



BOLDLY EVOLVING ARIZONA'S UNIVERSITY SYSTEM TO ENSURE THE VITALITY OF ARIZONA'S FUTURE

# PROSPERITY



*The intersection of higher education and economic prosperity*

THE ARIZONA BOARD OF REGENTS

## LEARNING. DISCOVERY. SERVICE.

The Arizona University System - Arizona State University, Northern Arizona University and the University of Arizona - is a complex and intricate enterprise, encompassing a diverse student body that engages in myriad learning opportunities and produces new knowledge that affects, even changes, Arizona and the world around us. Each university is a unique hub of learning, discovery and service, providing unparalleled and invigorating educational opportunities. They also are major economic engines for the state.

As the governing body for the university system, the Arizona Board of Regents is committed to ensuring affordable access to Arizona's public undergraduate and graduate institutions to the citizens of the state and learners around the world. We promote the discovery, application and dissemination of new knowledge and extend the benefits of university activities to Arizona's citizens outside the universities, maximizing the benefits derived from the state's investment in higher education.

Between the task of delivering affordable higher education that's relevant to students' needs and translating new knowledge to the marketplace and to the community, the Board of Regents and university presidents balance strategies to ensure the system provides the quantity and quality of graduates needed to sustain a dynamic and vibrant economy for Arizona.

With a more highly educated population, all Arizonans, not just those with degrees, will enjoy greater economic prosperity. It is at this intersection of higher education and economic vitality that the Arizona Board of Regents has developed an innovative and aggressive strategic plan for the Arizona University System.

As part of the Board of Regents' overarching mission, we are working to increase access to our institutions, produce enough high-quality university degrees for the state to be nationally competitive by the year 2020, and provide the educated workforce needed to fill shortages and to stimulate demand for higher paying jobs in Arizona. The regents are working to increase the capacity of the system's research enterprise so that we can continue to contribute to the knowledge economy as well. Our goals support and stimulate a growing, vibrant economy and an enhanced quality of life for Arizonans through a top-performing university system that is nationally recognized for excellence in academic and research pursuits.



A Northern Arizona University student works in one of the university's many research laboratories. NAU has a strong reputation for providing hands-on research opportunities to undergraduate and graduate students, providing them with valuable skills to enter the workforce. Through partnerships with organizations such as the Translational Genomics Research Institute, students gain practical experience from experts in their field of interest.





## THE CHALLENGE

Higher education has never been more important to global economic competitiveness, yet it has never faced greater challenges in Arizona and across the nation. By 2018, 61 percent of all jobs in Arizona will require some postsecondary education. But at the nexus of educating and training an able workforce are the fiscal realities of a changing economic landscape that has affected higher education in Arizona like never before.

Though workforce trends indicate the need for a more college-educated population, we know that geographic, monetary and cultural barriers keep many qualified students from finding their way to, or through, the doors of higher education. Only 52 percent of Arizona's high school graduates pursue any form of higher education after graduating high school. Furthermore, only 17 percent of Arizona high school students have a bachelor's degree six years after graduating high school.

In order for our state to have the qualified workforce it needs, the Arizona University System must dramatically change the way higher education is delivered and increase the number of students who complete degrees.

## ARIZONA IN-DEMAND OCCUPATIONS AND EDUCATION REQUIREMENTS IN 2018

OCCUPATION	RANK	EDUCATION LEVEL
Registered Nurse	1	Associate Degree
Network System & Data Communications Analysts	2	Bachelor's Degree
Medical & Health Services Managers	3	Bachelor's Degree or Higher
Pharmacists	4	First Professional Degree
Computer Systems Software Engineers	5	Bachelor's Degree
Computer Applications Software Engineers	6	Bachelor's Degree
Sales Managers	7	Bachelor's Degree or Higher
Physical Therapists	8	Master's Degree
Industrial Engineers	9	Bachelor's Degree
Dental Hygienists	10	Associate Degree
Accountants & Auditors	11	Bachelor's Degree
General Dentists	12	First Professional Degree
Civil Engineers	13	Bachelor's Degree
Family & General Practitioners	14	First Professional Degree
Postsecondary Health Specialties Teachers	15	Doctoral Degree
General Internists	16	First Professional Degree
Anesthesiologists	17	First Professional Degree
Management Analysts	18	Bachelor's Degree or Higher
Computer System Analysts	19	Bachelor's Degree
Lawyers	20	First Professional Degree
Medical Scientist, Except Epidemiologists	21	Doctoral Degree
Network & Computer System Administrators	22	Bachelor's Degree
Training & Development Specialists	23	Bachelor's Degree
Licensed Practical & Vocational Nurses	24	Postsecondary Vocational Training
Business Teachers, Postsecondary	25	Doctoral Degree

Source: Arizona Department of Administration  
Office of Employment and Population Statistics



In 2007, the first class of the University of Arizona College of Medicine-Phoenix Campus joined together for the traditional "white-coat" ceremony as they began their educational journey toward becoming physicians. In 2011, the first class of the Phoenix campus graduated. (Bottom left photo)

With more than 4,800 students in the undergraduate and graduate programs, the Arizona State University College of Nursing and Health Innovation produces approximately 220 graduates each academic year.



## MEETING THE CHALLENGE

How can the Arizona University System produce the educated workforce needed for a prosperous future amid the changing higher education landscape?

