ARIZONA STATE UNIVERSITY OPERATIONAL AND FINANCIAL REVIEW ENTERPRISE PLAN FEBRUARY 2018 UPDATE

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Overview

The ASU Enterprise Plan was first outlined for the Board of Regents in our annual Strategic Enterprise Framework Report in February 2010. The 2010 report represented a major policy shift by declaring that ASU would operate as an enterprise and would complete its five-year evolution away from an institution that was dependent on State decisions, and emerge as an enterprise taking responsibility for its success in meeting the needs of the State's citizens, fulfilling its Charter, and achieving the mandated ABOR metrics. The primary tactical and strategic elements of the plan have been consistent in the seven reports delivered since then and, with its success, most every metric outlined at that time has been achieved to date.

A detailed ASU Enterprise Plan was presented to the Regents as a part of the OFR report in February 2017. It included information on ASU's goals, its strategies for achieving those goals, and its progress in that regard. The plan outlined in that document is one that ASU has been following for the last seven years, and it remains valid as we look to 2018 and beyond.

In this document, ASU is presenting an update on its Enterprise Plan and a report on how it may need modifications due to the ongoing changes in the social and political landscape in which higher education operates.

Before proceeding to the update, it is useful to ground the discussion in a summary of the key goals of the ASU Enterprise Plan, as presented in the February 2016 plan.

- Demonstrate leadership in accessibility by providing sufficient capacity at ASU to allow any qualified (as historically and currently defined) Arizona resident to attend and succeed
- Maintain a tuition and financial aid policy that assures access to ASU is not limited by a resident student's financial circumstances
- Offer a world-class educational environment of colleges and schools of national standing that teach the most current knowledge in all fields using the most effective pedagogical methods
- Build the human and technology systems needed to support students in ways that result in retention and graduation rates in which individual effort (rather than family income, ethnic background, and prior preparation) is the determinant of success
- Maintain and strengthen a faculty committed to interdisciplinary scholarship that is a substantial contributor to new knowledge and has the tools and facilities to participate in

major research and creative activities for the benefit of the educational experience of their students and the good of society

 Extend ASU's visibility and reputation in order to attract more and stronger students and faculty from around the world and to offer ASU as a design model of how higher education can be made available to a more diverse population and be of greater service to individuals, to Arizona, and to the wider society

ASU's Metric Goals and the Scale of Growth

The ASU Enterprise Plan that was outlined last year, for which this document serves as an update and progress report, was scaled to allow ASU to reach the ambitious enrollment, degree, and research targets in its ABOR-established 2025 metric targets. The Plan outlined the tactics and investments needed to achieve the metrics.

In the last year, ASU increased its performance in all but one of the metric categories for enrollment, degree, student success and research. In most categories, that performance exceeded the metric targets for the year.

	Metric	Fall 17 or FY17	Change from
	Target	Result	Prior Year
Undergraduate Enrollment	80,888	83,551	+4,104 (5.2%)
Graduate Enrollment	19,297	20,016	+1,286 (6.9%)
Total Enrollment	100,184	103,567	+5,390 (5.5%)
Freshman Retention	85.2%	85.2%	+ 1.4 pts (1.7%)
6-Year Graduation Rate	63.0%	63.0%	+1.7 pts (2.6%)
Bachelor's Degrees	15,528	16,450	+1,186 (7.7%)
Graduate Degrees	7,035	6,884	+195 (2.9%)
High Demand Degrees	8,755	8,477	+180 (2.2%)
AZCC Bachelor's Degrees	4,652	4,515 *	-114 (-2.5%)
Research Expenditures	\$520.6M	\$540.0M *	+\$21.8M (4.2%)
Licenses and Options	67	97	+14 (16.9%)
Public Service Expenditures	\$40.6M	\$35.4M	-\$1.4M (-3.8%)

Undergraduate enrollment and degrees continue to exceed the targeted levels, and this, combined with the continued improvements in freshman retention graduation rates, suggests that the degree award targets will continue to be reached or exceeded in the future.

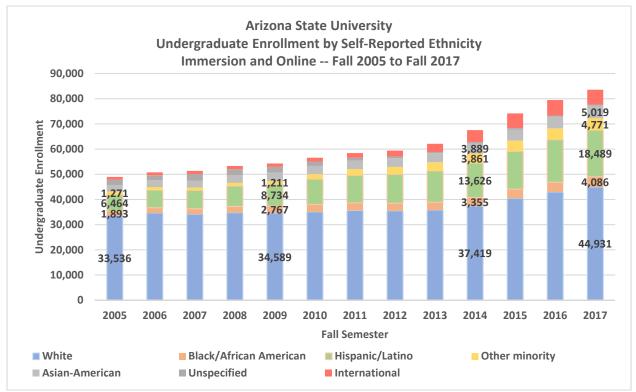
Resident Undergraduates

Resident undergraduate enrollment is 41,388 in Fall 2017 and is an important reason that ASU is exceeding its enrollment metric goals. After the period of decline in immersion resident undergraduate enrollment that followed the recession of 2008-2009, enrollment has rebounded in the last two years, and the application picture for Fall 2018 looks bright. This increase is being driven by increases in the number of students entering as freshmen- which in Fall 2017 were up by 29% over the low point in Fall 2013, and are up 7% in just the last year to 7,486. This growth has offset the ongoing declines in the number of resident undergraduate students entering as transfers. The number of transfers peaked in 2013 at just over 6,100 and has declined by 9% since then, with the current application picture suggesting little recovery in 2018. The recent declines in Arizona community college enrollment and degrees certainly contribute to the transfer application decreases at ASU. The fact that the transfer decline is matched with ASU freshman increases may suggest that more Arizona students are choosing to begin their college career at ASU rather than community colleges.

