



HEALTH SCIENCES

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UNM STEM-H Center for Outreach, Research & Education

ANNUAL REPORT 2020-2021

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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...

- 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
- 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.)
- Administering the highest quality STEM-H focused academic competitions for 4th-12th grade students
- 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 lasting **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 on a daily basis.

From the Director



Well, 2020-2021 was not what any of us expected. COVID-19 continued to deeply impact all of us not only at work or school, but in our personal and family lives as well.. From remote learning and work to stay-at-home orders, mandatory masks, and social distancing, we like many other organizations, got very comfortable doing pretty much everything virtually! The silver lining in all of the craziness of the pandemic has been that we have discovered the beauty and value in making sure our programs have a robust digital footprint. We have been able to increase the number of people we can reach...and the geographic areas we can touch.

All three of our signature competition programs were offered virtually in 2021 as were our Research Challenge Bootcamp and Student Researcher Bootcamp workshops. We created a “virtual lobby” for both SW JSHS and Research Challenge. There were social events, virtual tours, speakers, panels, a STEM Hall for community partners, project showcase for public viewing, live-streamed awards events, and much more! We have received almost exclusively very positive feedback about all three competitions and the teacher/student workshops! Admittedly, our participation numbers were down in 2021, but given the difficult circumstances created by the COVID-19 pandemic, we fully expected that to happen. We are optimistic that our numbers will return to normal levels in 2021-2022.

Especially during these very uncertain and scary times when everything seems to change by the moment, I would like to thank everyone who has had a hand in making all 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. Without our corporate and individual partners, the STEM-H Center would not be able to continue to offer successful programs for students, educators, and the community as well as work on the development of meaningful strategic collaborations/partnerships and the forward momentum needed in STEM-H education on the state/national policy fronts.

I want to offer up an especially heartfelt THANK YOU to all our sponsors/donors who, in spite of the continued crazy circumstances during the 2020-2021 school year, took everything in stride, offered us nothing but flexibility and grace, and never wavered in their support. We even brought on a few new sponsors during the pandemic! I am humbled and grateful beyond measure. Our competition programs flourish, whether in-person or virtual, because of the thousands of hours volunteered by hundreds of people in our community...STEM professionals, educators, business leaders, high school & college students, and so many others.

I continue to be amazed by the number of individuals and organizations connected with the UNM STEM-H Center. I am constantly reminded by our students and alums 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!

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

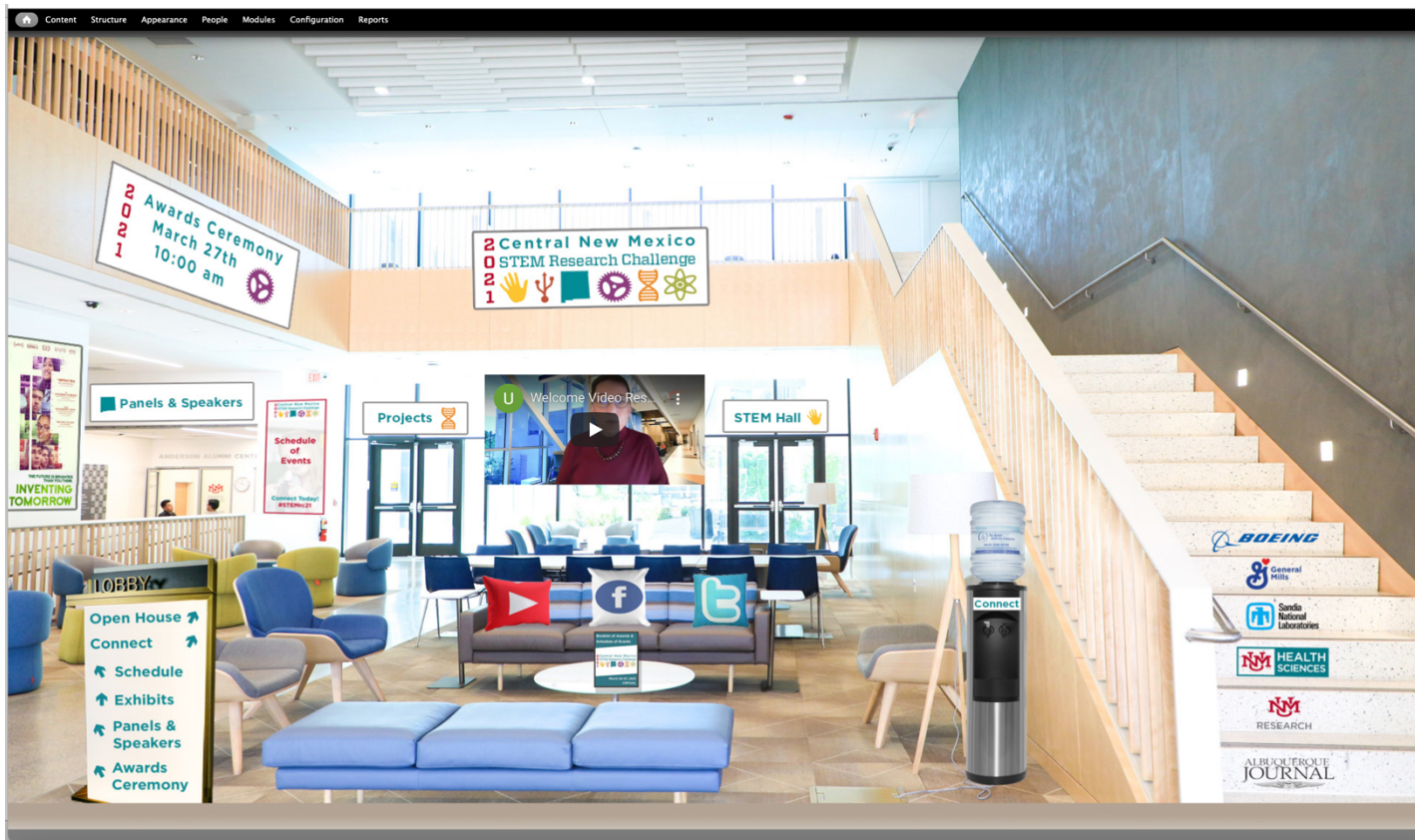
Outreach

RESEARCH CHALLENGE

“Science Fairs” go back to at least 1928, when the American Institute of New York City first held one for city youths at the Museum of Natural History. In 1950, science fairs went under the auspices of Science Service, a non-profit institution. It became international in 1960. The **Central NM STEM Research Challenge** has served students, teachers, and parents since 1959. Science fairs clearly require students to research and demonstrate scientific principles or answer propositions through the development of the scientific or engineering method.