The answer lies in cultivating greater efficiencies and expanding educational opportunities within our own system and with our partners in the community college and K - 12 communities. With that in focus, the Arizona Board of Regents is boldly evolving the state's public university system to heed the educational and workforce calls of the future so that Arizona can enjoy the ample rewards of a vibrant economy.

Foremost, the Arizona Board of Regents has adopted an enterprise model of governing and managing the university system. We are reengineering ourselves into an integrated enterprise system with an outcome-driven approach to achieve maximum educational delivery and operating efficiencies coordinated across all campuses. Our efforts will provide students and the state with the higher education options they need, delivered in a way the system can afford.

The enterprise model increases productivity, makes Arizona competitive in the national and global economy, raises the standard for operational efficiency and effectiveness, and improves student access and affordability. It recognizes and maintains each university's unique mission, but creates synergies to ensure the highest return on investment for students and the state.

With the enterprise model in place, the university system has adopted a series of performance metrics to measure productivity and ensure our state has a top-performing university system that stimulates a growing economy and high quality of life for Arizonans. The metrics allow the Board of Regents to monitor progress and successfully manage the system to those metrics, which are centered in four key areas: educational excellence and access, research excellence, workforce and community, and productivity.

# INNOVATION



Formed by the U.S. Army in 2004, the ASU Flexible Display Center is a collaborative partnership of government, industry and academia that is advancing full-color flexible display technology and fostering development of a manufacturing ecosystem to support the rapidly growing market for flexible electronic displays. FDC partners include many of the world's leading providers of advanced display technology, materials and process equipment.

THESE CHANGES ARE MOVING ARIZONA FORWARD ON THE PATH TO A BETTER TOMORROW.

## *Educational Excellence and Access*

### **MEETING THE HIGHER EDUCATION CHALLENGE**

Demographers predict that in 2020, nearly one in three Americans will have a bachelor's degree. In 2000, fewer than one in four Arizonans had a bachelor's degree. If past trends continue, Arizona will fall short of the national average by about 220,000 college graduates. For Arizona to be nationally competitive in educational attainment, the university system must produce at least 30,000 bachelor's degrees annually by the year 2020.

Educational attainment drives our knowledge-based economy, but it also delivers other important benefits. Numerous studies bear a strong correlation between educational level and personal income, productivity, civic participation, life expectancy, employment status and community strength. The quickest way to increase per capita income is to increase the percentage of Arizonans with bachelor's degrees.

To achieve an educationally competitive profile, we must increase the capacity of our higher education system, strengthen the educational pipeline of students moving from K - 12 to the postsecondary level, and tighten participation and achievement gaps. All are unique challenges in and of themselves.

