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Cash for College: Bringing Free-market Reform to Higher Education

by Vicki Murray, Ph.D., Former Director, Center for Educational Opportunity, Goldwater Institute

EXECUTIVE SUMMARY

Enrollment at Arizona's three main state universities is projected to increase from 115,000 to 185,000 students by 2020. Under the existing higher education finance system, state and local appropriations to Arizona public universities and community colleges amounted to \$1.3 billion in fiscal year 2003 just for operating expenses, which exclude capital and construction funding. Arizona's projected enrollment growth could almost double those appropriations in real terms to an estimated \$2.4 billion in 2018. Adding to the strain of Arizona's student enrollment growth is the state constitution's mandate that public postsecondary education in Arizona be "as nearly free as possible."

Drawing upon Arizona's existing Private Postsecondary Education Student Financial Assistance Program (PFAP) and Colorado's College Opportunity Fund, this study outlines how a student-grant system of higher education finance could be implemented. Such a system would fully utilize private institutions and save between \$7,000 and \$14,000 per student annually because private institutions receive no state or local appropriations for capital, construction, or operating costs.

Giving grants directly to students would expand their education options and would help make the delivery of higher education in Arizona more efficient. Under such a system, students could use their higher education grants at any postsecondary institution, public or private, giving institutions powerful incentives to keep costs and tuition prices down or risk losing students to competitors. Beginning in 2006, the \$1.3 billion in lump-sum state and local appropriations to public postsecondary institutions for current operating expenses could instead directly fund full-time resident undergraduates in the form of grants; \$8,000 annually for students enrolled in four-year institutions, and \$5,000 annually for students enrolled at two-year institutions, public or private. Remaining intact would be the \$2.4 billion in revenue public institutions currently receive each year from tuition and fees, as well as local, state, and federal grants for capital and special projects, private gifts and grants, and endowment revenue. The proposed system could provide higher-education grants for 100 percent of Arizona's in-state undergraduates and would yield an estimated average annual savings of \$768 million.

Cash for College: Bringing Free-market Reform to Higher Education

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Introduction

In just 15 years, enrollment at Arizona's three state universities is projected to increase by 70,000 students to 185,000 students.¹ According to former Arizona Board of Regents (ABOR) president Chris Herstam, "Arizona's current system for delivering higher education—through three public universities, community colleges, and a modest private college sector—is ill-suited to respond effectively to the exceptional growth in the number of both traditional and non-traditional prospective students in the near future, creating a demand likely to exceed every other state except Nevada."²

The projected enrollment growth prompted ABOR to begin studying the need to redesign the state's public university system, and in 2004 ABOR proposed the creation of two new regional public universities.³ However, the plan was criticized for not including Arizona's community colleges.⁴ The Regents subsequently approved a revised redesign plan that recommends Arizona's three existing state universities differentiate their educational programs and tuition amounts rather than add two regional universities. The plan also encourages state universities to improve collaboration with community colleges.⁵

Despite those changes, ABOR's revised redesign plan is not a comprehensive higher education policy

proposal. First, the Regents admit that public funds are limited, "and higher education can't expect that the average amount of funding per student in the future will remain at today's levels."⁶ This assessment squares with a growing consensus that even under the most optimistic economic scenarios, state governments will be unable to sustain even current levels of higher-education funding over the next decade.⁷ In fact, several recent analyses identify Arizona as one of the many states that will be struggling to do so years after closing previous budget shortfalls.⁸

Nevertheless, ABOR concludes, "Arizona, both the state and its citizens, will need to pay more for postsecondary education in the future. Both the expansion in demand for education (undergraduate and graduate) and the commitment to expanding the research capacity of Arizona higher education will require increased financial commitments from every source of revenue."⁹ However, this recommendation for more money is not a workable financial blueprint for achieving the Regents' stated goal of improving the efficiency and affordability of higher education in Arizona.¹⁰ There is growing recognition within academe itself that public colleges and universities need to become less dependent on government subsidies and more market-oriented.¹¹ For example, upon completion of the state's first \$1 billion private fundraising

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campaign, University of Arizona president Peter Likins remarked, “There is an unspoken consensus in America that public universities are going to have to be more and more on their own financially.”¹²

Not only are public funds limited, but the Regents also acknowledge that “neither the state nor its citizens can afford to sustain the desired growth within the inefficient delivery model that exists today,” namely the state’s system of three main public university campuses and 10 community college districts.¹³ David Longanecker, ABOR redesign consultant and executive director of the Western Interstate Commission for Higher Education (WICHE), concurs, adding, “There is limited capacity for producing gains in the current system... You can get a better undergraduate education through greater diversification of the system.”¹⁴ Regent Chris Herstam explains, “Current enrollment projections indicate that the university system alone must grow from the 115,000 students it serves today to 185,000 students by 2020. These projections assume that the community colleges and private sector of Arizona higher education will need to grow equally as rapidly to serve the emerging demand.”¹⁵

However, no integrated higher education policy exists that treats private postsecondary institutions as equal partners with Arizona’s state universities and community colleges in the provision of higher education. For example, ABOR proposes keeping “three

universities for now,” even though by the Regents’ own projections Arizona’s economy will need to graduate 330,000 more bachelor’s degree students in the next 10 years, almost twice as many students as graduated from Arizona’s public universities during the past decade.¹⁶ Unfortunately, Arizona has one of the lowest college completion rates in the country, with fewer than half of all students graduating within six years.¹⁷

Last year, legislation was proposed, but not adopted, that would have allowed select community colleges to offer baccalaureate degrees in limited workforce-related programs that Arizona’s state universities do not offer.¹⁸ A primary goal of this measure was to help make earning a college degree more affordable for students. A serious drawback to this proposal, however, is that Arizona community colleges are not cost-efficient providers of higher education. For example, in 2005 Arizona taxpayers paid over \$1.2 billion in general fund subsidies and primary property tax levies toward Arizona’s 10 community college districts. However, an average of only 23 percent of first-time, full-time Arizona community college students completed a two-year degree program on time.¹⁹

The Arizona Constitution requires that “the instruction furnished shall be as nearly free as possible” at Arizona public colleges and universities.²⁰ In light of this mandate, and given the increasing number of college-bound students, it is imperative that the state find the most efficient way to deliver

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Giving college grants directly to students is necessarily an integrated approach to higher education that expands postsecondary options for students by letting them choose among all higher education providers, public and private, two-year and four-year. Such a system would also bring greater efficiency among and within institutions of higher learning as they compete for students.

higher education. Fully utilizing private institutions would save limited public resources because private institutions receive no state or local appropriations for capital, construction, or operating costs. Each undergraduate who attends a four-year private institution instead of a public university saves state and local taxpayers an estimated \$14,000 annually in capital, construction, and other expenses, while each college student who attends a two-year private institution instead of a community college saves state and local taxpayers an estimated \$7,000 annually.²¹

Significantly, Arizona already has a program in place called the Arizona Private Postsecondary Education Student Financial Assistance Program (PFAP), which “is designed to provide a financial incentive to attend a private institution thereby reducing the state expenditure for public education and the enrollment demand of the three public universities.”²² The program awards stipends on a first-come, first-served basis in the amount of \$1,500 a year (the total lifetime award is \$3,000) to Arizona community college graduates who prove financial need and who enroll full-time in a baccalaureate degree program at a participating private college or university. The current graduation rate for Arizona students receiving PFAP vouchers is 86 percent, and since its implementation in 1997, the program has helped over 1,100 financially needy students.²³

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approach to higher education that expands postsecondary options for students by letting them choose among all higher education providers, public and private, two-year and four-year. Such a system would also bring greater efficiency among and within institutions of higher learning as they compete for students. In fact, in 2004 Colorado adopted the country’s first statewide higher-education grant system, called the College Opportunity Fund.²⁴ As of the 2005-2006 academic year, Colorado no longer makes direct lump-sum payments to its public institutions for undergraduate education. Instead, funding is given directly to Colorado resident undergraduates in the form of stipends. Students attending a state college or university receive a \$2,400 stipend and Pell grant-eligible students attending private institutions can receive stipends worth half that amount. This study outlines how a statewide student grant system of higher education finance could be implemented using the Colorado Opportunity Fund program and the Arizona PFAP stipend system as models.

Arizona’s Higher Education Marketplace

The U.S. Department of Education’s Integrated Postsecondary Education Data System (IPEDS) lists 106 public and private colleges and universities in Arizona offering undergraduate programs. Total enrollment over the past decade increased 54 percent, from

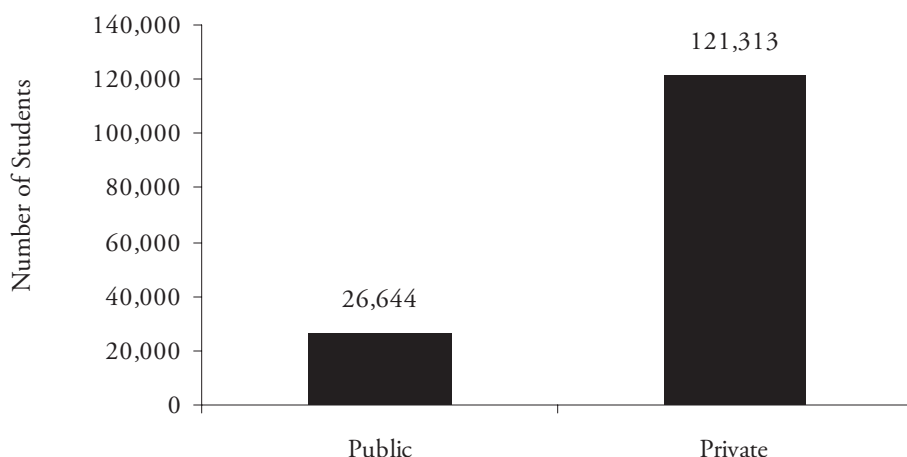
290,000 students in 1993 to 448,000 students in 2003. By comparison, enrollment in Arizona public schools increased 22 percent over the same period, while total state population increased 40 percent from 1990 to 2000.²⁵ Current higher education policy discussions typically focus on the state's public universities and community colleges and dismiss, or even ignore, Arizona's private higher education sector. For example, in a recent editorial commenting on her trip to Ireland, Gov. Janet Napolitano highlighted the importance of a well-educated workforce. However, she limited her remarks to the public sector, saying, "We must make greater use of our state

universities and community colleges as economic engines."²⁶ Regent Chris Herstam refers to Arizona's private higher education sector as "modest."²⁷ Informing that misconception are enrollment analyses such as those conducted by the Western Interstate Commission for Higher Education and Arizona State University's W. P. Carey School of Business, which partially or entirely exclude student enrollment figures for private, for-profit postsecondary institutions.²⁸

Yet, from 1993 to 2003, total enrollment at private colleges and universities in Arizona grew an amazing 253 percent, more than 10 times the 25

From 1993 to 2003, total enrollment at private colleges and universities in Arizona grew an amazing 253 percent, more than 10 times the 25 percent enrollment growth at the state's public colleges and universities and nearly five times Arizona's 52 percent total postsecondary enrollment growth.

Figure 1: Real Student Enrollment Growth by Institution Type: 1993 to 2003



Source: National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), Peer Analysis System, Data Cutting Tool, 1993 total enrollment figures from the 1994 dataset.

Notes:

1. Total enrollment includes full- and part-time students, both undergraduate and graduate.
2. Figures represent enrollment data for five public, four-year institutions; 20 public, two-year institutions; 19 private, two-year institutions; and 29 private, four-year institutions.
3. Enrollment figures exclude three public, less-than-two-year institutions and 28 private, less-than-two-year institutions.

Table 1: Share of Total Arizona Postsecondary Enrollment by Institution Type: 1993 and 2003

Type of institution	Number of institutions	Percentage of total ENR, 1993	Percentage of total ENR, 2003	Enrollment share change (%)
Public	25	88	72	-18
Private	48	12	28	133

Source: National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), Peer Analysis System, Data Cutting Tool, 2003 and 1994 data.

Notes:

1. Total enrollment includes full- and part-time students, both undergraduate and graduate.
2. “ENR” is enrollment.
3. There are 20 public, two-year institutions and three public, less-than-two-year institutions.

Recent national analyses also find that compared to public institutions, minority enrollment rates and overall graduation rates are higher among private institutions, especially in the for-profit sector.

percent enrollment growth at the state’s public colleges and universities and nearly five times Arizona’s 52 percent total postsecondary enrollment growth.²⁹

In 1993, total enrollment at public colleges and universities in Arizona outpaced private enrollments by more than seven to one, 248,454 students compared to 33,923 students, respectively. By 2003, however, the gap had narrowed to less than three to one, 310, 679 students enrolled at public colleges and universities compared to 119,655 students enrolled at private colleges and universities. Another notable trend is that from 1993 to 2003, public colleges’ and universities’ share of total higher education enrollments in Arizona declined by 18 percent, while private colleges’ and universities’ share of total enrollments more than doubled, from 12 percent in 1993 to 28 percent on 2003.

