2025 IMPACT REPORT

BUILDING TOMORROW

COLLEGE OF ARTS & SCIENCES

THE UNIVERSITY OF NEW MEXICO

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WELCOME FROM DEAN MALAT

As we reflect on another year of achievement in the College of Arts & Sciences, I am proud of how our college continues to deliver exceptional value to New Mexico while strengthening our standing as a national leader in research and student success.

This past year, we completed comprehensive strategic plans for the College, our academic departments, student success, and research, an effort that reflected the collaborative work of hundreds of faculty, staff, students, and alumni. These plans align with UNM 2040: Opportunity Defined and center on four core values: Inclusivity and Belonging, Student Success, Community Engagement, and Effective Communication.

We are also making significant progress on the new Humanities & Social Sciences building, which will bring eight academic units, four institutes, and the Language Learning Center under one roof at the heart of campus. This state-of-the-art facility will create new opportunities for interdisciplinary collaboration and position these foundational disciplines to address emerging challenges at the intersection of technology, culture, and society.

The stories in this year's impact report highlight the remarkable contributions our students and faculty are making to New Mexico and beyond. Through nationally recognized awards, major research grants, and strong community partnerships, our college generates knowledge that creates jobs, prepares students for meaningful careers, and strengthens communities.

Consider alumna Dr. Elizabeth Garchar, who majored in anthropology through our BA/MD program, and now provides critical obstetric transport care across rural New Mexico with UNM Lifeguard's Air Emergency Services. Her path from liberal arts to lifesaving healthcare exemplifies how our programs address the state's most pressing needs.

We are also building community within the College through our Monthly Mingles. In an organization as large and diverse as ours, gathering over food and conversation creates the in-person connections that reinforce our shared purpose and drive interdisciplinary work.

Thank you for your continued support. Together, we are building tomorrow.

Jennifer Malat

Jennifer Malat, Ph.D.
Dean, UNM College of Arts & Sciences

STRATEGIC PLAN

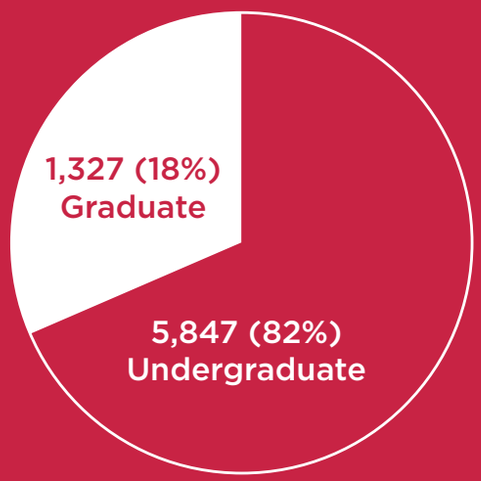
Read the College of Arts & Sciences strategic plan at **goto.unm.edu/stratplan** or scan the QR code here.

NUMBERS AT A GLANCE

23 Departments
1 School
14 Centers & Institutes
8 Academic programs
4 Museums

45 Undergraduate Majors
58 Undergraduate Minors
33 Master's Programs
24 Doctoral Degree Programs
6 Undergraduate Certificates

STUDENT POPULATION COMPOSITION



FACULTY AWARDS

122 patents held
1,091 publications AY 23-24
21 Distinguished Professors

$81.3 million
ENDOWMENT PROVIDES:

191 scholarships
117 faculty, program, research, equipment, & library area supports

69,941
Arts and Sciences alumni

#1 for financial accessibility among R1 Institutions
#9 for financial accessibility among all U.S. Higher Ed Institutions
Source: New York Times 2023 College-Access Index

440 faculty
370 staff

The UNM College of Arts & Sciences is the _____ of the University.

#1 response in a recent College survey: the HEART

STRATEGIC PLAN HIGHLIGHTS

VISION STATEMENT: The College of Arts & Sciences at the University of New Mexico will be recognized as a leading center of interdisciplinary learning, innovative research, and community engagement that prepares students to thrive in a complex world.

MISSION STATEMENT: At the College of Arts & Sciences at the University of New Mexico, we cultivate intellectual curiosity and critical thinking, fostering a commitment to lifelong learning and growth. Our faculty and staff empower students to explore diverse perspectives, address complex challenges, and be engaged citizens. Through innovative scholarship, paradigm-shifting creative activity, and impactful teaching, we advance human knowledge and inspire positive change.

OVERARCHING VALUES

The College of Arts & Sciences' strategic plan is anchored by four core values that collectively shape its vision and guide its actions: Inclusivity and Belonging, Community Engagement, Student Success, and Effective Communication.

These interconnected values form the foundation of a comprehensive approach to education and institutional development. By integrating these values throughout its initiatives, the College of Arts & Sciences creates a dynamic and responsive framework that prepares students for future challenges while contributing meaningfully to society.

INCLUSIVITY AND BELONGING

The College of Arts & Sciences is dedicated to ensuring representation across all dimensions of human difference, with a steadfast commitment to inclusivity and visibility for all. Inherent to this dedication is a recognition of the intersectional nature of our existence and experiences. Inclusivity and Belonging are integral, not peripheral, to our mission. Our goal is for everyone to thrive, feeling equitably treated and fully integrated into our community. Inclusivity and Belonging are proactive strategies that enhance the environment for our students, faculty, and staff. Our commitment to Inclusivity and Belonging permeates every aspect of this strategic plan, reinforcing and aligning with UNM2040: Opportunity Defined. An authentic commitment to Inclusivity and Belonging fosters a more inclusive, equitable, and successful university community.

STUDENT SUCCESS

The College will support students in their degree programs and in their life goals to ensure student success. Our reach is broad because we are the College that reaches almost every first-year UNM student regardless of major. We will inspire their learning by providing innovative, intellectually exciting, supportive, and relevant educational environments. The College commits to continually evaluating how we can best serve students as their interests and needs change, while attending to the important issues affecting the world from New Mexico to international arenas.

