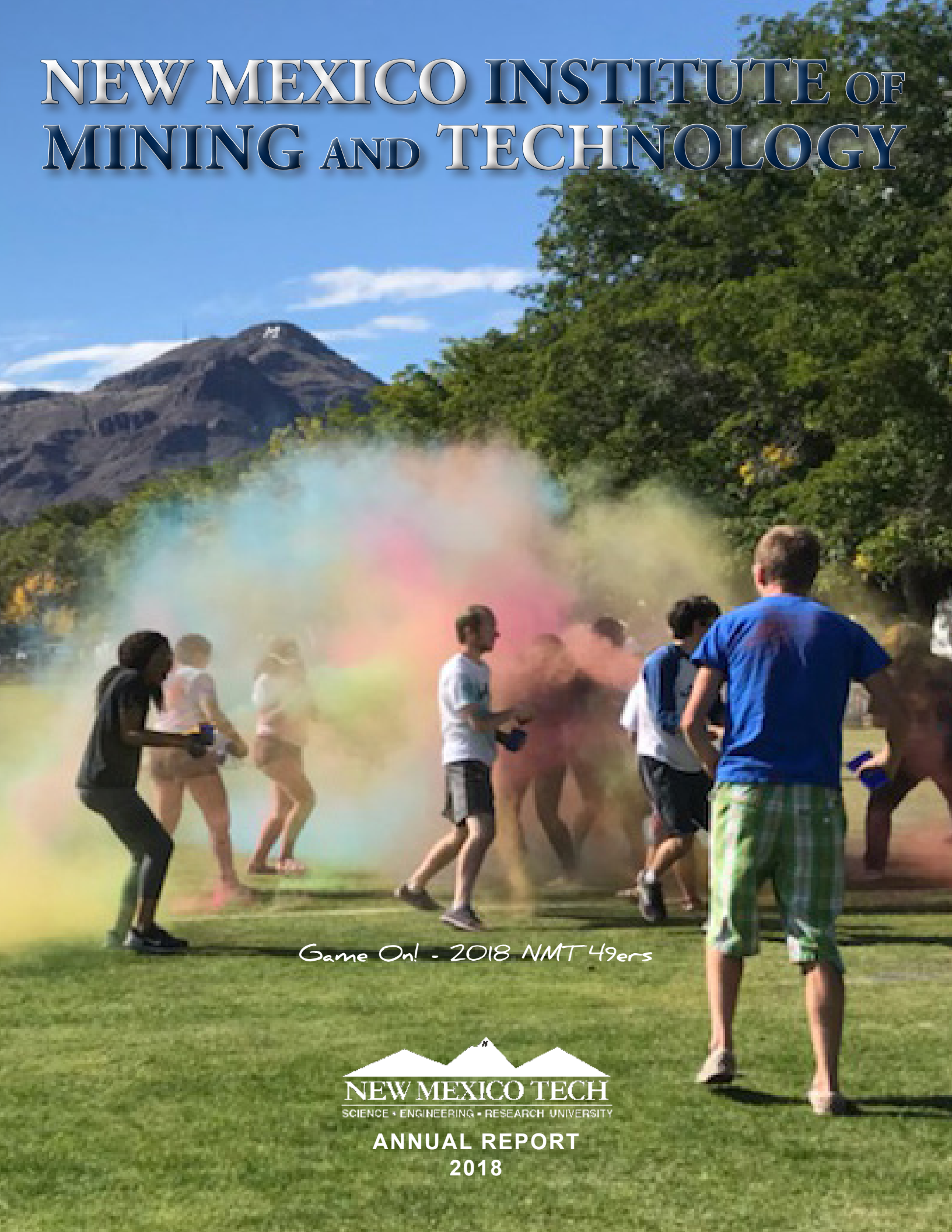


NEW MEXICO INSTITUTE OF MINING AND TECHNOLOGY



Game On! - 2018 NMT 49ers



**ANNUAL REPORT
2018**

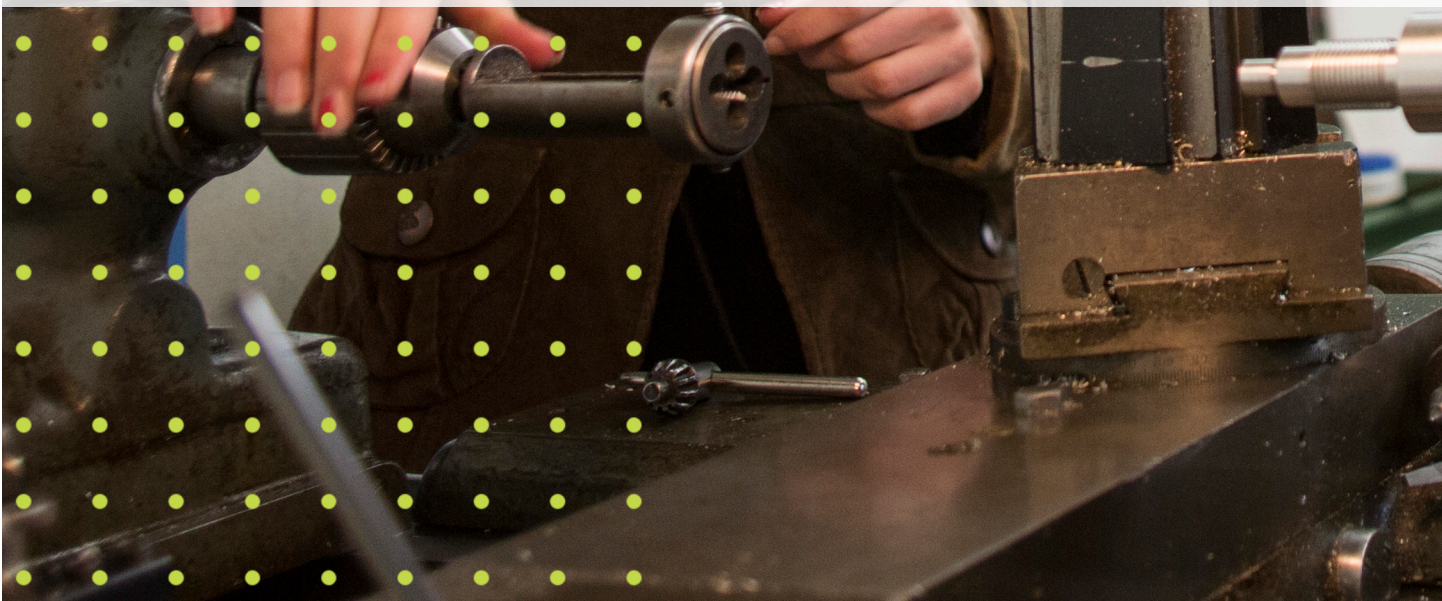


MISSION
STATEMENT

Serve New Mexico and beyond through exceptional education, research, and service, focused in science, technology, engineering, and mathematics.

Serve the public through applied research, professional development, and teacher education, benefiting the people of New Mexico.

Serve New Mexico through innovation to commercialization benefiting the economy of the state and creating opportunities for success.



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New Mexico Tech Research Serving New Mexico

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New Mexico Tech's Global Academic Footprint

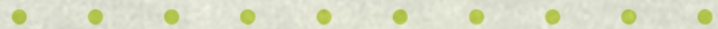
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Student and Faculty Accomplishments



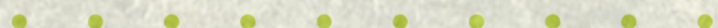
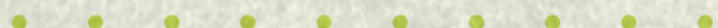
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At a Glance/By the Numbers



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Organizational Chart



Dear Friends,

Starting in 2017, New Mexico Tech took bold steps to set a vision for the next decade whereby our university will be recognized worldwide as a premier research, teaching and doctoral-granting institution. We will excel as a welcoming, vibrant, rural STE²M (science, technology, engineering, entrepreneurship, and mathematics) university composed of an exceptional and diverse community of students, scholars and staff. In order to achieve this vision, a series of working groups were established around key decadal goals, and collectively we refer to this idea as "Blueprint 2027." By 2027, NMT will

- establish a planned growth and marketing strategy that significantly enriches our national and international recognition both in undergraduate education and as a doctoral-granting institution;
- create diversified funding streams to sustain academic and research programs, student success, and planned growth;
- create an innovative, entrepreneurial campus with participation from students, faculty and staff;
- build a campus culture of mutual respect, trust, integrity, dignity and professionalism with student, faculty and staff; and
- establish community and state-wide partnerships to ensure New Mexico's economic growth and development through education, research, entrepreneurship, and cultural opportunities.