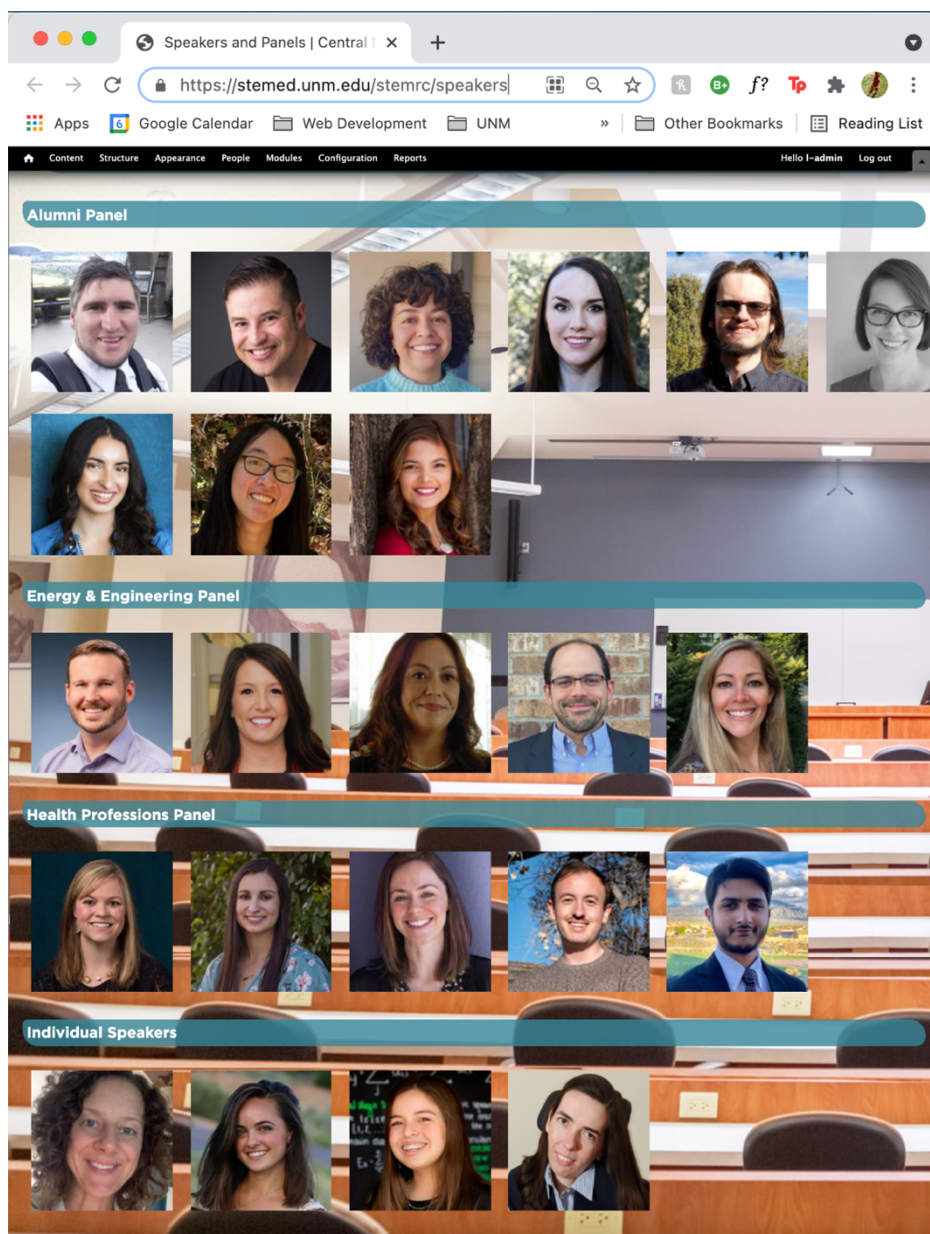
Central NM STEM Research Challenge is a three-division (4th/5th grades, junior division for middle school students and senior division for high school students), multi-category, regional student competition of science and engineering projects. The **Central NM STEM Research Challenge** qualifies students 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.

For the well-being of the United States, this nation needs to play a significant role in scientific research and development, and in the specialized educational training required for such research and development. Our nation may be in the process of abandoning its leadership role in science. There is a foreseeable future shortage of manpower to complete such research and development. To “turn the tide,” America must address this foreseeable shortcoming by increasing student interest in the various STEM-H fields by promoting those fields as feasible academic and career choices. “Science Fair” and other related STEM-H inquiry-based research competitions encourage



curiosity, which is the start of the discovery process. Research competitions reward discovery and innovation as well as promoting creativity through the discovery of new problems, inventions, ideas, and solutions. The Regional competition 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. **Just under 150** 4th through 12th grade students **registered for the 2021 Central NM Virtual STEM Research Challenge.**

As an International Science & Engineering Fair Affiliated Fair, the **Central NM STEM Research Challenge** sends a pre-determined number of projects to ISEF as competing Finalists and, under normal circumstances, up to two top 8th grade student researchers to ISEF as Student Observers each year when funding is available to do so. Four ISEF finalists were selected during the 2021 Research Challenge. The four ISEF Finalists from the Central NM Region for 2021 were: **Milidu Jayaweera** La Cueva High School; **McKenna Collins** Albuquerque Institute for Math & Science; **Rakin Faruk** Albuquerque Institute for Math & Science; and **Isaac Huber** Eldorado High School. These students were all able to compete as ISEF Finalists in the fully virtual events. The 2022 Regeneron ISEF will be held in Atlanta, Georgia.



