













ABOUT THIS REPORT

The Arizona Board of Regents Fiscal Year 2022 Annual Report, filed in accordance with A.R.S. §15-1629, provides an update on the state of progress at Arizona's public university enterprise. Data reflected throughout the report represents the most current available.

ABOUT THE ARIZONA BOARD OF REGENTS

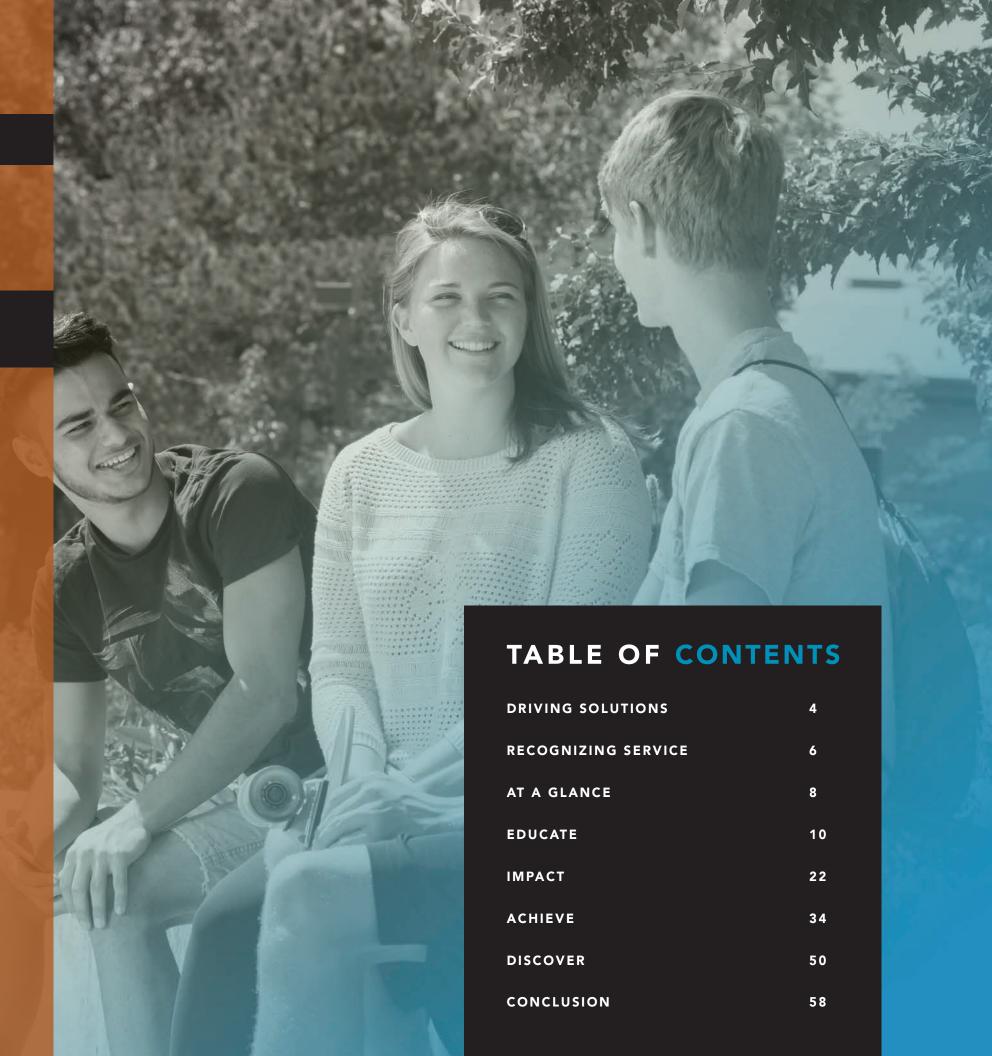
The Arizona Board of Regents is committed to ensuring access for qualified residents of Arizona to undergraduate and graduate institutions; promoting the discovery, application, and dissemination of new knowledge; extending the benefits of university activities to Arizona's citizens outside the university; and maximizing the benefits derived from the state's investment in education.

MEMBERS

Lyndel Manson, Chair
Fred DuVal, Chair Elect
Larry E. Penley, Treasurer
Cecilia Mata, Secretary
Gregg Brewster
Doug Goodyear
Robert J. Herbold
Jessica Pacheco
Rachel Kanyur, Student Regent
Katelyn Rees, Student Regent
Gov. Doug Ducey, Ex-Officio
Superintendent Kathy Hoffman, Ex-Officio

ABOR EXECUTIVE DIRECTOR

John Arnold



ARIZONA'S PUBLIC UNIVERSITIES DRIVING SOLUTIONS

Arizona State University, Northern Arizona University and the University of Arizona are driving solutions for a brighter future, creating greater opportunity for students to better themselves; researchers to unlock discoveries that improve our world; and our state to grow and prosper as a result of these and thousands of other interactions that happen daily on our campuses.

Consider the first-generation student from a low-income Arizona family. A public university education has the power to change that student's life. And, thanks to the Arizona Promise Program, this student may qualify to attend college with all of their tuition and fees paid.

Or, consider some of the most troublesome challenges facing our state: lack of access to clean air and water; agerelated illnesses such as Alzheimer's and Parkinson's; threats to our cybersecurity; health-care disparities in underserved communities; even blowing dust that creates hazardous roadway conditions and spreads Valley Fever.

The shared challenges we face as a state have never been greater, but so, too, is our mutual capacity to tackle them thanks to university research funded via Regents' Grants and the state's Technology and Research Initiative Fund (TRIF). All Arizonans benefit from this vital work being done by ASU, NAU and UArizona. Arizona's public universities were founded in the spirit of creating a brighter future - with determination, resolve and hard work, anything is possible. We hope you enjoy this annual report and an overview of what our board and universities have achieved in the past year. As always, the Arizona Board of Regents remains committed to the great state of Arizona and the university enterprise as a driver of discovery and prosperity for all Arizonans.

General Marson

Lyndel Manson Chair John Arnold
Executive Director



RECOGNIZING SERVICE TO ARIZONA'S PUBLIC UNIVERSITIES

During the past year five new regents joined the board after their appointment by Gov. Doug Ducey, bringing a wide range of talents and skills to public higher education in Arizona. The board paid tribute to regents who completed their terms or left the board for other commitments while remembering the service of a regent who epitomized the meaning of public service.

WELCOMING NEW REGENTS



Regent Gregg Brewster, appointed to the board in March, 2022, brings more than three decades of leadership experience in health care, supply chain management, logistics and transportation to the board. He recently retired from his work with Fortune 100 companies Owens & Minor and Cardinal Health.



Regent Doug Goodyear, appointed to the board in March 2022, is a recognized public affairs executive and is the founding partner of DCI Group, a public affairs firm specializing in strategic communications, coalition management, ally engagement, media relations and digital advocacy.



Regent Robert Herbold, appointed to the board in July, 2021, is the managing director of The Herbold Group, an operations and strategy consulting business. He is also president of The Herbold Foundation, which provides scholarships to masters' and doctoral students in engineering and computer science at several universities. Regent Herbold previously was the executive vice president and chief operating officer of Microsoft Corporation.



Regent Jessica Pacheco, appointed to the board in July, 2021, brings a long history in public affairs, strategic communications, public policy and economic development to the board. Regent Pacheco's skills include executive corporate experience in the energy industry and strategic communications. She is the managing partner of Horizon Strategies, a public affairs firm.



Student Regent Katelyn Rees, appointed to the board in April, 2022, is an undergraduate student at the University of Arizona's W. A. Franke Honors College who is seeking dual degrees in mechanical engineering and computer science. She is a member of Tau Beta Pi Engineering Honor Society, honored for her outstanding achievements in engineering.

THANKING REGENTS, LEADERS FOR THEIR SERVICE

- Former **Regent Bill Ridenour** concluded his term on the board in May, 2022. During his term as chair, he focused on improving access and affordability for Arizonans and the Arizona Teachers Academy was launched. He co-chaired the search committee that brought President Robert Robbins to UArizona.
- Former **Regent Ron Shoopman** worked to strengthen collaboration among the universities and increase awareness of the need to increase educational achievement among Arizonans during his service to the board that concluded in May, 2022. He co-chaired the search committee that brought President Robbins to UArizona.
- Former **Student Regent Nikhil Dave** completed his two-year term in June, 2022. Regent Dave was a strong advocate for the continued development of the Phoenix Biomedical Core and expansion of the Arizona Promise Program.
- The board extended its appreciation to two members who transitioned off the board prior to term completion. Former **Regent Kathyrn Hackett King** was appointed to the Arizona Supreme Court in July, 2021. Justice King is a dedicated public servant who has devoted much of her life to the state of Arizona. She has worked at the highest levels of state government and served students, faculty and staff on the board. Former **Regent Karrin Taylor Robson** resigned from the board in July, 2021, to meet the demands of running her campaign for governor. Her commitment to civil discourse, democratic engagement and civic education are highlights of her service on the board. She launched the Regents' Cup and contributed to the redesign of general education.
- In recognition of an extraordinary career spanning more than 30 years with the university system, the board awarded **Nancy Tribbensee**, **J.D.**, **Ph.D.**, the Regents Medal, one of the board's highest honors. During her career, Dr. Tribbensee provided legal guidance on countless significant and complex issues. She also led or participated in every major legal and board policy action.

