

A
REDESIGNED
P U B L I C
U N I V E R S I T Y
S Y S T E M
ARIZONA BOARD OF REGENTS

Arizona Board of Regents

2004 - 2005

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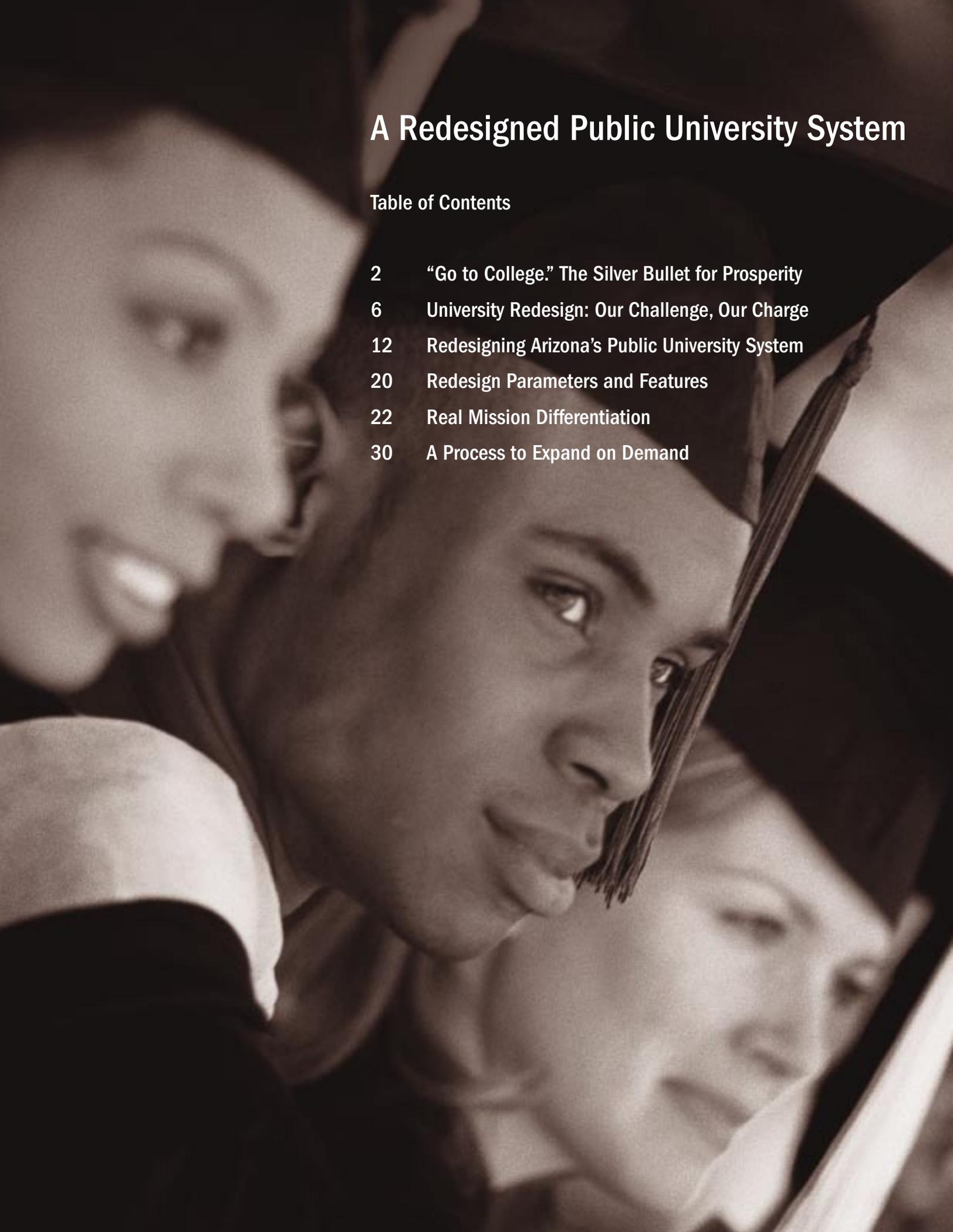
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A Redesigned Public University System

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“Go to College.”

This isn't just an old bit of wisdom.
It's also a silver bullet for prosperity.

It works for individuals. On average, an American with a college degree earns roughly twice as much money per year as an American with a high school diploma.

It works for companies. In what is fast becoming an era of ubiquitous invention, success increasingly goes to those companies with smart, competitive people who can churn out new ideas, new discoveries, and new knowledge.

It works for cities. Cities with an educated population get good jobs, lots of tax revenue, and more civic engagement – and they are nimbler at reinventing themselves when the economy changes.

It works for states. The percentage of college graduates and post-graduates is the single factor with the greatest power to explain differences in per capita income between states.

It works for nations, too. The rise of China and India on the global stage has more to do with an educated workforce than a rich endowment of natural resources.

In other words, the fortunes of Arizona – and everywhere else – are tied to education. And this tie will only intensify in the future. Given the trends, it's a good bet that education will not only be the economic issue, but also the social, the political, and the cultural issue of our time.

Arizona's Response

With stakes this high, it is more important than ever for Arizona to have an excellent university system. Some of the pieces of that system were put in place three years ago when the Arizona Board of Regents adopted *Changing Directions*. This initiative created a well-constructed set of priorities for each of the state's three universities – Arizona State University, The University of Arizona, and Northern Arizona University.

But Arizona cannot afford to stand still. Population growth rates and student enrollments are expected to skyrocket during the next two decades, and the university system must be able to accommodate the crush of students – many of them

poorer and older – who will be knocking on the universities' doors.

Right now, an in-state student who wishes to enroll in a four-year, degree-granting institution selects from a list of higher education options that includes three big public universities, and a relatively modest collection of smaller private colleges. That's like being in a coffee shop and having a choice only between a large coffee and a medium coffee – rather than having access to a full menu that provides everything from a tiny espresso to a large no-foam extra-hot latte.

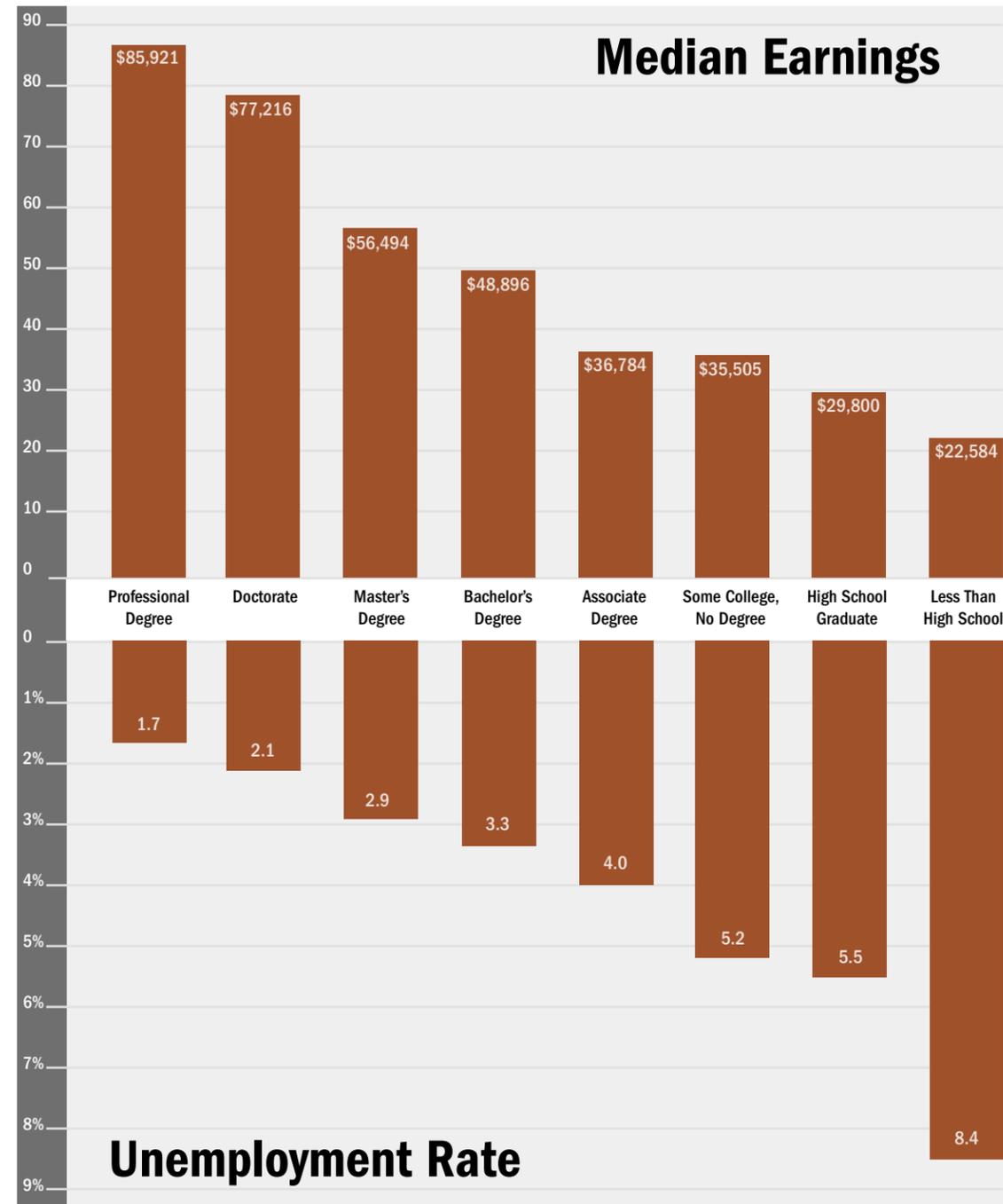
These issues, and more like them, led to this report, **A Redesigned Public University System**, which is the product of an eleven-month study and provides a way for Arizona's University System to

