The University of Arizona

A Trend Analysis of Student Educational Expenditures in the 1990s

Introduction

The 1990s was the most prosperous decade in Arizona history. Unfortunately, our state universities did not share in this unprecedented economic prosperity. During the decade, other states used their economic good fortune to increase public funding of higher education, leaving Arizona universities lagging further behind financially. With education as the single biggest determinant of future economic conditions in the new, knowledge-based economy, this chronic underfunding has serious long-term implications for the economic health of our state. In times of economic downturn as we face today, underfunding over the last decade places our universities in an extremely difficult position. The per-student educational expenditures at The University of Arizona (UA) and its peer institutions are compared to illustrate the severity of the historical underfunding problem.

Method

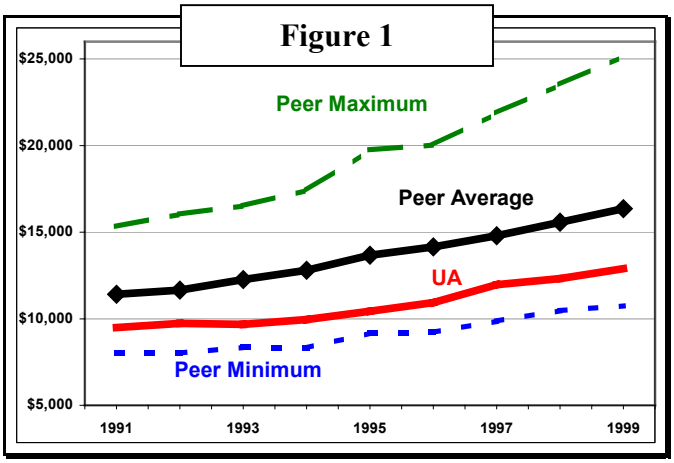
This study used the Integrated Postsecondary Education Data System (IPEDS) Finance Survey data to derive Educational Expenditures per Student Full-Time Equivalent (FTE). Educational Expenditures is comprised of Total Instruction, Academic Support, Institutional Support, and Student Services, the same definition used by *U.S. News & World Report*. Student FTE numbers are derived by the standard formula of all full-time students plus one-third of all part-time students. An average measure of expenditures per FTE comes from dividing Total Educational Expenditures by student FTE. This measure is used over time to compare the 15 ABOR peer institutions to the UA.

Because of the much higher per-student costs of operating a medical school shown in the IPEDS finance data, in Figure 3, medical school costs are computed and backed out statistically so valid cost comparisons can be made among universities.

Expenditures rather than revenues are used as the comparator because the accounting practices and business rules for expenditures exhibit more consistency among states and universities in how they are reported to IPEDS.

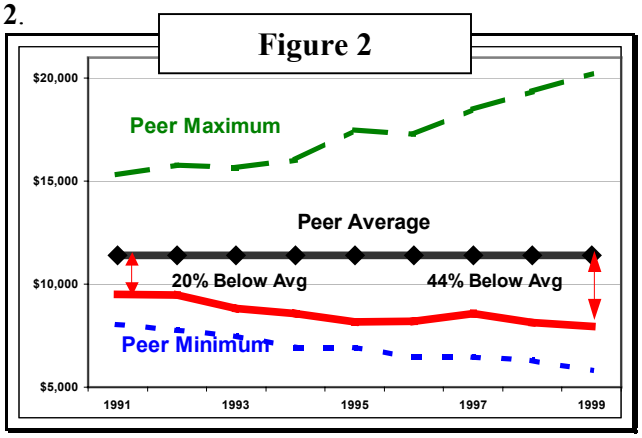
Results

Figure 1 shows the Average Educational Expenditure per FTE over the last decade in current dollars.



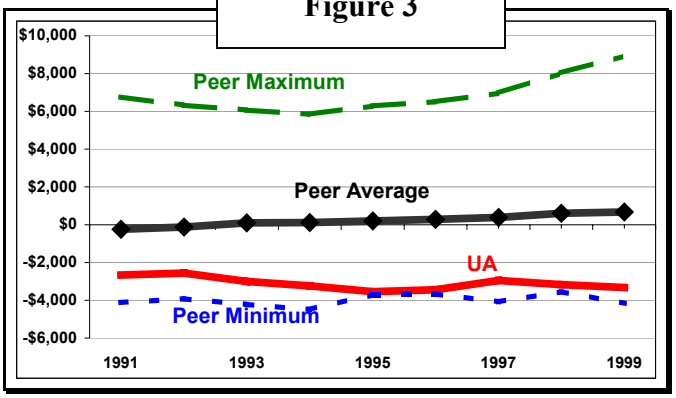
- In 1991, the UA lagged behind its peers by $1,900 per FTE, translating into an annual underfunding of $55 million. By 1999, this had grown to $3,400 per FTE, or over $100 million per year.
- Over the decade, the UA dropped from 11th to 13th among its 15 peers.

In the 1990s, the UA expenditures per FTE increased on average by $420 per year. This represents an annual growth rate of about 4%, which by itself suggests a favorable environment. But, peer expenditures grew by an average of $620 per year. As a result, the UA fell short of the rising costs in higher education by an average of $200 per student each year. The growing gap between the UA and its peer average is shown in **Figure 2**.



