New Mexico State University
2018 Legislative Initiatives
NMSU Capital Outlay
<table>
<thead>
<tr>
<th>Campus/NMSU Priority</th>
<th>NMSU Request</th>
<th>Recommendations</th>
<th>Higher Education Department</th>
<th>Legislative Finance Committee</th>
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<tr>
<td><strong>NMSU-LAS CRUCES</strong></td>
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<tr>
<td>1 Agricultural Modernization and Educational Facilities</td>
<td>$25,000,000</td>
<td>$20,000,000</td>
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<td><strong>NMSU-ALAMOGORDO</strong></td>
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<tr>
<td>1 Site Improvements, roof repair/replacement and lighting</td>
<td>$1,400,000</td>
<td>$1,400,000</td>
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<tr>
<td><strong>NMSU-CARLSBAD</strong></td>
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<tr>
<td>1 Site Improvements to include design installation of drainage system</td>
<td>$1,000,000</td>
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<tr>
<td>2 Learning Assistance Center Renovation</td>
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<tr>
<td><strong>NMSU-DACC</strong></td>
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<tr>
<td>1 Infrastructure Upgrades and Replacement</td>
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<td>$1,700,000</td>
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<tr>
<td>2 Information Technology Infrastructure Upgrades</td>
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<td>No Rec.</td>
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<tr>
<td><strong>NMSU-GRANTS</strong></td>
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<tr>
<td>1 Martinez Hall Renovations</td>
<td>$1,700,000</td>
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<td><strong>Total</strong></td>
<td>$31,850,000</td>
<td>$25,600,000</td>
<td>$0</td>
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Note: HED did not assign priorities to funding recommendations as they have done in prior years.
NMSU- Las Cruces
NMSU-Las Cruces Modernization and Agricultural Education Facilities

FY 2019 Request: $ 25,000,000
NMSU Priority: 1

NMSU is requesting $25,000,000 to plan, design, construct, renovate, furnish and equip renovations, additions, demolition and new construction for agricultural education facilities in research, laboratory and classroom spaces at New Mexico State University-Las Cruces. Our intention is to request that the construction of this project be part of the 2018 General Obligation Bond request. This project is the top priority of the five-year plan for the institution.

The New Mexico State University Las Cruces campus is unique among American collegiate campuses in that its Agricultural Education Facilities (AEF) district, which is over forty-five acres in size, is adjacent to the campus core. Although the AEF district is on the west side of the campus, it serves not only the approximately 1700 enrolled students at the College of Agriculture, Consumer and Environmental Sciences, but also students at other colleges and departments campuswide.

Agriculture and food processing are an important part of New Mexico’s economy, accounting for 32,578 jobs statewide in 2012. Agriculture accounts for about $4 million in sales and more in value-added products such as processing/distribution, which is what is taught and taking place at the NMSU College of Agriculture, Consumer and Environmental Sciences. It is also estimated that agriculture and food processing accounted for $10.6 billion on New Mexico $86.5 billion gross state product in 2012.

Renovation and modernization are planned for the Food Science Learning and Safety Facility, the Biomedical Research Building, and the Feed Milling and Processing Facility. Each of the buildings benefit NMSU’s students and the people of New Mexico.

NMSU is poised to be an international leader in food protection initiatives to promote food safety in New Mexico and the region. The Food Science and Learning and Safety Laboratory supports teaching in the processing of locally produced agricultural products resulting in economic gain for New Mexico producers and allied industries. It is projected that not only will approximately 600 students use the facility for coursework and research, but it is also used extensively for outreach to 4-H and FFA.
At the Biomedical Research Building, students take part in research in epidemiological challenges to improve public health including West Nile Disease, Dengue Fever, and Zika virus. It also provides space that supports research in cancer and fertility modeling. The facility is used for research by other colleges on campus as well.

Consolidating several separate facilities into a modern facility would create a Feed Milling and Processing Facility that will benefit research efforts, student training, and stakeholders in New Mexico. The facility could be used by the Animal and Range Sciences department, which is home to 495 undergraduates, 37 graduates and 27 faculty, for teaching, research and outreach. The facility will improve continued outreach to approximately 6,000 4-H, FFA students and their parents who visit NMSU each year.

Upgrade of these buildings on the west side of the NMSU-Las Cruces campus will enhance teaching, research and outreach while increasing student recruitment, retention and advancing STEM education.

If passed in the 2018 Bond issue, the current schedule calls for completion of construction in time for classes to begin in Fall 2022.

Language for appropriation: $25,000,000 to plan, design, construct, renovate, furnish and equip renovations, additions, demolition and new construction to the agriculture district at New Mexico State University- Las Cruces.
NMSU- Alamogordo
New Mexico State University
FY 2019 Capital Outlay Request

NMSU – ALAMOGORDO Site Improvements, Roof Repair/Replacement and Lighting

FY 2019 Request: $1,400,000
NMSU-A Priority: 1

New Mexico State University is requesting $1,400,000 to plan, design, construct, renovate, and equip renovations, for NMSU-Alamogordo. Our intention is to request that the construction of this project be part of the 2018 General Obligation Bond request.

This project includes improvements to the existing parking lot and roadway system that will improve accessibility, access and vehicular movement at the campus, and the removal and replacement of the existing roof for the Advanced Education/Tays Center. The existing building is 21,915 sq. ft. on one floor and functions as the Special Events Center for the Alamogordo campus.

Site safety will include re-roofing will stop frequent leaks, which can possibly lead to mold conditions and which contribute to the overall deterioration of the existing facilities. Continued deterioration will result in a need to replace with new buildings, at a greater cost than the renovation of existing structures.

Programs in the impacted buildings are general education and/or serve all enrolled students. Good stewardship of the institution’s resources is noticed by current and prospective students and is expected to contribute to the recruitment and retention efforts in a positive way. Good facilities in good condition are expected in a state institution of higher learning.

If passed as part of the 2018 Bond Issue, the current schedule calls for completion in time for classes to begin in Fall 2020.

Language for appropriation: $1,400,000 to plan, design, construct, renovate, furnish and equip the re-roof of buildings, and infrastructure and site improvements at New Mexico State University – Alamogordo.
NMSU- Carlsbad
New Mexico State University
FY 2019 Capital Outlay Request

NMSU – CARLSBAD Site Improvements

FY 2019 Request: $1,000,000
NMSU-CARLSBAD Priority: 1

New Mexico State University is requesting $1,000,000 to plan, design, construct, renovate, furnish and equip improvements to the site and infrastructure for NMSU - Carlsbad. Our intention is to request that the construction of this project be part of the 2018 General Obligation Bond request.

Funding would be used to plan, design, construct, renovate, furnish and equip improvements to the site and infrastructure campus-wide. Site improvements include the design and installation of a drainage system. The drainage system should include but not limited to a runoff diversion plan, curb and gutter, curb ramps, sub-surface drainage pipes, handrails, drainage channels, and sidewalk improvements. Site safety will include ADA access, drainage/erosion control and road infrastructure.

Good stewardship of the institution’s resources is noticed by current and prospective students and is expected to contribute to the recruitment and retention efforts in a positive way. Good facilities in good condition are expected in a state institution of higher learning.

If passed as part of the 2018 Bond Issue, the current schedule calls for completion in time for classes to begin in Fall 2020.

Language for appropriation: $1,000,000 to plan, design, construct, renovate, furnish, install infrastructure and site improvements campus-wide at New Mexico State University – Carlsbad.
NMSU- DACC
(Doña Ana Community College)
New Mexico State University
FY 2019 Capital Outlay Request

NMSU-DACC Infrastructure Upgrades and Replacement

FY 2019 Request: $1,700,000
NMSU-DACC Priority: 1

New Mexico State University is requesting $1,700,000 to plan, design, construct, renovate, and equip needed campus infrastructure upgrades and roof replacement at NMSU - Doña Ana Community College. Our intention is to request that the construction of this project be part of the 2018 General Obligation Bond request.

Funding would be used to plan, design, construct, renovate, and equip repairs and renovations to the campus infrastructure at New Mexico State University - DACC. The project will address the most serious safety and structural deficiencies in the existing campus utility and infrastructure system. The project will also continue to address the issue of replacing infrastructure that support the core campus functions.

Roofing projects to include the East Mesa Campus Main Building Roof and the Espina Campus Health Building Roof.

The project will replace the roofs of the two of DACC’s buildings, all associated equipment that must be moved and/or replaced to change the roof and interior repairs to damage from leaks. Re-roofing will stop frequent leaks, which can possibly lead to mold conditions and which contribute to the overall deterioration of the existing facilities. Continued deterioration will result in a need to replace with new buildings, at a greater cost than the renovation of existing structures.

Programs in the impacted buildings are general education and/or serve all enrolled students. Good stewardship of the institution's resources is noticed by current and prospective students and is expected to contribute to recruitment and retention efforts in a positive way. Good facilities in good condition are expected in a state institution of higher learning.

If passed as part of the 2018 Bond Issue, the current schedule calls for completion of construction in time for classes to begin in Fall 2020.

Language for appropriation: $1,700,000 to plan, design, construct, renovate, and equip campus infrastructure upgrades and roof replacement at New Mexico State University - Dona Ana Community College.
NMSU-DACC Information Technology Infrastructure Upgrades

FY 2019 Request: $ 450,000
NMSU-DACC Priority: 2

NMSU is requesting $450,000 to plan, design, construct, renovate, and equip Information Technologies Infrastructure Upgrades and Replacement at New Mexico State University - Dona Ana Community College. Our intention is to request that the construction of this project be part of the 2018 General Obligation Bond request.

Today's students are increasingly connected to the world and to learning through technology. Keeping up with the technological infrastructure will help to keep students in school and focused on graduation, and will prepare them for their future working environments.

The requested $450,000 would be used for upgrades and replacement of data centers, computer systems and equipment, campus infrastructure and classroom technology. Improvements to the information technology system campus-wide will replace outdated and/or deficient systems and create technology for today's learning environment. Potential improvements include replacement of central routing and wireless equipment, intra-building and long-distance fiber routing, replacement of building switches, network distributions and access points, classroom technology improvements, backup and security systems, phone system improvements, and a secondary data center and hardware.

More specifically, the project will include wireless infrastructure and access points in various classrooms in East Mesa Main, Academic Resources, and Student Resources Buildings; in the Espina Campus Health Building as part of the IPAD Initiative Plan; Gadsden Center cabling upgrade to current standards; and network upgrades and server/router replacements at East Mesa and Espina Campuses.