evolve, to change, to grow, and to deliver what is necessary for the education of our citizens throughout the state.

In June 2004, the Arizona Board of Regents introduced Arizonans to the idea of university redesign, when they offered one possible redesign of the public university system. They invited Arizonans to comment on it and also to offer other ideas, and they established a work group to explore the feasibility of redesigning the university system.

This report summarizes the history of university redesign, dating back to *Changing Directions*, and it lays out the redesign alternative recommended by the work group and adopted by the Arizona Board of Regents in April 2005.

More Education Leads to Higher Income – and to Lower Unemployment Rates



Note: Earnings for year-round full-time workers 25 years and over, 2002. Unemployment rate for those 25 and over, 2003, U.S.
 Source: Bureau of the Census; Bureau of Labor Statistics, Postsecondary Education Opportunity, 2002.

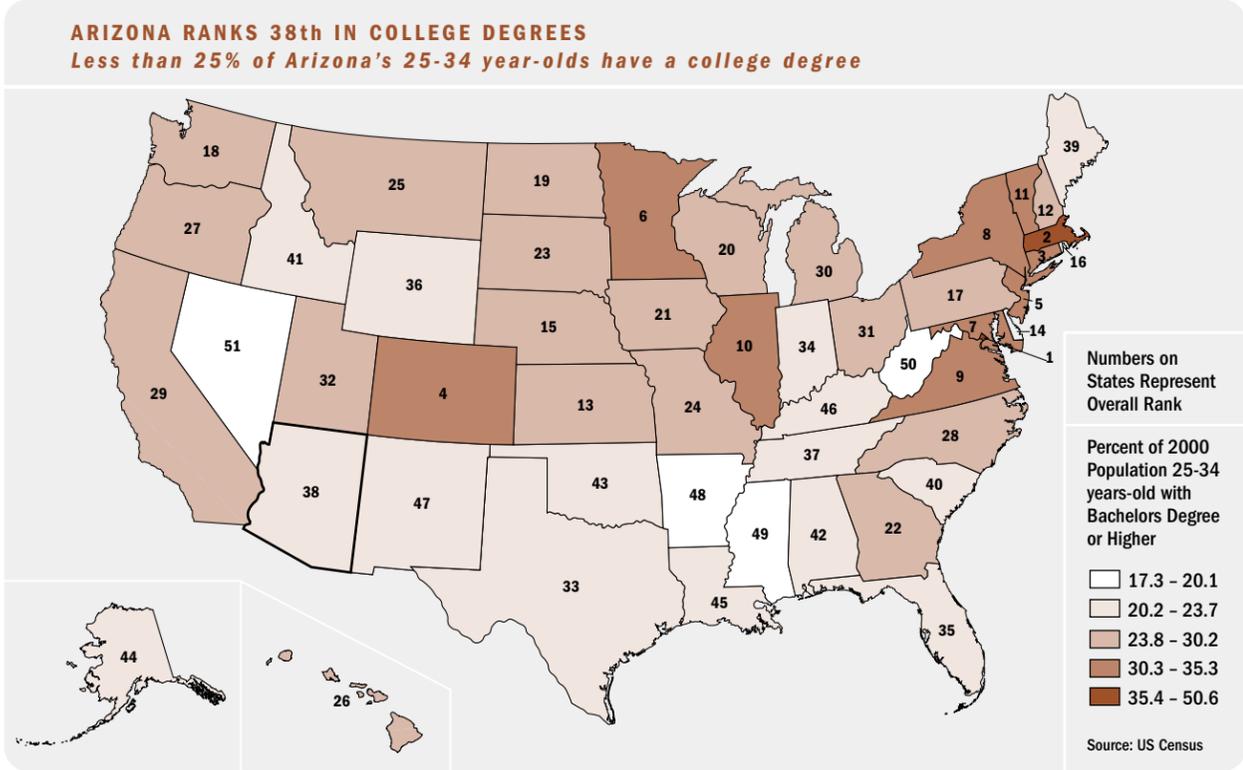
IT'S A GOOD BET

THAT EDUCATION WILL NOT ONLY BE THE ECONOMIC ISSUE, BUT *THE* SOCIAL, *THE* POLITICAL AND *THE* CULTURAL ISSUE OF OUR TIME.

