUBLIC | × |
| Eldorado High School | | Х | | | | PUBLIC | × |
| Explore Academy | | Х | | | | CHARTER | √ |
| Georgia O'Keefe Elementary School | Х | | Х | | | PUBLIC | × |
| Harmony Science Academy | | | | | Χ | CHARTER | √ |
| Holy Child Catholic School | Х | Х | Х | | | PRIVATE | * |
| Holy Ghost Catholic School | Х | | | | | PRIVATE | * |
| Hot Springs High School | Х | | | | | PUBLIC | √ |
| Immanuel Lutheran | Х | Х | | | | PRIVATE | × |
| Jefferson Middle School | X | Х | | | | PUBLIC | ✓ |
| La Cueva High School | | Х | | X ² | Х | PUBLIC | * |
| Lamar High School | | | | | Х | PUBLIC | * |
| Los Alamos High School | Х | | | | Х | PUBLIC | * |
| Los Lunas High School | | | | X | | PUBLIC | √ |
| MaryAnn Binford Elementary School | Х | | | | | PUBLIC | √ |

| REGISTERED SCHOOLS | Research Challenge Bootcamp (PD Training) | Central NM STEM Research Challenge (MS/HS) | Central NM STEM Research Challenge (4 th -5 th Gr) | Central NM Science Olympiad | SW JSHS | School Type | Title I School |
|------------------------------------|----------------------------------------------------|--------------------------------------------------------|--------------------------------------------------------------------------------------|-----------------------------------|------------|---------------------------------------------|-------------------|
| Mescalero Apache School | Х | | | | | BUREAU OF INDIAN ED | √ |
| Monte Vista High School (CO) | | | | | Х | PUBLIC | × |
| Manzano Day School | | | Х | | | PRIVATE | × |
| Our Lady of the Assumption | Х | Х | Х | | | PRIVATE | × |
| Our Lady of Fatima Catholic School | Х | Х | Х | | | PRIVATE | × |
| Rio Rancho High School | Х | Х | | | Х | PUBLIC | × |
| Route 66 Elementary School | | | Х | | | PUBLIC | ✓ |
| Salam Academy | Х | Х | Х | | | PRIVATE | × |
| San Antonito Elementary School | Х | | Х | | | PUBLIC | × |
| Sandia High School | Х | | | | | PUBLIC | × |
| School of Dreams Academy | Х | Х | Х | | Х | CHARTER | ✓ |
| Searfoss Homeschool | | Х | | | | HOME | × |
| St. Pius X High School | | Х | | | | PRIVATE | × |
| St. Therese Catholic School | Х | Х | | | | PRIVATE | × |
| St. Thomas Aquinas School | Х | Х | Х | | | PRIVATE | × |
| V. Sue Cleveland High School | Х | Х | | Х | Χ | PUBLIC | × |
| Sundance Elementary School | Х | Х | | | | PUBLIC | ✓ |
| Volcano Vista High School | Х | | | | | PUBLIC | × |
| Wilson Middle School | | | | Х | | PUBLIC | ✓ |
| TOTAL SCHOOLS SERVED = | 30 | 26 | 13 | Schools 8 Teams 14 | 11 | Public 24 Private 11 Charter 9 Home 2 BIE 2 | Title I 39.6% |

✓ = Title I School

*** = Not Title I School**

x = Fielded "x" # Regional Science Olympiad Teams

DEFINITION OF TITLE 1 - Title I, Part A (Title I) of the Elementary and Secondary Education Act, as amended by the Every Student Succeeds Act (ESEA) provides financial assistance to local educational agencies (LEAs) and schools with high numbers or high percentages of children from low-income families to help ensure that all children meet challenging state academic standards. Federal funds are currently allocated through four statutory formulas that are based primarily on census poverty estimates and the cost of education in each state. https://www2.ed.gov/programs/titleiparta/index.html.