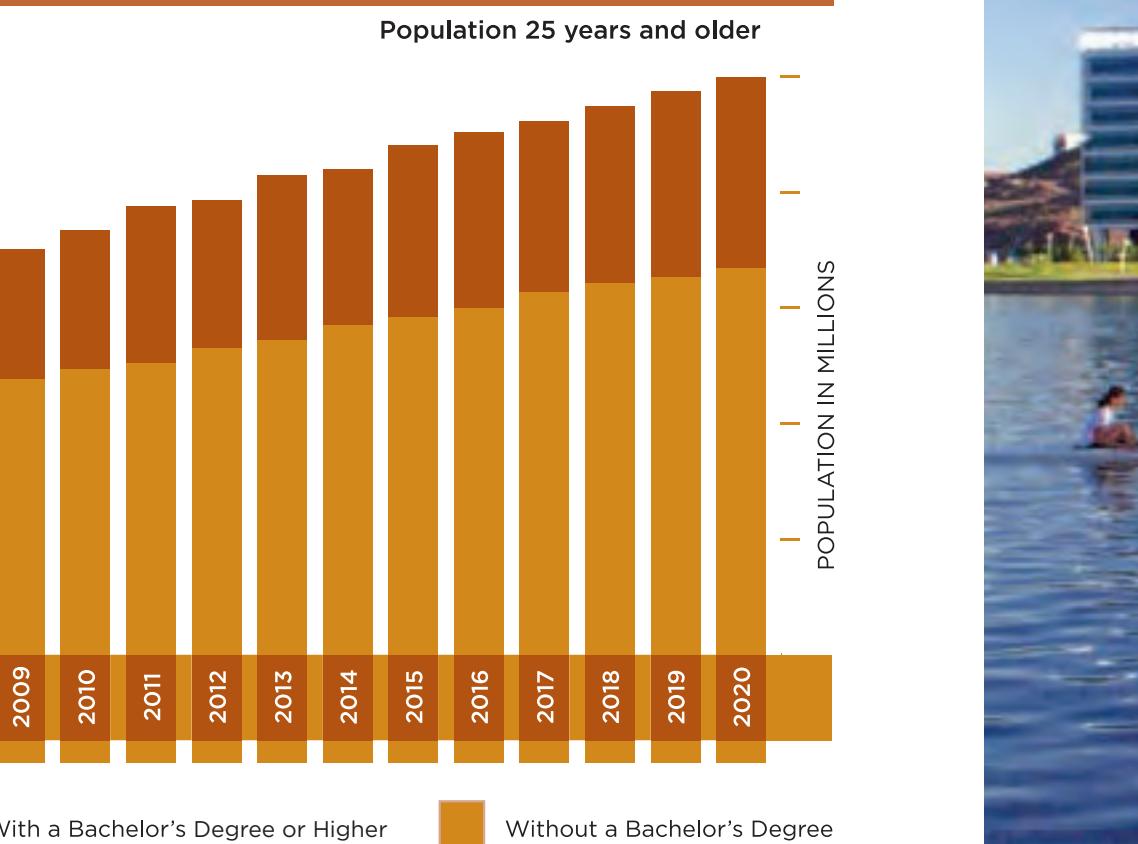


## AVERAGE FAMILY INCOME BY EDUCATIONAL ATTAINMENT



Source: Postsecondary Education Opportunity, 2009; The Mortenson Research Seminar on Public Policy Analysis of Opportunity for Postsecondary Education

## MOVING ARIZONA EDUCATIONAL ATTAINMENT TO NATIONAL AVERAGE





## INCREASING CAPACITY FOR GREATER ACCESS AND AFFORDABILITY

To meet our graduation goals and provide Arizona with the educated workforce it needs, the university system will require a substantial increase in enrollment capacity and must provide more ways for students across the state to access higher education. We know that not everyone can travel to or afford to attend one of the main university campuses in Tempe, Tucson or Flagstaff.

The Board of Regents has directed each university to create new and innovative pathways for students to obtain a degree. Arizona State University, Northern Arizona University and the University of Arizona are focused on developing and expanding partnerships with Arizona's public community colleges to ease credit transfer, increase online programs, and develop new university/community college hybrid campuses and teaching-only campuses that offer high-demand degrees. Students can save up to 50 percent on the cost of tuition by completing a degree through one of these pathways and we expect the number of students to be served through these educational delivery platforms to continue to grow.

*Systemwide, there are more than 1,100 bachelor's degree pathway programs between Arizona's community colleges and public universities. In addition to bachelor's degree pathway programs, the universities also offer lower tuition options at extended campus sites and through accelerated and online degree programs.*



**“GETTING A DEGREE IS**

**REALLY WITHIN REACH, NOW MORE THAN EVER.”**

Partnerships among Arizona’s public universities and the community colleges are enabling students to obtain bachelor’s degrees without compromising their family and work lives or having to leave their communities for one of the university main campuses. Currently, there are more than 1,100 unique pathways between the universities and community colleges that not only expand access, but also are more affordable.

Christy Ortiz is a full-time mom with two young children and a resident of Rio Rico, Arizona. Ortiz received her bachelor’s degree through the Santa Cruz County Provisional Community College district, which works with Cochise College Nogales Santa Cruz Center and University of Arizona Santa Cruz to offer degrees. After nearly three years of working toward a degree, she received her bachelor’s in elementary education.

“As a wife and mother, I assessed my options and was not fond of the idea of having to travel out of town to attend classes at UA main campus in order to obtain a degree,” said Ortiz. “The UA Santa Cruz path was fantastic for me. I completed my bachelor’s degree without having to move or spend hours traveling to a main university campus. I really enjoyed the versatility of the small, interactive classes, as well as online classes. Not only did I walk away with a degree, but also with new lifelong friends.”

Ortiz says she encourages her friends who also consider going to college. “The universities are becoming more and more accessible and offer so many nontraditional options for those wanting to pursue their educational dreams,” she said. “Getting a degree is really within reach, now more than ever.”

Christy Ortiz  
Graduate, UA Santa Cruz



## STRENGTHENING THE EDUCATIONAL PIPELINE

Arizona ranks low in the percentage of students in the K – 12 system who proceed on to a bachelor's degree. The university system, like never before, is aligning with its K – 12 and community college partners to strengthen this pipeline, and encourage and prepare more children to obtain a bachelor's degree.

Arizona is one of 44 states to adopt the "Common Core State Standards," a set of standards that defines the knowledge and skills students should have within their K – 12 education so that they will graduate high school able to succeed in entry-level, credit-bearing academic college courses and in workforce training programs.

## TIGHTENING PARTICIPATION AND ACHIEVEMENT GAPS

Part of the regents' commitment to accessible higher education means ensuring strategies are in place at the universities to address the participation and achievement gaps in Arizona, especially those segments that have participated in college at lower rates. Through expanded pathway programs, online courses, improved financial aid and more student-centered services, such as mentoring, tutoring and advising, the university system is continually defining ways to close these gaps.

## METRICS FOR SUCCESS IN THE AREA OF EDUCATIONAL EXCELLENCE AND ACCESS

- *Number of bachelor's degrees awarded*
- *Number of master's degrees awarded*
- *Number of Arizona community college students who transfer to a university*
- *Number of Arizona community college transfer students awarded bachelor's degrees*
- *Educational quality as reported in the National Survey of Student Engagement (NSSE) or the Educational Testing Service (ETS) Proficiency Profile*
- *Cost of attendance as a percentage of Arizona median family income*
- *Six-year graduation rate*
- *Freshman retention rate*
- *Undergraduate enrollment*
- *Total enrollment*
- *Four-year graduation rate of Arizona community college transfers*
- *College-going rate (from K – 12)*

## ASU'S PRIME THE PIPELINE

Predicting the future of species' habitats using climate data to age-progress a species is not just the research of elite scientists in the Arizona University System, but of high school students working with university researchers to uncover mysteries and answer unique problems. This exciting project and others like it are part of an effort to increase the successful transition of students from K - 12 to the postsecondary level and to encourage interest in science and math at Arizona State University, which launched the widely popular Prime the Pipeline Project in 2009.