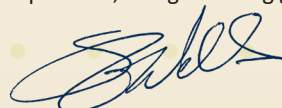
As President of the New Mexico Institute of Mining and Technology, it's my honor to highlight in our 2018 Annual Report the exceptional statewide, national and international educational and research efforts of our university that are moving us forward to achieve our decadal vision and goals. Throughout these pages you will read about New Mexico Tech's faculty, scientists, engineers, students, and staff from all walks of life who have made profound impacts through their academic excellence, scholarly endeavors and persistent dedication. Collectively, our faculty, staff, students and alumni form an intellectual nexus that makes Tech recognized as a preeminent university - a place for inquiry, inspiration, and innovation.

New Mexico Tech is recognized nationally for its educational excellence and for the exceptional value of a degree from our university. Our students are rated among the nation's smartest. Our graduates among the hardest working and most sought-after. New Mexico Tech's outstanding educational reputation is enhanced by its critical research divisions and the experiential opportunities they afford. Tech's partnerships with New Mexico's national laboratories include vital research that serves not only New Mexico but also our nation as a whole and the international community. Our recent agreement with Los Alamos National Laboratory, the first of its kind for any New Mexico institution of higher education, is not only groundbreaking for the depth of research Tech students and faculty now have access to, but also for lasting impacts on New Mexico's economy. Our partnership with the Bernalillo County District Attorney's Office to bring next-level data analysis to fight crime throughout the state is one of a number of examples of New Mexico Tech's commitment to serve the Land of Enchantment. New Mexico Tech continues to build innovative kinds of applied research programs that are critical to both serve New Mexico and create an advanced STEM workforce in our state.

Our plans for the next decade include growing academic partnerships worldwide. New Mexico Tech has substantially grown its international footprint in the past year, signing a number of agreements with similarly-focused universities around the world to provide our students and faculty opportunities to learn and perform research in nations from Latin America to Asia.

