



HEALTH SCIENCES

OFFICE FOR DIVERSITY,
EQUITY & INCLUSION



UNM STEM-H Center for Outreach, Research & Education

ANNUAL REPORT 2018-2019

PAGE LEFT INTENTIONALLY BLANK

TABLE OF CONTENTS

Mission & Vision	3
STEM-H Center Team Values	3
From the Director & Advisory Council	4
Host Institution	5
Outreach	
Research Challenge	6
Science Olympiad	7
Junior Science & Humanities Symposium	7
Education	
Educator Professional Development Workshops	8
Student Project Development Bootcamp	9
UNM STEM-H Resource Center/Lending Library	9
Research/Policy/Advocacy	
UNM STEM-H Connection Statewide Website	9
Development of Strategic Collaborations/Partnerships	10
Policy/Advocacy	10
Staff & Advisory Council	11
Financial Information	
Current Information & Implications	12
FY19 Business/Community Group Donors	14
FY19 Individual Donors	17
Schools Served	19
Appendices	
Volunteer Hours & Value of Time	22
Research Challenge Statistics	24
Science Olympiad Statistics	25
JSHS Statistics	26
Awards Values	27
Awards Donors List	29

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



As we close out 2018-2019, I would like to thank everyone who has 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 especially to the students and teachers who are always at the heart of what we do. It takes a village of partners/collaborators/supporters to make the STEM-H Center successful in its efforts to advance STEM-H education in Central NM and beyond! 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. Our competition 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, and so many others. I continue to be amazed by the number of individuals and organizations connected to the STEM-H Center and its programs/services. 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 partners, thank you! If you have not joined our team yet, please join us as we work to ensure success in the future!

Karen M. Kinsman, MS, PMP, Director/Senior Program Manager

From the Advisory Council

The UNM STEM-H Advisory Council reflects a robust and diverse group of community members, leaders in business/industry, and educators united in our common desire to build a vibrant STEM-H learning framework for New Mexico's students. Our children's future success is dependent upon building their literacy in science, technology, engineering and math. Our goal is to provide opportunities along with incentives to students to be challenged and grow their knowledge. With the continuing frustrations of slow economic growth and rising college tuition costs, we need to continue our outreach, especially to those who are underserved or underrepresented in STEM fields. STEM concepts and the vastness of STEM-H career paths need to be introduced early and often throughout the education pipeline to ensure students not only have strong STEM content knowledge, but also develop critical 21st Century skills along with an awareness of the breadth of careers open to them. This will help students prepare for success in their post-secondary education pursuits as well as position them to take advantage of the many scholarship opportunities that exist for strong STEM-H career interested students.

In recent years, the STEM-H Center has extended the UNM STEM-H Research Challenge competition, in particular, to include students down to the 4th grade and continue to reach out to our public, charter, private, parochial, and homeschools in the region. The rapid growth of new technology also presents many new areas of research and problems for active minds to consider. These students are, after all, our future! Helping parents, students, and educators overcome a lack of familiarity with these tried and true ways of solving real-world problems is fundamental to the mission and vision of the UNM STEM-H Center.

It is our pleasure to work with the STEM-H Center team to provide feedback, ideas, and support throughout the year and look forward to 2019-2020 as the Center celebrates the 60th Anniversary of the Central NM STEM Research Challenge (aka..."science fair")!

Host Institution



Founded in 1889 as New Mexico's flagship institution, The University of New Mexico now occupies nearly 800 acres near old Route 66 in the heart of [Albuquerque](#), a metropolitan area of more than 500,000 people. From the magnificent mesas to the west, past the banks of the historic Rio Grande to the Sandia Mountains to the east, Albuquerque is a blend of culture and cuisine, styles and stories, people, pursuits and panoramas. Offering a distinctive campus environment with a Pueblo

Revival architectural theme, the campus buildings echo nearby Pueblo Indian villages.

As a Hispanic-Serving Institution, the University represents a cross-section of cultures and backgrounds. In fall of 2018 24,393 students, attended the main, branch and HSC campuses and education centers.

UNM boasts an outstanding faculty that includes a Nobel Laureate, two MacArthur Fellows, 35 Fulbright scholars and several members of national academies. Faculty publish in many professional journals including Scientific American, The New England Journal of Medicine and Nature. UNM professors have been quoted in Newsweek, Los Angeles Times, Business Week, People Magazine, Parade Magazine, U.S. News and World Report, and The New Yorker, among others. They have shared their expertise on CNN, the Today Show, Good Morning America, Nova National Geographic and other news shows.

UNM employs more than 27,000 people statewide, including employees of [University Hospital](#). It has more than 185,000 active alumni, with Lobos in every state and more than 1,700 alumni outside the U.S. More than half of UNM's alumni choose to remain in New Mexico.

[UNM's libraries, museums](#), galleries and performance spaces are a rich cultural resources for the state. Home to the [Lobos](#) and contenders in the Mountain West Conference, UNM athletics draw fans from all over. The University Arena or "The Pit" is one of college basketball's most famous and recognizable buildings. In fact, The Pit was ranked 5th by the Travel Channel as one of the best arenas in which to watch college basketball.

UNM is a place where cutting-edge research and creative endeavors flourish. UNM research injects millions of dollars into New Mexico's economy, funds new advancements in healthcare, and augments teaching - giving students valuable hands-on training in state-of-the art laboratories.

The Health Sciences Center is the state's largest integrated health care treatment, research and education organization. U.S. News and World Report's 2018 edition of "America's Best Graduate Schools" ranks the [UNM School of Medicine](#) 20th in primary care and 72nd in research. Additionally, in health disciplines, UNM's [Nursing/Midwifery Program](#) is ranked seventh. [UNM School of Law](#) is ranked 88th, while ranking 14th in clinical training. [UNM College of Fine Arts](#) is ranked 48th, with its [Photography program](#) ranked fifth in the nation. The engineering program is ranked 83rd nationally, with [Electrical Engineering](#) coming in at 75th, and [Chemical Engineering](#) ranking at 72nd.

UNM is the only Hispanic-Serving Institution in the U.S. that is also classified a Carnegie Research University with Very High Activity.

Among the University's outstanding research units are the [Center for Advanced Research Computing](#), [Cancer Center](#), New Mexico Engineering Research Institute, [Center for High Technology Materials](#), [Design Planning Assistance Center](#), and the [Mind Research Network](#).