State-of-the-art technology will be used to secure and protect NMSU's DACC technology infrastructure. Where needed, video cameras will be installed to provide additional security. The improvement of phone and network routes and connections will provide better emergency services to the campus.

If passed in the 2018 Bond issue, the current schedule calls for completion of construction in time for classes to begin in Fall 2020.

**Language for appropriation:** $450,000 to plan, design, construct, renovate, and equip Information Technologies Infrastructure Upgrades and Replacement at New Mexico State University- Dona Ana Community College.
NMSU- Grants
NMSU-GRANTS Martinez Hall Renovation

FY 2019 Request: $1,700,000
NMSU-GRANTS Priority: 1

New Mexico State University is requesting $1,700,000 to plan, design, construct, renovate, and equip renovations, for NMSU-Grants. Our intention is to request that the construction of this project be part of the 2018 General Obligation Bond request.

Funding would be used to plan, design, construct, renovate, and equip repairs and renovations to the infrastructure at New Mexico State University – Grants. Martinez Hall has 78,672 gross square feet on two stories, and is the primary general classroom building on the campus. It houses classrooms, labs, offices, theater, library, snack bar and student lounges among other functions. This project includes improvements to Martinez Hall for HVAC upgrade and repair; center section roof replacement and repair; and restroom renovations for ADA/code compliance.

The project will replace infrastructure systems that could potentially pose safety problems if they ruptured or were damaged unexpectedly. Re-roofing will stop frequent leaks, which can possibly lead to mold conditions and which contribute to the overall deterioration of the existing facilities. Continued deterioration will result in a need to replace with new buildings, at a greater cost than the renovation of existing structures.

The request is for funding to renovate Martinez Hall. Good stewardship of the institution’s resources is noticed by current and prospective students and is expected to contribute to the recruitment and retention efforts in a positive way. Good facilities in good condition are expected in a state institution of higher learning.

If passed as part of the 2018 Bond Issue, the current schedule calls for completion in time for classes to begin in Fall 2020.

Language for appropriation: $1,700,000 to plan, design, construct renovate, and equip upgrades and roof replacement to Martinez Hall at New Mexico State University – Grants.
Research & Public Service Projects
(RPSP)
## NEW MEXICO STATE UNIVERSITY
### 2018 Legislative Initiatives
#### FY19 Non I&G and Research & Public Service Projects (RPSP)

<table>
<thead>
<tr>
<th>PROJECT</th>
<th>FY 2018</th>
<th>FY 2019 Request</th>
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<tbody>
<tr>
<td>Water Resources Research Institute</td>
<td>$615,600</td>
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<tr>
<td>College Assistance Migrant Program</td>
<td>$199,800</td>
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<tr>
<td>Arrowhead Center for Business Development</td>
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<tr>
<td>NMSU Nurse Expansion</td>
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<tr>
<td>NMSU Mental Health Nurse Practitioner</td>
<td>$643,900</td>
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<td>NMSU Manufacturing Sector Development Program</td>
<td>$505,800</td>
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<td>STEM Alliance for Minority Participation</td>
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<td>Indian Resources Development</td>
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<tr>
<td>Economic Development Doctorate</td>
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<td>Alliance for Teaching and Learning Advancement</td>
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<td>NMSU-Carlsbad Nurse Expansion</td>
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<td>NMSU-Carlsbad Mfg. Sector Development Program</td>
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<td>NMSU-DACC Nurse Expansion</td>
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<td>NMSU-DACC Dental Hygiene Program</td>
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<td>Agricultural Experimental Station</td>
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<td>Cooperative Extension Service</td>
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<td>NMDA</td>
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<td>Athletics</td>
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<tr>
<td>Educational Television and Public Radio</td>
<td>$1,006,700</td>
<td>$1,006,700</td>
</tr>
</tbody>
</table>

### New RPSP Requests

| Sunspot Solar Observatory                           | --            | $273,400        |
New Mexico Water Resources Research Institute (WRRI)

Funded 44 faculty researchers and 39 students across the state in FY16 and FY17
Continued to develop the Statewide Water Assessment (SWA), a comprehensive, and previously unavailable, view of water storage and flows in New Mexico
Enhanced watershed management by developing a low-cost modeling technique
Determined decline in groundwater levels in the area south of Hatch

Produced research on relationships between acequia communities and water management policy makers
Continued to develop the use of NM clay materials to transform contaminated water in NM to potable water

Added value to NM’s water by identifying more water efficient crops, higher value crops, and higher yield crops to assist farmers while supporting the state’s economy

New Mexico’s Dynamic Statewide Water Budget
In FY16, 17, and 18, NM WRRI received non-recurring funding from the NM Attorney General’s Consumer Protection Fund with support from the NM Legislature and as part of Governor Martinez’s water initiative. Work continues on the Dynamic Statewide Water Budget, an essential tool for supporting local, regional, and statewide planning. The model is available on the NM WRRI website.

The Dynamic Statewide Water Budget
• is a formalized accounting model that includes future scenarios for population growth, Ag and M&I water-use efficiency, and climate change;
• is an accumulation of NM water research into one project and model;
• fills in gaps of water knowledge, incorporating better estimates of statewide data;
• provides easy to access data at a variety of spatial scales (county and/or water planning regions); and involves scientist and stakeholder input.

Purpose of WRRI
• Provide research and training to inform and assist water users throughout the state
• Help communities, and local, state, and federal water agencies better plan and manage water
• Train students who are New Mexico’s future water professionals and who will lead NM’s workforce including: grants and assistantships to university students statewide; and support for faculty to guide undergraduate and graduate students at NM universities in water-related fields

Figure shows recent and ongoing projects supported by NM WRRI
Statewide Collaboration for Statewide Water Budget

Recent Efforts by Faculty and Students

- Studied long-term changes expected for soils and surface waters from the 2011 Las Conchas wildfire
- Developed a water and wastewater purification method that uses less energy, costs less, and uses a more eco-friendly alternative to removing bacteria
- Participated with NMED in a well sampling study in the España Bari to determine extent and magnitude of uranium contamination with results informing public of potential risks
- Provided city and forest managers results on debris flows following wildfires in watershed near Santa Fe
- Assessing brackish groundwater desalination for M&I water supply in Santa Teresa, NM
- Helping restore consumer confidence and grower trust in San Juan County irrigation ditches by sampling for soil contaminants post August 2015 Gold King Mine spill
- Implementing fully-coupled groundwater-surface water, 3-D models for four watersheds in NM, part of broader effort to produce a statewide recharge map

A Long History of Solving Water Problems

Every sector of New Mexico’s economy, including jobs, education, culture, and health relies on available and good quality water.

The NM WRRI’s mission is to advance and disseminate knowledge that solves water resources problems in New Mexico and the nation. It supports faculty and students at NMSU and the other NM research universities, tapping into the brainpower of the state research universities to make advances in critical areas of water-related research. NM WRRI works statewide with management agencies and organizations to bring about solutions. The need for research and training continues as communities work to grapple with water scarcities.

NM WRRI was established under the federal 1964 Water Resources Research Act, and the NM legislature gave the institute statutory authority in 2005 (NMSA 1978 21-8-40).

The WRRI has received Research and Public Service Projects (PRSP) General Fund support for 48 years.
College Assistance Migrant Program (CAMP)

FY 18 Actual: $199,800  
FY 19 Request: $199,800

NMSU CAMP Mission
To serve the postsecondary educational needs of farmworkers, dairy workers, and ranch workers across New Mexico by recruiting and retaining them until their graduation at NMSU.

Successful practices

CAMP provides farmworker students with individualized educational planning, academic advising, and financial assistance. It provides book stipends, tutoring, mentoring, leadership conferences and multiple STEM workshops throughout their first year.

After their freshman year, CAMP students continue to apply for limited book stipends and financial assistance for internships and other career related opportunities. CAMP helps students with resume writing, mock job interviews, job portfolio development, and career readiness.

All CAMP students have access to a CAMP computer lab, a study area, and laptops and graphing calculators, if needed.

NMSU CAMP’s Impact in New Mexico

- 77% of CAMP graduates are professionals in New Mexico contributing to the State’s workforce engine.
- NMSU CAMP fulfills NMSU’s land-grant mission of serving traditionally underserved populations across New Mexico.
- Our outreach and recruitment purposes take us to high schools across New Mexico, reaching over 400 students to determine eligibility. We visit families at community meetings in rural areas, at college fairs, and through our Cooperative Extension offices and New Mexico farms, dairies, and ranches.
- NMSU CAMP students are mostly Hispanic, first-generation college students, and Pell grant recipients.
- NMSU CAMP was recently awarded a new grant from the Department of Education, Office of Migrant Education for the next five years until 2022 for $2,124,959.
- State funds have helped to leverage approximately $8.2 million in federal funding from 2001-2022.

41% of CAMP students graduate between 4-4 ½ years and 32% in 5-5 ½ years. CAMP graduates have an average GPA of 3.17.
Since 2012, CAMP freshmen have been exposed to several STEM partner programs at NMSU, in efforts to generate academic interest in the following:

- AMP (Alliance for Minority Participation)
- BRAIN (Building Research Achievement in Neuroscience)
- RISE (Research Initiative for Scientific Enhancement)
- HHMI (Howard Hughes Medical Institute)
- SEMAA (Science Engineering Mathematics and Aerospace Academy)
- Medicinal Plants Program. Every summer, six CAMP students participate in this research internship (when funding is possible).
- Civil Engineering Bridge Inspection Program (BIP). Two to three CAMP students participate in this internship each summer (when funding is possible).

107 students have majored in STEM-H fields and 31 students have graduated in STEM fields

NMSU CAMP peer mentors help retain students at NMSU

NMSU CAMP has a peer mentoring program, COMPAS (Cultivating Opportunities through Mentoring and Promoting Academic Success) to pair freshmen with CAMP upper-class students throughout their first year of college. COMPAS help freshmen with intensive advising, peer mentoring, tutoring, and overall peer guidance. This program works as a retention tool for both freshmen and upperclassmen.

Recruiting, retaining and graduating farmworker students since 2002: CAMP Quick Facts (as of May, 2017)

- Recruited and served: Since 2002, 410 students have participated in NMSU CAMP including 65 sets of siblings.
- Graduated: A total of 154 students have graduated with a bachelor’s degree, 22 with a Master’s degree, 1 with a Ph.D., 1 with a M.D., and 21 have completed an Associate’s degree.
- Retained: 117 students are currently enrolled as undergraduates, one CAMP student is pursuing a Ph.D., eight are working on a Master’s degree, and one student is pursuing a J.D. at UNM.
- NMSU CAMP retention rate for graduates and currently enrolled students is 70%. Freshmen retention rate for the academic year 2016-2017 was 91%, above our national CAMP freshmen retention goal.
- 30 freshmen from across New Mexico began their 2017-2018 academic year.
NMSU School of Nursing Mission
To promote health and improve the quality of life of the people of New Mexico through nursing education, research, practice and public service, recognizing the state's multicultural heritage and dynamic border environment.