IN MEMORIAM



Former **Regent Bob McLendon** passed away in March, 2022. A dedicated public servant to our state and students, he was a former classroom teacher who brought a unique perspective during his service to the issues and challenges addressed by the board. He served in the Legislature for nine terms and his appointment marked the first time regents were chosen specifically to represent southern Arizona.

AT A GLANCE

ECONOMIC IMPACT



BACHELOR'S DEGREES AWARDED*



\$1.2 I

TOTAL TAXES**



25,988

TOTAL EMPLOYEES***

- * FY 2022 College Completion Report
- **FY 2021 Alumni Wages Report
- ***FY 2022 Benefits Eligible Employees

RECORD ENROLLMENT, DEGREES AND AID

212,714

Total enrollment at Arizona's public universities*

14,627

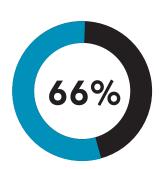
Number of graduate degrees conferred by Arizona's public universities**

\$1,037.8 M

Institutional gift aid awarded to 140,363 students from the universities***

*FY 2022 Fall Enrollment Report; **FY 2022 College Completion Report; ***FY 2021 Financial Aid Report

THE VALUE OF A DEGREE



Percentage difference in median wages between individuals with a **bachelor's degree** (\$52,077) and peers with a high school diploma (\$31,371)

*FY 2021 Alumni Wages Report

\$17.2 BILLION

Wages earned by nearly **234,000 graduates** of Arizona's public universities 123%

Percentage difference in median wages between individuals with a graduate degree (\$69,902) and peers with a high school diploma (\$31,371)





EXPANDING ACCESS

NAU LAUNCHES TUITION-FREE COLLEGE EDUCATION FOR ARIZONA RESIDENTS WITH HOUSEHOLD INCOMES AT OR BELOW \$65,000

This spring, NAU launched the new Access2Excellence initiative providing a tuition-free college education for Arizona residents with a household income of \$65,000 or below. The changes take effect in fall 2023 for first-year and transfer students who attend NAU in Flagstaff or at one of the university's sites throughout Arizona.

NAU will continue to provide generous financial aid packages for students living in households with incomes above \$65,000. NAU's cost of attendance for all students will remain lower than other in-state options, ensuring every Arizonan has access to an affordable, high-quality education at NAU.

NAU's A2E initiative was created to broaden access to higher education and increase attainment of valuable postsecondary credentials for Arizona residents—fueling economic and social mobility in Arizona and throughout the nation.

"NAU's Access2Excellence initiative is a transformative step to help bridge our state's attainment gap and provide an affordable pathway to college, ensuring Arizona develops and retains talent that can participate in the high-tech, high-skill jobs that power the economy of the future," said Neil Giuliano, president and CEO of Greater Phoenix Leadership.



EXPANDING ACCESS

ARIZONA PROMISE PROGRAM OFFERS OPPORTUNITY TO ATTEND COLLEGE FOR LOW-INCOME RESIDENT STUDENTS

The state allocated \$12.5 million in ongoing funds to the <u>Arizona Promise Program</u> this fiscal year, expanding access and funding for low-income students to attend Arizona's public universities.

The Arizona Promise Program provides financial assistance for students whose federal Pell Grants or other financial aid don't cover the cost of college tuition and fees. The program represents a seminal moment in Arizona as the first comprehensive statewide financial aid program.

The board and universities worked together to share news of the Arizona Promise Program. News of the program resulted in media coverage from more than 40 outlets nationwide with a combined reach of 270 million, creating greater awareness for key audiences. A digital ad campaign targeted to junior high and high school students resulted in more than 975,000 total impressions. More than 2,500 posters and 10,600 postcards were distributed to school guidance counselors and students at nearly 430 schools and college access organizations statewide.

In partnership with the Arizona Department of Economic Security, an email and letter campaign was targeted to SNAP-eligible students in Arizona. SNAPeligible students are most likely Promise eligible as well - making this partnership a unique way to share awareness of the program. This spring, nearly 8,000 emails in English were sent with a 58 percent open rate and 900 emails in Spanish with a 50 percent open rate.





UARIZONA ANNOUNCES TUITION-FREE EDUCATION FOR NATIVE AMERICAN UNDERGRADUATES IN ARIZONA

This summer, UArizona launched the <u>Arizona Native Scholars Grant</u> providing undergraduate students from the state's 22 federally recognized Native American tribes a tuition-free education at the UArizona main campus in Tucson. The first program of its kind in Arizona, the program starts this fall for new and continuing full-time, degree-seeking, in-state undergraduates.

To be eligible, students must complete the Free Application for Federal Student Aid, or FAFSA, and provide tribal identification. Native American tribes' federal legal status allows universities to administer scholarships and grants to tribal members.

More than 400 students enrolled at UArizona last year meet the criteria for the new program.

Serving Arizona's Native American tribes and students is a key part of the university's strategic plan, and is central to the plan's Arizona Advantage pillar, which highlights the university's role as a land-grant institution. Tucson is home to the Tohono O'odham Nation and Pascua Yaqui Tribe.

EXCELLING COMMUNITY COLLEGE STUDENTS EARN ALL-ARIZONA ACADEMIC TEAM SCHOLARSHIPS

The Arizona Board of Regents empowers community college students to realize their educational and career goals through tuition waivers and scholarships awarded to members of the <u>All-Arizona Academic Team</u> for leadership and excelling academic achievements.

This year marked the 26th year of the All-Arizona Academic Team Scholarship and benefitted 88 students. The virtual ceremony celebrated the outstanding academic achievements, community service and distinguished leadership of students enrolled in Arizona's community colleges. All-Arizona students demonstrate academic excellence and intellectual rigor combined with leadership and service that extends their education beyond the classroom to benefit society. The scholarship is indicative of the positive collaboration between Arizona's community colleges, its public universities and the Arizona Board of Regents.

INCREASED FINANCIAL AID SUPPORTS STUDENT ACCESS

Financial aid remains a primary means by which the universities achieve their mission of providing affordable education. In 2021, Arizona's public universities collectively provided \$1,037.8 million in institutional gift aid, an increase of 47 percent in institutional gift aid since 2017.

Key takeaways from the Fiscal Year 2021 Financial Aid Report:

- Since 2017, systemwide financial aid from all sources has increased 21 percent from \$2.6 billion to \$3.1 billion, outpacing enrollment growth of 19 percent over the same period.
- The number of Pell-Grant eligible students attending Arizona's public universities continues to rise with enrollment growth, while the percentage of the national student population that is Pell eligible has declined as the number of students entering higher education has decreased.
- Average need awards for undergraduates remained consistent in 2021.
- Arizona is a low-debt state only 11 states have lower rates of student loan debt.

REGENTS KEEP TUITION RATES LOW

<u>Tuition and fees</u> approved by the board for the 2022-23 academic year continue a multi-year commitment to keep increases low. Most continuing students at NAU and the UArizona have no tuition increase, as the universities' respective pledge and guarantee programs lock in tuition rates for four years.

ASU continues its 2012 pledge to limit resident undergraduate tuition increases to 3 percent or less, with tuition increasing 2.5 percent for Arizona resident undergraduate and graduate immersion students. For the past two years, resident tuition was not increased to ensure higher education at Arizona's public universities remained accessible for students during economic challenges brought about from the COVID-19 pandemic.

WICHE PROGRAMS HELP ARIZONA STUDENTS SUCCEED

Arizona students continue to benefit from the <u>Western Interstate Commission for Higher Education</u> (WICHE) exchange programs. In fiscal year 2022, Arizona students who studied in participating states saved \$21.5 million through WICHE programs.

Arizona is the largest supporting state in WICHE's Professional Student Exchange Program (PSEP). During the 2021-22 academic year, 156 students saved \$3.8 million through reduced tuition costs for health-care studies not offered by public institutions in Arizona. Seventy-seven percent of Arizona's PSEP graduates returned home to practice. Students are contractually required to return and practice their profession in Arizona or reimburse the funds paid on their behalf. Arizona's educational institutions and local economies benefit from PSEP as well. In 2021-22, 152 PSEP students enrolled in public and private professional health-care programs in Arizona, and the institutions received \$3.4 million in support fees from other WICHE states to reduce students' tuition costs.

Arizona also received 417 WICHE Western Regional Graduate Program (WRGP) students during the 2021-22 academic year. Additionally, Arizona received 7,093 WICHE Western Undergraduate Exchange (WUE) students at community colleges and universities. These students paid 150 percent of resident tuition. High-demand careers launched through WICHE programs for Arizona residents include dentists, optometrists, osteopathic physicians, podiatrists and veterinarians.



