

### **Evidence Document**

for Higher Learning Commission Reaccreditation

Document Title: Picking Up the Pace

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#### **Document Summary:**

The future of Arkansas is linked to the future of the University of Arkansas. For Arkansas to be competitive in the 21<sup>st</sup> Century, the university must become a nationally competitive research university. This document outlines the university's progress since the release of the *MAKING THE CASE* report in 2001.

### 2010 COMMISSION



# PICKING UP THE PACE



Α

**REPORT BY** 

THE UNIVERSITY OF ARKANSAS

2010 COMMISSION



"Having a top-notch research university in the State

is the best way to attract talented workers

and produce the kind of technology that keeps us ahead of the game.

Competitive funding is needed to get The University of Arkansas to

that next level. And when the University gets there,

we'll all reap the rewards."

S. Robson Walton Chairman of the Board Wal-Mart Stores, Inc.



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## FOREWORD

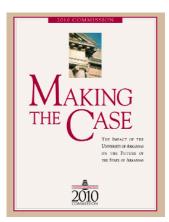
The 2010 Commission—a group of more than 90 business, education, and government professionals, University faculty, students, and staff—was charged by Chancellor John A. White in 2000 with studying and presenting a case for the importance of The University of Arkansas in the State's cultural and economic future. In August 2001, the Commission issued its first report: MAKING THE CASE: The Impact of The University of Arkansas on the Future of the State of Arkansas.

Nationally and internationally, the report generated great interest. Universities throughout the United States requested multiple copies for their boards and governing officials. Higher education officials in Europe, the Middle East, and Asia received and reacted favorably to the document's presentation of the University's vision, mission, and goals.

Several U.S. public research university presidents and chancellors used benchmark data from the report to argue successfully for increased resources for their institutions. Indeed, the benchmark data in MAKING THE CASE have become known as the "Arkansas data" among university presidents, chancellors, and other academic professionals. In Arkansas, MAKING THE CASE was received with less enthusiasm—initially. However, interest built as the report was presented to a myriad of audiences ranging from service clubs to K-12 administrators to venture capitalists and other business people. The report was also presented to Governor Huckabee and the Joint Education Committee of the Arkansas Legislature. Moreover, the report served as a key resource document for Governor Huckabee's highly successful Economic Summit (August 21, 2002), which addressed the theme Advancing State Economies Through University- & Statebased Research & Development.

MAKING THE CASE has served to make the case to private benefactors during the University's Campaign for the 21<sup>st</sup> Century. Most prominently, the report's findings were critical in crafting compelling proposals that led to the landmark \$300 million gift from the Walton Family Charitable Support Foundation.

After the publication of MAKING THE CASE, 2010 Commission members determined that a series of reports and follow-up on the initial findings of the Commission would be necessary to support the advancement of the University through the year 2010. Strong sentiment was voiced for continuing the work of



the Commission. During the fall of 2002, the Commission was reconstituted and met in Fayetteville and Little Rock on December 13, 2002, and in those same two venues on April 2, 2003, and September 29, 2003.

SEVERAL U.S. PUBLIC RESEARCH UNIVERSITIES USED 2010 COMMISSION DATA TO ARGUE FOR INCREASED FUNDING.

**Picking up the Pace** As envisioned by Chancellor White, the 2010 Commission's charge continues to include:

- Identifying successful initiatives and best practices in other states for application in Arkansas
- Building on the work of others, both inside and outside Arkansas
- Assessing the University's current status, as well as the State's political and economic environment
- Identifying needs objectively and making realistic recommendations on what the State must do during the first decade of the 21<sup>st</sup> Century to reach the goals articulated by the Commission.

#### **Renewed Commitment**

Arkansas, the United States, and the world have changed in ways none of us could have predicted in the

summer of 2001 when we were producing MAKING THE CASE. This new environment mandates even greater urgency that The University of Arkansas realize its vision. A stronger University of Arkansas will educate the next generation of leaders here and abroad the generation who can create a better world. Through its students and its research, the University addresses the challenges that face our state, nation, and world. New products, processes, solutions, insights, and interpretations create economic opportunity, drive economic development, and ultimately can improve life for all Arkansans, and influence for good the lives of those beyond our borders.

Informed by a highly successful first effort, confident in the message contained in this second report, the 2010 Commission renews its commitment to this all-important task. Herein, the Commission describes the progress made, the current context, and the course ahead, encouraging the University community, its supporters, and friends *to pick up the pace* for realizing the UA vision of emerging as *a nationally competitive*, *student-centered research university serving Arkansas and the world*. By doing so, we will ensure that the contributions of The University of Arkansas are felt throughout our State and around the world.

Reynie Rutledge, Sr., Chair 2010 Commission

Bob Smith, Executive Secretary 2010 Commission "As an alumnus of The University of Arkansas, I feel a great sense of pride in the progress the U of A is making. The University is enrolling and graduating some of the finest young minds in the nation. These high-caliber students will help provide America with its next generation of leaders."

David H. Pryor Former U.S. Senator



# EXECUTIVE SUMMARY: KEY FINDINGS

The future of Arkansas is linked inextricably to the future of The University of Arkansas. For Arkansas to be competitive in the 21<sup>st</sup> Century, The University of Arkansas must become a nationally competitive research university.

The 2010 Commission was created to obtain widespread participation in developing a plan for The University of Arkansas for the first decade of the 21<sup>st</sup> Century—a plan that will position Arkansas to compete as one of the nation's strongest states. The two years since the release of that plan in the Commission's first report, MAKING THE CASE, have seen uneven progress:

1. State appropriations to The University of Arkansas are not keeping pace with projections made in MAKING THE CASE. The University must increase its funding to compete with its peer universities and to benefit the State of Arkansas.

Due largely to the economic downturn of the past two years, state appropriations to The University of Arkansas have lagged projections in MAKING THE CASE. To achieve 2010 goals, the Commission projected state appropriations for fiscal year 2003 (FY03) needed to be \$115.4 million. Actual state appropriations in FY03 were \$92.9 million, a shortfall of \$22.5 million.

The lag in state appropriations led directly to increases in tuition. As a result, the responsibility of sustaining public higher education has shifted away from states and onto students and their families.

The modest tuition increases at The University of Arkansas are not sufficient for the long term success of the University. Other states have experienced similar fiscal woes. Most peer institutions have responded with steep tuition hikes, many in excess of 20 percent per academic year.

### 2. Tuition revenues met projections made in MAKING THE CASE.

However, total enrollment did not equal projected

"The University of Arkansas is the best hope for the future success of the State of Arkansas."

John A. White Chancellor University of Arkansas

levels. Tuition increases partially offset both state appropriation shortfalls and slower-than-projected enrollment growth at The University of Arkansas.

# 3. Priority should be given to increasing state funding at Arkansas' research universities, particularly The University of Arkansas.

Access to higher education is not an issue in Arkansas. With its large number of community colleges, Arkansas ranks 10<sup>th</sup> nationally in the number of postsecondary institutions per capita. State support of higher education is nationally competitive. Arkansas is now in the second of four tiers in per capita state appropriations for higher education.

4. Too few students who matriculate initially at one of the state's two-year colleges continue their education and receive a bachelor's degree from one of the state's four-year universities.

National and state data suggest that students who enter two-year public institutions in Arkansas are far less likely to graduate with a bachelor's degree within six years from an Arkansas public institution than are their national counterparts.

The issue—too many institutions compete for state appropriations. To ensure the maximum benefit of the State's investment, funding should be focused on Arkansas' research institutions, particularly The University of Arkansas.

5. Despite fiscal concerns, The University of Arkansas has made substantial progress toward improving academic quality and reputation and toward increasing the quality of the student body.

The University of Arkansas is enrolling high-caliber students in record numbers, and graduating more undergraduate, graduate, and doctoral students than ever before. Growing numbers of undergraduates are distinguishing themselves by winning prestigious national and international scholarships and fellowships: 37 undergraduates have won prestigious national awards since *MAKING THE CASE* was released. These individual achievements are laudable in themselves, but their true importance lies in what they represent: a symbol for Arkansas of a growing commitment to educational and intellectual achievement and a change in the level of expectation for all students at The University of Arkansas, and for the State as a whole. All students, alumni, and residents of Arkansas gain by association with the State's growing reputation for academic and intellectual achievement.

#### 6. Private support has been outstanding.

In April 2002, the Walton Family Charitable Support Foundation made the largest gift ever to an American public university: \$300 million to The University of Arkansas. Of that, \$200 million was directed to establishing and endowing the undergraduate Honors College, and \$100 million was directed to endowing the graduate school.

While the Walton Gift had a profound impact on the University, private giving from all sectors has been tremendous as well. Private support the past six years averaged \$117,623,943 and exceeded the total received over the past 106 years.

#### Picking up the Pace

Within the context described above, the Commission offers the following list of recommendations for Arkansas' Governor and General Assembly, business leaders, and The University of Arkansas community. These recommendations have been revised to reflect the gains achieved in the past two years and the new and continuing challenges The University of Arkansas faces in meeting the goals of the 2010 Commission.

#### RECOMMENDATIONS

In order for The University of Arkansas to achieve the vision of becoming a nationally competitive, student-centered research university serving Arkansas and the world, support is needed from Arkansas' government, its business leaders, and from the University community itself.

Thirty recommendations are made. Fourteen are directed to the Governor and the General Assembly; seven are intended for business leaders in Arkansas; and nine are aimed at The University of Arkansas community—trustees, benefactors, students, faculty, staff, administrators, alumni, and friends.

#### GOVERNOR AND GENERAL ASSEMBLY

#### Recommendation #1

*Pick up the pace* in 1) improving academic quality and reputation; 2) increasing the size and quality of the student body; 3) increasing the diversity of the faculty, staff, and student body; 4) increasing private support; and 5) increasing federal and state support. Provide the increased funding necessary to meet the University's five institutional goals. Hold The University of Arkansas accountable for the goals it has set and reward it as the goals are achieved.

#### Recommendation #2

Endorse the vision for The University of Arkansas to emerge as a nationally competitive, student-centered research university serving Arkansas and the world.

#### Recommendation #3

Establish a priority for higher education funding equal to that for funding K-12.

#### Recommendation #4

Establish a new source of state revenue, drawing on

the successes of other states. Establish and dedicate funds to support both need-based and merit-based scholarships, and to address critical needs of the State.

#### Recommendation #5

Adopt the funding formula currently under development by the Arkansas Department of Higher Education.

#### Recommendation #6

Build the State's research capacity, particularly at institutions showing the greatest promise for research and scholarship. Increase the amount of funds available to all university researchers for required matches on competitive research grants.

#### Recommendation #7

Develop a statewide plan for competing in the knowledge-based economy of the 21<sup>st</sup> Century. In particular, identify and prioritize key areas and institutions best positioned to strengthen the State's intellectual infrastructure in research, science, technology, education, and medicine. Channel the necessary financial resources to these priority areas and institutions, including (in the case of education) the Arkansas Leadership Academy.

#### Recommendation #8

Leverage private support by creating a dedicated State fund to match private gifts to endow professorial chairs and academic programs and to construct academic buildings.