NMSU Nursing Expansion
The NMSU Nursing Expansion initiative has increased the number of nursing graduates with a Bachelor of Science in Nursing (BSN) for clinical agencies throughout New Mexico. This initiative supports the State of New Mexico’s workforce needs, but also addresses The Institute of Medicine’s (IOM, 2014) report, “The Future of Nursing,” which calls for an increase in the number of BSN-prepared nurses across the nation. In addition, the Affordable Care Act (2016) requires a greater number of BSN-prepared nurses to deliver bedside nursing care in hospitals and community settings. Current Nursing Expansion funding supports the hiring of qualified nursing faculty, implementation and evaluation of the nursing curriculum, and access to innovative educational tools to support student success in the NMSU BSN program.

New Mexico Nursing Education Consortium
The NMSU School of Nursing is a partner in the New Mexico Nursing Education Consortium (NMNEC). NMNEC is a collaborative of state-funded nursing programs across the state creating a common core curriculum in nursing education, transforming the current structure into a resource-efficient and easily-accessible baccalaureate program for students. The mission of the NMNEC is to prepare nurses for entry and educational advancement through developing and sustaining a resource-efficient and unified system of accessible, innovative, and state-of-the-art nursing education.

Increasing Access to Nursing Education
A goal of the NMSU School of Nursing is to increase the diversity of the nursing workforce by improving access to nursing education. Currently, 62% of enrollees in the nursing program come from minority backgrounds. Many of our nursing students are first generation college students and attended high school in rural areas of Southern New Mexico and Texas. The NMSU School of Nursing has satellite programs at Alamogordo and Grants, NM.

Graduating Registered Nurses for New Mexico
- Currently have over 300 students in the BSN program
- In the most recent 10-year period (2006-2017), the School of Nursing has graduated 1,492 nurses
- National licensing exam pass rates are currently over 90%
- At least 80% of those graduating from NMSU obtain their original RN license to practice nursing in New Mexico
- A recent study by NMSU SON faculty indicates graduates stay at first job 4-5 years (Reinhardt, 2015)
- Admission preference to the NMSU BSN program is given to NM residents
- The NMSU School of Nursing supports other nursing programs through its statewide partnerships within the New Mexico Nursing Education Consortium

Alexa Doig, PhD, RN,
Director, NMSU School of Nursing
College of Health & Social Sciences
Email: adoig@nmsu.edu
Phone: 575-646-1668
Education Technologies Support Student Learning

Nursing students in the satellite BSN programs at NMSU-Alamogordo and NMSU-Grants attend classes with NMSU-Las Cruces students using videoconferencing technology.

Nursing students use iPads to access clinical learning tools in the classroom and during laboratory and clinical experiences.

Nursing students complete standardized nursing exams throughout the curriculum for the purpose of benchmarking student progression and to prepare graduates for the registered nurse licensing board exam (RN-NCLEX).

The NMSU School of Nursing has a patient simulation center where nursing student learn students apply knowledge and learn the skills needed to provide safe, evidence-based and quality patient care. In the simulation center, students practice prioritizing the diverse needs of complex patients while demonstrating effective communication in a busy acute care environment that can replicate surgical wards, critical care units and emergency departments.

NMSU School of Nursing Community Outreach

The NMSU School of Nursing faculty and students are active members of the Las Cruces, Grants and Alamogordo communities, providing consultation, education, health screening and immunizations to residents and community organizations.

- Faculty and students provide health screening at NMSU and community events (flu shot clinics, blood pressure, blood sugar, wellness checks) throughout the year.
- Faculty collaborate with and provide consultation to multiple community organizations including the Doña Ana Wellness Institute, Doña Ana Communities United, New Mexico Department of Health, New Mexico Alliance for School-Based Health Care, Adolescent and Young Adult Community Health Consortium, the US-Mexico Border Health Commission, local school systems, community health clinics, and others.
- Faculty and students provide wound care and injury treatment to participants in the Bataan Death March.
- School of Nursing Assistant Professor, Dr. Martha Morales, teaches free Lamaze classes in English and Spanish to the Las Cruces community and trains community-based Lamaze instructors.
- In collaboration with the Ben Archer Health Centers in Las Cruces, NM, psychiatric mental health nurse practitioner faculty and students provide mental and behavioral health services to local schools using telemedicine technology.
- The NMSU Student Nurses Association and the College of Health and Social Services Student Ambassadors Program are engaged in community service events and projects that impact the community in positive ways and provide students with additional nursing, public health, and leadership experiences.
Psychiatric Mental Health Nurse Practitioner Program

There continues to be a critical need for mental health services in New Mexico, particularly in underserved and rural areas. Meeting those needs is a priority for the NMSU School of Nursing. Funding from the Research and Public Service Program (RPSP) has supported the Psychiatric Mental Health Nurse Practitioner specialty track in the Doctor of Nursing Practice (DNP) program in the School of Nursing. These funds have been used to hire qualified faculty and student advisors, support innovative clinical training activities, provide professional development for faculty, and for student stipends. Students in this 3-year doctoral program participate in clinical experiences in rural and other underserved areas throughout New Mexico.

With RPSP funding, seven (7) students in the Psychiatric Mental Health Nurse Practitioner program have been awarded $6000 stipends. Conditions for the stipend are that they agree to stay and work in New Mexico for three (3) years following program completion.

Program Accomplishments

Increased Admissions: Program admissions increased from 6 student every other year to 6 students every year with 2-3 post-graduate certificate students per year. 20 students are currently enrolled in the program.

Excellent Certification Pass Rates: Graduates have achieved a 100% pass rate on Psychiatric Mental Health Nurse Practitioner certification exam.

Serving the Underserved: 80% of students have psychiatric mental health clinical experiences in rural and underserved areas of New Mexico.

Leadership & Practice Innovations: All students complete a scholarly project that addresses a patient-focused practice issue in psychiatric mental health care.

Workforce Contributions: 88% of Psychiatric Mental Health Nurse Practitioner program graduates from the past three (3) years practice in the border region.

The DNP Degree

The Doctor of Nursing Practice (DNP) is a doctoral degree for nurses at the highest level of nursing practice. The American Association of Colleges of Nursing has proposed that the DNP degree will be the level of entry for all advanced practice nurses (nurse practitioners, clinical specialists and certified registered nurse anesthetists) by 2020. Practice-focused doctoral nursing programs prepare leaders for the highest level of practice and is the terminal practice degree. NMSU launched its DNP degree in 2011 to meet the need for highly trained clinicians and healthcare leaders in the state.

Student Financial Support

Oscar Villalobos, FPMHNP graduate
RPSP stipend recipient

The DNP Degree

The Doctor of Nursing Practice (DNP) is a doctoral degree for nurses at the highest level of nursing practice. The American Association of Colleges of Nursing has proposed that the DNP degree will be the level of entry for all advanced practice nurses (nurse practitioners, clinical specialists and certified registered nurse anesthetists) by 2020. Practice-focused doctoral nursing programs prepare leaders for the highest level of practice and is the terminal practice degree. NMSU launched its DNP degree in 2011 to meet the need for highly trained clinicians and healthcare leaders in the state.
The NMSU School of Nursing faculty are leaders in the delivery of distance clinical education in the state of New Mexico. Offering the Psychiatric Mental Health Nurse Practitioner program in a distance format allows nurses to stay in their rural communities while earning their graduate degrees. Live classes are held using live video-conferencing technology that allows for real-time student-faculty interaction and mentoring.

Clinical Training Sites in the Border Region

- La Clinica de Familia
- Ben Archer Health Center of Las Cruces
- Las Cruces Public School System
- Gadsden Independent School System in Chaparral
- Mesilla Valley Hospital
- Esparanza Guidance Services, Inc.
- Desert Sky Counseling Services
- Memorial Medical Center

Doctor of Nursing Practice Scholarly Projects

- Metabolic Screening Program for Mentally Ill Patients
- Anger Experienced by Batterers in a Batterer’s Intervention Program
- Development of an Algorithm for Treatment of Insomnia in the Geriatric Population
- Predicting Medication Adherence vs. Provider Perception of Medication Adherence in a Community Counselling Center

Regional Leaders in Telemental Health

The NMSU School of Nursing is one of the few health professional programs south of Socorro that has incorporated telehealth technology into the curriculum for all nurse practitioner students. Telehealth is the use of telecommunications technology to provide health care and patient health-related education at a distance. Telehealth improves health care service to remote locations or environments without clinic facilities. All nurse practitioner students are trained on the use of telehealth equipment and in telehealth delivery protocols. The NMSU School of Nursing faculty and students are actively engaged in delivering mental/behavioral health services to students at a school in Chaparral, NM using telehealth technology.
**Program Mission**

The Manufacturing Sector Development Program (MSDP) provides formalized outreach and public service programming for the College of Engineering. The program delivers the following engineering programs and services:

- Professional Development
- Engineering Technical Business Assistance
- STEM Outreach to K-16 students across the state

**Statewide Impact:**

- MSDP programs impact businesses, communities, teachers, and students across the state.
  - Professional Development for licensed engineers and high-tech employees
  - Professional Development in STEM for K-12 teachers
  - K-12 STEM Outreach programs
- Strategic outreach efforts during FY17 focused on expanding services to rural communities and small businesses.

**MSDP programs engineering solutions that enrich economic competitiveness of business and industry, support the state’s critical infrastructure, and prepare tomorrow’s leaders.**
Drive Economic Development and Community Engagement

- Engineering Business Assistance
  - Entrepreneurial design validation and prototype development
  - Pollution Prevention and Energy Efficiency Assessments
- Target Population
  - Small Businesses (less than 50 employees)
  - Other businesses

Drive Educational Development Through STEM Outreach

76% of students that have participated in our STEM Outreach programs have expressed an interest in pursuing STEM Careers.

WERC Environmental Design Contest:

- A unique university-based design competition that brings industry, government and academia together to create innovative solutions to environmental challenges
- Over 4,635 university students have participated in the competition over the past 28 years
- Past Tasks have focused on mining reclamation, wastewater treatment, passive solar distillation, soil remediation, air quality, and renewable energy integration.

