



Michael M. Crow

At-Risk Assessment

FY 2025

June 24, 2025

TO: Cecilia Mata
Chairman, Arizona Board of Regents

FROM: Michael M. Crow
President, Arizona State University



CC: Arizona Board of Regents
Chad Sampson
Jennifer Pollock

RE: FY2025 At-Risk Compensation Goals

Enclosed for your review is the summary of my At-Risk goals for FY2025.

ASU continues moving forward with high rates of innovation and high levels of performance overall from our team. We have also seen significant increase in student success and graduation, research and community impact. We have reversed the trend of Arizona students coming to ASU by substantially expanding the number attending and graduating from ASU, and this trend is accelerating. We are continuing to advance the university at a moment of complicated public policy redesign at the national level, both with regard to national financial aid programs as well as national support for research programs.

ASU continues, as has been the case for several years, to establish institutional bests in terms of enrollment, graduation, impact of graduates, quality of graduates, research performance, fundraising, etc. All of these things are a function of ASU being home to a fantastic, design-oriented, innovation-driven workforce.

Attached to this cover memo is a complete summary of the goal attainment performance for each of the single year FY2025 At-Risk compensation goals. These At-Risk goals are those that were specifically negotiated last year as items for particular focus by the Board. They do not represent the totality of effort or the totality of success or complexity.

Each of the one-year At-Risk goals are reviewed below:

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1) FY2024-2025 At-Risk Goal #1: Position ASU as a beacon of innovation and excellence in Collegiate Athletics nationwide by creating an ambitious five-year strategy to establish Arizona State University as a dominant force across revenue generating sports and within the Big 12.

Goal Status: ACCOMPLISHED

In this year, we have facilitated a significant turnaround in all aspects of ASU Athletics including financial design, new management, new structural design, new support for programs and facilities, new approaches for fan engagement and literally every aspect of what we must do, which is to advance ASU Athletics to the highest level of competitiveness.

This year, we won conference championships in 4 sports, and we are highly ranked in more than 10 sports nationally.

In terms of reconceptualization of ASU Athletics, we have initiated and implemented a complete transformation. ASU is one of the highest collegiate academic performers in the country and both now and going forward will be the dominant Big 12 school on many dimensions.

As you will see in the attached details, we are seeing dramatic improvement in all aspects from attendance to fundraising to outcomes associated with many of our sports, and we are accelerating our transformation of those sports that have underperformed. In addition, we have designed and launched a full scholarship program for implementation across all student athletes at ASU.

2) FY2024-2025 At-Risk Goal #2: Develop a plan that reshapes the healthcare landscape of Arizona and establishes a new global standard for innovation and excellence in health sciences education and research.

Goal Status: ACCOMPLISHED

We have completed one of the boldest and most ambitious plans for transforming a university's capability in healthcare enhancement at the level of an entire state. We are doing this with the evolution of eight initiatives, including a new medical engineering school, a new technology for public health school, a tripling of the Nursing college performance outcomes, the establishment of the Arizona Health Observatory, and a number of public education initiatives associated with enhancing health outcomes across society. All of these initiatives are accelerating in a positive direction. New facilities have been designed, the medical school accreditation process has completed the site visit and we are awaiting the final assessment. The top personnel as deans of the two new schools in medicine and technology for public health are hired and on board. The plan has been further enhanced with national work groups that have come in and helped to design the most advanced schools, programs and initiatives possible.

3) FY2024-2025 At-Risk Goal #3: Develop a plan that reimagines and optimizes health care and life sciences assets to maximize efficiency and impact.

Goal Status: ACCOMPLISHED

The development of new initiatives on a large and networked scale for expanding Arizona's entry into the 21st century biosciences economy that is so rapidly evolving in the United States is well underway. What we have done this year is work on reimagining where we are and what we can do. Our overall strategy is to design a networked medical and biosciences design wherein ASU, working with literally everyone else, would further biosciences as well as biomedical initiatives without artificial boundary conditions, etc. Areas ASU has advanced on are:

- The ASU Biodesign Institute as a national asset;
- The ASU Health Observatory as a comprehensive, data-driven, real-time assessor of community health;
- The Arizona Core Network where we are working together among the three universities;
- The Arizona Alzheimer's Consortium;
- The Bio5 Institute from the University of Arizona as a group effort on larger scale entrepreneurial activities;
- Accelerated development of new facilities in the Phoenix Bioscience Core.

These and many more initiatives are detailed in the attachment. We have made great progress at both the evolution of ASU and the evolution of an ongoing and accelerated statewide biosciences industrial foundation.

4) FY2024-2025 At-Risk Goal #4: Create a comprehensive list of new revenue streams to support public higher education that embrace innovative, forward-thinking strategies.

Goal Status: ACCOMPLISHED

We have spent tremendous energy on identifying ways in which new revenue streams could be developed for public higher education in Arizona. ASU, over a number of years, has experimented with and made progress on advancing these new kind of revenue growth efforts and we have seen substantial success.

In the attached summary, we outline how we will produce \$2 billion of additional revenue between FY2025/26 and FY2029/30. All of this is through accelerating what we are already doing, advancing new opportunities, and developing new strategic forms of financing, as detailed. Our confidence level is high that we will continue this revenue enhancement for our goal attainments.

5) FY2024-2025 At-Risk Goal #5: Work with the University of Arizona president to identify areas where ASU and UA have common strengths in research excellence that lead to collaboration on research proposals.

Goal Status: ACCOMPLISHED

ASU presently has 71 funded projects and collaborations with the UA totaling more than \$20 million in funding, and we are also a sub-awardee on an additional 24 projects led by the UA—totaling just about 100 funded projects. Other areas that we can work together in the future include:

- Critical minerals where we bring in supply chain expertise and chemical engineering.
- Microelectronics and semiconductors as that becomes more of a national initiative. ASU and UA are already significantly engaged in semiconductors together.
- National security – this is an important area for all the universities where we can work together.
- Emerging projects in energy, water and computing where we have collaboration and opportunities for significant new cooperative work.

The summaries attached will give Regents insight into progress that we have made on each of these. It is also the case that these goals are now embedded in our functioning operating objectives in that we are looking to cooperate, looking to build biosciences together with others, looking to advance economic opportunities, looking to be successful in athletics and so forth. All in all, a good set of goals achieved.

2024-2025 Individual At-Risk Goal 1

Position ASU as a beacon of innovation and excellence in collegiate athletics nationwide by creating an ambitious five-year strategy to establish Arizona State University as a dominant force across revenue generating sports and within the Big 12 conference. This comprehensive plan will chart a course for excellence, delineating clear tactical steps and annual benchmarks to gauge progress. Including:

- A reimagined approach to fan and alumni engagement, designed to ignite passion and cultivate unwavering support.
- A donor-centric philosophy that goes beyond transactional relationships.
- Academic and athletic excellence evidenced by retention and graduation rates.
- Ranking top 3 in the Big 12 on a consistent basis, as a testament to ASU's commitment to competitive excellence.

Goal Accomplished

Sun Devil Athletics

Igniting Passion:

A Reimagined Approach to Fan & Alumni
Engagement



Activate the Valley

Obsess over those who obsess over ASU



Sun Devil Athletics

26 varsity sports

- From college football
 - to beach volleyball
 - and ice hockey (in the desert!)
- Wherever you're from, whatever you're into, we have it

The Power of the Pitchfork

We host over 250 live events over 11 months

- Over 2 million fans watch, attend or listen to the Sun Devils
- 1 million fans annually enter our stadiums and arenas
- Over 350,000 ASU alums (51%) live in Arizona

A Better Game Day

Elevating Every Moment for Fans

Fan Experience

Streamlined parking options and lower price points across all events, with a particular emphasis on football.

Fan Ambassadors throughout venues to provide wayfinding, support, and personal touches that elevate the experience.

Unique, themed concessions with flexible pricing to serve a diverse fanbase.

Elevated in-venue experiences including in-seat ordering and new premium seating options.

ASU Engagement

Football games will feature purposeful themes and unit-specific highlights to elevate ASU through the lens of sport.

Curated content will focus on storytelling that showcases ASU's people, innovation, and excellence.