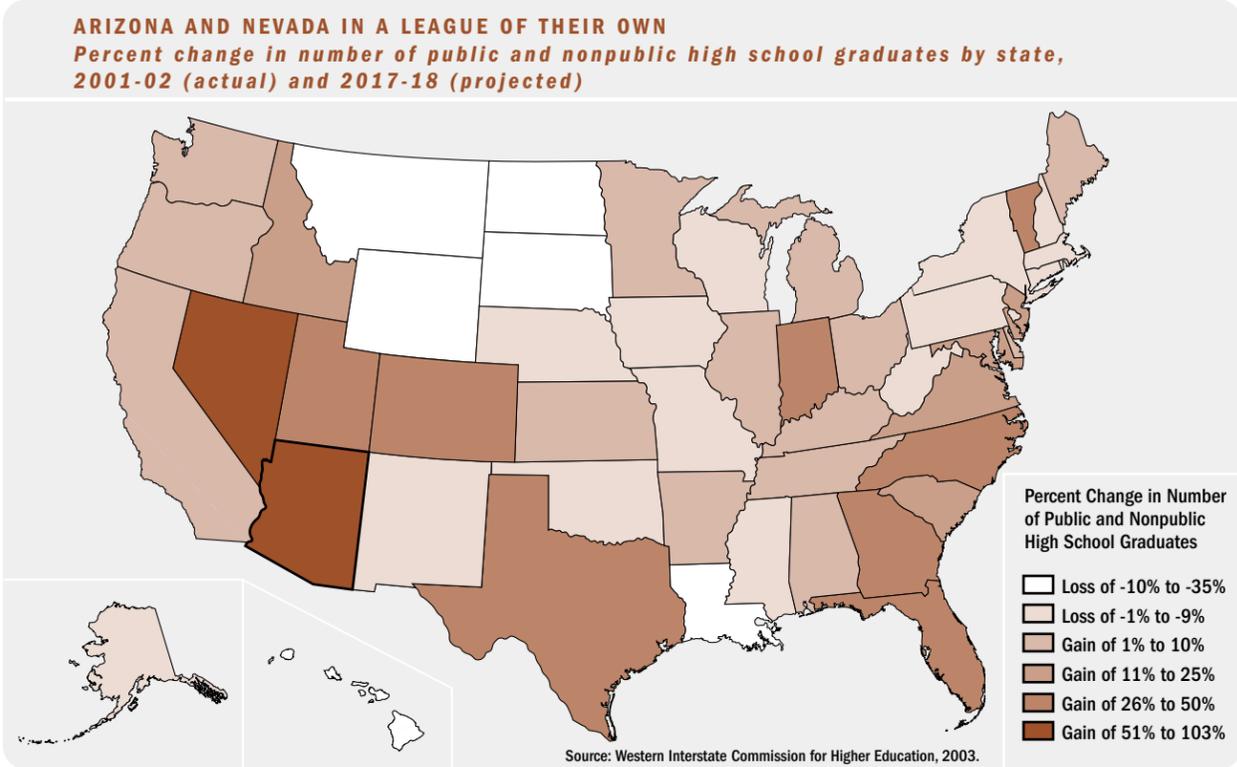
- **The Talent Gap.** With an aging workforce and modest population growth, it is likely that the U.S. labor market will be experiencing a shortage, not a surplus. This shortage is likely to hit harder at the cutting edges of scientific and technological creativity, and it is likely to reach epic proportions by 2010.
- **Wasted Hispanic/Latino Talent.** As baby boomers retire, emerging population groups – especially Latinos – will become the primary source of new workers. Yet Latinos complete college at much lower rates than Whites. The lingering “income gap” exacerbates this problem and limits upward mobility even further. Three-quarters of the students at the nation’s top colleges – including public universities – come from the richest 25 percent of the population. Only 3 percent of those students come from the poorest 25 percent of the population.
- **Obsolete Schools.** As Microsoft founder Bill Gates likes to say, you wouldn’t teach kids about today’s computers on a 50-year-old mainframe. Yet we continue to teach children in an educational system that was designed a half-century ago. This question of obsolete schools will only make the talent gap worse.
- **The “Big Sort.”** As all these gaps grow, the rich are getting richer in geographical terms. A small pack of U.S. cities is racing away from everybody else in attracting and retaining an educated workforce. This “big sort” poses a serious threat to the nation’s economy and its social stability.
- **The “Right-Brain” Opportunity.** As American companies move overseas more “left-brain” work – white-collar jobs that can be reduced to a set of rules, routines, and instructions, such as basic computer coding, accounting, legal research, and financial analysis, the best bet for the U.S. is retaining “right-brain work” – work that relies on people skills and uses analytical reasoning, imagination, and creativity, such as programmers who can design entire systems and bankers who focus on “the art of the deal” rather than the intricacies of Excel.

UNIVERSITY REDESIGN: OUR **CHALLENGE** OUR **CHARGE**

TODAY, Arizona lags behind other states in college-educated residents.



TOMORROW, Arizona could lead other states in college-educated residents.



But, it will require:

- creating choices
- creating a culture of excellence
- increasing resources and using them wisely
- supporting diversity
- building capacity in our public university system

Can Arizona Do It?

That's essentially the question the Arizona Board of Regents asked back in June 2004, when they introduced Arizona to the concept of "university redesign" and voted to authorize a comprehensive study of the possibilities.

That process began immediately, and over the next eleven months involved three parts.

Part One: Initial Proposal

As a starting point, Arizona Board of Regents President Chris Herstam and the three university presidents offered the “regional university” proposal as a new model that would enable the university system to meet the state’s full range of needs. This proposal emphasized creating some new freestanding “regional universities” that would focus on undergraduate education.

- These two new universities — perhaps to be known as Southern Arizona University and Central Arizona University — would be created by realigning existing resources and using infrastructure already in place. Southern Arizona University would be created by merging the NAU-Yuma campus and UA South, and would focus primarily on Cochise, Pima, Yuma, La Paz, Pinal, and Santa Cruz counties. Central Arizona University would be created by detaching ASU at the West campus from Arizona State University and would focus mostly on Maricopa County.
- Northern Arizona University would remain a regional university for the northern part of the state, focusing on Coconino, Mohave, Yavapai, Navajo, Apache, Gila, Graham, and Greenlee counties. But NAU would also retain Ph.D. programs in areas of unique expertise and excellence; it would remain Arizona’s premier undergraduate residential university; and it would maintain its leadership role in nontraditional education both on-line and on-site throughout Arizona.
- This regional university system would significantly lessen enrollment pressure on both the University of Arizona and Arizona State University, thus enabling both universities to enhance the quality of their undergraduate education programs

and expand their research efforts, which are vital to Arizona’s economic development.

- All five universities would be committed to ensuring diversity in their student bodies, with well-prepared students and students from all socio-economic levels served equally well in the two research universities and three regional universities.
- Arizona’s universities and community colleges would continue to collaborate and work closely together. Specifically, higher education centers would exist throughout rural Arizona via cooperative agreements with the community colleges, and additional centers would be created as the regional universities forge new alliances with community colleges.



NAU Campus — Walkup Skydome

Part Two: Alternative Proposals

The Board of Regents invited Arizonans to comment on the proposal and to submit different ideas for shaping the university system. Any overhaul, the Regents added, should address how the university system, as a whole, can in a cost-effective manner:

- Respond to the surge of new students projected to seek admissions in higher education;
- Increase the number of students who earn college degrees and complete job training programs each year;
- Provide for greater diversity among students, faculty, and staff;
- Increase access and success for Arizona’s middle- and lower-income families; and,
- Build globally competitive research institutions.

Arizonans responded with fifteen alternative proposals, as well as with dozens of emails, letters, and newspaper opinion pieces.



UA South — Sierra Vista

Part Three: Feasibility and Planning Study Work Group

To analyze the merits of “university redesign” generally and of each proposal specifically, the Regents appointed a 20-member Feasibility and Planning Study Work Group and assigned it the task of creating processes of inquiry and public involvement that could be completed in one year and produce a recommendation.

The Work Group, consisting of representatives from the three universities, community colleges, Arizona Board of Regents, a Western Interstate Commission for Higher Education consultant, and a project director, designed and followed an action plan with two phases:

- Phase one focused on gathering data and exploring information relevant to the concept of redesign. It involved three study teams: one to complete a needs assessment; another to collect information on university systems in ten other states; and a third to develop a set of guiding questions and measures against which possible redesigns were to be evaluated.

- In phase one, members of the Work Group also met with stakeholder groups, which had been formed to participate in the feasibility and planning study. These groups represented the following constituencies: Alumni/Community, Business/Economic Development, Community Colleges, Diversity Groups, Faculty, Staff, and Students. (See diagram below.)
- In phase two, the Work Group’s task was to develop one or more redesign options, using the data and input gathered in the first phase. In February 2005, the Work Group unanimously approved a draft proposal and moved it forward for public comment.
- Eight public forums were held in locations around the state, and stakeholder groups organized meetings to review and comment on the new redesign proposal.
- Throughout the process, Arizona Board of Regents staff and Work Group members met with Arizona legislators, local elected officials, and the Governor’s policy advisors.

ARIZONA UNIVERSITY SYSTEM REDESIGN Stakeholder Groups



In April 2005, the Feasibility and Planning Study Work Group completed its assignment and submitted a redesign recommendation to the Arizona Board of Regents. The Board adopted the redesign recommendation, which is presented in the next section, and asked the state’s three public universities to prepare implementation strategies.

Reports generated during the feasibility and planning study are available online at www.abor.asu.edu. The website presents the products of the Work Group’s four

subcommittees and also contains copies of the Board of Regents’ original redesign proposal, plus the fifteen alternatives. The website also presents the reports of the stakeholder groups.

Evaluation Criteria

The Feasibility and Planning Study Work Group’s criteria for evaluating any possible university redesign:

Does the proposal:

- Enhance affordable access and opportunity for all Arizona’s citizens?
- Provide an economically feasible plan?
- Foster university and other collaborations, resource sharing, economies of scale, and other efficiencies?
- Facilitate collaborations between and among Arizona’s university and community college systems and institutions?
- Ensure the university system complements the different economic and workforce development needs and opportunities for Arizona’s various geographical areas and economic regions?
- Enable the universities to recruit and retain the faculty and staff necessary to achieve their missions?