SCIENCE OLYMPIAD

Science Olympiad is an international nonprofit organization devoted to improving the quality of science education, increasing student interest in science and providing recognition for outstanding achievement in science 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. Science Olympiad tournaments are rigorous academic interscholastic competitions that consist of a series of individual and team events, which students prepare for during the year. The competitions follow the format of popular board games, TV shows and athletic games. These challenging and motivational events are well balanced between the various science disciplines of biology, earth science, chemistry, physics, computers and technology. There is also a balance between events requiring knowledge of science facts, concepts, processes, skills and science applications. One of the goals of Science Olympiad is to elevate science education and learning to a level of enthusiasm and support that is normally reserved only for varsity sports programs.

In 2021, the **Central NM Virtual Science Olympiad** offered **32 events** and had **42 volunteer Event Supervisors, Event Assistants & other volunteers** from UNM and several other area organizations. There were a total of **9 competing teams from 7 middle and high schools** in the region.

The middle school team from **Albuquerque Academy** and the high school team from **La Cueva High School** placed 1st at the state competition and represented New Mexico at the 2021 Virtual National Science Olympiad competition. Our Division B top three winners were 1st **Albuquerque Academy**, 2nd **Cottonwood Classical Prep School**, and 3rd **Wilson Middle School**. The Division C top three winners were 1st **Albuquerque Academy C1**, 2nd **La Cueva High School C1**, and 3rd **La Cueva High School C2**.



JUNIOR SCIENCE & HUMANITIES SYMPOSIUM

The UNM STEM-H Center took on management of the **Southwest Region Junior Science & Humanities Symposium (JSHS)** in 2013-2014 and continues to engage in efforts to grow the program over the next several years. The southwest region includes all of New Mexico, Southern Colorado and northwest Texas (El Paso).

The **Junior Science & Humanities Symposium** is a national competition program designed to challenge and engage students (Grades 9-12) in science, technology, engineering or mathematics (STEM). 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 planned. By participating in regional and national symposia, students may...

- 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 -- skills in the application of science 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 nationwide colleges and universities. 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 2021, the **SW Region Junior Science & Humanities Symposium** hosted **30 students** from **15 schools** at the virtual competition.



Five students qualified to compete at the **2021 Virtual JSHS National Competition** - **Eliana Juarez** V. Sue Cleveland High School; **Milidu Jayaweera** La Cueva High School; **Marissa Martinez** Monte Vista Senior High School; **Gabriel Gurule** Albuquerque Institute for Math & Science; and **Aditya Koushik** La Cueva High School.

STEM EDUCATOR 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 2020-2021, Research Challenge Bootcamp (self-paced online & live virtual) was offered and educators from at least 35 schools participated. Kuponon Government Services came on board as the sponsor of the UNM STEM-H Center Learning Lab which has allowed us to create a brand-new online learning management system in Moodle Cloud. We started with migrating a redesigned Research Challenge/Science Fair Bootcamp to the new system and will be adding 5-7 new training modules to the LMS in 2021-2022. The STEM-H Educator Professional Development offerings, both online and in-person, will continue to evolve over time as needs and funding are identified.

STUDENT RESEARCHER BOOTCAMP

The **STEM-H Center's Student Researcher Bootcamp** provides 5th-8th grade student researchers with project development skills/support/resources along with an introduction to topics like Project Development, Responsible Conduct of Research, Statistics/Data Analysis, Judging Preparation, etc. Workshops are conducted in collaboration with UNM and community partners who generously share their time/talent. In the Fall of 2016, a collaboration between the STEM-H Center and Explora Science Center was created and it has continued since that time. Explora's amazing STEM-H educators facilitated the **Student Researcher Bootcamps** AND physically hosted them at Explora! This partnership continued in 2020-2021 with three sessions of the Student Researcher Bootcamps being offered by Explora educators live via Zoom.

STEM-H RESOURCE CENTER/LENDING LIBRARY

The **UNM STEM-H Resource Center/Lending Library** is a short-term small equipment & curriculum materials lending library for teachers, schools, homeschool/middle/high school students & community groups as well as University level students/faculty. The **UNM STEM-H Resource Center** also offers internet access and printing capability for individuals who need a place to do online research. The lending library will be moving to a location in Rio Rancho as a result of a new partnership/collaboration with Be Greater Than Average/R4Creating. We are excited to be able to expand the physical footprint of the library and have a space that is open, inviting, and somewhere people want to go to!

Research/Policy/Advocacy

Development of Strategic STEM-H Education 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:

- Air Force Research Laboratory - New Mexico
- EPSCoR
- Explora Science Center
- Honeywell/Sandia National Laboratories
- HSC Institutional Animal Care & Use Committee
- Kuponon Government Services
- Los Alamos National Laboratories Foundation
- New Mexico PBS
- NM Academy of Science
- NM MESA
- NM Museum of Natural History & Science
- NM Oil & Gas Association
- NM Partnership for Mathematics & Science Education
- NM Public Education Department
- NM Science Teachers Association/NM Council of Teachers of Mathematics/Environmental Education Assoc of NM
- NM Supercomputing Challenge
- Oak Ridge Institute for Science Education
- Project ECHO - Education (Dr. Michael Stanton)
- Science Buddies
- STEM NM Learning Ecosystem
- UNM Engineering Student Services & Outreach Programs
- UNM HSC Office for Diversity, Equity & Inclusion
- UNM Human Protections Office
- UNM Office of VP for Research (faculty research support)
- UNM Responsible Conduct of Research Program
- UNM School of Engineering (CREST Grant - Dr. Kerry Howe; Internal Advisory Committee)
- US Army Corps of Engineers - Albuquerque District

Policy/Advocacy

As part of the HSC Office for Diversity, 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 is currently serving 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), and the STEM NM Learning Ecosystem, Leadership Team for the STEM NM Ecosystem, and the Advisory Committee for Explora/STEM NM Ecosystem's NSF INCLUDES Grant (Math FACESS).