Prime the Pipeline "villages" are central to the Prime the Pipeline Project. High school students work in small scientific villages with their peers, high school teachers (as learners), ASU faculty, undergraduate mentors, and industry and business leaders to solve complex problems. Collaboratively, they work on long-term projects that require the application of concepts and skills from science, technology, engineering and mathematics (STEM) and business careers and are given access to cutting-edge technology to solve problems.

Participation in the project is designed to increase students' success in mathematics and science and develop students' skills in workplace technologies, communication, collaboration and critical thinking. The project also increases student awareness of STEM and business careers, university programs in these areas, and their talents in these fields.

This community service program, offered by ASU and funded by the National Science Foundation, is just one way the university system is answering the call to ensure students are better prepared for college and also grow careers that Arizona's workforce will demand in the future.



## PROJECT

**Innovative Outreach at ASU.**  
In ASU's Prime the Pipeline Project "Wind Turbine Village," students learn about wind energy by building wind assessment towers, recording wind data and exploring high wind trends in different locations throughout the world.



PROFILE - STUDENT SERVICES

## ACCESSIBLE FOR MILITARY PERSONNEL AND VETERANS

Arizona's University System delivers targeted services to a variety of unique student populations based on their needs, including veterans returning from service. The number of veterans pursuing higher education at Arizona's public universities has continued to grow since the events of Sept. 11 and from generous educational benefits afforded by the post-Sept. 11 Veterans Education Assistance Act.

Veterans have specific needs tied to the transition to academic life and success through graduation. Ensuring best outcomes for these students is part of the universities' response to create enhanced recruitment, retention and graduation rates. Innovative outreach programs, peer and professional counseling, mentoring programs, priority registration and career services are just part of what the universities are offering for veterans.

Arizona State University dedicated its new Tempe campus veterans' center to the memory of Pat Tillman, a former ASU student and Arizona Cardinals football player who, in 2002, turned down a \$3.6 million contract to join the United States Army Rangers. He died in 2004 while serving in Afghanistan. The Pat Tillman Veterans Center provides a central location for veterans transitioning to academic life, offering services and resources to help with their unique needs and achieve success in their educational goals.

Northern Arizona University and the University of Arizona also have thriving veterans' centers on their campuses, providing guidance, counseling and resources for transition, admission, retention, graduation and career services for active duty military members, the National Guard, reserve forces, veterans and their families.

The universities offer numerous special programs for veterans, including priority registration, clubs, workshops and camps for disabled veterans. NAU is the first public university in the state to offer a tuition rate that matches the Department of Defense Tuition Assistance Program funding for active duty military, reserve forces and National Guard personnel who qualify, offering a significant savings to active military personnel.

DISCOVER



## Research Excellence

### DRIVING RESEARCH THAT IMPACTS LIVES AND THE ECONOMY

It sounds like science fiction – fueling airplanes with algae, treating illness without medicine, or using DNA sequencing to track elusive strains of tuberculosis. But in the Arizona University System, research that leads to these real innovations translates to technologies and products that improve lives and stimulate the economy.

Advances like these are the products of intense research and development. Much of the innovation that improves people's lives springs from university research and Arizona's public universities are critical incubators for such innovative research and activity.