Study States

The Feasibility and Planning Study Work Group collected information on university systems in ten other states (four Western, one Southern, four Midwestern, and one Eastern state).

STUDY STATES

State	Population (millions)	White, Not Hispanic	Largest Minority
Oregon	3.56	84%	Hispanic 8%
Colorado	4.55	75%	Hispanic 17%
Minnesota	5.06	88%	Black 4%
Wisconsin	5.47	87%	Black 6%
Arizona	5.58	64%	Hispanic 25%
Missouri	5.70	84%	Black 11%
Washington	6.13	79%	Hispanic 8%
North Carolina	8.41	70%	Black 22%
Michigan	10.08	79%	Black 14%
Pennsylvania	12.37	84%	Black 10%
California	35.48	47%	Hispanic 32%

* Source: US Census Bureau, 2000.

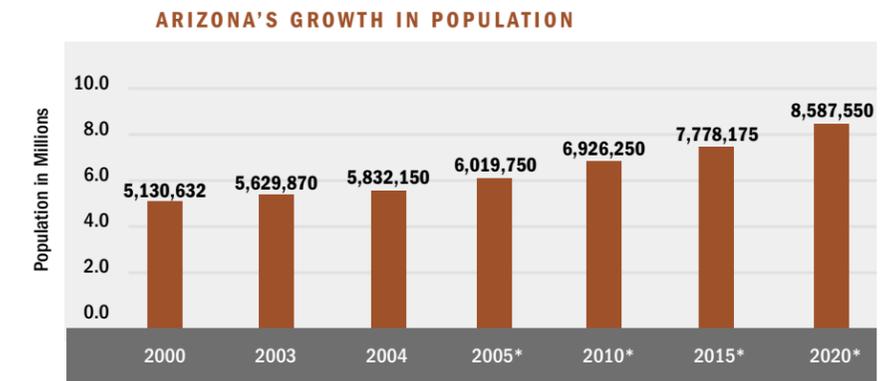
REDESIGNING ARIZONA'S PUBLIC UNIVERSITY SYSTEM

This presentation of the redesign plan begins by summarizing the four major challenges facing the Arizona University System, and then presents the strategic “parameters and features” adopted by the Arizona Board of Regents to help Arizona address these challenges.

Challenge 1: Enhancing access

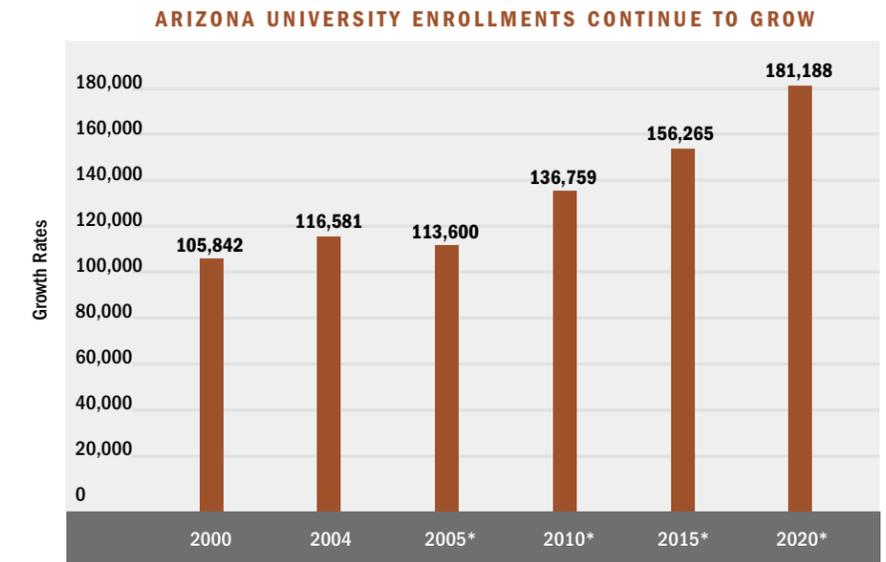
Arizona’s university enrollment is projected to increase by approximately 60 percent – from 115,000 to 181,000 students – in the next fifteen years. This increase in demand exceeds the projection in every other state except for Nevada. Furthermore, this rapid demand is occurring in both traditional and nontraditional students. The current system for delivering higher education – through three public universities, community colleges, and a modestly sized private college sector – is ill suited to respond effectively to this exceptional growth.

Over 8.5 million people by 2020...



* Projection
Source: Arizona Board of Regents, January 2005.

...means over 180,000 students knocking on Arizona universities’ doors.



* Projection assumes rising college-going rates until 2010, then flat until 2020.
Source: Arizona Board of Regents, January 2005.

Yet, Arizona’s economy will demand even more degrees.

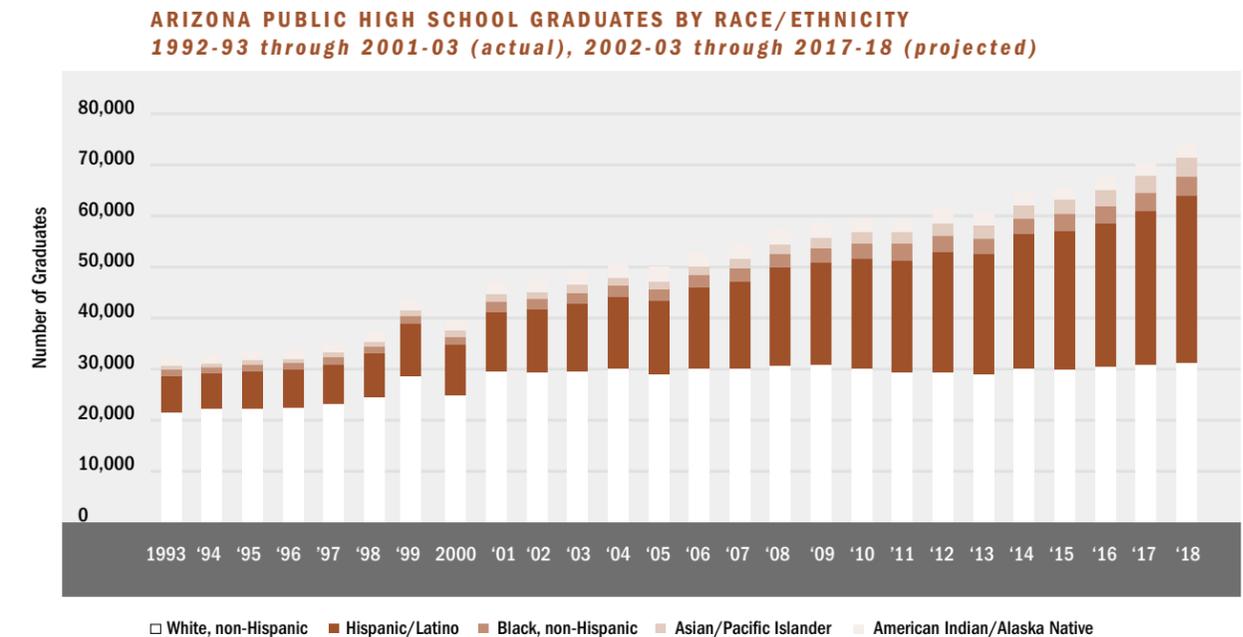
MORE DEGREES NEEDED	
LAST 10 YEARS: Arizona's public universities graduated: <ul style="list-style-type: none"> • 170,157 Bachelor • 59,374 Master • 8,269 Ph.D. • 5,247 Professional degree students 	NEXT 10 YEARS: Arizona's economy will need: <ul style="list-style-type: none"> • 330,000 Bachelor • 74,000 Master • 16,000 Ph.D. • 23,000 Professional degree students

* Source: Arizona Board of Regents, 2005.

Challenge 2: Enhancing diversity

While Arizona has done a better job than many states in enhancing educational opportunity for students from different ethnic backgrounds, serious gaps continue to persist between the successes of students of different backgrounds. The university system must address these differences, because in the future most Arizona high school graduates will come from currently underrepresented groups, especially Hispanics/Latinos. According to the Western Interstate Commission on Higher Education, non-White groups currently account for 40 percent of all public high school graduates in Arizona and that figure will rise to 54 percent in the next nine years – when today’s third-graders will graduate from high school.