GROWING THE PIPELINE

NAU IMPLEMENTS NEW ADMISSIONS CRITERIA TO INCREASE ACCESS

The board approved NAU's request for a pilot program of <u>modified admissions criteria</u> to more closely align with Arizona high school graduation requirements, thereby increasing access for students throughout the state.

The six-year pilot project will provide increased access opportunities for students. NAU will have a team of specialized counselors to provide robust advising and academic support to these students to enable their success at the university.

Current ABOR policy for undergraduate assured admission requires students to meet 16 core course competencies, earn a 3.0 GPA or better in the core courses or rank in the top 25 percent of their graduating high school class. Core courses are four years each of math and English, two years each of social science and a second language, three years of lab science and one year of fine art/career and technical education. Universities may use discretion to admit applicants who earn 2.5 GPA or above in the core courses with no more than two missing core classes that are not in the same subject area.

BOARD SETS ASIDE FUNDINGFOR ATTAINMENT STRATEGIES

Increasing educational attainment is a top priority for the board. This year, the board allocated \$5 million to advance its attainment agenda through innovative initiatives, partnerships, communications and marketing. The board office is using these dollars to implement several new strategies to support the effort to increase positive awareness of public higher education and increase educational attainment, including a new college planning website, early outreach programs and more.

EXPANDING OUTREACH TO FAMILIES

The board allocated funding from the Technology and Research Initiative Fund, targeted for workforce development, to the universities to develop or expand outreach programs to help families plan and prepare for college. Initiatives include:

- ASU will expand its bilingual WeGrad program that supports thousands of learners and their families
 in navigating their way to or through college. WeGrad will usher in a new era of learning next year
 through an online video curriculum that offers families access anytime and anywhere, offered in English
 and Spanish.
- NAU launched the Family Access, Communication, Transition and Support (FACTS) program an earlyoutreach program that will work with parents and families of eighth graders, and includes scholarship
 opportunities, individualized resources in both English and Spanish, and a family portal that gives
 students and their families a direct point of contact to NAU.
- UArizona will expand its <u>College Academy for Parents</u>, which helps families of K-12 students plan for college, and is improving its digital offerings to reach families, including the <u>Start Now</u> and <u>Empieza Hoy</u> websites, which provide information about early college planning, financial aid resources and more.



BOARD LAUNCHES FAFSA COMPLETION INITIATIVES

Several initiatives started this year are focused on improving Arizona's Free Application for Federal Student Aid (FAFSA) completion rate to ultimately enable more students to attend college.

- A new website slated to launch this fall will serve as a one-stop shop for college planning. Students and families will be able to access crucial information on why college is important and how to prepare, succeed and pay for college, including easy access to FAFSA information and resources to aid students in filling out the form.
- Letters from the board sent to eighth graders in five Arizona school districts congratulated students on their promotion to high school and provided important information for students to begin planning for college.
- A partnership developed with the Helios Education Foundation and the Arizona Department of Education, will support a new interactive FAFSA data completion portal that will provide information directly to high school counselors on completion rates, enabling timely interventions to assist students with FAFSA.
- College planning videos scheduled for release this fall detail key steps for students to take from middle school through each year of high school to plan for and be admitted to college, including resources and information about filling out the FAFSA.

PATHWAYS PROGRAMS ENABLE SEAMLESS TRANSFER OF CREDITS

Students transitioning to Arizona's public universities from the state's community colleges are able to seamlessly transfer credits through pathways programs. These pathways also offer tuition savings for students and families. Ultimately the community college to university pathways support increased educational attainment in the state and the development of the necessary workforce for the future.

During fiscal year 2021, 10,065 students transferred from an Arizona community college to an Arizona public university while 51.1 percent of university graduates had credit from an Arizona community college. Of new transfer students from Arizona community colleges, 54 percent entered the university with 60 or more credits.

GROWING THE PIPELINE

ALL OF ARIZONA'S PUBLIC UNIVERSITIES EARN HISPANIC SERVING INSTITUTION DESIGNATION

With the naming of ASU as a <u>Hispanic Serving Institution</u> in June by the U.S. Department of Education, all three of Arizona's public universities are officially recognized as HSIs – a mark of distinction for Arizona that is indicative of the universities' commitment to increasing college going among underrepresented populations in higher education.

NAU President José Luis Cruz Rivera testified during the Higher Education and Workforce Investment Subcommittee about the crucial work of HSIs in increasing economic mobility and equitable postsecondary educational value as well as how the U.S. can better support that work. Advocating for increased investments in HSIs, he offered policy recommendations to better serve students. An HSI is defined as an institution of higher education that has an enrollment of Hispanic undergraduate full-time equivalent students that is at least 25 percent of the student body.

In addition, top research universities from across the U.S. – including ASU and UArizona - formed the Alliance of Hispanic Serving Research Universities, dedicated to increasing opportunities for Hispanics who are underrepresented in higher education. The alliance aims to double the number of Hispanic doctoral students enrolled at alliance universities and increase the number of Hispanic faculty members by 20 percent at alliance universities.

"This meaningful designation recognizes our ongoing institutional efforts to support the success of students who reflect the demographic diversity of our state and, looking to the future, the growing Hispanic community that will play a major role in the economic advancement and competitiveness of our nation."

- ASU President Michael Crow

Arizona's public universities are committed to meeting the needs of increasingly diverse students throughout the state.

According to the latest census numbers, Hispanic individuals comprise 32 percent of the state's population. Although historically underrepresented in college in Arizona, recent data shows college enrollment rates among Arizona Hispanic high school graduates increasing 2.1 percentage points between 2015 and 2020.

DEGREE LOCATIONS

While most resident students remain on the universities' main campuses in a traditional program of study, each university continues to provide opportunities to deliver four-year degree options in localities that are geographically more convenient and in customized pathways that allow students to complete both undergraduate and graduate degrees in an accelerated time frame.

Many of these pathway programs are offered in partnership with the community college system, leveraging the assets of local community college districts to offer four-year degrees in additional locations. Often students can complete local site and accelerated degree programs at a significant financial discount. The university presidents continue to believe localized and alternative degree options will allow additional students to seek and obtain a four-year degree, making these efforts a critical component of expanding educational attainment in Arizona.



ARIZONA TEACHERS ACADEMY

Enrollment in the <u>Arizona Teachers Academy</u> continues to expand, supporting growth of the Arizona teacher pipeline and addressing Arizona's teacher workforce shortage. In fiscal year 2022, total enrollment growth in the Arizona Teachers Academy increased 15 percent. Nearly 1,150 students earned degrees in 89 different academic programs – a 20 percent growth in degrees earned, year-over-year. Since the Arizona Teachers Academy's inception in 2017, 3,184 students have completed an academy program.

STRENGTHENING INDIGENOUS EDUCATION THROUGH NEW FUNDING

The Arizona Department of Education invested \$3 million in <u>Indigenous education programs</u> at Arizona's public universities. The funds will help provide professional development opportunities for teachers within tribal nations. With more than 20 federally recognized tribes in Arizona, this funding will provide needed support for Indigenous educators who are committed to teaching Native American youth.

ARIZONA TEACHER RESIDENCY

Superintendent of Public Instruction Kathy Hoffman, the Arizona Department of Education and NAU announced the creation of the <u>Arizona Teacher Residency</u>, a first-of-its-kind graduate program in Arizona modeled after medical residencies, to help recruit, prepare, support and retain K-12 teachers. The program provides in-classroom experience, living stipends, a master's degree and a job at a partnering school district.





UNIVERSITY OF ARIZONA WINS REGENTS' CUP TOURNAMENT CELEBRATING FREE SPEECH

During an event celebrating freedom of expression and civil discourse, UArizona won the 2022 Regents' Cup. Students from Arizona's public universities took part in debate and speech events centered around the theme of the event - the preservation of democracy. Claire Mullings and Chase DiBona of ASU took first place in the Oxford debate portion of the Regents' Cup competition while Celeste Lugo of UArizona took first place in storytelling, each winning \$15,000 in a one-time scholarship to support their education. Second and third place winners respectfully took home \$12,000 and \$5,000.

Arizona's public universities are recognized as exemplars in free speech; ASU, NAU and the UArizona are all recognized with a green light rating, the highest rating by the Foundation for Individual Rights in Education. The Regents' Cup principles of free speech and civil discourse are reflected in the board's general education policy, including requirements for students to learn how America's founding documents impact the present, the impact of key Supreme Court cases and economics knowledge.

BOARD APPROVES UNIVERSITIES' GENERAL EDUCATION REDESIGN TO EDUCATE CRITICAL THINKERS, ENGAGED CITIZENS

Revised <u>general education</u> requirements approved by the board in June, 2019 require all of Arizona's public universities to ensure students are taught essential skills to become engaged citizens, critical thinkers and lifelong learners who are equipped for success throughout their lives.