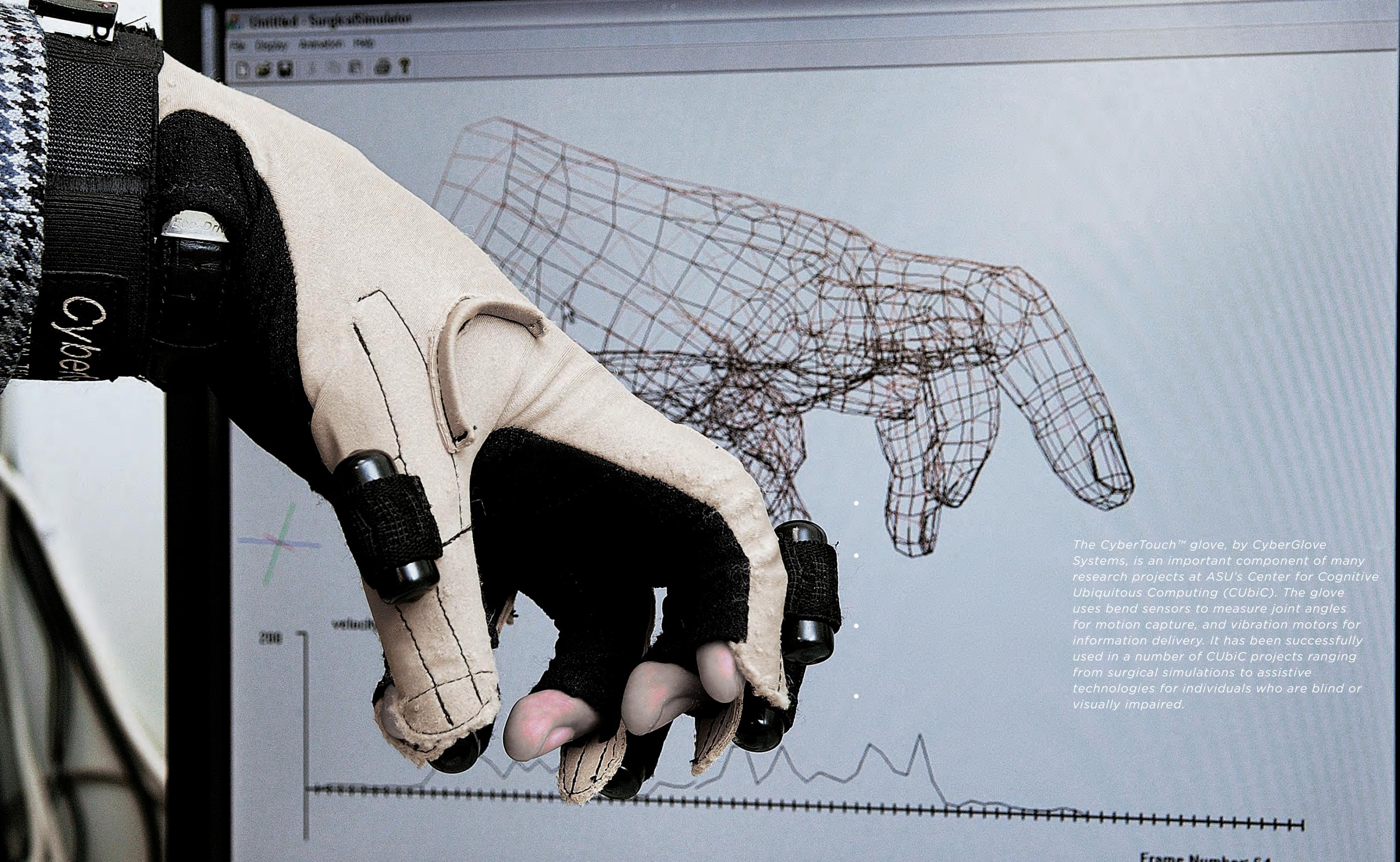
Arizona University System faculty are creating the next generation of knowledge, giving students unparalleled access to learning opportunities that shape our communities and create a thriving workforce for our state.

#### THE ARIZONA UNIVERSITY SYSTEM IS A HIGHLY PRODUCTIVE ECONOMIC RESEARCH ENGINE.

- At the University of Arizona, **its rank in the top 20 of public research universities\*** means it attracts the brightest scientists, engineers and students in our state and from around the world to help create a thriving workforce and rich opportunities for commercial partners.
- Among U.S. universities with research portfolios exceeding \$100 million in research expenditures, ASU **was the fastest growing research enterprise over the last five years\*\***.
- NAU is **awarded more than \$75 million each year** in external funding for research in numerous fields including environmental science and emerging diseases.

\*The Top American Research Universities, 2010 Annual Report,  
The Center for Measuring University Performance

\*\*2004 - 2009 National Science Foundation Surveys



- The CyberTouch™ glove, by CyberGlove Systems, is an important component of many research projects at ASU's Center for Cognitive Ubiquitous Computing (CUBiC). The glove uses bend sensors to measure joint angles for motion capture, and vibration motors for information delivery. It has been successfully used in a number of CUBiC projects ranging from surgical simulations to assistive technologies for individuals who are blind or visually impaired.

## “IT’S A HIGHLIGHT FOR ME TO BE ABLE TO CONTRIBUTE

## TO THE GREAT ACADEMIC COMMUNITY.”

Undergraduate research is a vital part of the research engine at the universities. The achievement of Arizona State University chemical engineering student Brian Perea is a shining example of the body of work undergraduates contribute.

Awarded the prestigious Barry M. Goldwater scholarship for his academic vigor in engineering, Perea says the opportunity to conduct research early in his undergraduate experience was a significant factor in his decision to attend ASU. He was accepted during his freshman year into the Fulton Undergraduate Research Initiative (FURI) program of ASU’s Ira A. Fulton School of Engineering.

“Everyone starts off the same way in research – both challenged and frustrated,” Perea says. “But I was able to build a project from the ground up and collect results, which ultimately led to publication in research journals. I never considered that I would be a published author so early. It’s a highlight for me to be able to contribute to the great academic community,” he says.

Perea believes a significant obstacle in pursuing higher education is not discovering opportunities early enough to take advantage of them. “The opportunities that ended up defining my academic and career paths were not easy to come by,” he said. “Because I continue to struggle with this obstacle so much, I make special efforts to increase awareness of the opportunities available to students. I help develop outreach events and activities for K – 12 schools and community colleges in Phoenix and I also regularly speak about research, university life and volunteering at ASU.”



**Brian Perea**

ASU Chemical Engineering Undergraduate Student  
and Goldwater Scholar

*ASU student Brian Perea has worked on research to develop a nanoparticle formulation capable of delivering chemotherapeutic drugs to human prostate cancer cells while avoiding drug release in the rest of the body. His novel research aids the achievement of combination chemotherapy by encapsulating multiple drugs in each nanoparticle.*

## RESEARCH WILL LEAD THE WAY

Significant knowledge is created by university research and can be measured by inventions, patents and start-up companies, all of which fuel the private sector and translate into jobs – high-paying, high-skill jobs. In Arizona, millions of dollars are reinvested annually into the community through its public universities' research activity.