General information regarding the University of New Mexico obtained from the UNM website at <http://www.unm.edu/welcome/about/index.html>.

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 Science & Engineering 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 Science & Engineering Research Challenge is a two-division (junior division for middle school students and senior division for high school students), fourteen category, regional student competition of science and engineering projects. The **Central NM Science & Engineering 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. Nearly 500 4th through 12th grade students participated in the **2019 Central NM Science & Engineering Research Challenge and the 4th & 5th Grade Research Expo**.

As an International Science & Engineering Fair Affiliated Fair, the **Central NM Science & Engineering Research Challenge** sends a pre-determined number of projects to ISEF as competing Finalists and up to two top 8th grade student researchers to ISEF as Student Observers each year. From our ISEF Finalist delegation in 2019, **AnaMaria Perez**, Albuquerque Academy, placed 1st in **Mathematics** and also won the **Best of Category Award**, **Rusty Ludwigsen**, APS Early College Academy, placed 3rd in **Cellular & Molecular Biology**, and **Milidu Jayaweera**, La Cueva High School, placed 2nd in **Robotics and Intelligent Machines**. Milidu also received a



\$1500 Special Award from the **Association of Computing Machinery** and a **\$1000 Special Award** from the **National Security Agency Research Directorate**. AnaMaria received a **\$1500 Special Award** from the **Mu Alpha Theta** and a **\$750 Special Award** from the **National Security Agency Research Directorate**.

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 2019, the *Central NM Science Olympiad* offered **45 events** and had **30 volunteer Event Supervisors and Event Assistants** from UNM School of Engineering, Presbyterian, UNM Hospital, Sandia Labs, National Weather Service, Transcore, Intera, Inc., NM Museum of Natural History, and more. There were a total of **19 competing teams** from **11 middle and high schools** in the region.

The **Albuquerque Area Homeschoolers** represented New Mexico in both the middle and high school divisions at the National Science Olympiad Tournament held at Cornell University where they competed against 57 other teams. The high school team won **1st place in the Wright Stuff event**. The middle school team won **3rd place in Elastic Launched Glider event**.

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 continued 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 in cooperation with nationwide colleges and universities. JSJS 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 2019, the *SW Region Junior Science & Humanities Symposium* hosted 20 students from 11 schools at the onsite level of the competition. Five students qualified to compete at the **2019 JSJS National Competition** - **Milidu Jayaweera**, *La Cueva High School*, **Rusty Ludwigsen**, *APS Early College Academy*, **Britney Hsu**, *Taos Academy*, **Charles Strauss**, *Los Alamos High School*, and **Mustafa Muhyi**, *Las Cruces High School*. **Milidu** placed **3rd** in the category of Engineering & Technology at the national competition.

Education (K-12 STEM-H Educator focus)

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 2018-2019, workshops included Research Challenge Bootcamp (on-site and online), Managing Local STEM-H Competitions (online), and Responsible Conduct of Research & Human/Animal Protections in Student Research (online). The STEM-H Educator Professional Development Workshops will continue to evolve over time as needs are identified and incorporated.

STUDENT PROJECT DEVELOPMENT BOOTCAMP

The **STEM-H Student Project Development 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. The **STEM-H Student Project Development Bootcamp** will be expanded over time as needs are identified and incorporated. 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 continued in 2017, 2018, and 2019. Explora's amazing STEM-H educators facilitated the Student Project Development Bootcamps AND physically hosted them at Explora! This partnership will continue and grow in 2019-2020.

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. As there is no longer ongoing funding to expand the Lending Library, the STEM-H Center is maintaining it with its current inventory and there are no plans in place for expansion in FY19.

Research/Policy/Advocacy

NM STEM-H CONNECTION STATEWIDE WEBSITE

The **NM STEM-H Connection Website** contains searchable, web-based databases of STEM-H education related people, programs, and initiatives. It is also a comprehensive website of NM STEM-H Education resources and tools with links to New Mexico specific and National sites. It is designed to encourage increased collaboration/communication throughout the NM STEM-H Education communities as well as to offer the public opportunities to access statewide STEM-H experts along with their programs, projects, and initiatives whether they be teacher professional development, summer programs, research opportunities, connections with potential mentors, consultants, volunteers, judges, etc. Additional funding is always being sought to support requested development and enhancements to the site. For the past few years, no supplemental funding has been available, so the site is being maintained without any additional enhancements or functionality and the databases are only updated as new information becomes available for programs (new, outdated, etc.). Should funding become available, the web developer will begin work on the growing list of desired site functions.

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
- Albuquerque Hispano Chamber of Commerce (in development)
- BrainHackers
- Central NM STEM-H Ecosystem
- EPSCoR
- Explora Science Center
- Foundations 4 Success, Inc.
- HSC Institutional Animal Care & Use Committee
- Los Alamos National Laboratories Foundation
- Mission Graduate
- New Mexico PBS
- NM Academy of Science
- NM Coalition of Charter Schools
- NM MESA
- NM Museum of Natural History & Science
- NM Oil & Gas Association (in development)
- NM Partnership for Mathematics & Science Education
- NM Public Education Department (including Math & Science Advisory Council; College & Career Readiness Bureau)
- NM Science Teachers Association/NM Council of Teachers of Mathematics/Environmental Education Assoc of NM
- NM Supercomputing Challenge
- Project ECHO – Education (Dr. Michael Stanton)
- Science Buddies
- Southwest Indian Polytechnic Institute (NASA Grant Advisory Council)
- STEM NM Learning Ecosystem
- STEMfinity
- UNM Engineering Student Services & Outreach Programs
- UNM HSC Office for Diversity
- UNM Human Protections Office
- UNM Office of 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 continues to work with the UNM Office of Government & Community Relations 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 (2014-2019), and the STEM NM Learning Ecosystem (recently renamed “STEM-NM”), Leadership Team for the STEM NM Ecosystem, and the Advisory Committee for Explora/STEM NM Ecosystem’s NSF INCLUDES Grant (Math FACESS).