#### Recommendation #9

Enhance incentives for venture capital and for high technology firms to locate in Arkansas, as well as retain and strengthen in-state companies to prevent them from migrating elsewhere.

"In a few short years, I've seen The University of Arkansas' reputation grow by leaps-and-bounds. With a continued focus on quality, it's only a matter of time before the University is mentioned in the same sentence with the nation's best learning institutions. We need strong and consistent support to make that happen as quickly as possible."

> Charles D. Morgan, Jr. Company Leader Acxiom Corporation

"Are we doing everything we can to ensure the success and competitiveness of our State? An investment in the University goes a long way toward keeping our brightest young Arkansans in the State after graduation. They are Arkansas' greatest hope."

> Joe T. Ford Chairman ALLTEL Corporation

#### Recommendation #10

Provide institutional incentives for rapidly increasing the percentage of Arkansans with baccalaureate and advanced degrees (master's, professional, and doctoral).

#### Recommendation #11

Adopt a scholarship program that encourages community college graduates to complete their bachelor's degrees.

#### Recommendation #12

Provide incentives for two- and four-year institutions to collaborate by offering degrees on other campuses, thereby avoiding unnecessary duplication, and expanding opportunities for Arkansans.

#### Recommendation #13

Support efforts to recruit high-ability students from other states and nations to attend college in Arkansas, thus helping build the technical workforce needed for the 21<sup>st</sup> Century economy.

#### Recommendation #14

Upgrade the State's information systems infrastructure and fund a statewide digital library for use by public libraries, as well as public and private colleges and universities.

#### **BUSINESS LEADERS**

#### Recommendation #15

*Pick up the pace* in supporting higher education by investing in and becoming more involved in higher education institutions. Support the Governor's Blue Ribbon Committee on Higher Education. Provide increased philanthropic support. Sponsor research projects and contracts that benefit business. Offer more opportunities for college students through internships, externships, and mentoring programs.

#### Recommendation #16

Actively support the 2010 Commission's recommendation for a new source of revenue in the State of Arkansas.

#### Recommendation #17

Consider the long-term value of hiring employees with four-year degrees to enhance corporate skill sets and assist the State in increasing the number of adults having at least a bachelor's degree.

#### Recommendation #18

Pay nationally competitive salaries for college graduates and provide competitive benefits to attract outstanding new talent to Arkansas and stem the exodus of outstanding native talent to other states.

#### Recommendation #19

Provide time, opportunities, and financial incentives for employees to obtain bachelor's and advanced degrees (master's, professional, and doctoral).

#### Recommendation #20

Define workforce development needs and communicate them to appropriate colleges and universities.

#### Recommendation #21

Provide more educational opportunities and educational infrastructure for employees on site and/or in the context of their lives. Invest in distance learning on company sites or work with other businesses, local high schools, National Guard units, and colleges and universities to gain access.

#### UNIVERSITY OF ARKANSAS COMMUNITY

#### Recommendation #22

*Pick up the pace* in 1) improving academic quality and reputation; 2) increasing the size and quality of the student body; 3) increasing the diversity of the faculty, staff, and student body; 4) increasing private support; and 5) increasing federal and state support.

#### Recommendation #23

Realize the vision of becoming a nationally competitive, student-centered research university serving Arkansas and the world.

#### Recommendation #24

Focus on being counted among the best in the nation, both as a university and as individual academic and administrative units. Strive to be ranked among the nation's top 50 public universities.

#### Recommendation #25

Achieve the University's 2010 goals of enrolling 22,500 students, enrolling 4,000 minority students, having 88 percent of freshmen return as sophomores, and graduating 66 percent of entering freshmen within six years. Meet 2010 annual research goals, including \$100 million in new awards, \$150 million in expenditures, and \$50 million in federal expenditures. Increase annual private giving to \$100 million and endowment to \$1 billion by 2010. Secure operating revenues (from state support and tuition) of \$380 million by 2010.

#### Recommendation #26

Develop a more concerted effort, between the University and the Arkansas Congressional Delegation, to seek out and support opportunities to bring federal research funds to the State.

#### Recommendation #27

Provide leadership for the public and private education systems in the State.

#### Recommendation #28

Encourage students and parents to realize higher education is an investment, not an expense.

#### Recommendation #29

Create a communications and marketing plan to ensure that *PICKING UP THE PACE* is seen, read, and understood by key opinion leaders and constituencies across the State.

#### Recommendation #30

Communicate that The University of Arkansas is the best hope for the State to have a nationally competitive research university. "Many of us know that the economic growth of our State is dependent on the growth of the University. And we cannot even begin to estimate the value of The University of Arkansas to our society. The University is one of our greatest resources."

INTRODUCTION

Since the publication of MAKING THE CASE just a month before the terrorist attacks of September 11, 2001—The University of Arkansas, the State of Arkansas, the nation, and the world have undergone monumental changes. The War on Terror demands constant attention and considerable resources from federal, state, and local governments. The mounting federal deficit, an erratic stock market, a stalled economy, and budget shortfalls totaling more than \$30 billion this year alone across the 50 states have conspired to present economic distress for the nation's public research universities unmatched in more than half a century.

In the face of such challenges, some may ask, why is The University of Arkansas 2010 Commission titling this report *PICKING UP THE PACE* and challenging its community of supporters to realize The University of Arkansas vision? Shouldn't the report more aptly be titled *TRYING TIMES*?

The 2010 Commission believes that turbulent times provide a great opportunity to gain "market share" from the competition and to position the University as a nationally competitive, student-centered research university. Now is not the time to slow the University's progress, diminish its commitment to excel, or settle for less than the best for its students, stakeholders, and all who benefit from the University's programs. Now is the time to *pick up the pace*!

Sybil J. Hampton President

Winthrop Rockefeller Foundation

One thing is certain: The University of Arkansas has just completed the two most successful years in its history.

- The University of Arkansas received the largest gift ever made to an American public university—\$300 million from the Walton Family Charitable Support Foundation.
- The Princeton Review's *The Best 351 Colleges* gave the University an academic score of 80 and an academic quality rating of three stars.
- The University of Arkansas continues to be included in *America's 100 Best College Buys*.
- The Unofficial (Biased) Insider's Guide to the 328 Most Interesting Colleges included the University in its pages.
- The University's academic reputation improved to 124<sup>th</sup> place in the 2004 Edition of U.S. News & World Report—America's Best Colleges.
- The average ACT score of entering freshmen at the University rose to 25.4.

- The University broke into the top 100 U.S. universities in research and education funding provided by the National Science Foundation in Fiscal Year 2001.
- The University produced more than 3,000 graduates for the first time in its history, in 2003.
- *Outside* magazine named Fayetteville the 23<sup>rd</sup> best college town in North America, ranking above Austin, Texas, and Athens, Georgia, among others.
- The Milken Institute Best Performing Cities Report ranked Northwest Arkansas the number-one region in the country for economic performance, recognizing The University of Arkansas' influence on economic development in the region and the State.
- The University was named among the nation's

top 50 public research universities in two categories in the August 2002 edition of *The Top American Research Universities*. The University of Arkansas was also included among the top 100 public research universities overall.

The years ahead promise great things, but the University faces enormous challenges—decreases in state appropriations, increased competition from peer universities, and the need to improve the University's graduation rate. In spite of these concerns, the 2010 Commission believes The University of Arkansas has a great opportunity to position itself in the top tier of American research universities. The time is now for all who will benefit from The University of Arkansas being counted among the nation's finest public universities to *pick up the pace*.



OLD MAIN, THE MOST RECOGNIZABLE LANDMARK AT THE UNIVERSITY OF ARKANSAS, WILL BECOME A SYMBOL OF ONE OF THE NATION'S FINEST RESEARCH UNIVERSITIES IF WE CAN PICK UP THE PACE.

### JAMES ERIC CLINEBELI

"We have learned at Wal-Mart that good, committed people can accomplish extraordinary things. The University of Arkansas represents a key resource to Wal-Mart, and to the whole State, in producing just the kind of people we need to drive improvement in our businesses and our communities every day."



H. Lee Scott President and CEO Wal-Mart Stores, Inc.

# UA PROGRESS AND THE PROSPECTS FOR REALIZING THE VISION

In 1999, the University's leadership developed a progress report to track the various and equally important roles The University of Arkansas plays. It must contribute to the goal of advancing education at all levels among Arkansas citizens and thereby spur

### CHILD CARE AND EARLY LITERACY

The College of Education and Health Professions is committed to improving early childhood education in Arkansas. Three programs, funded by more than \$1.3 million in grants from the U.S. Department of Health and Human Services provide training, free of charge, to approximately 3,000 early childhood educators throughout Arkansas via a network of two-year colleges and technical institutes with 230 trainers. The enrollees, who represent all 75 counties in Arkansas, range from first-time caregivers to those with advanced degrees. growth of the State's *human capital*. However, it must also make a major contribution to increasing the State's *intellectual capital*—the expansion of knowledge, both cultural and scientific, and the nurturing of research initiatives for the betterment of citizens' lives across the State.

As indicated in the progress report (Table 1) and Figures 1-4, since 1997 The University of Arkansas has made significant progress toward its five institutional goals:

- Improving academic quality and reputation
- Increasing the size and quality of the student body
- Enhancing diversity among students, faculty, and staff
- Increasing public support, particularly from federal and state governments
- Increasing private support.

For The University of Arkansas to realize its vision of being a nationally competitive, student-centered research university serving Arkansas and the world, it must achieve its five institutional goals. And, it

Performance Measure	1997	1998	1999	2000	2001	2002	2003	2010 Goal
Freshman ACT (F)	23.5	24.0	24.9	24.8	24.8	25.0	25.4	26.5
Freshman HSGPA (F)	3.40	3.46	3.51	3.52	3.54	3.57	3.60	3.65
Freshman Upper Decile % (F)	28%	32%	36%	32%	35%	35%	36%	50%
Freshman Mid-Yr Retention (FS)	90.5%	92.8%	94.1%	92.5%	93.5%	92.6%	n/a	96%
Freshman Year Retention (FF)	73.2%	74.1%	77.2%	81.7%	81.7%	82.2%	82.7%	88%
New Freshman Enrollment (F)	2,240	2,556	2,268	2,283	2,332	2,251	2,357	3,000
National Merit Scholars (F)	90	104	120	108	105	109	106	250
Undergraduate Enrollment (F)	11,974	12,300	12,358	12,550	12,859	12,929	13,125	17,000
Graduate Enrollment (F)	2,766	2,760	2,868	2,846	2,936	3,106	3,324	5,500
New Transfer Enrollment (F)	1,157	1,206	1,264	1,178	1,230	1,150	1,264	1,850
Total Minority Enrollment (F)	1,728	1,785	1,858	1,907	1,938	2,028	2,021	4,000
Total Enrollment (F)	14,740	15,060	15,226	15,396	15,795	16,035	16,449	22,500
UG 6-Yr Graduation Rate (S)	41.8%	43.5%	45.1%	45.3%	44.8%	45.9%	48.1%	66%
Bachelor's Degrees Awarded (AY)	1,756	1,741	1,902	1,889	1,935	2,028	2,291	3,585
Doctoral Degrees Awarded (AY)	112	121	94	86	90	106	120	185
Master's & Other Degrees Awarded (AY)	864	850	843	872	848	864	907	1,295
Total Degrees Awarded (AY)	2,732	2,712	2,839	2,847	2,873	2,998	3,318	5,065
Research: New Awards (FY)	\$41.2M	\$42.3M	\$41.5M	\$49.1M	\$59.3M	\$52.6M	\$48.4M	\$100M
Research: Expenditures (FY)	\$73.7M	\$78.1M	\$63.2M	\$75.9M	\$83.8M	\$88.3M	\$87.4M	\$150M
Research: Federal Expenditures (FY)	\$16.7M	\$16.4M	\$16.1M	\$21.9M	\$24.2M	\$28.7M	\$27.8M	\$50M
Private Giving (FY)	\$28M	\$36M	\$98M	\$83M	\$62M	\$64M	\$365M	\$100M
Endowment (FY)	\$119M	\$142M	\$220M	\$245M	\$234M	\$215M	\$494M	\$1B
Unrestricted E&G (FY)	\$138.3M	\$148.5M	\$161.0M	\$184.9M	\$195.6M	\$197.4M	\$202.3M	\$380M

Table 1. University of Arkansas progress report.