2020-2021 Advisory Council & Staff

Lynne Andersen

President, NAIOP NM – Commercial Real Estate Development Assoc.

Connie Beimer

Interim VP UNM Alumni Relations & Executive Director
UNM Alumni Association

Reg Bourgeois

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

Chavez, Sofia

Student, RC & JSHS Alumna

Dr. Mary Jo Daniel

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

Robert Deblassie

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

Dr. Leonard Duda

Sandia National Laboratories (Retired)
Research Challenge Junior Division Master Judge Chair

John Gallegos

NAIOP NM – Commercial Real Estate Development Association

Deborah Green

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

Franz Joachim, CHAIR

General Manager, New Mexico PBS
Parent of Alumnus of Research Challenge

Ray Nance

Retired STEM Educator/PhD Cand. in Educ. Leadership,
UNM College of Education

Nilvo, Gianna

Student, School of Dreams Academy
RC & JSHS Alumna

Nilvo, Jennifer

Teacher & STEM Coordinator, School of Dreams Academy

Debra Novak

Director of Education, NM Museum of Natural History & Science

Dr. Heather Pratt-Chavez

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

Michael Rogers

Engineer, Northrop Grumman

Dr. Valerie Romero-Leggott

Vice Chancellor for Diversity, HSC Office for Diversity, Equity & Inclusion

Karen Stockham

Licensed Counselor

Gail Vavruska-Marcum

Senior Manager of Compensation, Sandia National Laboratories

James Vigerust

Corporate Safety Officer, Aptim Federal Services

STEM-H CENTER STAFF

Karen Kinsman, MS, PMP

Director/Senior Program Manager

Erin Garcia, JD

Asst. Director/Program Specialist

Laura Arguelles, BS

Web Designer/LMS Manager

Financial Information

The 6-year graph below depicting STEM-H Center's revenues and expenses offers a visual comparison, year to year, of the Center's financial performance. In FY21, the STEM-H Center team continued to identify areas in which operations could be carried out more efficiently as well as areas in which additional fundraising efforts could be focused. With the COVID-19 pandemic necessitating completely virtual operations which significantly reduced a number of our normal expense (catering, space, materials, etc.), the fiscal year ended with a positive balance forward. FY22's budget has been crafted to utilize the balance remaining to support Center operations and our continued commitment to ensuring a robust virtual footprint for all our programs.

The STEM-H Center receives half of its Institutional Sponsorship from the main campus Office of the Vice President for Research of \$85,000 annually which goes into what is called an F&A Index. The Health Sciences Center provides another \$85,000+ in Institutional Sponsorship via the Office for Diversity, so just over half of the salary/fringe and other support expenses for the STEM-H Center have been taken on by the HSC Office for Diversity. All funds raised via sponsorships and donations go into the STEM-H Center's UNM Foundation Index out of which all operational program expenses are paid with the exception of salaries/fringe benefits for regular and student employees. Participant fees are deposited into the Administrative Index per UNM and normally utilized to cover the remaining balance in that index at the end of the year. In FY20, all entry fees for Research Challenge were refunded due to the cancellation of competition events.

Remaining in force for FY21 is the Memorandum of Agreement between the Office of the Provost on main campus and the Chancellor of the Health Sciences Center that went into effect in mid-2015. Beginning in FY18, the MOU dictated a 50/50 split of the sponsorship between the Office of Research and the Health Sciences Center. As has been the case for a number of years, that \$170,000 covers the vast majority of staff salaries/fringe benefits, but covers no other expenses and does not account for any salary increases. The UNM Mass Salary Increases mandated at the state level for FY20 were absorbed by the Office for Diversity, Equity, & Inclusion.

NOTE: The overall revenue/expenses reported for the STEM-H Center do not include the \$85,000 institutional support from the UNM Health Sciences Center which covers slightly more than 50% of the STEM-H Center's staff salaries/fringe and is part of the Office for Diversity, Equity & Inclusion's budget.