FY23 BUSINESS/COMMUNITY GROUP SPONSORS (Includes Monetary & In-Kind Donors for which donation value is known as well as both Office & Donor-Paid Awards)

| DONOR ORGANIZATION | VALUE | LEVEL |
|--------------------------------------------------------------------------------------|-------------|-----------|
| UNM Health Sciences Office for Diversity, Equity & Inclusion (institutional sponsor) | \$97,000.00 | Plutonium |
| UNM Office of the Vice President for Research (institutional sponsor) | \$85,000.00 | Plutonium |
| Honeywell/Sandia National Laboratories | \$16,500.00 | Platinum |
| UNM Scholarship Office - Jackling Fund | \$15,000.00 | Platinum |
| National Science Teaching Association | \$13,560.00 | Silver |
| DataClassroom (in-kind discount to offer full accounts to teachers FY23) | \$10,400.00 | Silver |
| General Mills Foundation | \$10,000.00 | Silver |
| Kupono Government Services | \$10,000.00 | Silver |
| Albuquerque Publishing Company | \$5,000.00 | Zinc |
| Boeing Employees Community Fund | \$5,000.00 | Zinc |
| Intel Corporation | \$5,000.00 | Zinc |
| UNM School of Engineering | \$5,000.00 | Zinc |
| UNM Health Sciences (category and special award sponsorships) | \$4,500.00 | Copper |
| Nusenda Credit Union Foundation | \$4,000.00 | Copper |
| PNM Resources | \$3,000.00 | Copper |
| UNM Alumni Association | \$2,500.00 | Copper |
| Broadcom Foundation | \$2,250.00 | Aluminum |
| The AEROspace Corporation | \$2,000.00 | Aluminum |
| Wilger Enterprises, Inc. | \$2,000.00 | Aluminum |
| Corning Life Sciences | \$1,500.00 | Aluminum |
| Directed Energy Profession Society | \$1,500.00 | Aluminum |
| Dekker, Perich & Sabatini | \$1,000.00 | Aluminum |
| Nusenda Credit Union | \$1,000.00 | Aluminum |
| Society for Science & the Public (SSP) | \$1,000.00 | Aluminum |
| Sandia Peak Tram Company | \$1,000.00 | Aluminum |
| SpringHill Suites by Marriott | \$1,000.00 | Aluminum |
| WaFd | \$1,000.00 | Aluminum |
| Albuquerque Astronomical Society | \$700.00 | Carbon |
| American Institute of Aeronautics and Astronautics | \$625.00 | Carbon |
| Allen Sigmon Real Estate Group | \$500.00 | Carbon |
| American West Water Advisors | \$500.00 | Carbon |
| ARGUS Investment Realty | \$500.00 | Carbon |
| Bohannan Huston | \$500.00 | Carbon |
| Bridgers & Paxton Consulting Engineers, Inc. | \$500.00 | Carbon |

| Chavez-Grieves Consulting Engineers | \$500.00 | Carbon |
|-----------------------------------------------------------------|----------|--------|
| Consensus Planning | \$500.00 | Carbon |
| FBT Architects | \$500.00 | Carbon |
| Goodman Realty Group | \$500.00 | Carbon |
| Greater Albuquerque Association of Realtors | \$500.00 | Carbon |
| Huning, LLC | \$500.00 | Carbon |
| International Test & Evaluation Association, Roadrunner Chapter | \$500.00 | Carbon |
| Jaynes Corporation | \$500.00 | Carbon |
| Kaufman Fire Protection Systems, Inc. | \$500.00 | Carbon |
| Kiwanis Club of Coronado | \$500.00 | Carbon |
| New Mexico Bank & Trust | \$500.00 | Carbon |
| Real Estate Advisors | \$500.00 | Carbon |
| Titan Development | \$500.00 | Carbon |
| Regeneron | \$500.00 | Carbon |
| UNM College of Pharmacy | \$500.00 | Carbon |
| UNM Communications & Marketing | \$500.00 | Carbon |
| American Chemical Society, Central NM Section | \$450.00 | Helium |
| BlueHalo and Appel Family | \$400.00 | Helium |
| New Mexico Trout | \$400.00 | Helium |
| UNM Brain & Behavioral Institute | \$400.00 | Helium |
| American Society of Safety Professionals | \$300.00 | Helium |
| Chalmers Ford | \$300.00 | Helium |
| CliftonLarsonAllen | \$300.00 | Helium |
| ENLACE NM | \$300.00 | Helium |
| Metro Commercial Realty | \$300.00 | Helium |
| NAI SunVista Commercial | \$300.00 | Helium |
| Sun Vista Enterprises, Inc. | \$300.00 | Helium |
| UNM Department of Neurosciences | \$300.00 | Helium |
| American Association of University Women | \$280.00 | Helium |
| AIC General Contractors, Inc. | \$250.00 | Helium |
| Albuquerque Area Extension Master Gardeners | \$250.00 | Helium |
| Bank of Albuquerque | \$250.00 | Helium |
| Century Sign Builders | \$250.00 | Helium |
| Enchanted Lens Camera Club | \$250.00 | Helium |
| Explora Science Center & Children's Museum | \$250.00 | Helium |
| Duke City Commercial | \$250.00 | Helium |
| Geltmore, RE Advisory Team | \$250.00 | Helium |
| Home Builders Association of Central New Mexico | \$250.00 | Helium |