COMMUNITY ENGAGEMENT: ROOTED IN NEW MEXICO, WITH A GLOBAL REACH

Community-engaged research and teaching are strong components of our commitment to serve and elevate our local, state, and global communities in diverse and multiple ways. The University of New Mexico has earned the Carnegie Community Engagement Designation, and the College is proud to contribute to this designation through community-engaged teaching, community-based research, and translating our research and scholarship to benefit New Mexico. The College commitment to community engagement is consistent with UNM 2040; Goal One—Advance New Mexico, including a

focus on economic development, social justice, health equity, and contributing to the cultures, well-being, and vibrancy of the state. Additionally, through community engagement, the faculty, staff, and students of the College gain valuable experience, and develop skills and attributes needed to become responsible, engaged citizens. Our students and the communities of New Mexico will experience reciprocal learning, collaboration, and applied benefits.

EFFECTIVE COMMUNICATION

Clear and effective communication is critical to ensure timely information flow to members of our community. Effective communication can enhance collaborative, interdisciplinary teaching, and research. Further, effective communication ensures that all of the College's units strive towards our shared strategic objectives. Good communication also helps units in the College articulate their priorities and needs, the sharing of best practices, transparency in decision-making, and coordinated student support. Good communication also shares our successes and commitments to New Mexico with the University and communities outside the University.

THEME AREA 1: COMMITMENT TO GENERATING AND SHARING KNOWLEDGE

Generating and sharing knowledge is a cornerstone of the College's academic mission. It drives innovation and prepares students for future challenges. Prioritizing research, interdisciplinary collaboration, and effective teaching builds stronger communities. This theme aligns strongly with UNM2040 Goals One, Two, Three, and Four.

Goal 1: Enhance academic excellence through high-impact teaching and learning

Goal 2: Expand access to experiential learning opportunities

Goal 3: Advance research excellence and impact

Goal 4: Strengthen knowledge dissemination

THEME AREA 2: COMMITMENT TO COLLEGE WELL-BEING

The College understands that our greatest resources are the people in our communities. We are committed to prioritizing the well-being of members of our communities to create a supportive environment that enhances academic performance and promotes a positive lifestyle. A focus on well-being can help students, faculty, and staff manage stress and maintain a healthy work-life balance. This theme aligns most strongly with UNM2040 Goals Three, Four, and Five.

Goal 1: Cultivate well-being among community members across the College

Goal 2: Prioritize work-life balance for faculty, staff, and student employees

Goal 3: Strengthen the College's sense of community and belonging

THEME AREA 3: COMMITMENT TO LIBERAL ARTS IN HUMANITIES AND SCIENCE

The College is deeply committed to fostering a robust and dynamic liberal arts education that integrates the humanities, social sciences, and natural sciences. Our mission is to equip students with skills and insights essential for success in a complex world.

Goal 1: Promote liberal arts and general education

Goal 2: Enhance and recognize interdisciplinary collaboration

Goal 3: Emphasize the value of the humanities, social sciences, and natural sciences

Goal 4: Promote community engagement

THEME AREA 4: COMMITMENT TO EFFECTIVE DEVELOPMENT AND DEPLOYMENT OF RESOURCES

The effective development and deployment of resources is crucial for the success and sustainability of the College. By carefully managing our resources, we can enhance the quality of education, support research initiatives, and provide student scholarships and professional growth for faculty and staff. This theme aligns most strongly with UNM2040 Goal Three.

Goal 1: Deliver excellent value

Goal 2: Responsible resource stewardship

Goal 3: Strengthen human capital and talent development

Goal 4: Increase external funding

A NEW HOME FOR THE HUMANITIES & SOCIAL SCIENCES

Alex Odom (l) and Bille Tsien (c) of Studio Tsien Architecture with Dean Jennifer Malat (r)

Nearly every UNM student takes a humanities or social sciences class in their first semester, a crucial time when students begin to see themselves as scholars. Starting in spring 2029, incoming Lobos will have a modern, welcoming space to develop the communication, critical thinking, and cultural awareness that New Mexico employers need.

The original Humanities Building, while beloved, reached the end of its usable life. A 2020 facility assessment documented significant accessibility barriers, structural failures, and safety concerns. Demolition was completed in 2025, and groundbreaking for the Humanities & Social Sciences (HSS) Building is planned for spring 2026.

The new Humanities & Social Sciences (HSS) Building's design prioritizes visibility and belonging. Prominent entrances open onto Smith Plaza, welcoming students into light-filled, flexible spaces where they can plug in, collaborate, or find quiet focus. In-person connection isn't a luxury for this generation of students: it's essential for building the interpersonal skills that employers need and screens can't teach.

The HSS Building's design team pairs SMPC Architects, a New Mexico firm with 80 years of local expertise, with Studio Tsien, whose portfolio includes the U.S. Embassy Complex in Mexico City, the James Baldwin Library, and the Barnes Foundation. Both firms undertook deep study of New Mexico's architectural traditions and the UNM campus. The result honors the state's cultural heritage and the New Mexican values of welcoming, connection, and belonging.

Eight academic departments will call the new HSS Building home, along with four College institutes. The Language Learning Center will welcome students into the space: its prominent placement on the ground floor reflects the foundational nature of linguistic diversity in New Mexico.

The HSS project joins the College of Fine Arts' Center for Collaborative Arts & Technology (CCAT) as part of a period of growth and investment on main campus. New Mexico voters and the legislature have committed $94 million, the University has pledged institutional support, and the College is raising an additional $12 million in philanthropic support to fully realize this vision for UNM students. For donors, this is a once-in-a-generation opportunity to shape the physical and academic heart of campus and to invest in the student experience that will define UNM for decades to come.

"We are building something beautiful for New Mexico," said Dean Jennifer Malat. "This building will reshape the student experience and give our faculty, students, and community a place that reflects their value and their future."

Interested in naming opportunities?
Contact Emily Bridson at
Emily.Bridson@unmfund.org
or
Rob St. Mary at
rob.st.mary@unmfund.org
or **(505) 313-7696.**

Ready to give now?
Scan this QR code or visit
goto.unm.edu/givetohss

ALUMNI PROFILE

From Anthropology to Altitude: A BA/MD Graduate Brings Critical Care to Rural New Mexico

When a high-risk pregnancy goes wrong in rural New Mexico, the nearest Level IV NICU may be hours away. Dr. Elizabeth Garchar helps close that gap.