Partnerships

Associated Contractors of New Mexico
NM Ready Mixed Concrete and Aggregate Association
Bridge of Southern NM BEST Inc.
REC Foundation
Project Lead the Way
Las Cruces Public Schools
Western Refining
Sandia National Labs
Chevron

TRAX International
Boeing
Calculex Inc.
Jacobs Technology
NM Space Grant Consortium
High Tech Consortium of Southern NM
Las Cruces Green Chamber of Commerce
NM DOT
NM PED

NMSU Arrowhead Center
NMSU SOAR Lab-College of Education
NM Manufacturing Extension Partnership
National Science Foundation
Public Service Company of NM
El Paso Electric Company
Freeport McMoRan Copper & Gold
Intel Corporation
NM Mining Association
Background of STEM AMP:
Established in 1993 with major funding from the National Science Foundation (NSF), the STEM AMP program is a partnership of the state’s two- and four-year colleges and universities, with a primary goal of increasing the number of B.S. degrees awarded to underrepresented students in New Mexico. Managed by New Mexico State University (NMSU), STEM AMP supports students with scholarships; research assistantships; professional development; and enhanced teaching, learning, and mentoring.

Accomplishments of STEM AMP:
- State funding has leveraged $40 million in federal funding through the National Science Foundation (NSF) the Department of Education, the William and Flora Hewlett Foundation, various industries, and institutional funding for multiple student support projects.
- Collaborative Efforts: Collaborations continue with EPSCoR, UTEP LSAMP, NMSU PREP, NM MESA, CAMP, Scholarships in STEM (S-STEM), Trio STEM-H, and others.
- 1,500 statewide students are impacted through outreach and programs.
- Student Opportunities: STEM AMP collaborates with different programs and institutions to offer students the opportunity to present in statewide symposiums in the northern and southern parts of the state.
- Focus on Research: The focus on undergraduate research, both in university and community college, has helped with retention and progression of students who understand the rewards and responsibilities of becoming our nation’s engineers and scientists.

STEM Degree Production and Representation: Since program inception, New Mexico has seen significant increases in the number and percentage of B.S. degrees earned by underrepresented students at the state’s public 4-year universities – from 253 in 1992/93 to 858 in 2015/16. Importantly, the percentage of B.S. STEM degrees awarded to minority students increased from 24 percent to 48 percent in the same time period, thereby increasing diversity in STEM.

Student Success:
- Chris Torres, former SCCORE and current URS participant from UNM, worked as a fellow and research assistant for the National Institute of Standards of Technology in the Summer Undergraduate Research Fellow (SURF) program in summer 2017. He participated in Research Experiences for Undergraduates (REUs) in 2015 and 2016.
- Maria Orozco, NNMC URS participant, interned with Dr. Mario Izaguirre-Sierra for the NISE NM-INBRE Idea Networks of Biomedical Research Excellence Summer Experience Fellowship. Maria presented her research at the following events: the NM-INBRE Annual Conference in Santa Fe, the New Mexico AMP 2016 Student Research Conference, the NNMC April 2017 Academic Research Symposium, the Undergraduate Pipeline Network Summer Research Experience at UNM, and the Second Annual Front Computational and Systems Biology Symposium at Colorado State University, at which she earned Second Place.
- Cora Carman, URS participant at New Mexico Tech, interned with Los Alamos National Laboratories in summer 2016 and participated in an REU program with the University of Nebraska in summer 2017. She presented research at the INBRE Student Research Symposium, the New Mexico Tech Student Research Symposium, and the 2016 New Mexico AMP Student Research Conference.
- Anneliese Trujillo, NMSU URS Chemical Engineering major, was awarded First Place for her presentation at awarded First Place for her presentation at the New Mexico AMP 2016 Student Research Conference. She also presented research at the New Mexico Tech Symposium in Spring 2017.
Program Rationale:

STEM AMP has facilitated change and development in the educational fabric of New Mexico through state-level efforts, leadership development, institutional programming at partner colleges and universities, and individual student support. STEM AMP program activities are designed to attend to individual student retention, development, and progress; understand and support student progression to graduate school and the STEM workforce; and promote the replication of best practices, both within New Mexico and nationally. STEM AMP has provided opportunities to students to travel abroad, to perform research with implications globally and nationally, and to realize the economic and personal benefits of STEM education. With the objective of implementing effective strategies for meeting the challenges of a trained STEM workforce, the following program activities help students develop expertise and assist in equipping them to contribute to practical solutions of local and national problems, preparing them for positions in industry, national laboratories, or universities:

- **Undergraduate Research Assistantships**: Students are provided with professional development workshops, faculty-mentored research experiences, and a stipend. Academic year and summer opportunities are available.

- **Summer Community College Opportunity for Research Experience (SCCORE)**: In this four-week residential program at partner universities across the state, community college students participate in workshops, campus tours and orientations, and faculty-mentored research projects at the university campus of their choosing. Students receive a stipend in addition to housing, meals, tuition and fees.

- **Annual Statewide Student Research Conference**: Approximately 300 students (high school, community college, and university), faculty, and staff attend this annual event, held each fall semester at NMSU. Students participate in competitive poster research presentation sessions, and attend the NMSU University Research Council (URC) poster session, held concurrently. The Conference offers expert keynote speakers and professional development workshops.

- **Transfer Support Workshops**: Pre- and post-conference workshops are provided to 20-30 pre-transfer community college students each year. Workshops focus on conference skills, such as reading abstracts and interacting with presenters, and transfer planning. Participants receive a stipend.

- **Transfer Scholarships**: This scholarship is available to eligible community college transfer students for the first semester of university studies.

- **At NMSU, Integrated Learning Communities** increased retention of at-risk engineering students and served as the model for the mandatory college-wide Engineering Freshman Year program implemented in Fall 2014.

For more information on AMP, go to: https://youtu.be/T3tzV67ZnMk
Since its creation in 1978 the Indian Resource Development (IRD) program has served the educational needs of the New Mexico Native American student population. IRD recruits and retains students until they graduate by providing scholarships, professional/leadership training and development and work opportunities. The executive summary for this project can be found in its enacting legislation, NMSA Chapter 21, Article 10 [Sections 21-10-1 to 21-10-3, et seq. NMSA 1978].

In the Development of Indian Resources Act, the stated purpose is “To provide funds to New Mexico State University in order that agricultural and engineering education and work experience opportunities may be provided to American Indian students to help prepare them for agricultural sciences, engineering sciences, and management positions in irrigation projects and energy resources development to the end that the economic growth and public welfare of New Mexico will be promoted.

IRD Impacts to NMSU

- Budgetary support for recruitment, retention, and graduation of American Indian students at NMSU, UNM, and NM Tech;
- Support for recruitment of students to four-year programs at the universities from Tribal colleges and community colleges;
- Collaboration with Tribal communities;
- Support for Tribal students to engage in professional development opportunities such as travel to academic conferences;
- Collaboration with the Navajo Agricultural Products Industry (NAPI) to increase student participation in NAPI and maintain relationships with students who go on to professional positions with NAPI;
- Coordination of visiting Tribal leaders/scholars events;
- Promotion of the Tribal perspective at NMSU and the community through

IRD: Providing Opportunities to American

The Indian Resource Development (IRD) program began in 1977 when NMSU was awarded a W.K. Kellogg Foundation grant to encourage Navajo students to pursue degrees in agriculture and business. Before the grant expired, the New Mexico State Legislature approved the Development of Indian Resources Act which: a) Continued the objectives of the Kellogg Foundation grant; b) Expanded the scope of participants to include all New Mexico Tribes and expanded the disciplines to include engineering, sciences, natural resources, and economic development; c) Provided an annual budget to IRD.

Now in its 39th year, IRD carries out these goals by offering scholarships, assistantships, emergency funds, and professional development opportunities to college students and by acquainting middle school and high school students with the advantages provided by a college education.
Outcomes and Accomplishments

1. Budgetary support to NMSU AIP of $100,000. Resources used to provide student scholarships, student employment, and the peer mentor program, supporting student retention.

2. Budgetary support to UNM NA-STEM in the School of Engineering at the level of $25,000. Resources used to provide scholarships, internships and professional development.

3. Coordinate and fund 25 professional development opportunities. Tribal students at NMSU received assistance to partake of various opportunities including academic conference training, professional presentations, and internships.

4. IRD initiative of Navajo Agriculture Products Industry Scholars Program to place 5 more NMSU graduates at NAPI (2 business, 2 engineering, 1 agriculture). Thus far a total of nine working professionals developed by the program pipeline since its inception in 2009. NAPI has hired 6 agriculture scientists, 1 human resources specialist, 1 accountant, and 1 civil engineer.

5. IRD to host the DreamMakers Summer Youth Program in June. Twenty-eight middle school students completed the program successfully summer 2015.

6. IRD to host the DreamKeepers Summer Program in July. Sixteen high school students will participate in the summer program.

7. Facilitate three student Late Lunch Speaker Series Events. 2-4 groups of students present their academic/research/work in the presence of their peers (10-15 in attendance each session).

8. Facilitate 2 Tribal Leaders Speaker Series. Speaking engagements from tribal and business leaders to the NMSU community.

9. Promote the tribal perspective in NMSU and community functions by participating in numerous events hosted by the NMSU community such as Center for Latin American and Border Studies lectures, Black History Month events, Latino Week events, American Indian Week events, GLBTQ Week, Domenici Public Policy event.

10. Recruitment initiatives: Participate in Career and College Fairs in NM American Indian communities; participate in the American Indian Science and Engineering Society Conference, National Indian Education Association, Society for Advancing Chicanos/Hispanics & Native American in Science; table at Gathering of Nations event and visit various American Indian enrolled middle and high schools to promote the summer programs at NMSU.
Arrowhead Center (Arrowhead) at New Mexico State University (NMSU) plays a vital role supporting the state’s entrepreneurial and innovation ecosystem. Arrowhead offers programs in business acceleration and student entrepreneurship; ground-floor access to NMSU’s intellectual property and resources; and a growing research park focused on building technology clusters that leverage the strengths of NMSU. Arrowhead epitomizes the concept that innovation-based economic development is best undertaken with as few borders and boundaries as possible, whether they are disciplinary, programmatic, or geographic. Together, Arrowhead and its partners continue to drive the promotion and marketing of game-changing technologies and innovations emerging from our state.