Proactive outreach in hosting key ASU constituents to deepen connections and showcase institutional pride.

Student-Athlete Recognition

Cross-promotion of sports programs to celebrate both academic and athletic excellence across all teams.

- Highlighting student-athletes and teams during home games.
- Encouraging team attendance and support at events across sports to foster a unified athletics community.

Attendance Highlights

Football

Home attendance (230,927) up 28%
Student attendance (59,114) up 45%
For the first time ever, over 10,000 students attended back-to-back football games

Volleyball

Average attendance (3,379) is a school record, 2nd in the Big 12, and 14th nationally
61% increase in overall attendance vs prior season

Hockey

Total attendance (91,326) top-15 in NCAA
Average attendance (5,074) 102% capacity

Softball

Total attendance (39,466), 2nd in the Big 12

Baseball

Baseball's total attendance (119,956) and average (3,427) are both program records
The April 4 crowd (7,084) vs. UofA was the largest crowd since the program returned to Phoenix Municipal Stadium in 2015

Beyond Transactions:

A Supporter-Centric Philosophy





The perfect setting for emotional connection.

People. Passion. Place.

Our approach



Students

Empower them to build equity within the organization and nationally



Affinity

The clearest path to revenue generation and value creation



Connections

Emotionally amplify ASU through sport



Growth Mindset

Think big, start now, scale fast

Sun Devil Storytelling

A new approach to sharing our success stories

Improved TV distribution



National Footprint

The Big 12 partners with ESPN, FOX and CBS Sports to broadcast Football and Basketball games across the nation.

ESPN+ is a ubiquitous streaming app for all Olympic sports, supported by ASU Cronkite students.

Football television ratings increased 353% this year.

A unified ASU approach



ASU Collaboration

Sun Devil Athletics and the ASU Brand Team have partnered to collaborate on all digital marketing, website, out-of-home, and experiential activations throughout the year.

The sundevils.com refresh was named the American Marketing Association (AMA) Phoenix Best of 2025 Spectrum Award for the best website redesign.

Creating new inventory



New content!

A FOX 10 partnership to air televised coaches shows, 12 hockey games, and a brand-new ASU All-Access show.

All hockey games are available on NCHC.TV, the official streaming app of the ASU hockey conference.

The Big 12 and Cronkite Sports are launching free behind-the-scenes streaming content.

Commercial Highlights

Corporate Partnerships

The corporate partnerships was brought in-house during the conference transition.

Secured new strategic corporate partners generating **over \$2M** in incremental revenue and **achieved a 25% year-over-year increase** in total partnership revenue.

Align Technology entered a multi-year corporate partnership with SDA, valued at **\$3.7 million**.

Sprouts Farmers Market maintains a current partnership with SDA valued at **\$1.125 million** over a five-year term.

Shamrock Foods' new partnership value of **\$2.8 million** over a five-year term. This includes engagement with **SDA, ASUF, WPC,** and **EOSS**.

Ticketing and Sales

Men's Basketball, Baseball, Hockey, and Volleyball achieved **record-breaking ticket revenues** in FY25.

Men's Basketball **surpassed \$4M** in revenue for the first time since FY19.

Baseball **exceeded \$1M** in ticket sale for the first time in program history.

Hockey **sold out season tickets** and reached nearly \$3M in revenue for the first time in program history.

Volleyball experienced a **27% year-over-year increase** in ticket revenue.

Digital Growth

Launched a new **comprehensive creative campaign**, executed a strategic **media buy strategy**, and drove new marketing campaigns reaching **broader audiences**, while **enhanced initiatives** directed toward the existing loyal fan base.

Completed a full website redesign, resulting in over **12% year-over-year growth in Sun Devil site users**.

Achieved a **200% increase** in social media impressions.

Drove a **137% increase** in social media engagement across key channels.

Excellence in the Classroom and on the Field





We are a talent development organization.

Sun Devil Athletics

650 student-athletes

- From walk-ons to Olympians
- Each one a unique success story
- Arriving to ASU from over 40 different countries

Student-Athlete Academic Success

3.37 GPA

- 3.61 - Female GPA
- 3.17 - Male GPA

Average cumulative GPA

13 teams

Earned 3.5+ Team GPA

147

graduates 2024-25

82%

Earned a **3.0 or higher semester/cumulative GPA**

135 student-athletes

earned a **4.0 semester or cumulative GPA**

56 student-athletes

Enrolled in **Barrett Honors College** 2024-25

Student-Athlete Academic Success

93%

**NCAA Graduation
Success Rate**

2nd consecutive year,
maintaining the all-time high

992

**Average overall
NCAA Academic
Progress Rate**

156

**Academic All
Americans**

Most in the Big 12 conference

8

**NCAA Elite 90
winners**

4 in the last two years



Academic Excellence in Retention & Graduation

Graduation Success Rate (GSR)

- ASU's current NCAA GSR is **93%** - *second year at an all-time high*
- GSR has **risen 24%** since the metrics introduction
- [ASU NCAA GSR media release](#)

- Female GSR: **96%** - *seventh consecutive year at 95% or better*
- Male GSR: **90%** - *new all-time high*

Teams with Sustained Academic Success

- **Women's Tennis:** 100% GSR for **16 straight years**
- **Men's Basketball, Gymnastics, Women's Swim/Dive:** 100% GSR for **7 straight years**
- **Women's Basketball:** 100% GSR for **6 straight years**
- **Women's Golf:** 100% GSR for **4 straight years**

Leading the Big 12 in Academic Excellence

Big 12 Academic Leadership

- ASU leads the Big 12 in **College Sports Communicators Academic All-Americans**:
 - **156 all-time**
 - **4 honorees this year**
 - [ASU CSC Academic All-American list](#)

Academic Progress Rate (APR) Highlights

- **Top 3** in conference multiyear APR average of **8 consecutive years**
- **2nd overall** in Big 12 for multiyear APR in ASU's first year of membership
- [ASU NCAA APR media release](#)

NCAA Top 10% APR Recognition

- **9 ASU sports recognized** – *the most among Big 12 schools*

Rising to the Top:

Competing Among the Big 12's Best





The ultimate tool for affinity.

Athletic Highlights

Big 12 Titles

Four (4) Conference Championships

- Football, Volleyball, M Swim/Dive, W Swim/Dive
- Tied for the most in the Big 12 (Texas Tech) and the largest total at ASU since 2007-08
- Five (5) additional conference runners-up: M Golf, W Golf, Beach Volleyball, Lacrosse, Hockey (NCHC)

National Top 10

Five (5) ASU programs finished the season ranked in the national Top 10:

- #2 Triathlon
- #3 M Golf
- #6 M Swim/Dive
- #7 Football
- #7 W Golf

College Football Playoff

First appearance for ASU

- The Peach Bowl was widely heralded as one of the top games of the entire 2024-25 season
- Over 17,300,000 fans tuned in to watch the game on ESPN

National Top 25

Thirteen (13) ASU programs finished the season ranked in the national Top 25:

- #12 Water Polo
- #12 Beach Volleyball
- #13 Volleyball
- #15 Ice Hockey
- #18 Wrestling
- #19 W Swim/Dive
- #24 M Track/Field (O)
- #24 M Track/Field (I)

Athletic Highlights

Top Sun Devil Athletic Honors for 2024-25

- **Naomi Ruff** – Women's Triathlon | 2024 National Champion
- **Josele Ballester** – Men's Golf | 2025 GCAA First-Team All-American and 2024 U.S. Amateur Champion
- **Cam Skattebo** – Football | 2024 Associated Press, Walter Camp and Sporting News First-Team All-American
- **Kenzie Brown** – Softball | 2025 NFCA First-Team All-American
- **Jonny Kulow** – Swimming | 2025 Big 12 Swimmer of the Meet
- **Kierra Blundell** – Soccer | 2024 Big 12 Freshman of the Year
- **Landon Hairston** – Baseball | 2025 NCBWA Fresh. All-American

Big 12 Coaches of the Year

- **JJ Van Niel** – Volleyball
- **Herbie Behm** – Men's Swim/Dive
- **Kenny Dillingham** – Football

2024-2025 Annual At-Risk Goal 2

Develop a plan that reshapes the healthcare landscape of Arizona and establishes a new global standard for innovation and excellence in health sciences education and research, building an ecosystem that transcends traditional boundaries, propelling Arizona to the forefront of global healthcare innovation and thought leadership. The framework will seamlessly integrate existing strengths with groundbreaking new initiatives.