As we look to 2027, we will follow a trajectory that goes beyond STEM, offering our students insights, inspiration, and opportunities into the entrepreneurial world, or our new brand: STE²M – science, technology, engineering, entrepreneurialism and technology. Our newly created entrepreneurialism club, our new Office of Innovation Commercialization, and our annual Inventor and Entrepreneur Workshop provide our students, faculty and staff with effective ways of realizing ideas to better humanity and monetizing the intellectual property developed at New Mexico Tech.

New Mexico Tech provides our students, New Mexico's and the world's future engineers and scientists, the skill sets to leverage knowledge-based capital. We believe that within a STE²M university lies tremendous opportunity for raising the value of our students' degrees, enhancing our university's reputation, and generating growth for our state's economy.



Dr. Stephen G. Wells
President
New Mexico Tech



**INSTITUTIONAL
RANKINGS**

WORLD CLASS EDUCATION

New Mexico Tech again ranks among the nation's elite universities and No. 1 in New Mexico in academic value and quality of education in a number of science and engineering disciplines in 2019.



***Forbes** ranked Tech #76 nationally among all public and private colleges when it comes to the best education you can get for your tuition dollar.*



***U.S. News and World Report** ranked New Mexico Tech No. 3 among the Top Public Schools in the West, and No. 23 among all universities.*



***College Consensus** ranked New Mexico Tech in the Top 100 Best Public Colleges and Universities in the United States for 2018.*





*New Mexico Tech has the best academics in New Mexico in 2019 according to **Niche's** Top 100 Public Universities in America Rankings and is a best value nationally.*



College Factual's Annual National College Rankings place New Mexico Tech first in New Mexico's public four-year colleges and 6th nationally.

college factual



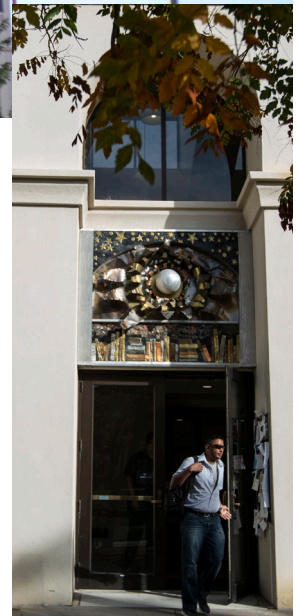
AffordableColleges.com

**BEST VALUE
ONLINE**

Master's in Engineering Management

— 2018 —

***AffordableColleges.com** ranked New Mexico Tech No. 10 among the 25 Most Affordable Online Master of Engineering Management Degrees for affordable tuition rates and strong return on investment.*

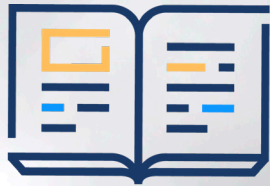


INSTITUTIONAL RANKINGS

WORLD CLASS EDUCATION



New Mexico Institute of Mining and Technology is ranked 21 in **Kiplinger's** list of Best Values in Public Colleges and is ranked 88 among all colleges in the United States.