Legend: AY (academic year); F (Fall); FF ( Fall to Fall); FS (Fall to Spring); FY (fiscal year); S (Spring)

must do so within its three-fold mission of teaching, research, and service. In the following pages, the 2010 Commission will present clear evidence that The University of Arkansas is excelling in teaching students, performing important research, and serving Arkansas and the world.

#### IMPROVING ACADEMIC QUALITY AND REPUTATION

A good indication of The University of Arkansas' progress is its rapidly increasing academic reputation, as determined by college guides and other national rankings.

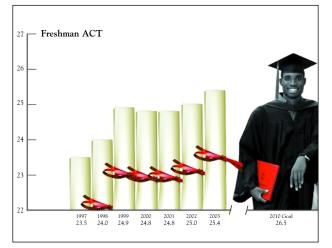


FIGURE 1. UA FRESHMAN ACT AVERAGE.

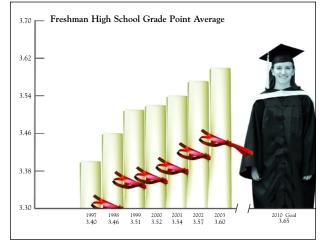


FIGURE 2. UA FRESHMAN HIGH SCHOOL GPA.

University	Conference	Ranking	University	Conference	Ranking	
Northwestern	Big 10	98	Florida	SEC	84	
Vanderbilt	SEC	94	Texas	Big 12	83	
Stanford	Pac -10	92	Colorado	Big 12	82	
Cal-Berkeley	Pac -10	90	Illinois	Big 10	82	
Michigan	Big 10	89	Texas A&M	Big 12	81	
Wisconsin	Big 10	88	Arkansas	SEC	80	
Penn State	Big 10	87	Georgia	SEC	80	
UCLA	Pac -10	85	Southern Cal	Pac -10	80	
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Table 2. University of Arkansas' academic ranking by the Princeton Review in four major NCAA athletic conferences.

- The Princeton Review's *The Best 351 Colleges* (2004 Edition) awarded The University of Arkansas an academic quality score of 80 out of 100 (Table 2). Among 45 universities that make up the Big 10, Big 12, Pac-10, and SEC, The University of Arkansas ranked 14<sup>th</sup> in academic quality.
- The University continues to be included in *America's 100 Best College Buys*. The "best buys" are institutions that combine high academic quality with comparatively low cost.
- The Unofficial (Biased) Insider's Guide to the 328 Most Interesting Colleges 2004 listed the University as an institution "making a change for the better." The University of Arkansas' inclusion in the guide placed it among the top 15 percent of four-year institutions in the nation.
- In U.S. News and World Report—America's Best Colleges, The University of Arkansas quickly gained ground in its academic reputation ranking, to 124<sup>th</sup> among the 248 national doctorategranting universities. The University has

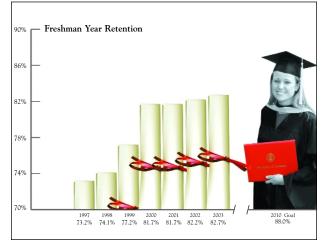


FIGURE 3. UA FRESHMAN YEAR RETENTION.

advanced nearly 50 positions since 1998, when it was ranked  $173^{\text{rd}}$ .

• The University was named among the nation's top 50 public research universities in two categories and as one of the top 100 public research universities in the country. The rankings in the August 2002 edition of *The Top American Research Universities* are the highest achieved in the three-year history of the report for The University of Arkansas.

## INCREASING THE SIZE AND QUALITY OF THE STUDENT BODY

Remarkable progress has been made in increasing both the size and quality of The University of Arkansas' student body.

- The average ACT score of incoming freshmen is 25.4, far exceeding the national average of 20.8 and the 20.3 in-state average (out of a possible 36).
- In 2003, the University awarded more than

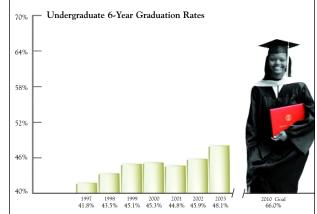
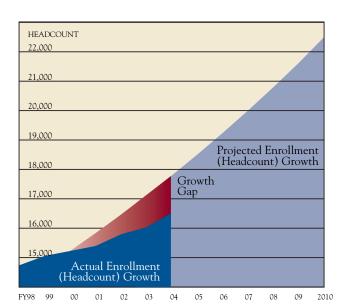
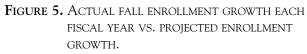


FIGURE 4. UA 6-YEAR GRADUATION RATES.





3,300 degrees (bachelor's, master's, and doctorates) for the first time in its history.

- Nearly 16,500 students enrolled in the University beginning in Fall 2003. This is the largest total in University history.
- The more than 11,000 in-state undergraduate students attending The University of Arkansas come from all 75 counties in Arkansas.
- Enrollment for the new Honors College totaled 1,762 in the 2003-04 academic year—more than 13 percent of the undergraduate student body.
- Since MAKING THE CASE was released in 2001, 37 undergraduates have won prestigious national scholarships, fellowships, and awards.

#### ENHANCING DIVERSITY AMONG STUDENTS, FACULTY, AND STAFF

The University of Arkansas is working hard to diversify the student body as well as the faculty and staff. The Diversity Task Force, formed in 2000, has crafted a diversity blueprint for execution during the remaining years of this decade. Climate surveys conducted by the Task Force have also guided programs in diversity infrastructure development.

- 14.2 percent of students are members of U.S. minority populations.
- 5.4 percent are international.
- 49 percent are women.
- Retention of Asian-American freshmen

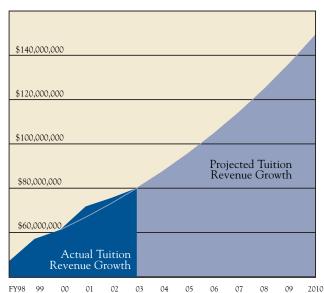


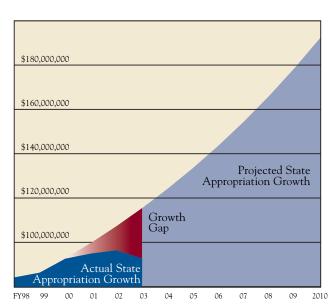
FIGURE 6. ACTUAL FY TUITION REVENUE GROWTH VS. PROJECTED TUITION REVENUE GROWTH.

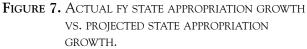
increased from 77.3 percent in 1998 to 85 percent in 2003.

- Retention of African-American freshmen increased from 73 percent in 1998 to 82.4 percent in 2003.
- Retention of Latino/Hispanic freshmen increased from 67 percent in 1998 to 87 percent in 2003.
- Since 1997, minority enrollment has increased 17%, compared with an overall University enrollment increase of 11.6%.
- Key minority hires in upper management positions since 1997 have included the Vice Chancellor for Student Affairs, Dean of Students,

### ADVANCED SPATIAL TECHNOLOGIES BENEFIT COMMUNITIES AROUND THE NATION

After a deadly tornado hit Arkadelphia, teams from the Center for Advanced Spatial Technologies (CAST) and the School of Architecture aided in the recovery effort by supplying data and maps that allowed rescuers to locate damaged areas and thereby assist victims more quickly. Funded by the Natural Resources Conservation Service, CAST has also evaluated the effects of agriculture and USDA soil conservation practices on cultural resources.





Dean of University Libraries, Deputy Director of The University of Arkansas Police Department, and Director of University Housing, all of whom are African-American.

#### INCREASING PUBLIC SUPPORT, PARTICULARLY FROM FEDERAL AND STATE GOVERNMENT

The University of Arkansas has made progress in federal support of its research programs. However, the University faces challenges in state support. In *MAKING THE CASE*, the 2010 Commission developed factors in support of projected modest growth in state appropriations to The University of Arkansas. These projections have not been met (Appendix G). In fact, state appropriations to The University of Arkansas were cut by \$7.6 million for fiscal year 2003. As a result, the University has instituted tuition increases, but these increases are not sufficient for the long term growth of The University of Arkansas.

Despite increasing competition for federal research and development (R&D) support and losses in state support, The University of Arkansas was able to sustain or increase federal and state support in some key areas.

Among the results are the following:

• In new research awards, The University of

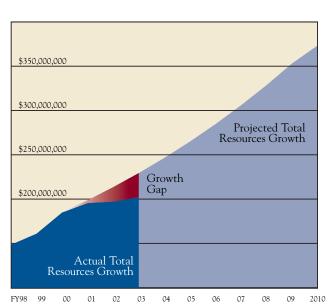


FIGURE 8. ACTUAL FY TOTAL RESOURCES GROWTH VS. PROJECTED TOTAL RESOURCES GROWTH.

Arkansas averaged \$53.7 million per year from 2000-02, up from \$41.7 million in 1997-99.

- Total research expenditures from all sources (federal, state, corporations and foundations, other organizations, and institutional funds) have increased 19% at UA since 1997, to \$87.4 million in 2003.
- The University surpassed \$20 million in federal expenditures in 2000 and steadily increased in federal expenditures to FY02's high of almost \$29 million; for FY03 it totaled \$27.8 million.
- In FY01, The University of Arkansas broke into the top 100 U.S. universities in research and education funding provided by the National Science Foundation.
- For the 2001-03 biennium, the State provided the University almost \$4 million in research matching funds.
- Fall 2003 enrollment was 16,449—fewer students than the 17,800 that would be ideal, based on projections made in *MAKING THE CASE* (Figure 5).
- Tuition revenue for FY03 was slightly above the projection in MAKING THE CASE (Figure 6). As shown in Appendix G, the University was roughly \$897,000 ahead in tuition revenue growth.
- State appropriations to the University were almost \$22.5 million below the projections made in MAKING THE CASE (Figure 7).
- Total resources available to The University of

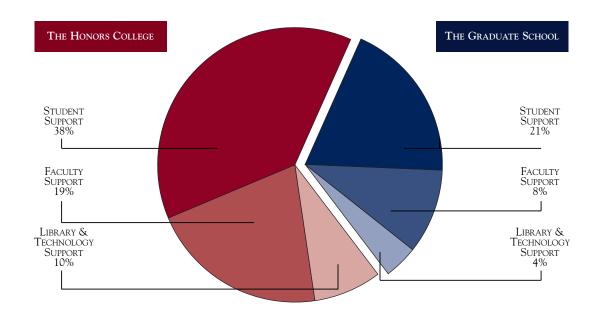
Arkansas were \$27.2 million below what was projected by the 2010 Commission in MAKING THE CASE for FY03 for the University to be "on track" to achieve its 2010 goals (Figure 8).