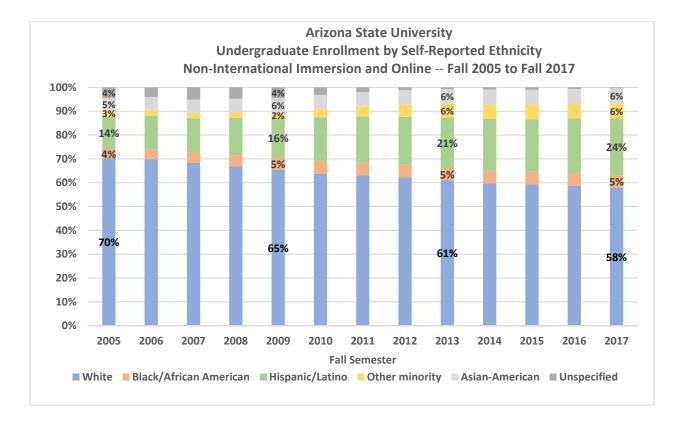
To address the transfer student market, ASU is implementing a range of strategies, including refining the ways in which transfer articulation agreements are implemented, creating more options on community college campuses for direct engagement with students, expanding AAS to BAS options, looking for greater interactions with the community colleges in helping to get high school students not ready for ASU enrolled in the community colleges in Pathway (MAPP & TAG) programs that will lead them to ASU after two years.

One of the points of pride in the undergraduate enrollment picture is that the numbers of minority students and the number of Pell-eligible students in the immersion population has continued to grow and even to out-strip the overall growth rate. This is in keeping with the overall changes in the demographics of Arizona and indicates that ASU's recruitment, programmatic, and financial aid strategies are effective.

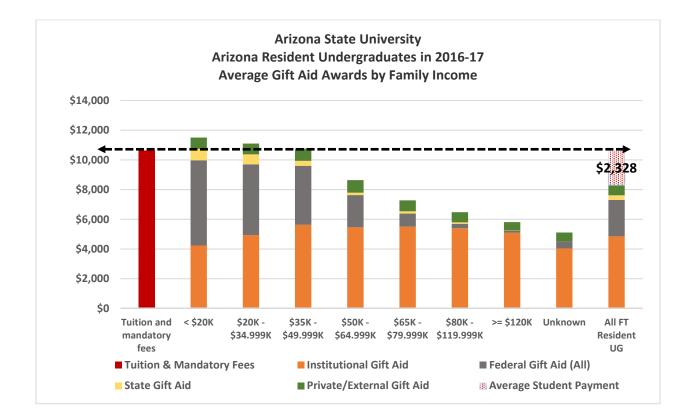
In Fall 2009, 25.1% of the non-international immersion undergraduate population self-identified as other than white or Asian. By Fall 2017 it was 37.3%. In Fall 2009, 36.0% of the non-



international undergraduate population was made up of students who were receiving Pell Grants during all or a portion of their enrollment at ASU. By Fall 2017, it was 42.7%.



ASU's financial aid policies are an important component of our resident student enrollment and student success efforts. Using a mix of merit-based and need-based scholarship and gift awards and with thoughtful design of aid packages that include federal gift aid, philanthropic gift aid, loans and work-study, ASU works hard to make tuition affordable. In 2016-17, the average gift award (loans not included) to Arizona immersion undergraduates from all sources was \$8,312. This is only \$2,328 less than list price tuition, surcharge, and mandatory fees. Because the institutional financial aid program includes both need and merit elements, the awards are well-distributed across the socio-economic spectrum of the students' families. With the federal aid programs largely based on need, the result is a very affordable net tuition for most students, and a resulting healthy diversity of students on-campus.



Financial aid, while a key element of ASU's efforts to assure that its student body is representative of the diversity of the state's population, remains one of the major stress points for overall financial planning because of the lack of a state-funded aid program. Aid awarded from institutional sources is the largest source of gift aid. It amounted to over \$330 million in FY17. The primary financial means of providing this aid remains the ability of ASU to attract domestic non-resident and international students who can pay the higher tuition rates assessed to these students.

Non-Resident and International Undergraduates

The numbers of domestic non-resident undergraduate students grew by an average of 6% per year between Fall 2012 and Fall 2016, but flattened in Fall 2017, showing a small drop in the overall total. Similarly, international undergraduate student enrollment grew at an even faster rate over that same period- an average of 40% annually—and then also flattened, showing a small decline in Fall 2017. Because of the very substantial growth in prior years, the base of non-resident students and international undergraduate students remains well over 19,000 students.

The Fall 2017 result is a clear indication of the both the growing competition among universities for these students, and in the case of international students perhaps some indication of what is probably temporary hesitancy to come to the United States following the 2016 election. More importantly, some governments in the Middle East have revised programs, in which ASU had great success, that support sending their citizens to overseas universities.

ASU is taking a number of aggressive steps to counter this situation. New recruitment staff in different regions of California are making contacts in more high schools and are working to create more formal partnerships with California community colleges, where students may lack good in-state options for transfer. Financial aid practices are also being reviewed to assure that ASU remains competitive in its pricing strategies. Branding efforts are also important to help students and families from other states to overcome out-of-date perceptions and to understand the quality of education they can find at ASU. Similar efforts are being mounted in other strong feeder states such as Washington, Illinois, Texas and Colorado. The application forecast for Fall 2018 is already showing signs of success from these efforts.