As part of the successful implementation of new general education requirements, the board this year approved the general education framework for ASU and NAU with UArizona's framework approved the previous fiscal year. The board also established a process for the universities to report on general education and a Tri-University General Education Working Group developed a system-wide framework to assess skills and knowledge learned through courses. Assessments are focused on quantitative reasoning, critical thinking, civic knowledge and the first skill under assessment - written communication.

The policy and the requirement for students to learn about American Institutions was featured during an Arizona Capitol Times Morning Scoop with Regent Larry E. Penley, Arizona Speaker of the House Rusty Bowers and retired Arizona Supreme Court Justice Rebecca White Berch discussing the "Role of Civics Education."

IMPROVING THE FUTURE

PBC BRINGS INNOVATION, HEALTH PROFESSIONS TRAINING TO DOWNTOWN PHOENIX

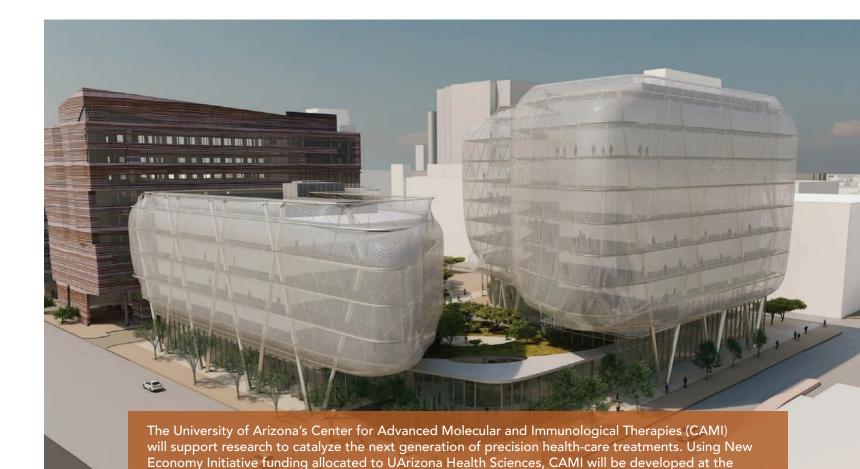
An innovation district in the heart of downtown Phoenix, the newly rebranded <u>Phoenix Bioscience Core</u> brings together the state's three public research universities, bioscience innovators and major health systems to focus on addressing challenging health issues, train the next generation of health professionals, provide research space and expertise, and act as a bioscience focal point for entrepreneurs and life sciences researchers.

Advancements by the universities and private organizations located on the PBC continue to drive the innovation district forward, create significant economic impact for the state of Arizona and spur more high-paying jobs for the state's economy.

Recent developments include:

Phoenix Bioscience Core.

- The University of Arizona Health Sciences announced the Center for Advanced Molecular and Immunological Therapies. Plans for the more than 300,000 square feet building include housing biomedical engineering, technology transfer and entrepreneurial services, and key research areas.
- 850 PBC will soon be home to a new life science focused incubator and co-working space, the Wexford Innovation Labs. In partnership with ASU and the City of Phoenix, the lab will house the new Bioscience Growth Accelerator to give ASU and UArizona bioscience startups an easier path to commercialization.
- ASU reviewed with ABOR its plans for moving forward on a second building with commercial development partner Wexford Science + Technology. The new, 10-story, approximately 250,000 rentable square-feet tower, will house private companies and ASU research facilities expansion.



IMPROVING THE FUTURE

TRIF INITIATIVES ADDRESS CRITICAL ISSUES TO

ADVANCE ARIZONA'S ECONOMY

Arizona's public universities received approximately \$112.3 million in <u>Technology and Research Initiative</u>
<u>Fund</u> (TRIF) revenue in fiscal year 2021. The universities leveraged that investment to attract outside research funding, resulting in a \$465 million return on investment through TRIF-related research.

Total TRIF revenue received to date since the inception of the program in June 2001 is over \$1.205 billion. Established by Arizonans who voted for Proposition 301 that utilizes sales tax revenue to fund the state's public schools and vital research at Arizona's public universities, TRIF funds utilized by the universities focus on research and issues that matter to Arizona - improving health; water, environment and energy solutions; national security systems; space exploration and optical solutions; and workforce development. Research conducted at Arizona's public universities through the Technology and Research Initiative Fund enables solutions-focused research and technology advances to solve grand challenges facing the state. New TRIF Opportunity Initiative funds and revised three-year project plans are driving solutions to improve health, secure renewable energy, manage forest health, expand and protect our water supply and more.

TRIF research is designed to improve lives and advance scientific discovery. Projects funded through TRIF include:

- ASU researchers developed a device that pulls clean drinking water out of the air, which has been installed in 50 countries as well as the Navajo Nation.
- NAU engineers developed lightweight wearable robotic devices to improve mobility for children with cerebral palsy.
- An implantable trifocal lens developed by a UArizona optical scientist for cataract patients has helped 1 million patients across Arizona and the world see clearly.





ARIZONA ECONOMY AT RISK UNLESS EDUCATIONAL ATTAINMENT IMPROVES

A new report commissioned by Arizona's leading business organizations details economic benefits of nearly \$5 billion in additional state and local tax revenues over 10 years simply by reaching the U.S. average for educational attainment.

"Advancing Arizona's Economy – Investment in Workforce Development" describes benefits and stark risks faced by the state if educational attainment doesn't increase. Between 2020-2030, it is estimated Arizona will have 68,000 annual job openings that require at least a bachelor's degree. Under current conditions, there will be an annual shortage of 26,300 bachelor's degrees, leaving Arizona unprepared for a competitive workforce.

Applauding the report, ABOR Chair Lyndel Manson said, "In order to foster and support the vibrant economy Arizona seeks, this report demonstrates the need for added investment in postsecondary education and workforce development – as well as the economic risks if Arizona continues on its current trajectory. This report on 'Advancing Arizona's Economy' is essential reading for every state and local policymaker, business official and education leader, and should serve as a wake-up call for Arizona to act before it's too late."

The report's conclusion: tomorrow's prosperous economy depends on improving investment in workforce development and postsecondary education today.

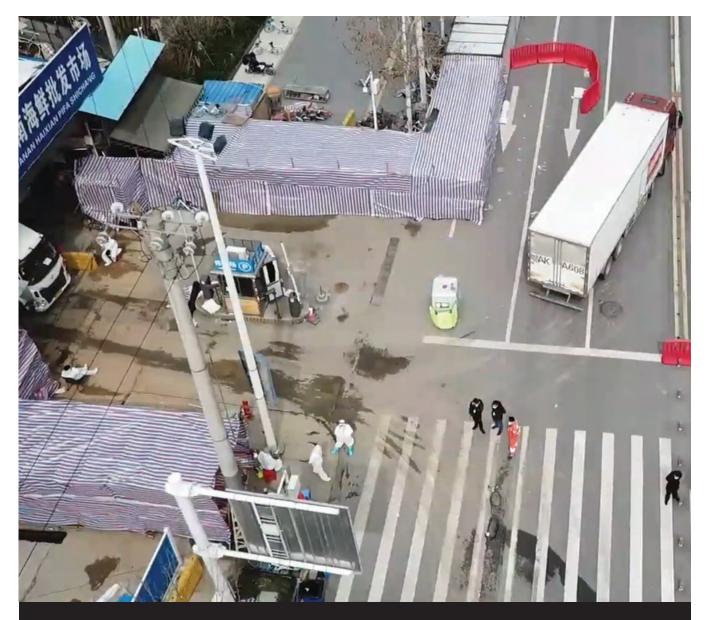
"This vital analysis is a compelling and clear-eyed call to action for additional state investment in postsecondary education and workforce development at a time when evidence suggests Arizona is falling behind."

- ABOR Chair Lyndel Manson

IMPROVING THE FUTURE

ARIZONA PUBLIC UNIVERSITIES' RESEARCH, OUTREACH SERVES STATE DURING PANDEMIC

This past year, the universities continued to address COVID-19 challenges, including a massive effort to track the COVID-19 pandemic in Arizona over the past two years that resulted in the genomic sequencing of more than 100,000 samples of the virus by a coalition of Arizona universities and health agencies, including ASU, TGen, NAU, UArizona and the Arizona Department of Health Services.



The Huanan Seafood Wholesale Market in Wuhan, China, has emerged as the most likely source of the COVID-19 outbreak, making a possible alternative explanation that the virus leaked from a research lab increasingly unlikely, according to a paper published in the journal Science by Michael Worobey, a virus evolution expert at the University of Arizona. Through methodical analysis, he provides evidence that dispels a commonly voiced conjecture: that the Huanan wet market only seemed like the epicenter of the pandemic because of a bias in case reporting that falsely centered on the seafood market.

Photo: Wikipedia/China News Service



TOWARD A MORE SUSTAINABLE FUTURE

Installed this year, Arizona State University's first-of-its-kind mechanical tree is primed to become a major technology in the global fight against climate change (pictured here). If widely deployed, many of these trees could have a positive impact on our planet by mitigating the carbon dioxide in the atmosphere. Northern Arizona University President Cruz Rivera signaled NAU's commitment to sustainability with heightened investments of the university community's time, talents, effort and resources to secure the necessary conditions to achieve carbon neutrality by 2030.