**HIGHLIGHTS FY 2017**

- **$125M**
  - Income impact

- **$2.6M**
  - Technology commercialization funding

- **$2.5M**
  - Hunt Family Foundation gift

- **$200,000**
  - New Mexico Gas Company gift

- **1000**
  - K-12 entrepreneurship students

- **272**
  - New jobs generated by Arrowhead clients

- **218**
  - NMSU student ventures

- **342**
  - Arrowhead Park tenant jobs
STATEWIDE REACH

SOURCES OF FUNDING FY 2017

- Federal Grants
- State Appropriations
- Gifts
- NMSU Support
- Private Contracts

- Accelerated Businesses: 33%
- Student Entrepreneurship: 30%
- Collaborations: 14%
- Private Contracts: 11%
Doctorate of Economic Development

*FY18 Appropriation*  $91,400  
*FY18 Request:*  $91,400

The NMSU Doctor of Economic Development (DED) program provides advanced training in regional economic development. The DED program provides students with the knowledge and skills needed to make a positive impact on the economic well-being of their community. With the integration of classroom instruction and real-world know-how, students become leaders with the technical expertise and knowledge needed to initiate economic development in New Mexico. Students learn how to design and implement programs driven by data and based on analytical and scientifically valid approaches to economic development.

**Using Knowledge to Discover Solutions. Ignite Economic Development in New Mexico. Create Change.**

The Doctor of Economic Development (DED) students learn to apply academic knowledge and analytical tools to the real problems of regional economic development. The DED focuses on application rather than strictly on the development of new knowledge. DED graduates are well-prepared to work as economic development analysts able to assess alternative approaches to economic development and assure that the programs developed are the best fit for the state or region considering their adoption. Students enter the DED program with backgrounds in a variety of fields. Most common are economics, public administration, and business. It normally takes three to four years to complete the program. Besides coursework, each DED candidate serves a significant (300 or more hours) internship with an economic development entity and conducts a significant research project where they apply their academic skills to a particular economic development issue.

**DED: Helping New Mexico Tackle Real Problems**

DED candidate projects have included delving into issues significant to economic development in the state:

- A study of the impact of industrial diversity on economic growth
- An analysis of the relationship between oil and gas production in New Mexico and gross receipts tax revenue
- The development of a program for technology transfer
- A study of the impact of skilled and unskilled immigrants on state economic growth
- The impact of aging in retail sales in New Mexico
Students are required to complete an internship and a major economic development project. These internships and the projects can potentially provide important assistance and guidance for economic development efforts in New Mexico. In addition, the existence of the DED program results in NMSU faculty members turning their research attention to similar projects of significance to the state and region. Currently the program primarily serves students who can come to Las Cruces to study in residence. Courses are scheduled to allow working people to participate. Beginning in academic year 2015-16 two students from Albuquerque began attending some of the DED two-way interactive classes.

The DED program is a joint effort by the Department of Economics, Applied Statistics and International Business, and the Department of Agricultural Economics and Agricultural Business and Extension Economics.
Alliance Goals

1. To create a pipeline of new teachers in New Mexico by serving as the state office for Educators Rising NM. The goal is to have the Educators Rising program established in 100 New Mexico schools by 2020.

2. To increase partnerships with existing NMSU STEM Outreach Programs, school districts, community agencies Regional Education Cooperatives, State agencies, and National agencies to support teacher recruitment, research and STEM Education in New Mexico.

3. To increase the research capacity of the College of Education through the STEM Outreach Alliance Research (SOAR) Lab. SOAR provides research and internship opportunities for both graduate and undergraduate students from various disciplines. These students work with existing STEM outreach programs to develop research plans, create data collection instruments, analyze data, write publications, give presentations and conduct program evaluations.

GOAL 1: Increase the Teacher Pipeline in New Mexico

Why Educators Rising?
New Mexico currently has a need for teachers, especially bilingual teachers, SPED teachers and teachers in rural areas. The enrollment in teacher preparation programs at NMSU and throughout NM has been decreasing for 10 years.

In an effort to reverse this enrollment trend and to support high school students who have a desire to pursue education as a career, The Alliance established the Educators Rising NM State office in 2015. Educators Rising serves over 400 students enrolled in 35 high school and college chapters across New Mexico. The Alliance has hosted two successful state student leadership conferences and supported student travel to the 2016 and 2017 national conferences.

In 2017, Educators Rising was recognized by NMAA as a Career Technical Student Organization and the education pathway for high school students was recognized by NM PED.

IMPACT OF EDUCATORS RISING 2015-2017

- 35+ teachers, administrators and HED faculty established 5 year plan in 2015
- 28+ Active High School Chapters
- 400+ registered high school students
- 140+ attended 2016 State Conference
- 22 attended 2016 National Conference
- 145 + attended 2017 State Conference
- 45 attended 2017 National Conference
- 5 students placed in top 10 nationally
- 3 College Chapters-NMSU, CNM & ENMU
- Educators Rising received external funding from Cooperative Education Services ($100,000) & NMPED ($60,000)

http://educatorsrisingnm.nmsu.edu
GOAL 2: Increase partnerships to support STEM Outreach and Teacher Recruitment in New Mexico

<table>
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<th>Educators Rising Schools from 2015-2017</th>
<th>State &amp; National Partners</th>
<th>Education and STEM Outreach</th>
<th>External Funding Sources</th>
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<td>Arrowhead ECHS</td>
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<td>MIT-Project GUTS</td>
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GOAL 3: Increase the Research Capacity in the College of Education

SOAR : STEM Outreach Alliance Research Lab

- Established the STEM Outreach Alliance Research (SOAR) Lab in the fall of 2016 to provide research support for Outreach programs at NMSU.
- Employ undergraduate and graduate students in a multi-disciplinary research team (Computer science, applied statistics, psychology, education, and education psychology)
- Student researchers have work with Innoventure, MC², SC², CORE-RDA, The Learning Games Lab, Project GUTS, The College of Education, and NMPREP with research design, instrument development, data entry, data analysis, reports, publications, presentations, and program evaluation.
- Create additional research opportunities by identifying additional Outreach Program partners.

We provide graduate and undergraduate students with hands-on research experience by assisting STEM Outreach programs close the Outreach-Research Gap.
Nursing expansion funds allow NMSU Carlsbad to continue offering its student nurses the best possible educational experience. New Mexico is experiencing a severe shortage of nurses and it is imperative that the colleges and universities provide a well prepared and competent cadre of nurses each year that are ready to move into the workforce and fulfill health care needs. The salaries earned by these nurses with other states and the nursing personnel make a significant contribution to the city of Carlsbad, Eddy County, and New Mexico Economy. NMSU Carlsbad is dedicated to ensuring that nursing curricula are the epitome of best practices and that nurses are appropriately trained and prepared for the National Council Licensure Examination. To this end, nursing expansion funds have been dedicated to the payment of some nursing salaries and to assist nursing students with travel expenses to out of state clinical rotations. Additionally, monies will be used to broaden nursing program offerings to employ nursing faculty at Artesia and Carlsbad high schools in order to begin recruiting and training nurses at the high school level.

This proposal seeks continued funding to support initiatives that provide Bachelor’s –prepared nursing graduates for clinical agencies throughout New Mexico and especially those in rural and underserved areas.

Carlsbad Nurse Expansion
FY18 Actual: $108,900
FY 19 Request: $108,900

Working to Reduce the Nurse Shortage
The vision of the nursing program at NMSU Carlsbad is to reduce the nursing shortage and meet statewide goals through:

• Facilitation of the educational preparation of the Associate Degree in Nursing (ADN)
• Facilitation into a Bachelor of Science in Nursing (BSN) studies
• Collaborative partnerships
• Supporting school career pathways
• Faculty retention and development
• Improve retention of nursing students
• Increase student success

The project will address each of the listed goals through a variety of initiatives and successes will be measured throughout.

Carlsbad Nursing Outcomes and Accomplishments

- **100% NCLEX-PN licensure pass rate**, (National Council Licensure Examination – Practical Nurses)
- Newly developed **fully online** Health Information Technology degree.
- **100% employment of ADN graduates** in 2014 and 2015
- Two fulltime faculty members at **Artesia and Carlsbad High Schools**, with robust dual credit enrollment.
- Complete nursing aide labs at **Loving, Carlsbad and Artesia High Schools**.
- Fully Master's prepared nursing faculty.
- Three year mean (2013, 2014, 2015) NCLEX-RN licensure pass rate above the National NCLEX-RN pass rate for ADN programs in the same time period.
- Additionally **all 2015 graduates of the ADN program at NMSU Carlsbad passed** the NCLEX-RN examination on the first attempt.
- Full Accreditation Commission for Education in Nursing (ACEN) accreditation through 2019.
NMSU Carlsbad desires to continue its efforts in addressing the severe shortage of nurses in New Mexico. The proposed project will stress initiatives aimed at increasing nursing student admission and decreasing nursing student attrition. Additionally, dual credit initiatives will be stressed at Artesia, Loving, and Carlsbad high schools to increase the number of high school students entering the nursing program of study. Finally, the project will increase intervention strategies aimed at retaining students and will require all nursing faculty to complete professional development activities.

Producing Employees for the NM Workforce

As in many regions of the United States, a nursing shortage and an aging nurse population continue to be realities in New Mexico. The nursing program at NMSU Carlsbad needs to remain a major contributor to the health care workforce in New Mexico and needs to continue to produce younger, highly qualified nurses in every type of clinical setting. Because many NMSU Carlsbad graduates who earn their ADN, BSN or higher degree stay in New Mexico to seek employment, this program is extremely vital to addressing the nursing shortage issues in the region and in the state. A rigorous, and evidenced based curriculum and reputation for excellence in preparing students for the workforce make NMSU Carlsbad's ADN program a sought after program of study; however, many of the students applying to the program are under-prepared and retention is therefore a critical issue. Part of the retention effort is to begin preparation of future nursing students by offering dual credit course work to high school students. The project at NMSU Carlsbad will emphasize nursing programs for high school students and thus start these students on the pathway to a career in nursing and allied health. Also the NMSU Carlsbad project will stress the retention of nursing students through intervention strategies. As a result of these initiatives, a greater number of nurses will graduate from NMSU Carlsbad.
NMSU Carlsbad has employed monies provided through the Manufacturing Sector Development Program (MSDP) to provide workforce training opportunities.

Carlsbad and Eddy County are realizing a dire shortage of trained personnel that can move into career and technical education fields and serve our population. To assist in meeting this need, NMSU Carlsbad has used allotted funds to enhance its program of offerings to both high school and regular college students in the areas of automotive trades, drafting and graphics, electronics, facilities maintenance, manufacturing, industrial maintenance mechanics, welding, and building trades. The students are required to complete Work Keys, an instrument that provides an analysis of the students’ aptitude and suitability for various careers. An example of the success of these programs is the building projects accomplished by the Construction Trades Vocational Program which partners with the Carlsbad Development Corporation (a local non-profit) to provide affordable housing for low to moderate income residents and thus improve the community’s quality of life. The industrial maintenance program recently attained state apprenticeship approval.