Central to the ecosystem is the School of Medicine and Advanced Medical Engineering, a beacon of innovation redefining the intersection of healthcare and technology, catalyzing a paradigm shift in medical education and practice, fostering a new generation of healthcare leaders. The strategy should have a sophisticated hub-and-spoke model, aligning ASU with elite partners across the healthcare spectrum.

Additionally, the launch of both the School of Public Health Technology and the Health Observatory at ASU will expand the capacity to address larger health issues.

Goal Accomplished

Arizona State University is accelerating its health-related efforts to tackle the state's urgent health care needs, positioning itself as a leader in innovative solutions for both local and global impact. Led by the ASU Health team, composed of senior leaders with deep ties to the state of Arizona and extensive experience in the healthcare landscape, these efforts are founded on years of rigorous intellectual design and collaborative initiatives. This foundation includes national expert convenings, ASU-led design charrettes involving government, technology and academic leaders, and interdisciplinary governance with experts spanning law, science, health, and innovation. ASU Health is committed to developing scalable, equitable health solutions that enhance outcomes in underserved communities, aiming to export Arizona-born health innovations globally through strategic research, partnerships, and alumni networks.

Since its launch, ASU Health has achieved significant milestones, laying a strong foundation for a bold, integrated health ecosystem that spans education, research, clinical innovation, and community impact. In academic program development, the School of Medicine and Advanced Medical Engineering has taken major steps in the accreditation journey, recruited inaugural leadership and faculty, and designed a unique MD/MS degree program. The School of Technology for Public Health also advanced rapidly - developing curriculum for a first-of-its kind program, successfully launching a pilot of the Public Health Technology Corps, and enrolling students for its launch in Fall 2025.

Recognizing the need to address workforce shortages, ASU Health made strides in health workforce development through development of tools that aim to facilitate the upskilling and reskilling of healthcare professionals. Edson College of Nursing has expanded enrollment, and the "Learn-Where-You-Live" initiative has extended nursing education opportunities to underserved communities in Arizona.

Strategic partnerships and fundraising efforts resulted in new collaborations across the academic, clinical, and industry sectors. ASU Clinics has developed a strategic roadmap to engage partners in delivering innovative models to increase access to healthcare in our communities. The Arizona Health Observatory was successfully established, securing funding for pathogen genomics and launching critical public health initiatives, such as the statewide extreme heat preparedness program. A health research strategy has been developed that will position ASU Health as a leader in health-related discovery and impact. ASU Health has also taken steps to foster health innovation and entrepreneurship and is conceptualizing the launch of a dedicated Health Venture Studio, where new pathways are created for students, faculty, and partners to design and commercialize health solutions.

Collectively, these accomplishments position ASU Health as a transformative force, uniquely equipped to lead in health education, clinical innovation, research, and public service at both the local and state levels.

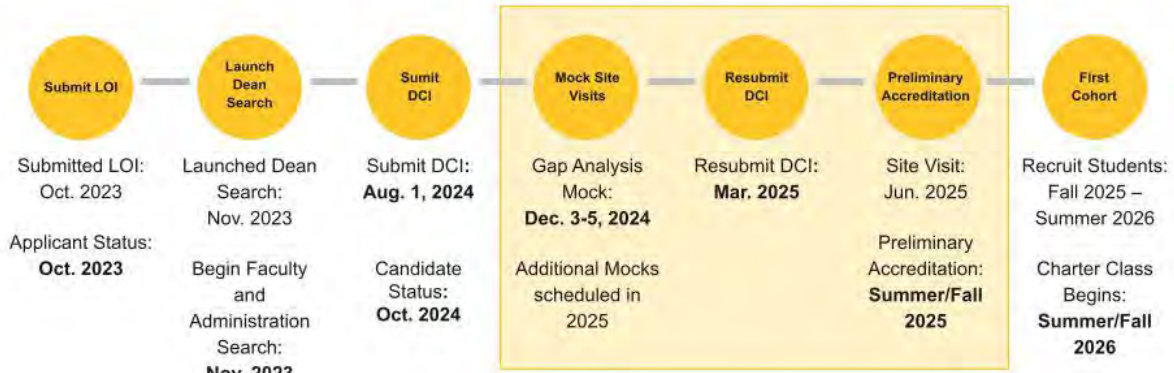
ASU Health



The launch of the new School of Medicine and Advanced Medical Engineering (SOMME) is well underway with notable milestones outlined in the timeline below. The founding dean of the school, Sarah Hollingsworth “Holly” Lisanby, is an internationally renowned psychiatrist and innovator of neuromodulation technologies. She began her role on May 1, 2025. The leadership team is in place and over 200 faculty from ASU and HonorHealth have been appointed to the school. The curriculum framework to deliver advanced clinical knowledge and engineering skills that seamlessly integrate the principles of innovation, entrepreneurship, discovery, and interprofessional collaboration embedded in a humanistic framework is in place. Graduates of the school will be equipped to identify, envision, and implement creative answers to the evolving obstacles in health care for their individual patients, communities, and beyond.

The University is preparing for a successful LCME site visit in June 2025 with preliminary accreditation expected shortly thereafter. Recruitment of the first cohort of students will begin in Fall 2025 and through the generous support of philanthropic partners, we anticipate offering full or partial scholarships to all students. SOMME will be temporarily located at the Mercado in downtown Phoenix while the permanent ASU Health building is constructed with a scheduled opening of Fall 2028.

LCME Accreditation Timeline



The School of Technology for Public Health (STPH) is on-track to launch in Fall 2025 with two new graduate programs: a Master of Public Health with a concentration in Public Health Technology (plan to obtain full CEPH accreditation in 2028) and a first-of-its-kind, one-year Master of Science in Public Health Technology. Both programs will begin as campus-immersion in the Phoenix Bioscience Core and have fully online versions available within 1-2 years. Dr. Jyotishman Pathak, an internationally recognized leader in biomedical informatics and population health sciences was hired as the Inaugural Dean and a Foundational Professor. To ensure the school is improving the health of our communities and students graduate work-ready, two Academic Health Department partnerships have been established to support joint education, training, research, and service with the Arizona Department of Health Services and Pima County Health Department. A third agreement is in the works with Maricopa County Department of Public Health. Additionally, a pilot of the Public Health Technology Corps (PHT Corps) was launched in Fall 2024 to pair students with cross-sector partners to advance projects that leverage technology to innovate public health systems, processes, and outcomes on critical topics like AI/ML and Tribal data, mapping heat-related morbidity and mortality, and standardizing Electronic Medical Record (EMR) data for public health purposes.



Building on ASU's existing research strengths and the health needs of Arizonans, ASU Health developed a strategic research plan to focus efforts around four areas with potential for immediate growth and measurable impact: 1. Environmental health (with a focus on extreme heat and air quality), 2. Metabolic health, 3. Mind-brain health (with a focus on healthy aging and mental health), and 4. AI and health.

To transform health data into knowledge for all Arizonans, the Health Observatory at ASU was created to generate and integrate health data from many sources (including census, hospital discharge data, genomic sequencing, and air quality) to provide early knowledge on emerging and continued health threats across the southwest region. Dave Engelthaler, an active Public Health researcher and leader who also serves as Director of TGen North, was hired as the Executive Director in August 2024 and a new Medical Director will be joining the team in June 2025; together, the leadership team collectively brings over 100 years of public health experience in Arizona. An Open House was held in April 2025 at the Thunderbird School of Global Management that was attended by 75+ internal and external stakeholders across Arizona. The event showcased >50 ASU research units and faculty and 16 projects underway in collaboration with partners including: Arizona Department of Health Services, Arizona Faith Network, Maricopa County Department of Public Health, Pima County Health Department, The NARBHA Institute, University of Arizona, Northern Arizona University, TGEN, and others. Nine projects have been submitted for external funding in FY25, totaling >\$113M.