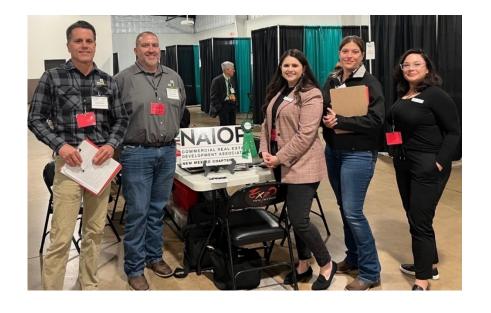
| Klinger Constructors, LLC | \$250.00 | Helium |
|---------------------------------------------------------------------------------------------------------------------------------------------|--------------|----------|
| Peacock Law P.C. | \$250.00 | Helium |
| Rodey Law | \$250.00 | Helium |
| Studio Southwest Architects | \$250.00 | Helium |
| Climate Change New Mexico | \$225.00 | Hydrogen |
| New Mexico Engineering Foundation | \$200.00 | Hydrogen |
| Society of Women Engineers | \$200.00 | Hydrogen |
| Springer5 Investments | \$200.00 | Hydrogen |
| Wells Fargo Bank | \$200.00 | Hydrogen |
| WSP USA, Inc. | \$200.00 | Hydrogen |
| Albuquerque Radio Control Club | \$150.00 | Hydrogen |
| Association of Old Crows | \$150.00 | Hydrogen |
| CBRE | \$150.00 | Hydrogen |
| The Hartman + Majewski Design Group | \$150.00 | Hydrogen |
| Sandia Grotto | \$125.00 | Hydrogen |
| Albuquerque African Violet Club | \$100.00 | Hydrogen |
| Albuquerque Rocket Society | \$100.00 | Hydrogen |
| Department of Defense | \$100.00 | Hydrogen |
| Lemelson Foundation | \$100.00 | Hydrogen |
| National Geographic | \$100.00 | Hydrogen |
| FY23 BUSINESS & COMMUNITY ORGANIZATION TOTAL VALUE OF SPONSORSHIPS/DONATIONS = (Includes Operating, Sponsorships, In-Kind & Awards Funding) | \$316,565.00 | |

CORPORATE/BUSINESS SPONSORSHIP LEVELS

PLUTONIUM \$30,000+ GOLD \$20,000-\$29,999 PLATINUM \$15,000-\$19,999 SILVER \$10,000-\$14,999 ZINC \$5,000-\$9,999 COPPER \$2,500-\$4,999 ALUMINUM \$1,000-\$2,499 CARBON \$500-\$999 HELIUM \$250-\$499 HYDROGEN \$5-\$249