Funding research is a high priority for the enterprise. Our largest research funder, the federal government, most recently provided a large increase in sponsored projects through the American Recovery and Reinvestment Act (ARRA). However, with the termination of the program, federal funding is expected to be flat or slightly declining over the next several years. Cross-university collaboration, long-range strategic research planning, and the hiring of nationally-recognized faculty in specific areas will help the enterprise to fill this funding gap. In addition, research collaborations with industry and entrepreneurial companies will help to promote economic growth in the state.

Increasing the research capabilities and performance of the Arizona University System to a level of competitive prominence with peer rankings of top American research universities is a significant part of the regents' overarching goal to contribute to the vitality of Arizona's future.



The University of Arizona is the top-ranked research university in the country for planetary exploration, according to a recent study by Thomson Reuters Corporation. Through the Department of Planetary Sciences and the Lunar and Planetary Laboratory, the UA has been involved in nearly all of the planetary exploration missions over the past 40 years. UA teams also have led entire NASA missions, such as the Phoenix Mars Mission and OSIRIS-REx.



## “THE CONFIDENCE THAT COMES FROM SOLVING A PROBLEM YOURSELF IS INCREDIBLE.”

In the Arizona University System, development of new knowledge and critical research translates to better lives for Arizonans and people throughout the world. At Northern Arizona University, Associate Professor Jani Ingram is making a significant impact on Native American health as she strives to find solutions to cancer disparities among Native Americans, while teaching the next generation of researchers who boost the health of their home communities.

A tribal member herself, Ingram's research addresses how environmental exposure of uranium on Navajo communities affects drinking water, soil and plants and thus, how uranium may work as a carcinogen.

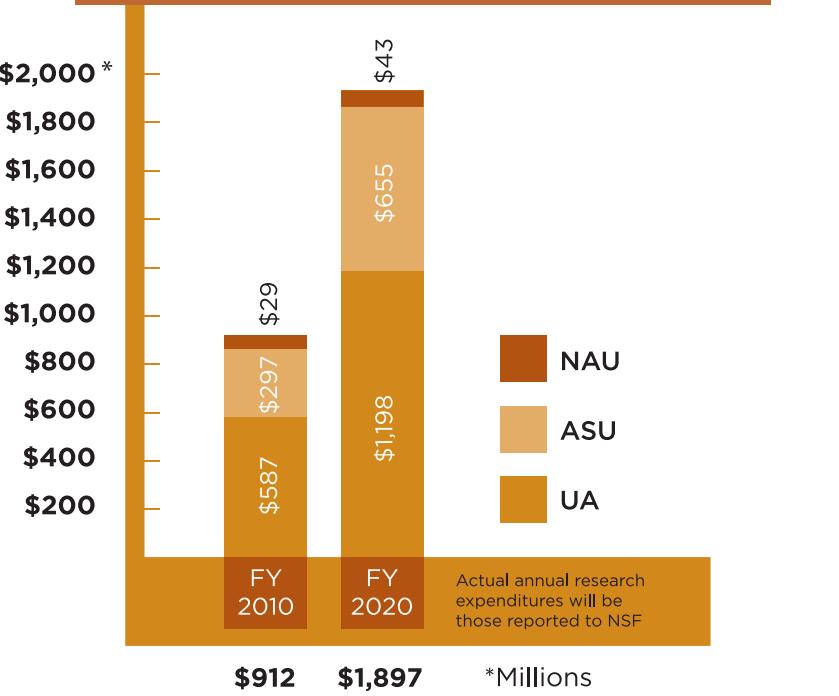
Ingram's research team, which includes many of her students, has sampled wells and conducted surveys to determine how residents are using the water. The concern that uranium is present in the drinking water prompted tribal members to ask the researchers if their own wells may be included in the study. The combination of water-quality data and usage patterns helps the team of researchers to advise tribal members on how to minimize their exposure to uranium.

“We have hard numbers now to help us identify how to find a better water situation for people in the reservation communities,” Ingram says. She and her students share their results via door-to-door visits on the reservation, and in public meetings at the chapter houses.

For Ingram, training students in research is as fulfilling as the actual research she conducts. “The absolute best thing about working with undergraduates in research is seeing their growth – both as scientists and as people,” said Ingram. “The confidence that comes from solving a problem yourself is incredible. It's great for me to be a part of the process.”

Through state-of-the-art research and instruction for the next generation of researchers, faculty members such as Dr. Ingram make Arizona's universities important sources of cutting-edge research.