In the International market, a wider range of recruitment efforts are being made in China and India using both on-the-ground representatives as well as fly-in staff from the university. A recent trip to China by President Crow included a number of events that sought to highlight the nature and quality of ASU. The events received substantial media coverage throughout China and that is expected to give a boost to student recruitment. In the Middle East, ASU staff are visiting embassies in the United States and inviting more official visitors to campus to build bridges with individuals responsible for education decision-making.

ASU Online

ASU Online continues to grow at a substantial rate and remains key in two elements of the ASU planning. One is the strategy to make high-quality and well-supported education available to previously under-served populations or to those who cannot attend immersion programs. The other is its contribution to creating resources in the overall financial enterprise model. In Fall 2017, ASU Online's undergraduate programs enrolled 23,000 students—an increase of 19.5%. This includes almost 6,200 students in the Starbucks College Achievement Program. ASU Online graduate programs enrolled 7,650 students, a growth rate of 16%. Given the remaining untapped market for degrees and continuing education among working adults who have either started but not completed college or who need additional education to advance, the prospects for continued growth of ASU Online are very good.

While the number of strong, research-oriented non-profit universities which have developed a wide range of online offerings and who look to compete in a national market remains limited, ASU Online needs to continue to evolve and provide even greater value to its students. One of the hallmarks of ASU Online is its emphasis on strong student support to accompany state-of-the-art academic quality. The work in the last year to develop a comprehensive student success operation in house has been very successful in helping students to balance their many responsibilities, provide emotional support, and academic advising. Technology systems are regularly enhanced to provide students and advisors with information about educational issues and to smooth communication with students. Chat systems driven by smart technologies, for example, are being more widely deployed as part of this effort. On another front, ASU Online has started building an in-house sales effort devoted to finding corporate and institutional clients who want to provide top-level educational opportunities for their employees through well-supported partnerships with ASU Online.

ASU Online's enrollment profile demonstrates the value that this kind of educational structure can bring to efforts to assure higher education access. Students taking advantage of the Pell Grant program during their educational career comprise over 48% of the undergraduate students enrolled in Fall 2017, and non-white, non-Asian students comprise 31% of the undergraduates. ASU Online programs are also of substantial value to the educational attainment efforts of the state of Arizona. Over 6,300 residents are enrolled in ASU Online; that makes up 25% of non-Starbucks undergraduates and 25% of the graduate students. In an effort

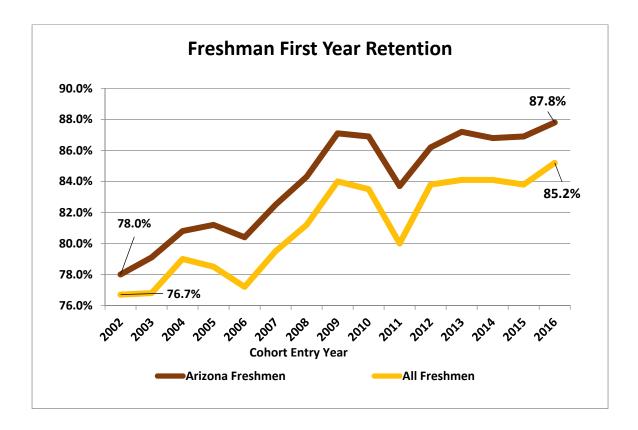
to further increase the participation rate of Arizona residents, ASU is making changes to its tuition structure in ASU Online for residents to encourage higher course loads that lead to faster and more affordable completion.

Retention, Graduation, and Degree Attainment

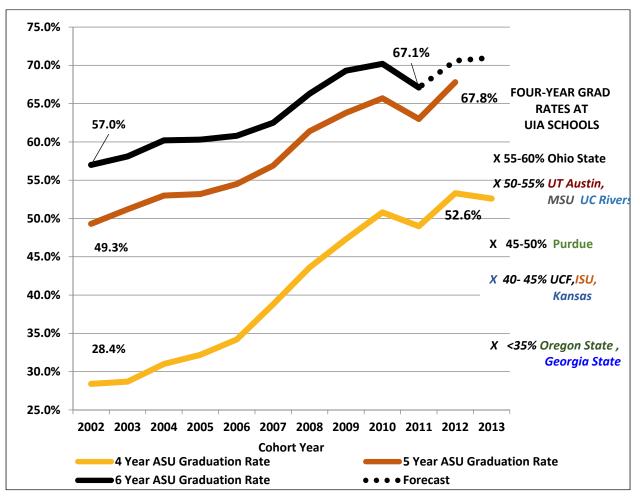
Successful enrollment efforts mean little if the students do not graduate, so major efforts continue to be made to improve retention and graduation performance, and to increasingly help freshmen to graduate in four years and transfers in two or three years. Overall number of undergraduate degrees continues to increase in both immersion and online programs. The number of resident immersion degrees was a bit lower in 2016-17, reflecting the lower enrollment levels seen following the recession and noted earlier, but with the enrollment recovery the degree numbers will rebound within two years.

Work on retention and graduation rate improvements is an area of intense focus and substantial investment, just as it has been since the inception of the work by ASU on eAdvisor ten years ago, which kicked off a much broader level of attention across the higher education world to focus on retention and which spawned a large private technology sector selling products to support data-driven analysis.

ASU's efforts have been highly successful. As shown in the chart that follows, first year freshman retention rates have improved from 77.2% for the cohort that entered in Fall 2006 to 85.2% for the cohort that entered in Fall 2016, and that rate was up from 83.8% just a year earlier and met the metric goal. For Arizona resident freshmen, the number is an even better 87.6%. The overall freshman graduation rate, measured in the national-reporting framework of six years, reached the metric goal of 63%. This reflects a transitory dip during the recession in the retention rate but is likely to be near 68% next year based on the current performance rate of that upcoming cohort. Again, resident student rates are higher at 67.1% this year and projecting near 70% next year based on the most recent data on their progress.