Hispanics/Latinos alone will account for 41 percent of all Arizona public high school graduates in 2014.



Graduation rates for Hispanic/Latino, African-American, and American Indian students lag behind Asian or majority students’ rates – in Arizona or any of the study states.

SIX-YEAR GRADUATION RATES FOR ARIZONA PLUS TEN STUDY STATES

Study States	American Indian/ Alaskan Native	Asian/ Pacific Islander	African American	Hispanic/Latinos	White
Arizona	26%	56%	39%	43%	54%
California	49%	67%	37%	48%	65%
Colorado	30%	48%	31%	36%	51%
Michigan	62%	74%	62%	53%	74%
Minnesota	25%	41%	30%	35%	45%
Missouri	34%	52%	33%	41%	49%
North Carolina	41%	62%	49%	52%	60%
Oregon	43%	53%	46%	40%	43%
Pennsylvania	38%	53%	40%	49%	60%
Washington	47%	65%	48%	55%	63%
Wisconsin	19%	52%	26%	39%	56%

The state graduation rate is calculated from four years of data from the NCAA graduation database, 1997, 1996, 1995, 1994 cohorts combined. Numbers are rounded.

Challenge 3: The inefficiency of the current system

On the one hand, Arizona’s individual universities are quite efficient compared to their peers. And the collaboration with community colleges is strong. Yet the system as a whole is comparatively inefficient. Unlike many other states, Arizona currently relies heavily on research universities to deliver undergraduate education. This model is expensive to maintain, and the state can’t afford to grow with this inefficient university model in place. The Arizona University System must provide both baccalaureate opportunities and research strength and prestige in a cost-efficient manner.

Unlike many other states, Arizona currently relies heavily on research universities to deliver undergraduate education within the university system.

PERCENT OF TOTAL ENROLLMENT IN STATE'S RESEARCH UNIVERSITIES (Full Time Equivalent (FTE), FY 2002-03)

Study States	
Minnesota	38%
California	42%
Wisconsin	44%
Missouri	46%
Pennsylvania	48%
North Carolina	52%
Colorado	63%
Washington	63%
Michigan	69%
Oregon	79%
Arizona	93%

This matters because...

...on average, research universities are more expensive to operate and attend than are masters and baccalaureate institutions.

FOR STUDY STATES: AVERAGE STATE INVESTMENT PLUS STUDENT INVESTMENT PER STUDENT, Carnegie Type of Institution (FTE, FY 2002-03)

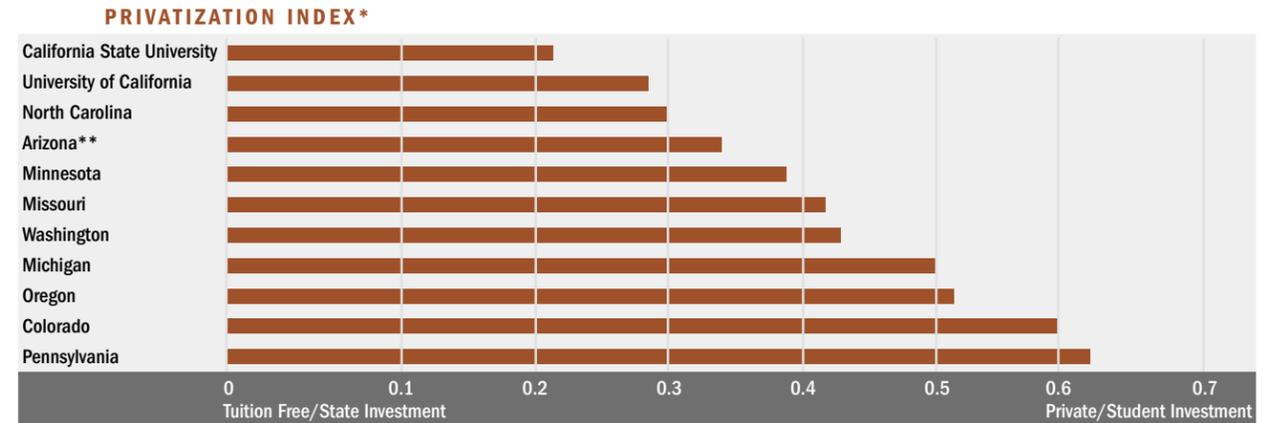
Carnegie Classification	Number of Institutions in 11 States	Average Number of Students	Average State Investment per Student	Average State Investment plus Tuition & Fees per Student
Doctoral Research Extensive (e.g., ASU/UA)	29	28,506	\$9,637	\$16,084
Doctoral Research Intensive (e.g., NAU)	14	13,521	\$6,083	\$10,910
Masters (e.g., ASU at the West campus)	81	9,186	\$5,918	\$9,561
Baccalaureate (none in Arizona)	15	4,070	\$6,161	\$8,932

The Carnegie Classification is the leading typology of American colleges and universities. Colleges and universities are grouped based on their degree-granting activities; classifications do not indicate anything about the quality of the institutions.

Challenge 4: Financial constraints on both the state and the students

Expanding educational opportunities and expanding the research capacity within the university system will require more money. Yet neither the state nor its citizens can afford to sustain the desired growth using the inefficient delivery model that exists today. Arizona's tax base will grow in the future, but so will demands for all public services. So higher education can't expect that the average amount of funding per student in the future will remain at today's levels. At the same time, Arizona's citizens must be able to afford college, which means there are constraints on how much they can be charged. Arizona must determine how to do much more with a little less in the future if it is to sustain access, enhance quality, and strengthen university research.

In the majority of study states, state investment is greater than student investment. However, three states have crossed the 50 percent threshold and are closer to privatization.



* PRIVATIZATION INDEX
The majority of the funds that fuel the instructional mission of public universities comes from state investment and student investment. A simple formula to describe the state-student partnership is a Privatization Index, which is determined by: Privatization Index (PI) = Total Student Investment divided by Total State Investment. If tuition is free for students, then PI = 0. If the student pays all the tuition, then PI = 1.
** Arizona data does not reflect last two tuition increases. These increases would put Arizona closer to Missouri.

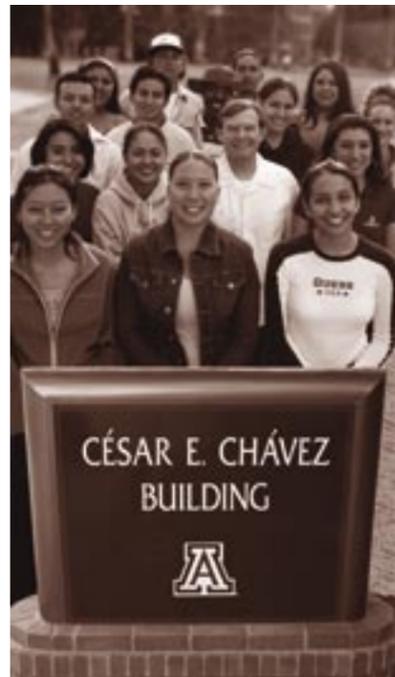
In all study states, students had a substantially greater number of choices in tuition levels than in Arizona.

	Doctoral Research Extensive		Doctoral Research Intensive		Masters I and II		Baccalaureate	
	Low	High	Low	High	Low	High	Low	High
Arizona	\$4,066	\$4,086	\$4,076	\$4,076	\$4,054	\$4,054	NS	NS
California	\$6,570	\$7,023	\$2,936	\$2,936	\$2,516	\$3,732	\$2,680	\$2,742
Colorado	\$3,700	\$5,900	\$3,370	\$3,386	\$3,460	\$5,068	\$2,270	\$2,811
Michigan	\$5,065	\$10,990	\$4,332	\$6,978	\$4,586	\$6,190	NS	NS
Minnesota	\$8,030	\$8,030	NS	NS	\$4,894	\$6,306	\$7,607	\$7,668
Missouri	\$6,662	\$6,662	\$6,752	\$7,995	\$4,260	\$5,940	\$3,618	\$4,260
North Carolina	\$4,252	\$4,450	\$3,454	\$3,519	\$2,985	\$3,626	\$2,765	\$3,392
Oregon	\$3,546	\$3,780	\$3,174	\$3,174	\$2,548	\$3,672	\$3,528	\$3,528
Pennsylvania	\$8,622	\$12,784	\$6,085	\$6,085	\$5,039	\$12,402	\$8,218	\$9,210
Wisconsin	\$5,835	\$5,866	NS	NS	\$3,210	\$4,865	NS	NS
Washington	\$5,154	\$5,972	NS	NS	\$4,074	\$4,453	\$3,907	\$3,907

Source: All information of tuition patterns comes from analyzing web pages of the individual universities. The information is for the 2004-2005 academic year.