## PROJECTED RESEARCH EXPENDITURES FY 2020



## METRICS FOR SUCCESS IN THE AREA OF RESEARCH EXCELLENCE

- Total research and development expenditures
- Number of doctoral degrees awarded
- Number of invention disclosures transacted
- Number of patents issued
- Intellectual property income
- National public research university ranking

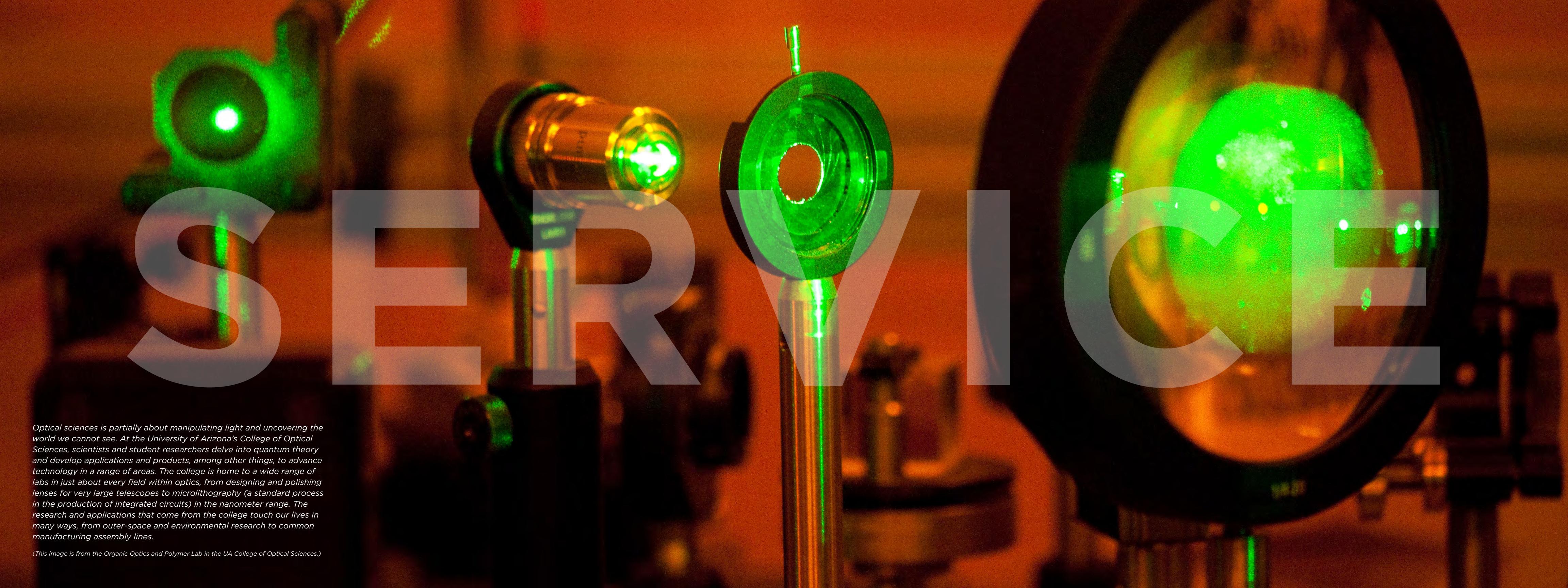


UA Science and Technology Park

NAU Applied Research and Development Building



ASU Research Park



Optical sciences is partially about manipulating light and uncovering the world we cannot see. At the University of Arizona's College of Optical Sciences, scientists and student researchers delve into quantum theory and develop applications and products, among other things, to advance technology in a range of areas. The college is home to a wide range of labs in just about every field within optics, from designing and polishing lenses for very large telescopes to microlithography (a standard process in the production of integrated circuits) in the nanometer range. The research and applications that come from the college touch our lives in many ways, from outer-space and environmental research to common manufacturing assembly lines.

(This image is from the Organic Optics and Polymer Lab in the UA College of Optical Sciences.)

## *Workforce and Community*

### **MAKING A DIFFERENCE IN ARIZONA**

Arizona's public university system is founded on three primary missions: teaching, research and service. Our communities benefit not only through the infusion of well-trained graduates into our economy and technology transfer, but also through community service and outreach programs such as forest health, environmental sustainability efforts, mentoring and professional development of teachers, community planning or development efforts, cooperative extension programs, telemedicine, museums and a host of other offerings.

These extensive community service programs provide great benefits to our state and enrich our economy. A recent report by the National Association of State University Land Grant Colleges (NASULGC) noted that community engagement is a fundamental and essential characteristic of public higher education equal with learning and discovery.



## **WORKFORCE IMPACT**

According to the Arizona Department of Administration Office of Employment and Population Statistics, 22 of the top 25 in-demand jobs in Arizona will all require a bachelor's degree or higher by the year 2018. The regents understand that creating a stronger economy is not just about degree production; it also means producing graduates with the relevant experience to thrive in these high-demand jobs in our communities.

In collaboration with educational and community partners, the Arizona University System is developing new pathways for workforce training and degree attainment specifically in education, science, technology, engineering and math (STEM), health professions, medicine and other high-demand fields.

## **METRICS FOR SUCCESS IN THE AREA OF WORKFORCE AND COMMUNITY**

- *Total expenditures related to service and engagement activities*
- *Number of degrees awarded in high-demand fields*
  - *STEM (undergraduate and graduate)*
  - *Education (undergraduate and graduate)*
  - *Health professions and related (undergraduate and graduate)*
- *Diversity of graduates (undergraduate and graduate rates)*
- *New companies started*
- *Milken Institute State Science and Technology Ranking*
- *Adults with bachelor's degrees in Arizona*

## VIRTUAL MEDICINE. REAL LIFE RESULTS.

At a rural hospital in Arizona, a trauma surgeon may not be on hand to attend to life-threatening injuries. But thanks to the innovative Arizona Telemedicine Program, with its central hub at the University of Arizona Health Sciences Center, trauma surgeons and other specialists can “virtually” attend to patients and work side-by-side with on-site physicians.