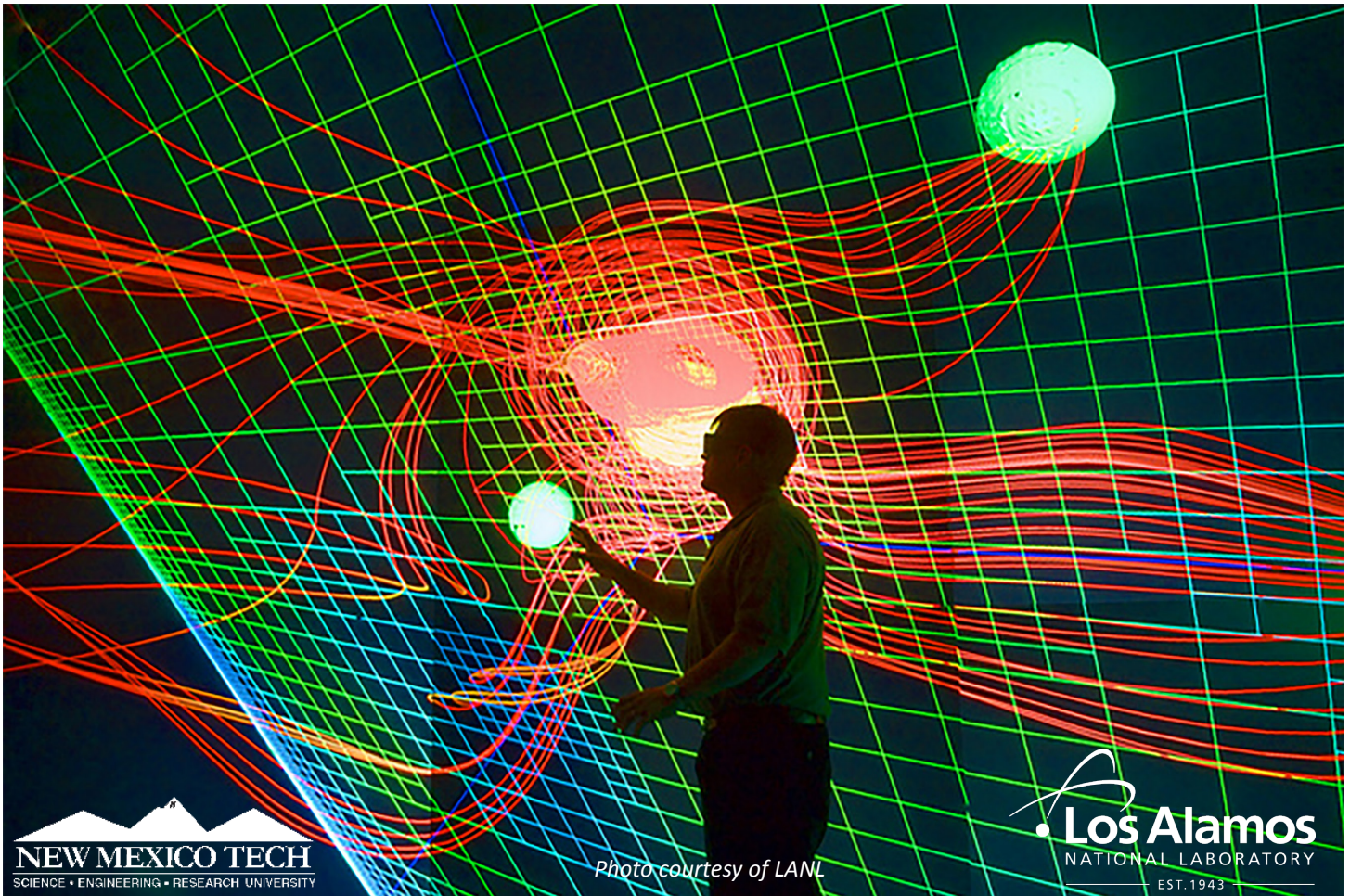
— COLLEGE SALARY REPORT —

In 2018, **PayScale.com** ranked Tech fifth among all public universities on return on investment by annual percentage.



New Mexico Tech ranks #1 nationally among the Top 50 U.S. public institutions of science and engineering in the percentage of students who go on to complete their doctorate.





New Mexico Tech (NMT) and Los Alamos National Labs (LANL) hosted a ceremony to sign a landmark institutional agreement that provides staff from both institutions unprecedented

access to research and allows for academic appointments for LANL staff so they can teach classes at NMT. The ceremony was Thursday, October 18, at the New Mexico Bureau of Geology and Mineral Resources.

with LANL staff members and their research. LANL staff members will now have appointments in NMT academic departments, allowing them to teach and work with NMT students and faculty, and grants them access to NMT research.

HIGHLIGHTS

- LANL scientists approved to teach classes at New Mexico Tech
- LANL scientists can conduct research with NMT students and faculty
- NMT professors and students granted unprecedented access to research projects in Los Alamos
- NMT students will have access to laboratories in Los Alamos
- LANL scientists serve as mentors to NMT students
- Provides a formal framework to foster additional innovation and entrepreneurship at both sites

University president Dr. Stephen Wells said the new agreement will benefit NMT students and scientists from both organizations.

This five-year agreement provides an official mechanism to build joint appointments between NMT faculty and LANL staff, allowing each to function in the same capacity at the other's facilities. NMT faculty will now be provided the status and freedom to work



NMT President Wells and former LANL Director Dr. Terry C. Wallace



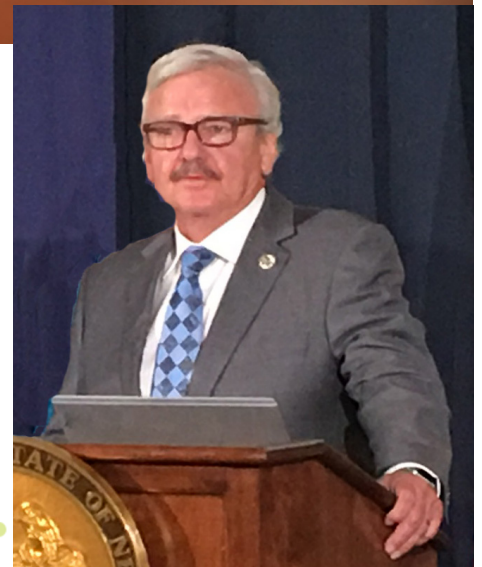
Bernalillo County DA Raúl Torrez

New Mexico Tech announced a partnership with the Bernalillo County District Attorney's Office last August to support its new Crime Strategies Unit in Albuquerque.

The DA's office has hired four special agents who will collaborate with computer science experts at NMT's Institute for Complex Additive Systems Analysis

(ICASA), allowing the office to leverage big data to find hidden patterns in criminal behavior. The establishment of the master service agreement with NMT will support the CSU with next-level data interpretation, which helps the DA's office take aim at New Mexico's criminal networks.