Those enrollment trends indicate that Arizona’s private higher education sector is robust and growing.³⁰ Moreover,

research indicates that Arizona’s private colleges and universities play an important role in helping meet growing demand for higher education in Arizona. New research by Northwestern University sociologists finds that for students who are least prepared for college-level work, attending a two- or four-year private college doubles the likelihood that they will earn a degree.³¹

Recent national analyses also find that compared to public institutions, minority enrollment rates and overall graduation rates are higher among private institutions, especially in the for-profit sector. For example, Columbia University economist Thomas Bailey finds that even after accounting for student and institutional differences, “The data suggest that students who enroll in for-profit institutions are more likely to acquire a degree or formal certificate of completion.” Moreover, Bailey concludes that the “higher minority enrollments in the for-profits hints that the higher completion rates are not simply a reflection of greater

selectivity in admissions and enrollment.”³²

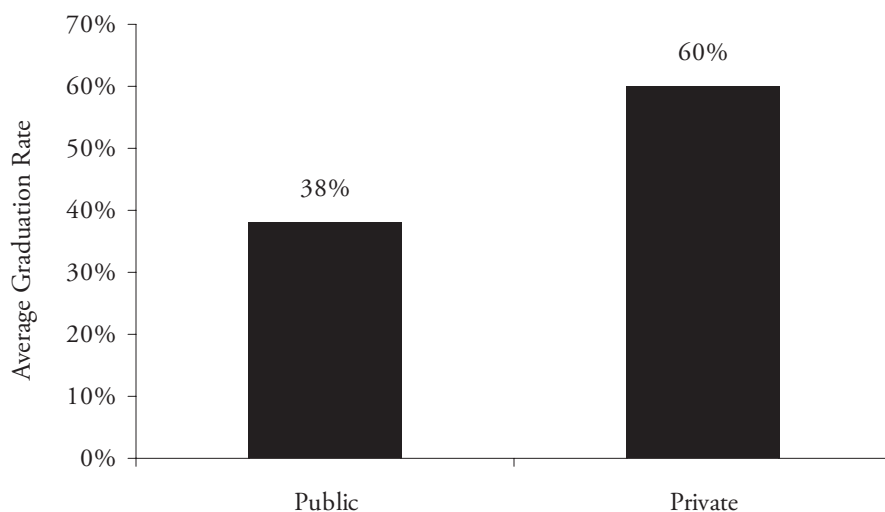
This is an important finding since 93 percent of Arizona undergraduates enrolled in private postsecondary institutions attend for-profit institutions.³³ Additionally, demographic projections indicate that minority students will constitute the majority of Arizona high school graduates within the next decade, increasing from 39 percent of Arizona high school graduates in 2002 to 53 percent by 2012.³⁴ The

largest percentage growth in Arizona high school graduates will be among Hispanic students, whose graduate population will nearly double from over 12,000 high school graduates in 2002 to almost 24,000 high school graduates in 2012.

According to 2000 Census Bureau data, Arizona falls just below the national average for the percentage of the state’s population who have earned bachelor’s degrees, 15.2 percent compared to the national average of 15.4

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Figure 2: Average Graduation Rate by Institution Type, 2003



Source: National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), Peer Analysis System, Data Cutting Tool, 2003 data.

Notes:

1. The graduation rate for four-year institutions is based on 1997 full-time student cohorts.
2. The graduation rate for two-year institutions is based on 2000 full-time student cohorts.
3. Percentages exclude three public, less-than-two-year institutions and 29 private, less-than-two-year institutions.
4. IPEDS graduation rate data for 2003 uses on-time rates, that is, students attending four-year institutions graduating in four years, and students attending two-year institutions graduating in two years.
5. Percentages based on data for five public, four-year institutions; 20 public, two-year institutions; 29 private, four-year institutions; and 20 private, two-year institutions.

percent.³⁵ Given Arizona's shifting demographics, enrolling and graduating a greater number of college students is an important public policy concern. For instance, ABOR estimates that Arizona's economy will need to graduate 330,000 bachelor's degree students in the next decade, almost twice as many students as graduated from Arizona's public universities during the past 10 years.³⁶

However, graduation rates of first-time, full-time degree or certificate-seeking students are much higher at Arizona private institutions, 60 percent compared to a combined rate of 38 percent at public two- and four-year institutions.³⁷ On average, fewer than three in five first-time, full-time undergraduates attending state universities will likely complete their degrees in four years, and only about one in five students attending community colleges will likely complete their degrees in two years.³⁸

As of 2004, the *Chronicle of Higher Education* reports only 48 percent of students attending Arizona public universities graduate within six years, "one of the lowest rates in the country."³⁹ Given the state's growing and increasingly diverse college-bound student population, a comprehensive higher education policy is needed that treats private postsecondary institutions as equal partners in the provision of higher education in Arizona. Such a comprehensive policy would expand postsecondary options for students and help make the delivery of higher education more efficient.

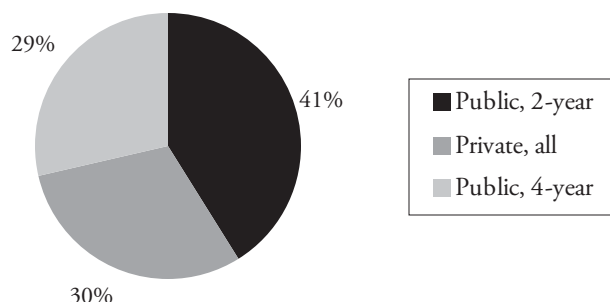
The following section takes a closer look at the comparative costs of public and private education based on Arizona's projected enrollment growth, focusing on Arizona resident undergraduates, their rates of in-state college attendance, where they enroll after high school graduation, and how soon they enroll after graduation.

Comparative Costs of Public and Private Postsecondary Education in Arizona

From 2006 to 2018, there will be a projected total of 888,000 Arizona high school graduates, increasing from 59,000 graduates in 2006 to over 80,000 graduates in 2018.⁴⁰ However, based on high school graduation and postsecondary enrollment data from 1992 to 2002, just under half of those graduates (48 percent) typically enroll full-time at in-state postsecondary institutions within a year after graduation.⁴¹ Based on 2002 and 2003 fall enrollment data for all Arizona resident first-time, full-time freshmen—not just those who enrolled within a year of high school graduation—community colleges have the highest share of enrollments, followed by private colleges and universities, and state universities. However, enrollments are fairly evenly distributed overall.

In 2003, total full-time enrollment at Arizona's 25 public community colleges and state universities reached nearly 196,000 students.⁴² That same year, public universities received an average of about \$8,000 in state and local funding just for current operating

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Figure 3: Current Enrollment Pattern for Resident First-Time, Full-Time Freshmen

Source: National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), Peer Analysis System, Data Cutting Tool, fall 2002 and 2003 enrollment data.

Notes:

1. Data represent enrollment at 91 public and private institutions offering undergraduate programs: five state universities (four-year or above); 20 community colleges (two-year or above); and 66 private colleges and universities.
2. "Private, all" includes for-profit and not-for-profit, less-than-two-year, two-year, and four-year or above institutions.
3. Calculation based on total enrollment excluded four private institutions for which IPEDS listed total enrollment figures of 6,115 students, but did not include first-time, degree/certificate seeking undergraduate data. Also excluded are three private institutions that did not have any 2002 or 2003 enrollment data listed by IPEDS.

expenses for each full-time student, while community colleges received about \$5,000, according to annual financial data each institution reported to the National Center for Education Statistics (NCES).⁴³ Those financial data are available through NCES' core postsecondary data system, called the Integrated Postsecondary Education Data System (IPEDS). Those figures represent funding for current operating expenses, not specific projects or programs, and exclude state and local capital appropriations, contracts, and grants. Also, "local appropriations" is an IPEDS classification that refers to the local property tax revenues for community colleges.⁴⁴ As shown in Table 2, those appropriations totaled over \$1.3 billion, excluding capital, construction,

and other non-operating expenses.

Assuming appropriations increase at an average inflation rate of two percent per year, the rate used in Joint Legislative Budget Committee and Executive Budget annual budgets, from 2006 to 2018 average state and local appropriations for community colleges for current operating expenses could increase from approximately \$5,400 to \$6,800 per student. At state universities, average per-student appropriations for current operating expenses could increase from \$8,500 in 2006 to nearly \$11,000 by 2018.⁴⁵

Based on enrollment patterns of Arizona high school graduates from 1992 to 2002, fewer than half (48

Table 2: 2003 State and Local Appropriations to Public Universities and Community Colleges

Institution	Number of full-time students	State and local appropriations per full-time student (\$)	Total state and local appropriations (\$)
ASU-East	2,175	6,769	14,722,575
ASU-Main	41,617	6,654	276,919,518
ASU-West	5,033	7,472	37,606,576
NAU	15,032	7,067	106,231,144
UA	32,835	12,276	403,083,460
Arizona Western College	3,272	5,624	18,401,728
Central Arizona College	3,022	4,718	14,257,796
Chandler-Gilbert CC	4,156	5,043	20,958,708
Cochise College	2,692	5,799	15,610,908
Coconino CC	1,454	5,410	7,866,140
Dine College	1,234	1,400	1,727,600
Eastern Arizona College	2,393	3,838	9,184,334
Estrella Mountain CC	2,574	5,698	14,666,652
Gateway CC	3,377	6,266	21,160,282
Glendale CC	10,980	3,907	42,898,860
Mesa CC	14,280	3,633	51,879,240
Mohave CC	2,510	6,261	15,715,110
Northland Pioneer College	2,188	5,399	11,813,012
Paradise Valley CC	4,009	4,532	18,168,788
Phoenic College	6,586	4,380	28,846,680
Pima CC	16,728	4,674	78,186,672
Rio Salado CC	5,594	2,625	14,684,250
Scottsdale CC	6,297	4,457	28,065,729
South Mountain CC	2,084	7,748	16,146,832
Yavapai College	3,636	10,093	36,698,148
Totals	195,758		1,305,500,742

Source: National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), Peer Analysis System, Data Cutting Tool, 2003 data.

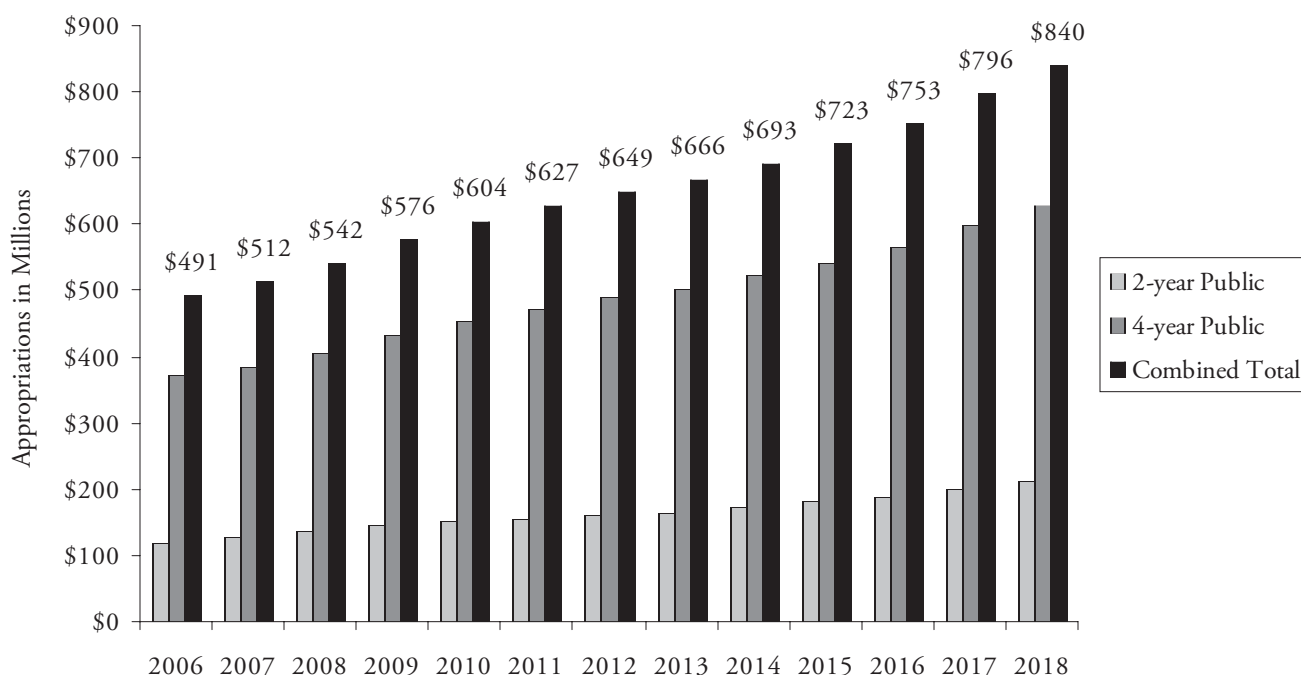
Notes:

1. Student figures represent fall 2003 full-time equivalent enrollment, which includes both Arizona resident and non-resident students.
2. Financial data represent unadjusted dollar amounts from fiscal year 2003.
3. State and local per-student appropriations for 2003 were not available for the three public, less-than-two-year institutions IPEDS lists.
4. State appropriations exclude grants and contracts, as well as capital appropriations.

percent) enrolled full-time at a state university or community college within a year of graduation.⁴⁶ Even if only about half of Arizona's graduates continue to enroll at state universities or community

colleges, the number of new resident undergraduates will increase from 66,000 students in 2006 to 89,000 in 2018.⁴⁷ As shown in Figure 4, by 2018 annual state and local appropriations to

Figure 4: Projected Increases in State and Local Appropriations to Public Postsecondary Institutions, 2006 to 2018



Sources: Author's calculations based on enrollment projections from the Western Interstate Commission for Higher Education, and NCES, *Enrollment in Postsecondary Institutions, Fall 2002 and Financial Statistics, Fiscal Year 2002*, Tables, 9, 10, 15, and 16. Author's state and local appropriations projections based on fiscal year 2003 per-student state and local appropriations from the National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), Peer Analysis System, Data Cutting Tool, and are adjusted annually at a two percent rate of inflation.

Notes:

1. These projections exclude additional state and local grant aid to state university and community college students, which amounted to \$8,015,803 in unadjusted dollars during fiscal year 2003, according to IPEDS.
2. On average, three percent of state university students received \$1,200 in state/local grant aid in fiscal year 2003.
3. On average, nine percent of community college students received \$800 in state/local grant aid in fiscal year 2003.
4. State and local per-student appropriations for 2003 were not available for the three public, less-than-two-year institutions IPEDS lists, so they are not included in this projection.

Arizona’s community colleges and state universities just for current operating expenses for projected high school graduates who enroll within a year of graduation will add nearly \$1 billion in constant dollars to the \$1.3 billion in current state and local appropriations shown in Table 2.⁴⁸

Given those enrollment increases, from 2006 to 2018, total annual state and local appropriations for current operating expenses alone—which exclude capital, construction, and non-operating expenses—are likely to increase from an estimated \$1.8 billion to \$2.4 billion in constant dollars.⁴⁹ Taking full advantage of private colleges and universities in Arizona, which receive no government subsidies for operating, capital, or construction expenses, saves public resources. However, there may be concern about the affordability of private college and university tuition.