Garchar, who earned her undergraduate degree in anthropology through UNM's BA/MD program, now provides critical obstetric care as a volunteer for UNM's Lifeguard Air Emergency Services alongside her regular obstetric practice in Santa Fe. Her work ranges from supporting mothers in preterm labor to managing life-threatening emergencies like amniotic fluid embolism during transport.

"Living rural increases your chance of death from accidents not because they are worse than in town, but because of the sheer distance to necessary medical care," Garchar says. "We have to shorten that distance if we want to improve outcomes."

Garchar's path to this work began, unexpectedly, with forensics. As an undergraduate, Garchar was drawn to biological anthropology through her interest in shows like Bones and CSI. But the discipline's focus on human evolution and social behavior led her in another direction entirely.

"[That early interest] should have shown me OB/GYN would be a passion of mine," she says, "as it is all about evolution of our species, with reproduction and sexuality often front and center."

Today, Garchar's anthropology training shapes how she practices medicine. She understands that social context affects pregnancy outcomes and asks patients about their family support, cultural beliefs, and access to transportation as part of providing care. For isolated first-time mothers, she often recommends doulas. For patients anxious about air transport, she takes time to explain the aircraft and what to expect.

Garchar, a native New Mexican, has built her career serving the state. The BA/MD program's mission is to train physicians who will stay and practice here, and she has done exactly that.

"New Mexico is home forever for me," she says. "I want to work in New Mexico for my entire career if possible."

For current Arts & Sciences students considering medicine, her advice is practical: shadow physicians in many settings and consider scribing to get paid while learning. And do not neglect the liberal arts.

"Adding some liberal arts, like I did some art studio and some dance as an undergrad, is important as it activates a different part of the brain and can bring balance to the highly analytical doctor side of you."

STUDENT SUCCESS

TWO A&S STUDENTS SELECTED AS GOLDWATER SCHOLARS

Two Arts & Sciences students, Anthony Languit and Tanisha Medha, have been named 2025–2026 Goldwater Scholars, selected from a pool of 1,350 college sophomores and juniors nominated by 445 academic institutions nationwide.

Founded in recognition of U.S. Senator Barry M. Goldwater, the Goldwater Scholarship provides financial support for students planning to pursue a career and Ph.D. in STEM research. The program is considered one of the most prestigious undergraduate STEM awards in the United States and recognizes students who show exceptional promise as future research leaders.

Anthony Languit is a junior majoring in biochemistry with a minor in honors interdisciplinary liberal arts. He conducts research under the guidance of Dr. Judy Cannon in the Cannon Lab at UNM School of Medicine's Department of Molecular Genetics and Microbiology. Languit's primary research focus is the effect of chemokine receptors on T cell movement and function. Languit aspires to pioneer advancements in the field of tissue regeneration and mentor future scientists.

Tanisha Medha is a junior double-majoring in biochemistry and anthropology with a concentration in human biology. She currently works under the guidance of Gurdeep Singh at Singh Lab in the UNM School of Medicine's Department of Ophthalmology and Visual Sciences. She is researching the molecular mechanisms behind various eye diseases, including metastatic uveal melanoma and age-related macular degeneration. Medha is passionate about understanding how genetic and epigenetic changes influence disease progression and aims to contribute to the development of targeted therapies for improving patient outcomes.

Languit and Medha continue UNM's strong Goldwater tradition, with 20 Scholars named this past decade. This success reflects the research opportunities and faculty mentorship available to undergraduates throughout Arts & Sciences.

GRADUATE STUDENTS TRANSLATE RESEARCH FOR THE PUBLIC

College of Arts & Sciences students swept the top honors at this year's LoboBITES competition, where graduate students distilled complex research into three-minute presentations for general audiences. The annual competition challenges researchers to communicate their work without jargon, making specialized knowledge accessible to the broader community.

Gabriela Guajardo, a master's student in Chicana & Chicano Studies, won first place for "Tamalewood: The Sparkling Cinematography of Colonization in the New Southwest." Her presentation examined how the film industry depicts New Mexico, from the cultural tourism around Breaking Bad to racially insensitive casting calls she encountered as a background actor.

"It's a nuanced conversation, and I am invested in taking all sides into account to do complete work that advocates for our city and state fully," Guajardo said.

Second place went to biology doctoral candidate Oona Takano, who presented "Drivers of Bird Body Size Adaptation: Are Birds Shrinking?" Her research uses the fossil record to investigate whether birds experienced body size changes during past warming periods, work that could help predict how species respond to climate change.

Biology doctoral candidate Benjamin Garcia earned the People's Choice award for his work on nasal immunity in fish and its implications for aquaculture vaccine design. His research could help improve fish farming practices, an increasingly important food source worldwide.

Twelve students competed in the finals, representing four colleges. Presentations are judged by UNM faculty and community members, and top contestants receive travel awards to present at professional conferences.

"Reflecting on how to communicate my research to an audience beyond my own discipline was helpful for thinking about the main takeaways of my dissertation," Takano said.

The competition builds skills that help researchers share their work with policymakers, funders, and the public throughout their careers.

BUILDING A COLLEGE PIPELINE THROUGH CHICANA & CHICANO STUDIES

For students at Atrisco Heritage Academy, a Chicana & Chicano Studies dual-enrollment course does more than earn college credit. It changes how they see themselves.

“Students will say that the overall space and curriculum reminded them of home,” said teacher Alicia Camacho. “My students are not typically college-bound in their head. Academically they are good, but they automatically assume their only option is going to work after graduating. One of my favorite things about it is seeing the kids who typically don’t see themselves at college begin considering it.”

Atrisco Heritage is one of 10 schools participating in the Initiatives for Student-Engaged Educational Ecosystems (ISEE) COLLEGE! program, a partnership between K–12 schools and UNM’s Department of Chicana & Chicano Studies. Launched in 2016, the program connects teachers with CCS faculty to develop curricula grounded in New Mexico history, local traditions, and community. Students can earn up to 12 college credits while still in high school.