D.A. Raúl Torrez said the new Crime Strategies Unit in



NMT President Dr. Stephen Wells

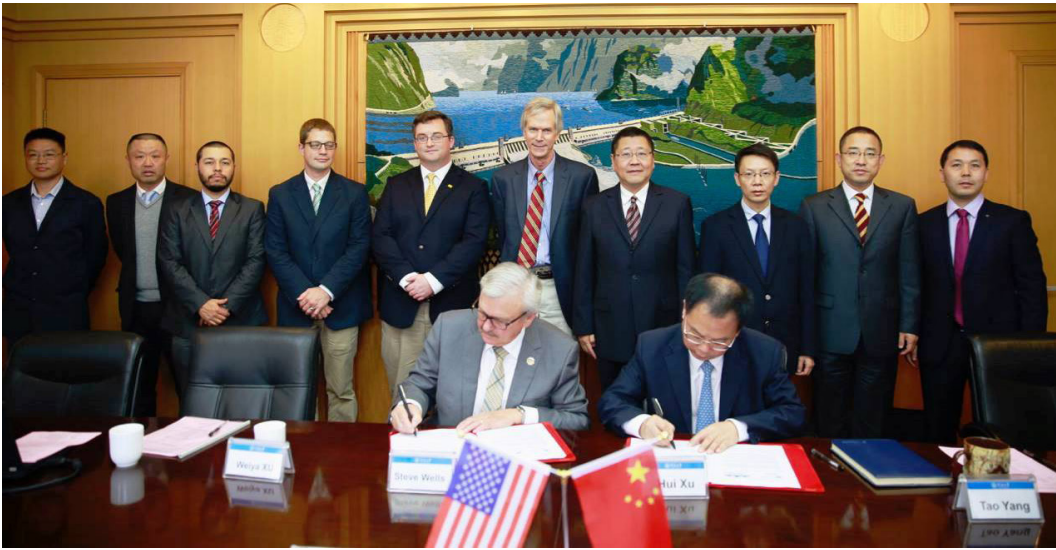
Albuquerque is unique in that his office has partnered with a premier research institution that has renowned expertise in data analysis.

ICASA, which was formed in the late 1990s, has been working on data analysis and information assurance with the Department of Defense and other intelligence agencies for more than 17 years.



NEW MEXICO TECH GROWS INTERNATIONAL ACADEMIC FOOTPRINT IN 2018

INTERNATIONAL INITIATIVES



Dr. Wells signing an MOU with Hohai University in China

Already having signed agreements for research and educational collaboration with over 23 universities worldwide, New Mexico Tech's plans for the next decade include growing academic partnerships internationally. Tech has substantially grown its international footprint in the past year, signing a number of agreements with similarly-focused universities around the world to provide our students and faculty opportunities to learn and perform research in nations in Latin America, Europe, Africa, and Asia.



National University in Colombia

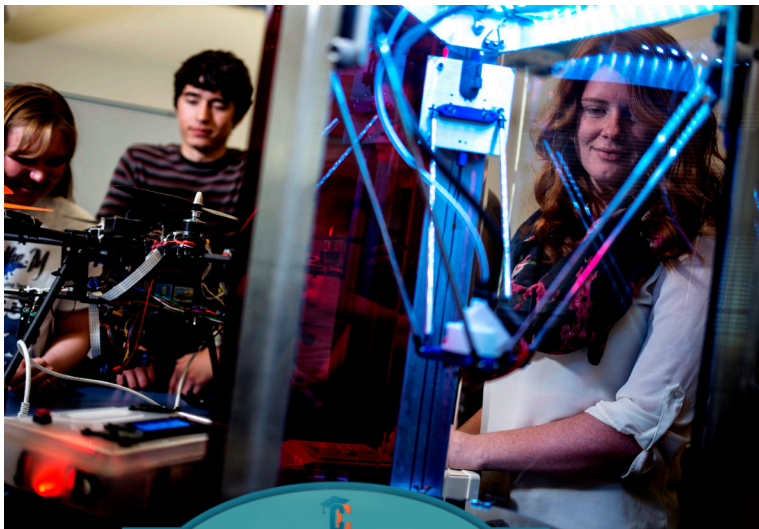


University of Tromso in Norway

- National University of San Augustine—Peru
- Hohai University—China
- Catholic University of Chile—Chile
- Yangtze University—China
- Catholic University of Peru—Peru
- Institute of Technology, Bandung—Indonesia
- Northeast Petroleum University—China
- National Chengchi University—Taiwan
- Jawaharlal Nehru Technological University, Hyderabad—India
- National University of Colombia—Colombia
- University of Stavanger—Norway
- University of Tromso—Norway
- American University of Cairo—Egypt
- School of Mines Ale's—France
- University of Guadalajara—Mexico
- Guangdong University of Petrochemical Technology—China
- Kwame Nkrumah University of Science and Technology—Ghana
- Ministry of Communications and Information Society of Romania—Romania
- National Institute of Materials Physics—Romania
- National Research and Development Institute for Chemistry and Petro Chemistry—Romania
- University of Valparaiso—Chile
- University of Budapest—Hungry
- University of Science and Technology Zewail City—Egypt

Inc.

New Mexico Tech was named to the 20 Public Colleges with the Smartest Students in an **Inc. Magazine** article released on November 1. Tech's students are ranked 18th among all public colleges nationally.



BUSINESS INSIDER

NM Tech is among the top 50 college in the nation, and number one in New Mexico, at graduating work-ready students. Nearly 90% of Tech students are employed 10 years after graduation, according to **Business Insider**.



College Choice gave NM Tech's Petroleum Engineering department a perfect 100% in its 2018 department rankings, ahead of Stanford, Penn State, and the University of Texas.



STUDENT AND FACULTY ACCOMPLISHMENTS

UNIVERSITY ACCOLADES



The NMT-led *Organization of Tropical East Pacific Convection* project received \$2.9M in 2018 (\$5.4M total funding) in **NSF** funding for its research work in the Eastern Pacific Ocean establishing a scientific basis for better treatments of convection in global weather and climate models.



Dr. Zeljka Fuchs and Dr. Dave Raymond preparing for Climate Model flight



NMT Professor Emeritus Dr. Kent Condie received the **Penrose Medal**, the Geologic Society of America's highest honor.