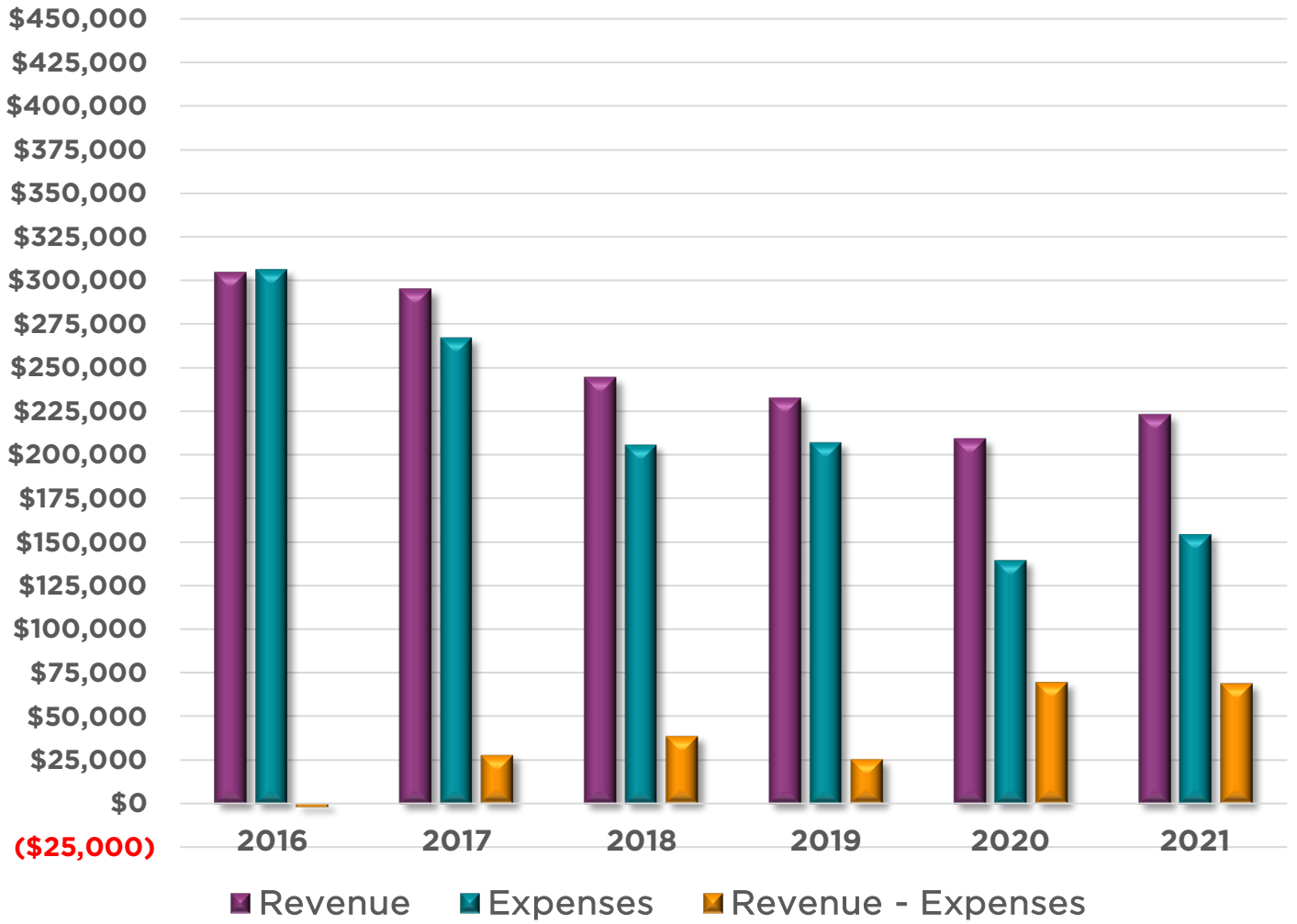
Current Financial Implications

The STEM-H Center team has continued to work very hard to identify areas in which savings could be realized and costs could be reduced while still providing the highest quality programs and services possible. As a result of those measures as well as cost savings from Research Challenge cancellation, the Center ended FY20 with a significant Balance Forward in its Foundation index. A portion of the FY20 Balance Forward represents FY21 funds received prior to the June 30th end of FY20.

What's the bottom line? The STEM-H Center is in solid financial shape entering the first quarter of FY21. 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.

6 YEAR FINANCIAL COMPARISON

STEM-H Center Financial Comparison



FY21 BUSINESS/COMMUNITY GROUP DONORS

(Includes In-Kind Donors for which donation value is known)

DONOR ORGANIZATION	VALUE	LEVEL
UNM Office of the Vice President for Research <i>(institutional sponsorship)</i>	\$85,000.00	Plutonium
UNM Health Sciences Center <i>(institutional sponsorship)</i>	\$85,000.00	Plutonium
UNM Scholarship Office - Jackling Fund	\$15,000.00	Platinum
UNM Health Sciences Center <i>(category and special award sponsorships)</i>	\$12,000.00	Silver
National Science Teaching Association	\$10,700.00	Silver
General Mills Foundation	\$10,000.00	Silver
Sandia National Laboratories	\$10,000.00	Silver
Kupono Government Services	\$6,000.00	Zinc
Albuquerque Publishing Company	\$5,000.00	Zinc
NMPBS Grant Partnership <i>(Inventing Tomorrow & The GENE)</i>	\$5,000.00	Zinc
PNM Resources	\$3,000.00	Copper
UNM Alumni Association	\$2,500.00	Copper
Broadcom Foundation	\$2,000.00	Copper
Directed Energy Profession Society	\$1,500.00	Aluminum
Northrop Grumman Mission Systems	\$1,200.00	Aluminum
New Mexico Gas Company	\$1,000.00	Aluminum
smallPDF (in-kind)	\$1,000.00	Aluminum
Enterprise Builders Corporation	\$500.00	Carbon
NM Oil & Gas Association	\$500.00	Carbon
Sun Vista Enterprises, Inc.	\$500.00	Carbon
UNM Communications & Marketing	\$500.00	Carbon
Kiwanis Club of Coronado	\$475.00	Helium
BlueHalo & the Appel Family	\$400.00	Helium
UNM Department of Neurosciences	\$300.00	Helium
Century Sign Builders	\$250.00	Helium
Titan Development	\$250.00	Helium
Costco Corporate Grants	\$200.00	Hydrogen
Wood Group PLC	\$200.00	Hydrogen
ENLACE NM	\$150.00	Hydrogen
IEEE Photonics Society	\$150.00	Hydrogen
Trinity Section of the American Nuclear Society	\$100.00	Hydrogen
FY2021 BUSINESS & COMMUNITY ORGANIZATION TOTAL VALUE OF SPONSORSHIPS/DONATIONS =	\$265,425.00	

STEM-H Center: FY21 INDIVIDUAL DONORS <i>(Includes In-Kind Donations for which the value is known)</i>		
DONOR	VALUE	LEVEL
Pat & Len Duda	\$2,000.00	Curie
Mary Louise Martignoni	\$2,000.00	Curie
Foreman Family	\$1,170.00	Darwin
Lawrence M. Wells, Attorney at Law	\$500.00	Carver
Van Pham & Khe Tang	\$500.00	Carver
Kenneth & Belinda Eras	\$243.50	Ochoa
Karen Kinsman & Holly Lowe	\$86.00	Gates
Anonymous (In Honor of Mr. Henry Rosoff, PE)	\$50.00	Gates
Lorine & Joe De Rusha	\$14.99	Ross
FY2021 INDIVIDUAL SPONSORSHIPS/DONATIONS = <i>**Vast majority of Individual donations currently reflect either student/teacher awards at Research Challenge OR in-kind donations of consultation services.**</i>	\$6,564.49	
FY2021 COMBINED MONETARY/IN-KIND SPONSORSHIPS & DONATIONS TOTAL =	\$271,989.49	

We would also like to acknowledge the many companies and organizations that donated raffle prizes for the STEM Research Challenge. Exact value not known.