Even more progress is being made in accelerating graduation which lowers overall educational costs and helps students move to the next step in life sooner. This is illustrated in the following chart. Immersion students in the most recent cohort (Fall 2013 freshman entrants) had a 50.3% four-year rate, with a resident rate of 52.6%. Additionally, another 7% of freshmen entrants gradu ate in four years plus one semester. Six years ago, those four-year rates were 37.0% and 38.8% respectively, and ten years ago they both were near 29%. While four-year rates are not an ABOR metric, ASU will continue to work to improve that rate as well as to reach the ABOR six-year target of 75% by 2025.



Resident Freshman Cohort Graduation Rates

ASU continues in its commitment to the success of all students. It is useful to break down the overall numbers shown in the charts above to look at distinct subsets of the student population because the efforts to improve student success must differ based on the different stresses that impact different students.

Retention for Pell and first-generation students increased from 78% to 83% during the same time period while the number of students who were Pell eligible or first generation more than doubled. Their six-year graduation rate increased fourteen percentage points to 58% for the cohort of 2010. For comparison, a 2017 Brookings Study by Robert Kelchen (https://www.brookings.edu/blog/brown-center-chalkboard/2017/10/25/a-look-at-pell-grant-recipients-graduation-rates/) reports an average graduation rate of 51% for Pell students who entered college in 2010 from a sample of 1,266 four-year colleges.

Notably, in the last several years, support programs have been implemented and financial aid programs further enhanced in a manner that more directly addresses the needs of traditionally underserved students who might feel they lack a community or share other concerns upon entering college as freshmen. The results have been excellent. 84% of the improvement in retention of Pell and first-generation students has occurred from 2013-16. This implies that when these students reach their graduation rate milestones, their six-year graduation rate could rise by another 4-7 percentage points, closing the achievement gap still further.

Looking at a different group of students, the first-time full-time freshman retention rate of entering cohorts of non-Pell and non-first-generation students increased six percentage points to 85% during the time period 2007-16. This was not achieved by becoming more selective—the student population increased by 87% (one of the largest student growth numbers in the country). ASU's six-year graduation rate of non-Pell and non-first-generation students increased eleven percentage points to 69% for the class entering school in 2010. The Brookings study reports an average six-year graduation rate of 59% for non-Pell students from those same 1,266 institutions who entered in 2010.

The ASU OFR Enterprise Plan report presented a year ago includes comprehensive detail about all of the ASU efforts and programs to improve retention and graduation. All of those efforts continue and are important. In the last year, additional efforts have focused on:

- developing a more detailed set of data analytics to spot needed interventions that are captured in real time during the semester
- programs to help students with the mindset and resilience to persist and succeed
- better integration of financial planning and career planning so that some unnecessary financial pressures might be avoided and students have a better sense of where their education can take them
- expanding the number of adaptive, active, and project-based courses—particularly in introductory courses- in order to combat early failures and loss of confidence and to build a stronger academic base for upper-level work in a student's major
- new technologies such as chat-bots to address student questions and to ease student interactions with administrative requirements
- more advanced use of the SalesForce CRM system to track student issues and assure more timely interventions

All of this work requires a major level of new and ongoing investment in a team of faculty and professionals, as well as in new technology products and their integration into existing systems. ASU has continued to prioritize these investments in the last year, and will need to continue to do so because the gains in retention and graduation performance are increasingly difficult to find and will, for the most part, be accomplished with a series of actions, each of which will target only small subsets of the shrinking percent of students not retained.

In looking at the significant topic of degree attainment and the metrics, one area of interest is that while the number of degrees in the ABOR-defined "high demand" programs was up from the prior year by 180 (to 8,477), it was slightly below the aggressive metric target. The data shows that increases were seen in STEM degrees, particularly at the undergraduate level. Education degrees were a mixed bag, with ongoing declines in undergraduate counts but increases in master's degrees. Health was also mixed with softness for undergraduates and flatness for graduate. Enrollment in STEM programs continues to grow, so the degree prospects in all of these fields vis-a-vis the metric targets.

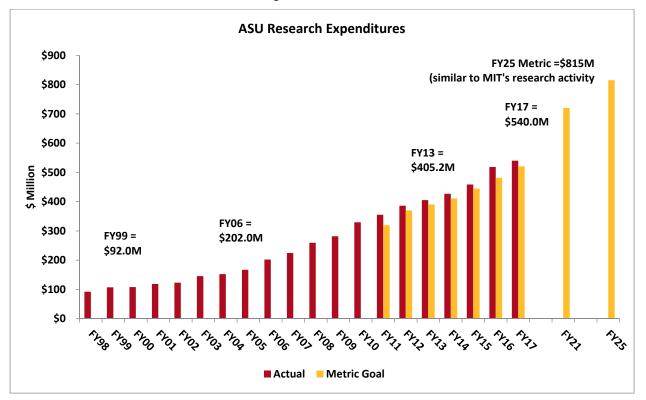
Graduate Students

Graduate enrollment continues to grow, driven by international student enrollments on campus and by online programs. The numbers of graduate degrees awarded also grew in the last year, but at a slightly slower rate than in the past, and as a result, fell marginally short of the metric target. The trajectory, however, is positive for the future since in FY17 the numbers of graduate degrees awarded to immersion students rose again, reversing the decline that was experienced between FY15 and FY16. Graduate online degrees continued their rapid increases. Given the fact that the graduate immersion enrollment pipeline is increasing, the prospect for meeting graduate degree targets is positive.