NEW MEXICO TECH PRESIDENT'S MEDAL 2018

Dr. Corale Brierley received the second-ever *President's Medal* from New Mexico Tech President Dr. Stephen Wells in August at the *Founder's Club Banquet*.

Brierley earned her bachelor's in biology at New Mexico Tech in 1968 and her master's in chemistry in 1971. She had a remarkable career in biotechnology in mine production, the treatment of radioactive waste, and business development.

In 1991, Dr. Brierley founded her company, Brierley Consultancy, and rose to the top of her industry. She is currently serving her second four-year term as vice president of the *National Academy of Engineering*.

UNIVERSITY
ACCOLADES

STUDENT AND FACULTY ACCOMPLISHMENTS



Matt Zimmerer, NMT alum and field geologist at the Bureau of Geology, was a finalist in the National Science Foundations' "Vizzies Challenge," the NSF's annual competition to select the top science and engineering images and graphics.



The NMT student chapter of the **Society of Petroleum Engineers** won the national SPE Outstanding Student Chapter Award for the second year in a row.



The Mustang 6B rocket launched from Spaceport America by NMT mechanical engineering students.

The NMT Mechanical Engineering Department's Bachelor of Science degree has been ranked #26 nationally by **College Choice** and specifically mentioned the strength of NMT's Design Clinic and the hands-on laboratories. They also noted that **Newsweek** has called New Mexico Tech "one of the best small science and engineering schools" in the country and has made the "Best Colleges" list by **The Princeton Review** and praised for its affordability by **The Huffington Post** and **Kiplinger's**.



STE²M INITIATIVES 2019

INNOVATION & ENTREPRENEURIALISM

- Over 70 students have been employed as market researchers, patent searchers, and other capacities to support our campus technology commercialization efforts.
- Around two dozen faculty and staff members across campus are working with the NMT Office of Innovation Commercialization to develop intellectual property with commercialization potential. These efforts are supported by student research, which is privately funded by NMT donors.
- NMT has formed a Student Entrepreneurship Club, which has its headquarters in the New Mexico Gas Company Student Entrepreneurship Center.
- NMT will host the 4th-Annual Inventors and Entrepreneurs Workshop on April 12-13, 2019. This successful event attracts participants from around the country to discuss business startups for two days on the Tech campus.
- Nusenda Credit Union and NMT have partnered on a community business-development space that will be used for incubation of student and faculty startup companies, as well as startups from the Socorro community.
- The Pat Miller Student Investment Club, through their hard work researching companies, has returned just under 2% more than the S&P 500 index annually over the last 10 years. Club members are now receiving scholarships from proceeds of the Pat Miller fund. These distributions are made at the request of NMT alumnus and namesake donor Pat Miller.



NEW MEXICO TECH AT A GLANCE



STUDENT DATA

- Degree-seeking Undergraduates: 1,269
- Degree-seeking Graduates: 353
- Total Enrollment: 1,895
- New Mexico Tech saw an increase of 25.8% for enrollment of freshmen in the fall of 2018 from 2017, increasing from 240 in 2017 to 302 this year.
- 52.3% White, 31.9% Hispanic, 4.4% Native American (undergraduate)
- 74% from New Mexico
- 64% majoring in Engineering
- Avg. GPA 3.3
- 74% GPAs of 3.0 and greater
- 55% employed in New Mexico

Statement of Net Position

As of June 30, 2018

	Institute	Component Unit Foundation
ASSETS		
CURRENT ASSETS		
Cash and cash equivalents	\$ 43,624,020	\$1,790,792
Short-term investments	18,309,319	19,470,488
Contract and grant billed and unbilled receivables	12,526,975	
Student accounts receivable, net of allowance for doubtful accounts	338,472	
Due from state agencies and other accounts receivables	1,934,419	
Inventories	1,273,801	
Other assets	<u>2,136,569</u>	<u>649,961</u>
Total current assets	80,143,575	21,911,241
NONCURRENT ASSETS		
Restricted cash and cash equivalents	49,542	
Endowment investments	47,712,017	
Other long-term investments	17,708,282	3,915,847
Capital assets, net of accumulated depreciation	157,942,213	1,508,465
Other non-current assets	1,564,875	741,920
<u>Total noncurrent assets</u>	<u>224,976,929</u>	<u>6,166,232</u>
Total assets	305,120,504	28,077,473
DEFERRED OUTFLOWS OF RESOURCES		
Related to pensions	47,377,335	
<u>Related to other post employment benefits</u>	<u>4,808,364</u>	
Total deferred outflows of resources	\$52,185,699	
LIABILITIES		
CURRENT LIABILITIES		
Accounts payable and accrued liabilities	\$6,136,581	\$5,502
Accrued compensated absences, current portion	4,329,090	
Due to primary government		
1,386,734		
Deposits	164,285	
<u>Unearned revenue</u>	<u>917,557</u>	
Total current liabilities	11,547,513	1,392,236
NONCURRENT LIABILITIES		
Accrued compensated absences, net of current portion	3,456,968	
Bonds payable	10,543,337	
Net pension liability	142,834,689	
Net OPEB liability	27,309,376	
Other noncurrent liabilities	5,434,223	17,006
<u>Total noncurrent liabilities</u>	<u>189,578,593</u>	<u>17,006</u>
Total liabilities	201,126,106	1,409,242