Alaka'ina Foundation	New Mexico Mesa
APS Engineering the Future	New Mexico Oil & Gas Association
Be Greater Than Average	New Mexico Supercomputing Challenge
Dion's	Society for Science
El Centro de la Raza	Space Center Houston
iExplora!	STEAMatWORK4kids
Girls Inc. of Santa Fe	Tricore Reference Laboratories
Great SW Council of the Scouts BSA	UNM Admissions & Enrollment
KOAT-TV	UNM Chief Information Office
Mind Research Network	UNM HSC Office for Diversity, Equity & Inclusion
Native Health Initiative	UNM Residence Life

APPENDICES

Volunteer Hours & Value of Time

Research Challenge Statistics

JSHS Statistics

Science Olympiad Statistics

Awards Values

Award Donors List

Schools Served

2020-2021 Volunteer Hours & Value of Time

2021 Central New Mexico STEM Research Challenge

	# of Volunteers	# of Volunteer Hours	Value of Volunteer Hours
Category Judges <i>(8 hrs per judge @ \$30/hr avg in-kind time donation; includes 4th/5th Judges)</i>	68	544	\$16,320.00
Judge Chairs/Master Chairs <i>(25 hrs per judge @ \$30/hr avg in-kind time donation)</i>	18	450	\$13,500.00
Special Awards Judges <i>(4 hrs per judge @ \$30/hr avg in-kind time donation)</i>	60	240	\$7,200.00
Special Awards Judging Coordinator <i>(30 hrs @ \$30/hr avg in-kind time donation)</i>	1	20	\$600.00
Speakers-VIPs <i>(1 hrs @ \$120/hr avg in-kind time donation)</i>	9	9	\$1,080.00
Speakers - Panels and Other Individual Speakers <i>(2-3 hrs per speaker/moderator @ \$30/hr avg in-kind time donation)</i>	23	66	\$1,980.00
Speakers-Keynote <i>(8 hrs @ \$30/hr avg in-kind time donation)</i>	1	8	\$240.00
Other Volunteers <i>(4-8 hrs per volunteer @ \$30/hr avg in-kind time donation)</i>	6	30	\$900.00
TOTAL SERC VOLUNTEERS =	186	1367	\$41,820.00

2021 Advisory Board Members

	# of Volunteers	# of Volunteer Hours	Value of Volunteer Hours
Board Members - Volunteer <i>(8 hrs per board member @ \$30/hr avg in-kind time donation)</i>	17	136	\$4,080.00
ADVISORY COUNCIL =	17	136	\$4,080.00

2021 Central NM Science Olympiad

	# of Volunteers	# of Volunteer Hours	Value of Volunteer Hours
Events with Volunteer Event Supervisors <i>(12 hrs per ES for prep & facilitation @ \$30/hr avg in-kind time donation; some ES's prepared & supervised more than one of the 44 events; time for each event is counted here)</i>	32	384	\$11,520.00
Other Volunteers <i>(Average 4 hrs each; Average 1 per event @\$30/hr avg in-kind time donation)</i>	10	40	\$1,200.00
SO VOLUNTEERS =	42	424	\$12,720.00

2021 SW Junior Science & Humanities Symposium (JSHS)

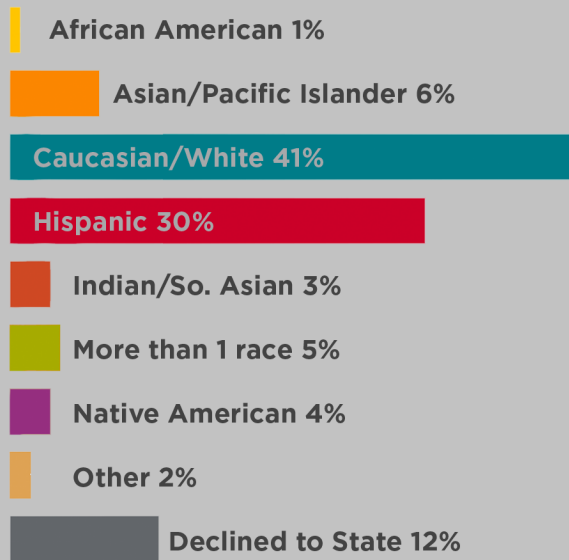
	# of Volunteers	# of Volunteer Hours	Value of Volunteer Hours
Judges <i>(8 hrs per judge @ \$30/hr avg in-kind time donation)</i>	19	152	\$4,560.00
Judging Coordinator <i>(20 hours @\$30/hr avg in-kind time donation)</i>	1	20	\$600.00
Keynote Speaker <i>(3 hrs @\$40/hr avg in-kind time donation)</i>	3	9	\$360.00
JSHS VOLUNTEERS =	23	181	\$5,520.00

	TOTAL # Volunteers	TOTAL # Volunteer Hours	TOTAL Value Volunteer Hours
FY21 GRAND TOTALS =	268	2108	\$64,140.00

Volunteer time value calculated at \$30/hour which is higher than standard \$22.14/hour, but majority of our judges/volunteers are STEM professionals/retirees whose hourly pay rate is significantly higher than even \$30/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.

Central NM STEM Research Challenge 2021

Race/Ethnicity

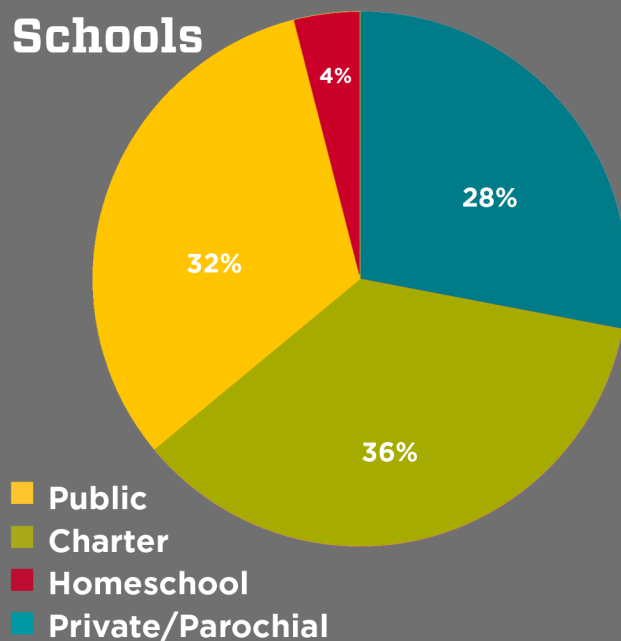


New Mexico student competitors were awarded over \$50,000.00!