Immersion graduate program growth is a key goal in helping to spur the strength and diversity of the Arizona economy. ASU is engaging in a number of activities to spur that growth. These include development of new master's offerings that are tied to specific career development and market niche needs, promoting programs to encourage ASU undergraduates to make early plans to pursue master's degrees upon graduation, often in 4+1 programs, making better use of faculty members as recruiters, and more nuts-and-bolts efforts to accelerate the admissions processing cycle.

Research Activity

In addition to its importance to the quality of the education for our students, research expenditures bring funding from outside the state to Arizona, provide new well-paid jobs, and produce innovations capable for spinning off new businesses. In the last year, ASU continued its rapid progress toward becoming one of the highest ranked non-medical school research universities. Preliminary data show that FY17 expenditures increased by 4.2% and reached \$540 million, well ahead of the metric target of \$520.6 million.



Comparative data for FY17 will not be available for about a year, but recently released FY16 performance numbers show that ASU's growth in research activity continues to outpace most competitors. As examples of this, NSF data shows that ASU's overall research expenditures place it:

- 9th among universities without a medical school (up from 10th)
- 23rd in NSF expenditures (up from 25th)
- 10th in NASA expenditures (up from 11th)
- 4th in social sciences (up from 5th)
- 19th in engineering (up from 20th)

A major accomplishment in the last year in support of the continued trajectory towards the 2025 metric target of \$815 million in research activity was the State's approval of the Research Infrastructure 2 package that ASU has been championing for the last four years. The funding from this will support ASU's next round of research facilities (as well as much-needed deferred maintenance work). Planning is beginning for over 400,000 gross square feet of research lab facilities in Tempe, on the Downtown Phoenix campus, and adjacent to the Mayo Clinic Hospital. With Biodesign C in the final stages of completion and set to open in mid-2018, one leg of the ASU strategy for research development that was described in last year's document is in place.

The other legs of the strategy continue to be pursued, including ongoing hiring of faculty members with strong research credentials or potential – in addition to a commitment to teaching, and the pursuit of major collaborative projects and teams or national laboratories. Along with student success initiatives, faculty hiring is the other most important priority for university investment. These recruitment efforts for faculty often overlap with the efforts to seek out opportunities for large scale projects and teams. The Office of Knowledge Enterprise Development has a sophisticated structure for identifying areas of intended national investment and groups at other institutions which might be targeted to join ASU. These OKED efforts are key to both supporting current faculty work and to developing the research potential of the future.

The Required Resources

There are few changes to the strategies and tactics outlined in the 2017 OFR Enterprise Plan report for generating the resources needed to support the ability in achieving the metric goals and in the kinds of resources which have to be developed.

Investment Priorities

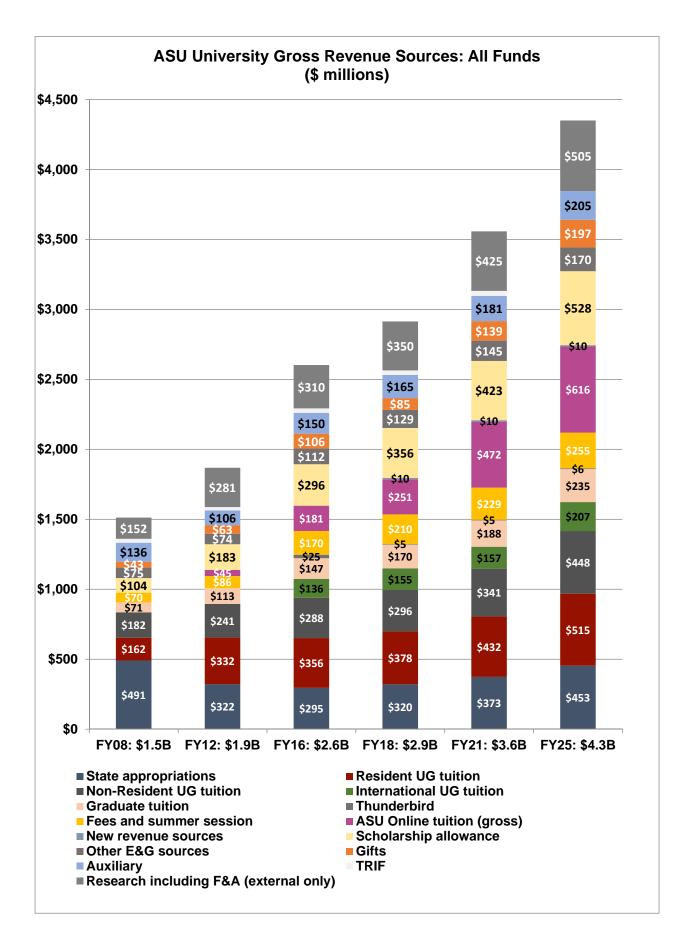
ASU's enterprise investment priorities will continue to be increasing the size of the 3,400-person faculty by 20% to 30% with emphasis on tenured and tenure track hires, expanding support positions at rates needed to maintain or improve service levels, increasing the amount of research space by about 500,000 to 600,000 SF and the amount of classroom and office space by about 600,000 to 700,000 SF. Investments in the expansion of ASU Online will be needed periodically as new markets become attractive and as technology needs change. The Enterprise Plan anticipates that these investments will be supported by the new revenue generated during the start-up phases of each venture.

In addition to these quality and growth-oriented priorities, funding is also built into the planning for maintaining and updating the physical infrastructure and keeping up with developments that drive the nature of the technology infrastructure.