#### INCREASING PRIVATE SUPPORT

Private support for The University of Arkansas has been nothing short of spectacular. The University's friends, alumni, and benefactors have embraced the vision of making The University of Arkansas a nationally competitive, student-centered research university serving Arkansas and the world.

• In April 2002, the Walton Family Charitable Support Foundation gave \$300 million to The University of Arkansas—the largest gift ever to an American public university. The Honors College has been established and endowed using \$200 million. These funds are used for undergraduate scholarships; information technology and library acquisitions in support of undergraduate education; undergraduate research and study abroad experiences; and faculty chairs and professorships.

- \$100 million went into an endowment for the University's Graduate School to support graduate student fellowships, graduate student research, library acquisitions in support of graduate education, and distinguished research faculty (Figure 9).
- Private support the past six years averaged \$117,623,943 and exceeded the total received over the previous 106 years.



# Figure 9. Distribution of the \$300 million Walton Family Charitable Support Foundation Gift.

"MAKING THE CASE was published as Texas A&M was confronting several difficult budget problems. The benchmarking in MAKING THE CASE allowed us to educate our board about the intensive competitive environment faced by nationally competitive research universities. The result was their support for a fee increase, which is today having a beneficial impact on the quality of Texas A&M University."

> Ray M. Bowen President Emeritus Texas A&M University

"Since the creation of the nation's land-grant universities in the late 1800s, public research universities have enhanced the quality of life and economic prosperity in the states they serve. I applaud the efforts of the 2010 Commission to ensure the future of the State of Arkansas by making the case for The University of Arkansas to join the ranks of the nation's premier research universities. Business, education, and governmental leaders across the great State of Arkansas are encouraged to pick up the pace in their support. The vision for The University of Arkansas must be realized sooner, rather than later. All Arkansans and, indeed, all Americans will be the beneficiaries."



Warren A. Washington Chairman National Science Board

# THE IMPORTANCE OF RESEARCH TO ARKANSAS

The area in which The University of Arkansas is positioned to deliver profound economic benefits to the State is its research program. As the University's

#### TECHNOLOGY-BASED BUSINESS INCUBATION AND JOB CREATION

The College of Engineering is host to one of America's top-rated business incubators, GENE-SIS Technology Business Incubator, the new Mack-Blackwell Center for Rural Transportation Studies, and other business assistance centers whose simple, shared mission is to support the private business sector. In addition to helping businesses with start-up and management challenges, other benefits accrue, not only to the client companies, but also the people of Arkansas. These centers promote the creation of jobs, provide real-world experiences for engineering students, and advance the development of high-technology and clean industries that preserve our quality of life. research program continues to grow and develop, it will provide the scientific, technological, and intellectual infrastructure the State needs for the economy of the 21<sup>st</sup> Century.

#### RESEARCH AND ITS BENEFITS

The economy of the 21<sup>st</sup> Century will be based on technology, science, and knowledge. University of Arkansas research will foster:

- New products, processes, discoveries, insights, and interpretations necessary for economic and cultural progress
- New start-up businesses based on knowledge and technology
- Technology transfer from the labs to the marketplace, through new and existing businesses
- A scientifically-and technologically-trained workforce needed to attract business and industry to the State and to enable existing firms to compete successfully
- A vibrant entrepreneurial climate and enhanced venture capital availability

- Increased dollars to the State from outside sources for research projects (from the federal government, corporations, foundations, and other organizations)
- An overwhelmingly positive impact on the Arkansas economy through the leveraging of research dollars through various market sectors. Indeed, a study conducted in 2000 by The University of Arkansas Center for Business and Economic Research found that every dollar invested in university-based research in Arkansas yields an annual return on investment to the Arkansas economy of 23.2 percent.

The 2010 Commission believes that, if Arkansas wishes to bring its scientific and technological research infrastructure to 21<sup>st</sup> Century standards, its major course of action must be to invest heavily in The University of Arkansas. This is so because The University of Arkansas is the State's only major research university-classified as a "Research/Doctoral University-Extensive" by the Carnegie Foundation for the Advancement of Teaching. The University of Arkansas for Medical Sciences (UAMS) conducts extensive research in the life sciences, of course, but as an academic medical center it is classified as a "medical institution" by the Carnegie Foundation rather than a research university. UAMS, in fact, has had a measurable impact on Arkansas' national rankings in life science research. Research conducted through the UA Division of Agriculture also adds great value to the economic development of Arkansas. Indeed, UAMS, the Division of Agriculture, and The University of Arkansas are the State's best chances for expanding business and job opportunities through research in the agricultural, physical and natural sciences, biotechnical and biomedical sciences, engineering, and other fields including business, education, and the social-behavioral sciences.

### TRACKING TERRORISTS AROUND THE GLOBE

Terrorism's societal and economic impacts are unquantifiable and widespread. The University's Terrorism Research Center in Fulbright College is culling data from the court records of more than 500 known terrorists to track the criminal, geographic, and temporal patterns that precede terrorist attacks. Understanding how such attacks develop and progress could lead to prediction and prevention measures that save lives.

#### UNIQUE RESEARCH FACILITIES

The University of Arkansas research facilities are unique in the nation. For example:

- The Center for Sensing Technology and Research features a 9.4 Tesla Fourier transform mass spectrometer (FTMS). The FTMS uses a high-powered magnet that improves the resolution of molecular species and provides more information about their structure. Coupled with other instruments in the High Performance Mass Spectrometry Laboratory, the mass spectrometer offers high-resolution laser desorption mass spectrometry not available at any other U.S. public laboratory.
- The Arkansas-Oklahoma Center for Space and Planetary Sciences houses a large, stainless steel vacuum chamber donated to The University of Arkansas by the Jet Propulsion Laboratory in Pasadena. The chamber was constructed for comet and planetary surface simulations and has recently been used for simulating surface processes on Mars.
- The Chemical Hazards Research Center has the largest ultra-low-speed boundary layer wind

"The University of Arkansas has fueled our economy through its research and, even more valuably, through its graduates. It will help fuel the whole State's economic future—if Arkansas citizens do their part in strengthening public support."

> Edward Drilling President SBC-Arkansas

"Consider the economic growth and strength of places like Boston, the Bay Area of California, and North Carolina. Each draws on and thrives on the research of its universities. I envision The University of Arkansas as the same kind of engine for Arkansas' growth."

tunnel in the world. Strategically positioned to conduct homeland security research, the wind tunnel simulates releases of heavier-than-air gases into the atmosphere and has been used to simulate potential disasters and to trace the path of disasters that have occurred, including the 1984 Union Carbide leak in Bhopal, India, which killed thousands.

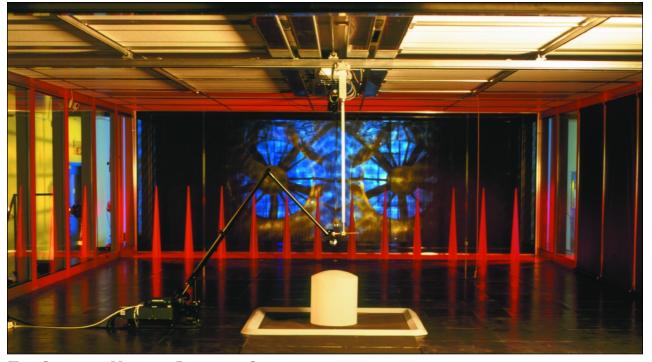
- The High Density Electronics Center (HiDEC) is one of the world's top electronics packaging research and education facilities. HiDEC has executed contracts from government and industry totaling more than \$30 million. Projects have ranged from multichip module design to the development and evaluation of new technologies and electronic products.
- The Center for Advanced Spatial Technologies was recognized nationally for its data storage and retrieval warehouse, GeoStor, by the Urban &

Jim C. Walton Chairman and CEO Arvest Bank Group, Inc.

Regional Information Systems Association. The Center works with people across The University of Arkansas campus in various disciplines, offering researchers the latest in innovative technologies. This has led to interdisciplinary cross-collaboration in fields as diverse as engineering, agriculture, anthropology, and sociology.

#### THE BENEFITS OF RESEARCH TO ARKANSAS THROUGH TECHNOLOGY TRANSFER AND OUTREACH

Research at The University of Arkansas is not an end in itself, but a means to a larger end—a stronger state, nation, and world. The University strives to put the beneficial work of research programs out into the marketplace and the larger society. Two recent examples are instructive.



THE CHEMICAL HAZARDS RESEARCH CENTER HAS THE LARGEST ULTRA-LOW-SPEED, BOUNDARY-LAYER WIND TUNNEL IN THE WORLD AND HAS BEEN USED TO SIMULATE THE LIKELY DISPERSAL OF GAS IN DISASTERS.



FIGURE 10. PROPOSED DESIGN OF THE NEW ARKANSAS RESEARCH AND TECHNOLOGY PARK.

#### ARKANSAS RESEARCH AND TECHNOLOGY PARK

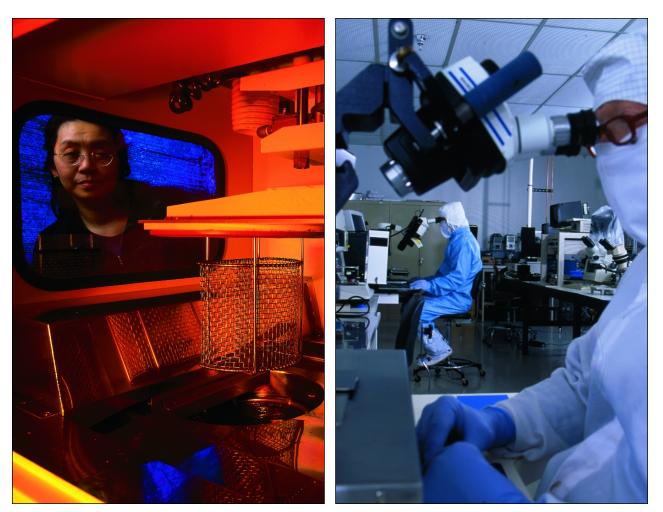
Arkansas' economic future depends on the creation of new and different types of employment. Drawing on the intellectual capital within the University, the new Arkansas Research and Technology Park (ARTP), created by the University in cooperation with the City of Fayetteville, is intended to jumpstart the formation of a knowledge-based economy in Arkansas. It will do so by fostering and attracting clusters of industries whose commercial pursuits are strategically aligned with the research strengths of the University. Among the research competencies that can be accessed through the Arkansas Research and Technology Park are:

- •Next-generation electronic and photonic devices
- Biotechnology and supporting biological, chemical, and food sciences
- Transportation and logistics
- •Advanced materials and manufacturing
- Database technologies and telecommunications
- Environmental sciences.