Telemedicine, or the use of telecommunications technology to provide specialty health care services to geographically separated patients, has been part of Arizona's health care landscape for many years. This is just one example of how Arizona's University System shares its expertise with the community. In 1996, the Arizona Legislature funded the Arizona Telemedicine Program for an eight-site pilot project to provide a broad range of clinical and distance education services to geographically isolated communities, including Indian tribes and the Arizona Department of Corrections.

Today, the award-winning Arizona Telemedicine Program provides telemedicine services to more than 160 sites and 20 medically underserved communities throughout Arizona. Since the inception of the program, more than 1 million clinical encounters have been provided through the use of the Arizona Telemedicine Program network. This includes specialty areas such as behavioral health, pathology and radiology.

Comprehensive medical education content is also accessible at a distance to health care providers in over 30 communities in the state. More than 15,000 health care providers have participated in distance education programs offered through the Arizona Telemedicine Program network. This has encouraged physicians, nurses and other health care professionals to establish and retain practices in underserved rural areas.

In addition, the Arizona Telemedicine Program has instituted innovative programs in inter-professional education – multiple health workers from different professional backgrounds work together with patients, families, caregivers and communities to deliver the highest quality of care.



## *Productivity*

### **STEWARDSHIP OF THE PUBLIC RESOURCE**

At the nexus of achieving necessary educational attainment goals for the future is the reality of limited state resources in light of total funding needed to serve such a large increase in the student population. This reality underscores the importance of productivity now and into the future. Assuring effective and efficient expenditures per degree, while maintaining the quality and integrity of educational degrees, is paramount to posture the university system's capacity to ensure an educated workforce for tomorrow.

According to research completed by the National Center for Educational Management Systems (NCHEMS), Arizona ranks high on the metric scale used to evaluate productivity. In bachelor's degrees awarded per 100 full-time students, and total funding per full-time students, Arizona ranks above the 80th percentile.

The Arizona Board of Regents has been the steward of higher education in Arizona since the mid-1800s. As part of the territorial legislature, the Arizona Board of Regents was established in 1864 to provide direction and governance for the University of Arizona. Arizona State University and Northern Arizona University, then state colleges, were governed by the State Board of Education. In 1945, the governor signed House Bill 136 uniting the governing boards of the university and state colleges of Arizona. The authority of the Board of Regents expanded to include the Arizona State Teachers College at Tempe (since 1958 Arizona State University), and Arizona State Teachers College at Flagstaff (since 1966 Northern

### **METRICS FOR SUCCESS IN THE AREA OF PRODUCTIVITY**

- Number of bachelor's degrees awarded per 100 full-time students
- Composite financial index (CFI)
- Tuition at average of peer institutions
- Online degrees (undergraduate and graduate)
- Online certificates (undergraduate and graduate)
- Employment of graduates who stay in Arizona
- Number of bachelor's degrees from community college transfers
- Education and related expenses per degree
- Colleges, online and other enrollment (undergraduate and graduate)



**Serving Higher Education Through the Years**

The Arizona Board of Regents has been the steward of higher education in Arizona since the mid-1800s. As part of the territorial legislature, the Arizona Board of Regents was established in 1864 to provide direction and governance for the University of Arizona. Arizona State University and Northern Arizona University, then state colleges, were governed by the State Board of Education. In 1945, the governor signed House Bill 136 uniting the governing boards of the university and state colleges of Arizona. The authority of the Board of Regents expanded to include the Arizona State Teachers College at Tempe (since 1958 Arizona State University), and Arizona State Teachers College at Flagstaff (since 1966 Northern

## THE ARIZONA HIGHER EDUCATION ENTERPRISE

The Arizona Board of Regents has fundamentally changed the way the Arizona University System operates to meet the needs of growing student populations and changing economies. We are forging a new path for Arizona, with affordable tuition options and greater access to quality university education. With a keen focus on outcomes, the university system is strategically positioned to meet the needs of our state's knowledge-based economy and provide economic security for Arizona families.

Through this streamlined enterprise system, the Board of Regents is acutely focused on governing, managing and funding the system through outcome-driven objectives.

We are increasing access and educational attainment through new, lower-cost tuition options, expanded online offerings, community college partnerships and broader admission standards at select campuses.

As we ambitiously work to address the needs of Arizona's knowledge-based economy, the Arizona Board of Regents has developed important performance outcome-driven metrics that will keep the university system on track and accountable. These metrics are driving a new performance-based funding model built on university productivity and state economic growth. Operating with new models of efficiency, we are on track to ensure the quality and quantity of degrees needed for our workforce today and in the future.

As the Arizona Board of Regents advances our higher education efforts, Arizona students and families can be assured of our commitment to providing them affordable, accessible and high-quality education throughout the state. Arizona citizens can be confident in our pledge to ensure the university system is as efficient and productive as any in the United States and is leading the way to economic growth for our state.



*The Arizona Board of Regents extends its appreciation to Arizona State University, Northern Arizona University and the University of Arizona for providing many of the images used in this brochure. Full photo credits are available at [www.azregents.edu](http://www.azregents.edu).*

# ASSURING OUTCOME-DRIVEN EDUCATION FOR ARIZONA