MSDP Accomplishments: Training for the Workforce in NM

1. Two certificates and two Associate of Applied Science degrees approved for the Industrial Maintenance Technician program;
2. Apprenticeship program requirements submitted and approved by the state for the Industrial Maintenance Technician program;
3. Fifteen new building trades and welding students were accepted into the state apprenticeship program;
4. Welding test site established to assist local welding industries in meeting industry standards;
5. Beginning of process to establish NMSU Carlsbad as a NCCR-approved welding facility;
6. Completion of one house this year which was sold as affordable housing to citizens who could not buy a home by any other means;
7. Participation of the automotive technology students in the state Skills USA contest;
8. Use of Work Keys to determine career pathways for vocational students;
9. Initiation of two new certificate programs in nuclear technology and fire technology;
10. Increased student participation with one hundred and twenty-five additional workforce students and an increase of thirty-two students graduating from workforce programs.

Purpose of MSDP

- The project will provide trained professionals prepared to work in the potash industry.
- The Industrial Maintenance Technician program is the only degree of its kind in New Mexico and the degree was developed in direct collaboration with Intrepid and Mosaic potash.
- Recently, this program completed the application process and was granted apprenticeship certification through the state.
- Also, at risk students both in high school and college will be provided opportunities to learn the essential skills related to demand trades. Trained welders are in extreme demand in southeastern New Mexico and Carlsbad and Eddy County are experiencing housing shortages.
- The MSDP program will include funding requests to increase the number of welding professionals and also to implement a testing facility whereby local welders can complete their welding tests to meet state requirements.
- The building trades program has completed seven houses and they have begun work on the eighth house. The prior seven houses were sold at rates based upon the candidate's affordability.
New Mexico needs to continue its development of the nursing workforce. Many of our citizens have low levels of educational attainment and lack the skills to contribute to New Mexico’s economy. NMSU-DACC is in a position to increase both the educational attainment and employability of the citizens in and around Doña Ana County. The Nursing program at DACC meets both of these needs by graduating trained and licensable students ready to fulfill workforce demands in southern New Mexico. The state of New Mexico has a nursing shortage and with many registered nursing and nursing educators nearing retirement age it is important for DACC and New Mexico to increase the number of Associate Degree Nursing graduates. The need for the Associate Degree in Nursing is significant as ensuring entry into the nursing profession within two years is vital. Delaying entry into the Nursing profession by two years so that individuals can complete the BSN will further contribute to the nursing shortage. By ensuring that the Associate Degree program remains strong, nurses can enter the profession within two years, begin their career and then pursue their BSN while employed.

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DACC: Providing Nurse Education

The DACC Nursing program’s mission is to provide accessible nursing education to qualified students with diverse learning needs in support of community health care and workforce needs through graduation of responsible, culturally competent and professional nurses. Student demographics within the DACC Nursing Program are representative of the DACC student population and the community population. This ideally positions the DACC Nursing Program to positively influence diversity within the healthcare workforce. In addition, as a Hispanic-Serving Institution (HSI) with 78% of our nursing student population being members of under-represented minority groups, DACC is well-poised to support the growth of nursing workforce diversity. The mission and purpose of the RPSP funds is to provide an avenue to support recruitment and retention of qualified nursing faculty, promote faculty development, and support program outcomes through provision of supplies, equipment and materials necessary to support program growth in enrollment. Fiscal Year 2019 funding would also be used to meet objectives of increasing enrollment to capacity of 63, and increase the number Associate Degrees in Nursing awarded per academic year to 25 or more.

Summary of Outcomes and Accomplishments

1. Pass rates for first time NCLEX (National Council Licensure Examination)-RN increased from 70% to 77.7%.
2. 93% of graduates remain in New Mexico.
3. Increased student enrollment from 43-56.
4. Retained 100 percent of full-time and temporary faculty.
5. Increased persistence to third level from 57% to 93%.
In February, 2015 the Accrediting Commission for Education in Nursing (ACEN) conducted a site visit to determine if the ADN program met requirements for initial accreditation. The process was completed in July 2015 and the ADN program was awarded initial accreditation by ACEN in late July 2015. The current administration, faculty and staff have dedicated their efforts to ensure the program maintains the accreditation. Sufficient and appropriately credentialed faculty were key to the re-establishment of national accreditation. The program presently employs eight full-time faculty, three temporary part-time nursing faculty and a full-time Program Director. All full-time faculty are credentialed with a Master’s of Science in Nursing and 66% of the temporary part-time faculty are credentialed with a Master’s of Science in nursing. These employees are necessary to ensure that the program meets the national accreditation standards for faculty. RPSP funding has been a vital component in ensuring that appropriately qualified faculty is retained. The extension of the RPSP funds will ensure the program remains compliance with the national accreditation standard for Faculty. This is necessary to ensure that the present enrollment of 43 students is appropriately served and there is room for program growth. The present enrollment of 43 is 1/2 as many as the program enrollment in the fall of 2011, a year before the loss of program accreditation. With the establishment of national accreditation, the program has seen a tremendous growth in the number of applications for program seats. Should this trend continue, the program expects to expand the present enrollment to 64 students. Over time, this expansion will return the program to enrollment levels attained prior to the loss of national accreditation.

Overall, the program has met the expected outcomes of the project: Program enrollment has grown from 14 students in the fall of 2012 to 56 students, the program achieved initial national accreditation for the ADN program in July 2015, the program awarded 7 associate degrees in 2013-2014 and 18 in 2015-2016, 100% of nursing program full-time positions are filled with faculty holding a Master of Science in Nursing and two-year retention rates for faculty have improved from 50% to 100% since the implementation of the salary incentives, graduation rates have also improved with 72% of those entering the program in 2014 graduating with their ADN. This is an improvement from the 42% seen with the cohorts entering in 2013. RPSP funding has been vital in providing an avenue for the program to implement the changes necessary to support continuous growth.

Providing Competitive Salaries

RPSP funds have been used to ensure retention of faculty in the program and will continue to be utilized for this purpose. The college implemented a plan to raise nursing faculty salaries. This allowed the program to be competitive when recruiting nursing faculty from a profession with above national average salaries due to a nursing shortage in New Mexico. The salary enhancement represents approximately a 5% salary increase with an ongoing retention differential of approximately 10% of the base salary. This differential continues to support the programs’ ability to meet requirements set by the NM Board of Nursing regarding retention of full time faculty and meet standards set by ACEN for sufficiency of faculty. Two new positions were filled with RPSP funding and the program plans to post and fill one more full-time faculty position to further support the ability of the nursing programs to grow.

DACC Nursing Vision and Mission

Vision
College Vision: DACC will be a premier learning college that is grounded in academic excellence and committed to fostering lifelong learning and active, responsible citizenship with the community
Nursing Program Vision: To education and prepare students of diverse backgrounds for lifelong learning through excellence in nursing education, thus allowing them to promote health and wellness in patients across the lifespan

Mission
College Mission: DACC is a responsive and accessible learning-centered community college that provides educational opportunities to a diverse community of learners in support of workforce and economic development
Nursing Program Mission: Provide educational preparation opportunities for a diverse group of students in response to community health care and nursing workforce needs.
The Dental Clinic is operated in support of the DACC Dental Hygiene Associate degree program. The clinic, operating since 2008, ensures that entry-level dental hygiene students gain practical experience in a controlled, clinical setting. The program accepts 12 students annually and the Dental Clinic is a required portion of the students’ training in both the first year and second year of the program.

The clinic also provides services to the community by seeing walk-in and regular patients. The clinic provides low cost dental care for citizens who do not have access to dental care or who do not have insurance to access dental care. As part of their academic and clinical education, dental hygiene students learn patient care techniques and develop clinical skills, charting skills, and management skills that align with real-world practice.

Typically, a minimum of 12-16 hours a week of clinical work is required, sufficient time for students to acquire minimal dental hygiene skills prior to graduation. The clinical hours prepare the students for the licensure exam required to become Registered Dental Hygienists.

One program offered by DACC that helps meet the goals of educational attainment and employability in New Mexico is the Dental Hygiene Program. As part of the academic and clinical education of students in the Dental Hygiene Program, the DACC Dental Clinic serves the community. Approximately 600 individuals are provided with preventive dental hygiene services under the supervision of licensed dentists and dental hygienists each year. The vast majority of patients served by the clinic are uninsured or underinsured individuals from low income families or are students on limited budgets from DACC or NMSU. People of all ages receive educational, preventive and therapeutic services such as: oral and general health assessments, oral cancer screening, dental examinations, dental radiographs, oral health instruction and counseling regarding nutrition and health life-style and their impact on oral and general health. Therapy can include removal of deposits from teeth to enhance the health of the gums and help minimize general health problems such as cardiac disease and diabetes; application of fluoride and sealants to help prevent cavities and more. All patients receive a dental referral for needed procedures that cannot be provided at the clinic. The DACC clinic helps to expand the services provided by other county public health agencies with the goal to improve the overall health of the county’s citizens and thereby help reduce time lost from work and school due to oral/dental disease.

Dental Hygiene students learn valuable patient care techniques and management skills while working in the clinic and prepare themselves to qualify for licensure to practice as Registered Dental Hygienists. Because the Commission on Dental Accreditation (CODA) require that dental hygiene students receive their training under the direct supervision and control of the Program, an on-site clinic is required. Otherwise it is mandatory to contract with a public service agency for use of facilities while providing for qualified instructors. In addition, the DACC Dental Clinic is shared with the DACC Dental Assistant Program where students learn to work chair-side with practicing clinicians.

DACC Dental Clinic: Serving the Community

Over the past five years, the program has produced 57 graduates, 49 of whom are working in New Mexico.

The DACC Dental Clinic: Outcomes with FY19 Funding

1. 90% of the students taking the dental hygiene license exam will pass.

2. 90% of the employers who return graduate surveys will be satisfied with the performance of DACC Graduates.

3. 100% of the students graduating from the dental hygiene program will find employment within 12 months.
Agricultural Experiment Station

**MISSION:** NMSU’s Agricultural Experiment Station (AES) is the principal research unit of the College of Agricultural, Consumer and Environmental Sciences. The AES system supports fundamental and applied science and technology research to benefit New Mexico’s citizens in the economic, social, and cultural aspects of agriculture, natural resource management, and family issues. The AES system consists of scientists on NMSU’s main campus, and at off-campus Agricultural Science Centers in Alcalde, Artesia, Clayton, Clovis, Corona, Farmington, Las Cruces, Los Lunas, Mora, and Tucumcari. For every dollar we receive from state and federal governments, we bring in $12.51 dollars from outside sources.