ASU Health's bespoke partnership model is designed to engage collaborators across the healthcare continuum to drive improved outcomes and transform health. By tailoring initiatives to the unique strengths of partners — from hospitals and research institutions to tech innovators — ASU Health fosters strategic relationships that drive innovation, scalability and real-world impact. Building on a growing pipeline of partnerships in areas like agentic AI, immersive learning, and digital health, ASU has deepened its relationships with key health systems. HonorHealth serves as the primary clinical affiliate for ASU's School of Medicine and Advanced Medical Engineering (SOMME), supporting clinical training and research collaborations. The Mayo Clinic and ASU Alliance for Health Care have advanced research and commercialization efforts through its 2025 MedTech Accelerator and investment in shared infrastructure. ASU faculty and Dignity Health are scaling a Community Health Worker program to support high-risk

populations, and partnerships with Phoenix Children's are expanding nursing, social work, and innovative pediatric care initiatives.

ASU Health will produce physicians who blend medicine, engineering, technology and humanities to become a different kind of health care leader. Graduates will leverage new tools such as AI and data science to connect with more patients, seek innovative practices and improve health outcomes. ASU is working to find innovative ways to be impactful to families at home, schools and school districts, hospitals, clinics, pharmacies - everyone.

2024-2025 Annual At-Risk Goal 3

Develop a plan that reimagines and optimizes health care and life sciences assets to maximize efficiency and impact. Provide: 1) a comprehensive analysis of Arizona's life science assets; 2) an assessment of Arizona's competitive strengths across the life sciences spectrum; 3) recommendations on how best to optimize synergy and impact of these assets to create better alignment to maximize benefits for the state; and 4) include suggestions as to who should own which recommendation to fully understand what an action plan would look like.

Goal Accomplished

Reimagining Life Sciences in Arizona

Executive Summary

Arizona's thriving health and biosciences industries provide significant jobs and economic benefits to the state. However, national and global forces are bringing new challenges and new opportunities to the bioscience landscape, from changing federal funding priorities to new technologies like AI to demographic shifts and emerging health threats.

Arizona State University launched ASU Health as the cornerstone of its plan to reimagine and optimize health care and life sciences in Arizona. Along with existing ASU units, such as the College of Health Solutions and Edson College of Nursing and Health Innovation, ASU Health will transform how health care is designed, delivered, and measured while also producing new physicians, nurses, specialists, technologists, and scientists. ASU will train providers who blend medicine, engineering, technology, and humanities through the new School of Medicine and Advanced Medical Engineering, with Honor Health serving as the school's primary clinical affiliate, and the new School of Technology for Public Health. Additionally, the Health Observatory will leverage data to drive our understanding of human health.

Transforming Arizona's health outcomes and advancing the economy through bioscience industries requires cross-sector collaboration among higher ed institutions, hospitals and other health care providers, companies, nonprofits, and government agencies, as outlined below.

Arizona's Life Science Assets: A Comprehensive Analysis

Industry and Workforce

Arizona's health care and bioscience industries have grown rapidly over the past few years. There are currently 3,975 health and bioscience organizations across the state, representing a 35.8% increase from 2020-2023, according to the April 2025 Flinn Foundation Bioscience Roadmap. These include the following types of organizations:

- 324 hospitals
- 2,129 in bioscience-related distribution
- 1,186 research, testing, and medical labs
- 208 in medical devices and equipment
- 110 in pharmaceuticals
- 18 in agricultural feedstock and industrial biosciences

At the same time, bioscience jobs increased by 8.1% from 2020-2023, with 144,000 total jobs in 2023. This growth exceeds the national average of 6.7%. Wages lag behind the national average, but are beginning to catch up, increasing by 15% from 2020-2023. Bioscience wages in Arizona exceed the state's private sector average by over \$20,000 per year.

The Arizona Bioindustry Association (AZBio) is a statewide organization exclusively focused on growing Arizona's bioscience industry. AZBio member organizations in business, research and education, health care delivery, economic development, government, and other professions involved in the biosciences are the key drivers of the growth of Arizona's life science sector.

Arizona offers a robust talent pipeline feeding into this industry, with all three public universities offering health and bioscience degree programs for undergraduate and graduate students. However, the demand currently exceeds supply, and retention of talent in the state trails behind our regional competitors. For example, Arizona has a well-documented doctor shortage. The UA is expanding its College of Medicine to double the number of graduates, while ASU and NAU are launching new medical schools to close the gap further.

Additional efforts across the state's universities are addressing staffing shortages in nursing and other health care professions. At ASU, students prepare for a broad array of health and bioscience careers through the Edson College of Nursing and Health Innovation, the College of Health Solutions, and the School of Biological and Health Systems Engineering. ASU will expand on these options with the new School of Medicine and Advanced Medical Engineering and the School of Technology for Public Health.

Research

Funding from the National Institutes of Health (NIH) — the primary federal funder of health and bioscience research in the U.S. — is at an all-time high in Arizona, totaling \$368 million in 2023. From 2020-2024, NIH funding to Arizona institutions grew by 27%, which is six times higher than the national average. ASU has submitted \$765 million in NIH proposals and received \$67 million in NIH funding for fiscal year 2025 as of the end of April.

Biosciences R&D at Arizona universities exceeded \$800 million for the first time in 2024 and grew over 30.2% from 2020-2023. This exceeded the national average growth of 25.3%. ASU specifically experienced 61.3% growth in research expenditures from

2020-2023, the greatest increase in Arizona, far outpacing the national average growth of 25.3%.

Significant assets include the following:

- **ASU's Biodesign Institute** has been creating nature-inspired solutions to challenges in health, sustainability, and security for over 20 years. As of 2023, the institute has supported 2,500 jobs, generated over 1,023 inventions, and launched 50 spinout companies. It has attracted \$1 billion in cumulative external funding over its lifespan.
- **The ASU Health Observatory**, a key component of ASU Health, looks at the health of Arizonans to prepare our state to identify, track, and mitigate future health crises. A comprehensive, data-driven understanding of community health will create a more equitable, resilient, impactful, and cost-effective health care system. It will drive medical innovation and detect, respond to, and prevent emerging health threats.
- **The Arizona Core Network** provides a gateway to accessing research equipment and facilities across Arizona's three public universities. This makes it easy for researchers in academia, industry, and government to locate the tools they need to advance their innovations. ASU offers over 30 core facilities that provide advanced equipment and expertise across various disciplines. In the life sciences, notable facilities include:
 - **Biosciences Core:** Offers services in genomics, mass spectrometry, flow cytometry, regenerative medicine, and preclinical imaging.
 - **Clinical Research Services:** Supports human clinical research with facilities like exam rooms, imaging equipment, and nutritional services.
- **The Arizona Alzheimer's Consortium** is the nation's leading model of statewide collaboration in Alzheimer's disease research, and includes partnerships between ASU, UA, Banner, BNI, Mayo Clinic, and TGen. AAC builds on partners' complementary expertise to advance innovations in diagnostics and therapeutics, improving health outcomes for Arizonans. Since the AAC's inception in 1998, its researchers have generated over \$2 billion in investments and thousands of publications, grants, and contracts.
- **The BIO5 Institute** at the University of Arizona brings together researchers and innovators from five core disciplines — agriculture, engineering, medicine, pharmacy, and science — to collaborate for the purpose of solving today's most complex and critical problems, including:
 - How to prevent, treat and ultimately cure diseases that affect millions of people worldwide
 - How to address the growing environmental concerns threatening our planet

- How to ensure food security and nourish an expanding global population.
- **The Pathogen and Microbiome Institute** at Northern Arizona University gathers infectious disease and microbiome scientists into a single multidisciplinary environment. The joint efforts span computational, genomic, microbiology, immunology, and public health disciplines to generate synergy that can't be achieved within academic silos. PMI is closely associated with TGen North, sharing infrastructure to maximize Arizona's investment in science.
- **The Flinn Foundation** is a privately endowed, philanthropic grantmaking organization created to improve the quality of life in Arizona to benefit future generations. The foundation supports the biosciences in Arizona through research and entrepreneurship grants as well as stewardship of Arizona's Bioscience Roadmap, guiding the growth and development of the state's bioscience sector.