INDIVIDUAL SPONSORSHIP LEVELS

| EINSTEIN | \$2,500+ |
|----------|-----------------|
| CURIE | \$1,500-\$2,499 |
| DARWIN | \$1,000-\$1,499 |
| CARVER | \$500-\$999 |
| NEWTON | \$250-\$499 |
| OCHOA | \$100-\$249 |
| GATES | \$50-\$99 |
| ROSS | \$5-\$49 |
| | |



FY23 INDIVIDUAL SPONSORS/DONORS (Includes Monetary & In-Kind Donors for which donation value is known as well as both Office & Donor-Paid Awards)

| DONOR | VALUE | LEVEL |
|------------------------------------------------------------------------------------------------------------------------------|------------|--------|
| Pat & Len Duda | \$2,250.00 | Curie |
| Foreman Family | \$1,440.00 | Darwin |
| Karen & Tommy Hudson | \$1,000.00 | Darwin |
| Karen Robinson | \$650.00 | Carver |
| Randi Buck | \$600.00 | Carver |
| Tom Grossman | \$600.00 | Carver |
| Dave & Rhonda Hill | \$500.00 | Carver |
| Lawrence M. Wells, Esq. | \$500.00 | Carver |
| Nancy Schmierbach | \$500.00 | Carver |
| Van Pham & Khe Tang | \$500.00 | Carver |
| James Topmiller | \$350.00 | Newton |
| Keith & Mary Meyer | \$300.00 | Newton |
| Barb & Angelo Turiciano | \$250.00 | Newton |
| Benjamin Gardner | \$250.00 | Newton |
| Karen Kinsman & Holly Lowe | \$234.00 | Ochoa |
| Thomas Keleher | \$200.00 | Ochoa |
| Todd Thompson | \$200.00 | Ochoa |
| James Vigerust | \$150.00 | Ochoa |
| Kenneth & Belinda Eras | \$108.00 | Ochoa |
| Connie & Roger Beimer | \$100.00 | Ochoa |
| Mark Legan | \$100.00 | Ochoa |
| Emily Weigel | \$52.53 | Gates |
| Ellen Green | \$50.00 | Gates |
| Sheila Doucette | \$25.00 | Ross |
| FY23 INDIVIDUAL SPONSORSHIPS/DONATIONS = (Includes Operating, Sponsorships, In-Kind & Awards Funding) | \$10,90 | 9.53 |
| FY23 COMBINED MONETARY/IN-KIND SPONSORSHIPS & DONATIONS TOTAL = (Includes Operating, Sponsorships, In-Kind & Awards Funding) | \$327,47 | 74.53 |

2022-2023 Volunteer Hours & Value of Time

| 2023 Central New Mexico STEM Research Challenge | # of Volunteers | # of Volunteer Hours | Value of Volunteer Hours |
|-------------------------------------------------------------------------------------------------------------------|--------------------|----------------------------|-----------------------------|
| Category Judges (8 hrs per judge @ \$35/hr avg in-kind time donation) | 116 | 928 | \$32,480.00 |
| Judge Chairs/Master Chairs (25 hrs per judge @ \$35/hr avg in-kind time donation) | 25 | 625 | \$21,875.00 |
| Special Awards Judges (4 hrs per judge @ \$35/hr avg in-kind time donation) | 60 | 240 | \$8,400.00 |
| Registration Volunteers (3 hrs per volunteer @ \$35/hr avg in-kind time donation) | 10 | 30 | \$1,050.00 |
| Registration Coordinator (20 hrs @ \$35/hr avg in-kind time donation) | 1 | 20 | \$700.00 |
| Display & Safety Inspectors (4 hrs per volunteer @ \$35/hr avg in-kind time donation) | 20 | 80 | \$2,800.00 |
| Display & Safety Committee Chairs (20 hrs per volunteer @ \$35/hr avg in-kind time donation) | 1 | 20 | \$700.00 |
| Speakers - Panels and Other Individual Speakers (3 hrs per speaker/moderator @ \$35/hr avg in-kind time donation) | 6 | 18 | \$630.00 |
| Speakers-Keynote (8 hrs @ \$35/hr avg in-kind time donation) | 1 | 8 | \$280.00 |
| Safety, Security & Floor Monitors (8 hrs per volunteer @ \$27/hr avg in-kind time donation per standard NM rate) | 14 | 112 | \$3,024.00 |
| TOTAL RC VOLUNTEERS = | 254 | 2,078 | \$77,939.00 |