AES faculty train the next generation of agricultural professionals, providing hands-on learning opportunities for both undergraduate and graduate students while addressing the needs of agricultural communities throughout the state. Most majors within the college are STEM-based, graduating many students with experience in the highly valued STEM disciplines. In 2016, faculty mentored 96 graduate students and provided work experiences for 216 undergraduate students.

**Appropriations**

- **FY18 Actual:** $13,512,000
- **FY19 Request:** $13,512,000

**Selected Partnerships**

- Bayer Crop Science
- Barenbrug USA
- Cargill, Inc.
- Cotton Incorporated
- Dow Chemical
- Global Science and Technology, Inc.
- J. Frank Schmidt Wholesale Nurseries
- Merck
- Native Seeds/SEARCH, USA
- New Mexico Acequia Association
- New Mexico Department of Game and Fish
- USDA-APHIS
- USDA-ARS
- U.S. Bureau of Reclamation
- U.S. Fish and Wildlife Service
- Zoetis

**4 Pillars for Economic and Community Development**

- Food and Fiber Production and Marketing
- Water Use and Conservation
- Health of New Mexicans
- Environmental Stewardship

The College of Agricultural, Consumer and Environmental Sciences is an engine for economic and community development in New Mexico, improving the lives of New Mexicans through academic, research, and extension programs.
Selected AES Accomplishments and Impacts

• **NMSU researchers have shown that adding chile peppers to cattle feed increases anti-inflammatory effects in the animals.** This could provide a beneficial use for the estimated 18% of the chile crop lost to waste and provide a $20-million benefit to the chile pepper industry—a win-win for New Mexico’s chile pepper and livestock industries.

• **NMSU’s onion breeding program** has developed cultivars that exhibit reduced thrips feeding and reduced Iris Yellow Spot Virus (IYSV). These cultivars could offset losses from these pests by up to $210 million per year in the U.S. onion industry and save up to $14 million per year in pesticide use.

• Research conducted jointly by NMSU and USDA-ARS Jornada Experimental Range has shown that, during periods of drought and forage scarcity, **Mexican Criollo cattle range farther across the landscape and broaden their menu of plant species.** Raising Criollo cattle could help lower the environmental footprint of desert beef production on Southwestern ranches.

• **Research has shown that winter canola,** a low-water-use alternative crop that reduces irrigation applications by 40%, improves crop diversity, offers many other crop rotation benefits, and is a viable option for crop producers in New Mexico.

• **Researchers working on water use efficiency and conservation have developed an online crop evapotranspiration (ET) tool that estimates crop ET and helps farmers track crop water use.** They have also developed a simple canal operation algorithm that helps manage canal reaches and deliver the right amount of water to the desired farm field at the desired time with limited waste.

• **Research conducted on the Hualapai Mogollon vole** led to its removal from the federal endangered species list, preventing needless resource expenditures on a species where it is not warranted.

• **After the discovery of an insecticide-resistant population of bed bugs,** NMSU researchers developed an integrated pest management approach that includes a wide range of nonchemical methods, reducing toxicity risks of insecticides indoors while also interrupting the bugs’ ability to overcome management programs.

• **‘NuMex R. Vince Hernandez’, a paprika-type cultivar** developed and released by NMSU’s chile breeding program, has a 30% higher dry yield compared to standard cultivars, which could increase revenue for New Mexico paprika growers by more than $1 million annually.

• **‘NuMex Bill Melton’, a drought-tolerant alfalfa cultivar developed by NMSU,** has generated hay sales of approximately $1 million annually since its release in 2015.

• **Cropping systems research** focuses on improving soil and crop management practices that enhance efficiency, profitability, and environmental quality in the face of increasing water limitation and climate change. Results from this work indicate that improved management practices could potentially increase water use efficiency by up to 25%, improving the long-term sustainability and resiliency of cropping systems.

Agricultural Experiment Station  •  aces.nmsu.edu/aes
The mission of the New Mexico Cooperative Extension Service (CES) is to deliver practical, research-based knowledge and programs that improve New Mexicans’ quality of life. A part of NMSU’s College of Agricultural, Consumer and Environmental Sciences, CES is a unique federal, state, and county partnership. CES has staff in all 33 counties and many Tribal areas in New Mexico, and collaborates with over 1,000 organizations, state and federal agencies, other universities, and 10,000 volunteers. Extension leverages federal appropriations at a rate of $9.66 for every $1.00 received.

Every year, Extension faculty reach over 650,000 New Mexicans—more than one-third of the state’s population—who benefit from wide-ranging CES educational programs in areas such as economic and community development, human nutrition, agriculture, environmental stewardship, and family and child development.

Extension’s EDGE program encourages better government through education, and has provided certification programs to 488 elected public officials. The 4-H leadership team experience empowers teens with knowledge, skills, and training necessary to become effective community leaders.

Extension and its partners built a strategic plan to boost resilience in New Mexico agriculture, which employs 50,000 New Mexicans and generates $10 billion in economic impacts. Extension programs also help citizens with troubled pasts develop job search skills needed to obtain gainful employment.

Extension serves as a responder to natural and human-caused emergencies, helping communities develop emergency plans, guard against agro-terrorism, and respond to a host of plant and animal diseases. Extension provides training in water resource planning and conservation to communities statewide.

One in six New Mexico youth ages 8-18 are taught important life skills like critical thinking and communication. Over 12,000 gain STEM education and skills in areas like biology, computers, and electronics. Additionally, 29,000 gain knowledge and skills related to healthy lifestyle choices, including fitness, nutrition, safety, and substance abuse prevention.

Extension conducts health fairs in rural communities, providing screenings and prevention not available to residents. Nurturing parenting, strengthening families, family wellness, and incarcerated fathers programs build healthy family relationships and teach life and parenting skills.

The College of Agricultural, Consumer and Environmental Sciences is an engine for economic and community development in New Mexico, improving the lives of New Mexicans through academic, research, and extension programs.
• Studies show that youth involved in 4-H are half as likely to engage in risky behaviors. With over 60,000 youth involved in the NM 4-H Program annually, the state saves significant money through prevention/intervention programs, and our youth stay safe and healthy.

• Through Tribal Extension efforts, youth are taught the art of weaving which is of cultural importance to the people of the Navajo Nation. Youth are able to take fiber to fabric while learning why sheep are important, how to card and spin wool, how dye is made is made, and how to use the tools for weaving. Classes have been taught to three groups in Navajo which helps to preserve the native language as well as increasing motor skills, strengthening memory and concentration and developing confidence.

• Over 55,000 New Mexicans participate in the CES Nutrition Education Program, which has improved participants’ nutrition practices by 85%, improved diet quality by 75%, improved physical activity by 32%, and saved the state $6.6 million in health-related expenses.

• The Manage Your Chronic Disease (MyCD) Program is delivered to adults of all ages who are living with one or more chronic conditions that require daily self-management. MyCD empowers participants to better manage their chronic conditions and has been shown to reduce healthcare costs for participants. MyCD has reached 116 participants, saving an estimated $82,824 in healthcare costs.

• Forage Research and Extension Programs have helped New Mexico producers increase profitability by reducing fertilizer and seed costs by 25%, reducing water use by 30%, and increasing yields by 10%.

• The Rural Agricultural Improvement and Public Affairs Project (RAIPAP) provides educational programs on sustainable agriculture to Native American and Hispanic producers in Northern New Mexico. Cattle producers that participated in the range management educational program experienced a 25% increase in ranch income.

• The Pesticide Safety Education Program reaches over 500 individuals annually. Training and recertifying licensed pesticide applicators—with an average annual salary of $34,570—has contributed over $17 million to New Mexico’s economy.

• The Master Gardener Program trains and certifies around 300 new Master Gardeners each year. On average, 1,200 Master Gardeners provide over 61,000 hours of community education and service—worth over $1.2 million. The Master Gardener Program donates over $75,000 of locally grown produce to food banks each year.

• Extension Specialty Crop Demonstration Programs provided alternative high-value cash crops for small-scale producers, increasing annual farm income by 10–20%.

• Through the CES Beginning Farmer & Rancher Program:
  — 45% of participants utilized new strategies to improve soil fertility, increasing crop yields by 20% and adding up to $4,000 in income per farm.
  — 25% of participants adopted integrated pest management strategies that reduced cop loss by 28%, saving $18,000 per farm.

Cooperative Extension Service • aces.nmsu.edu/ces

New Mexico State University is an equal opportunity/affirmative action employer and educator. NMSU and the U.S. Department of Agriculture cooperating.
New Mexico Department of Agriculture is a constitutional agency organized under the Board of Regents of New Mexico State University.

Marketplace and Economic Development
Develop, implement, and promote global marketing and economic development to facilitate trade.

Assist industry with domestic and international trade and marketing for New Mexico commodities and value-added products in current and emerging markets.

International Market Development
NMDA works closely with agricultural producers and processors to help them enter and export into foreign markets. In 2017 NMDA hosted multiple international events promoting NM agricultural products.

2017 International Highlights
- Mexico Specialty Beverage & Food Inbound Mission
- Bakery Technical Seminars promoting pecans, Bangkok, Thailand and Vietnam
- Culinary School Pecan Promotion, Vietnam
- International Dried Fruit and Nut Congress Trade Show, India
- Brangus Genetics inbound trade Mission*
- Santa Gertrudis Inbound trade mission Mission*
- Confederacion Nacional Ganadera Trade Show*

*NMDA continues to promote NM Cattle Genetics in the Mexican market. Mexican cattlemen look to NM ranchers for superior genetics used in improving their herd quality.

Taste the Tradition is a program New Mexico Department of Agriculture (NMDA) created to promote New Mexico-grown and made specialty foods and products. This on-going marketing campaign helps improve and expand markets for New Mexico agricultural products by increasing awareness and encouraging consumers to purchase products with the TTT and GWT logos. The logos are designed to emphasize the uniqueness of New Mexico agricultural commodities and the traditions behind them.

ORGANIC CERTIFICATION
NMDA provides USDA/NOP-accredited organic certification for the states 136 farmers, ranchers, and processor/handlers.

NM Cattle crossing the Mexican border after a successful trade mission initiated sale

NMDA hosted a cohort of Mexican buyers linking them with local breweries, wineries, and distilleries.
Food Protection
Ensuring a safe and secure food supply

NMDA identifies and provides resources for food protection, which includes food safety, food defense, and food security.