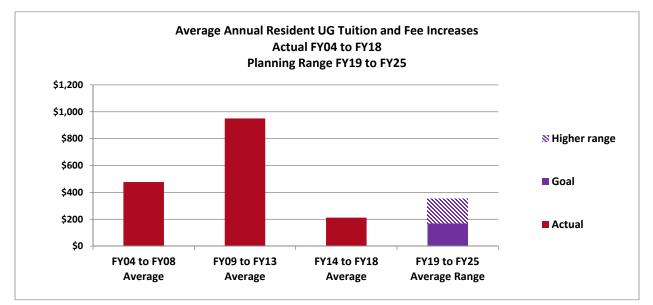
Student housing needs will be met through partnerships with private developers. Athletic facility needs will be met by a combination of athletics revenue, philanthropy, and the revenue from the Novus Innovation Corridor.

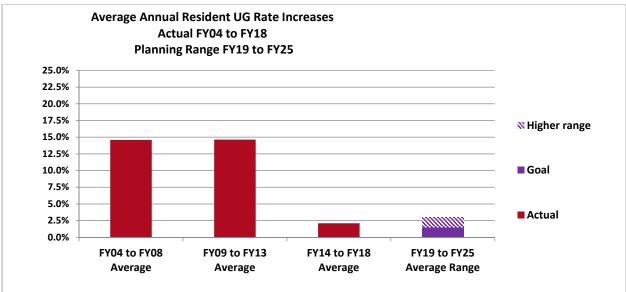
Enterprise Resources

The chart that outlines the revenue sources reflected in the ASU Enterprise Plan is displayed below. There are no major changes in the relative size of the different revenue sources from last year's chart.



The projections for tuition revenue increases are based on the same tuition planning that ASU has enunciated for a number of years—that tuition increases for resident students will be held as close to zero as possible and will not exceed three per cent in any year, and that non-resident and international tuition increase will reflect market conditions and demand. The projections in the chart are based on an average of 1.5% for residents and 3% for non-residents. This represents a continuation of the practices of the last six years of zero-to-modest-rate increases.





The success of the Enterprise Plan and the ability to maintain low tuition rate increases that are supported by financial aid policies aimed at driving access and quality is ultimately driven by

ASU's success with its overall enterprise efforts to build non-resident and international enrollment, expand its online programs enrollment, and build an ongoing program for philanthropic support. The fund-raising efforts are well underway with Campaign 2020 and its emphasis not just on reaching its \$1.5 billion goal but also in establishing a culture of philanthropy and the infrastructure needed to support it.

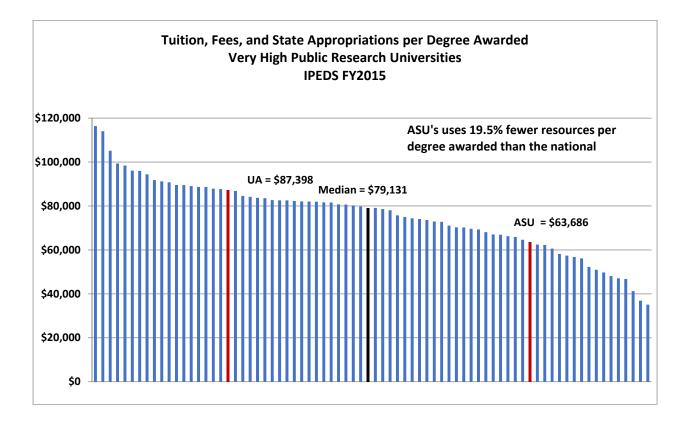
While ASU knows that it cannot build an enterprise plan that is dependent on large increases in State investment, the plan continues to include a projection of modest increases. While we will continue to work diligently towards the goal of State investment at the level that supports half of the cost of education for resident students, the assumed increase in state investment built into the projections is well below what those levels would be. If these state investment projections are not achieved, there will be greater pressure on the tuition sticker prices in order to gain the resources needed to achieve the enterprise goals.

Cost Effectiveness

The resources projected in the ASU Enterprise Plan are significant. By 2021, gross revenues will rise from \$2.9 billion in FY18 to \$3.6 billion, and by 2025 to \$4.4 billion. But these numbers are based on, and will be needed to support, similar rates of increase in students (50% by 2025) and research activity (51% by 2025). This means that ASU's already-impressive level of cost effectiveness must not only be maintained but accelerated to account for inflation.

ASU's cost effectiveness was reviewed in last year's report and the elements of its cost control planning was described in detail. The strategies and tactics outlined there will continue to guide ASU's efforts.

Two data points provide the evidence for the current cost effectiveness. One is the comparison regularly reported that indicates that among all public universities classified as "high research", ASU shows a level of resources available for educational use (tuition and state appropriations) that is almost 20% below the median. The table below shows data updated from the version used last year. Were ASU at the median level, it would be spending \$15,450 more per degree produced, or about \$350 million more at the current degree production level.



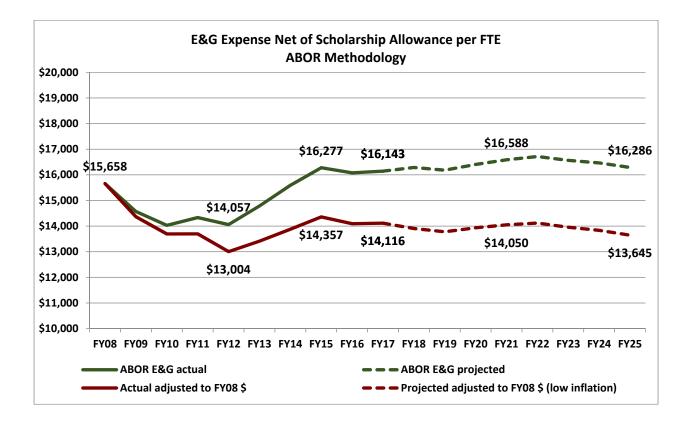
The other data point demonstrating cost effectiveness at ASU is the table shown below comparing the number of employees per 100 FTE students at ASU and at its ABOR peers over the FY12 to FY15 period. (The data excludes medical school employees for the universities among the peers which have medical schools.) It shows that on average ASU uses half the number of the peers. Deployment of technology in support systems, lean staffing levels, and use of online and hybrid teaching tools and course structures, as well as strategic use of private sector partners for services that can benefit from the partnerships, all play a role in this outcome.