Each summer, participating teachers attend a week-long workshop at UNM focused on college, career, and civic readiness strategies. The majority are currently enrolled in graduate programs at UNM; the participating teachers are also contributors to an upcoming book on Latine/x/o youth education.

“I think it’s important that people understand the work and effort these teachers put in, and the heart and soul they put into their work,” said CCS Operations Specialist Rebecca Martinez-Baca. “It’s a labor of love.”

Since 2016, the program has helped hundreds of New Mexico high school students earn college credit while building connections across the education pipeline.

FACULTY RESEARCH & RECOGNITION

THREE PHYSICS FACULTY WIN NSF CAREER AWARDS

Three Physics & Astronomy faculty received the National Science Foundation's prestigious CAREER Award, the NSF's most important honor for early-career faculty.

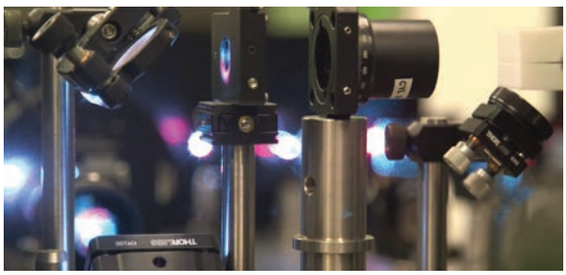
"A junior faculty member receiving a CAREER award is always a cause for celebration," said Department Chair Richard Rand. "For our department to be able to applaud three faculty in obtaining NSF CAREER awards in the same year is unbelievable... a very rare hat-trick of sorts."

Drs. Diana Dragomir, Francis-Yan Cyr-Racine, and Tonmoy Chakraborty were recognized for pioneering research spanning exoplanets, the origins of the universe, and next-generation biological imaging, respectively.

Dr. Diana Dragomir and her team are studying the connections between giant planets and terrestrial planets orbiting other stars. In our own solar system, Jupiter is believed to have influenced Earth's size and even played a role in the emergence of life. Dragomir's project also emphasizes education, incorporating exoplanet research into an undergraduate course and organizing alumni visits to help physics and astrophysics majors explore career paths beyond traditional academic routes.

Dr. Francis-Yan Cyr-Racine received a CAREER award for research that will use machine learning tools to study the unseen forces shaping the cosmos. His work aims to uncover the nature of dark matter and dark energy, which make up most of the universe's energy content. Alongside the research, Cyr-Racine will launch a pilot mentoring program to engage students early in their studies, equipping them with transferable skills for STEM careers and a sense of belonging in physics and astronomy.

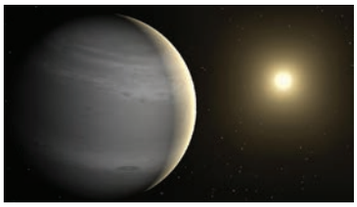
Dr. Tonmoy Chakraborty was awarded a CAREER grant for research that re-engineers pupil-matched remote focusing optics to overcome barriers in optical microscopy. By eliminating the need for mechanical movement, the technique enables rapid, minimally disruptive 3D imaging of intact biological systems.



Broader impacts include a summer training program, an interdisciplinary microscopy course, and UNM Physics Day, a regional research event for undergraduates.

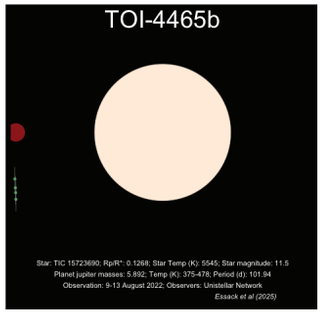
Winning three CAREER awards in a single season is remarkable for any physics department and demonstrates UNM's strength in recruiting and supporting early-career researchers.

GLOBAL COLLABORATION CONFIRMS NEW EXOPLANET



When NASA's Transiting Exoplanet Survey Satellite (TESS) space telescope spotted a possible planet 400 light-years from Earth, it captured just one transit: a single instance of the planet passing in front of its star. Confirming the discovery would require catching at least two more, each lasting about 12 hours. No single observatory could do it alone.

UNM astronomers helped solve the problem by coordinating a global network. Postdoctoral Fellow Zahra Essack and Assistant Professor Diana Dragomir, a 2025 NSF CAREER awardee, launched an international campaign spanning 14 countries. Twenty-four citizen scientists joined the effort, using personal telescopes to capture data alongside professional astronomers and students.



Together, they confirmed TOI-4465 b, a gas giant about 25% larger in radius than Jupiter and nearly six times its mass. The discovery, published in The Astronomical Journal, demonstrates how networks of professional and amateur astronomers can tackle problems no single institution could solve alone.

A&S FACULTY CLAIM STATE'S ONLY NEH AWARDS

Two College of Arts and Sciences faculty members have been awarded research grants from the 2025 National Endowment for the Humanities program. Drs. Carmen Nocentelli and Anna M. Nogar are the only two recipients in New Mexico to receive NEH grants this cycle, joining 240 awardees nationwide.

Carmen Nocentelli, associate professor of English and comparative literature, will use her award to complete her book, *Black Legends and the Invention of Europe*, a study of early modern political propaganda. Centered on the sixteenth and seventeenth centuries, the project examines how misinformation campaigns shaped European identity and politics.

At the heart of Nocentelli's analysis lies the Spanish Black Legend, a transnational vilification campaign that portrayed Spaniards as cruel, greedy, and tyrannical outsiders unworthy of being called European.

"My research reveals how pervasive misinformation was during this period, with even factual reporting taking

on sensational overtones that inflamed jingoism and division," said Nocentelli. "Yet paradoxically, these divisive publications ultimately had a unifying effect: they fostered a shared European identity, contributed to the development of international law, and laid groundwork for human rights. I'm grateful to the NEH for providing the time to bring this project to fruition."

Anna M. Nogar, professor of Hispanic Southwest studies in the Department of Spanish & Portuguese, is writing a book on Aurora Lucero-White Lea, a nineteenth-century New Mexican folklorist. Lucero-White Lea championed the idea that language and cultural practices native to New Mexico were an essential part of American identity and not a foreign culture.