Published average tuition and fees for in-state undergraduates at private Arizona universities and colleges range from \$1,015 to \$21,450. Most of those institutions differentiate prices according to the type and duration of programs offered.⁵⁰ For this reason, private postsecondary tuition and fees can vary widely among and within institutions. However, 85 percent of private institutions in Arizona charge undergraduate tuition and fees between \$5,000 and \$15,000. Tuition and fees for aeronautical, arts, and culinary institutions tend to be more expensive at around \$20,000. Table 3 shows that

variance by representing Arizona institutions’ distinct tuition and fees by program as separate “schools.” In total, Table 3 and Figure 5 include 80 such schools.

The tuition and fees students are charged to attend private postsecondary institutions may initially seem high compared to the sticker price of public postsecondary institutions, which is about \$3,000 at community colleges and \$3,600 at state universities based on fiscal year 2003 data.⁵¹ However, state and local taxpayers pay an additional \$8,000 per public university student and an additional \$5,000 per public community college student on average per year through government appropriations just for current operating expenses, which exclude such expenses as capital and construction. Thus, when including tuition, fees, and current operating revenue, Arizona state and local taxpayers subsidize roughly two-thirds of public university and college students’ education, 69 percent and 63 percent, respectively, as shown in Table 4.

Once those subsidies for current operating expenses are taken into account, the prices of public and private higher education are comparable. However, there is growing concern that public research universities are not cost-efficient providers of undergraduate education.⁵² For example, David Longanecker, ABOR redesign consultant, notes that “research universities are expensive animals by nature—and I don’t see how you can move into the future with the current system.”⁵³

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Table 3: Arizona Private Postsecondary Undergraduate Tuition and Fees by Institution Type: Averages and Range

Institution type	Average in-state tuition and fees for full-time undergrads (\$)	Low (\$)	High (\$)
Private FP <2-year	9,599	7,129	11,642
Private NFP 4-year	10,438	4,975	21,340
Private FP 2-year	11,037	9,075	16,200
Private FP 4-year	13,105	8,490	27,840

Sources: The Arizona Commission for Higher Education, *Arizona College & Career Guide* (ACCG); and National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), Peer Analysis System, Data Cutting Tool, fiscal year 2003 data.

Notes:

1. "FP" is for-profit and "NFP" is not-for-profit.
2. IPEDS annual tuition and fees are from figures published for the 2003-2004 academic year. Unpublished tuition data not listed in IPEDS was taken from the *Arizona College & Career Guide*, which lists published 2005-2006 tuition and fees.
3. For postsecondary institutions listing tuition and fees in weeks or months rather than annually, figures were converted into nine-month academic year amounts. This is most common among for-profit, two-year and less-than-two-year institutions. To avoid artificially inflating converted tuition and fees amounts, only programs lasting a minimum of 32 weeks (or 8 months) were included.
4. Not shown is the one private, not-for-profit institution IPEDS lists, which charges \$1,015 in average undergraduate tuition and fees and enrolls 84 full-time students.
5. For-profit, two-year and less-than-two-year institutions listing only hourly fees are excluded because the associated costs of their shorter, specialized programs are not comparable across fields.

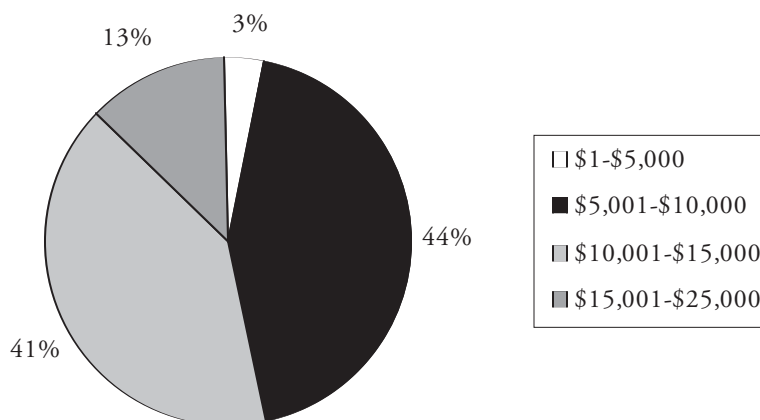
Ohio University economist Richard Vedder analyzes higher education financial data dating back to 1929 and finds a primary reason for the rising cost of financing universities is the growth of non-instructional activities such as research.⁵⁴ Research universities have more non-instructional staff than non-research institutions, as well as higher capital costs.⁵⁵ Nationwide, from 1976 to 2001 real tuition (the difference between the rise in tuition and the overall inflation rate) increased over 106 percent at four-year research institutions, compared to 65 percent at two-year, non-research intuitions.⁵⁶ The higher tuition and fees charged undergraduates who attend four-year

research universities subsidize activities such as graduate education and research that have little to do with undergraduate instruction. In turn, the federal and state governments increase funding to universities so they can offer more institutional financial aid to help make undergraduate education more affordable. However, Vedder finds that just twenty-one cents of every additional inflation-adjusted dollar per student since 1976 was actually spent on undergraduate teaching.⁵⁷

In light of Arizona's constitutional mandate that public higher instruction be "as nearly free as possible," and given the increasing number of college-bound

There is growing concern that public research universities are not cost-efficient providers of undergraduate education. Ohio University economist Richard Vedder finds a primary reason for the rising cost of financing universities is the growth of non-instructional activities such as research.

Figure 5: Private Postsecondary Undergraduate Tuition and Fee Ranges in Arizona



Under the current system, annual state and local appropriations to public colleges and universities just for operating expenses are likely to almost double in real terms from \$1.3 billion in 2004 to an estimated \$2.4 billion in 2018.

Sources: The Arizona Commission for Higher Education, *Arizona College & Career Guide*; and National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), Peer Analysis System, Data Cutting Tool, fiscal year 2003 data.

Notes:

1. IPEDS annual tuition and fees are from figures published for the 2003-2004 academic year. Unpublished tuition data not listed by IPEDS is from the *Arizona College & Career Guide*, which lists published 2005-2006 tuition and fees.
2. At postsecondary institutions listing tuition and fees in weeks or months rather than annually, figures were converted into nine-month academic year amounts. This is most common among for-profit, two-year and less-than-two-year institutions. To avoid artificially inflating converted tuition and fees amounts, only programs lasting a minimum of 32 weeks (or 8 months) were included.
3. Excluded is the one private, not-for-profit institution IPEDS lists, which charges \$1,015 in average undergraduate tuition and fees and enrolls 84 full-time students.
4. For-profit, two-year and less-than-two-year institutions listing hourly tuition and fees schedules only are excluded because the associated costs of the shorter specialized courses they offer are not comparable across fields.
5. Percentages exceed 100 percent due to rounding.

students, it is imperative that the state find the most cost-efficient way of delivering higher education. Under the current system, annual state and local appropriations to public colleges and universities just for operating expenses are likely to almost double in real terms from \$1.3 billion in 2004 to an estimated \$2.4 billion in 2018.

An efficient higher education delivery system would fully use Arizona's private postsecondary sector. Its significant growth over the past decade

indicates private colleges and universities are an increasingly important option for Arizona students. Private institutions also save public resources because they do not receive state or local appropriations for operating, capital, or construction expenses. Each college student who attends a private institution instead of a state university saves state and local taxpayers an average of \$8,000 per year in current operating expenses alone, and an estimated \$14,000 when capital, construction, and other non-operating expenses are included. Each

Table 4: Average Postsecondary Tuition, Fees, and Per-Student State and Local Appropriations

Type of institution	Total average price (\$)	Average published in-state tuition and fees per FT undergraduate (\$)	Average state and local subsidy per FT undergraduate (\$)
Public, 2-year	8,082	3,007	5,075
Public, 4-year	11,610	3,562	8,048
Private, 2-year	11,037	11,037	0
Private, 4-year	11,772	11,772	0

Sources: Public institution averages based on fiscal year 2003 data from National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), Peer Analysis System, Data Cutting Tool. Private institution averages based on data from IPEDS and the Arizona Commission for Higher Education, *Arizona College & Career Guide* (ACCG).

Notes:

1. "FT" is full-time.
2. Public postsecondary institution financial data represent unadjusted average dollar amounts from IPEDS for fiscal year 2003.
3. Private postsecondary institution financial data represent unadjusted average dollar amounts from IPEDS for fiscal year 2003. Unpublished tuition data not listed in IPEDS were taken from the *Arizona College & Career Guide*, which lists published 2005-2006 tuition and fees.
4. State appropriations exclude grants and contracts, as well as capital appropriations.
5. Excluded is the one for-profit two-year institution listed by IPEDS that enrolled 84 full-time undergraduates in 2003-2004 and charged \$1,015 in tuition.
6. Figures do not include per-student revenue from IPEDS "all other revenue" category, which includes federal, state, and local grants and contracts for capital and construction, as well as private gifts and grants, and endowment and auxiliary income. Because IPEDS does not disaggregate revenue sources in this category, it is impossible to distinguish the state and local appropriations necessary to calculate the average portion of public university and college students' education Arizona taxpayers subsidize. However, including the per-student revenue from IPEDS "all other revenue" category raises the "Total Average Price" of public four-year universities to \$18,971 and that of community colleges to \$10,250.

college student who attends a private institution instead of a community college saves state and local taxpayers an average of \$5,000 per year in current operating expenses, and over \$7,000 when capital, construction, and other non-operating expenses are included.

Giving grants directly to students, rather than to public institutions in the form of government subsidies, would expand higher education options for

students and help make the delivery of higher education in Arizona more cost-efficient. Under such a system, students could use their higher-education grants at any postsecondary institution, public or private, giving institutions powerful incentives to keep costs and tuition prices down or risk losing students to competitors.

Giving grants directly to students, rather than to public institutions in the form of government subsidies, would expand higher-education options for students and help make the delivery of higher education in Arizona more cost-efficient.

Benefits of a Competitive Higher Education Marketplace

Fifty years ago, Nobel Prize-winning economist Milton Friedman suggested the idea of giving education funding to students in the form of grants rather than to institutions in lump-sum government subsidies. According to Friedman, the advantage of a student grant system of higher education finance is that it would “make for more effective competition among various types of schools and for more efficient utilization of their resources.”⁵⁸ A fundamental shortcoming of the current public finance structure is that it is driven by inputs, not outputs. That is, under the current finance structure, public postsecondary institutions receive annual government appropriations (inputs) regardless of how productive they are (outputs), measured, for example, by whether students complete their degrees. Even if their completion rates are low, public institutions do not face an imminent threat of closure. The likelihood is greater, in fact, that public institutions could use those factors to justify increased government appropriations without having to change the way they operate.

Another serious drawback to the current system of lump-sum government appropriations is that public higher-education costs are not transparent, which makes it hard to identify inefficiencies and hold institutions accountable. On this point Friedman observed that a student grant system of finance “might also have the

ancillary advantage of causing scrutiny of the purposes for which subsidies are granted.”⁵⁹ Recent events underscore the importance of such scrutiny in higher education finance. For example, for over 10 years an ASU associate professor had been designating a number of his English courses as “Rainbow Sections,” which were limited to “Native Americans only.”⁶⁰ It was not until the Philadelphia-based Foundation for Individual Rights in Education brought it to the attention of university officials in the fall of 2005 and went public that the professor was ordered to desist.⁶¹ In August 2005, the Arizona Tax Research Association exposed the practice at several community colleges of using state general fund appropriations to subsidize students taking recreational and personal enrichment courses.⁶² Central Arizona College, for example, receives state funding for students taking such courses as “Mystery Dinner Theater,” “Sculpture for Personal Development,” and “Men in Transition.”

Basing public postsecondary finance on lump-sum appropriations inputs makes it hard to know whether institutions are using education funding efficiently. In contrast, outputs such as student achievement drive the private sector, and inefficiencies are more readily apparent. Unlike public institutions, private colleges and universities do not receive annual state and local funding. Their primary source of funding is from students, which means private colleges and universities need to offer courses that students are

Basing public postsecondary finance on lump-sum appropriations inputs makes it hard to know whether institutions are using education funding efficiently. In contrast, outputs such as student achievement drive the private sector, and inefficiencies are more readily apparent.

willing to pay for themselves. It also means private institutions face greater pressure to be efficient so as to pass on as few costs to students as possible in the form of tuition and fees. Otherwise, they risk losing students.

In 1955, Friedman suggested that higher education would become more efficient if institutions had to work for their education dollars by competing for students.⁶³ Since that time, several other leading economists have proposed government funding go to students directly in the form of grants to promote equal educational opportunity, increased access among low-income students, and improved racial integration. Those economists include Alan T. Peacock and Jack Wiseman of Britain's Institute of Economic Affairs in 1964; Harvard University economist Christopher Jencks for the U.S. Office of Economic Opportunity in 1970; Stanford University economist Henry L. Levin in 1983; and Ohio University economist Richard Vedder in 2004.⁶⁴

The economists who recommend funding students directly through a higher-education grant system represent diverse schools of thought and emphasize different benefits of such a finance system. However, in their review of the literature, Hong Kong University researchers Ben Jongbloed and Jos Koelman observe that those economists agree on "the fact that the lack of competition in the [higher education] public sector has an ossifying effect...The only way for schools to perform better is...a subjugation of

schools to more competitive pressure."⁶⁵ In fact, with regard to the benefits of competition, Levin concluded that the "fact that the new left...and the old right...can concur on the same educational palliative is reason enough to consider the market approach as a serious alternative to the present system."⁶⁶

Models for an Effective Student Grant System of Higher Education Finance

In 2004 Colorado adopted a system to improve college efficiency and affordability. Arizona also has a modest college student grant program that could be expanded to a statewide system of higher-education grants similar to Colorado's system. Moreover, taking better advantage of Arizona's existing college savings account program would enable more students and their families to pay for the actual cost of a college education. This section describes the existing higher-education grant programs in Arizona and Colorado and draws from them the guiding principles of an effective student grant system of higher education finance. Subsequent sections suggest how the proposed grant system could be financed to expand higher education opportunities for students while making the delivery of higher education in Arizona more efficient through competition.

In 2004 Colorado adopted the country's first statewide higher-education grant system, called the College Opportunity Fund.⁶⁷ It is modeled after three national higher

Hong Kong University researchers Ben Jongbloed and Jos Koelman observe that "the lack of competition in the [higher education] public sector has an ossifying effect...The only way for schools to perform better is...a subjugation of schools to more competitive pressure."