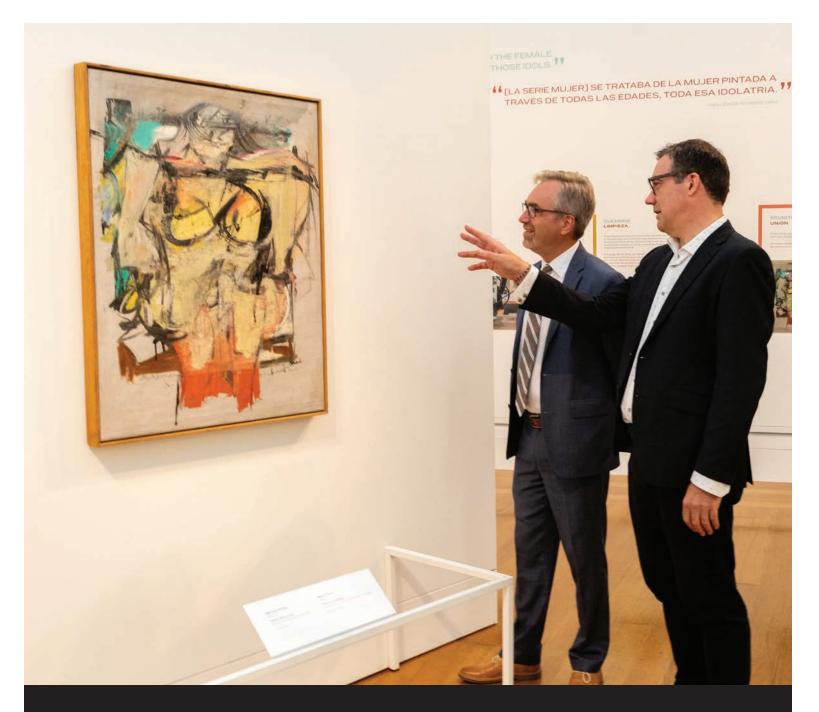
The University of Arizona announced the formation of the Indigenous Resilience Center, a new center that will address environmental challenges in ways that respect Native and Indigenous sovereignty and knowledge to advance their resilience goals and priorities, and co-design solutions to address impacts of environmental challenges – such as climate change – facing Indigenous communities.

EXCELLING FACULTY AT ARIZONA'S PUBLIC UNIVERSITIES EARN HIGHEST REGENTS PROFESSOR TITLE

The title of Regents Professor is the highest faculty honor awarded at Arizona's public universities, conferred only on full professors whose pioneering contributions and achievements have brought them national or international distinction. This title may be awarded to no more than 3% of tenured and tenure-track faculty.

Newly appointed Regents Professors from ASU are: Karen Harris, Mary Lou Fulton Teachers College; Ying-Cheng Lai, Ira A. Fulton Schools of Engineering; David MacKinnon, College of Liberal Arts and Sciences; and Linda Elkins-Tanton, College of Liberal Arts and Sciences.

Regents professors appointed from UArizona this year are: Sama Alshaibi, College of Fine Arts; Jean-Luc Brédas, College of Science; Juanita L. Merchant, College of Medicine; David Pietz, College of Social & Behavioral Sciences; and Donata Vercelli, College of Medicine.



ART TREASURE'S INCREDIBLE JOURNEY

Through the arts, Arizona's public universities impact reaches across Arizona and reverberates throughout the world. Some highlights from this past year include:

- Willem de Kooning's famous "Woman-Ochre" painting was stolen in 1985 from the UArizona Museum of Art where it was on display. The painting was found at an estate sale in New Mexico three decades after the theft and returned to UArizona. After a complex restoration it will be back on display this October at the UArizona Museum of Art.
- The state-of-the-art ASU at Mesa City Center facility opened this semester to hundreds of students in film, video production and digital technology. The new facility is home to the Sidney Poitier New American Film School, Herberger Institute for Design and the Arts programs and the Ira A. Fulton Schools of Engineering.
- Reflecting its commitment to Indigenous Peoples, NAU commemorated 10 years of its one-of-a-kind Native American Cultural Center and the many services it has offered in the past decade to Indigenous students, faculty, staff and community members.

STRONG STEWARDSHIP

ARIZONA'S PUBLIC UNIVERSITIES SAVING MILLIONS THROUGH COST EFFICIENCY MEASURES

Arizona's public universities focus on reducing and containing costs while identifying innovative opportunities for savings, resulting in millions of dollars of cost efficiencies. According to the <u>Fiscal Year 2021 Annual Cost Containment Report</u>, costs are reduced through varied efforts including:

- ASU's University Technology Office achieved \$3.1 million of cost savings and avoidance through competitive bidding, price negotiations, rightsizing and consolidation of software and hardware, and cloud cost optimization.
- NAU took advantage of low interest rates and issued \$13.5 million of refunding bonds at a 2.05% coupon rate and \$7.8 million of interest only refunding bonds, resulting in savings of \$20 million.
- During fiscal year 2008 to fiscal year 2021 at the UArizona, a total of 26 series of system revenue bonds, SPEED revenue bonds and certificates of participation were issued to refinance outstanding debt for an estimated savings of \$119.3 million.

BOARD VOTES TO CEASE ANY INVESTMENTS IN RUSSIAN ASSETS

In response to Russia's invasion of Ukraine, the board instructed the presidents of Arizona's public universities to exit any investments in Russian assets. "The Arizona Board of Regents condemns in the strongest possible terms Vladimir Putin's illegal invasion of the sovereign nation of Ukraine and apparent targeting of civilian populations ... the board repudiates Putin's aggression," said ABOR Chair Lyndel Manson. The universities' foundations also eliminated or redirected any investments in Russian assets.

ARIZONA'S PUBLIC UNIVERSITIES EMPLOY THOUSANDS ACROSS THE STATE

Arizona's public universities are major employers with approximately 26,000 benefits eligible employees. Faculty and staff increased approximately 5 percent between fiscal year 2018 and fiscal year 2022, corresponding with student enrollment growth, which increased 14 percent during those years. Talented faculty and staff are imperative in achieving ABOR's strategic goals. Successful employee recruitment and retention is a core objective to meet the challenges of driving student educational success and learning, and to build on research activities to benefit Arizona.







ACHIEVE

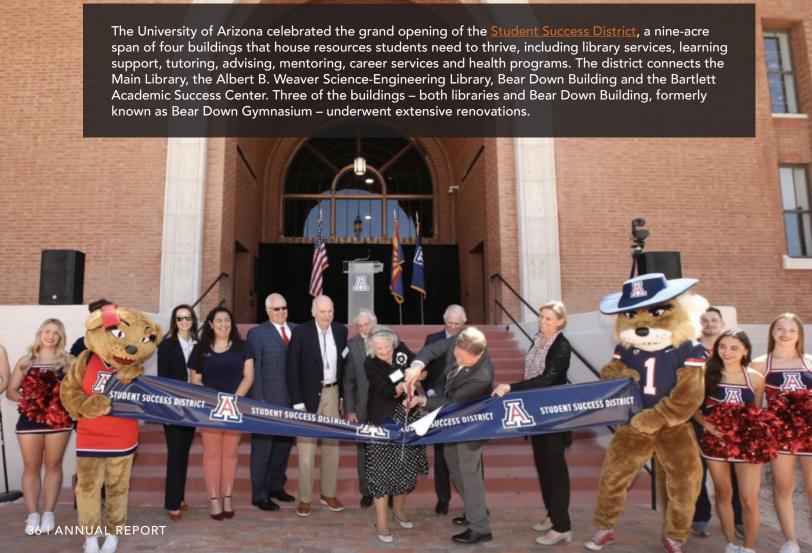
PRESIDENTS PROVIDE IN-DEPTH REVIEWS OF OPERATIONS AND FINANCES FOR BOARD

Periodic in-depth reviews of the operations and finances of each university are conducted by the board. These reviews provide regents with a clear understanding of the progress and results achieved at each university during the past year.

Highlights presented in ASU's February 2022 state of the university report included: discussion of the university as a public enterprise anchored by the academic, knowledge and learning enterprises; rankings such as being named among the top 8 percent of universities worldwide; and catalyzing new companies through SkySong Innovations.

UArizona's state of the university report in November of 2021 included: rankings of distinction including being in the top 20 nationally for serving veterans; bringing the most academically prepared and diverse class to the university; and building the state's future health-care workforce with 4,000 students enrolled in Health Sciences programs.

NAU recently presented its updated strategic plan to the board and will provide their in-depth review of the university during an upcoming ABOR meeting.