When we account for the higher cost of running a medical school in **Figure 3**, the underfunding situation becomes worse.

Figure 3



- In the early 1990s, the UA's expenditure deficit ranked 12th in its peer group.
- By the mid-90s, it slipped to last and ended the decade 14th.
- Within this time span, the deficit grew from $2,400 per student to well over $4,000.
- The corresponding annual funding deficit grew from $70 to $115 million.

The implications are devastating and getting worse. The salary level of faculty and staff is lagging behind the market by 8%. Faculty are leaving the university for better financial opportunities elsewhere. It is estimated that $42 million would restore UA salaries to the market average. But this amount accounts for only 35% of the spending deficit, suggesting that non-salary operations are also seriously underfunded.

With faculty leaving the university for higher external offers, hiring costs for new faculty at prevailing market rates have increased, putting additional strain on an already stressed budget. Moreover, the number of faculty losses is jeopardizing the quality of the institution. Arizona will suffer from the lost opportunities of new technologies and a declining ability to attract businesses with high paying jobs to the state.

What has the UA been doing to offset state underfunding? Over the last decade, the UA has achieved outstanding results tapping non-state revenue sources. In 1998, the UA ranked 19th in the nation in garnering research grants and contracts. In contrast, The University of Missouri, the best funded peer institution, ranked 58th. For the UA's research program to continue as a major engine of state economic growth, creating new technologies and providing quality employment opportunities, faculty quality must be first rate. But, quality scholars come only at a price determined by a competitive international job market, while the UA's ability to compete financially is clearly declining.

The accelerated upward trend in educational expenditures is caused by factors beyond the control of any single institution. A hot job market for intellectual talent in both the public and private sectors resulted in serious employment shortages. Faculty salaries increased and attracted a significant number of professors away from the UA. The information revolution also created additional costs for telecommunication and computing hardware and software. Top-tier universities cannot do without well-equipped computer labs and staff to operate and maintain them; to be competitive, the market requires that students have information-technology skills to succeed.

The spending increases observed each year at the UA may have given an illusion of financial improvement. In reality, the long-term financial prospects were seriously undermined with an average shortfall from the peer group's growing expenditures of $200 per FTE annually. This suggests that the long-term financial recovery plan should include at least two components. The first priority is to keep up with the peer group expenditure growth rate to prevent the gap from growing larger. Then, the structural problem of closing the financial gap with peers should be addressed.

Looking at all 16 institutions reveals 2 expenditure groups, with an affluent group of institutions well above the peer group average and an underfunded group below the average [see full study]. Better-than-average funded universities not only sustained elevated expenditure levels throughout the decade, but also increased their expenditures at a significantly higher rate than universities near the bottom. None of the initially underfunded institutions was able to improve to above average. Conversely, all the better-funded schools were able to stay above average throughout the decade.

These facts suggest a clear difference in state policy priorities between the two groups. The UA will not be able to financially sustain itself with the current combination of insufficient state appropriations and a mandated statewide policy of low tuition. It follows that the state of Arizona will need a fundamental change in priorities to move out of the group of poorly funded universities.

Examples of peer success in the 1990s were based on state policies of sustained and gradual funding increases

over time. Sharp expenditure increases in a particular year or two-year span were always followed by a sharp decline. This suggests that the path to a robust financial recovery is through sustained, rather than one-time, funding efforts.

Conclusion

Other states have taken advantage of the unprecedented economic prosperity of the 1990s to strengthen the financial health of their universities, a step not taken in Arizona that compounded the UA's comparative financial disadvantage over time.

With universities becoming increasingly more pivotal to states' competitiveness in the new, knowledge-based economy, the analysis suggests that a tremendous effort is needed for the state to successfully overcome the history of higher education underfunding. This may require a paradigm shift in Arizona to move the UA and our other state universities up onto equal financial footing with their peers.

In the short run, with an economic downturn characterized by budget rescissions in Arizona, staying in its peer group is going to be a major challenge for the UA. If the gap between the UA and the last institution in its peer group in 1998 were to stay the same, a budget cut of more than $11 million would drop the UA out of its peer group. The current budgetary shortfall cannot be overlooked, but ultimately, a long-term transition to a sustained financial recovery is needed to position the state competitively in the knowledge-based economy.

The university has been more than pulling its weight in tapping non-state revenue sources. The UA is an outstanding performer in research and development efforts as measured by research grant and contract dollars, while the state is chronically underfunding the institution. Unfortunately, the net result of combining outstanding research grant and contract production with chronic state underfunding has not been able to keep the university from falling further behind; superior research funding cannot make up for the magnitude of the growing state funding shortfall. The gulf between the outstanding results of external research funding and low student funding needs to be addressed. But, the limitations of the UA's ability to independently manage these persistent financial problems reveal its vulnerability. A more favorable financial response from state policy makers is needed to maintain the quality of an outstanding student-centered research university that is a major economic engine in the state. ♦