FTE Employees Per 100 FTE Students

(Excludes Medical School Employees)

	FY11	FY12	FY13	FY14	FY15	
Arizona State University	13.65	12.91	12.93	12.92	12.85	30.0
Florida State University	15.66	15.33	15.81	16.10	16.05	30.0
Indiana University-Bloomington	20.64	20.11	20.53	20.07	20.77	25.0
Michigan State University	22.69	22.75	21.47	21.29	21.59	
Ohio State University-Main Campus	25.37	24.34	22.97	23.02	22.92	20.0
Pennsylvania State University-Main Campus	31.04	28.58	28.79	28.75	29.04	
Rutgers University-New Brunswick	22.69	23.01	23.90	25.67	24.98	15.0
The University of Texas at Austin	29.00	28.77	32.77	26.00	26.70	
University of California-Los Angeles	28.00	27.35	26.67	28.43	26.37	10.0
University of Connecticut	27.96	26.92	28.08	28.32	27.59	5.0
University of Illinois at Urbana-Champaign	24.85	24.25	24.44	25.14	25.23	5.0
University of Iowa	22.96	23.22	23.32	23.50	24.08	0.0
University of Maryland-College Park	24.26	24.91	25.75	26.00	27.37	FY11 FY12 FY13 FY14 FY15
University of Minnesota-Twin Cities	30.06	29.62	30.30	30.85	31.24	
University of Washington-Seattle Campus	25.94	25.60	24.44	25.29	25.60	Peer Median
University of Wisconsin-Madison	26.86	26.42	26.85	26.91	27.59	
Peer Median	25.37	24.91	24.44	25.67	25.60	

(While the FY15 data presented in the two tables is the most recent available with national comparators, the E&G chart below shows that per student costs have been stable in the subsequent years, so one should expect this cost effectiveness to be reflected again in future comparisons.)

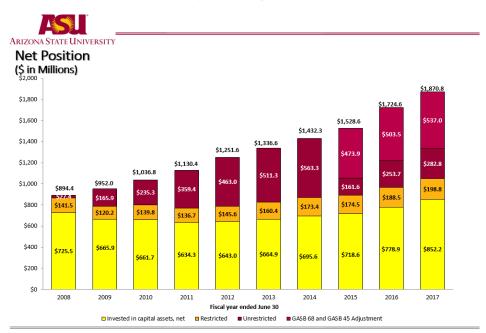


Cost control efforts cannot be accomplished by skimping on the key elements required for success in achieving the metric goals—faculty strength, appropriate facilities for teaching and research, and effective student success support structures. Cost control has to be implemented in other areas either to allow or advance the priorities. The major elements for accomplishing this remain the ASU culture, ongoing innovation in the application of technology, and an organizational structure that avoids duplication but does not skimp on the talent needed to carry out the mission in all of its complexity.

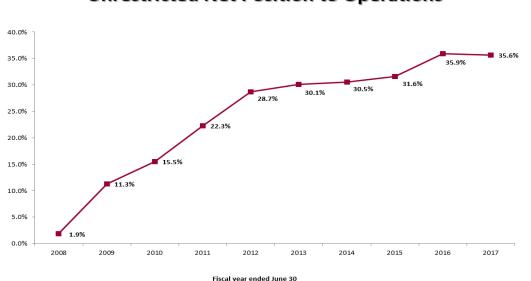
Financial Strength

Managing the resources available and their use, is a critical element of management concern. A main reason for this is that ASU's ability to build the facilities it will need to support academic quality and research expansion depends upon its access to capital markets at a competitive cost of capital. Financial results that yield adequate levels of new asset growth are a key to this.

As of June 30, 2017, the University had total assets of \$4.0 billion and net position of \$1.3 billion. In FY17 alone, ASU strengthened its financial foundation with a \$99 million increase in net position, compared to a \$109 million increase in FY 2016. This represents the 12th straight year in which ASU reported an increase in net position. In the five years from 2013 to 2017, ASU has been able to build its net position by more than 40% (\$534 million).



ARIZONA STATE UNIVERSITY



Unrestricted Net Position to Operations

The Enterprise Plan presented here projects an additional cumulative increase in net position of about \$750 million over eight years. This is currently judged to be sufficient for ASU to work with the rating agencies to maintain a strong credit rating and to ensure sufficient financial resources to manage economic volatility without significant operational disruptions.

ASU's Academic Plan and Measuring Learning Outcomes and Quality

Degree planning at ASU is based on the Charter: ASU is a comprehensive public research university, measured not by whom it excludes, but by whom it includes and how they succeed; advancing research and discovery of public value; and assuming fundamental responsibility for the economic, social, cultural and overall health of the communities it serves.

New degree programs in 2017-2018 advance issues of health, education, culture, energy, science and information literacy. They leverage our place, transform society, value entrepreneurship, include use-inspired research, enable student success, fuse intellectual disciplines, are socially embedded, and engage students with issues locally, nationally and internationally.