2018-2019 Advisory Council & Staff

COUNCIL MEMBERS

Lynne Andersen

NAIOP NM – Commercial Real Estate Development Association

Connie Beimer

Director, UNM Ofc of Gov't & Community Relations

Reg Bourgeois

US Army Corps of Engineers – ABQ District

Dr. Mary Jo Daniel

UNM Office of the Vice President for Research

Robert Deblassie

Sandia National Laboratories

Dr. Leonard Duda

Sandia National Laboratories (Retired)

John Gallegos

NAIOP NM – Commercial Real Estate Development Association

Deborah Green

St. Pius X High School Science Teacher

Nels Hoenig, CO-CHAIR

American Society for Quality/PNM Resources

Franz Joachim, CO-CHAIR

New Mexico PBS

Dr. Lorna Joachim

UNM Department of Psychology

Ray Nance

Retired STEM Educator/PhD Cand. in Educ. Leadership

Debra Novak

NM Museum of Natural History & Science/NSTA

Alma Ripley

Albuquerque Public Schools

Michael Rogers

Northrop Grumman

Dr. Valerie Romero-Leggott

Vice Chancellor, HSC Office for Diversity

Karen Stockham

Licensed Counselor

James Vigerust

CBI Federal Services, Inc.

STEM-H CENTER STAFF

Karen Kinsman, MS, PMP

Director/Senior Program Manager

Erin Garcia, JD, MBA Cand.

Program Specialist

Laura Arguelles, BS

Programmer/Analyst 3/Web Developer



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. From FY13 through FY15, the STEM-H Center carried forward positive balances at the end of each fiscal year. This was after several years in which, due to a number of factors including ongoing underfunding of salaries/fringe, the Center had carried forward deficits. In FY16, a small deficit carried forward as a result of multiple physical moves and related expenses along with a sluggish economy that contributed to slightly lower donations/sponsorships. In FY17, the STEM-H Center team identified areas in which operations could be carried out more efficiently as well as areas in which additional fundraising efforts could be focused and, as a result, ended the fiscal year with a positive balance forward which has continued in FY18 and FY19. FY20's budget looks like it will be quite similar to FY19, though some additional revenue will be sought to support 60th Anniversary celebrations for the Central NM STEM Research Challenge.

The FY19 balance forward has been earmarked and distributed to budget line items in support of increases in space rental expenses at EXPO NM, upgrading technology, purchasing needed supplies, etc. The approximately \$5,000 carry forward in our UNM main index came from funds deposited there from Research Challenge participant entry fees that were not all transferred into our Foundation index prior to the end of the fiscal year. That \$5,000 will remain to supplement the \$85,000 from main campus Office of Research as that support does not fully cover ½ of our total personnel costs that are charged to that index. The remaining balance of our personnel costs are charged to the Office for Diversity, Equity, & Inclusion index where the \$85,000 in Health Sciences Center support for the STEM-H Center is deposited annually.

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 policy and then the majority is then transferred into the Foundation index for operating expenses.

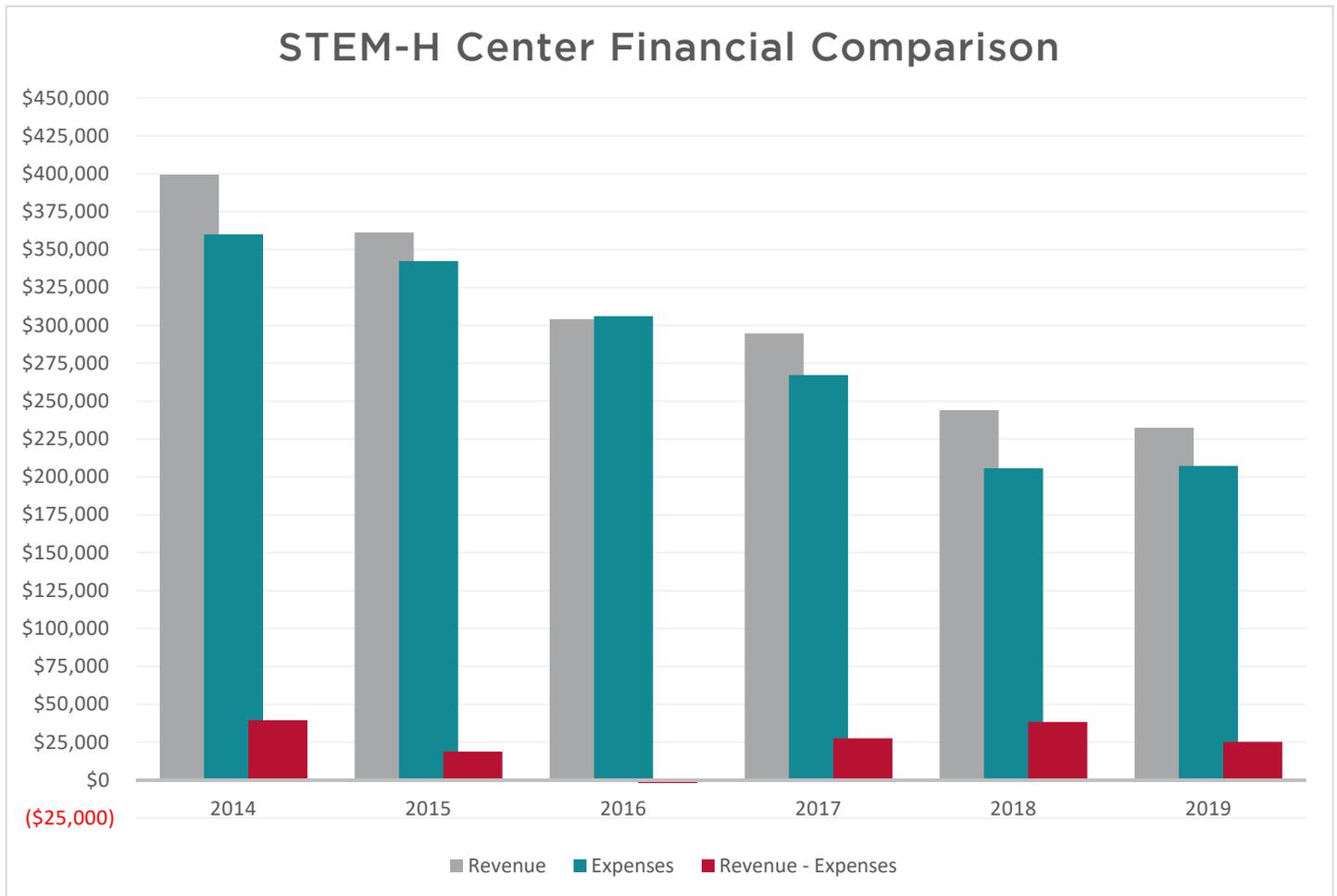
Remaining in force for FY20 is the Memorandum of Understanding between the Office of the Provost on main campus and the Health Sciences Center that went into effect in mid-2015. Beginning in FY18, the MOU dictated a 50/50 split of the sponsorship between the Office of Research and the Health Sciences 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 have been 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, the Center ended FY19 with a small Balance Forward in both of its two UNM indexes (“accounts”). Approximately \$15,000 of the FY19 Balance Forward represents FY20 sponsorship funds received prior to the June 30th end of FY19.