NEW MEXICO TECH BY THE NUMBERS

INSTITUTION FINANCIAL DATA

Statement of Net Position (Continued) As of June 30, 2018

	Institute	Component Unit Foundation
DEFERRED INFLOWS OF RESOURCES		
Related to pensions	3,375,206	
Related to other post employment benefits	3,006,012	
Total deferred inflows of resources	6,381,218	
ASSETS		
NET POSITION		
NET INVESTMENT IN CAPITAL ASSETS	147,702,155	1,508,465
RESTRICTED FOR		
Nonexpendable		
Endowments and all other nonexpendable	54,295,878	3,915,847
Inventory	1,273,801	
Expendable		
Scholarships, research, instruction and other	8,905,489	2,769,814
Other post-employment benefits	(27,309,376)	
Employee benefit trust	4,304,655	
Loans	1,783,411	
UNRESTRICTED NET (DEFICIT) POSITION	(41,157,134)	18,474,105
Total net position	\$ 149,798,879	26,668,231

Statement of Revenues, Expenses, and Changes in Net Position For the Year Ended June 30, 2018

	Institute	Component Unit Foundation
OPERATING REVENUES		
Tuition and fees, net of discounts and allowances of \$	3,329,846	10,617,656
Federal grants and contracts	41,687,763	
State and local grants and contracts	1,968,566	
Private grants and contracts	10,582,176	
Other grants and contracts	2,749,787	
Sales and services of auxiliary enterprises, net of scholarship allowances of \$3,329,846	8,800,663	936,096
Auxiliary enterprises, net of discounts and allowances of \$1,092,483	4,049,689	756,126
Other expenditures	7,177,231	745,045
Independent operations	3,843,412	
Plant funds	2,847,346	
Public service	530,010	
Pension expense	20,441,150	
Other post-employment benefits expense	6,171,369	
Benefit trust claims expense		6,299,895
Benefit trust premiums	1,200,339	
Benefit trust general and administrative	369,788	
Total operating expenses	159,762,364	2,506,724
Operating loss	(71,278,941)	(576,020)

**Statement of Revenues, Expenses, and Changes in Net Position
For the Year Ended June 30, 2018**

	Institute	Component Unit Foundation
NONOPERATING REVENUES		
State appropriations	\$ 35,800,310	
Gifts	2,728,817	
Interest and investment income, net	715,294	2,105,413
Net nonoperating revenues	39,244,421	2,105,413
(Loss) gain before other revenues and expenses	(32,034,520)	1,529,393
OTHER REVENUES AND EXPENSES		
Other revenues	8,267,509	89
Additions to permanent endowments	4,480,208	
State land grant permanent fund income	1,803,194	
Capital gifts and grants		
Capital project appropriations from state issued bonds and other	2,229,393	
Net other revenues	16,963,138	89
Change in net position	(15,071,382)	1,529,482
NET POSITION, beginning of year	176,992,292	25,138,749
<u>ADOPTION OF NEW ACCOUNTING PRONOUNCEMENT (note 2(A))</u>	<u>(12,122,031)</u>	
Net position, end of year	\$149,798,879	\$26,668,231