REDESIGN PARAMETERS AND FEATURES

Taken together, these trends present Arizona with such significant challenges in the next decade or two that “more of the same” will not serve the state well. Arizona’s rapidly expanding economy and shifting social fabric will simply demand much more and much different postsecondary education than in the past. Without substantial change, the highly educated/highly skilled workforce that Arizona needs for the future simply will not be available – and the higher education system won’t be able to assure that all of the state’s citizens will be able to contribute to and benefit from Arizona’s new economy.



At the same time, however, the redesign process revealed a direction for Arizona to follow to address each of the four challenges, and still **retain** the current three-university system – at least for now.

So the path for redesign of the Arizona University System adopted by the Arizona Board of Regents builds on the existing infrastructure of three state universities, working closely with the locally controlled community colleges, yet it proposes moving forward in substantially different ways of doing business than featured in current practice. Two features, *mission differentiation within each university* and a *process for expanding on demand*, capture the essence of the way to the future.

Let *Changing Directions* Take Hold

A key factor in the “three universities for now” decision was *Changing Directions*. Just three years ago, in 2002, the Arizona Board of Regents initiated a comprehensive review of university revenue sources and management strategies to provide the universities with the resources they need to achieve their goals of providing high quality education, research, and service to the state of Arizona.

UA Tucson student life

A significant element of the *Changing Directions* initiative was to revise the Board’s policy framework to enable the university presidents to reshape their programs to better meet the needs of Arizona’s citizens and communities. Having hired exceptional individuals to lead the state’s three universities, the Regents wanted to give these leaders the leverage necessary to manage the institutions as effectively as possible.

As a result of these changes, each university’s mission has become more focused, and each university has more flexibility to establish tuition plans, admissions standards, and programs and courses to match its mission. That first phase of *Changing Directions* defined the missions of the institutions, as follows:

The University of Arizona in Tucson would proceed with its plans to become a premier research university, adopting more rigorous admissions requirements at both the undergraduate and graduate levels. The University of Arizona South would be developed in Sierra Vista to provide lower-cost instruction at the bachelor’s and master’s degree levels in Southern Arizona.

Arizona State University, based in Tempe, would become a premier metropolitan university through its vision of “One University in Many Places” – ASU at the Tempe campus, ASU at the Downtown Phoenix campus, ASU at the West campus near Glendale, and ASU at the Polytechnic campus in Mesa, each with its own well-defined mission.



ASU at the Downtown Phoenix campus

Northern Arizona University, based in Flagstaff, would, despite its name, broaden and enhance its **statewide** university presence by offering premier undergraduate, professional, doctoral, and masters programs through 2+2 collaborations with community colleges and distance learning, strengthened by the quality undergraduate, graduate, and research programs on its Flagstaff campus.

Still More to Do

The Feasibility and Planning Study Work Group concluded that *Changing Directions* needs time to work, since, as *Good to Great* author Jim Collins points out, transformation from good to great requires discipline to stay the course. Organizations that lurch back and forth, changing focus with every new leader, new trend, or new fad, fail to make the transformation.

Nevertheless, there is still more to do to address the challenges facing Arizona over the next two decades. So this redesign plan includes two new features, which capture the essence of the way to the future:

- **Mission differentiation within each university:** For a long time, there was little official distinction among Arizona’s universities. Now, because of *Changing Directions*, distinct missions are being defined for each university. The next step is to define the differentiation within each university so as to further enhance choices in higher education services and costs.
- **A process for expanding on demand:** Essentially, these are guidelines for expanding the capacity of the university system to serve students, while avoiding the higher-risk approach of “build it and they will come.”

In some respects, it is not really accurate to reflect this as “the strategy,” because these two features provide a

number of points for possible departure in the future, depending on how circumstances evolve. Yet, the features provide a solid basis for moving forward: clear direction to the state’s universities about how they must proceed to advance this agenda, and a strong nexus for working with the community colleges to guarantee access to quality undergraduate education through continued collaboration between the state’s universities and the community colleges.



NAU Campus – Old Main

REAL MISSION DIFFERENTIATION

Real mission differentiation not only sets distinctive missions for different institutions, but also includes explicit and binding commitments and guidelines to enforce such differentiation.

Arizona's university system used to be one in which there was little official distinction among institutions. The first phase of *Changing Directions* changed that, with distinct missions being defined among institutions. This phase now moves to the next step, further defining the distinctions among universities, but even more importantly defining the differentiation *within* each of the three institutions. Clearly establishing and articulating these differences is particularly important in Arizona because the idea of differentiating *within institutions* is an unusual and untested, though promising, concept that will need clear understanding and direction up front to ensure success.

The features of this differentiation include clear delineation of two distinct types:

1. Differentiation by services provided, and
2. Differentiation in the way these services are funded.

1. Differentiation by Type of Service Provided

Under this feature, each of the universities will provide a distinct type of service.

The Focus on Undergraduate Education

Because of the expected explosion of demand for undergraduate educational opportunities, each of the

institutions will be expected to develop explicit ways to respond to this demand. This increase in demand will come not only from recent high school graduates, but also from adults needing and desiring to return to college to finish their degrees or to upgrade their work skills to compete in a knowledge-based economy.

Community College Collaboration

Arizona is one of only five states with over half its higher education enrollment in two-year schools. This makes it critical that Arizona's universities and community colleges collaborate to ensure efficient transfers and easy integration for community college students who want to earn bachelor's degrees. Arizona's universities have developed exceptionally strong collaborative relationships with the state's community colleges, and will maintain and further enhance these relationships. All current transfer policies and practices will be retained at all three universities. Whenever curricular changes are being considered at one of the three universities, be it at the institution, school, or program level, it is essential that the community college perspective be represented in these discussions. Only through such close collaboration can easy transfer of students from one sector to another be assured.

Furthermore, NAU and UA South will build on their collaborations through expansion of community college collaborative efforts, such as the education centers

and 2+2 models, where the missions of community colleges to provide lower-division instruction and the universities' focus on upper-division undergraduate, professional, and graduate instruction are blended to provide a cohesive and efficient delivery of the total undergraduate education.

Baccalaureate-Focused Institutions

All three Arizona universities provide substantial undergraduate education. As described earlier, however, the projected growth in the future will require substantial growth in undergraduate education within the universities.

Because the largest growth in demand is projected to occur in the greater Phoenix region, **Arizona State University** will share a significant portion of the responsibility in this area.

ASU at the East campus and ASU at the West campus will remain primarily undergraduate institutions. **ASU at the East campus will develop as a Polytechnic campus**, and **ASU at the West campus will develop as a liberal arts and sciences-focused campus**. While both of these institutions will be primarily undergraduate focused, masters programs and selective doctoral programs may be considered when those programs are deemed central to the workforce and economic development needs of the communities they serve and when consistent with their missions. As it evolves, **ASU at the Downtown Phoenix campus** will also have a significant role in undergraduate education. Each of these three campuses will grow substantially (15,000 to 20,000) to accommodate at least some of the growth anticipated for the Phoenix area.

Ultimately, the growth in undergraduate education in the Tucson area must be accommodated by **UA South and NAU**. It is anticipated that UA South and/or NAU may ultimately become fully developed baccalaureate and

professional master's level institutions serving Southern Arizona if justified by enrollment growth.

Initially, it is anticipated that these institutions, combined with the availability of collaborative programs described earlier, such as 2+2 programs, will provide sufficient expansion to meet demand. In the future, as Arizona grows to 8 or 9 million residents, it is quite likely that additional baccalaureate-focused institutions will be justified, at which point they may be created within one of the three universities or as new, additional, freestanding institutions under the Board of Regents.