What’s the bottom line? The STEM-H Center is once again in solid financial shape entering the first quarter of FY20. 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.



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.

FY19 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
NAIOP <i>(includes \$26,675 from member orgs w/in list)</i>	\$31,675.00	Gold
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	\$10,147.00	Silver
General Mills Foundation	\$10,000.00	Silver
Honeywell/Sandia National Laboratories	\$10,000.00	Silver
Boeing	\$5,500.00	Zinc
UNM School of Engineering	\$5,000.00	Zinc
Albuquerque Journal	\$5,000.00	Zinc
Peacock Myers, P.C.	\$5,000.00	Zinc
Air Force Research Labs	\$3,200.00	Copper
PNM Resources	\$3,000.00	Copper
bigbyte.cc	\$2,000.00	Aluminum
Advanced Communications	\$1,600.00	Aluminum
Sandia Peak Tram Company	\$1,100.00	Aluminum
KOAT/Byron Morton	\$1,000.00	Aluminum
New Mexico Gas Company	\$1,000.00	Aluminum
Wilger Enterprises, Inc.	\$1,000.00	Aluminum
Directed Energy Profession Society	\$900.00	Carbon
NM Society of Hazardous Materials Managers	\$700.00	Carbon
Kiwanis Club of Manzano	\$600.00	Carbon
Albuquerque Astronomical Society	\$500.00	Carbon
ASHRAE NM Chapter	\$500.00	Carbon
Bridgers & Paxton Consulting Engineers	\$500.00	Carbon
CliftonLarsonAllen LLP	\$500.00	Carbon
CREW (Commerical Real Estate Women)	\$500.00	Carbon

Dekker/Perich/Sabatini	\$500.00	Carbon
Enterprise Builders Corporation	\$500.00	Carbon
Huning LLLP	\$500.00	Carbon
International Test & Evaluation Association , Roadrunner Chapter	\$500.00	Carbon
Jaynes Corporation	\$500.00	Carbon
Kaufman Fire Protection Systems	\$500.00	Carbon
Kiwanis Club of Coronado	\$500.00	Carbon
Klinger Constructors	\$500.00	Carbon
New Mexico Bank & Trust	\$500.00	Carbon
Northrup Grumman Mission Systems	\$500.00	Carbon
Public Service Company of New Mexico	\$500.00	Carbon
R.E.M. Properties	\$500.00	Carbon
Sedberry & Associates	\$500.00	Carbon
Trane	\$500.00	Carbon
UNM College of Pharmacy	\$500.00	Carbon
UNM Communications & Marketing	\$500.00	Carbon
Albuquerque Area Extension Master Gardeners	\$450.00	Helium
American Chemical Society - Central New Mexico Section	\$450.00	Helium
Associated Contractors of New Mexico	\$450.00	Helium
AEgis Technology Group & the Appel Family	\$400.00	Helium
American Institute of Aeronautics and Astronautics	\$400.00	Helium
Bohannon Huston	\$400.00	Helium
Albuquerque Soaring Club	\$360.00	Helium
ARGUS Investment Realty, Inc.	\$350.00	Helium
Explora Science Center and Children's Museum	\$350.00	Helium
Sun Vista Enterprises, Inc.	\$350.00	Helium
Solar and Sustainability in New Mexico	\$310.00	Helium
American Society of Safety Professionals - New Mexico Chapter	\$300.00	Helium
Bank of Albuquerque	\$300.00	Helium
Chalmers Ford	\$300.00	Helium
FBT Architects	\$300.00	Helium
First Citizens Bank	\$300.00	Helium

Pulte Group, Inc.	\$300.00	Helium
UNM Department of Neurosciences	\$300.00	Helium
AIC General Contractors, Inc.	\$250.00	Helium
Albuquerque Association for Gifted and Talented Students	\$250.00	Helium
Century Sign Builders	\$250.00	Helium
Chavez-Grievies Consulting Engineers	\$250.00	Helium
Consensus Planning	\$250.00	Helium
Geltmore, Inc.	\$250.00	Helium
Home Builders Association of Central NM	\$250.00	Helium
Keleher & McLeod	\$250.00	Helium
SMPC Architects	\$250.00	Helium
Titan Development	\$250.00	Helium
Civil Air Patrol - New Mexico Wing	\$231.00	Hydrogen
Enchanted Lens Camera Club	\$225.00	Hydrogen
Sandia Grotto	\$225.00	Hydrogen
General Mills - Albuquerque Plant	\$220.00	Hydrogen
Allen Sigmon Real Estate	\$200.00	Hydrogen
American Association of University Women	\$200.00	Hydrogen
Daskalos Properties	\$200.00	Hydrogen
IEEE Photonics Society	\$200.00	Hydrogen
Lastrapes, Spangler & Pacheco PA	\$200.00	Hydrogen
New Mexico Engineering Foundation	\$200.00	Hydrogen
SIARZA Social Digital	\$200.00	Hydrogen
Society of Women Engineers, Central New Mexico Section	\$200.00	Hydrogen
Studio Southwest Architects	\$200.00	Hydrogen
United States Navy and Marine Corps	\$200.00	Hydrogen
Wells Fargo Bank	\$200.00	Hydrogen
Wood PLC	\$200.00	Hydrogen
Hinkle Family Fun Center	\$180.00	Hydrogen
ENLACE Statewide Collaborative	\$150.00	Hydrogen
New Mexico Trout	\$150.00	Hydrogen
Springer5 Investments	\$150.00	Hydrogen