"I look forward to continuing my research on Aurora Lucero and am grateful for this opportunity to bring the Spanish-language folklore research conducted by a native nuevomexicana scholar to a broader audience," said Nogar. "Her scholarship on New Mexican folklore documented dances, music, plays and stories. They shape how we understand these practices and the nuevomexicano communities that continue to share them today."

Nogar also completed a digital timeline of Lucero-White Lea's life that was funded by a Mellon Foundation US Latino Digital Humanities Grant-in-Aid award.

Both projects examine how narratives shape identity and belonging, questions with continuing relevance in New Mexico and beyond.

MEDIEVAL STUDIES SCHOLAR WINS PRESTIGIOUS MLA AWARD

Jonathan Davis-Secord, associate professor of English, has been awarded the Modern Language Association's 62nd William Riley Parker Prize for his article "Trans Saints in Old English," published in PMLA, the association's journal of literary scholarship.

First presented in 1964, the William Riley Parker Prize is the MLA's oldest award. Davis-Secord's article was selected from all scholarship published in PMLA during 2025.

Davis-Secord's research examines early English texts about Saint Eugenia and Saint Euphrosyne (also known as Smaragdus), religious figures whose lives reveal how questions of gender identity and expression have deep roots in human history.

The selection committee praised Davis-Secord for "admirable clarity" in demonstrating "how advances in one academic subfield can have significant implications for another." They called the article "an exemplar of scholarly solidarity that transcends binary assumptions to rediscover how these texts portray the gender fluidity that the protagonists were forced to suppress."

The committee's citation further describes the work as "a welcome, timely, and important intervention not only in the field of Old English studies but also in the growing interdisciplinary study of trans history."

Davis-Secord received the award during MLA's annual convention in New Orleans, where he will be recognized alongside recipients of the association's other publication awards.

UNM PROFESSOR LEADS FIRST ANTHOLOGY OF DAKOTA, NAKOTA, AND LAKOTA LITERATURE

Sarah Hernandez (Sicangu Lakota), associate professor of Native American literature and director of the Institute for American Indian Research (IFAIR), has been awarded a $150,000 grant from the Henry Luce Foundation's Indigenous Knowledge Initiative.

The two-year project will culminate in the publication of *The Oceti Sakowin Reader: An Anthology of Dakota, Nakota, and Lakota Literature*, the first comprehensive collection of its kind. The Oceti Sakowin, also known as the Great Sioux Nation, encompasses the Dakota, Nakota, and Lakota peoples whose traditional territories span the northern Great Plains.

Hernandez will lead the project in partnership with the Oceti Sakowin Writers Society, which will serve as the project's fiscal sponsor. The organization is a Native-led nonprofit that supports Dakota, Nakota, and Lakota writers and strengthens intergenerational connection through storytelling.

"This anthology will help increase access to our vibrant literary tradition so that tribal students can see themselves and their communities positively reflected in their classrooms and textbooks," said Hernandez.

UNM FACULTY MEMBER JOINS $152 MILLION OPEN AI RESEARCH INITIATIVE

Political Science Assistant Professor Sarah Dreier has been named co-Principal Investigator on a major artificial intelligence research initiative representing one of the largest federal investments in open AI research infrastructure.

The National Science Foundation and NVIDIA awarded $152 million over five years to the Allen Institute for Artificial Intelligence (Ai2). Unlike many proprietary AI tools, which don't disclose how they're trained or how they use data, this initiative will develop open-source models and infrastructure available to researchers nationwide.

Dreier will co-lead the project's data curation, building a multimodal language model made from a large collection of unannotated data, including text and data from other modalities like images and code.

"My role builds on my own academic research that evaluates how well LLMs handle unique, idiosyncratic text generated by politicians and policymakers," Dreier said.

Dreier will also play a key role in workforce development, hosting educational sessions to help UNM researchers across disciplines use the new infrastructure in their own work.

"My hope is that access to this cutting-edge infrastructure, training, and computing power will help train and empower UNM faculty and students, and in turn, help fuel economic innovation in New Mexico," Dreier said.

SERVING NEW MEXICO

UNM RESEARCH CONFIRMS WORLD'S HIGHEST "FOREVER CHEMICALS" AT HOLLOMAN AIR FORCE BASE

A team from UNM's Museum of Southwestern Biology has confirmed that Holloman Lake, a wastewater lake in a publicly accessible area of Holloman Air Force Base in Otero County, contains the highest PFAS concentrations recorded anywhere in the world.

The research, published in Environmental Research, expands on initial findings from 2024. Every sample collected from the site, including water, soils, plants, and animal tissues, showed PFAS levels up to 10,000 times higher than EPA drinking water standards. A kangaroo rat liver contained 120,000 parts per billion of the contaminants. A killdeer chick found dead near its nest had the highest PFAS concentration ever recorded in a bird.

For context: in 2022, thousands of dairy cattle in Clovis were euthanized after their milk tested at less than six parts per billion.

"Holloman Lake itself is the known epicenter of the massive PFAS contamination we have been studying since 2021, but we do not yet know the boundaries of the affected area," said Research Professor Jean-Luc Cartron, lead author. "Contaminated animals may travel far from Holloman and contaminate other ecosystems or pose a risk to hunters."

The contamination traces back decades to the use of firefighting foams at military installations. Hunting was permitted at Holloman Lake until last year, when the team's initial findings prompted its closure. Researchers are now working with the New Mexico Department of Game and Fish to assess whether contaminated wildlife poses risks to hunters and their families across the region.

"Our planet is undergoing rapid change on multiple fronts, and we now live in an era of global contamination," said Distinguished and Regents' Professor Joseph A. Cook, curator of the Museum of Southwest Biology (MSB)'s Division of Mammals. "The pervasive PFAS contamination found throughout the Holloman Lake ecosystem points to the dire need for more intensive holistic monitoring of New Mexico's environments."

The research also demonstrates the long-term value of natural history collections. By testing rodent specimens collected at Holloman in 1994 and preserved in the MSB's cryo-collections facility, the team confirmed that contamination has persisted for at least three decades.