NAU'S NEW STRATEGIC REVISED MISSION AND PLAN: "ELEVATING EXCELLENCE"

NAU President José Luis Cruz Rivera unveiled to the board the new "Elevating Excellence" three-year strategic plan designed to advance equitable postsecondary value through a bold and clearly defined vision for the university's future. The plan focuses on seven strategic priorities: academic excellence; student success; commitment to Indigenous peoples; impactful scholarship; mission-driven and diverse faculty and staff; community engagement; and sustainable stewardship of resources.

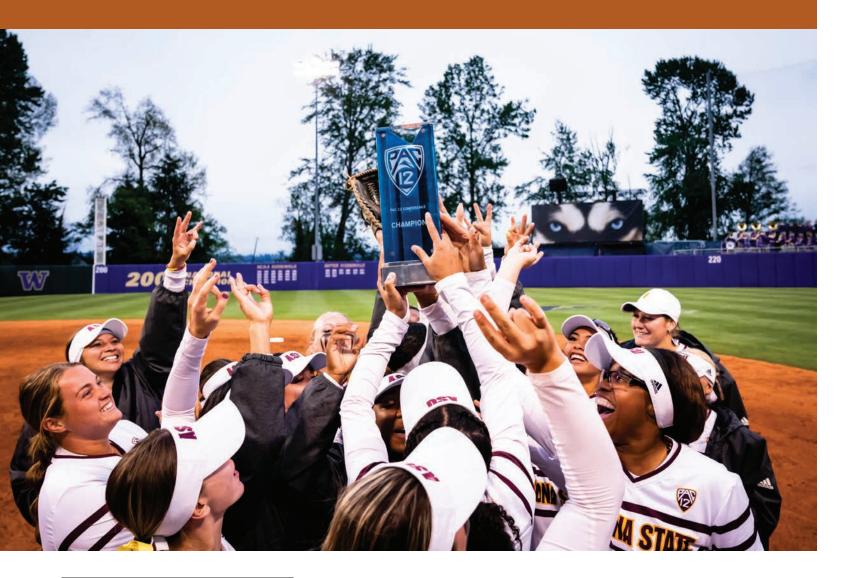
The plan builds on NAU's legacy of excellence, its Flagstaff and statewide identity, community aspirations and its distinctive mission.

NAU's new charter includes the university's vision, mission and commitment:

- The university's vision is "to be the nation's preeminent engine of opportunity, vehicle of economic mobility and driver of social impact by delivering equitable postsecondary value in Arizona and beyond."
- NAU's mission "transforms lives and enriches communities through high quality academics and impactful scholarship, creative endeavors and public service."
- Its commitment is to "educate, support and empower students from all backgrounds, identities and lived experiences to reach their full potential and contribute to a more just, equitable, inclusive, prosperous and sustainable future."

A HISTORIC YEAR IN ARIZONA ATHLETICS

From cross country to basketball, Arizona's public universities excel in athletics. Highlights during the past year include:



ARIZONA STATE UNIVERSITY

ASU and Grayhawk Golf Club hosted for the second of three straight seasons the NCAA Men's and Women's Golf Championship from May 20-June 1. A total of 54 teams were on site over the two weeks. Men's golf finished second at the NCAA Championships, its best finish since it won the NCAA title in 1996, and now has back-to-back NCAA top-five finishes, while the women's golf team finished ninth.

ASU Wrestling won its third straight Pac-12 title and finished fourth at the NCAA Championships as heavyweight Cohlton Schultz earned Pac-12 heavyweight honors and the league's Wrestler of the Year.

Softball won the Pac-12 Championship with a 20-4 league record, the most league wins in school history. It marked ASU's third Pac-12 title, as it also won titles in 2011 and 2008.

NORTHERN ARIZONA UNIVERSITY

For the fourth time in university history, **NAU** won the Big Sky Conference 2020-21 Presidents' Cup, becoming the third institution to win the award four or more times.

Three men's athletes earned **NAU**'s first podium finish at the NCAA **Track and Field** Indoor Championship.

Abdihamid Nur became the first national double event champion in NAU history and set the new NCAA 5,000-meter record – shattering the previous record set in 1978 - the longest standing collegiate track and field record.

NAU won its fifth **cross-country** national championship in six years and an unprecedented two NCAA D1 championships in cross country in 2021.



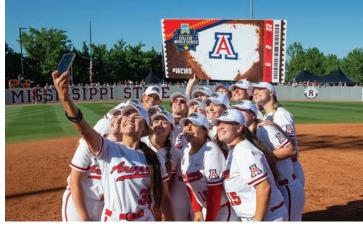


UNIVERSITY OF ARIZONA

The UArizona Softball team beat Mississippi State 7-1 to advance to its third-straight Women's College World Series.

UArizona captured the Pac-12 Men's Basketball Tournament title with a win over UCLA in Las Vegas.

UArizona Men's Golf won the NCAA Regionals championship, the program's first since winning the 2006 NCAA Tucson Regional, and it advanced the Wildcats to the NCAA Championships for the first time since 2011.





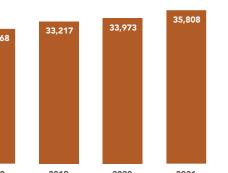
ARIZONA PUBLIC UNIVERSITIES DRIVING WORKFORCE BY INCREASING DEGREES AWARDED

Arizona's economic competitiveness depends on Arizona's public universities continuing to produce more degrees and increase degrees in high demand fields. Arizona's public universities are Arizona's largest provider of higher education, awarding 35,808 bachelor's degrees in fiscal year 2021, a 5.4 percent increase from the prior year.

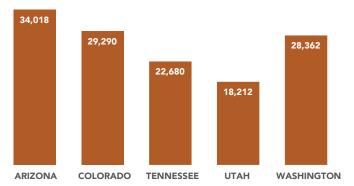
Although students at Arizona's public universities earned a record numbers of degrees, Arizona continues to lag the national average for residents with bachelor's degrees. According to the most recent census numbers, 30.2 percent of Arizona's population 25 and older has a bachelor's degree or more while the national average is 33.1 percent.

Business fields are the largest contributor to bachelor's degrees across all subjects with 6,327 degrees awarded in fiscal year 2021. Health professions and biological/biomedical sciences represent the next largest group of bachelor's degrees awarded with a combined total of 6,021 undergraduate students completing in fiscal year 2021.

TOTAL BACHELOR'S DEGREES AWARDED AT ARIZONA'S **PUBLIC UNIVERSITIES**







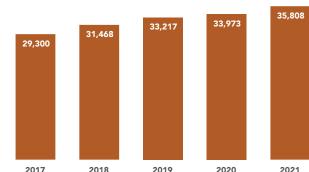
*Total bachelor's degrees includes Dine College

Arizona ranks

first in enrollment

growth among the

50 states and 28th in total enrollment per capita.



TOTAL ENROLLMENT AT ARIZONA'S **PUBLIC UNIVERSITIES**

ENROLLMENT INCREASINGLY DRIVEN BY ONLINE STUDENTS

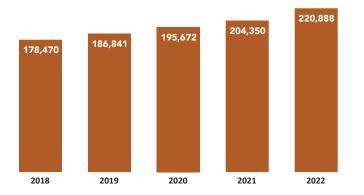
universities was 212,714 in fall 2021, a 4% increase overall from fall 2020.

Overall enrollment at Arizona's public universities increased with notable growth in students taking online classes, according to the Fiscal Year 2022 Fall Enrollment Report. Online degree program students comprised

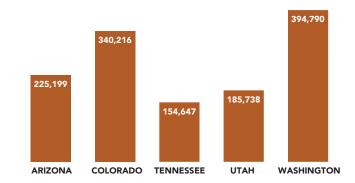
a third - 33.4% - of the university system's total enrollment. Total student enrollment at Arizona's public

On-campus traditional immersion student enrollment was up slightly from the previous year when the COVID-19 pandemic influenced in-person enrollment, yet a 0.7% decline in Arizona resident student

enrollment is concerning in an era where the state's workforce is increasingly reliant on skills gained



TOTAL ENROLLMENT IN 4-YEAR INSTITUTIONS OF COMPETITOR STATES (IPEDS), 2021



through higher education.



ACHIEVE

^{*}Total enrollment includes Dine College

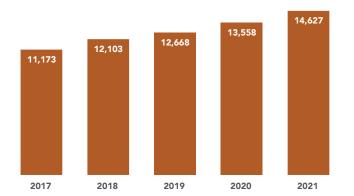
RECORD NUMBER OF GRADUATE DEGREES AWARDED

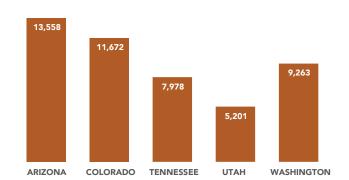
Arizona's public universities awarded a record number of graduate degrees in fiscal year 2021. Students earned 14,627 graduate degrees at the universities. Leading fields for degrees awarded among 12,413 master's degree recipients were education, business management, engineering, health professions, public administration and computer/information sciences. Of 2,214 doctoral degrees awarded, leading fields were health, legal professions, engineering, education and physical sciences.