Sutin, Thayer & Browne	\$150.00	Hydrogen
Climate Change New Mexico	\$125.00	Hydrogen
NM Museum of Natural History & Science Foundation	\$125.00	Hydrogen
Albuquerque African Violet Club	\$100.00	Hydrogen
Association of Old Crows	\$100.00	Hydrogen
CBRE	\$100.00	Hydrogen
The Hartman + Majewski Design Group	\$100.00	Hydrogen
Kiwanis Club of Sandias	\$100.00	Hydrogen
Trinity Section of the American Nuclear Society	\$100.00	Hydrogen
United States Air Force	\$100.00	Hydrogen
VHG Architects	\$100.00	Hydrogen
Institute of Transportation Engineers	\$75.00	Hydrogen
Albuquerque Isotopes	\$60.00	Hydrogen
Lakeshore Learning	\$50.00	Hydrogen
UNM Bookstore	\$50.00	Hydrogen
Dion's Pizza	\$40.00	Hydrogen
Frontier Restaurant	\$40.00	Hydrogen
Rude Boy Cookies	\$30.00	Hydrogen
FY2019 BUSINESS & COMMUNITY ORGANIZATION TOTAL VALUE OF SPONSORSHIPS/DONATIONS = <i>**Total is less \$26,675 that reflects NAIOP member organizations' donations for student/teacher awards that are reflected in individual business listings above.**</i>	\$293,593.00	

STEM-H Center: FY19 INDIVIDUAL DONORS

(Includes In-Kind Donations for which the value is known)

DONOR	VALUE	LEVEL
Mary Louise Martignoni	\$2,000.00	Curie
Pat & Len Duda	\$1,500.00	Curie
Foreman Family	\$1,300.00	Darwin
Karen & Tommy Hudson	\$1000.00	Darwin
Jerry Cross	\$600.00	Carver
Randi Buck	\$600.00	Carver
Daniel Newmyer	\$500.00	Carver
Holly Lowe	\$500.00	Carver

Keith Meyer & Mary Meyer, Ph.D	\$500.00	Carver
Lawrence M. Wells, Attorney at Law	\$500.00	Carver
Van Pham	\$500.00	Carver
Kris Jaffa	\$475.00	Newton
Robert Arguelles	\$375.00	Newton
Dennis Spanogle	\$300.00	Newton
Dr. Gerard & Mildred Kaye	\$300.00	Newton
Cordwell Family	\$250.00	Newton
John R. Lewinger	\$250.00	Newton
Lynne Anderson & John Gallegos	\$250.00	Newton
Dave and Rhonda Hill	\$200.00	Ochoa
Don M. Lifke	\$200.00	Ochoa
James Topmiller	\$200.00	Ochoa
John & Joan Black	\$200.00	Ochoa
Todd Thompson	\$200.00	Ochoa
Tom Grossman	\$200.00	Ochoa
Kenneth & Belinda Eras	\$112.24	Ochoa
Dave Giddens and Elizabeth Jeppesen	\$100.00	Ochoa
Mark Burton	\$100.00	Gates
William Chambers	\$100.00	Gates
Bobbi Kay & Rob Nelson	\$50.00	Gates
Richard & Bobbie Cuddihy	\$50.00	Gates
Vigerust Family	\$50.00	Gates
Sheila Doucette	\$25.00	Ross
FY2019 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>	\$13,487.24	
FY2019 COMBINED MONETARY/IN-KIND SPONSORSHIPS & DONATIONS TOTAL =	\$307,080.24	



**THANK YOU FOR THE
GENEROSITY OF ALL OUR DONORS!**

FY19 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	Central NM Science & Engineering 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 Area Homeschoolers			X ³		HOME	✗
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			CHARTER	✓
Albuquerque Sign Language Academy	X	X			CHARTER	✓
Alice King Charter School	X				CHARTER	✗
Amy Biehl Charter High	X				CHARTER	✓
Annunciation Middle School	X				PRIVATE	✗
Atrisco Heritage Academy			X		PUBLIC	✓
Bernalillo High School	X				PUBLIC	✗
Bosque Farms Elementary	X	X			PUBLIC	✓
Bosque School			X ²		PRIVATE	✗
Cleveland Middle School	X				PUBLIC	✓
Corrales Elementary School		X			PUBLIC	✗
Cottonwood Classical			X ²		CHARTER	✗
Digital Arts & Technology Academy			X		CHARTER	✓
Early College Academy	X			X	PUBLIC	✗
Eisenhower Middle School	X				PUBLIC	✗
Holy Child Catholic School	X	X			PRIVATE	✗
Holy Ghost Middle School	X				PRIVATE	✗
Hoover Middle School	X				PUBLIC	✓
Hope Christian School	X				PRIVATE	✗
Immanuel Lutheran	X				PRIVATE	✗
Jefferson Middle School	X				PUBLIC	✓
La Cueva High School	X		X ²	X	PUBLIC	✗
Las Cruces High School				X	PUBLIC	✗

REGISTERED SCHOOLS	Central NM Science & Engineering Research Challenge	Central NM 4 th /5 th Grade Research Expo	Central NM Science Olympiad	SW Junior Science & Humanities Symposium	School Type	Title I School
Los Alamos High School				X	PUBLIC	✗
Media Arts Collaborative Charter School	X			X	CHARTER	✓
Monte Vista High School (CO)				X	PUBLIC	✗
Peralta Elementary	X	X			PUBLIC	✓
Prince of Peace Lutheran	X	X			PRIVATE	✗
Rio Grande Enrichment Studies	X				HOME	✗
Rio Rancho High School	X				PUBLIC	✗
Route 66 Elementary School		X			PUBLIC	✓
Salam Academy	X	X			PRIVATE	✗
San Antonito Elementary School		X			PUBLIC	✗
San Felipe de Neri School	X	X			PRIVATE	✗
San Jon High School				X	PUBLIC	✓
Sandia High School			X	X	PUBLIC	✗
School of Dreams Academy	X	X			CHARTER	✓
South Valley Academy	X				CHARTER	✓
St. Mary's School (Abq)	X	X			PRIVATE	✗
St. Therese Catholic School	X				PRIVATE	✗
St. Thomas Aquinas School	X	X			PRIVATE	✗
Sue Cleveland High School	X		X		PUBLIC	✗
Sundance Elementary	X				PUBLIC	✓
Taos Academy				X	CHARTER	✓
The ASK Academy	X			X	CHARTER	✓
Valencia High School	X				PUBLIC	✓
Wilson Middle School			X ²		PUBLIC	✓
TOTALS =	37	15	11 Schools <i>(Registered)</i> 9 Schools <i>(Participated)</i> 17 of 19 Teams <i>(Participated)</i>	11	Public = 24 Private = 14 Charter = 12 Homeschool = 2	Title I = 40.4%