Clustering innovative activities within these broad areas of research will afford companies the benefits derived from collaboration, labor-source pooling, and supplier networks.

The ARTP (Figure 10) will generate not only direct benefits such as the creation of high-quality, highwage jobs in the technology sector, but also the indirect economic impacts that benefit the economy as a whole. Benefits to the state, the region, and the local area are expected to originate from the effects that construction and operation of the ARTP will have on income and employment and the tax revenue generated from new economic activity that results. For example:

- Construction of the ARTP will create 1,582 construction jobs and employee compensation of \$27.1 million.
- The ARTP is expected to generate a present value of \$2.2 million in state and local tax revenues over the life of project construction and \$17.7 million in state and local tax revenue over the life of project operation.



The High Density Electronics Center, one of the world's top electronics packaging research and education facilities, has executed contracts totaling more than \$30 million.

### WALTON COLLEGE CENTER FOR BUSINESS AND ECONOMIC RESEARCH

The Center for Business and Economic Research (CBER) in the Sam M. Walton College of Business is a public service/outreach organization whose mission is to serve its constituents with unparalleled research support; basic and applied business and economic analysis; timely, relevant business, economic, and related public policy information; and other outreach activities. CBER outreach programs have benefited every region of the State, from the Brinkley Long Range Development Project in the Arkansas Delta, to the Philander Smith Neighborhood Revitalization Plan in Little Rock, to the El Dorado Comprehensive Planning Study. • At completion, the ARTP will create approximately 2,000 high-tech, high-paying, permanent jobs.

#### UNIVERSITY OF ARKANSAS ECONOMIC DEVELOPMENT INSTITUTE

The University of Arkansas Economic Development Institute (UAEDI) was created in July 2002 to promote economic development throughout Arkansas, in part by helping extend the benefits of the \$300 million gift from the Walton Family Charitable Support Foundation to The University of Arkansas. UAEDI's mission is to enhance the economic and social well-being of the people of Arkansas by extending University of Arkansas programs in partnership with others having similar interests. Potential partners include the full range of public and private entities. UAEDI's role is to prepare people for prosperity through broad-based development (economic, community, educational, leadership) and breakthrough solutions. Accordingly, UAEDI proactively engages UA faculty, staff, students, administrators, and external partners who have a personal and/or professional interest in helping promote UAEDI's role and mission. Within its first year, more than 200 people were involved in the following UAEDI-sponsored activities: creating the new University of Arkansas Capabilities database and Web page (uaedi.cast .uark.edu); participating in the SEED (Student Efforts in Economic Development) class project program; submitting proposals involving partnerships; implementing funded projects; and participating in discussion groups and sponsored initiatives designed to address critical needs in Arkansas.

UAEDI believes the key to Arkansas making progress relative to other states is through broadbased development and breakthrough solutions. This usually involves combinations of partnerships with key linkages to communities that are actively seeking and financially supporting greater economic and social well-being and prosperity. Successful efforts in these communities are then expected to serve as models to be expanded, extended, and replicated as appropriate throughout Arkansas.

The initial UAEDI focus has been the creation of the Technology Center for the Delta in Cross County to serve as a launching pad for the programs of The University of Arkansas and other partners. The goal is to create a viable multi-county economic development region in the Delta called the Crossroads Coalition to help Arkansas compete for jobs in the automotive industry. To complement this effort, economic development officials in Cross, Washington, and St. Francis counties are involved in a UAEDI Discussion Group exploring how they can work together in new and creative ways, beginning with a partnership involving the UA CAST program, UA Center for Economic and Business Research, the Arkansas Department of Economic Development, and a number of off-campus and private entities.

The University of Arkansas is strongly positioned to enhance the economic and social well-being of Arkansas' citizens by further engaging the talents of its faculty, staff, students, and administrators in addressing the economic, community, educational, and leadership aspects of broad-based development.

"The State of North Carolina made a bold move in the 1960s, one watched across the nation, by investing in its research universities and creating Research Triangle Park. This was followed by a parallel effort in the late '90s to establish the centennial campus at North Carolina State University to provide services for emerging businesses and start-ups as RTP did for established high tech businesses. The dividends of these investments to the state, as well as the continued investment in public higher education, have been phenomenal. The North Carolina experience caused other states to make similar investments in their research universities. Arkansas has the potential to make similar investments to position The University of Arkansas to realize its vision of being a nationally competitive, student-centered research university serving Arkansas and the world. All Arkansans will benefit from The University of Arkansas achieving its goals, just as all North Carolinians have benefited from having great, publicly-supported research universities fueling their economy."

Marye Anne Fox Chancellor North Carolina State University "The University of Arkansas already is having a profound impact on our State's economy. And the return on our investment is impressive. That return will be more and more impressive as public investment grows."

> Wayne Garrison Chairman of the Board J.B. Hunt Transport, Inc.



# CONTINUING CHALLENGES FOR THE ARKANSAS ECONOMY AND ARKANSAS HIGHER EDUCATION

The University of Arkansas has made great progress toward reaching its overarching goals and expanding its research programs. However, in light of the economic downturn and budget shortfalls, the University faces enormous challenges in the months and years to come.

## THE SHIFTING DYNAMICS OF PAYING FOR PUBLIC HIGHER EDUCATION

The economic turmoil of the last three years has greatly accelerated the longer-term shift in who pays the "lion's share" of costs for public higher education: the state or the student. During the current economic downturn, the responsibility for sustaining public higher education shifted away from the State and onto students and their families. As shown in Figure 11, 47 percent of UA operating income (called E&G) in FY03 came from the State; whereas, 65 percent came from the State in FY70. During the most recent legislative session, several meetings between members of the Arkansas General

### LEGAL CLINIC

The School of Law's Legal Clinic has been serving the Arkansas community for more than 30 years. Third-year law students enrolled in Legal Clinic receive special licenses to represent nonprofit organizations, indigent clients, and government agencies under faculty supervision. Student attorneys serve in the Washington County District Court and in the Prosecutor's Office, representing juveniles in delinquency matters and providing legal representation in a wide range of civil cases, especially family law matters. All legal services provided are free-ofcharge to the clients, and student service in Legal Clinic counts toward graduation from the School of Law.

The outlook for the future is not encouraging.

#### **FOOD SAFETY**

Poultry Science faculty members are cultivating viruses as natural enemies of bacteria that cause food-borne illnesses, such as Salmonella in chicken. These specialized viruses, called bacteriophages, are ubiquitous and are harmless to humans, other animals, and plants. The faculty members engaged in this project have research support from the Division of Agriculture and the Federal Government and are working through a multi-institutional Food Safety Consortium.

Assembly and presidents and chancellors of the State's four-year public universities were held. The following message was delivered repeatedly by legislators: higher education funding is, at best, fourth priority in receiving new funds from the State. Support for K-12 education is the highest priority, due to the constitutional requirement for the State to provide adequate and equitable funding for pre-college education; the second priority is funding for prisons, to house individuals who have been sentenced but for whom there is no space; third priority is funding for Medicaid since a federal match is available and care must be provided for the elderly and infirm.

Finally, if any new money remained, funding needs for higher education would be considered. However, within higher education there appear to exist differential priorities for funding of two-year and four-year universities. It was stated several times that four-year universities can generate income by raising tuition and by generating private support.

For the 2002-03 academic year, UA tuition increased 7 percent, significantly lower than most peer universities, including Texas A&M (27.6 percent) and South Carolina (22 percent). As shown in Figure 12, UA tuition has kept pace with the national average for four-year public colleges and universities. To increase UA tuition at double-digit rates will cause many capable students to defer a college education or choose a university that cannot provide the lifetime opportunities available at The University of Arkansas.



The responsibility for paying for public higher education has shifted away from the State and onto students and their families.

"Former Mississippi Governor William Winter, a great advocate of education, wrote that 'the road from the poorhouse to prosperity stops at the schoolhouse door.' Arkansas and Mississippi have struggled to compete in the national marketplace because we have failed to understand that excellent educational opportunities—K through graduate school—stimulate economic development, which in turn enhances the quality of life for all. Poverty has been our enemy. The Flagship Universities of Arkansas and Mississippi have stepped forward to provide the leadership needed in both states. The University of Arkansas' 2010 Commission is a model that, if pursued vigorously, will provide high-quality educational opportunities, meaningful research, and much-needed community service. BLUE PRINT MISSISSIPPI is a similar effort in our state. The people of Arkansas and Mississippi will embrace the goals of our universities as they see more clearly that education and research are critical to the eradication of poverty, building stronger economies, and creating a better life for all."

> Robert C. Khayat Chancellor The University of Mississippi

While The University of Arkansas has been very successful in raising private funds, it is neither wise nor possible to secure private gifts to replace public funds. To attempt to replace public funding with private funding for maintenance of existing facilities, utility costs, and the basic operating needs of the University will cause prospective donors to look elsewhere to make a difference with their philanthropy.

The 2010 Commission maintains the position that state appropriation is the strong foundation supporting everything The University of Arkansas does. And, state support has been woefully inadequate, particularly in recent years.

As shown in Figure 13, full-time equivalent (FTE) enrollment increased at The University of Arkansas from 13,051 in FY90 to 14,848 in FY04. Over the same period, state appropriation increased from \$65.3 million to \$97.5 million (Figure 14). Hence, state support per FTE student increased from \$5,002 in FY90 to \$6,570 in FY04 (Figure 15).

However, as shown in Figure 16, increases in state support have not kept up with inflation. Expressed in FY90 dollars, state support per full-time equivalent student has declined from \$5,002 to \$4,010.

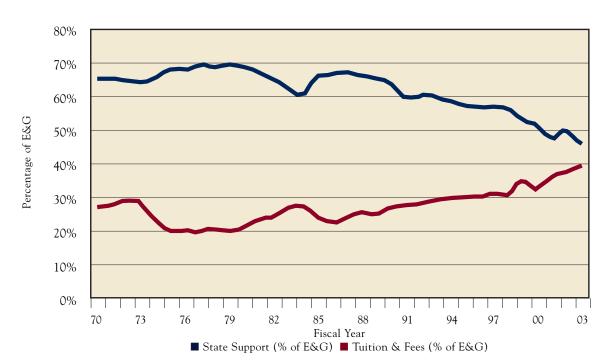
Had state support grown from FY90 to FY04 at the rate of the higher education price index (HEPI), the University of Arkansas FY04 appropriation would have been \$24,140,279 greater than it is. Computing a gap with FY90 as the base assumes that UA FY90 state funding was at the level needed to be nationally competitive. It was not!

The Arkansas Department of Higher Education is engaged in developing a funding formula for public higher education. Based on preliminary results of ADHE's efforts, it appears that the real gap in UA state funding exceeds \$30 million.

The cumulative disadvantage of being funded at levels below its peers has been partially offset by dedicated faculty and staff, who perform at nationally competitive levels without the requisite resources. However, competing with national universities that have greater resources has taken its toll throughout the University. Arkansas must *pick up the pace* in its support of The University of Arkansas.