$7 MILLION GRANT TO TRANSFORM FOREST AND WATERSHED RESEARCH

A $7 million NSF grant will fund a four-year effort to improve forest and watershed management across New Mexico by uniting researchers, land managers, and local communities.

New Mexico's forested watersheds are critical sources of water, carbon storage, and cultural value, yet face growing threats from climate change, wildfires, and competing land uses. The communities most at risk are those that rely on surface water from the Rio Grande and Pecos River basins, especially communities that depend on this water for agriculture, drinking water, and cultural practices.

Limited data on how forest management affects long-term forest health and water dynamics has hindered effective decision-making. Titled "Forest Research for New Mexico Water and Carbon Management" (FOR-NM), the project will combine high-resolution remotely sensed data, an ecological observation network, and machine learning models to support state priorities for water conservation, and interstate water agreements.

"Our network will not only gather critical data on how management, disturbance, and climate alter watershed structure and function," said UNM Biology Professor Marcy Litvak, the project's Principal Investigator. "We will also combine this research with social science and rural economics to stimulate economic and workforce development and support local-led forest and watershed planning."

UNM's Accelerating Resilience Innovations in Drylands (ARID) Institute will lead the project in partnership with New Mexico State University, Western New Mexico University, the Asombro Institute for Science Education, UNM's Bosque Ecosystem Monitoring Program (BEMP), and New Mexico State Forestry.

PARTNERING FOR NAVAJO NATION INFRASTRUCTURE

The Navajo Nation and UNM's Earth Data Analysis Center (EDAC) have launched a partnership to build a web-based transportation portal, a collaboration that could serve as a national model for Indigenous and rural communities facing similar infrastructure challenges.

EDAC and the Navajo Division of Transportation (DOT) will work together on the portal, tailored to the unique needs of the largest federally recognized tribal nation in the United States. The project will support the Navajo Nation in addressing critical needs in transportation access, housing development, and infrastructure assessment.

Navajo Nation President Buu Nygren emphasized the importance of this collaboration in addressing the transportation challenges rural communities and Indigenous nations face.

"This is a great time for UNM... to partner with the Navajo Division of Transportation and really uplift and

help the Navajo Nation... to address transportation problems and solutions that are direly needed across the Navajo Nation," Nygren said. "One of the things I'm most proud about is that UNM is stepping up to the plate, UNM is here to help us, here to support now and into the future."

The project will use existing open source technologies, building on EDAC's experience building platforms like the New Mexico Crash Mapping Portal and the UNM's live shuttle tracking. Central to the partnership is a co-research, co-design, and co-development approach, with EDAC working alongside Navajo DOT staff throughout the process.

"This project will be carried out with full collaboration between the EDAC team and Navajo DOT, ensuring the final product serves the community's actual needs and priorities," said EDAC lead developer Hays Barrett.

The first phase establishes data infrastructure for the transportation portal. Later phases will add real-time visualization, predictive analytics, and expanded applications in housing and land management.

RETHINKING CULTURALLY APPROPRIATE MENTAL HEALTH CARE

Do culturally appropriate mental health interventions have to be culturally specific? UNM Sociology & Criminology Professor Jessica Goodkind says no, and her 25 years of research with refugee and immigrant communities demonstrates why.

While there has been a growing movement over the past several decades to make mental health interventions culturally specific, Goodkind's research shows this can be time and resource-intensive.

In a recent article published in the American Journal of Community Psychology, Goodkind describes the broad factors that make interventions effective across diverse populations, recognizing how racism and discrimination affect mental health and creating spaces for newcomers to share their perspectives and experiences.

"If we attend to broader factors related to shared experiences, we can do culturally appropriate mental health interventions that are not specific, which opens us up to reaching more people," Goodkind said.

Her framework shaped the Refugee and Immigrant Well-being Project (RIWP), a community-based mental health intervention she developed

for refugees resettled in the United States. In a recent study of 290 participants from Afghanistan, Iraq, Syria, and the Great Lakes region of Africa (Rwanda, Burundi, Republic of the Congo), multiple measures demonstrated the project's significant positive impact on newcomers' mental health outcomes.

Goodkind's work extends beyond research to create tangible support systems for New Mexico's refugee and immigrant communities, offering a model that other states could adapt.

MAPPING NEW MEXICO'S LOCAL NEWS LANDSCAPE

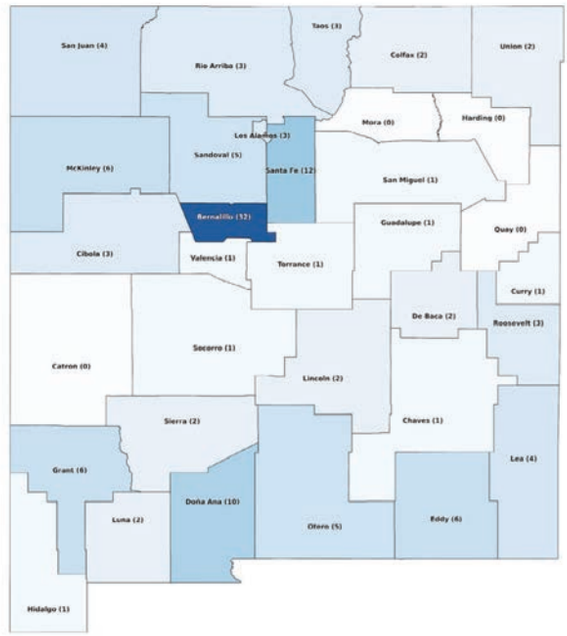


Fig. 2.1 New Mexico Local News Outlets By County

A national study in 2024 found only 53 total news outlets in New Mexico and determined a further five counties had no local news at all. In response, UNM researchers set out to get a more accurate picture.

An interdisciplinary team from the Department of Communication & Journalism has now catalogued more than 175 news outlets across the state and built an interactive map to help New Mexicans find sources of local information. The project, funded by UNM's Center for Regional Studies and the national Press Forward initiative, also surveyed more than 1,000 residents. Their finding: two-thirds of New Mexicans report not having access to trustworthy news in their communities, indicating large media deserts across the state, mostly in rural areas. Additionally, non-English speakers have few options for listening to news in their primary language.