✓ = Title I School

✗ = Not Title I School

x = Fielded "x" # Regional Science Olympiad Teams

APPENDICES

Volunteer Hours & Value of Time

Research Challenge Statistics

JSHS Statistics

Science Olympiad Statistics

Awards Values

Award Donors List

2018-2019 Volunteer Hours & Value of Time

2019 Central NM Science & Engineering 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>	220	1760	\$52,800.00
Judge Chairs/Master Chairs <i>(25 hrs per judge @ \$30/hr avg in-kind time donation)</i>	30	750	\$22,500.00
Special Awards Judges <i>(4 hrs per judge @ \$30/hr avg in-kind time donation)</i>	150	600	\$18,000.00
4th/5th Grade Judging Coordinator <i>(8 hrs @ \$30/hr avg in-kind time donation)</i>	1	8	\$240.00
Special Awards Judging Coordinator <i>(40 hrs @ \$30/hr avg in-kind time donation)</i>	1	40	\$1,200.00
Registration Volunteers <i>(3 hrs per volunteer @ \$30/hr avg in-kind time donation)</i>	15	45	\$1,350.00
Registration Volunteers Coordinator <i>(40 hrs @ \$30/hr avg in-kind time donation)</i>	1	40	\$1,200.00
Display & Safety Inspectors <i>(4 hrs per volunteer @ \$30/hr avg in-kind time donation)</i>	20	80	\$2,400.00
Display & Safety Committee Chairs <i>(15 hrs per volunteer @ \$30/hr avg in-kind time donation)</i>	2	30	\$900.00
Speakers & Presenters <i>(2 hrs per speaker/presenter @ \$50/hr avg in-kind time donation)</i>	14	28	\$1,400.00
TOTAL RESEARCH CHALLENGE VOLUNTEERS =	454	3381	\$101,990.00

2019 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>	18	144	\$4,320.00
ADVISORY COUNCIL =	18	144	\$4,320.00

2019 Central NM Science Olympiad

	# of Volunteers	# of Volunteer Hours	Value of Volunteer Hours
Events with Volunteer Event Supervisors <i>(16 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>	46	736	\$22,080.00
Other Volunteers <i>(Average 4 hrs each; Average 1 per event @ \$30/hr avg in-kind time donation)</i>	46	184	\$5,520.00
SO VOLUNTEERS =	92	920	\$27,600.00

2019 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>	11	88	\$2,640.00
Judging Coordinator <i>(40 hours @ \$30/hr avg in-kind time donation)</i>	1	40	\$1,200.00
Keynote Speaker <i>(4 hrs @ \$40/hr avg in-kind time donation)</i>	1	4	\$160.00
JSHS VOLUNTEERS =	13	132	\$4,000.00

	TOTAL # Volunteers	TOTAL # Volunteer Hours	TOTAL Value Volunteer Hours
FY19 GRAND TOTAL =	577	4577	\$137,910.00

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. Speakers/Presenters all high level professionals, so their time was valued at an average of \$50/hour - significantly less than the hourly rate of several of them.

2019

Central New Mexico Research Challenge



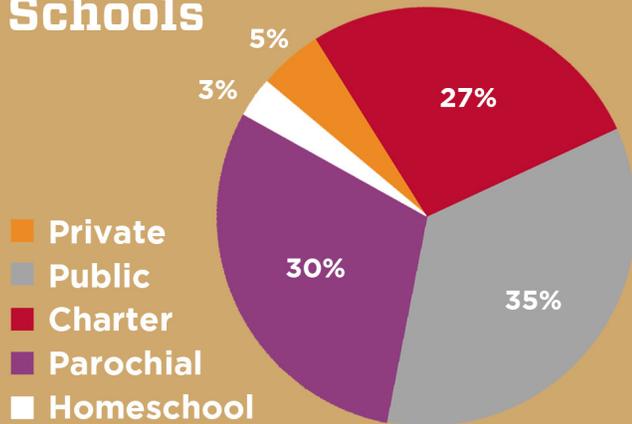
Gender



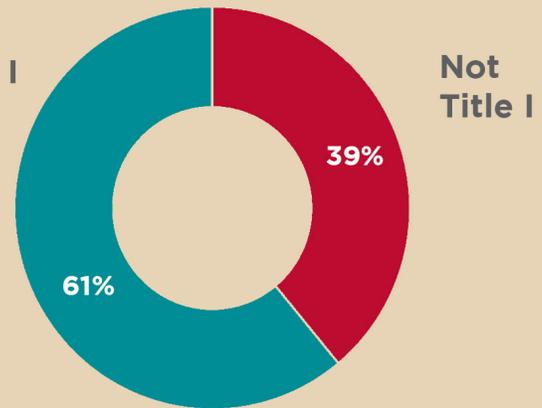
52% Females 46% Males

Over 1,750 volunteer hours were donated.

Schools



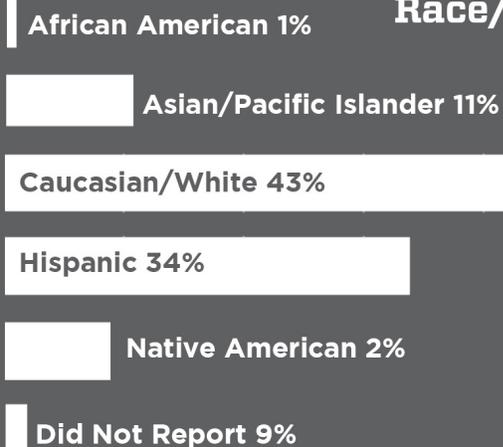
Title I



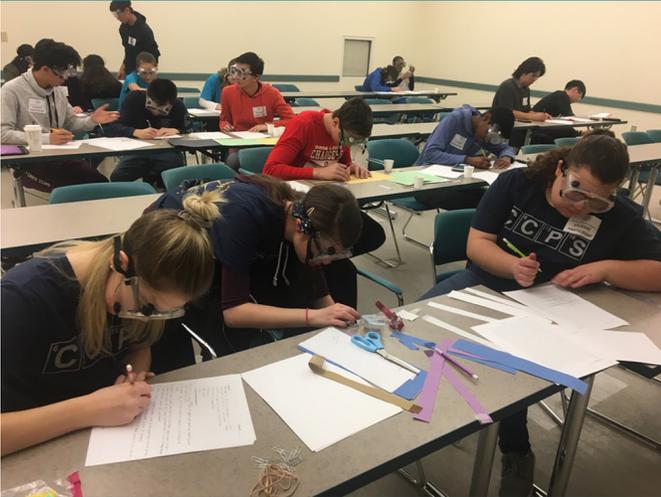
\$73,173.00 was awarded to Central New Mexico kids in 2019 alone.