| 2023 Advisory Council Members | # of Volunteers | # of Volunteer Hours | Value of Volunteer Hours |
|---------------------------------------------------------------------------------------|--------------------|----------------------------|-----------------------------|
| Advisory Council Members (8 hrs per board member @ \$35/hr avg in-kind time donation) | 20 | 160 | \$5,600.00 |
| ADVISORY COUNCIL = | 20 | 160 | \$5,600.00 |

| 2023 Central NM Science Olympiad | # of Volunteers | # of Volunteer Hours | Value of Volunteer Hours |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------------------|-----------------------------|
| Event Supervisors (12 hrs per ES for prep & facilitation @ \$35/hr avg in-kind time donation; some ES's prepared & supervised more than one of the 40+ events; time for each event is counted here) | 44 | 528 | \$18,480.00 |
| Other Volunteers (Average 4 hrs each; approx. \$27/hr avg in-kind time donation per standard NM rate) | 22 | 88 | \$2,376.00 |
| SO VOLUNTEERS = | 66 | 616 | \$20,856.00 |

| 2023 SW Junior Science & Humanities Symposium (JSHS) | # of Volunteers | # of Volunteer Hours | Value of Volunteer Hours |
|--------------------------------------------------------------------------|--------------------|----------------------------|-----------------------------|
| Judges (8 hrs per judge @ \$35/hr avg in-kind time donation) | 21 | 168 | \$5,880.00 |
| Other Volunteers (Average 4 hrs each @\$35/hr avg in-kind time donation) | 10 | 40 | \$1,400.00 |
| Keynote Speaker (3 hrs @\$35/hr avg in-kind time donation) | 1 | 3 | \$105.00 |
| JSHS VOLUNTEERS = | 32 | 211 | \$7,385.00 |

| | TOTAL # Volunteers | TOTAL # Volunteer Hours | TOTAL Value Volunteer Hours |
|--------------------------------|-----------------------|-------------------------------|--------------------------------|
| FY23 VOLUNTEERS GRAND TOTALS = | 372 | 3,065 | \$111,780.00 |

Volunteer time value calculated at \$35/hour which is higher than standard \$29.95/hour, but majority of our judges/volunteers are STEM professionals/retirees whose hourly pay rate is significantly higher than even \$35/hour. VIP Speakers/Presenters are all high-level professionals, so their time was valued at an average of all their hourly rates combined, which averages out to significantly less than the hourly rate of several of them.

2023 Central NM STEM Research Challenge AWARDS

Special Awards - Donor Paid \$11,930.00

Special Awards - Office Paid* \$43,070.00

Top of Category Awards - Office Paid* \$6,450.00

CNM-SERC AWARDS = \$61,450.00

2023 Central NM Science Olympiad AWARDS

Science Olympiad - Trophies, Medals, etc. \$1,000.00

SCIENCE OLYMPIAD AWARDS = \$1,000.00

2023 SW Jr. Science & Humanities Symposium AWARDS

SW Region JSHS - Donor Paid (scholarships) \$4,000.00

SW Region JSHS - Office Paid* (cash) \$1,000.00

SW JSHS AWARDS = \$5,000.00

TOTAL AWARDS (all programs) = \$67,450.00

*The term "office-paid" means that the STEM-H Center receives funds from a number of award donors who prefer that the Center staff process/pay their awards rather than the donor processing and paying them directly themselves. There are also some unsponsored awards which the STEM-H Center pays out of its budget annually (ex: some Top-of-Category awards, JSHS poster awards, etc.)







2022-2023 Student & Teacher Award Donors

Aerospace Corporation Karen & Tommy Hudson

AIC General Contractors Kaufman Fire Protection Systems, Inc.