"There are huge parts of this state where no one is covering the city council or county commission," said Gwyneth Doland, professor of practice in communication & journalism. "We saw with the Roswell floods and fires in Northern New Mexico, when things go wrong, people depend on local news organizations to tell them where and when to evacuate... we have lost so many of these outlets that we are at a significant risk of people not getting information in an emergency, or about their schools [and] local elections."

The map reveals that most of the state's news organizations are concentrated in Bernalillo, Santa Fe, and Doña Ana counties, leaving rural communities with little coverage of schools, local government, or emergencies.

The team's map and full report, available in English and Spanish, are designed to help funders, policymakers, and communities identify where investment is most needed.

See the map and full report at **nmnewsmap.org**

COMMUNITY ENGAGEMENT

MEDIEVAL FAIRE BRINGS SCHOLARSHIP TO THE COMMUNITY

More than 900 visitors filled Johnson Field this fall as the Institute for Medieval Studies (IMS) hosted its third annual Medieval Faire, transforming the heart of UNM campus into a medieval village.

The free, family-friendly event brought together over 30 organizations, including UNM academic departments, student groups, and Albuquerque businesses. Attendees experienced live sword-fighting, traditional music and dance, Shakespearean theater, and hands-on workshops in calligraphy, weaving, natural dyes, stained glass, and wax seals. Albuquerque Public Schools middle and high school students attended the Faire as a social studies field trip.

For IMS Director Michael Ryan, the faire reflects something deeper about why medieval studies matters.

“Graduate and undergraduate students who flock to our courses value the power of studying the humanities,” Ryan said. “They hone their communication skills, they deepen their critical thinking abilities, they learn new methodologies, they learn foreign languages that change their perspectives globally and locally, and they tend to have a whole lot of fun in the process.”

IMS’s mission is to make medieval scholarship accessible, engaging, and relevant to both academic and local communities. IMS program coordinator Jessie Bonafede commented, “The event successfully fostered connections between academia and the public in a vibrant, immersive setting.”

IN MEMORIAM

The College of Arts & Sciences lost five members of our community this past year. Their contributions to scholarship, teaching, and service shaped generations of UNM students and advanced knowledge in their fields.

We honor their legacies.

Fred Harris, professor emeritus of political science, served two terms as a U.S. Senator from Oklahoma before joining UNM in the late 1970s. A champion of civil rights and Native American sovereignty, he helped restore sacred Blue Lake lands to Taos Pueblo. In 2006, he established the Fred Harris Congressional Internship, which continues to send UNM students to Washington, D.C. to work with New Mexico's congressional delegation.

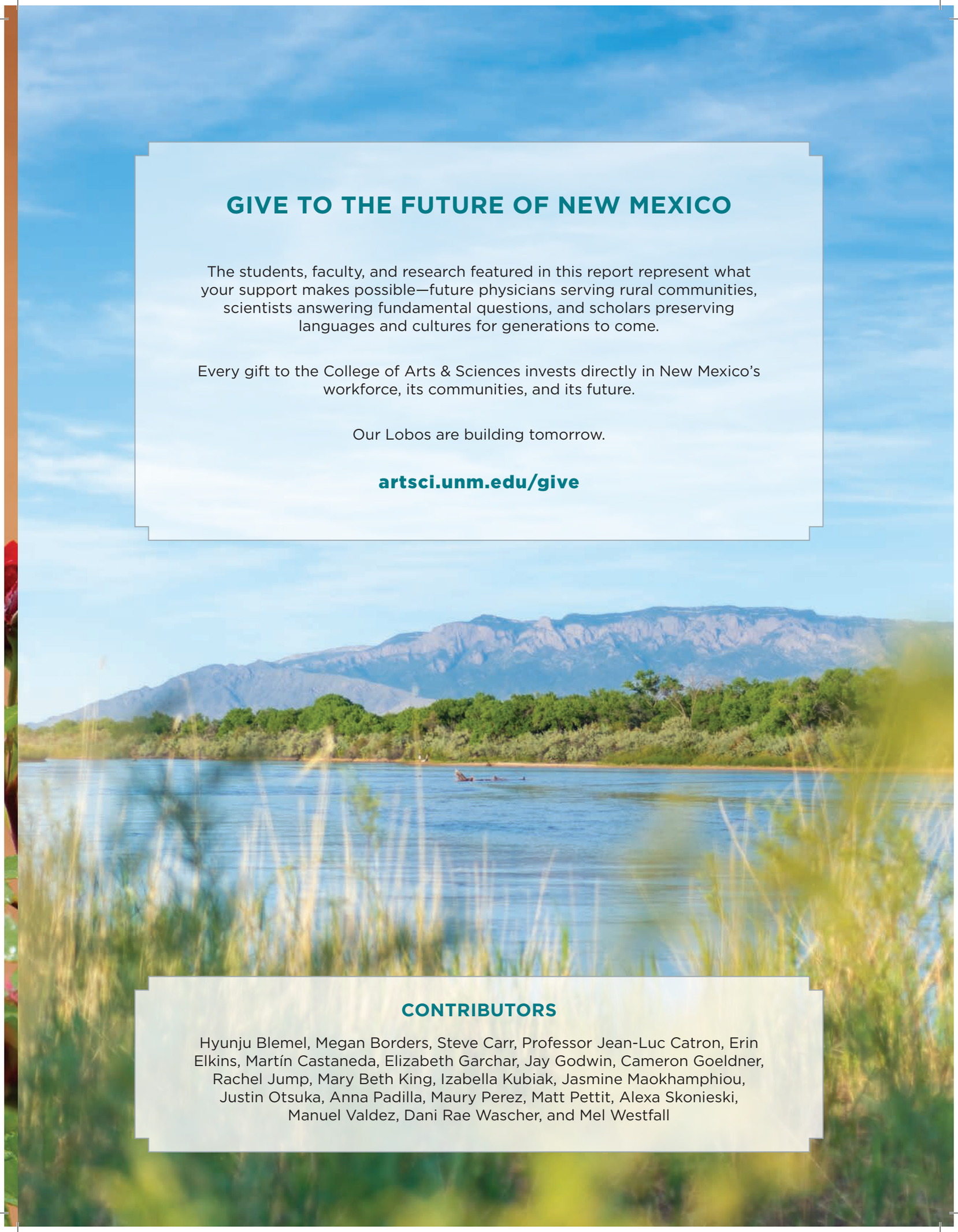
Mala Htun, distinguished professor of political science, was one of the world's leading scholars of representation and gender according to Professor Jessica Feezell. Elected to the American Academy of Arts & Sciences in 2024, she authored three influential books and served as vice president of the American Political Science Association. She was 55.