Race/Ethnicity



2019 Science Olympiad



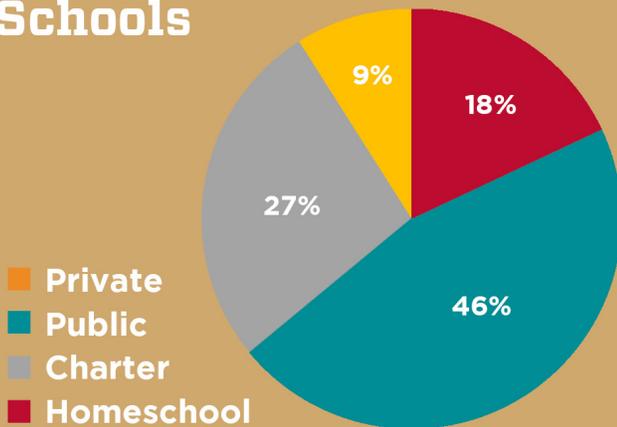
Gender



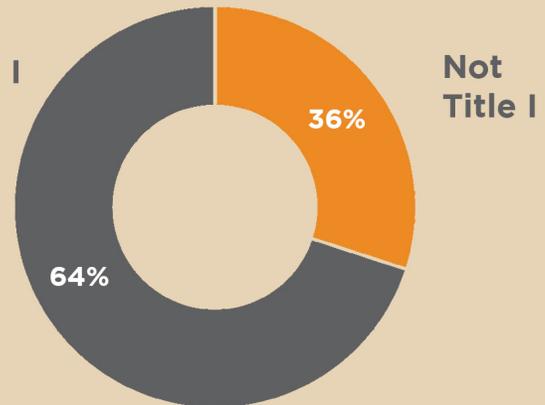
44% Females 56% Males

Central NM Science Olympiad offered 44 events and had 46 volunteers!

Schools



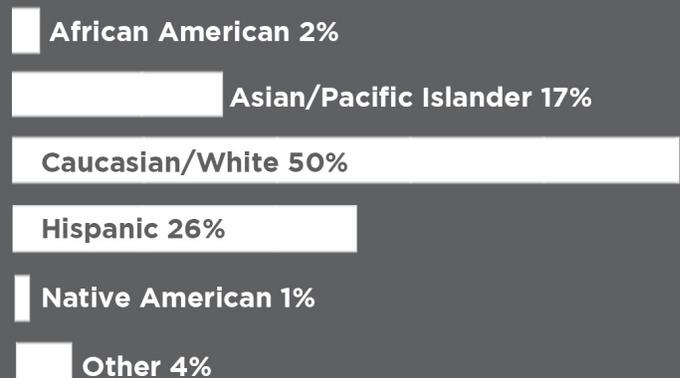
Title I



Vounteers donated over 900 Hours in 2019!



Race/Ethnicity

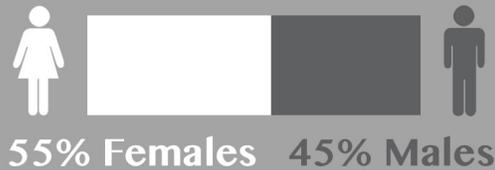


2019

Junior Science and Humanities Symposium

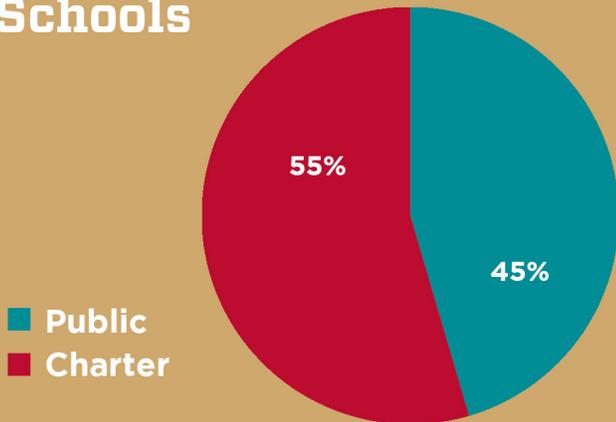


Gender

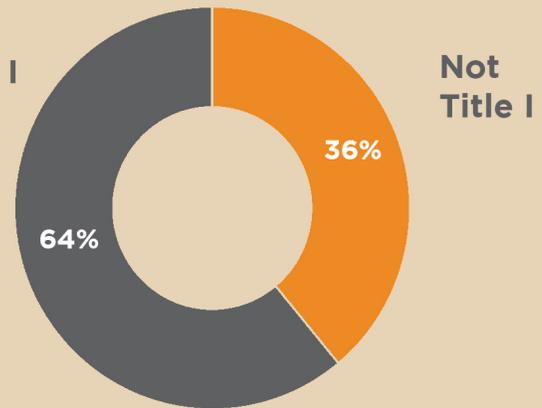


In 2019 JSHS hosted 20 students from 11 schools.

Schools



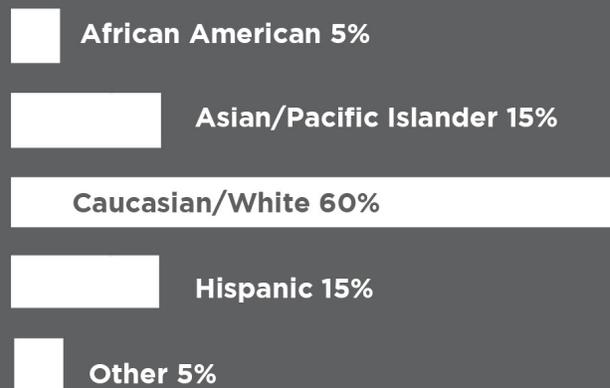
Title I



Donors Paid \$4,000.00 in Awards for 2019.