NMDA’s biosecurity program is the state’s Emergency Support Function 11 coordinator, striving to protect NM agriculture’s critical infrastructure thru education, planning, training, and response.

NMDA’s Veterinary Diagnostic Services Center is one of 8 level 3 USDA National Animal Health Laboratory Network labs nationwide. VDS plays a critical role in the first line diagnostics for the detection of foreign animal diseases.

Regulatory Compliance
Maintains regulatory compliance through cooperative relationships with industries, agencies, and the public to ensure consumer protection and a uniform marketplace for agriculture.

NMDA provides inspections services statewide in the areas of:
- Apiary
- Consumer Services
- Fertilizer
- Nursery Inspections
- Petroleum Standards
- Commercial Feed
- Egg Inspections
- Fruit and vegetable
- Seed
- Livestock Scale Inspections

NMDA’s Policy teams current areas of emphasis

- Noxious Weed Management
- Watershed and Riparian Restoration efforts via the state’s 47 SWCD’s
- Forest Planning updates and revisions
- Administering the Acequia Community Ditch Fund - Awarded $603,000 to 10 acequias in FY17
- Monitoring Federal legislation and policies that may adversely affect agriculture
- State and Regional Water planning

NMDA’s dairy inspectors assist in protecting a $1.2 billion dollar industry.

NMDA conducted roughly 67,000 inspections and analysis in FY17!

Natural Resources
NMDA promotes responsible and effective use and management of natural resources in support of agriculture.

Participates and collaborates with public and private entities in natural resource policy and planning processes to promote the beneficial use and protection of natural resources.
NMSU Athletics inspires student-athletes to build strong communities and strives to be known for its integrity and commitment to its student’s academic and athletic success.

The student population of approximately 400 student-athletes contributes to the economy at a personal level by fulfilling their financial obligation as students and community members.

As team members, student athletes are provided a platform to grow as leaders, team players, and responsible and successful community members.

The contributions made by intercollegiate athletics include educating, mentoring, and the training of future leaders and providing on-the-job training to allow workforce ready skills acquired by the student–athlete.

NMSU sponsors 16 sports including 6 men’s: football, basketball, baseball, golf, tennis, and cross country, and 10 women’s sports: basketball, volleyball, softball, soccer, tennis, golf, cross country, indoor track, outdoor track and swimming and diving.

Value of Athletics to the Community and Economy

The contributions made by intercollegiate athletics participation, demonstrates successful students with workforce skills acquired through their role as a state-athlete, student employee or graduate assistant. By providing hands-on and on the field experience, students are workforce ready when they leave NMSU, providing capable employees within the state and throughout the nation. NMSU Athletics is 1 of 128 Division I FBS athletic programs in the country. NMSU Athletics sponsors 16 sports, the Sun Belt Conference for Football and Western Athletic Conference for the remaining sports. NMSU athletics inspires student-athletes to build strong communities and strives to be known for its integrity and commitment to its student’s academic and athletic success. The student-athlete population of 400, contributes to the economy at a personal level by fulfilling their financial obligation as students and community members. Positive economic impact is also recognized at the state level through various team and individual activities.

Intercollegiate Athletics

FY18 Actual: $3,117,600
FY 19 Request: $3,117,600

Student Athletes

- Student-athletes completed 6,042 hours of community service
- All of our 16 NMSU Men's and Women's Athletic Sport Teams cumulative grade point averages combined over the last 12 years, 24 consecutive semesters, have achieved the accomplishment of being combined at or above a 3.00 GPA
- All 16 Men’s and women’s sport teams Spring 2017 cumulative GPA combined was a 3.066
- For the past 12 years, 24 consecutive semesters, Scholarship-Athlete representation (3.00 semester and cumulative GPA or higher) was higher than 50% of the student–athlete population
- Men’s basketball, men's tennis, women’s basketball, women's golf, softball and volleyball all won WAC Championships.
- Women’s basketball qualified for the NCAA Tournament for the third straight year
Athletics Objectives for Success

NMSU aims to continue to improve academically and competitively and give back through serving the community. Key project objectives include:

- Achieve NCAA Academic progress Rate (APR) of 930 or higher for all NMSU Teams
- Enhance diversity among athletic staff and student-athletes
- Achieve recognition for all NMSU teams.
- Published rankings in the WAC Commissioner’s Cup to build loyalty and affinity by providing competitive teams.
- Engage former student-athletes and alumni by holding various events around the state

Recent activities include:

- Set an all-time high in single game revenue in basketball
- Set an all-time high in guarantee game revenue in football
- Hosted a men’s basketball game in Rio Rancho reaching over 2,000 Aggie alumni and fans
- Hosted a baseball game in El Paso reaching over 700 Aggie alumni and fans
- Donations increased over $125,000
- NMSU Athletic was awarded the WAC Commissioners Cup for the third straight year
- NMSU Academic Support Programs and Services Center (ASPSC) continues to be committed to providing quality educational services that achieve academic, personal, and career success for all student-athletes.

Athletics in Today’s Financial Setting

NMSU Athletics continues to manage its financial situation. In doing so, the department has maintained its commitment to provide operating funds to its 16 sponsored sports. Increased costs, along with our geographic location have continued to place a strain on coaches and staff and have been consistent major challenges in managing costs. Part of recruiting and commitment to our student-athletes is the level of competition we provide them. Maintaining appropriate funding is necessary to allow the programs the opportunity to continue to meet obligations and provide a positive, safe and well-rounded experience for students participating as athletes.
KRWG plays an important role in meeting NMSU’s promise as a land grant institution. KRWG offers a distinctively unique service to the region from New Mexico State University.

The KRWG complex is utilized by multiple NMSU educational departments as laboratory and classroom space. Additionally, KRWG engineering staff provides maintenance and repair services for the facilities that are utilized by these other NMSU departments.

Statewide Impact
In collaboration with UNM/APS and ENMU’s public stations, we provide the only statewide television services. During a statewide emergency, Public media is the only source to reach 95% of the State via Radio, TV, web, Facebook, and twitter.

KRWG provides 24 hour service of award winning children’s programming, PBS public affairs shows, cultural offerings and over 150 hours of local productions to serve the needs of our 80,000 New Mexico viewers who tune in each week.

KRWG is the only television station located in Southern New Mexico with programming specific to the needs of New Mexico. Three digital channels provide programming. They include: Channel 22.1 – Full HD PBS programs; Channel 22.2 – MHz Worldview with world news; and Channel 22.3 – PBS Kids 24/7 Kids Educational Programming.

Our local programs include NewsMakers, News 22, Your Legislators, Economic Forums, Candidate Debates, and New Mexico Sports Weekly. We are a part of the Regional News Group, Fronteras: the Changing of America, with San Diego, Tucson, and Phoenix. This also includes a weekly half-hour local program specifically examining Hispanic issues and accomplishments in the region. On April 1, 2017 KRWG launched PBS Kids and provides educational content 24/7-365. This content helps preschool and school aged children in each of four key areas of childhood development, cognitive, social, emotional, and physical.

KRWG TV has provided:
94 hours of local programing
1730 hours of children's educational programing
New Mexico State University and the State of New Mexico have an exciting opportunity to acquire operation of the world-renowned Dunn Solar Telescope and surrounding facilities that sit atop Sacramento Peak in Sunspot, NM. This is one of the preeminent places for conducting research on the Sun. This effort would bring about $1 million of revenue into the state annually during FY19-24. That does not include a $1.2 million 2-year grant that was recently awarded to the NMSU Astronomy Department by the National Science Foundation after realizing the importance of this project. Initial member commitments come from University of Colorado Boulder, California State University Northridge, the Astrophysical Research Consortium, Lockheed Martin, the University of Hawaii, Queen’s University Belfast, the High Altitude Observatory, NSF, and the National Solar Observatory (NSO).

In FY19, we will continue to recruit partners, finalize legal and financial commitments, capture the current intellectual capital of NSO staff via cross-over training with new staff, initiate graduate-student training, and develop new public outreach plans that will increase tourism in the area. In subsequent years, state funding will be used as NMSU’s share of consortium expenses. All telescope personnel will be NMSU employees and contribute to the mission of the university and this project.

Putting New Mexico at the Forefront

NMSU, together with the NSF and the NSF will assemble and lead a consortium of US and international universities and institutes dedicated to funding and operating the facility over the next decade. This will place NMSU in a national leadership role for space weather and solar astronomy that is of tremendous interest to NSF, NASA, DoD, and DoE. This will prevent the loss of high-paying job in Otero County, which would occur as a consequence of the telescope’s closure, and provides economic benefits to the local region. Beyond maintaining about 10 FTE at the site, annual meetings and workshops will bring over 100 weeklong visitors to the area from out of state.
In FY19 with NM funds we seek to:

- **Expand the consortium:** establish strong leadership by enabling the commitment of a minimum number (5) of additional partners to the collaboration (in areas of science, education, instrumentation, and outreach) to ensure broad interest from the solar physics community; Obtain sufficient financial commitment to allow for full operations and to establish scientific agreements with institutes that provide instrumentation at the telescope.

- **Hire sufficient personnel:** hire three (3) mission-critical staff to continue knowledge transfer and development of scientific and educational operation plans for the site.

- **Host an inaugural student workshop:** host 40 students and professional participants in a solar astronomy workshop, providing opportunities and critical manpower for future advanced instrumentation development.

**Provide for STEM outreach:** New outreach director will contact 30 schools to build a strong statewide education and public outreach plan.

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### Richard B. Dunn Telescope

Located at Sunspot, NM, the Dunn Solar Telescope specializes in high-resolution imaging and spectroscopy that allows astronomers worldwide to obtain a better understanding of the Sun and how space weather impacts Earth. While larger telescopes are being developed, the Dunn telescope continues to provide a versatile, user-friendly set-up. Scientists and engineers use the Dunn to investigate a range of solar activity. It also provides a testbed for developing cutting-edge technologies for new telescopes. With this telescope, the state will also have a key facility for hands-on training in advanced instrumentation for students.

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*Image of a sunspot captured by the Dunn Solar Telescope.*

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### Sunspot Astronomy and Visitor Center

Due to strong interest and many visitors to the Sunspot astronomy facilities, the Astronomy and Visitor Center opened its doors on Sacramento Peak in 1997. It is the result of a collaboration between the NSO/Sacramento Peak, Apache Point Observatory, and the USDA Forest Service. The Visitor Center attracts about **12,000 visitors per year**.