The University of Arkansas cannot meet the challenge of the 2010 Commission goals with further proportional reductions in state appropriation. Progress can be made, but it will be less than the Commission believes is possible or best for Arkansas.

The State must decide: What does she want The University of Arkansas to be? What does she want herself to be? They are not independent outcomes. As The University of Arkansas goes, so goes the State of Arkansas.



 $\begin{array}{l} \mbox{Figure 11. Change in the mix of the University of Arkansas annual operating income coming from the state vs. the student: state/student mix changed from 65%/27% in FY70 to 47%/40% in FY03. (University of Arkansas operating income, designated E&G, is the sum of state appropriation, tuition and mandatory fees, and other undesignated income.) \\ \end{array}$ 

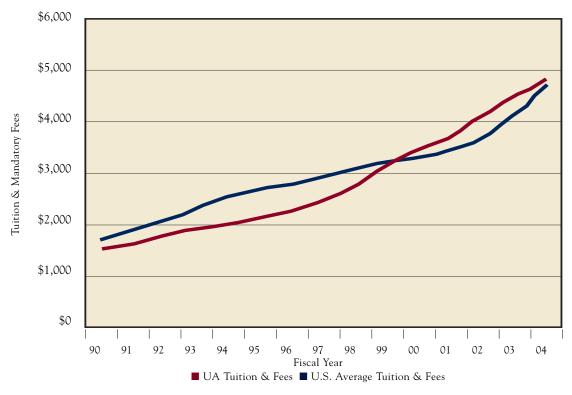


FIGURE 12. TUITION AND MANDATORY FEES AT THE UNIVERSITY OF ARKANSAS VS. THE AVERAGE TUITION AND MANDATORY FEES AT THE NATION'S FOUR-YEAR PUBLIC COLLEGES AND UNI-VERSITIES. UA TUITION & FEES INCREASED FROM \$1,563 FOR FY90 to \$4,768 FOR FY04; OVER THE SAME PERIOD, THE NATIONAL AVERAGE INCREASED FROM \$1,696 to \$4,694. SOURCE: TRENDS IN COLLEGE PRICING, COLLEGE BOARD, 2003.

The State's major funding priorities can be divided into two categories: those that meet the needs of a small fraction of citizens by addressing immediate financial and health needs, as well as inequities of the past (Medicaid and prisons are examples) and those that secure a brighter future for all citizens (education and economic development are examples). Likewise, the State's funding sources can be classified as either "revenue producers" or "revenue consumers." Revenue producers produce financial resources for the State; revenue consumers consume financial resources. Money spent on revenue producers is an investment with real monetary returns; money spent on revenue consumers is an expenditure that does not yield direct monetary returns to the State.

To generate the money needed for the State's revenue consumers, it is essential that money be invested in the State's revenue producers. Education (pre-kindergarten through post-doctorate) is a critical revenue producer for Arkansas. Investments in education yield substantial returns to the State and to the individuals being educated.

Corrections is a revenue consumer, as is Medicaid.

However, due to federal matching of Medicaid payments by states, Arkansas pays less than the full cost of providing Medicaid for the elderly and disabled.

Due to a faster payback on the investment, money spent on four-year universities yields a higher return for both the State and the university graduates than money spent on two-year colleges; likewise, money spent on two-year colleges yields a greater return to the State and the individuals than money spent on K-12. Figure 17 depicts median earnings for various levels of education; likewise, employment rates are shown as a function of education levels.

It is not coincidental that Arkansas ranks at or near the bottom among the 50 states in both median household income and percentage of adults with at least a bachelor's degree. For Arkansans to enjoy the economic benefits found in the vast majority of states, a significant increase must occur in the number of college graduates residing in the State. As the number of Arkansans with at least a bachelor's degree increases, so will the average income of Arkansans. With an increase in average income, state revenues will increase, thus providing resources needed for revenue consumers.

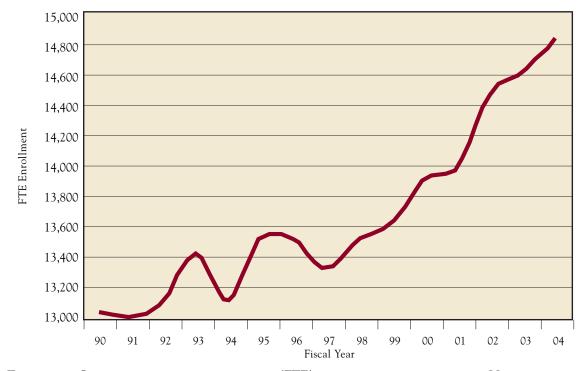


FIGURE 13. GROWTH IN FULL-TIME EQUIVALENT (FTE) STUDENT ENROLLMENT AT THE UNIVERSITY OF ARKANSAS: FROM 13,051 IN FY90 TO 14,848 IN FY04.

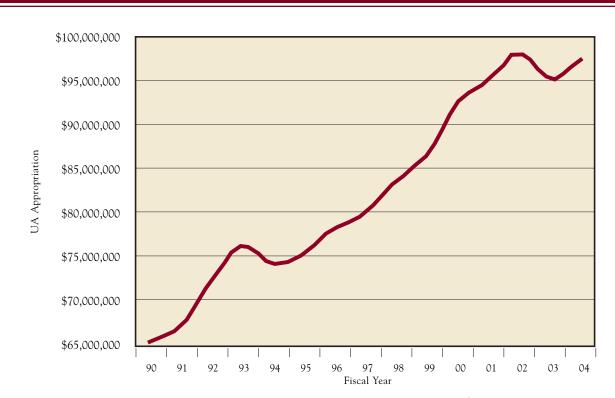


Figure 14. State appropriation for the University of Arkansas: from \$65,278,775 for FY90 to \$97,547,664 for FY04.

#### THE MILKEN REPORT

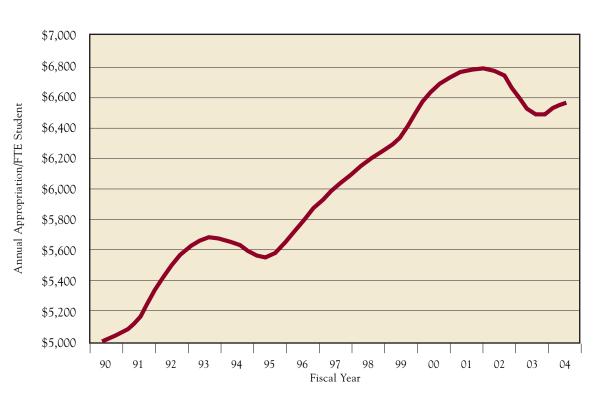
In September 2002, the Milken Institute, an independent economic think tank, issued its State Technology and Science Index, a report offering a comprehensive inventory of science and technology assets in each of the 50 states. The report provides states with a benchmark, gauges their progress in technology, and assesses their leveraging capabilities to promote economic development. Arkansas was ranked 50<sup>th</sup> overall. The six-point gap between Arkansas and its nearest competitor, Mississippi, is the largest gap among the scores. (See Appendix C.) The following passage puts the Arkansas story into the context of the lowest-performing states. "Arkansas is in the unenviable position of 50<sup>th</sup> (last) on the index. Its best ranking on any of the five composites was 45<sup>th</sup>."

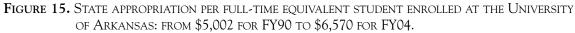
In the 56 categories of the *State Technology and Science Index*, Arkansas ranked in the bottom tier in all but 13.

The better news is this: The University of Arkansas, buttressed by adequate state support, is in position to directly or indirectly improve the State's rankings in 53 of those 56 categories. Those states that have fared well in the Milken Institute rankings have great research universities. Because 53 of the 56 categories are affected directly by the performance of research universities, the path forward for Arkansas is clear: strengthen support of its research universities, principally The University of Arkansas and the University of Arkansas for Medical Sciences, in order to create a strong economy for the State. In a separate study by the Milken Institute, the *Best Performing Cities Report*, Northwest

"We cannot afford to let the short-term fiscal shortages in our State government affect the long-term health of The University of Arkansas and the future of our State."

Gary C. George Chief Executive Officer George's, Inc.





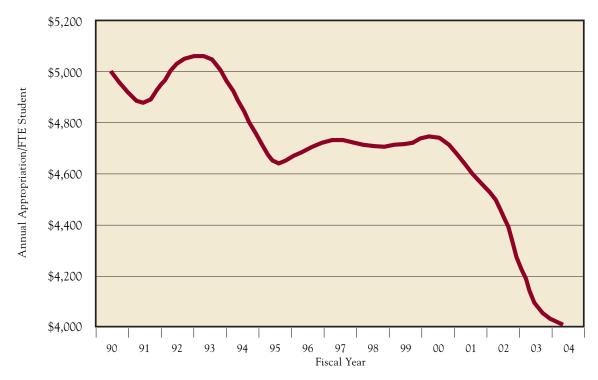


FIGURE 16. INFLATION ADJUSTED STATE APPROPRIATION PER FULL-TIME EQUIVALENT STUDENT AT THE UNIVERSITY OF ARKANSAS, EXPRESSED IN FY90 DOLLARS: FROM \$5,002 IN FY90 TO \$4,010 IN FY04. THE INFLATION ADJUSTMENT CALCULATION IS BASED ON HIGHER EDUCATION PRICE INDEX (HEPI).

Arkansas was ranked the number-one region in the country for economic performance. This is recognition of The University of Arkansas' impact on the development of this region. An increase in state support will help maximize the University's impact on the economic and cultural development of the entire State of Arkansas.

#### THE PEER 7

In MAKING THE CASE, the 2010 Commission compared Arkansas to the Peer 7—a group of seven states whose experiences provide a useful contrast to Arkansas. Iowa was chosen because its population and geographic size are similar to Arkansas and because its higher education system is very different from the Arkansas system. North Carolina, Texas, and Virginia were chosen on the basis of their long histories of emphasizing quality in higher education. Georgia was included because of the progress made during the 1990s. Kentucky and Tennessee were included due to their governors' emphases on building world-class public research universities.

The State of Arkansas continues to rank last in the Peer 7 in three of four key measures related to economic development (Table 3):

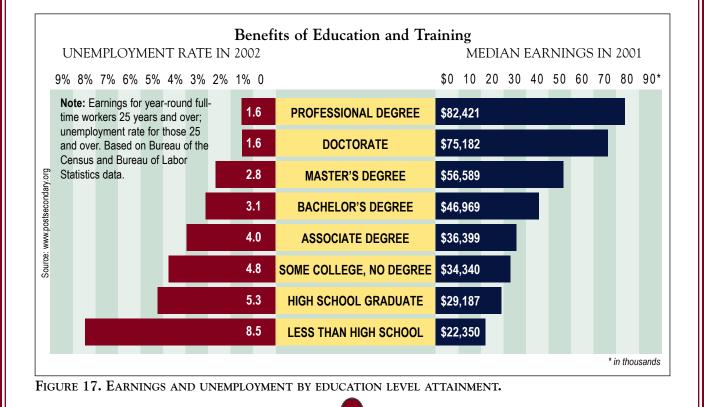
• Percentage of adult population with bachelor's

degree or more: Arkansas: 18.3 percent; Peer 7 average, 24.9 percent

- Personal income per capita: Arkansas: \$23,400; Peer 7 average, \$28,400
- Federal R&D: Arkansas: \$189 million; Peer 7 average, \$2.26 billion
- Federal R&D per capita: Arkansas: second-tolast at \$70; Peer 7 per capita average, \$264.