Ian Maddieson, research professor of linguistics, helped define the fields of phonetics and phonological typology through his foundational texts, including *Patterns of Sounds* and *The Sounds of the World's Languages*. A Fellow of the American Academy for the Advancement of Science, he served as vice president of the International Phonetic Association and spent 19 years at UNM.

Horton Newsom, research professor of earth & planetary sciences, spent 40 years at UNM's Institute of Meteoritics studying Mars, impact craters, and experimental geochemistry. A co-investigator on the Mars Curiosity rover's ChemCam instrument, he was also deeply committed to K–12 science education and outreach to Native American communities. In 2025, a Martian landmark was named "Horton Newsom Point" in his honor.

Boye Mitchell (Mickey) Odom, principal lecturer emeritus of physics & astronomy, led introductory labs in Regener Hall and was a valued lecturer with the department for many years. Professor and Chair Richard Rand shared that Odom "went about his work with kindness, consideration, and humility" and that "he will be greatly missed."

Memorial funds have been established to honor the legacies of Fred Harris, Mala Htun, and Horton Newsom. To contribute, visit unmfund.org.



GIVE TO THE FUTURE OF NEW MEXICO

The students, faculty, and research featured in this report represent what your support makes possible—future physicians serving rural communities, scientists answering fundamental questions, and scholars preserving languages and cultures for generations to come.

Every gift to the College of Arts & Sciences invests directly in New Mexico's workforce, its communities, and its future.

Our Lobos are building tomorrow.

artsci.unm.edu/give

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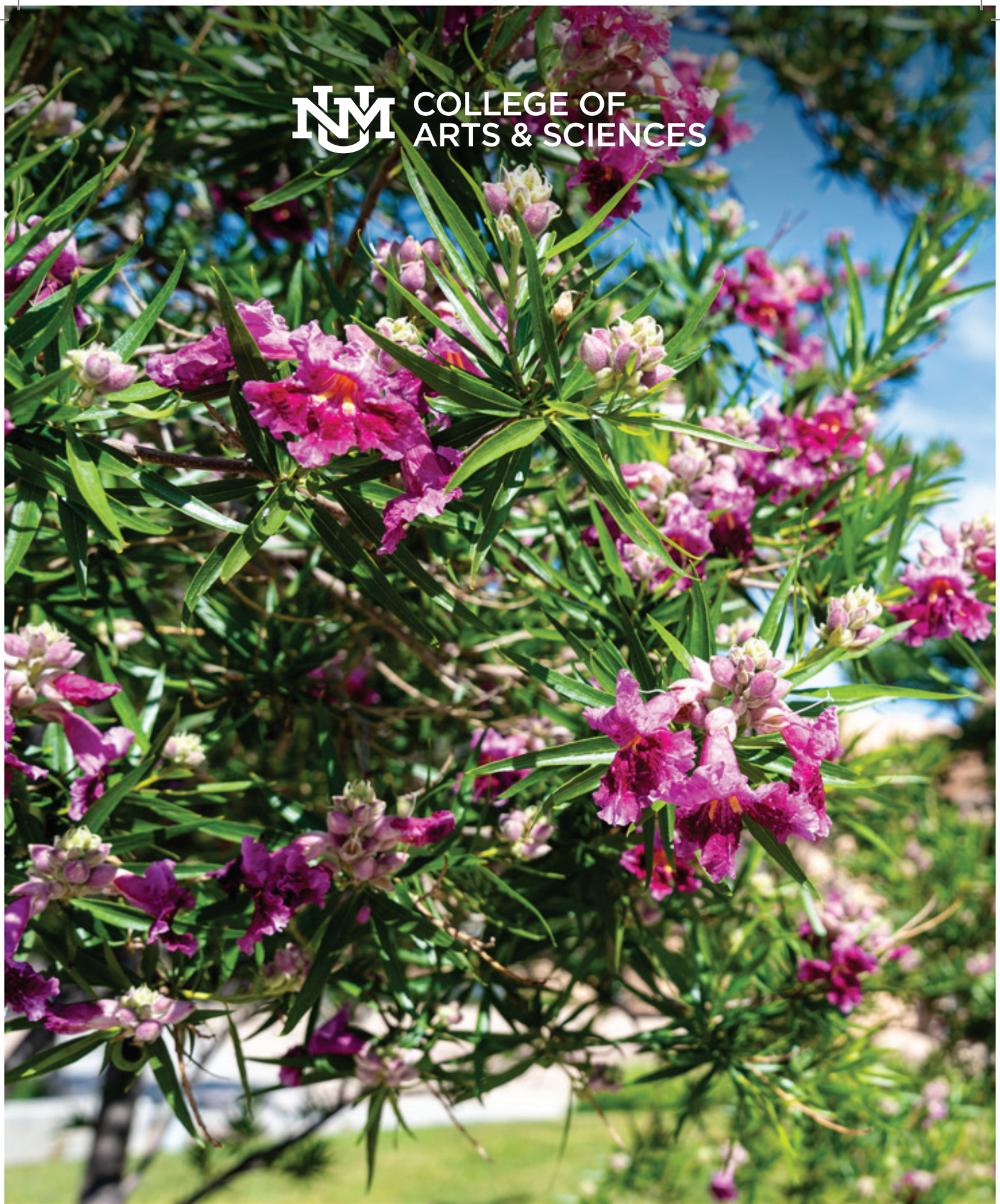
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