One of the most difficult challenges for the universities in establishing these undergraduate-focused units *within* the universities will be changing the faculty reward structure to reflect different faculty roles consistent with the different missions of units within the universities. Currently, workload variability exists at all three universities, with differences between campuses and some between colleges and schools within campuses and universities. It is essential that the universities continue to build differentiated workload models to ensure that faculty are rewarded in keeping with their expectations relative to their peer community, and aspirations, and the differentiated mission emphases between teaching and research.

ASU at the Polytechnic campus



Graduate Education and Research

The distinction between “research universities” and “teaching universities” is not properly a dichotomy, but a matter of degree. All true universities are committed to both the creation and the dissemination of knowledge, but they balance these activities in very different ways. In Arizona a greater differentiation of missions among institutions is required, but these are distinctions of degree.

Graduate education provides the bridge that links teaching and research. At the doctoral level, rigorous intellectual development is based primarily on research, or learning through discovery, and this requires a faculty devoted to research. At the master’s level, instruction can be quite focused on training for the practice of professions, such as teaching and nursing, and this can be accomplished by faculty devoted to the “scholarship of teaching,” as Ernest Boyer would have said, and augmented by practitioners.

The state of Arizona must provide the full spectrum of graduate degrees of high quality, with special attention to access to professional master’s degrees for adults constrained by limitations of geography and time.

Tracking Mission Success

Equally as challenging for the universities is the necessity to provide this new incoming wave of undergraduates an environment that actively nurtures and engages them from first admission to graduation. As scores of recent articles point out, a major problem is that many students enter college, but never finish. Higher education is learning what works best to help students achieve their degrees, and Arizona should expect no less of its universities. Many of the new first-generation students who will seek access to the universities may need different or enhanced resources to ensure a reasonable chance of success. With mission differentiation, the universities will provide different models of undergraduate instruction, with differing teaching and cost structures.

Arizona must continue to find a way to provide high quality undergraduate education and enhance its research agenda while it also achieves its primary goals of enhancing access and diversity (for example,

Creating Conditions for Diversity

1. **What works to get underrepresented students prepared to go to college?**
2. **What attracts them to a college?**
3. **What works to retain them?**

The ABOR Feasibility and Planning Study Work Group invited Dr. Patricia Gándara, who leads the Education Policy Studies emphasis at University of California, Davis, to address these three questions. Dr. Gándara’s response:

What’s effective at getting minorities into college?

- Access to rigorous K-12 courses (college preparation)
- Access to accurate information and counseling
- Attending to home culture
- Supportive peer group
- Careful monitoring
- Financial aid

What attracts minority students (Latinos) to college?

- Critical mass/friends
- Familiarity
- Low cost
- Proximity
- Reputation for being minority-friendly
- Selectivity and “reputation” are NOT as important

What retains minority students in college?

- Good campus climate
- Opportunities to engage in BOTH minority and non-minority groups
- Integration into campus life
- Academic and social support systems
- Faculty who know how to teach and encourage them
- Financial support

Source: Dr. Gándara’s Presentation, February 8, 2005.

by working more closely with community colleges). Particular care must be given to ensuring that students of all racial/ethnic and economic backgrounds have high quality education at all campus locations. Additional attention must be paid to enhancing various learner-centered educational approaches of relevance and import to students of diversity, non-traditional students, and distance education students, among others.

All three universities must become more embedded in the community, enhancing and investing more resources in outreach to elementary and middle school students in underrepresented racial/ethnic groups and recruiting these students into the university system.

Measuring what matters — performance, teaching, resources, and cost-effectiveness — is critical as the state responds to the higher education challenges that lie ahead. Essentially, the state and its universities must ensure that each student is served equitably, each student is able to complete his or her education efficiently, and the end result is effective. While performance in these areas is often difficult to measure, the ultimate goal is not, which is: Arizona must increase the percentage of its population holding a bachelor’s degree or higher.

The Need for Stronger Research Universities

Today, Arizona’s universities are in various stages of development in research and advanced education efforts, but greater stature for all is an imperative for Arizona to compete in the 21st century. As a growing state, with an emerging state economy that will demand a more competitive position with respect to graduate education and research, Arizona needs to strengthen its competitiveness in these areas.

In this redesign, all three universities will retain their current research missions. ASU and UA both seek to enhance their strength and national prestige in research and advanced degree studies, which will require both new approaches to funding research and clearly differentiated missions for specific colleges and schools within the institutions.

At ASU, this will mean building out the current plan of “One University in Many Places.” This plan identifies that the greatest level of research intensity will occur at



NAU-Yuma Campus

ASU at the Tempe campus, building on its strengths and infrastructure. ASU at the Polytechnic campus, ASU at the Downtown Phoenix campus, and ASU at the West campus will have research missions in keeping with their respective missions and focus.

In the case of the UA, the intention is to focus the entire institution in Tucson more directly on research at the highest levels.

NAU will retain its primary focus on premier undergraduate education and will develop and broaden its research and graduate education mission as appropriate for a mature doctoral university located in Northern Arizona. Based on its core campus at Flagstaff, NAU will provide undergraduate, graduate, and professional education programs through its more than 100 campuses and sites throughout the state, delivering education statewide via telecommunications, educational centers, 2+2 collaborations with community colleges, and, potentially, freestanding four-year colleges in the future.

2. Differentiation by Price and Cost

For two reasons, *real mission differentiation* must also be accompanied by real differentiation in both the cost of the education provided and the price charged to students (tuition).

First, the cost structure of an institution dedicated solely or predominantly to undergraduate instruction is lower than the cost structure of an institution that combines undergraduate instruction with graduate education and research activity.

Second, Arizona must find a way to provide undergraduate education less expensively and devote additional resources to research, or it simply cannot achieve its dual goals of enhancing access and diversity while also enhancing its research effort.

To achieve this differentiation by price and cost, the state of Arizona and the Board of Regents will need to modify the current funding policies and practices to enforce and motivate, through finances, compliance with the spirit of mission differentiation. Separate

components of financial support for instruction and research will need to be created.

The unique mission differentiation being proposed for Arizona, particularly the differentiation between research and instructional responsibilities of different units/campuses within each institution, makes this task particularly important and challenging. To some extent, the Board's funding structure already captured a distinction between research and instruction. Yet, that is not truly the case because the amounts provided for undergraduate instruction implicitly include substantial funding for graduate education and research.

One example of an alternative model would be to fund undergraduate instruction at a level comparable to the funding at undergraduate-focused institutions in peer states. This would reduce the explicit level of funding for undergraduate instruction, but would ensure sufficient funding for this purpose, evidenced by the fact that other states provide quality services with this level of resources. In doing so, however, every assurance must be made that Arizona's universities will provide overall compensation to its faculty and staff sufficient to attract high quality scholars and employees. Within this overall

level of funding, the share borne by students could be established, perhaps as a percentage of the total costs. The universities would receive, in addition to the funding for undergraduate instruction, all the externally funded research they could attract, plus explicit state and student funding to support the increased research necessary to bring their research capacity to that of their peers.

The net effect of this approach would be to:

- Make the funding of both instruction and research more transparent to all Arizona stakeholders;
- Provide an easily understood and defensible differentiation of state subsidy for instruction and research;
- Recognize that technology-oriented programs that rely on state-of-the-art equipment and laboratories will inherently cost more than nontechnology-intensive programs; and
- Create a varied tuition structure across the university system that provides greater access and opportunity for students and that reflects the different costs associated with different institutional missions.

As a result,

- **Tuition and mandatory fee ranges would be highest** at the campuses where costs for research are greatest, notably UA Main and ASU at the Tempe campus.
- **Tuition and mandatory fee ranges would be lower** at the campuses where costs for research are lower, ranging from the NAU Mountain Campus to ASU at the Polytechnic campus, ASU at the West campus, and ASU at the Downtown Phoenix campus.
- **Tuition and mandatory fee ranges would be lowest** at the 2+2 locations or other predominantly baccalaureate-instruction-focused locations throughout the state, including NAU-Yuma and UA South.