Not surprisingly, when compared to the 12 top public research universities in the Peer 7 states, The University of Arkansas ranks last in several key measures, according to data collected by TheCenter, a non-profit research institute out of Gainesville, Florida, dedicated to assessing the progress of research universities (Table 4). The University of Arkansas ranks last in total research expenditures, with \$78.3 million for 2001, compared to top-ranked Texas A&M at \$407 million. It also ranks last in federal research expenditures for 2001, with \$23 million, compared with University of North Carolina's \$221.6 million. Further comparisons on various institutional characteristics are shown in Table 5.

Most comparative economic studies place a premium on the quality of public higher education in general and the quality of world-class public research universities and academic research



programs in particular. Though The University of Arkansas has posted significant gains on multiple fronts, its progress has not been sufficient to move the State forward in economic development rankings. Much stronger progress—in enrollment growth, in diversity, in graduate and research programs, and in academic quality and reputation—will be required to achieve that result before 2010. Those gains, in turn, will have a significant effect on key Milken S & T Index economic development indicators, such as percentage of the population with bachelor's and advanced degrees, research grants and contracts, business incubator start-ups, patents, research capitalization, and all of the relevant science, technology, and business growth variables. For that to happen, however, greater state funding is required.

#### THE HIGHER EDUCATION LANDSCAPE IN ARKANSAS

In 1991, Act 1244 was passed, establishing the Arkansas Technical and Community College System.

State	Mid-Year Population Estimates (2002) (millions)	% with Bachelor's Degree or More (2002)	Personal Income per Capita (2002) (thousands)	Federal R&D (FY01) (millions)	Federal R&D per Capita (FY01)
Arkansas	2.71	18.3%	\$23.4	\$189	\$70
Georgia	8.56	25.0%	\$28.7	\$3,416	\$406
lowa	2.94	23.1%	\$28.1	\$341	\$116
Kentucky	4.09	21.6%	\$25.7	\$273	\$67
North Carolina	8.32	22.4%	\$27.6	\$1,415	\$172
Tennessee	5.80	21.5%	\$27.4	\$1,133	\$197
Texas	21.78	26.2%	\$28.4	\$4,347	\$203
Virginia	7.29	34.6%	\$32.7	\$4,924	\$684
Peer Avgs	8.40	24.9%	\$28.4	\$2,264	\$264

Table 3. A comparison of educational levels and research university-linked economic development indica-<br/>tors in Arkansas and the Peer 7 states.

Table 4. Expenditures of top public research universities in Peer 7 states reported by TheCenter, an independent think tank based in Gainesville, Florida.

Research University	Total Research Expenditures FY01 (thousands)	Federal Research Expenditures FY01 (thousands)
Texas A&M University	407,041	149,382
Georgia Institute of Technology	306,533	143,836
University of North Carolina-Chapel Hill	303,576	221,615
North Carolina State University	299,259	95,875
University of Texas-Austin	295,104	195,184
University of Georgia	272,298	66,913
University of Iowa	255,348	155,249
Virginia Polytechnic Institute and State University	216,323	77,384
University of Kentucky	211,721	86,239
Iowa State University	179,196	62,024
University of Virginia	149,547	122,868
University of Tennessee-Knoxville	111,710	48,739
University of Arkansas	78,303	23,172

Table 5. Selected institutional characteristics of top public research universities in Peer 7 states reported
by TheCenter, an independent think tank based in Gainesville, Florida.

Research University	Number of Doctorates 2002	Post-Doctoral Appointees 2001	Number of National Academy Members 2002
University of Texas-Austin	639	207	53
Texas A&M University	504	232	17
University of Georgia	393	187	7
University of North Carolina-Chapel Hill	390	594	36
Virginia Polytechnic Institute and State University	326	111	12
University of Virginia	321	366	20
University of Iowa	320	370	18
North Carolina State University	300	75	18
University of Tennessee-Knoxville	276	120	1
Georgia Institute of Technology	257	64	26
Iowa State University	239	180	9
University of Kentucky	216	250	3
University of Arkansas	106	57	2

This legislation allowed specified vocational/technical schools to convert to technical colleges if they could win regional accreditation. The act spawned 11 new technical colleges, with related legislation authorizing three more. After 1991, additional legislation encouraged the evolution of numerous technical colleges into community colleges and ultimately their association with four-year universities and university systems. As a result:

- Arkansas ranks 10<sup>th</sup> nationally in the number of public postsecondary institutions per capita.
- Nearly everyone in Arkansas who wants to earn at least a two-year degree can do so, at a location close to home (within 45 miles). See Figures 18-20.

The improvement in access to higher education would seem to be a positive development for

Arkansas, but there have been some unintended effects:

- The college-going rate in Arkansas has increased by only 2.2 points, to 59.5 percent, since 1992 when the rate was 57.3 percent.
- Arkansas ranks 49<sup>th</sup> in the percentage of high school graduates receiving two-year degrees.
- Only 3 percent of four-year degree-seeking students who matriculate first at a two-year public institution in Arkansas graduate with a bachelor's degree within six years from an Arkansas public institution. Nationally, 13 percent do so (Figure 21).

Largely because the State supports so many public institutions, Arkansas is now in the second of four tiers in state appropriations for higher education per

"Today there is no doubt that a nationally competitive research university is utterly essential to the economic, social, and cultural vitality of any state. There once was a time when a strong research university provided a state with a competitive advantage. Those days are gone. In the 21st Century, having a competitive research university has become a fundamental necessity, every bit as much as good roads and hospitals. The University of Arkansas' report, MAKING THE CASE, provided comprehensive data and a sophisticated strategic argument for building just such a university. I and my colleagues around the country found it extremely valuable as we crafted our own plans and agendas."

> Mark A. Emmert Chancellor Louisiana State University



The State needs many more graduates to compete successfully in the knowledge-based economy of the 21st Century.

capita. Too many institutions must compete for resources that have not grown proportionately. The result is that none receive adequate base funding from the State. In comparing The University of Arkansas' funding in FY00 with that of other research universities in the Southern Regional Education Board , the Arkansas Department of Higher Education (ADHE) concluded that \$17 million should be added to The University of Arkansas base in support of its research mission. More recent studies by ADHE in developing a funding formula for the State suggest that the gap in funding for The University of Arkansas exceeds \$30 million.

The 2010 Commission believes it is time to focus on the quality of Arkansas' four-year research institutions, particularly The University of Arkansas. It applauds Governor Mike Huckabee for appointing a Blue Ribbon Committee to address higher education issues of concern to the 2010 Commission and appreciates the Governor's appointment of the 2010 Commission Chair, Reynie Rutledge, Sr., to the Blue Ribbon Committee.

- The State needs many more graduates with bachelor's degrees and advanced degrees to compete successfully in the knowledge-based economy of the 21<sup>st</sup> Century.
- The adoption of a scholarship program that encourages community college graduates to complete their bachelor's degrees would add to Arkansas' skilled workforce.
- The state requires a greatly expanded academic research base in order to attract the resources (intelligent people and financial support from a variety of sources) that will spur economic development.
- The combination of a skilled workforce of University of Arkansas graduates and research being done at the University will lead to spinoff companies.
- These spin-off companies will help Arkansas compete in the economy of the 21<sup>st</sup> Century.

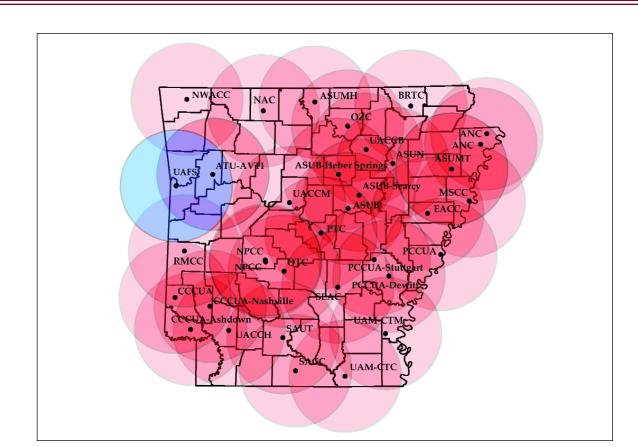
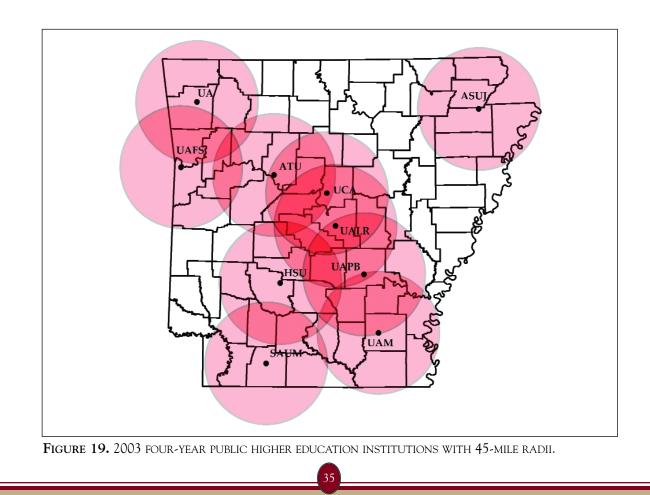


FIGURE 18. 2003 Two-year public higher education institutions with 45-mile radii. Note: UA-Fort Smith fulfills both two- and four-year missions.



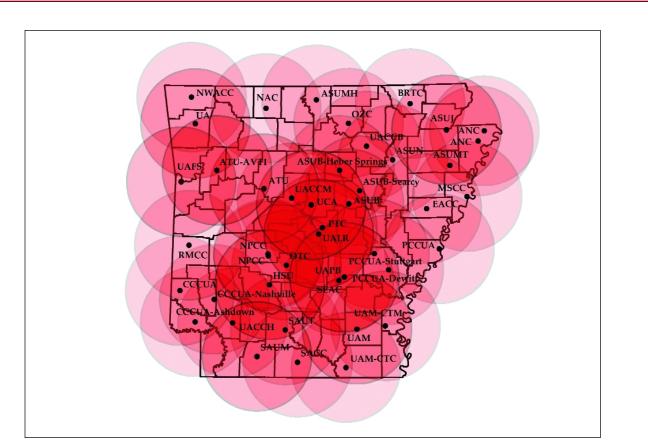
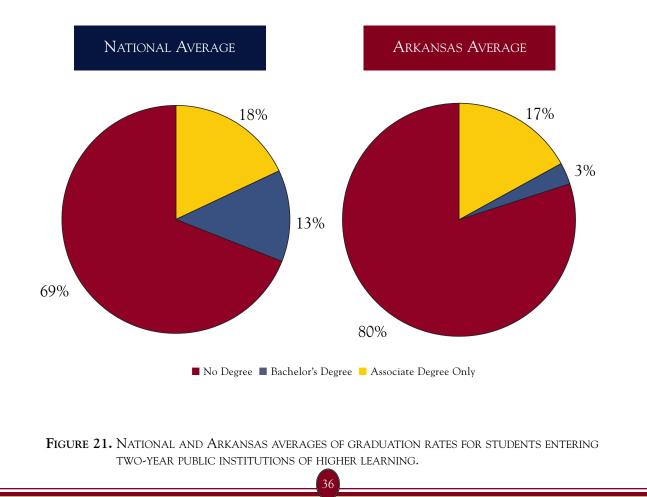


FIGURE 20. 2003 Two- and four-year public higher education institutions with 45-mile radii.