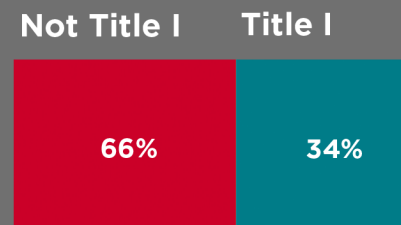
Gender



Schools



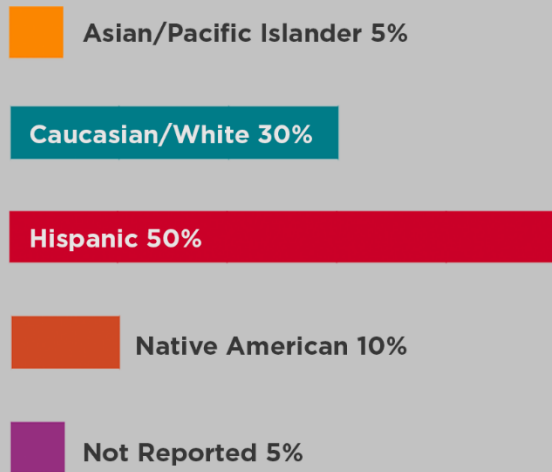
Title I



Over 130 students participated in our 100% virtual competition in 2021

Junior Science and Humanities Symposium 2021

Race/Ethnicity

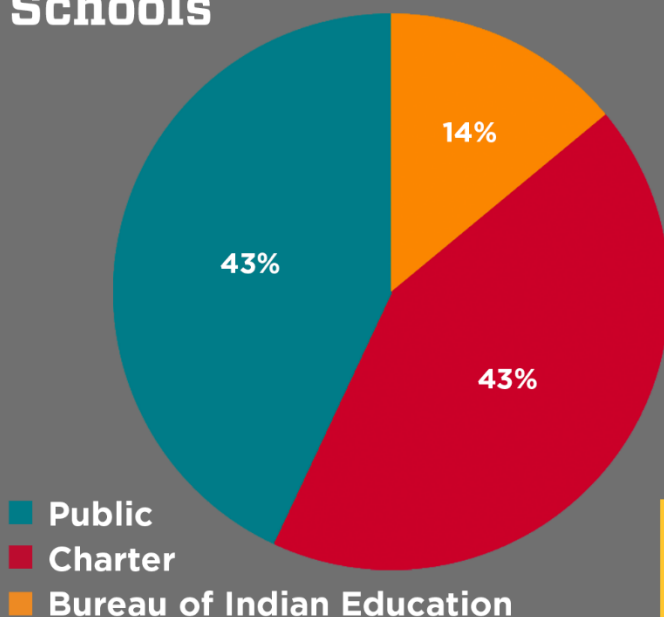


In 2021 the SW Region JSHS hosted 30 students from 15 schools

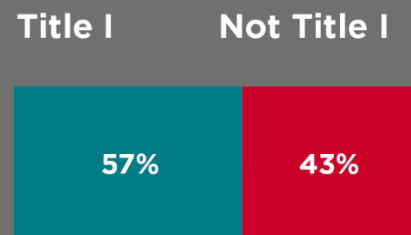
Gender



Schools



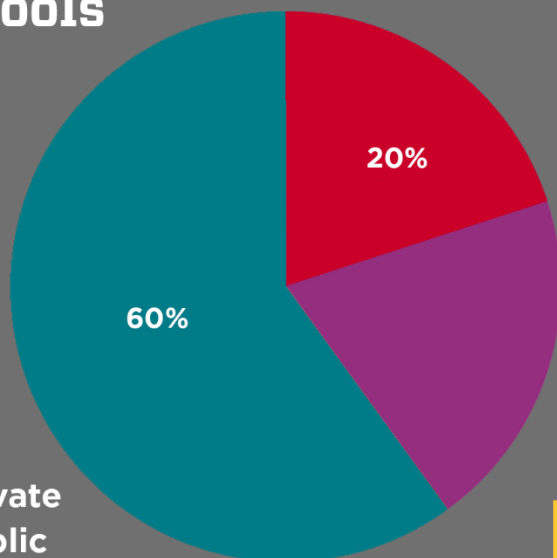
Title I



Participants received \$5,750.00 in awards!

Science Olympiad 2021

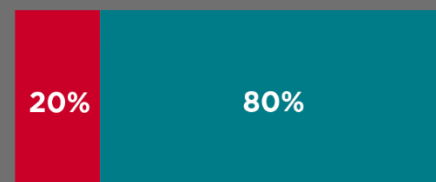
Schools



- Private
- Public
- Charter

Title I

Title I Not Title I



Vounteers donated over 400 hours
in 2021!

Join: [vevox.app ID: 144-208-340](https://vevox.com/join/144-208-340)

WHAT CAREER FIELD(S) ARE YOU INTERESTED IN PURSUING AFTER HIGH SCHOOL?