Arizona already has a similar program in place, called the Arizona Private Postsecondary Education Student Financial Assistance Program (PFAP). It “is designed to provide a financial incentive to attend a private institution thereby reducing the state expenditure for public education and the enrollment demand of the three public universities.”

education programs, each designed to improve college affordability, access, and academic accountability. These programs are the G.I. Bill, which has existed since 1944, the Pell Grant program, established in 1972, and the Hope Scholarship Credit, passed in 1997.⁶⁸ As of the 2005-2006 academic year, the state of Colorado no longer makes direct lump-sum payments to its public institutions for undergraduate education. Instead, that funding is given directly to Colorado resident undergraduates in the form of stipends. Students attending a state college or university receive a \$2,400 stipend, or \$80 per credit hour, and Pell Grant-eligible students attending private institutions can receive stipends worth half the Pell Grant amounts.

The Colorado Department of Higher Education oversees the program and informs students beginning in eighth grade about the College Opportunity Fund, as well as additional college financial assistance programs.⁶⁹ Once participating students enroll in college, they receive a bill for the total cost of in-state tuition, detailing the student’s share and the share covered by their state stipend. According to Richard F. O’Donnell, executive director of the Colorado Commission on Higher Education, this change enables “a student to see the amount of state support that is applied toward public higher education. Additionally, the change allows all students to receive the same financial backing from the state, no matter what [public] institution they attend. With the current funding

structure, the amount of state support provided to students currently varies by institution.”⁷⁰

Arizona already has a similar program in place, called the Arizona Private Postsecondary Education Student Financial Assistance Program (PFAP), which was established in 1997.⁷¹ According to April Osborn, executive director of the Arizona Commission of Postsecondary Education that oversees the program, it “is designed to provide a financial incentive to attend a private institution thereby reducing the state expenditure for public education and the enrollment demand of the three public universities.”⁷² The program awards stipends on a first-come, first-served basis in amounts up to \$1,500 a year (the total lifetime award is \$3,000) to eligible Arizona community college graduates who prove financial need and who enroll full-time in a baccalaureate degree program at a participating private college or university. To be eligible, private postsecondary institutions must be licensed in Arizona and accredited by a national accrediting agency that is recognized by the U.S. Department of Education.⁷³ Students must achieve satisfactory academic progress as defined by their attending institution. Before receiving their stipends, students sign promissory notes to refund the state of Arizona the entire amount if they do not graduate with a bachelor’s degree within three years or if they do not attend college full-time for more than 12 consecutive months.⁷⁴

The current graduation rate for Arizona students receiving PFAP stipends is 86 percent, and since 1997, the program has helped over 1,100 financially needy students.⁷⁵ According to the Arizona Commission of Postsecondary Education, the 553 graduates who participated in the program from 1997 to 2003 saved the state approximately \$8,073,800.⁷⁶ However, in fiscal year 2003 the state reduced program funding by almost half, from \$318,000 in fiscal year 2002 to \$170,500 in fiscal year 2003.⁷⁷ Consequently, 269 students were on the waiting list to receive college tuition stipends in fiscal year 2004, which corresponds with the 2003-2004 academic year.⁷⁸

Arizona's existing PFAP stipend is a small-scale program limited by narrow student eligibility requirements and modest annual state appropriations. In its current form, the program includes only community college graduates planning to pursue baccalaureate degrees at private institutions. Only students with demonstrated financial need are eligible, stipend amounts are capped at \$1,500 a year, and stipends are only available to students for two years. As described in greater detail in the following section, by modifying those aspects of the current PFAP stipend, Arizona could readily adopt a statewide system of higher education grants like Colorado's, redirecting lump-sum state and local appropriations from public institutions directly to undergraduates instead.

Such a system would also be more efficient than the existing system of higher education finance. First, a grant system would give all students an equal opportunity for higher education by giving them direct access to funding. Second, a grant system simplifies higher education finance and helps make funding more transparent, which is an important incentive for institutions to be cost-efficient. Lump-sum government appropriations given to institutions make it difficult to know how much public institutions actually spend to educate students. This also makes it hard to hold inefficient institutions accountable. Finally, by making students aware of their higher education opportunities before they go to college, and by holding them responsible for completing their degrees once they get there, a grant system promotes individual student responsibility for both academics and finances. The following section describes how such a system could be financed.

Financing a Statewide Higher Education Student Grant System in Arizona

Financing a statewide system of higher-education grants begins by understanding how much funding the state and local governments appropriate for higher education in Arizona, as well as how much funding state universities and colleges receive from other sources. Those financial data are available through the National Center for Education Statistics' core postsecondary data system, called the Integrated

By modifying...the current PFAP stipend, Arizona could readily adopt a statewide system of higher education grants like Colorado's, redirecting lump-sum state and local appropriations from public institutions directly to undergraduates instead.

Table 5: Higher-Education Revenue by Category

Institution	Full-time enrollment	State & local revenue (\$)	Tuition & fees revenue (\$)	All other revenue (\$)	Total revenue (\$)
ASU-East	2,175	14,722,575	9,776,625	10,170,300	34,669,500
ASU-Main	41,617	276,919,518	193,061,263	236,509,411	706,490,192
ASU-West	5,033	37,606,576	15,028,538	5,420,541	58,055,655
NAU	15,032	106,231,144	47,275,640	60,954,760	214,461,544
UA	32,835	403,083,460	177,079,155	575,203,530	1,155,366,145
Arizona Western College	3,272	18,401,728	1,986,104	10,012,320	30,400,152
Central Arizona College	3,022	14,257,796	1,758,804	4,182,448	20,199,048
Chandler-Gilbert CC	4,156	20,958,708	5,423,580	2,531,004	28,913,292
Cochise College	2,692	15,610,908	2,821,216	7,152,644	25,584,768
Coconino CC	1,454	7,866,140	1,913,464	2,655,004	12,434,608
Dine College	1,234	1,727,600	815,674	16,640,490	19,183,764
Eastern Arizona College	2,393	9,184,334	1,146,247	3,419,597	13,750,178
Estrella Mountain CC	2,574	14,666,652	2,419,560	3,765,762	20,851,974
Gateway CC	3,377	21,160,282	4,717,669	8,216,241	34,094,192
Glendale CC	10,980	42,898,860	11,682,720	11,320,380	65,901,960
Mesa CC	14,280	51,879,240	17,621,520	13,094,760	82,595,520
Mohave CC	2,510	15,715,110	2,537,610	3,747,430	22,000,150
Northland Pioneer College	2,188	11,813,012	1,756,964	4,019,356	17,589,332
Paradise Valley CC	4,009	18,168,788	4,826,836	3,231,254	26,226,878
Phoenix College	6,586	28,846,680	7,112,880	9,510,184	45,469,744
Pima CC	16,728	78,186,672	17,631,312	35,195,712	131,013,696
Rio Salado CC	5,594	14,684,250	9,314,010	7,814,818	31,813,078
Scottsdale CC	6,297	28,065,729	9,552,549	4,489,761	42,108,039
South Mountain CC	2,084	16,146,832	1,071,176	5,218,336	22,436,344
Yavapai College	3,636	36,698,148	5,712,156	8,235,540	50,645,844
Subtotal—public 2- and 4-year institutions	195,758	\$1,305,500,742	\$554,043,272	\$1,859,739,772	\$3,719,283,786
Commission for postsecondary education	Number of students receiving awards	State general fund appropriation			
Private post-secondary education student financial assistance	259	\$170,500			
TOTALS	196,017	\$1,305,671,242	\$554,043,272	\$1,859,739,772	\$3,719,283,786

Source: National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), Peer Analysis System, Data Cutting Tool, 2003 data; the Arizona Commission for Postsecondary Education; Joint Legislative Budget Committee (JLBC), “Commission for Postsecondary Education,” in *FY 2005 JLBC Budget*.

Notes:

1. Per-student appropriations figures for public universities and colleges are for full-time equivalent enrollment.
2. Financial data represent unadjusted dollar amounts from fiscal year 2003.
3. State residency is determined at the time students are first admitted.
4. IPEDS does not list fall 2003 first-time degree/certificate-seeking Arizona resident enrollment data for Northern Arizona University, Eastern Arizona College, Northland Pioneer College, Pima Community College, and Yavapai College. Fall 2002 enrollment data were used in those instances.
5. State and local per-student appropriations for fiscal year 2003 were not available for the three public, less-than-two-year institutions IPEDS lists.
6. State appropriations exclude grants and contracts, as well as capital appropriations.
7. The average per-student Private Postsecondary Education Assistance grant amount is based on the fiscal year 2003 general fund appropriation amount only. The program received an additional \$173,500 in “other funds” in fiscal year 2003. The average Private Postsecondary Education Assistance grant that year was \$1,370, with awards ranging from \$961 to \$1,500. Annual awards are capped at \$1,500 (\$3,000 lifetime award). See Joint Legislative Budget Committee, *FY 2005 JLBC Budget*, “Summary of Funds,” 264.
8. Total “Public and Private Student 2003” appropriations exclude what IPEDS calls “other core revenues,” which include federal appropriations, grants, and contracts; state and local grants and contracts; private gifts, grants, and contracts; endowment income; and sales and services of educational activities. Private institutions in Arizona do not receive state or local appropriations, but the Private Postsecondary Education Student Financial Assistance Program receives annual state general fund appropriations through the Arizona Commission for Postsecondary Education, which administers the program.

Postsecondary Education Data System (IPEDS). This system collects survey data from nearly 10,000 colleges and universities nationwide, including annual financial data on institutions’ current funding by source.⁷⁹

IPEDS breaks down college and university revenue into three categories. The first is “state and local government appropriation revenues per full-time equivalent student.” Those appropriations are for meeting current operating expenses, not for specific projects or programs, and they exclude state and local capital appropriations, contracts, and grants.⁸⁰ Only public colleges and universities receive state and

local appropriations for current operating expenses. IPEDS refers to the local property tax revenues for community colleges as a local “appropriation.”⁸¹

The second revenue category IPEDS uses is “tuition and fees revenues per full-time equivalent student,” and the final revenue category is “all other core revenues per full-time equivalent student.” That category includes federal appropriations, grants, and contracts; state and local grants and contracts; private gifts, grants, and contracts; endowment and investment income; and income from the sales and services of educational activities.

A statewide system of higher-education grants could be funded using the \$1.3 billion currently appropriated by the state and local governments in lump-sum amounts to public colleges and universities for operating expenses, and to private universities for PFAP student stipends.

Private colleges and universities in Arizona do not receive state or local appropriations for current operating expenses, but the Arizona Commission for Postsecondary Education does receive annual state general fund appropriations for PFAP, which awards grants up to \$1,500 for college students earning their baccalaureate degree at a private institution who have demonstrated financial need. Financial data for that program are available through Arizona's Joint Legislative Budget Committee (JLBC).⁸²

As detailed in Table 5, in fiscal year 2003 Arizona's state universities and community colleges enrolled 196,000 full-time equivalent students and received over \$3.7 billion in revenue from state and local appropriations, tuition and fees, and all other revenue. That same year, PFAP received \$170,500 in general fund appropriations for need-based grants to 259 full-time private college and university students.

A statewide system of higher-education grants could be funded using the \$1.3 billion currently appropriated by the state and local governments in lump-sum amounts to public colleges and universities for operating expenses, and to private universities for PFAP student stipends. The \$554 million state universities and community colleges receive in tuition and fees revenue would remain intact. For purposes of this analysis, the \$1.9 billion universities and community colleges receive in "all other" local, state, and federal revenue for

short-term fixed costs such things as multi-year capital and research projects, would also remain intact. However, identifying ways to reduce public institutions' reliance on government appropriations for such projects warrants further study.⁸³ The following section examines how a grant amount could be set.

Determining a Higher-Education Grant Amount

This section proposes a student grant system of higher education finance based on the current per-student amounts of state and local government appropriations for current operating expenses; \$5,000 on average for community colleges in Arizona and \$8,000 on average for state universities. Current and empirical enrollment patterns of Arizona high school graduates from 1992 to 2002 provide some guidance about projected higher-education costs to state and local taxpayers over the next 10 years under the current finance structure.

However, a significant challenge to proposing the appropriate higher-education grant amount is that the actual costs of educating college and university students are not transparent under the current finance system. The constitutional mandate that instruction at state institutions be "as nearly free as possible" means published tuition and fee amounts cover only a part of the total expense of educating students. The remainder is covered by unpublished state and local appropriations for current

operating expenses; local, state, and federal grants for capital and special projects; private gifts and grants; and endowment and auxiliary revenue from sales and services. Thus, a fundamental advantage of shifting from the current system of higher education finance to a student grant system is that actual costs become transparent. This makes it easier to know which institutions are the most cost-efficient and hold inefficient institutions accountable.

Under an ideal student grant system of higher education finance, public postsecondary institutions would be free to charge tuition and fees that reflect the actual cost of each educational program they offer, just like private postsecondary institutions do. Undergraduates would know what portion of their degree program costs their student grant would cover and what portion they would be responsible for paying. The more transparent postsecondary institutions made the actual costs of each degree or certificate program, the more precisely grant amounts could be set. For example, student grants awarded to undergraduates in more expensive engineering or medical programs would be higher than grants awarded to undergraduates in less expensive liberal arts or social science programs. Such precision would help conserve limited public resources.

Moreover, a significant advantage of a student grant system over the existing system of higher education finance is that it introduces powerful incentives for institutions to be cost-effective and for

undergraduates to be good stewards of their education dollars. Under the system, postsecondary institutions would strive to offer the best programs at the best prices to attract students. Knowing how much of their degree program costs their higher education grants would cover, undergraduates would have good reason to compare prices and programs to reduce the portion they would have to pay out of pocket. Under the proposed student grant system, undergraduates would also be personally responsible for meeting the academic standards of their chosen program and completing their degrees in the time recommended by their postsecondary institution. Otherwise, they would have to refund their grants in full.

In the absence of disaggregated higher-education costs, the proposed student grant system uses current operating expense appropriations from the state and local governments as proxies for actual costs covered by student grants. Beginning in 2006, the \$1.3 billion the state and local governments currently appropriate in lump-sum amounts to colleges and universities could instead fund full-time undergraduates directly in the form of grants. Under the current system, annual appropriations for current operating expenses are negotiated through the legislative budget process. The proposed grant amounts take the average per-student state and local appropriations amounts as a baseline, \$5,000 for two-year institutions and \$8,000 for four-year institutions. However, yearly

Under the system, postsecondary institutions would strive to offer the best programs at the best prices to attract students. Knowing how much of their degree program costs their higher-education grants would cover, undergraduates would have good reason to compare prices and programs to reduce the portion they would have to pay out of pocket.

increases to those amounts would be indexed to annual inflation growth or the annual change in the GDP price deflator, whichever is less, rather than leaving grant amounts to be set through budgetary negotiations.