Arizona's public universities awarded a record number of graduate degrees in 2021. Students earned 14,627 graduate degrees at the universities.

TOTAL GRADUATE DEGREES AWARDED AT ARIZONA'S PUBLIC UNIVERSITIES



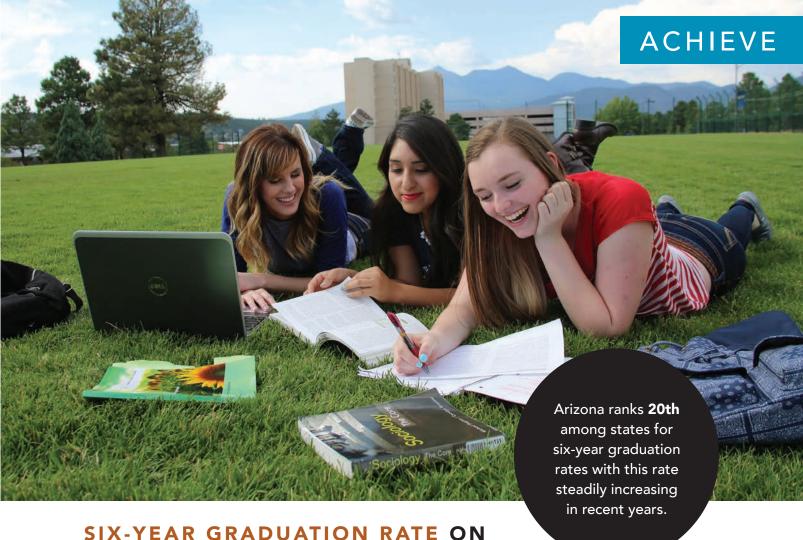




DEGREE PROGRAMS OFFERED THROUGHOUT ARIZONA

Arizona's public universities offer hundreds of degree programs for students from bachelor's to doctoral degrees at locations throughout the state.

- ASU offered 208 bachelor's degree programs, 222 master's degree programs, 96 doctoral degree programs, 130 baccalaureate certificate programs and 107 graduate certificate programs. Programs are offered at the Downtown Phoenix campus, Tempe campus, Polytechnic campus, West campus, Lake Havasu and multiple locations throughout Arizona.
- NAU offered 93 bachelor's degree programs, 70 master's degree programs, 20 doctoral degree programs, 50 baccalaureate certificate programs and 41 graduate certificate programs. In addition to the Flagstaff Campus, NAU operates more than 20 sites, which offer a range of undergraduate and graduate programs to meet community needs.
- UArizona offered 182 bachelor's degree programs, 176 master's degree programs, 108 doctoral degree programs, four first professional programs, three specialist programs, 117 graduate certificates and 43 undergraduate certificates.



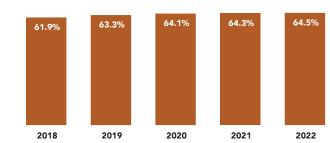
THE RISE AT UNIVERSITIES

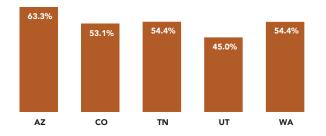
During the 2021-22 academic year, the six-year graduation rate at the universities was 64.5 percent, an increase from the previous year at 64.3 percent. The six-year graduation rate is a federally required metric and reflects improved productivity through degrees awarded while ensuring undergraduate students graduate in a reasonable time frame.

Increasing the six-year graduation rate will benefit individuals through higher wages, lower unemployment and better quality of life. While the graduation rate increased, Arizona lags the nation in the number of residents who earn a college degree.

SIX YEAR GRADUATION RATE AT ARIZONA'S PUBLIC UNIVERSITIES

SIX YEAR GRADUATION RATE IN 4-YEAR INSTITUTIONS OF COMPETITOR STATES (IPEDS), 2019







BOARD RELEASES LATEST TRENDS IN COLLEGE-GOING AND COMPLETION

The board released the latest trends in Arizona college-going and completion rates in its <u>Fiscal Year 2021</u> <u>Postsecondary Attainment Report</u> - data vital to help the board and Arizona leaders gauge educational attainment rates, which are directly linked to the economic vitality of the state.

Data indicates Arizona's college-going rate declined in 2020 - more than half of Arizona's high school graduates did not enroll in a postsecondary institution following graduation. College completion rates remain essentially flat over the past five years.

Arizona's level of educational attainment – the percentage of adults who earn a two- or four-year degree – trails the national average. In 2020, less than half – 46.3 percent – of Arizona's high school graduating class enrolled in a two- or four-year college or other postsecondary institution, a noticeable decline from the 52.9 percent enrollment rate in 2019. In comparison, the national immediate college enrollment rate for high school completers in 2019 was 66 percent.

Among the 2015 high school graduates' cohort, the group now reaching six years post high school completion, 27.4 percent completed a two- or four-year degree program after high school, compared to 27.3 percent in 2011. For the first time, the report contains information on graduates who are economically disadvantaged and English learners. Also, for the first-time, the report contains data on high school graduates diagnosed with a disability who qualify for services under the Federal Individuals with Disabilities Education Act.

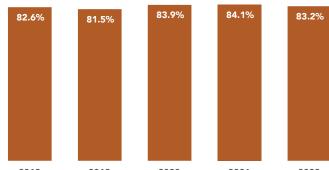
RETENTION RATES DIP SLIGHTLY DUE TO EFFECTS OF COVID-19 PANDEMIC

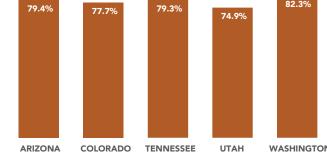
In fiscal year 2022, <u>first-time student retention rates</u> decreased slightly by a percentage point or less at all three of the universities, reflecting the effect of the COVID-19 pandemic.

Academic preparation for students entering a university is a key indicator of future retention. However, academic performance is not the only reason that students are not retained – they also leave for a range of personal, family and financial reasons. Universities have implemented an extensive set of success programs and support systems to help students address these challenges and to support retention.

FRESHMEN RETENTION RATE AT ARIZONA'S PUBLIC UNIVERSITIES







FRESHMEN RETENTION RATE IN 4-YEAR

^{*}Total freshman rerention includes Dine College



MENTAL HEALTH MATTERS

AWARENESS CAMPAIGN SHOWCASES UNIVERSITIES' MENTAL HEALTH RESOURCES

This year, the board and universities produced a new mental health awareness video campaign – Mental Health Matters - to compliment and showcase the universities' resources and mental health services. The videos feature inspirational and informative testimonials from students and staff with hopes that sharing personal stories will help others get help they need. The videos were launched in May to coincide with mental health awareness month. Already viewed thousands of times, the full push of this campaign will align with back-to-school season in the fall.

College is a time of change for many students who navigate their own physical and mental health for the first time without parental support. Consider this: A national survey of college students in 2020 found nearly 40 percent experienced depression and one in three reported having had anxiety. In a survey of directors of college counseling centers in 2020, nearly 90 percent reported that demand for their services had gone up in the previous year.

Among resources offered to help students are in-person and telehealth counseling services, peer-led discussions and support, crisis support, group counseling, couples counseling, substance use services, outreach programs and resilience programs.

COLLEGE DEGREE PAYS LONG-TERM BENEFITS

Earning a college degree pays long-term benefits not only to individuals, but to the state's economy. An individual in Arizona with a bachelor's degree earns median wages of \$52,077 - \$20,706 higher annually than peers with a high school diploma who earn \$31,371, according to the Fiscal Year 2021 Alumni Wages Report.

Median wages for an individual with a graduate degree are \$69,902 – more than double the wages of peers with a high school diploma - and \$32,886 more than individuals with an associate degree or some college. In 2021, about 234,000 public university degree recipients earned nearly \$17.2 billion in wages in Arizona and paid an estimated \$1.2 billion in state taxes.

Graduates are also more likely to be employed and have stronger earning power five years after graduation – even when factoring in the impact of student-loan debt. Median wages of graduates one, five, 10 and 20 years after graduation have all increased since 2010.

"The benefits of a university degree are clear. Individuals with a degree not only command higher salaries but also drive the prosperity of our state's economy. Degree holders have better quality of life, have more opportunities in the job market and contribute significantly to the tax base, providing a robust economy for all."

- ABOR Chair Lyndel Manson





LIMITED CAPITAL PROJECTS IN FY 2022, UNIVERSITIES INVEST IN DEFERRED MAINTENANCE

Capital projects approved by the board this year include the Classroom Office Building and Mill Avenue Parking Structure at ASU. With limited capital dedicated for new capital projects, the universities continue to invest in maintaining capital infrastructure.