2021 Central New Mexico STEM Research Challenge AWARDS

Special Awards - Donor Paid	\$7,525.00
Special Awards - Office Paid	\$26,240.00
Top of Category Awards - Office Paid	\$11,250.00
CNM-SERC AWARDS =	\$45,015.00

2021 Central NM Science Olympiad AWARDS

Science Olympiad - Trophies, Medals, etc.	\$1,000.00
SCIENCE OLYMPIAD AWARDS =	\$1,000.00

2021 SW Junior Science & Humanities Symposium AWARDS

SW Region JSHS - Donor Paid (scholarships)	\$4,000.00
SW Region JSHS - Office Paid (cash)	\$1,750.00
SW JSHS AWARDS =	\$5,750.00

TOTAL AWARDS *(all programs)* = **\$51,765.00**



2020-2021 Student & Teacher Award Donors

Albuquerque Astronomical Society
Albuquerque Radio Control Club
Albuquerque Rocket Society
Albuquerque Soaring Club
American Association of University Women
American Chemical Society - Central NM Section
American Institute of Aeronautics and Astronautics
American Meteorological Society
American Psychological Association
American Society of Safety Professionals - NM Chapter
ASM (Materials Information Society)
Association for Women Geoscientists
Association of Old Crows
BlueHalo & the Appel Family
Broadcom Foundation
Broadcom, Inc.
Center for Water & the Environment (UNM SOE)
Century Sign Builders
Chalmers Ford
Civil Air Patrol - New Mexico Wing
Climate Change New Mexico
Directed Energy Profession Society
Department of Defense
Enchanted Lens Camera Club
ENLACE Statewide Collaborative
Enterprise Builders
Explora Science Center and Children's Museum
Foreman Family
IEEE Photonics Society
Int'l Test & Evaluation Association, Roadrunner Chapter
Jackling Fund- UNM
Kiwanis Club of Coronado
Lawrence M. Wells, Attorney at Law
Lemelson Foundation
Mary Louise Martignoni
MU Alpha Theta
NASA
National Oceanic and Atmospheric Administration
New Mexico Engineering Foundation
New Mexico Gas Company
New Mexico Trout
NM Society of Hazardous Materials Managers
Randi Buck
Ricoh
Sandia Grotto
Sheila Doucette
Society for In Vitro Biology
Society of Women Engineers, Central NM Section
Sun Vista Enterprises, Inc.
Titan Development
Todd Thompson
Tom Grossman
Trinity Section of the American Nuclear Society
United States Air Force
United States Metric Association
United States Navy and Marine Corps
University of New Mexico College of Pharmacy
University of New Mexico Health Sciences Center
UNM Department of Neurosciences
U.S. Agency for International Development (USAID)
Water Environment Federation
Wood Group PLC
Yale Science & Engineering Association, Inc.

FY21 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, the El Paso area of west Texas, and southern Colorado. 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 I, Part A [Title I] of the Elementary and Secondary Education Act or ESEA, as amended, 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*).

REGISTERED SCHOOLS	Research Challenge Bootcamp (workshop)*	Central NM STEM Research Challenge	Central NM 4th/5th Grade Research Expo	Central NM Science Olympiad	SW Junior Science & Humanities Symposium	School Type	Title I School
Albuquerque Academy		X		X ³		PRIVATE	✗
Albuquerque Christian School	X	X				PRIVATE	✗
Albuquerque High School		X				PUBLIC	✓
Albuquerque Institute of Math & Science	X	X			X	CHARTER	✓
Albuquerque School of Excellence	X	X	X			CHARTER	✓
Albuquerque Sign Language Academy	X	X	X			CHARTER	✓
Alice King Community School	X	X				CHARTER	✗
Amy Biehl Charter High School	X	X				CHARTER	✓
Annunciation Catholic School	X					PRIVATE	✗
The ASK Academy	X					CHARTER	✓
Bosque Farms Elementary	X	X				PUBLIC	✓
Cottonwood Classical				X ²		CHARTER	✗
Coyote Willow Family School			X			CHARTER	✗
Eldorado High School		X				PUBLIC	✗
Farmington Municipal School	X					PUBLIC	✓
Griegos Elementary School	X					PUBLIC	✓
Hayes Middle School	X					PUBLIC	✓
Hodgin Elementary School	X					PUBLIC	✓
Holy Child Catholic School	X	X	X			PRIVATE	✗
Holy Ghost Middle School	X	X	X			PRIVATE	✗
Immanuel Lutheran	X	X				PRIVATE	✗
Jefferson Middle School	X	X				PUBLIC	✓
La Cueva High School		X		X ²	X	PUBLIC	✗
Los Alamos Public School	X					PUBLIC	✗
Los Lunas High School		X				PUBLIC	✓
Media Arts Collaborative Charter School	X	X				CHARTER	✓
Mescalero Apache School	X				X	BUREAU OF INDIAN ED	✓
Monte Vista High School (CO)					X	PUBLIC	✗
North Valley Academy	X	X				CHARTER	✓

REGISTERED SCHOOLS	Research Challenge Bootcamp (workshop)*	Central NM STEM Research Challenge	Central NM 4th/5th Grade Research Expo	Central NM Science Olympiad	SW Junior Science & Humanities Symposium	School Type	Title I School
Our Lady of the Assumption	X					PRIVATE	✘
Our Lady of Fatima Catholic School	X					PRIVATE	✘
Rio Grande Enrichment Studies	X	X				HOME	✘
Rio Rancho High School	X	X				PUBLIC	✘
Salam Academy	X	X	X			PRIVATE	✘
San Juan College High School	X					PUBLIC	✘
Santa Fe Indian School	X					BUREAU OF INDIAN ED	✔
School of Dreams Academy	X	X			X	CHARTER	✔
St. Joseph Mission School	X					PRIVATE	✘
St. Pius X High School	X					PRIVATE	✘
St. Thomas Aquinas School	X	X				PRIVATE	✘
Sue Cleveland High School	X	X		X	X	PUBLIC	✘
Taos Academy					X	CHARTER	✔
Tohatchi High School	X					PUBLIC	✔
Wilson Middle School	X			X		PUBLIC	✔
TOTALS =	35	24	6	5 Schools 9 Teams	7	Public = 17 Private = 12 Charter = 12 Home = 1 BIE = 2	Title I = 47.7%

✔ = Title I School

✘ = Not Title I School

x = Fielded "x" # Regional Science Olympiad Teams

**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

UNM STEM-H Center

MSC 09 5233

Health Sciences & Services Building, Suite 102

1 University of New Mexico

Albuquerque, NM 87131-0001

(505) 277-4916 UNM STEM-H Center

(505) 272-2728 HSC Office for Diversity, Equity & Inclusion

STEM-H Center Website

<http://stemed.unm.edu>