Albuquerque African Violet Club Keith Meyer & Mary Meyer, Ph.D

Albuquerque Area Extension Master

Kiwanis Club of Coronado

Gardeners

Albuquerque Astronomical Society Klinger Constructors, LLC

Albuquerque Radio Control Club Lawrence M. Wells, Esq.

Albuquerque Rocket Society Lemelson Foundation

Allen Sigmon Real Estate Metro Commercial Realty

American Association of University Women NAI SunVista Commercial

American Chemical Society - Central NM Nancy Schmierbach

American Institute of Aeronautics and NASA

Astronautics

American Psychological Association National Geographic

American Society of Safety Professionals - National Oceanic and Atmospheric

NM Chapter Administration

American West Water Advisors New Mexico Bank & Trust

Argus Investment Realty, Inc. New Mexico Engineering Foundation

Association for Women Geoscientists New Mexico Trout

Association of Old Crows Nusenda Credit Union

Bank of Albuquerque Peacock Law P.C.

Barb & Angelo Turiciano REA Real Estate Advisors

Benjamin Gardner, AIA, LEED, AP Randi Buck

BlueHalo & the Appel Family Regeneron

Bohannan Huston Ricoh

Bridgers & Paxton Consulting Engineers Rodey Law

Broadcom Foundation Sandia Grotto

CBRE Sandia Peak Tram Company

Center for Water & the Environment (UNM Sheila Doucette

School of Engineering)

Century Sign Builders Society for In Vitro Biology

Chalmers Ford Society of Women Engineers, Central NM

Section

Chavez-Grieves Consulting Engineers Springer5 Investments

Climate Change New Mexico Springhill Suites by Marriott (Journal Center)

CliftonLarsonAllen Studio Southwest Architects

Consensus Planning Sun Vista Enterprises, Inc.

Dave & Rhonda Hill Thermo Fisher Scientific

Dekker, Perich, Sabatini Thomas Keleher

Directed Energy Profession Society Titan Development

Department of Defense Todd Thompson

Duke City Commercial Tom Grossman

Enchanted Lens Camera Club United States Air Force

ENLACE New Mexico United States Metric Association

Explora Science Center and Children's

Museum

FBT Architects UNM Health Sciences

Foreman Family UNM College of Pharmacy

Geltmore, LLC UNM Department of Neurosciences

Goodman Realty Group UNM Brain & Behavioral Health Institute

Greater Albuquerque Association of U.S. Agency for International Development

United States Navy and Marine Corps

Realtors (USAID)

Hartman + Majewski Design Group WaFd

Home Builders Association of Central NM Water Environment Federation

Huning, LLC Wells Fargo Bank

Int'l Test & Evaluation Association,

Roadrunner Chapter

Jackling Fund- UNM

Wilger Enterprises

WSP USA, Inc.

James Topmiller Yale Science & Engineering Association, Inc.

James Vigerust

Jaynes Corporation

Karen Robinson

FY23 IN-KIND DOOR PRIZE DONORS

We would also like to acknowledge the organizations that donated raffle prizes for the STEM Research Challenge. Exact value of each donation is not known.

Albuquerque Isotopes

APS Engineering the Future

Great Southwest Council, Inc – BSA

Project ECHO Education

Sandia National Laboratories

Supercomputing Challenge

The Aerospace Corporation

TriCore Laboratories

UNM Center for Water & the Environment

UNM College of Pharmacy

UNM Office for Diversity, Equity & Inclusion – Communities to Careers Programs

UNM School of Engineering

UNM STEM-H Center



THANK YOU to all our sponsors & award donors for their spectacular commitment in helping us recognize the hard work of our student and teacher participants!

We are humbled by your support!



HEALTH SCIENCES OFFICE FOR DIVERSITY, EQUITY & INCLUSION



OFFICE OF THE VICE PRESIDENT FOR RESEARCH

UNM STEM-H Center

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STEM-H Center Website

https://hsc.unm.edu/stem-h/