Entrepreneurship and Tech Transfer

Venture capital funding for bioscience companies in Arizona totaled \$289 million in 2024, nearing a record high, but the number of deals decreased. In December 2024, two dozen investors, founders, and economic development and nonprofit leaders launched a new coalition, the **Arizona Venture Alliance**, dedicated to advancing Arizona's startup ecosystem. The AVA's goals over the next three years include:

- Support five "unicorns" (startups valued at \$1 billion)
- Relocate over 50 startups to Arizona
- Bring in at least \$500 million in private investment

In 2024, Arizona universities filed 434 bioscience-related patents and were issued 118, an increase of 8% over 2023. Additionally, 14 bioscience startups were launched with university IP in 2024, according to the April 2025 Flinn Foundation Bioscience Roadmap. However, there was a reduction from 2023-2024 in invention disclosures received (263), licenses/options executed (54), and adjusted gross license income received (\$7.8 million).

A variety of statewide programs provide funding and support to launch and grow Arizona-based startups, including the Arizona Innovation Challenge, Venture Madness, Venture Cafe's Pitch2Tokyo, and Startup World Cup of Arizona. Every two years, the Arizona Bioindustry Association hosts the White Hat Life Science Investor Conference, a biotech and health care investor conference that showcases exciting biotech and med tech companies from across the Rocky Mountain and Southwest regions. Additional assets include:

- **The Mayo Clinic and ASU MedTech Accelerator** provides early-stage medical device and healthcare technology companies with access to world-class physicians, subject matter experts, an entrepreneurial curriculum, and personalized business development plans to accelerate go-to-market and investment possibilities. One of the 2024 MedTech Accelerator cohort members, MiiCare, decided to relocate to Arizona from London after seeing everything the area has to offer.
- **ASU Innovation Zones** offer companies the opportunity to work in close proximity with ASU staff, students, and faculty, as well as other high-profile industry leaders. Just like urban neighborhoods, each Innovation Zone has its own distinct personality, characteristics and amenities. Two Innovation Zones are focused specifically on health and biosciences:
 - **The Phoenix Bioscience Core (PBC)** is a 30-acre urban health and bioscience campus in downtown Phoenix with 6 million square feet of facilities dedicated to biomedical-related research, clinical facilities, and academic research. PBC hosts collaborative efforts among ASU, Northern Arizona University, and the University of Arizona, along with clinical and research institutions. It houses over 25 organizations, including the Translational Genomics Research Institute.
 - **Discovery Oasis** in north Phoenix includes ASU's Health Futures Center and the Mayo Clinic Phoenix Hospital. Discovery Oasis supports and advances intensified research, clinical expansion, and development of innovative clinical approaches to medicine and health care through the Mayo Clinic and ASU MedTech Accelerator.

Arizona's Competitive Strengths Across the Life Sciences Spectrum

Arizona offers unique strengths in several key health and biosciences areas, including:

- **Neuroscience:** Organizations such as the Barrow Neurological Institute, the ASU-Banner Neurodegenerative Disease Research Center, the Banner Alzheimer's Institute, and the Arizona Alzheimer's Consortium, among others, have made Arizona a leading state for research and innovation in neuroscience and neurodegenerative diseases.
- **Precision health and diagnostics:** Institutions like TGen, the University of Arizona Cancer Center, and the ASU Biodesign Institute position Arizona as a leader in personalized medicine and precision health in key areas such as oncology, chronic disease management, infectious diseases, and neuroscience. Arizona's universities and industry partners conduct innovative research in genomic science, high-throughput biomarker discovery, and advanced computational approaches to enable accurate diagnostics and targeted therapeutics. The three public universities, in collaboration with industry and

clinical partners, are also advancing innovative research regarding vaccine development, multi-omics platforms, and big data integration.

- **Medtech and digital health:** Arizona's entrepreneurial ecosystem advances medical device development and digital health innovations. The Mayo Clinic and ASU MedTech Accelerator helps early-stage medtech companies to grow and succeed. ASU's new School of Medicine and Advanced Medical Engineering, along with the School of Technology for Public Health, will leverage and enhance this strength area.
- **Workforce development:** The state's three public universities, the Mayo Clinic Alix School of Medicine, and robust community college systems provide training and support for current and future bioscience professionals, including doctors, nurses, pharmacists, public health professionals, physical therapists, physician assistants, lab technicians, researchers, and more. To complement the state's growing biotech and life science industries, the Center for Entrepreneurial Innovation conducted in-depth research on areas of need and partnered with the Maricopa County Community College District to develop CEI LabForce, a state-of-the-art training and certification center and online platform to help meet increasing workforce demands.
- **Extreme heat and health:** As a living laboratory, Arizona is a national leader in heat and health research, identifying innovative and technology-driven solutions for heat resilience, mitigation, and adaptation. ASU's Urban Climate Research Center and School of Geographical Sciences and Urban Planning conduct pioneering research regarding the urban heat island effect, remote sensing, and climate adaptation. Heat research at UA's Mel and Enid Zuckerman College of Public Health incorporates environmental exposure analysis to address heat risks in rural regions. NAU contributes expertise in climate modeling and Indigenous environmental health. The state's three public universities offer complementary expertise needed to address some of the most extreme and persistent challenges related to extreme heat that disproportionately impacts Arizonans.

Hospitals, health care systems and industry have made major recent investments in life sciences in Arizona. Select examples include:

- **Mayo Clinic** has invested \$1.9 billion in its Phoenix campus, adding 1.2 million square feet and creating 3,500 jobs. They are partnering with Brooks Rehabilitation of Florida to build a 60-bed rehabilitation hospital at the north Phoenix Mayo Clinic site.
- **The Banner Alzheimer's Institute** has received a \$74.5 million federal grant to study early-onset Alzheimer's disease.

- **ASU Health** established its headquarters in downtown Phoenix, which will be home to the new School of Medicine and Advanced Medical Engineering (SOMME) and the School of Technology for Public Health (STPH). The new medical school will partner with Honor Health serving as its primary clinical affiliate
- **The University of Arizona** plans to double the number of medical school graduates and expand its partnership with Banner Health to create a fully integrated academic medical center. The result will be a higher standard of care for Arizonans and increased volume of medical students and graduates for our communities. UA will also leverage telemedicine and its extensive rural health network to help ensure health care access across the state.
- **The Translational Genomics Research Institute and its Longevity Consortium** partners received a \$45 million grant to integrate results showing the factors that contribute to longer and healthier lives, the fourth major grant to the consortium. TGen also secured an \$8.2 million grant for pulmonary disease research and an NIH grant to fund a new pancreatic cancer treatment study.

Economic development groups at the city and state level are also working to strengthen Arizona's competitive advantages.

- Led by the Greater Phoenix Economic Council, the **Medical Device Manufacturing Multiplier Strategy Development Consortium (MDM2)** received a Strategic Development Grant through the U.S. Department of Commerce's Economic Development Administration Tech Hubs program. The grant will support the group's public-private collaboration and investment model designed to further position Greater Phoenix within the rapidly evolving health care innovation economy. MDM2 was one of only 29 SDG recipients across the U.S., signaling Arizona's capacity to advance this type of work at scale.

Recommendations to Optimize Synergy and Impact of These Assets

Arizona's three public universities can play critical and complementary roles in advancing the state's bioscience ecosystem by aligning their assets, research capabilities, and partnerships to advance life science and health research collectively. A robust, inclusive bioscience innovation ecosystem would bridge university research, health clinics and hospitals, bioscience startups, and community input to create streamlined, comprehensive innovations with real-world impacts on human health.

Arizona must develop a future-ready bioscience workforce to amplify regional and global leadership. The state's public universities, in collaboration with ABOR, can provide market-driven workforce training and development in growing fields including biotechnology, clinical research, and biomedical engineering. Simultaneously, a unified

statewide initiative and strategy in bioscience research and innovation will advance Arizona's position as a leader in use-based biomedical innovation on the regional, national, and global scale. A collective statewide model would build upon Arizona's "collaborative gene," as demonstrated by successful statewide initiatives such as the Arizona Alzheimer's Consortium.