A primary goal of a student grant system of higher education finance is to base funding as far as possible on actual costs. The proposed student grant system is a first step toward that goal. Nevertheless, in the absence of cost figures, the proposed grant amount baselines are approximations based on best-available uniform data. As shown in Table 2, four out of five state universities receive per-student appropriations below the proposed \$8,000 grant amount, but one state university receives over \$12,000 per student. Among community colleges, 10 institutions receive less than \$5,000 per student in current operating expenses, and 10 institutions receive more. One community college, in fact, receives over \$10,000 in current operating expenses per student. In total, 14 of the 25 public institutions listed in Table 2 would initially receive more funding if students enrolled under a grant system than they do under the current system, and 11 would receive less.

The section that follows illustrates how the student grant system of higher education finance could be implemented using current average per-student operating expense appropriations; \$5,000 for two-year community colleges and \$8,000 for four-year public universities. Again, the

proposed student grant system draws from only one of three broad revenue streams: the \$1.3 billion in state and local current operating expense appropriations. Remaining intact would be the \$2.4 billion in annual revenue public institutions currently receive from tuition and fees, and all other revenue, which includes local, state, and federal grants for capital and special projects; private gifts and grants; and endowment and auxiliary revenue.

Institution-generated revenue, such as tuition, private gifts, endowment, and auxiliary revenue should also remain intact, allowing institutions to compete for students by allocating those resources to achieve the best quality programs at the lowest possible price. Other local, state, and federal revenue is typically dedicated to fixed costs, including multi-year capital and construction projects. For this reason, those revenue sources could not be diverted as a revenue stream for student grants. However, a primary goal of a student grant system of higher education finance is to help make colleges and universities more efficient. Public institutions should begin to use their self-generated revenues to fund capital and other projects, as private institutions do, rather than rely on government appropriations.

Implementing a Student Grant System of Higher Education Finance

Beginning in 2006, the \$1.3 billion in state and local operating expense appropriations to public colleges and universities could instead fund full-time

A primary goal of a student grant system of higher education finance is to base funding as far as possible on actual costs. The proposed student grant system is a first step toward that goal.

Table 6: Fiscal Impact of Phased-in Student Grant System

Academic year	Eligible students	Number of	State and local	All other revenue to
		students eligible for grants		
		\$5,000, 2-year \$8,000, 4-year	for student grants (\$)	
2006-07	Freshman	27,776	192,978,291	2,511,299,879
2007-08	Freshman, Sophomore	56,433	399,925,638	2,561,525,877
2008-09	Freshman, Sophomore, Junior	72,657	547,996,213	2,612,756,394
2009-10	Freshman, Sophomore, Junior, Senior	89,152	704,584,156	2,665,011,522

Sources: Author's calculations are based on fiscal year 2003 financial data from the National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), Peer Analysis System, Data Cutting Tool. Enrollment projections from the Western Interstate Commission for Higher Education (WICHE), "Numbers of Recent High School Graduates and First-Time Freshmen, 1991-92, 1994-95, 1996-97, 1998-99, 2000-01, 2002-03," Table 14, and NCES, *Enrollment in Postsecondary Institutions, Fall 2002 and Financial Statistics, Fiscal Year 2002*, Tables, 9, 10, 15, and 16.

Notes:

1. All figures adjusted at an annual two percent rate of inflation.
2. Student enrollment projections are based on enrollment data from 1992 to 2002 indicating that 48 percent of Arizona high school graduates typically enroll full-time at in-state postsecondary institutions within a year after graduation.
3. Enrollment projections assume all students enrolled at an institution in one year return in subsequent years.

Arizona resident undergraduates directly in the form of \$5,000 grants for students attending two-year institutions and \$8,000 for students attending four-year institutions.⁸⁴ Such a system could be implemented immediately since overall university budgets would not be significantly changed as long as they continued to attract students, which is likely given Arizona's anticipated

enrollment growth. Moreover, public universities and community colleges would continue to receive \$2.4 billion annually in tuition and fees revenue, government grants and contracts for restricted capital and research projects, private gifts and grants, and alumni donations.

However, there may be concerns

Under the proposed system, which ties funding to students, \$1 billion would provide higher-education grants for 100 percent of the estimated 109,000 Arizona resident undergraduates enrolled in-state at both public and private institutions in 2018.

that public institutions would not be able to readily adjust to such a system. There may also be concerns that allowing students to use their grants to attend in-state private institutions would have an adverse fiscal impact on state and local budgets. To allay those concerns, the proposed student grant system of higher education finance could be phased in over four years. Beginning in academic year 2006-2007, and each year thereafter until academic year 2009-2010 when the proposed student grant program is fully implemented, all entering full-time resident freshmen enrolled at in-state public or private institutions would be eligible to receive a \$5,000 two-year grant or an \$8,000 four-year grant.

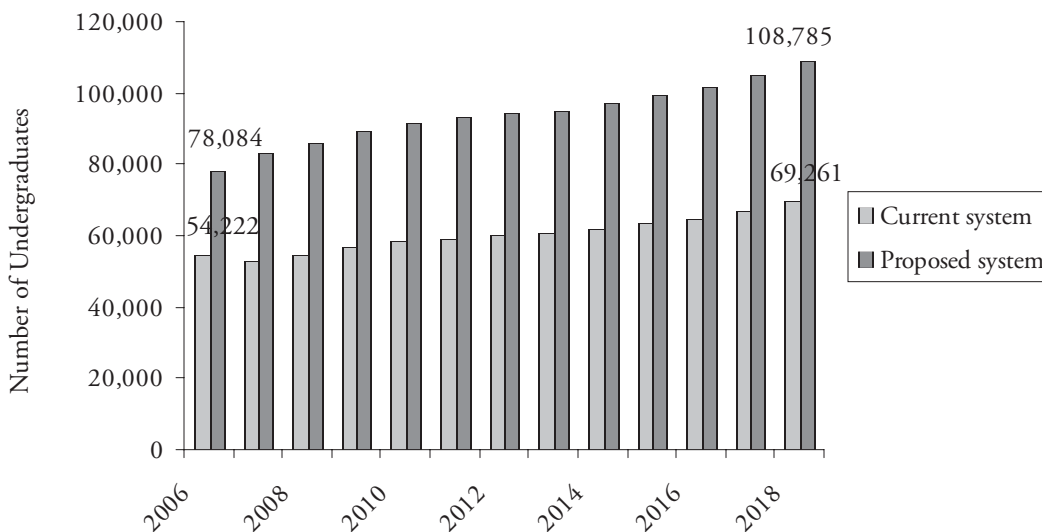
Thus, in 2006-2007, all Arizona resident freshmen would be eligible for grants. In 2007-2008, all entering full-time resident freshmen and resident sophomores would be eligible. In 2008-2009, all entering full-time resident freshmen, resident sophomores, and juniors would be eligible. Then in 2009-2010, all entering full-time resident freshmen, resident sophomores, juniors, and seniors would be eligible for grants, meaning public institutions of higher learning in Arizona would receive current operating funding on a per-student basis rather than in lump-sum appropriations. The grant amounts could be prorated for part-time students; however, the projections that follow are based on resident full-time equivalent enrollments only.

Table 6 illustrates the fiscal impact if

the proposed finance system were phased in over four years. The number of students eligible for higher-education grants will increase from an estimated 28,000 in the 2006-2007 academic year to 89,000 in the 2009-2010 academic year. Over the same four-year period, annual state and local appropriations for student grants will increase from \$193 million to \$705 million. Thus, held constant in real terms, the \$1.3 billion in current state and local lump-sum appropriations to public colleges and universities for operating expenses would fund grants for all projected full-time Arizona resident undergraduates to attend any postsecondary institution they choose, public or private, four-year or two-year. Importantly, public universities and community colleges would continue to receive between an estimated \$2.5 and \$2.7 billion annually in all other revenue, which includes student tuition and fees; government grants and contracts for capital, construction, and research projects; and private grants and donations.

Figures 6 and 7 use the projected number of Arizona high school graduates who are likely to enroll in-state full-time within a year of graduation and the current enrollment patterns of first-time, full-time resident freshmen to estimate the cost of educating those students under the current finance system and the proposed system of students grants from 2006 to 2018. Under the proposed system, which ties funding to students, \$1 billion would provide higher-education grants for 100 percent of the estimated

Figure 6: Number of Undergraduates Served under the Current and Proposed Finance Systems



Sources: Author’s projections based on the National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), Peer Analysis System, Data Cutting Tool, fall 2002 and 2003 enrollment data; and the Western Interstate Commission for Higher Education, “Actual and Projected Number of High School Graduates, 1991 to 2018,” Table 12, December 2004.

Note: Projections assume a four-year completion rate for baccalaureate programs and a two-year completion rate for associate’s programs. They also assume the same students return to the same type of institution each year.

Under the proposed system of higher-education grants there would be an average annual savings in state and local appropriations of \$768 million.

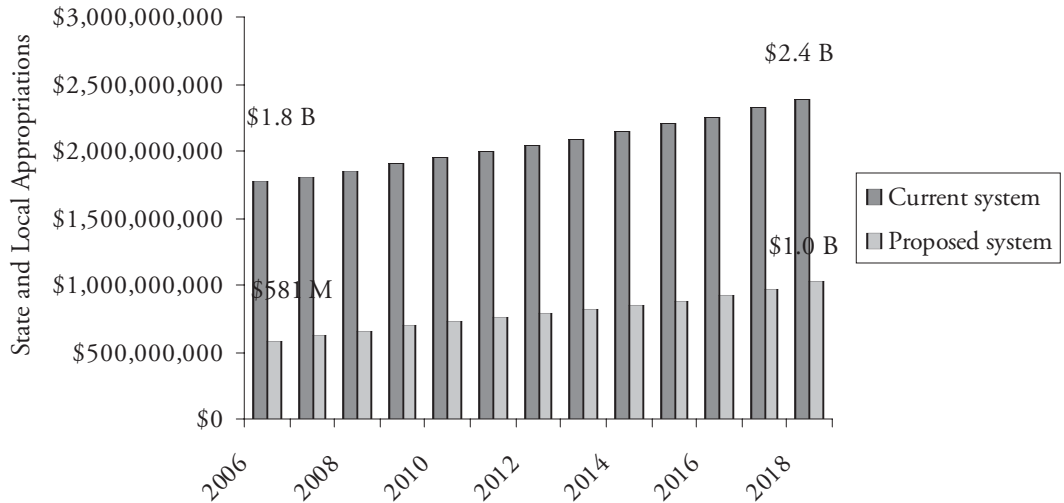
109,000 Arizona resident undergraduates enrolled in-state at both public and private institutions in 2018. In contrast, under the current system it would take an estimated \$2.4 billion in state and local appropriations to public universities and community colleges in 2018 just to cover the current operating expenses associated with educating 63 percent of those students, an estimated 69,000. Significantly, as shown in Figure 8, under the proposed system of higher-education grants there would be an average annual savings in state and local appropriations of \$768 million.

upon Colorado’s College Opportunity Fund model. However, it differs from the Colorado model in several important ways. First, it treats public and private institutions as equal partners in the provision of higher education. By giving current state and local funding for current operating expenses to students directly in the form of grants, instead of to institutions as lump-sum appropriations, the proposed higher-education grant system enables the state to play a neutral role and lets students determine which institution, public or private, offers the best undergraduate degree program for them.

The proposed system of student grant higher education finance draws

The proposed system of higher-

Figure 7: State and Local Fiscal Impact of the Current and Proposed Finance Systems



Students participating in the proposed higher-education grant system should be required to sign contracts with the Arizona Commission for Postsecondary Education promising to meet the academic standards set by the institutions where they enroll, and to repay their grant in full if they drop out of school before completing their degrees.

Sources: Author's projections based on the National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), Peer Analysis System, Data Cutting Tool, fiscal year 2003 financial data; and the Western Interstate Commission for Higher Education, "Actual and Projected Number of High School Graduates, 1991 to 2018," Table 12, December 2004.

Notes:

1. Dollar amounts adjusted at a two percent annual rate of inflation
2. Projections assume a four-year completion rate for baccalaureate programs and a two-year completion rate for associate's programs. They also assume the same students return to the same type of institution each year.

education grants could operate using elements of Colorado's College Opportunity Fund program and Arizona's existing PFAP stipend, administered by the Arizona Commission of Postsecondary Education. Beginning in 2006, the Arizona Commission of Postsecondary Education could notify Arizona public and private school students in eighth through twelfth grade about the higher-education grant program, as well as additional college financial assistance programs. Each year thereafter, students in successively earlier grades should be notified about the grant program and other college financial assistance programs. As of 2014 and each year

thereafter, all Arizona K-12 students would receive notification at the beginning of the school year about the program. Notifying students and their families as early as possible about their in-state higher education opportunities helps them prepare sooner academically and financially for a college education. It would also help encourage students who might not otherwise do so to consider pursuing a college education more quickly after high school graduation.

As students currently using PFAP stipends are required to do before receiving their grants, students participating in the proposed higher-education grant system should be

Figure 8: Annual State and Local Appropriations Savings under Proposed System

Sources: Author's projections based on the National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), Peer Analysis System, Data Cutting Tool, fiscal year 2003 financial data; and the Western Interstate Commission for Higher Education, "Actual and Projected Number of High School Graduates, 1991 to 2018," Table 12, December 2004.

Notes:

1. Dollar amounts adjusted at a two percent annual rate of inflation.
2. Projections assume a four-year completion rate for baccalaureate programs and a two-year completion rate for associate's programs. They also assume the same students return to the same type of institution each year.
3. Fewer high school graduates, and therefore projected enrollments, account for the increase in savings from 2011 to 2013. As annual projected enrollments begin increasing again in 2014, annual savings decline.

required to sign contracts with the Arizona Commission for Postsecondary Education promising to meet the academic standards set by the institutions where they enroll, and to repay their grant in full if they drop out of school before completing their degrees. Student grants and contracts should be renewed annually, pending Commission review of student transcripts to ensure their continued eligibility, and limited to the time each participating institution has determined it should take to complete its degree or certificate programs. The Commission should have the authority to extend the

grant period for students pursuing more than one degree program at a time. The Commission should also be allowed to prorate grant amounts for students attending school part-time or taking additional coursework during the regular academic year or in-between semesters if students are working to complete their degrees more quickly. Finally, the Commission should have the authority to renegotiate student promissory contracts on a case-by-case basis for exceptional circumstances.