ASU at the West campus

Differentiation of Arizona's cost of higher education will predictably bring change to the process by which the Regents set tuition. However, it is critical that the Arizona Board of Regents and the universities stay committed to the spirit of the current process. Students and other interested parties should continue to be involved by receiving notice of proposed changes in tuition and fees and by participating in each annual public tuition hearing.



UA Wildcat Stadium



Financial Aid – The Missing Link in Arizona

A final, but critically important component to the finance plan is the need for a strong *state need-based financial aid system*. Given the likely increase in tuition that will be driven by limits in state capacity to support demand and the tremendous increase in demand, more financial aid is needed to assure that students from low-income families can afford Arizona higher education.

Arizona already lags well behind national averages in state aid and in the combined aid provided from all sources. It is both imprudent and organizationally unsound to expect that the institutions will be able to provide sufficient aid in the future to meet the needs of the state's population. Every dollar an institution devotes to financial aid is a dollar that cannot be spent

on its primary focus to provide strong instruction and, if within the mission, research. Thus, funding financial aid within an institution creates natural tension. State need-based aid, on the other hand, fits comfortably the state's overall responsibility to keep college affordable and provides much greater transparency of the availability of aid.

Both the state and its universities must assure that in providing financial aid, they provide equitable attention to assisting both traditional and nontraditional students and to assisting both those students who initially enroll in the institutions and those who transfer into the institutions.

UA Tucson Campus – Old Main



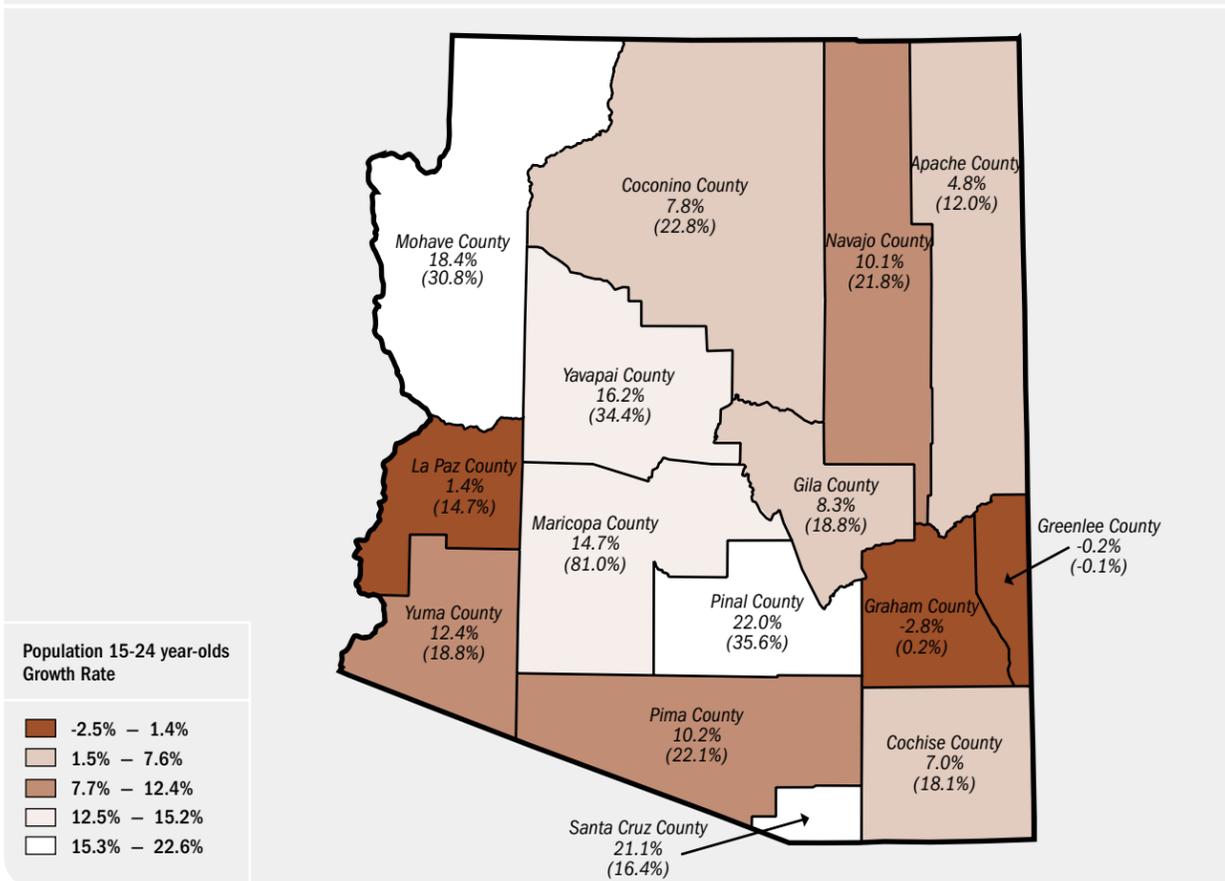
A PROCESS TO EXPAND ON DEMAND

The second feature of the redesign is a process to expand the capacity of the system to serve students based on increases in demand. This *expand on demand* design, a term borrowed from NAU's current strategy for responding to statewide needs, provides not only a positive approach to follow, but also implicitly eschews the often promoted but high-risk approach of "build

it and they will come." Arizona simply can't afford an anticipatory approach; yet it is well positioned within its current system of universities and community colleges to respond as the demand develops.

To be able to respond nimbly to increasing demand, however, requires a defined set of guidelines for determining when an institution's or unit's mission can

GROWTH RATES: POPULATION 15-24 YEAR-OLDS AND HISPANIC POPULATION, 2004-2009



Note: X.X% = Population 15-24 Growth Rate. (X.X%) = Hispanic Population Growth Rate.

be *redefined*; that is, when the level of service currently approved and being provided can be moved to another level. Furthermore, when an expansion or redefinition of mission is being considered based on established criteria, the Board of Regents must be sure to examine not only what is being gained, but also what may be lost.

Most obviously, the Board must assess the need for the additional service. Redundancy and associated competition in service are not inherently bad unless unnecessary and an inefficient duplication of service. Less obvious but equally important, the Board of Regents should always examine whether creating this new capacity will erode the level of service currently being provided (i.e., loss of community college or loss of cost-effective delivery of baccalaureate education).

For example, it is recognized that Maricopa County's West Valley may require new research investments. ASU would be expected to bring all of its resources to bear to address research needs in the West Valley, building on their campus presence in the region, without eroding the lower-cost, low-tuition model of ASU at the West campus.

Growth in the demand for baccalaureate education within the Arizona University System should follow the expand on demand philosophy:

- First and foremost, the university system must coordinate its efforts to complement those of the community colleges in Arizona. The community colleges will continue to be expected to be the first source of educational opportunity at the lower-division level in communities that lack the critical mass to support a baccalaureate institution.
- As a need for university-level services emerges, the university system will initially establish distance learning centers and services, both on-site and on-line, until reaching

the critical mass necessary for sustaining a more significant university presence, as defined below.

- The university system will create 2+2 university facilities on community college campuses similar to the NAU-Yuma model (or other partnership models) when the demand reaches a sustaining level. The university system will develop full campuses when there is a critical mass (approximately 2,000 FTE upper-division students based on a Texas analysis that indicates 3,500 FTE students is the "minimum size needed to achieve economies of scale"). These campuses should be relatively independent with a campus executive officer and full control of their own faculty, facilities, and staff. Although this approach for growing a larger Arizona University System to meet geographical demand will be lower cost than other options, it still costs, and funding methods will need to be developed.
- The university system will expand the mission services of institutions in the future beyond their current Regents-approved missions when it is demonstrated that the demand for services (instruction or research) from a community requires an expansion of mission and when there is the physical and financial capacity of the university system and the state to meet the increased demand for services. (Expanding research capacity of existing research universities will often better serve new communities than will creating new research institutions.)

ASU at the Tempe campus
— Gammage Auditorium



CONCLUSION

This university redesign sets a path for the Arizona University System to carry out its mission to provide quality education and access in ways that will meet the demands of the next decades. It also provides a commitment to accountability to assure the public that, in exchange for its support, it can expect certain results and choices.

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