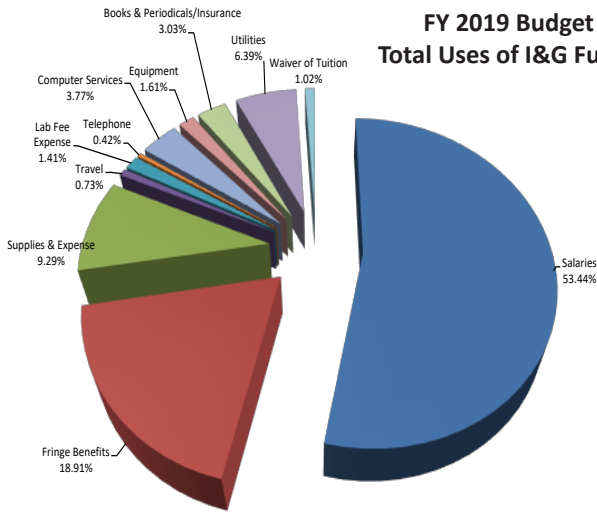


NEW MEXICO TECH BY THE NUMBERS

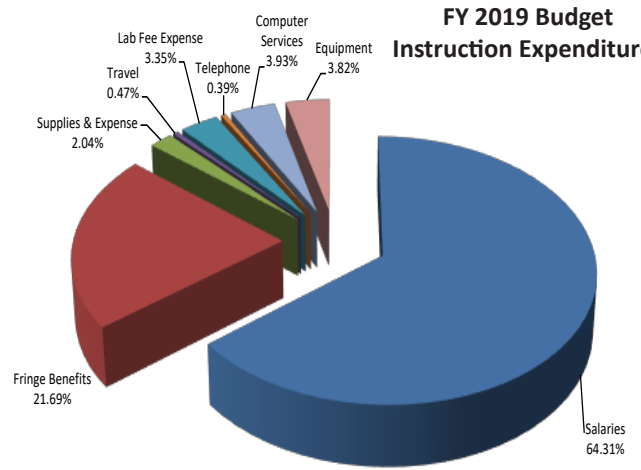
INSTITUTION FINANCIAL DATA

FY 2019 BUDGET INFORMATION

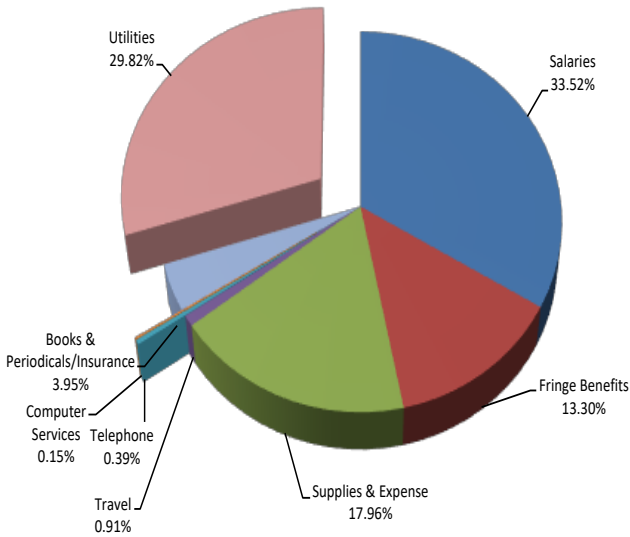
**FY 2019 Budget
Total Uses of I&G Funds**



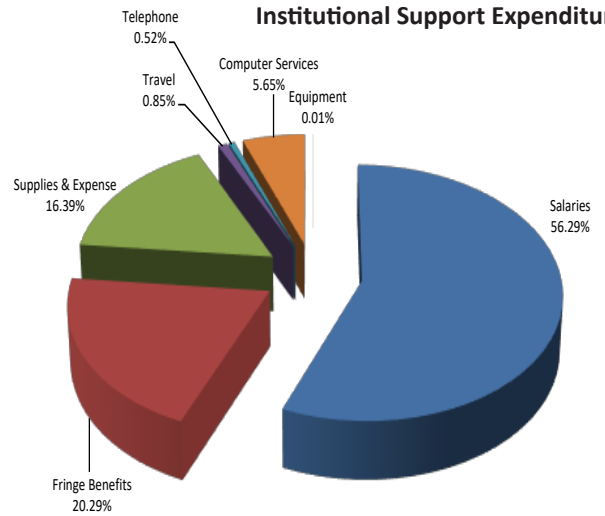
**FY 2019 Budget
Instruction Expenditures**



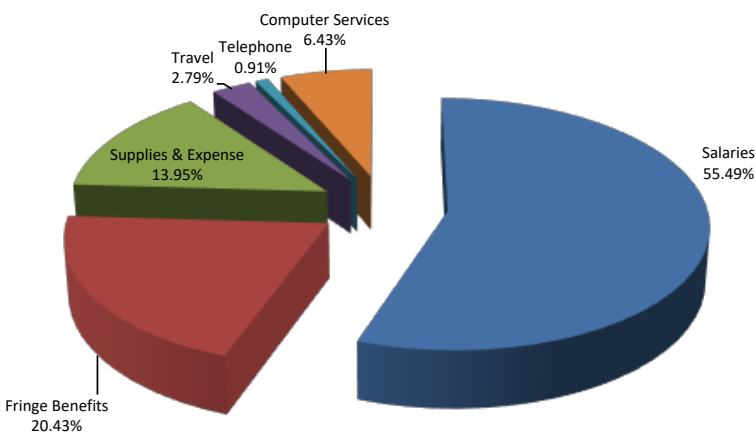
**FY 2019 Budget
Facilities Management Expenditures**



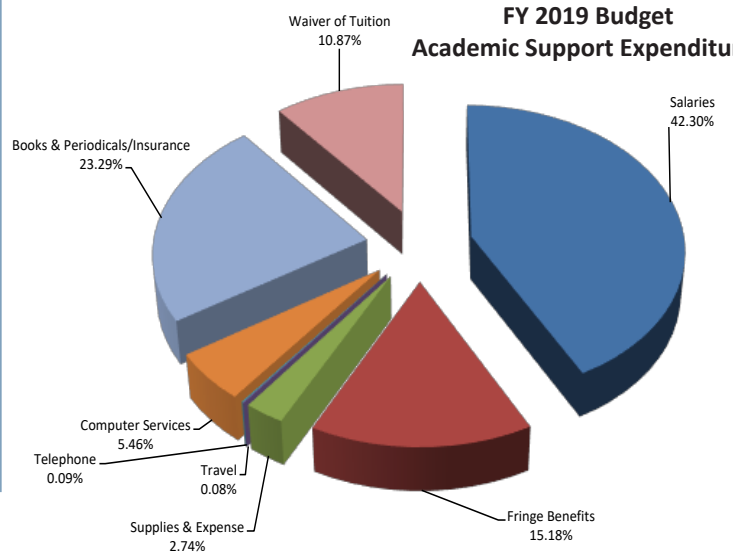
**FY 2019 Budget
Institutional Support Expenditures**



**FY 2019 Budget
Student Services Expenditures**



**FY 2019 Budget
Academic Support Expenditures**



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NEW MEXICO DEPARTMENT OF HIGHER EDUCATION

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NEW MEXICO TECH
SCIENCE • ENGINEERING • RESEARCH UNIVERSITY

Advancing science, technology,
engineering, and mathematics to
meet the challenges of
tomorrow through applied
innovation, transdisciplinary
education, and effective
collaborations.