This approach is preferable to requiring participating institutions to

Figure 9: Itemized Higher Education Bill for a Public, Four-year University in Arizona

Cost of Attending Public, 4-year Institution	Amount
Total cost per full-time undergraduate	\$18,971
Capital and special projects paid to institution by:	
Local, state, and federal governments	
Private gifts and grants	
Institution endowment, sales, services	-\$6,602
Current operating expenses	\$8,000
Arizona higher-education grant	-\$8,000
Tuition	\$4,369
Balance paid by student	\$4,369

This approach avoids the pitfalls of state-regulated accountability programs, which tend to stifle innovation and increase costly administration, while helping foster a competitive, student-centered higher education marketplace.

Source: IPEDS, fiscal year 2003 data.

Notes:

1. All amounts are in unadjusted dollars and represent institutional sector per-student averages.
2. “Total cost” on each student bill is higher than the “Total Average Price” detailed in Table 4 because each student bill also includes the average per-student amount from “all other revenue,” in addition to tuition and fees revenue and state and local appropriations for current operating expenses.

sign performance contracts, as they must do under the Colorado Opportunity Fund program. Undergraduates are ultimately responsible for completing the academic programs they choose. If those programs do not meet their expectations, undergraduates are free to take their higher-education grants to another Arizona college or university, public or private. This approach avoids the pitfalls of state-regulated accountability programs, which tend to stifle innovation and increase costly administration, while helping foster a competitive, student-centered higher education marketplace. The current graduation rate among students attending private institutions who must sign promissory contracts to receive a

PFAP stipend is 86 percent, indicating that holding students accountable is an effective incentive for them to stay in school and finish their degrees in a timely manner.⁸⁵

Once students enroll at the college or university of their choice, they would receive a bill itemizing the total cost of their education. Figure 9 illustrates what a typical bill would look like for a four-year public university. Appendix A contains examples of student bills for public two-year institutions and private two- and four-year postsecondary institutions. The revenue categories detailed in Table 5 are represented on each of the student bills corresponding to the type of in-state institution

undergraduates choose. All figures are in current (unadjusted) dollar amounts and represent higher education sector averages.

Itemized higher-education bills would help make the actual cost of higher education more transparent to college-bound students and their families. They would also help students appreciate the significant investment they, their families, fellow citizens, and their chosen postsecondary institutions make toward their undergraduate education. Itemized higher-education bills would also give postsecondary institutions an opportunity to provide even more information about the investment they make on behalf of students' educations by detailing how much funding they contribute from their endowment income, private gifts, alumni gifts, and other revenue. Knowing up front about the investment undergraduates are expected to make, and the public is willing to make, on their behalf toward their education contributes to greater student accountability, especially since the proposed system of higher-education grants also makes clear to undergraduates that one consequence of not living up their responsibility is that they will have to pay back their higher-education grants dollar-for-dollar.

Arizona Family College Savings Program

One benefit of the proposed system of higher education student grants is that it makes higher education finance

simpler and more straightforward than the existing financial aid process, which requires students and their families to complete extensive applications. However, even with a higher-education grant, students and their families still must pay on average between \$1,000 and \$6,000 each year in tuition and fees, depending on what college or university they choose. Taking full advantage of Arizona's Family College Savings Program would help make higher education even more affordable to a greater number of Arizona families and their children.

The Arizona Family College Savings Program was established in 1996 as the state's qualified tuition program under Section 529 of the Internal Revenue Code, and it began accepting accounts in 1999.⁸⁶ A Section 529 plan gives tax benefits to families saving money for their child's college education, and earnings on those savings are tax free when used for qualified educational expenses.⁸⁷ Under Arizona's Family College Savings Program, designated beneficiaries are Arizona residents, and funds are exempt from state taxes when used to pay for the beneficiary's higher education expenses.⁸⁸ Contributions to an account are not tax deductible, but there are no gift-tax consequences as long as individual contributions up to \$55,000 (\$110,000 from couples) are treated as gifts made over a five-year period.⁸⁹

In 2004 and 2005, Morningstar, Inc. examined two of Arizona's four 529 plan providers and ranked them among

Taking full advantage of Arizona's Family College Savings Program would help make higher education even more affordable to a greater number of Arizona families and their children.

The Arizona Family College Savings Program could be an even more powerful savings vehicle if policymakers made the contributions of parents, family members, and college-bound students tax-deductible. Currently only investment returns enjoy protection from taxation.

the worst in the country for high commission fees, mutual funds with mediocre performance, and little flexibility for shareholders in making core investment selections.⁹⁰ In response, the Arizona Postsecondary Education Commission added providers that offer low fees and plans that do not require brokers and their associated fees.⁹¹ The legislature clarified the responsibilities of the commission and participating financial institutions by establishing the Family College Savings Plan Trust Fund and strengthening the commission's Oversight Committee by adding a certified adviser in financial planning, a CPA, and a certified attorney in trusts and estates.⁹² Moreover, the commission no longer has to follow a cumbersome state procurement process, which required it to wait for requests for proposals from investment providers. Now the commission can recruit the best providers.

From 1997 to November 2004, the number of Arizona Family College Savings Program accounts has grown an astounding 4,400 percent, from 327 accounts in 1999 to 14,715 accounts in 2004. In just seven years families have saved \$232 million in 44,145 accounts, and from 1999 through 2003, the Arizona Postsecondary Education Commission estimates the Arizona Family College Savings Program has helped 29,300 future college students.⁹³

The Arizona Family College Savings Program could be an even more powerful savings vehicle if policymakers made the contributions of parents, family members, and college-bound

students tax-deductible. Currently only investment returns enjoy protection from taxation. Allowing employers and businesses to make tax-deductible contributions as well would help even more students prepare financially for college. Enabling families and college-bound students to save and pay for their education themselves is a fair and reasonable policy that would help make higher education more cost-efficient and help the state direct limited public resources to students with the greatest financial need.

Conclusion

Enrollment at Arizona's three state universities is projected to increase from 115,000 to 185,000 students by 2020. According to past Arizona Board of Regents (ABOR) president Chris Herstam, "Arizona's current system for delivering higher education-through three public universities, community colleges, and a modest private college sector-is ill-suited to respond effectively to the exceptional growth in the number of both traditional and nontraditional prospective students in the near future, creating a demand likely to exceed every other state except Nevada."⁹⁴ In fact, ABOR admits that "neither the state nor its citizens can afford to sustain the desired growth within the inefficient delivery model that exists today."

The Arizona Constitution requires public postsecondary education in Arizona to be "as nearly free as possible." In light of this mandate, and given the increasing number of college-bound

students, it is imperative that the state make the delivery of higher education more cost-effective. To improve its higher education delivery system, Colorado implemented the country's first statewide student grant system in 2005. Instead of funding public postsecondary institutions through lump-sum state appropriations, Colorado directly funds undergraduates in the form of stipends, which they can use at any public or qualifying private postsecondary institution.

Arizona already has a similar program in place called the Arizona Private Postsecondary Education Student Financial Assistance Program (PFAP), which awards stipends on a first-come, first-served basis to financially needy Arizona community college graduates who enroll in a private baccalaureate degree program. The graduation rate of PFAP students is 86 percent, and since 1997 the program has helped more than 1,100 students and saved the state approximately \$8.1 million. By expanding PFAP, Arizona could readily adopt a statewide system of higher-education grants like Colorado's that redirects lump-sum state and local appropriations to resident undergraduates.

Giving grants directly to students would expand their education options and would help make the delivery of higher education in Arizona more efficient. Under such a system, students could use their higher-education grants at any postsecondary institution, public or private, giving institutions powerful incentives to keep costs and tuition

prices down or risk losing students to competitors. Beginning in 2006, the \$1.3 billion in lump-sum state and local appropriations to public postsecondary institutions for current operating expenses could instead fund full-time resident undergraduates directly in the form of grants, \$8,000 annually for students enrolled in four-year institutions, and \$5,000 annually for students enrolled at two-year institutions, public or private. Remaining intact would be the \$2.4 billion in annual revenue public institutions currently receive from tuition and fees; local, state, and federal grants for capital and special projects; private gifts and grants; and endowment revenue. The proposed system could provide higher-education grants for 100 percent of Arizona's estimated resident undergraduates enrolled in-state from 2006 to 2018, and would yield an average annual savings of \$768 million.

The primary advantage of a student grant system of higher education finance is that it would expand education opportunities for college-bound students, allowing them to determine which institution offers the best undergraduate degree program for them, while enabling the state to play a neutral role. Student grants would also help improve the efficiency of postsecondary institutions by making them compete for students in order to receive operations funding. Moreover, a student grant system would bring transparency to higher education finance, making it easier to hold inefficient institutions accountable.

A student grant system of higher education finance would expand education opportunities for college-bound students, allowing them to determine which institution offers the best undergraduate degree program for them, while enabling the state to play a neutral role.

Appendix A: Itemized Higher-education Bills by Arizona Postsecondary Institution Type

Cost of attending public 2-year institution	Amount	Cost of attending private for-profit 2-year institution	Amount
Total cost per full-time undergraduate	\$10,250	Total cost per full-time undergraduate	\$11,290
Capital and special projects paid to institution by: Local, state, and federal governments; private gifts and grants, institution endowment, sales, services	-\$2,243	Capital and special projects paid to institution by: Local, state, and federal governments; private gifts and grants, institution endowment, sales, services	-\$253
Current operating expenses	\$5,000	Tuition & fees (Includes current operating expenses)	\$11,037
Arizona higher-education grant	-\$5,000	Arizona higher-education grant	-\$5,000
Tuition	\$3,007	Balance paid by student:	\$5,784
Balance paid by student:	\$3,007		
Cost of attending private non-profit 4-year institution	Amount	Cost of attending private for-profit 4-year institution	Amount
Total cost per full-time undergraduate	\$14,380	Total cost per full-time undergraduate	\$14,116
Capital and special projects paid to institution by: Local, state, and federal governments; private gifts and grants, institution endowment, sales, services	-\$3,492	Capital and special projects paid to institution by: Local, state, and federal governments; private gifts and grants, institution endowment, sales, services	-\$1,699
Tuition and fees (includes current operating expenses)	\$10,438	Tuition and fees (includes current operating expenses)	\$12,417
Arizona higher education grant	-\$8,000	Arizona higher education grant	-\$8,000
Balance paid by student:	\$2,438	Balance paid by student:	\$4,417

Source: National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), Peer Analysis System, Data Cutting Tool, fiscal year 2003 data.

Notes:

1. All amounts are in unadjusted dollars and represent institutional sector per-student averages.
2. "Total cost" on each student bill is higher than the "Total Average Price" detailed in Table 4 because each student bill also includes the average per-student amount from "all other revenue," in addition to tuition and fees revenue and state and local appropriations for current operating expenses.

NOTES

1. "Higher Education," *Arizona Republic*, February 16, 2005; and Arizona Board of Regents (ABOR), "Redesigning Arizona's Public University System," Revised Redesign Proposal Based on Public Comment, April 14, 2005, 2-3.
2. Chris Herstam, "Exceptional growth mandates changes in colleges," *Arizona Republic*, March 6, 2005; cf. David Longanecker, "Financial Aid in Arizona," Arizona Board of Regents Feasibility and Planning Study Work Group PowerPoint presentation, February 23, 2004.
3. *Ibid.*; cf. Jennifer Amsler and Natasha Bhuyan, "UA to add College of Optical Sciences," *Arizona Daily Wildcat*, May 2, 2005.
4. Paul Davenport, "University study taking shape; college group critical," *Associated Press State & Local Wire*, June 22, 2004.
5. Arizona Board of Regents, "A Redesigned Public University System," September 29, 2005; cf. Arizona Board of Regents, "Redesigning Arizona's Public University System," Revised Redesign Proposal Based on Public Comment, April 14, 2005; and Amsler and Bhuyan, "UA to add College of Optical Sciences," *Arizona Daily Wildcat*, May 2, 2005.
6. ABOR, "Redesigning Arizona's Public University System," 2-3.
7. S.S. Ruppert, *Closing the College Participation Gap: A National Summary* (Denver: Education Commission of the States, Center for Community College Policy, 2003); Harold A. Hovey, *State Spending for Higher Education in the Next Decade: The Battle to Sustain Current Support* (San Jose: The National Center for Public Policy and Higher Education, 1999); Robert Zemsky, Gregory R. Wegner, and William F. Massy, "Today's Colleges Must Be Market Smart and Mission Centered," *Chronicle of Higher Education*, June 1, 2005; and Frank Newman and Lara K. Couturier, "Rhetoric, Reality, and Risks," *American Academic*, vol. 1, no. 1, June 2004.
8. Hovey, *State Spending for Higher Education*, 1999; Don Boyd, *State Spending for Higher Education in the Coming Decade*, The Nelson A. Rockefeller Institute of Government, Prepared for the National Center for Higher Education Management Systems, October 2002; and Dennis Jones, "State Shortfalls Projected throughout the Decade," in *Policy Alert* (San Jose: National Center for Public Policy and Higher Education, 2003).
9. ABOR, "Redesigning," 2-3.
10. *Ibid.*
11. ASU president Michael Crow also notes that compelling ASU to charge approximately \$3,500 for a \$12,000 education means "it will not rise to the level of world-class status...We can't ignore any revenue sources, including

the investment students make in their portion of the cost of higher education.” See “Tuition Hikes Necessary,” *USA Today*, September 16, 2004. On public institutions becoming more market-oriented, see, for example, Zemsky, et. al., 2005; Hovey, 1999; and Newman, et. al., 2004.