STRATEGIC METRICS MEASURE UNIVERSITY PERFORMANCE

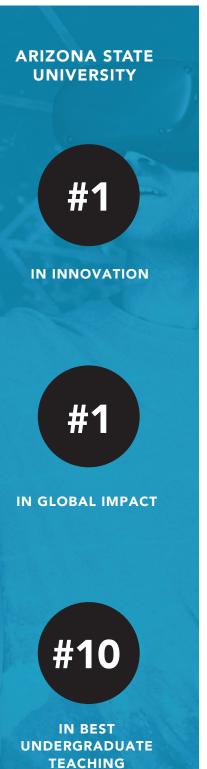
Designed to measure university progress to increase postsecondary access and educational attainment in Arizona, metrics and forecast measures reflect the board's governance and accountability framework.

During the past year, the board approved online metrics as well as institutional university metric targets for ASU and UArizona, measures that are unique to each institution to better reflect the distinctive brands, histories, cultures and roles of Arizona's three universities.

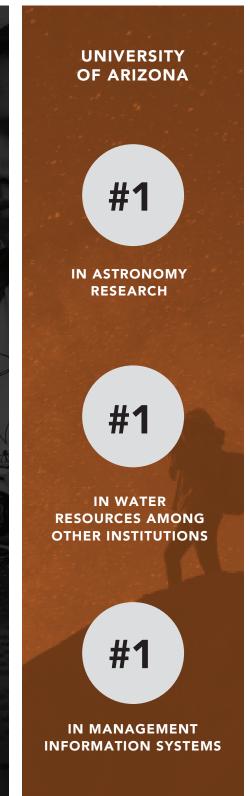
Metrics measure areas of university performance that the board has a strategic interest in advancing and forecast measures provide the board with greater insight and understanding into the university plans and expectations in an area of focus.

RANKINGS RECOGNIZE EXCELLENCE OF ARIZONA'S PUBLIC UNIVERSITIES

Arizona's public universities are consistently honored for innovation, impact, academics and research. Through national and international rankings, the universities are recognized for excellence in higher education.







DISCOVER VIEWING THE COSMOS This stunning image made possible by UArizona instruments and expertise is the edge of a nearby, young, star-forming region called NGC 3324 in the Carina Nebula. Captured in infrared light by NASA's Webb Telescope, the image reveals for the first time previously invisible areas of star birth. Called the Cosmic Cliffs, it is the edge of the giant, gaseous cavity within NGC 3324. The cavernous area has been carved from the nebula by the intense ultraviolet radiation and stellar winds from extremely massive, hot, young stars located in the center of the bubble, above the area shown in this image. Photo: NASA, ESA, CSA, and STScl

DISCOVER

ANNUAL REPORT | 53

Regents' Grants address issues that matter to Arizona - Valley Fever and dust, contaminated water, recycling and high ozone levels. Grants

are funded through the Technology and Research Initiative Fund,

dollars paid by every Arizonan at the cash register.

REGENTS' GRANTS DELIVERING SOLUTIONS FOR ARIZONA THROUGH INNOVATIVE PARTNERSHIPS

From air quality to clean water, driving research for the people of Arizona to uncover new solutions to persistent challenges facing the state is the purpose of the newly created Regents' Grants. Grants combine expertise of the universities' researchers with state agencies in an innovative collaboration expected to make a positive difference in Arizonans quality of life through transformative research.

Funded by Technology and Research Initiative Funds, the first Regents' Grant partnership is with the Arizona Department of Environmental Quality and Arizona Department of Health Services with grant dollars directed toward challenges such as contaminated water, Valley Fever and dust, recycling, mine waste and high ozone levels.

Through the Regents' Grants, the universities and state agencies work together to unlock solutions to these and other pressing challenges in Arizona. The board office engaged with staff from Governor Doug Ducey's office, the Arizona Departments of Administration, Environmental Quality, Health Services and Water Resources to develop a list of significant challenges facing the state. Those "problem statements" form the basis of the first round of partnership and funding for the new Regents' Grants.

Regents' Grants awareness was amplified through a communications campaign, resulting in broad media attention, earning dozens of national media placements, coverage from the Associated Press and two front-page stories in The Arizona Republic, and strong social media engagement.

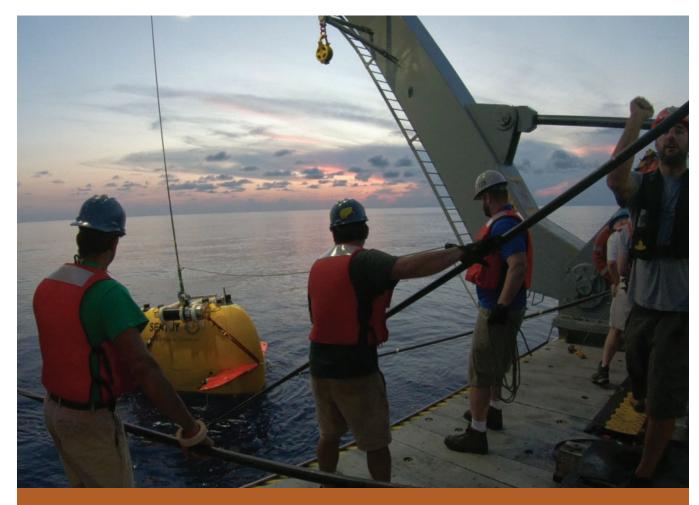
Photo courtesy of the Arizona Department of Environmental Quality "Through these Regents' Grants, our great hope - and strong belief - is that we can improve the lives of Arizonans and future generations." - Regent Fred DuVal

54 I ANNUAL REPORT

UNIVERSITY INNOVATION LEADS TO NEW INVENTIONS, LICENSES AND OPTIONS

Research discoveries at the universities spur new inventions, licenses and options. Beyond economic impacts of these discoveries are benefits that improve health, make communities better places to live and spur new job creation.

ASU, NAU and UArizona entered into 176 license and option agreements in fiscal year 2021 and the universities received 612 invention disclosures. Technology developed at the institutions is licensed to organizations and individuals for eventual commercialization while invention disclosures result in more patents issued, leading to new startup companies, products and jobs.



In a major development to deepen the understanding of the role that the ocean plays in climate science, Arizona State University announced a partnership with the Bermuda Institute of Ocean Sciences (BIOS), one of the longest-serving research institutes dedicated to studying ocean processes in the Western Hemisphere. ASU's Global Futures Laboratory will amplify that work within its mission to "design options for sustained global habitability and improved well-being for all "that will be greatly enhanced by the strengths of BIOS. Together, the partnership will share expertise in ocean sciences to study the highly interlinked, complex problems related to the future of the planet and will put students on the cutting edge of ocean science.



RESEARCH EXPENDITURES CONTINUE TO GROW

Research expenditures across Arizona's public universities continue to grow. In fiscal year 2021, Arizona public universities research activity – as measured by research expenditures – grew year-over year by \$28 million to \$1.516 billion.

Research is crucial as discoveries and innovations made at the universities are an essential part of Arizona's economic future and the means by which new technologies are created and discoveries are made, thereby enhancing the lives of Arizonans.

All of Arizona's public universities are internationally recognized for their research activity. ASU and the UArizona are among the nation's elite 131 universities classified as "R1: Doctoral Universities - Very High Research Activity," and NAU is among the nation's exceptional 135 universities designated "R2: Doctoral Universities - High Research Activity."

TOTAL RESEARCH EXPENDITURES AT ARIZONA'S PUBLIC UNIVERSITIES

TOTAL RESEARCH EXPENDITURES IN 4-YEAR INSTITUTIONS OF COMPETITOR STATES (IPEDS), 2021

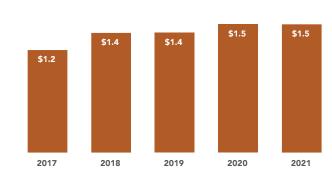
Arizona's public universities

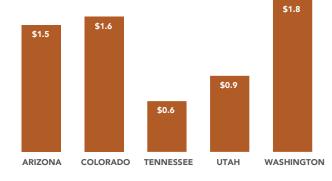
focus on research to create new knowledge benefiting the

state and society, spur new

startup companies and lead to

transformative discoveries.





*Charts above in billions
ANNUAL REPORT | 55

DISCOVER

OUT OF THIS WORLD RESEARCH

UArizona astronomers played a leading role in revealing the black hole at the heart of our galaxy - SagittaruisA* - the first direct visual evidence of the massive object.







NAU faculty and students are commanding activities of the Mars rover at the Mars Rover Operations and Analysis Laboratory on the Flagstaff campus. NASA in March awarded NAU Professor Christopher Edwards \$325,000, continuing rover operations work and geological research.



CONCLUSION

Arizona public higher education mirrors the values of our great state – opportunity, innovation, accessibility, diversity, choice, and our rich and enduring heritage. Working on behalf of all Arizonans, the universities enrich and elevate life in Arizona - building our future workforce, embarking on transformative collaborations and maintaining an entrepreneurial ethos that drives new knowledge forward. These tenets are defined by the board's guiding promise to Arizona to increase postsecondary access and attainment for Arizona students; to seek solutions to societal challenges; and to do both while increasing quality, affordability and efficiency. Arizona's public universities - building opportunity for all.