With the launch of ASU Health, ASU can leverage new and existing assets in biomedical research, public-private partnerships, and faculty expertise to grow and strengthen the biomedical workforce, establish and deepen existing partnerships, and attract and scale life science commercialization. By coordinating across sectors and aligning with emerging scientific and funding priorities, Arizona's public institutions can unlock transformative opportunities in life and health science innovation, positively impacting health outcomes and economic growth across the state.

The following recommendations align with and build upon the Flinn Foundation's Arizona Bioscience Roadmap, updated in April 2025.

- 1. Establish a statewide hub of bioscience entrepreneurs and enterprises:** Build a robust and inclusive bioscience innovation ecosystem spanning the entire state, anchored in urban research cores but deeply connected to rural and tribal communities. Universities can lead efforts such as creating a statewide alliance, activating urban innovation districts, and developing joint infrastructure in partnership with hospital systems, foundations, and associations such as AZBio.
- 2. Accelerate translation from research to product:** Increase commercialization velocity and bridge the gap between discovery and market-ready solutions. Hospital systems, companies, associations, and universities could work together by expanding startup support locally to connect companies with assets such as faculty expertise, building upon co-innovation models such as the Mayo Clinic and ASU MedTech Accelerator and the Medical Device Manufacturing Multiplier Strategy Development Consortium led by GPEC, and continuing to support faculty and graduate student entrepreneurs across the state.
- 3. Make Arizona a bio-talent powerhouse:** Build the nation's most adaptive, inclusive, and aligned life sciences workforce pipeline — from K-12 to postdoc. Universities can continue building education and career pathways in the biosciences, including upskilling and reskilling programs, and launching apprenticeship programs with hospital systems and industry.
- 4. Promote Arizona's regional bioeconomic leadership:** Leverage all Arizona has to offer to establish Arizona as the life sciences hub of the Southwest and serve as a cross-border anchor for health innovation nationally and internationally. Universities should continue to partner with associations, industry,

economic development groups, and clinical partners locally, and with international business councils, universities, and bilateral funding mechanisms internationally.

5. **Sustain and enhance Arizona’s “collaborative gene”:** Institutionalize ASU and Arizona’s reputation for inclusive, cross-sector collaboration as a driver of innovation and public good. ASU can continue to lead in this space. This can be accomplished through continuing to submit large-scale, statewide proposals federally that align on shared goals and coordinate strategic initiatives, building upon existing networks created by Greater Phoenix Economic Council, AZBio, and others.

Conclusion

Arizona has the talent, infrastructure, and collaborative spirit to become a national leader in life sciences innovation. By investing in interconnected hubs, accelerating translational science, growing a future-ready workforce, extending regional influence, and fostering inclusive partnerships, Arizona can build a thriving, sustainable, and globally significant bioscience economy.

Arizona’s unique strengths in the bioscience space, ranging from neuroscience and diagnostics to digital health and workforce development, position it as both a living laboratory and a launchpad for scalable and marketable health solutions. The state’s three public universities, in collaboration with clinical institutions, industry, and government partners, can deepen impacts by aligning research, commercialization, and education with an integrated, statewide bioscience strategy. Such collaboration can build on successful models such as the Arizona Alzheimer’s Consortium to achieve large-scale impact. Concurrently, aligning Arizona’s collective efforts with emerging funding and scientific opportunities in areas such as AI, biomedical manufacturing, and chronic diseases will be essential to securing diverse investments and driving innovation. Leveraging assets such as the Center for the Future of Arizona can help identify and prioritize pressing health needs across the state.

Strategic initiatives, such as the launch of ASU Health’s School of Medicine and Advanced Medical Engineering and School of Technology for Public Health, reflect the scale of ambition needed to meet growing demand and deepen statewide impact. ASU will continue to anchor Downtown Phoenix as a hub for bioscience activity, while actively collaborating across the state and beyond to elevate Arizona’s national competitiveness. Building on the state’s long-standing culture of collaboration, Arizona’s institutions are uniquely positioned to address high-need health challenges; attract investors, companies, and talent; and accelerate the development of transformative health solutions.

2024-2025 Annual At-Risk Goal 4

Create a comprehensive list of new revenue streams to support public higher education that embrace innovative, forward-thinking strategies. Incorporate creative revenue streams, transformative initiatives and financing models.

Goal Accomplished

ASU revenue growth drives impact

Over the past two decades, ASU has transformed its revenue profile—growing the public enterprise revenues **more than fivefold since FY 2003, with projected annual FY2025 revenues of ~\$5.7B.**

Three examples of ASU's impact:



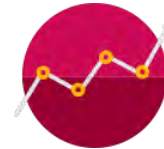
Expanded educational access and affordability

(e.g., highest Pell enrollment among U.S. public institutions)



Scaled innovation and research impact

(e.g., \$1B+ research enterprise without a medical school)



Serving as a national model for a 21st century public university

(e.g., Expanding U.S. competitiveness in semiconductor and microelectronics sectors through major federal awards)

Looking ahead to FY 2026-30 revenue growth

\$2B in new annual revenue target by FY2030, which enables ASU to serve new learners and advance its mission. Growth will be driven by a three-part disciplined strategy:

- 1. Accelerating proven growth engines**
- 2. Advancing new growth opportunities**
- 3. Deploying strategic financing**

1. Accelerating ASU's proven growth engines

Enrollment diversification at scale

- **Expand campus and digital immersion enrollment with global partnerships** (e.g., ASU California, ASU London)
- **Grow alternative academic formats** (e.g., 3+1, 2+2, more hybrid programs) to meet modern learner demands and expand access
- **Strengthen pipeline of incoming first-year students, transfer students and graduate students** through community college partnerships, dual enrollment offerings to high school ecosystem through Accelerate ASU, and university partnership relationships (e.g., University of Tennessee, Knoxville)
- **Expand reach of ASU Online from 100,000 to 170,000+ students in the next five years** – focused on diversifying student populations

Deepening ecosystems of learning and partnership

- **Scale channel partnerships** (e.g., InStride, Dreamscape Learn, Cintana) to reach diverse student populations at ASU undergraduate and graduate levels
- **Expand the reach of ASU Prep Academy/ASU Prep Online to deliver K-12 education** – both in Arizona and beyond
- **Expand industry partnerships to deliver targeted career and professional learning opportunities** - including a suite of stackable micro-credentials, and industry-focused upskilling certificates through ASU Learning Enterprise
- **Accelerate offerings in Career Catalyst, ASU For Life, and additional employer-aligned credentials**

Research awards and industry commercialization opportunities

- **Leverage ASU's infrastructure to expand research awards and diversify sources**
- **Expand corporate partnerships and technology transfer/licensing revenue models** through Skysong Innovations and Enterprise Partners
- **Target national strategic sectors aligned to ASU's excellence and track record, specifically:** Space and National Security, Microelectronics, Health and Critical Minerals

Real estate and place-based innovation

- **Expand ASU Innovation Districts that co-locate learning, research, startups, and civic spaces**

Growing endowment and philanthropic capacity

- **Accelerate fundraising through ASU Foundation's *Changing Futures* campaign and targeted initiatives** aligned with ASU Health, Global Futures and student success
- **Increase long-term ASU endowment assets to support scholarships, academic innovation and faculty excellence**

2. Advancing ASU's new growth opportunities

Lifelong learning

- **Deepen ASU's ecosystem for professional, executive and skill-based learning** closely aligned to workforce needs
- **Launch expanded offerings of stackable credentials and content tailored to every life stage**—youth to retiree—with a focus on the working professional
- **Leverage ASU's leadership to support learning and engagement** for multi-generational populations, with a priority on Arizonans ages 55+

Artificial intelligence

- **Expand Artificial Intelligence across ASU curricula—both as core degree programs and integrated content across disciplines**—building on momentum from W.P. Carey's bachelor's, master's and certificate offerings in AI
- **Enhance learner outcomes and persistence, using AI to personalize instruction, and improve student success and retention at scale**
- **Deploy AI across advising, enrollment and administration to streamline operations and services and optimize enterprise performance**
- **Create new revenue streams through partnership and content creation**, including collaborating with industry partners like OpenAI and FYI.AI to co-develop AI-powered curricula, credentials, and digital services for students