12. Chris Casacchia, “State Universities turn to private-sector funding,” *Phoenix Business Journal*, November 27, 2005.

13. ABOR, “Redesigning.”

14. Quoted in Annemarie Moody, “ABOR set to revamp universities,” *ASU Web Devil*, June 8, 2004. Longanecker’s remarks were made during the June 3, 2004, ABOR, special meeting in the Arizona Ballroom of the Memorial Union at Arizona State University in Tempe. Minutes http://www.abor.asu.edu/1_the_regents/meetings/minutes/jun2004_spec.html.

15. Herstam, “Exceptional growth”; cf. Longanecker, “Financial Aid in Arizona,” February 23, 2004.

16. From, 1995 to 2005, Arizona’s public universities graduated 170,157 bachelor’s degree students. See ABOR, “A Redesigned Public University System,” 13.

17. “Arizona currently graduates only 48 percent of its college students in six years, one of the lowest rates in the country.” See Michael Arnone, “Plan sparks fierce debate,” *Chronicle of Higher*

Education, October 8, 2004.

18. HB 2079, “higher education; funding; reform,” was introduced in March 2005 and would allow community college districts to offer four-year baccalaureate degrees beginning in FY 2006-07. Degrees would have been limited to workforce-related fields “that a university under the ABOR does not award a four-year degree and that matches an existing associate of applied science degree,” as well as baccalaureate degrees in law enforcement services, fire services, health professions, and teacher education.

19. In 2005 annual state general fund expenditures for Arizona’s 10 community colleges exceeded \$800 million, which is a nine percent increase from 2004. Community college districts also have taxing authority, unlike public universities. The budgets they adopted in 2005 include over \$450 million in primary property tax levies, more than seven percent from 2004. See Michael Hunter, “Comm College Adopted Budgets Up 9.7 percent,” *Arizona Tax Research Association Newsletter*, vol. 65, no. 6, August 2005. As of 2003, an average of only 23 percent of Arizona community college students who began their two-year degree programs in 2000 had finished, according to National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), Peer Analysis System, Data Cutting Tool data for first-time, full-time degree or certificate-seeking student cohorts. Unless

otherwise indicated, fall 2003 enrollment data and fiscal year 2003 financial data are used in this analysis.

20. Arizona Constitution, art. 11, sec. 6. However, neither the Arizona Constitution, nor the Arizona Supreme Court dictates how to determine whether tuition is “as nearly free as possible.” In a May 11, 1999, determination, the Arizona attorney general concluded: “The Legislature has provided the ABOR with discretion to set university tuition rates taking into account existing programs, the legislatively approved budget, and sources of revenue. Without more specific legislative guidance, the ABOR has broad responsibility to establish the educational mission for Arizona’s universities, approve the costs of the programs, and set tuition based on these considerations, as long as the tuition is not unreasonable or excessive.” Moreover, “One of the circumstances that the ABOR may consider when determining whether tuition is unreasonable are the tuition and fees at other public universities, although this factor may not be the sole basis for raising tuition.” See Attorney General Opinion (No. I99-011), <http://www.azag.gov/opinions/1999/I99-011.html>. Since 1998, ABOR has interpreted this constitutional mandate to mean tuition charged by Arizona public universities should be among bottom third of tuition charged by public universities nationwide. However, ABOR has no constitutional or statutory authority to raise tuition to levels charged by other public universities. See Attorney General

Opinion (No. I99-011), May 11, 1999, <http://www.azag.gov/opinions/1999/I99-011.html>.

21. Estimates based on 2003 IPEDS financial data, and represent averages for Arizona public two- and four-year institutions.

22. April L. Osborn, *Arizona Commission for Postsecondary Education 2003 Annual Report*, December 29, 2003, p. 24.

23. *Ibid.*, *2005 Annual Report*, December 28, 2005. Due to budget cuts in 2003, in 2004 average grant amounts were reduced to \$1,000; cf. A.R.S. 15-1854; and Justin Narducci and Dawn Nazary, *Fiscal Year 2006 JLBC Budget*, January 2005. As of July 1, 2000, students’ financial need is the cost of college attendance less anticipated family contribution according to their Free Application for Federal Student Aid (FAFSA) form. See Arizona Private Postsecondary Education Student Financial Assistance Program (PFAP), 2002-2003 Fact Sheet, updated July 16, 2005.

24. Richard F. O’Donnell, *The College Opportunity Fund: Background and History*, Colorado Commission on Higher Education, n.d., <http://www.state.co.us/cche/cof/history.pdf>; cf. College Opportunity Fund Act (C.R.S. § 23-18-101 - 23-18-207).

25. According to the Arizona Department of Education, average daily membership (ADM) increased from

703,997.027 in 1993 to 859,022.610 in 1994. For state population percentage increase, see U.S. Census Bureau, <http://www.census.gov>.

26. Janet Napolitano, "It's time for state to move forward," *Arizona Republic*, August 7, 2005.

27. Herstam, "Exceptional growth"; cf. Longanecker, "Financial Aid in Arizona," 2004.

28. Western Interstate Commission for Higher Education (WICHE) enrollment projections exclude for-profit institutions. See notes to Table 14, "Numbers of Recent High School Graduates and First-Time Freshmen, 1991-92, 1994-95, 1996-97, 1998-99, 2000-01, 2002-03," December 2004, <http://www.wiche.edu/Policy/FactBook/list.asp?issue=3.;> and Tom T. Rex, *Higher Education Enrollment and Finance in Arizona Compared to All States*, Center for Business Research, L. William Sideman Institute, W. P. Carey School of Business, Arizona State University, October 2005, p. 2.

29. National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), Peer Analysis System, Data Cutting Tool.

30. Thomas Bailey, Norena Badway, and Patricia Gumpert, "For-Profit Higher Education and Community Colleges," National Center for Postsecondary Improvement, Stanford University, 2001; cf. Bailey, et al., "Sizing Up the Competition: The

Contours of For-Profit Higher Education," *Change*, Nov/Dec, 2001; K.F. Kelly, "Meeting needs and making profits: The rise of for-profit degree-granting institutions," Education Commission of the States (ECS) Issue Paper, 2001, <http://www.ecs.org/clearinghouse/27/33/2733.htm>; Newman and Couturier, 2004; Newman and Couturier, "The New Competitive Arena: Market Forces Invade the Academy," *Change*, September/October 2001; Mario C. Martinez, "Meeting the Challenges of Population Growth and the Future Demand for Postsecondary Education," ECS, August 2004; Ruppert, 2003; Tunde Brimah, "Literature Review: For-Profit Degree-Granting Institutions within Higher Education," ECS, November 1999. See also several recent related articles, including: Bailey, 2005; Dan Carnevale, "Online Courses Continue to Grow, Report Says," *Chronicle of Higher Education*, July 8, 2005; Jeffrey Selingo, "U. of Phoenix Owes Rapid Growth to Use of Technology, Its President Says," *Chronicle of Higher Education*, June 17, 2005; G. Blumenstyk, "How for-profit institutions chase community college students," *Chronicle of Higher Education*, December 8, 2000; Selingo, "For-profit colleges aim to take a share of state financial-aid funds," *Chronicle of Higher Education*, September 24, 1999; and K. Strosnider, "For-profit higher education sees booming enrollments and revenues," *Chronicle of Higher Education*, January 23, 1998.

31. James E Rosenbaum and Jennifer L. Stephan, "College Degree

- Completion: Institutional Effects and Student Degree Likelihood,” unpublished paper presented at the Annual Meeting of the American Sociological Association, in Philadelphia, PA, at the Philadelphia Marriott Hotel, Saturday, August 13, 2005, sent to author via email by Jennifer Stephan on August 22, 2005. See p. 14; cf. David Glenn, “Poorly Prepared Students Fare Better at Private Colleges, Study Finds,” *Chronicle of Higher Education*, August 15, 2005; Regina Diehl-Amen and James E. Rosenbaum, “The Social Prerequisites of Success: Can College Structure Reduce the Need for Social Know-How?” *Annals of the American Academy of Political and Social Science* 586: 120-143; and Ann E. Person and James Rosenbaum, “Educational Outcomes of Job Contacts and Placement Services for Students at Public and Proprietary Two-Year Colleges,” unpublished paper presented at the Annual Meeting of the American Sociological Association, in Philadelphia, PA, at the Philadelphia Marriott Hotel, Saturday, August 16, 2005. The author is also grateful to Jennifer Stephan for providing a draft copy of the Person and Rosenbaum draft via email on August 22, 2005.
32. Bailey, 2005, p. 5, http://www.findarticles.com/p/articles/mi_qa4011/is_200504/ai_n13634255. (Page number corresponds to online version).
33. WICHE enrollment projections exclude for-profit institutions. See notes to Table 14, “Numbers of Recent High School Graduates and First-Time Freshmen, 1991-92, 1994-95, 1996-97, 1998-99, 2000-01, 2002-03,” December 2004, <http://www.wiche.edu/Policy/FactBook/list.asp?issue=3>. For this reason, IPEDS data were used.
34. WICHE, “Public High School Graduates: Percent of Graduates by Race/Ethnicity and State, 2002 (Actual) and 2012 (Projected)” Table 13, December 2004, <http://www.wiche.edu/Policy/FactBook/list.asp?issue=3>. Figures represent public high school graduates only. WICHE classifies minority students as American Indian/Alaska Native, Asian/Pacific Islander, Black, non-Hispanic, and Hispanic.
35. U.S. Census Bureau 2000 national and Arizona educational attainment data.
36. From 1995 to 2005, Arizona’s public universities graduated 170,157 bachelor’s degree students. See ABOR, “A Redesigned Public University System,” September 29, 2005, p. 13.
37. IPEDS. Excluded from the calculation are 29 private, less-than-two-year institutions and three public, less-than-two-year institutions. The graduation rate for public and private four-year institutions is based on 1997 full-time student cohorts. The graduation rate for public and private two-year institutions is based on 2000 full-time student cohorts. Graduation rates include only first-time, full-time degree or certificate-seeking students. The “on-time” graduation rate for students in four-year institutions is four

years and two years for students in two-year institutions.

38. IPEDS. The graduation rate for public four-year institutions is 53 percent, based on 1997 full-time student cohorts. The graduation rate for public two-year institutions is 23 percent, based on 2000 full-time student cohorts.

39. Michael Arnone, “Plan sparks fierce debate,” *Chronicle of Higher Education*, October 8, 2004.

40. The number of high school graduates in 1988, 31,130, represents public school students only. See WICHE, *Knocking at the College Door: Projections of High School Graduates by State and Race/Ethnicity, 1988 to 2018*, 2003. Arizona’s state profile is available online at <http://www.wiche.edu/policy/knocking/1988-2018/profiles/az.pdf>. The 52,000 and 80,000 figures include both public and non-public students. See WICHE, “Actual and Projected Number of High School Graduates, 1991 to 2018,” Table 12, December 2004, <http://www.wiche.edu/Policy/FactBook/list.asp?issue=3>.

41. Author’s calculations based on WICHE, “Numbers of Recent High School Graduates and First-Time Freshmen, 1991-92, 1994-95, 1996-97, 1998-99, 2000-01, 2002-03,” Table 14, December 2004, <http://www.wiche.edu/Policy/FactBook/list.asp?issue=3>. WICHE figures exclude Arizona’s for-profit institutions, so those enrollment figures were obtained through IPEDS.

42. IPEDS.

43. Funding for community colleges is based on actual audited full-time equivalent student enrollment (FTSE) count two years prior to the year of funding. Annual reports are available through the Arizona Office of the Auditor General.

44. IPEDS defines state and local appropriations in the following way: “State appropriations are amounts received by the institution through acts of a state legislative body, except grants and contracts and capital appropriations. Funds reported in this category are for meeting current operating expenses, not for specific projects or programs...Local appropriations are government appropriations made by a governmental entity below the state level. Education district taxes include all tax revenues assessed directly by an institution or on behalf of an institution when the institution will receive the exact amount collected. These revenues also include similar revenues that result from actions of local governments or citizens (such as through a referendum) that result in receipt by the institution of revenues based on collections of other taxes or resources (sales taxes, gambling taxes, etc.)”

45. Author’s calculations based on enrollment projection data from WICHE and NCES, *Enrollment in Postsecondary Institutions, Fall 2002 and Financial Statistics, Fiscal Year 2002*, Tables, 9, 10, 15, and 16.

Appropriations projections are author's calculations, adjusted at a two percent annual rate of inflation, based on fiscal year 2003 IPEDS data. The average annual inflation based on 1994-2004 annual historical inflation rate data is 2.47 percent, available online at http://inflationdata.com/Inflation/Inflation_Rate/HistoricalInflation.aspx. However, the fiscal year JLBC and Executive Budgets use a more conservative two percent inflation rate. See "Department of Education: JLBC-Executive Comparison" in *Comparison of FY 2005 JLBC and Executive Budgets*, <http://www.azleg.state.az.us/jlbc/05book2/05toc2.pdf>.

46. Of those graduates, approximately 41 percent enrolled full-time at a community college, and another 40 percent enrolled full-time at a state university.

47. Author's high school graduation projections and enrollment patterns based on WICHE, "Numbers of Recent High School Graduates and First-Time Freshmen, 1991-92, 1994-95, 1996-97, 1998-99, 2000-01, 2002-03," Table 14, December 2004, <http://www.wiche.edu/Policy/FactBook/list.asp?issue=3>. Enrollment figures for 2006 include 10,764 undergraduates classified by IPEDS as first-time, full-time degree-seeking Arizona residents enrolled at a four-year public institution in the fall of 2003. The projection assumes all those students would still be enrolled as seniors in the fall of 2006.

48. These appropriations projections

are based on an average number of Arizona high school students who will likely stay in-state to attend college full-time the fall after graduation, which is approximately 48 percent of all Arizona high school graduates. Author's calculations based on WICHE, "Numbers of Recent High School Graduates and First-Time Freshmen, 1991-92, 1994-95, 1996-97, 1998-99, 2000-01, 2002-03," Table 14, December 2004, <http://www.wiche.edu/Policy/FactBook/list.asp?issue=3>. Appropriations projections are author's calculations, adjusted at a two percent annual rate of inflation, based on IPEDS fiscal year 2003. Figures represent full-time enrollment only. These projections do not include state and local grant aid to state university and community college students, which amounted to \$8,015,803 in fiscal year 2003, according to IPEDS.

49. Appropriations projections are author's calculations, adjusted at a two percent annual rate of inflation, based on IPEDS fiscal year 2003 data. Figures represent full-time enrollment only.