The new programs include:

- Bachelor of Science in Digital Audiences
- Bachelor of Arts in Disability Studies
- Bachelor of Science in Population Health
- Bachelor of Arts in Education in Special Education
- Bachelor of Science in Computational Forensics
- Bachelor of Fine Arts in Film and Media Production
- Bachelor of Science in Astronomical and Planetary Sciences
- Bachelor of Science in Data Science
- Master of Arts in World War II Studies
- Master of Arts in Political Psychology
- Master of Science in Auditory and Language Neuroscience
- Master of International Health Management
- Master of Science in Digital Audience Strategy
- Master of Science in Modern Energy Production and Sustainable Use
- Master of Science in Graphic Information Technology
- Professional Science Master's in Forensic Science

ASU is committed to the success of each student through leadership in academic excellence and accessibility, national standing in academic quality and impact of programs, empowering families in the education of their children, increasing student success through personalized learning pathways, and promoting a college-going culture in Arizona's K-12 schools.

Dimensions of student success include:

- Producing graduates who are thoughtful, intellectually well-rounded and have an appreciation for lifelong learning
- Promoting the intellectual, personal, social, and ethical development of the individual
- Equipping graduates with 21st-century communication, analytical and problem-solving skills
- Enhancing measured student development and individual student learning to national leadership levels
- Enhancing linkages to the university at all levels for all learners
- Engaging students with quality and innovative teaching and learning experiences
- Providing a stimulating, politically and intellectually diverse and respectful atmosphere that attracts, inspires and retains students, faculty and staff while recognizing our place
- Encouraging public service, research experience, internships, clinical placements and other types of professional engagement as an integral part of the overall student experience
- Providing outstanding extracurricular activities
- Maintaining excellent and significant international programs
- Establishing national standing in academic quality and impact of colleges and schools in every field
- Attaining national standing in the learning value added to our graduates in each college and school

A baccalaureate education should prepare students for a particular profession or advanced study and for constructive and satisfying personal, social and civic lives, as well. In addition to depth of knowledge in a particular academic or professional discipline, students should also be broadly educated and develop the general intellectual skills they need to continue learning throughout their lives. Thus, the general studies requirement complements the undergraduate major by helping students gain mastery of critical learning skills, investigate the traditional branches of knowledge and develop the broad perspective that frees one to appreciate diversity and change across time, culture and national boundaries.

ASU's process to ensure accountability is multi-faceted and includes accreditation reviews, Academic Program Reviews, annual academic program assessments, extracurricular program assessments, and the review of faculty, including the annual review, tenure and promotion decisions, and post-tenure review. These assurance processes are systematic and collaborative, incorporating input from faculty, students, professional staff, and external bodies with specialized expertise.

These outcomes are measured using a number of tools:

- Graduating student self-assessments and alumni surveys. All graduating students respond to a survey which includes a self-assessment of their experiences at ASU.
 Each year, approximately 6,000 alumni respond to the survey of recent graduates.
- Annual Academic Program Assessments
- Extracurricular Program Assessments
- Writing skills evaluations, dissertations, and theses
- Professional Examination Pass Rates
- Student, faculty and employer feedback and surveys
- Post-baccalaureate employment, job placement and certification rates
- Academic program reviews
- National program rankings
- Measuring participation in capstone/ experiential learning, research, clinical/field experience
- Surveys of employment over time including departmental surveys and DES reports
- Rates of graduate degree admissions and number attaining further degrees

To support this work, ASU is creating data structures to support the analysis of outcomes and the reporting of educational quality assessments. Models are also being developed to deconstruct national and international rankings to search for weaknesses that can inform strategic development of academic programs. As these tools are completed we will revise and build out the public and internal data sites to present important university data to the respective constituencies.

Innovations are being launched to address performance issues with specific subsets of students identified by increasingly sophisticated data analytics. For example, ASU is redesigning a number of the largest introductory courses with relatively low pass rates as blended

active/adaptive courses. Successful efforts to date include introductory math (3 courses), biology, economics (2 courses), psychology and chemistry courses. In addition, currently in development is a new initiative that involves adapting this approach to a collection of 'connected' courses in a single major. Initial efforts over the past three years have shown that this adaptive learning approach substantially increases success rates in the respective courses.

- Student success in one introductory math course has improved from ~65% to ~ 80%.
- Student success in an introductory biology course also has improved, from ~75% to 90%.
- In the pilot section of the blended Principles of Microeconomics, 83% of the students who completed the course passed with an average GPA of 2.8 of which 71% received an A or B. In comparable lecture based courses, 78% of the students passed with a substantially lower GPA of 2.25.
- The success rate in the blended Psychology class was even higher. 96% of the students passed with an average GPA in the class of 3.2 of which 88% received an A or B. Class size averaged 220 in these classes. In comparable lecture based courses, 75% of the students passed with a substantially lower GPA of 2.6.

Student success is not just measured by grade performance. Academic standards have increased in these courses and students have demonstrated success beyond grades. In two of the courses, pre- and post-tests were conducted in the blended course and the traditional lecture hall version of the course, several times taught by the same instructor. Students in the blended classes generally achieved higher post-test scores and the highest growth between pre- and post-test. In short, adaptive learning substantially increases students' attainment of expected learning outcomes.

Conclusion

The ASU Enterprise Plan which was adopted in 2010 has provided the strategy and tactics to advance the institution's capacity to grow and diversify enrollment, improve student success rates, expand degree production, and become a research powerhouse. In accomplishing all of this, major strides have been made to honor the ASU Charter and build one model for public universities seeking to address, at scale, the need for a larger proportion of the population to have access to a research-grade education to improve lives and careers. The path to 2025 and succeeding in meeting ASU's ABOR-assigned responsibilities will be certain to present as many challenges as the last ten years, but the strategy and tactics presented in this report, combined with the demonstrated ability to react, adapt, and innovate, make us confident about the future.