ASU Health

- **Build a robust academic and clinical ecosystem** including the School of Medicine and Advanced Medical Engineering, the School of Technology for Public Health, ASU Clinics and strategic industry partnerships (e.g., HonorHealth)
- **Triple the number of nurses and nurse practitioners and increase the number of physicians, health care researchers and other community health workers.** Triple ASU's clinical and health care partnerships to expand knowledge, accelerate innovation and drive connectivity.
- **Expand digital, hybrid and workforce-based programs** to meet rising demand with a priority on Arizona

Cross-institutional platform partnerships

- **Partner with other public institutions to extend ASU's technology, services and academic infrastructure** including course content in support of their student success and innovation goals. This includes existing alliances – e.g., University Innovation Alliance and new alliances.
- **Integrate real-world learning into curricula through corporate partnerships** that support faster, career-aligned degree pathways

3. Financing ASU's growth

Strategic financing

- **ASU will grow both organically**— through deeper enrollment channel partnerships (e.g., InStride), expanded learner access, expanded offerings for lifelong learning—**and through new high-impact strategic initiatives** like ASU Health and other emerging programs and platforms, all grounded in disciplined financial stewardship.
- **We will continue to optimize existing financial assets**, as well as leverage strategic financing tools including SPEED bonds, unrestricted gifts via philanthropy and resource allocation aligned with mission, impact and long-term sustainability.

2024-2025 Individual At-Risk Goal 5

Work with the University of Arizona President to identify areas where ASU and UA have common strengths in research excellence that lead to collaboration on research proposals.

Goal Accomplished

Enhanced Collaborative Research with University of Arizona

Executive Summary

As the most innovative school and one of fastest growing research enterprises in the nation, Arizona State University advances groundbreaking research and translates solutions into impact. The university brings the best and brightest minds together through partnerships that accelerate discovery, enhance innovation, and create positive impact in our communities. ASU and the University of Arizona have a long history of strong collaborations. ASU currently leads 71 funded projects in collaboration with the UA, totaling \$20.2 million. ASU is also a subawardee on an additional 24 projects led by UA.

ASU and UA will continue to advance ongoing projects, including work addressing Arizona's groundwater supply, making urban environments more livable, and accelerating technology transfer. Looking ahead, ASU and UA have identified three priority areas where complementary strengths in research align with national and state priorities, providing fertile ground for future collaborative proposals. These areas are critical minerals, microelectronics, and national security, as outlined below.

Critical Minerals

A stable domestic supply of critical minerals — including lithium, rare earth elements, cobalt, and copper — is essential for the United States' transition to clean energy, enhanced defense capabilities, and a more resilient manufacturing base. ASU and UA are uniquely positioned to lead national efforts in this domain through their complementary expertise across the entire critical minerals value chain: from geological exploration and sustainable extraction to advanced materials science, public policy, workforce development, and industry engagement with partners such as Freeport-McMoRan.

Federal investments in rare earth elements and other critical materials are expected to grow to levels comparable to the CHIPS and Science Act. Arizona is already a national leader in mining: the state produces 71% of the nation's copper and is a significant source of other key materials such as zinc, manganese, molybdenum, and the highest-grade uranium in the country. The mining sector contributes more than 74,000 jobs and generates over \$20 billion in economic impact statewide.

UA brings global leadership in mining engineering, geosciences, and extractive metallurgy. Its Lowell Institute for Mineral Resources and School of Mining and Mineral Resources maintain long-standing collaborations with the U.S. Geological Survey, the

Department of Energy, and major mining companies, and are widely recognized for advancing responsible mining practices and subsurface characterization.

ASU, in contrast, contributes cutting-edge research in materials science, clean energy systems, environmental resilience, and circular economy models. Through the Ira A. Fulton Schools of Engineering and the Julie Ann Wrigley Global Futures Laboratory, ASU leads efforts in sustainable materials innovation, critical material substitution, and the design of energy systems that reduce reliance on vulnerable supply chains.

Together, ASU and UA can establish a statewide, interdisciplinary research hub for critical minerals, addressing the full lifecycle of mineral resource development — from exploration and extraction to processing, substitution, and recycling.

This work also directly supports ASU's rapidly expanding leadership in the semiconductor sector. Programs such as SHIELD USA and the Southwest Advanced Prototyping (SWAP) Hub, combined with strong industry partnerships, position ASU at the forefront of semiconductor fabrication and advanced packaging innovation. A stable, domestic supply of critical materials is essential to sustaining this momentum.

While ASU brings vital capabilities in supply chain analysis, circular economy research, and microelectronics, other institutions in the region — such as the Colorado School of Mines and the University of Utah — may be better positioned to lead large-scale, national efforts focused specifically on critical materials. Both institutions have expressed interest in collaborating with ASU and UA on these initiatives.

ASU and UA are already part of a growing Southwest research alliance on critical minerals, which includes the Colorado School of Mines, University of Utah, University of Nevada–Reno, and the Idaho National Laboratory. Within this alliance, ASU can play a strategic role by contributing focused research, leading convenings of regional stakeholders, and pursuing targeted federal funding opportunities that align with its existing strengths.

Microelectronics

As outlined in the Maximizing Federal Support for Arizona's Higher Education case study, the nation has increasingly prioritized the domestic microelectronics industry, and Arizona has been at the forefront of this expansion. ASU and UA have significant potential for collaboration in microelectronics, particularly given the national push for semiconductor innovation and domestic manufacturing under initiatives like the CHIPS and Science Act.

In partnership with industry and government, ASU is shaping the next generation of the American microelectronics workforce. In October 2023, ASU launched the

Microelectronics Workforce Development Hub, rapidly expanding educational programs for students and professionals in advanced manufacturing and semiconductor fields.

Building on this foundation, ASU has spearheaded several national-scale initiatives of which UA is a partner, including leadership of the \$40 million Southwest Advanced Prototyping Hub, one of eight regional centers under the U.S. Department of Defense's Microelectronics Commons program. ASU and Deca Technologies were also awarded \$100 million for the SHIELD USA initiative, aimed at advancing secure heterogeneous integration and electronics packaging. In January 2025, the U.S. Department of Commerce and Natcast selected ASU Research Park as the future site of the co-located National Semiconductor Technology Center (NSTC) Prototyping and National Advanced Packaging Manufacturing Program (NAPMP) Piloting Facility — positioning Arizona as a national leader in semiconductor innovation and workforce development.

To strengthen Arizona's leadership in microelectronics, ASU and UA have an opportunity to forge a robust and enduring partnership grounded in complementary research strengths and shared infrastructure. ASU brings deep expertise in advanced packaging, rapid prototyping, AI/ML-enabled chip design, and public-private innovation models through major national initiatives like SHIELD and the CHIPS for America program. UA, in turn, offers unique capabilities in semiconductor materials, photonics, aerospace-aligned applications, and critical testing domains such as device reliability and characterization.

By integrating these strengths, the universities will focus on defense-oriented technologies, trusted computing, and secure chip packaging. These efforts would not only serve as a magnet for federal investment, but also bridge academia and industry in solving urgent national semiconductor challenges.

To facilitate collaboration at scale, ASU and UA will implement reciprocal access to key research infrastructure, allowing shared use of cleanrooms, simulation tools, testing facilities, and foundry-like environments across both campuses. This access would extend to industry users as well, enabling a wider pipeline for validation and prototyping activities. Joint efforts to pursue federal funding, through the Department of Defense, Department of Energy, and National Science Foundation, would further support the expansion of this shared ecosystem, including at nationally significant facilities like the forthcoming NSTC Prototyping and NAPMP Advanced Packaging Piloting Facility at ASU Research Park, where UA researchers and trainees would play active roles.

In parallel, ASU and UA can co-lead efforts to secure large-scale federal awards aligned with national security, advanced packaging, and quantum computing. This would include coordinated submissions to programs such as DARPA, the Microelectronics Commons, and other CHIPS Act-related initiatives.