Race/Ethnicity



2019 Central NM Science & Engineering Research Challenge AWARDS

Special Awards - Directly Donor Paid	\$6,665.00
Special Awards - Office Paid	\$61,383.00
Top of Category Awards - Office Paid	\$5,225.00
CNM-SERC AWARDS =	\$73,173.00

2019 Central NM Science Olympiad AWARDS

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

2019 SW Region Junior Science & Humanities Symposium AWARDS

SW Region JSHS - Donor Paid	\$4,000.00
SW JSHS AWARDS =	\$4,000.00

TOTAL AWARDS *(all programs)* = **\$78,173.00**



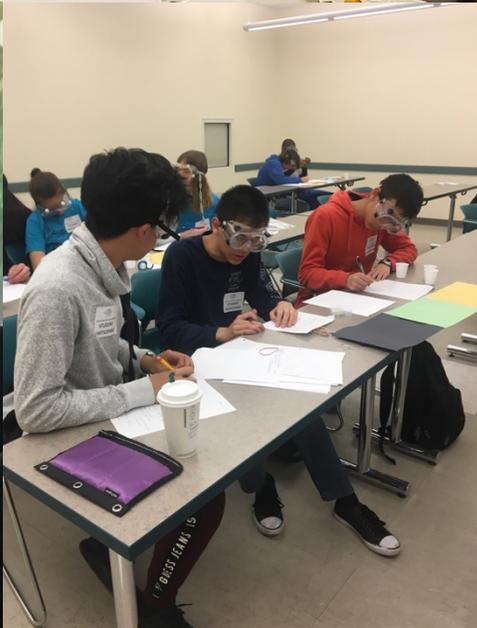
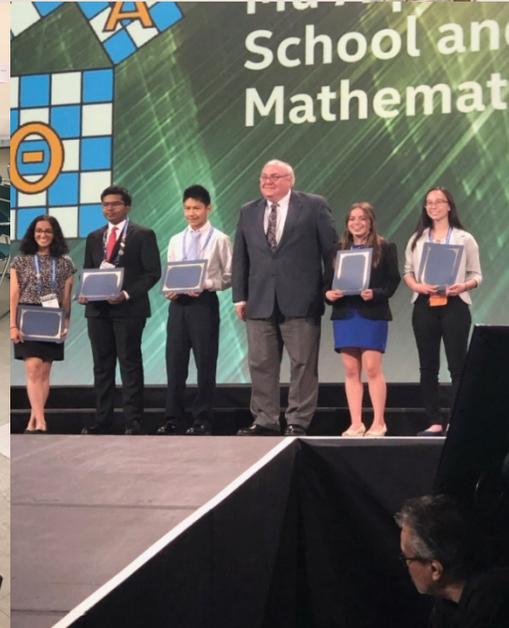
2018-2019 Student & Teacher Award Donors

AEgis Technology Group & the Appel Family	Bank of Albuquerque
AIC General Contractors, Inc.	bigbyte.cc
Albuquerque African Violet Club	Bobbi Kay & Rob Nelson
Albuquerque Area Extension Master Gardeners	Bohannon Huston
Albuquerque Association for Gifted and Talented Students	Bridgers & Paxton Consulting Engineers
Albuquerque Astronomical Society	Broadcom
Albuquerque Soaring Club	CBRE
Allen Sigmon Real Estate Group	Century Sign Builders
American Association of University Women	Chalmers Ford
American Chemical Society - Central New Mexico Section	Chavez-Grieves Consulting Engineers
American Institute of Aeronautics and Astronautics	Civil Air Patrol - New Mexico Wing
American Meteorological Society	CliftonLarsonAllen
American Psychological Association	Climate Change New Mexico
American Society of Safety Professionals - New Mexico Chapter	Consensus Planning
Argus Investment Realty, Inc.	Cordwell Family
ASHRAE NM Chapter	CREW (Commerical Real Estate Women)
ASM Materials Education Foundation	Daskalos Properties
Associated Contractors of New Mexico	Dave and Rhonda Hill
Association for Women Geoscientists	Dekker/Perich/Sabatini
Association of Old Crows	Dennis Spanogle
Directed Energy Profession Society	John & Joan Black
Don M. Lifke	John R. Lewinger
Dr. Gerard & Mildred Kaye	Karen & Tommy Hudson
Elizabeth Jeppesen & Dave Giddens	Kaufman Fire protection Systems, Inc.
Enchanted Lens Camera Club	Keith Meyer & Mary Meyer, Ph.D
ENLACE Statewide Collaborative	Keleher & McLeod, PA
Enterprise Builders Corporation	Kiwanis Club of Coronado
Explora Science Center and Children's Museum	Klinger Constructors
FBT Architects	Kris Jaffa
First Citizens Bank	Lastrapes, Spangler & Pacheco PA
Foreman Family	Lawrence M. Wells, Attorney at Law
Geltmore, Inc.	Lynne Anderson & John Gallegos
Genius Olympiad	Mark Burton
Home Builders Association of Central NM	Mary Louise Martignoni
Huning LLLP	MU Alpha Theta

IEEE Photonics Society	NASA
Institute of Transportation Engineers	National Oceanic and Atmospheric Administration
Intel	New Mexico Bank & Trust
International Test & Evaluation Association , Roadrunner Chapter	New Mexico Engineering Foundation
Jackling Fund - UNM	New Mexico Gas Company
James Topmiller	New Mexico Trout
Jaynes Corporation	NM Museum of Natural History Foundation
NM Society of Hazardous Materials Managers	Titan Development
NM Solar Energy Association	Todd Thompson
Peacock Law P.C.	Tom Grossman
Public Service Company of New Mexico (PNM)	Trane
Pulte Group, Inc.	Trinity Section of the American Nuclear Society
Randi Buck	United States Air Force
REM Properties	United States Metric Association
Richard & Bobbie Cuddihy	United States Navy and Marine Corps
Ricoh	University of New Mexico College of Pharmacy
Sandia Grotto	University of New Mexico Health Sciences Center
Sandia Peak Tram Company	UNM Department of Neurosciences
Sedberry & Associates	Vigerust Family
Sheila Doucette	Water Environment Federation
SIARZA Social Digital	Wells Fargo Bank
SMPC Architects	Wilger Enterprises Inc.
Society for In Vitro Biology	Wood Group PLC
Society of Women Engineers, Central New Mexico Section	Yale Science & Engineering Association, Inc.
Springer 5 Investments	
Studio Southwest Architects, Inc.	
Sun Vista Enterprises, Inc.	
Sutin, Thayer & Browne	
The Hartman & Majewski Design Group	

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

Health Sciences & Services Building, Suite 102

MSC 09 5233

1 University of New Mexico

Albuquerque, NM 87131-0001

(505) 277-4916 STEM-H Center

(505) 272-2728 Office for Diversity

STEM-H Center Website

<http://stemed.unm.edu>

NM STEM-H Connection Website

<http://www.nmstemh.org>