50. IPEDS.

51. IPEDS, fiscal year 2003 unadjusted dollar amounts. For current tuition and fees schedules at state universities, see the Arizona Board of Regents, "Arizona University System 2005-2006 Tuition and Mandatory Fees: Undergraduate," http://www.abor.asu.edu/1_the_regents/reports_factbook/fb_files/2005-06Tuition_UG.pdf. Arizona's three universities proposed

tuition increases of 3.6 percent at Northern Arizona University, 4.6 percent at the University of Arizona, and 8.5 percent at Arizona State University's Tempe campus. See Mike Cronin, "ASU, UA, and NAU Seek Increases in Tuition," *Arizona Republic*, January 31, 2006.

52. ABOR, "A Redesigned Public University System" September 29, 2005.

53. Quoted in Moody, June 8, 2004.

54. Richard K. Vedder, *Going Broke By Degree: Why College Costs Too Much* (Washington, D.C.: AEI Press, 2004): 59.

55. Vedder finds it takes less than half as many workers to educate 100 students in two-year, non-research institutions, and 89 percent of that differential pertains to the number of non-faculty staff. At four-year research institutions faculty have lighter teaching loads, meaning students are distributed among fewer, larger classes. Vedder concludes that nearly all of the personnel differential between two- and four-year institutions pertains to non-instructional factors, "presumably largely, though not wholly, research." See *Going Broke By Degree*, pp. 46-50, and 156.

56. *Ibid.*, 11.

57. *Ibid.*, 44 and 81. See also, Vedder, "Why Does College Cost So Much?" *Wall Street Journal*, August 23, 2005.

58. Milton Friedman, "The Role of Government in Education," *Economics and the Public Interest*, Robert A. Solo, ed. (New Brunswick: Rutgers University Press, 1955): 123-144. Quotation from p. 134. See also, *Capitalism and Freedom* (Chicago: University of Chicago Press, 1962): 99-100.

59. *Ibid.*

60. See "FIRE [Foundation for Individual Rights in Education] Letter to Arizona State University President Michael Crow," September 23, 2005, <http://www.thefire.org/index.php/article/6305.html>.

61. FIRE, "Arizona State Disavows Racial Segregation in English Classes, Claim that Classes Were Never Segregated Doesn't Match Evidence," October 10, 2005, <http://www.thefire.org/index.php/article/6327.html>; cf. "FIRE Letter to Arizona State University President Michael Crow," September 23, 2005, <http://www.thefire.org/index.php/article/6305.html>; "Letter from Arizona State University Provost Milton D. Glick to FIRE," September 29, 2005. According to FIRE, "Although this letter is dated September 29, 2005, it was not postmarked until October 3, 2005, and was not received by FIRE until October 6, 2005," <http://www.thefire.org/index.php/article/6313.html>; FIRE, "Arizona State University: Racial Restrictions on Class Enrollment (2005): Case Materials," <http://www.thefire.org/index.php/case/687.html>. See also, Jacob Gershman, "Charge of Bias Erupts over a Course at Arizona

State,” *New York Sun*, October 7, 2005; Beth DeFlaco, “ASU Denies Restricted to American Indians,” *Associated Press State & Local Wire*, October 5, 2005; and Mark Goldblatt, “Arizona Segregation,” *National Review Online*, October 27, 2005. See also FIRE’s main website at <http://www.thefire.org/index.php/states/AZ>.

62. Kevin J. McCarthy, Arizona Tax Research Association, August 17, 2005, letter to Sen. Robert Burns, et. al.

63. Nobel economist Milton Friedman first suggested this idea in his 1955 article, “The Role of Government in Education,” which he subsequently published in *Capitalism and Freedom* five years later.; Milton Friedman, “The Role of Government in Education,” 123-144. Friedman notes that since 1960 he has become more aware of the negative effects (also known as negative externalities) of government subsidies for higher education. Friedman does believe higher education is a public good because a well-educated electorate makes better political decisions. However, he writes, “I am much more dubious than I was when I wrote *Capitalism and Freedom* that there is any justification at all for government subsidy of higher education. The spread of PC [political correctness] right now would seem to be a very strong negative externality.” In fact, Friedman wonders whether “higher education should be taxed to offset its negative externalities.” See Vedder, *Going Broke by Degree*, 127.

64. Ben Jongbloed and Jos Koelman,

“Vouchers for Higher Education? A Survey of the Literature,” commissioned by the Hong Kong University Grants Committee,” June 2000, p. 14, http://www.ugc.edu.hk/eng/ugc/publication/other/2000/voucher_report.htm. See Alan T. Peacock and Jack Wiseman, “Education for Democrats,” *A Study of the Financing of Education in a Free Society*, Hobart Paper 25, Institute of Economic Affairs, 1964; Christopher Jencks, “Education Vouchers: A Report on the Financing of Elementary by Grants to Parents,” prepared by the Center for the Study of Public Policy, December 1970; cf. “Education Vouchers: A Proposal for Diversity and Choice,” *Teachers College Record*, vol. 72, no. 3, 1971. Levin proposes a mixed system of grants and loans, which he refers to as “entitlements.” See “Individual Entitlements” in H.M. Levin and H.G. Schutze, eds., *Financing Recurrent Education* (Beverly Hills: Sage, 1983); cf. Hessel Oosterbeek, “Innovative Ways to Finance Education and Their Relation to Lifelong Learning,” *Education Economics*, vol. 6, no. 3, 1998; Levin, “The failure of the public school and the free market remedy,” *Urban Review*, vol. 2, no. 7, 1968. Levin is also an economist at Columbia University’s Teachers College, and the director of the Center for the Study of Privatization, also at Columbia University. See also, E.G. West, *Education and the State: A Study in Political Economy* (London: Institute of Economic Affairs, 1965); Mark Blaug, “Economic Aspects of Vouchers for Education (Mark Blaug vs. E.G. West: Readings in Political Economy 1)” in

Education: A Framework for Choice: Papers on Historical, Economic, and Administrative Aspects of Choice in Education and its Finance (London: Institute of Economic Affairs, 1967), <http://www.ncl.ac.uk/egwest/pdfs/Blaug%20vs%20West.pdf>.

65. Jongbloed and Koelman, “Vouchers for Higher Education?” 2000.

66. Levin, “The failure of the public school,” 1968.

67. O’Donnell, *College Opportunity Fund: Background and History*, n.d.

68. *Ibid.* For information on the G.I. Bill, Pell Grants, and the Hope Scholarship Credit, see “Federal Programs for Education and Related Activities,” ch. 4 in Snyder, T.D., Tan, A.G., and Hoffman, C.M. (2004), *Digest of Education Statistics 2003*, (NCES 2005-025). U.S. Department of Education, National Center for Education Statistics. Washington, D.C.: Government Printing Office.

69. O’Donnell, *College Opportunity Fund: Background and History*, n.d.; cf. 99th Colorado General Assembly, 2nd Regular Sessions, Senate Bill 189, 1999, 15.

70. *Ibid.*, 11.

71. It was originally called the Arizona Postsecondary Education Voucher Program. Gov. Jane D. Hull signed HB 2193 on May 29, 1998, renaming it the

Arizona Private Postsecondary Education Student Financial Assistance Program (PFAP). See Betsy Bayless, “Notices of Proposed Rulemaking,” *Arizona Administrative Register*, vol. 5, no. 17, April 23, 1999.

72. Osborn, 2003 *Annual Report*, 24; cf. A.R.S. 15-1854.

73. Osborn, 2004 *Annual Report*, December 28, 2004; cf. A.R.S. 15-1852 and Arizona Administrative Code rules R7-3-401 through R7-3-405. See also Osborn, 2003 *Annual Report*, 24, and *Investing in Arizona’s Future: College Access, Affordability, and the Impact of Investment in Need-Based Financial Aid*, Institute for Higher Education Policy, Washington, D.C., and Latina/o Policy Research Initiative, University of Arizona, March 2005, 14. See also the Arizona Commission for Postsecondary Education website for further details about the Private Postsecondary Education Student Financial Assistance Program (PFAP) program: http://www.azhighered.org/acpe_default.aspx?pageid=30.

74. “If a participant is not in full-time attendance for twelve (12) consecutive months, the unused portion of the total lifetime award of \$3,000 will NOT be available to the participant, and shall become available to other eligible students.” See Arizona Private Postsecondary Education Student Financial Assistance Program, 2002-2003 Fact Sheet, updated July 16, 2005.

75. Osborn, 2005 *Annual Report*, 6.

76. Osborn, 2003 *Annual Report*, 29.
77. Funding for the PFAP program has increased overall from \$39,000 in fiscal year 1997 to \$170,500 in fiscal year 2004. Figures represent current dollar amounts. Fiscal year 1997 figure from *Investing in Arizona's Future*, March 2005, p. 14. Figures from fiscal years 2000 through 2004 from the Commission on Postsecondary Education, Fiscal Year Appropriations Reports and JLBC budget reports. See Steve Grunig, *Fiscal Year 2002 and 2003 Appropriations Report*, Joint Legislative Budget Committee; Jill Young and Dawn Nazary, *Fiscal Year 2004 and 2005 Appropriations Report*, Joint Legislative Budget Committee; Bethany Nicholas and Dawn Nazary, *Fiscal Year 2005 JLBC Budget*, Joint Legislative Budget Committee; Justin Narducci and Dawn Nazary, *Fiscal Year 2006 JLBC Budget*, Joint Legislative Budget Committee. According to Osborn, "In response to the limited funding, a pilot program has been instituted. This pilot program limits the maximum grant to \$1,000 and requires reapplication for a second year grant. These changes are being tested in order to make grants available to more students to meet the original intent of the PFAP program." However, "By statute (ARS 15-1852) and Arizona Administrative Code rules (R7-3-401 through R7-3-405), the PFAP program provides up to \$1,500 per fiscal year to eligible Arizona community college graduates (i.e., Associate Degrees) who prove financial need and who enroll as a full-time student in a baccalaureate degree program at an accredited, baccalaureate degree-granting private postsecondary educational institution in Arizona." See 2004 *Annual Report*, 4, and 2005 *Annual Report*, 6.
78. Osborn, 2003 *Annual Report*, 24 and 34.
79. For more detailed information about IPEDS, see "About IPEDS" on its website at <http://nces.ed.gov/ipeds/AboutIpedS.asp>
80. According to IPEDS, "State appropriations are amounts received by the institution through acts of a state legislative body, except grants and contracts and capital appropriations. Funds reported in this category are for meeting current operating expenses, not for specific projects or programs. Local appropriations, education district taxes, and similar support—Local appropriations are government appropriations made by a governmental entity below the state level. Education district taxes include all tax revenues assessed directly by an institution or on behalf of an institution when the institution will receive the exact amount collected. These revenues also include similar revenues that result from actions of local governments or citizens (such as through a referendum) that result in receipt by the institution of revenues based on collections of other taxes or resources (sales taxes, gambling taxes, etc.)." For more details, see "Current funds expenditures and transfers," in the IPEDS glossary online at <http://nces.ed.gov/ipeds/glossary/index.asp?charindex=C>.

81. IPEDS defines local appropriations in the following way: “Local appropriations are government appropriations made by a governmental entity below the state level. Education district taxes include all tax revenues assessed directly by an institution or on behalf of an institution when the institution will receive the exact amount collected. These revenues also include similar revenues that result from actions of local governments or citizens (such as through a referendum) that result in receipt by the institution of revenues based on collections of other taxes or resources (sales taxes, gambling taxes, etc.)”

82. Bethany Nicholas and Dawn Nazary, *Fiscal Year 2005 JLBC Budget*, Joint Legislative Budget Committee.

83. See, for example, Vicki Murray, *The Privately-Financed Public University: A Case Study of the University of Michigan—Ann Arbor*, Goldwater Institute, policy report no. 206, November 1, 2005.

84. Vedder recommends a similar system in “An Alternative Scenario: Systemic Reform,” ch. 10 of *Going Broke by Degree*, 192-211.

85. Osborn, *2005 Annual Report*, 6.

86. Osborn, *2004 Annual Report*, 6.

87. According to Osborn, “Qualified expenses include tuition, supplies, equipment, books, room, and board at any accredited public or private

college/university, community college, proprietary or vocational/ career/ technical postsecondary educational institution in the United States.” See *2004 Annual Report*, 6.

88. H.B. 2593, Family College Savings Program, signed into law June 3, 2004.

89. See p. 5 of “Agency Response” in Douglas R. Norton, *Commission for Postsecondary Education, Performance Audit by the State of Arizona Office of the Auditor General*, November 1997.

90. Russ Wiles, “Arizona Fund Ranks Lowest,” *Arizona Republic*, February 9, 2005. According to Rooney, chairman of the Arizona Commission for Postsecondary Education, ranking plans according to the lowest fees is biased against most equity investments, particularly small or foreign companies. Moreover, Morningstar did not report that other state governments impose annual management fees averaging \$25 per year. Some states collect annual investment management fees as high as \$50 per year. See Michael Rooney, “My View: Arizona’s family college-savings plan among best,” *Phoenix Business Journal*, May 3, 2005.

91. Howard Isenstein, “As College Plans Proliferate, It Pays to Shop Around,” *New York Times*, June 20, 2004; cf. Rooney, May 3, 2005. Arizona’s 529 Family College Savings plan also offers certificates of deposit. See Russ Wiles, “Fidelity to Offer Funds for College,” *Arizona Republic*, February

12, 2005.

92. Rooney, May 3, 2005; cf. A.R.S. 15-1873. According to Osborn, “An Oversight Committee comprised of 10 members is responsible for review of the program rules, statute language revisions, and selection and oversight of financial providers for the AFCSP. The Oversight Committee makes recommendations to the Arizona Commission for Postsecondary Education for the management of the AFCSP. In the 2004 legislative session a revision of the membership of the AFCSP Oversight Committee was undertaken and members with specific credentials were named including a certified financial planner, a certified public accountant, and an attorney certified in estates and trusts.” See *2004 Annual Report*, 6-7.

93. Osborn, *2004 Annual Report*, pp. 6 and 8.

94. Herstam, “Exceptional growth mandates changes in colleges,” *Arizona Republic*, March 6, 2005; cf. Longanecker, “Financial Aid in Arizona,” 2004.

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