To ensure long-term competitiveness and funding alignment, ASU and UA will also engage collectively with the Arizona Commerce Authority, state legislature, and the governor's office, advocating for Arizona's designation as a national microelectronics hub. With a shared vision and aligned strategy, ASU and UA can position Arizona as an essential partner in restoring the United States' leadership in semiconductor innovation.

National Security

ASU's global reputation in emerging technologies, public-private research partnerships, and rapid innovation pipelines aligns naturally with UA's deep expertise in space and aerospace sciences, optical systems, and national security law and policy. Together, the institutions bring a formidable blend of technical capacity and applied impact across sectors vital to national resilience — cybersecurity, advanced defense systems, border and homeland security, disinformation mitigation, and supply chain protection.

ASU's work through research units like the Global Security Initiative and participation in the Microelectronics Commons offers scalable platforms to address critical defense challenges. UA contributes world-leading research through its College of Applied Science and Technology at Fort Huachuca, proximity to key defense installations, and strengths in optical science, satellite communications, and electromagnetic spectrum operations.

Efforts for deep collaboration are underway. The Global Security Initiative is currently working with ABOR, UA, and Northern Arizona University to organize a "Military Symposium" in November 2025. Planning is led by ABOR and includes representatives from all three universities, with a core focus on demonstrating Arizona-based capabilities in critical and emerging technology areas, including space-based sensors, microelectronics, and hypersonics. Experts from all three universities will participate in the symposium, exploring areas of potential collaboration.

Additionally, GSI's Center for Cybersecurity and Trusted Foundations organized Arizona's first statewide Capture the Flag cybersecurity competition for university students. This competition featured teams from ASU, UA, NAU, and Grand Canyon University completing hands-on hacking challenges. These types of competitions help students hone cybersecurity skills necessary for professional success in Arizona's high-tech sector. Nearly 400 students participated, and the goal is to make this an annual event.

The ASU Center for Wireless Information Systems and Computational Architectures is advancing collaboration with faculty from UA on next-generation wireless communications, including space-based capabilities. ASU and UA have complementary technical strengths in optical communications and are working to improve

communication among space-based assets like satellites and control centers on Earth. This includes partnerships on four funded research awards from the Department of Defense thus far, all led by ASU with UA faculty providing significant contributions on embedded software technology. The collaborators are engaged in continual dialogue on future opportunities.

Finally, ASU and UA can jointly amplify Arizona's voice in federal security policy. Working in concert through coordinated federal relations efforts, ASU and UA can transform Arizona into a national exemplar of academic partnership in service of national defense. Their collaboration offers a powerful model for securing America's technological edge, strengthening its democratic institutions, and protecting the safety and prosperity of its citizens in an increasingly complex global landscape.

Emerging Projects in Energy, Water, and Computing

Although ASU and UA will focus on three areas of excellence, collaborations continue to emerge in energy, health, nuclear engineering, sustainability, and research computing. Select examples including the following:

- ASU is creating a model for how a university leads in energy transformation. **Energy Forward** amplifies these efforts, leading the conversation and implementation of future energy ecosystems with a mission to work alongside diverse stakeholders to reimagine the energy ecosystem and accelerate the energy transformation toward a thriving, sustainable world. This mission is powered by a robust network of partners, leading thinkers in future energy ecosystems and innovators actively driving this transition.
- ASU acts as the **honest broker for Arizona Department of Health Services data** for researchers at ASU and NAU, with UA now joining the arrangement. UA previously collaborated on improving metadata and other related developments. This work is being expanded through an Arizona Data Modernization Initiative led by ADHS (and co-designed by ASU) which includes all state health agencies, all counties, the Arizona Health Information Exchange, and other stakeholder organizations.
- ASU and UA are pursuing strategic collaboration around **data centers and small modular nuclear reactors** with Idaho National Lab. Expansion of this effort with Sandia and Oak Ridge National Labs includes touchpoints with UA.
- The **Southwest Urban Integrated Field Laboratory** seeks to engage stakeholders and provide scientists and decision-makers with high-quality, relevant knowledge that can spur and guide responses to environmental concerns. SW-IFL is a partnership involving the three Arizona public universities, two national laboratories, and industry, led by ASU.

- ASU, UA, NAU, and the Sun Corridor Network jointly sponsor the **Arizona Research Computing** partnership, which promotes shared infrastructure and expertise. Each organization participates in a joint Arizona exhibit at the annual Supercomputing Conference, highlighting collaborative efforts in high-performance computing and data infrastructure.

Conclusion

ASU and UA are deepening their longstanding partnership to align with evolving federal priorities and attract new industry investment to the state. This collaborative approach is designed to generate measurable economic impact while maintaining national competitiveness in research.

To support joint research efforts, both institutions are conducting a comprehensive review of their respective infrastructure — spanning research assets, capabilities, and facilities. The goal is to identify opportunities to reduce redundancy, expand collective research capacity, and strengthen complementary areas of expertise across the two universities.

Translating academic innovation into economic growth is also a central priority. The inaugural Inferno Invitational Cup brought together founders from ASU, UA, and NAU, providing a platform to accelerate university-developed technologies into the Arizona market. These efforts are being further amplified through strategic partnerships with regional utilities like Salt River Project and national laboratories such as Idaho National Laboratory. These collaborations broaden Arizona's research footprint and open new pathways to long-term funding and sustained research excellence.

Suzanne Templin

Subject: FW: 2024-2025 Commissioner's Cup Winner -- embargoed information until Tuesday July 8

From: Christine Wilkinson <C.Wilkinson@asu.edu>

Date: July 3, 2025 at 5:13:55 PM MST

To: regents@azregents.edu, Michael Crow <mc71@asu.edu>, Chad Sampson <Chad.Sampson@azregents.edu>

Cc: Jennifer Pollock <Jennifer.Pollock@azregents.edu>

Subject: 2024-2025 Commissioner's Cup Winner -- embargoed information until Tuesday July 8

We are very pleased to inform you that we just heard today that ASU received the fy25 Big 12 Commissioner's Cup. This was based on the following:

1. 4 Big 12 Championship titles
2. A GSR of 95 (based off of the data submitted to the NCAA June 1, 2025)
3. And the maximum amount of points for career development, community service programs and impact/mental health offerings

According to Jenn Hunter, Chief Impact officer for the Big 12, "Your team has been phenomenal to work with, and I wish you all continued success in representing Arizona State in the great ways in which you all do."

I would appreciate you including this in President Crow's at risk goals and the similar item that is the ASU portion of the EEC goals for fy25. The announcement will be made on Media Day July 8 so we would appreciate you keeping this confidential until then. Thank you.

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**ANNUAL DISCLOSURE STATEMENT OF AFFILIATIONS
AND
OUTSIDE COMPENSATION
FOR PRESIDENT**

Arizona Board of Regents Policy 6-1101 and the president’s employment require annual disclosure of all organizations with which the president is affiliated and all outside compensation received. Outside compensation includes any consideration related to outside board affiliation, consulting or other services, or provided by a university foundation or university-affiliated entity. However, presidents are not required to report personal and passive investment income.

Please complete this disclosure form, and update this form throughout the applicable fiscal year as information changes.

Board appointments, including current and anticipated appointments and any related compensation, excluding payments for honoraria and speaking engagements: *(If no appointment or compensation, state “none.”)*

Name of Organization	Amount of Compensation (if any)
Worktiva (Director) - software technology	~\$70,000 & annual stocks
In-Q-Tel (Director & Chair)	~\$40,000

Outside employment, consulting relationships and related compensation, excluding payments for honoraria and speaking engagements: *(If no employment, consulting relationship or related compensation, state “none.”)*

Name of Outside Employer or Name of Entity Receiving Consulting Services	Amount of Compensation (if any)
Speaking	All fees to ASUF
Royalties	All fees to ASUF

Other organizations with which the president is affiliated and any outside compensation not otherwise identified above:

Name of Organization	Amount of Compensation (if any)
ASU Foundation President's Leadership Chair	\$200,000

Signature of President Michael Crow

Date 6/26/25

Printed Name of President Michael M. Crow