"It's no surprise to see Northwest Arkansas thriving.... The U of A is a contributor not only to the economy of NWA, but the whole State and beyond. As a result of its graduates and research, the U of A is making a difference."

> John H. Tyson Chairman and CEO Tyson Foods, Inc.



# RECOMMENDATIONS

In this final section, the 2010 Commission provides recommendations for what must occur in the months and years ahead if The University of Arkansas is to realize its vision as a nationally competitive, studentcentered research university serving Arkansas and the world.

Thirty recommendations are made. Fourteen are directed to the Governor and the General Assembly; seven are intended for business leaders in Arkansas; and nine are aimed at The University of Arkansas community—trustees, benefactors, students, faculty, staff, administrators, alumni, and friends.

#### Picking up the Pace

Arkansas, the United States, and the world have changed in ways no one could have predicted in the summer of 2001 when the 2010 Commission was at work on MAKING THE CASE.

This new environment mandates even greater urgency that The University of Arkansas realize its vision. A stronger University of Arkansas will educate the next generation of leaders here and abroad—the generation that can create a better world. Through its students and its research, the University addresses the challenges that face the state and nation, and mankind as a whole. New products, processes, solutions, insights, and interpretations create economic opportunity, drive economic development, and ultimately can improve the lot of all Arkansans, and influence for good the lives of those beyond our borders.

Informed by a highly successful first effort, confident in the message contained in this second report, the 2010 Commission renews its commitment to this allimportant task. This report describes the progress made, the current context, and the course ahead, encouraging the University community, its supporters, and friends to pick up the pace to realize The University of Arkansas' vision of emerging as a nationally competitive, student-centered research university serving Arkansas and the world. By doing so, the contributions of The University of Arkansas will be felt throughout Arkansas and around the world.

#### GOVERNOR AND GENERAL ASSEMBLY

#### Recommendation #1

*Pick up the pace* in supporting the University's five major goals and providing the increased funding

necessary to attain them. Hold the University accountable for the goals it has set and reward it as the goals are achieved.

Recognize that The University of Arkansas represents one of the State's greatest resources for positioning the State of Arkansas as a leader in the economy of the 21<sup>st</sup> Century.

#### Recommendation #2

Endorse the vision for The University of Arkansas to emerge as a nationally competitive, student-centered research university serving Arkansas and the world.

Recognize that The University of Arkansas' drive for excellence and national stature is a means to a larger end: building the kind of institution that can assist the State of Arkansas in developing the knowledgebased, high-technology economy that will enable Arkansans to compete successfully in a global economy and enjoy a higher quality of life.

#### Recommendation #3

Establish a priority for higher education funding equal to that for funding K-12.

Nationally, Arkansas ranks at or near the bottom in both median family income and the percent of adults having at least a bachelor's degree. That is not a coincidence. Income is highly correlated with education level. Likewise, unemployment rates are inversely proportional to educational level (as shown in Figure 17).

For Arkansas to have a chance of moving into the ranks of states whose citizens enjoy economic and cultural benefits not available to the vast majority of Arkansans, it is essential that investments be made to equip Arkansans to compete in the 21<sup>st</sup> Century knowledge-based economy. Giving a higher priority to funding higher education, in general, and four-year universities, in particular, is essential if Arkansas

is to partake of the bright future that is already assured for so many other states.

#### Recommendation #4

Establish a new source of state revenue, drawing on the successes of other states. Establish and dedicate funds to support both need-based and merit-based scholarships, and to address critical needs of the State.

The 2010 Commission notes that the lack of dedicated funding requires institutions to pay for scholarships out of their base budgets, which are already inadequate, and puts added stress on state budgets.

#### Recommendation #5

Adopt the funding formula currently under development by the Arkansas Department of Higher Education.

Currently, institutions of higher learning must plead their cases individually with the General Assembly. The result is significant unevenness in funding levels among two-year institutions and four-year universities with overlapping goals and missions. With its unique role and mission, The University of Arkansas must compare its funding with that of other national public research universities.

The current funding situation provides compelling evidence that a more effective approach is needed one that responds to the issues of the State as a whole rather than as separate political or geographic regions. The 2010 Commission endorses the funding formula currently under development by the Arkansas Department of Higher Education.

#### Recommendation #6

Build the State's research capacity, particularly at institutions showing the greatest promise for research and scholarship. Increase the amount of funds available to university researchers for required matches on

"If Arkansas intends to be a leader in the knowledge-based economy, the State will depend on the research done at The University of Arkansas."

Georgia Elrod Harris Past Chair Arkansas Higher Education Board "The report, MAKING THE CASE, eloquently presented the context for the role of a research university in building a state's economy for the future and in offering new opportunities for young people who previously may not have known they could reach that high. Having come from a Southern family background myself, where I was the first generation to go to college, being able to attend a state university was crucial to opening new horizons for me. The University of Arkansas is on track to open doors for thousands of young men and women like me who will in turn do remarkable things for their home State."

> G. Wayne Clough President Georgia Institute of Technology

competitive research grants. Increase support for the Arkansas Science and Technology Authority.

Every dollar invested in university-based research in Arkansas yields an annual return on investment to the Arkansas economy of 23.3 percent. This extraordinary return on investment in universitybased research should be recognized and supported.

#### Recommendation #7

Develop a statewide plan for competing in the knowledge-based economy of the 21<sup>st</sup> Century. In particular, identify and prioritize key areas and institutions best positioned to strengthen the State's intellectual infrastructure in research, science, technology, education, and medicine.

Channel the necessary financial resources to these priority areas and institutions, including (in the case of education) the Arkansas Leadership Academy. Draw upon initiatives developed by the Southern Governors Association and the Southern Technology Council to help create this statewide plan.

#### Recommendation #8

Leverage private support by creating a dedicated State fund to match private gifts to endow professorial chairs and academic programs and to construct academic buildings.

Florida, Kentucky, Oklahoma, Texas, and other states have used this strategy successfully. Arkansas currently lacks the resources necessary to fully fund higher-education competitively. Public-private partnerships must be encouraged and maximized.

#### Recommendation #9

Enhance incentives for venture capital and for high

technology firms to locate in Arkansas, as well as retain and strengthen in-state companies to prevent them from migrating elsewhere.

Build on the foundation established in the last legislative session. Leverage investments in the Arkansas Department of Economic Development and Arkansas Science and Technology Authority.

Arkansas should consider the innovative approaches other states are using to attract firms from high-cost, congested areas of the nation. As an example, Nebraska supports university-based research that leads to commercial intellectual property and guarantees rates of return to venture capital firms by rebating income taxes.

#### Recommendation #10

Provide institutional incentives for rapidly increasing the percentage of Arkansans with baccalaureate and advanced degrees (master's, professional, and doctoral).

To compete successfully in the 21<sup>st</sup> Century, Arkansas must substantially increase the number of adults with at least a bachelor's degree. One approach is to provide incentives for graduates of two-year programs to pursue four-year degrees. Examples of such incentives include transfer scholarships, direct rewards to two-year colleges for each graduate enrolling in a four-year institution, and forgivable loans that are paid back with employment in Arkansas.

#### Recommendation #11

Adopt a scholarship program that encourages community college graduates to complete their bachelor's degrees. Put programs in place to increase the number of Arkansas two-year college students who go on to earn four-year degrees. An example of this is the recent proposed partnership between Northwest Arkansas Community College and The University of Arkansas. The University is seeking ways to serve place-bound students so that they may achieve a four-year degree. The State could assist in this process by providing scholarships to these students.

#### Recommendation #12

Provide incentives for two- and four-year institutions to collaborate by offering degrees on other campuses, thereby avoiding unnecessary duplication, and expanding opportunities for Arkansas.

The investment made in the State's two-year colleges should be leveraged to produce more four-year graduates. Two-year colleges should more frequently become entry points for four-year institutions. The partnership between The University of Arkansas and Northwest Arkansas Community College is an example of the desired collaboration. New resources will be required for it to succeed.

#### Recommendation #13

Support efforts to recruit high-ability students from other states and nations to attend college in Arkansas, thus helping build the technical workforce needed for the 21<sup>st</sup> Century economy.

Studies show that college students recruited from out-of-state are 2.5 times more likely to live in the state that is the home of the institution from which they graduate than those who leave the State to pursue their college education.

#### Recommendation #14

Upgrade the State's information systems infrastructure and fund a statewide digital library for use by public libraries, as well as public and private colleges and universities. Having high-speed, digital information resources is as essential in the  $21^{st}$  Century as transportation infrastructure was in the  $20^{th}$  Century.

#### BUSINESS LEADERS

#### Recommendation #15

*Pick up the pace* in supporting higher education by investing in and becoming more involved in higher education institutions. Support the Governor's Blue Ribbon Committee on Higher Education. Provide increased philanthropic support. Sponsor research projects and contracts that benefit business. Offer more opportunities for college students through internships, externships, and mentoring programs.

Work with colleges and universities to develop programs that make students aware of the corporate and business sector and the opportunities therein.

Explore the creation of full partnerships with colleges and universities to accomplish all this and more. A committed business community will help Arkansas higher education achieve enhanced quality and effectiveness.

#### Recommendation #16

Actively support the 2010 Commission's recommendation for a new source of revenue in the State of Arkansas.

Support efforts to increase revenue for need-based and merit-based scholarships and for other areas of critical need.

#### Recommendation #17

Consider the long-term value of hiring employees with four-year degrees to enhance corporate skill sets and assist the State in increasing the number of adults having at least a bachelor's degree.

Such hiring policies will improve Arkansas' standing

"The future success of Arkansas depends on the acquisition and application of knowledge."

Robert Madison Murphy Chairman Murphy Oil Company "The University of Arkansas and the State are in a unique partnership, one that benefits our citizens, our economy, and our future."

relative to other states, making the State more competitive nationally. All Arkansans will benefit from the stronger economy that results.

#### Recommendation #18

Pay nationally competitive salaries for college graduates and provide competitive benefits to attract outstanding new talent to Arkansas and stem the exodus of outstanding native talent to other states.

It is essential for the success of the State of Arkansas that the most-skilled graduates remain in the State.

#### Recommendation #19

Provide time, opportunities, and financial incentives for employees to obtain bachelor's and advanced degrees (master's, professional, and doctoral).

The increasing complexity of all fields demands higher levels of education and training. Employees with advanced degrees will be particularly important in providing the scientific, technological, and intellectual leadership required to ensure that Arkansas business and industry can compete globally.

#### Recommendation #20

Define workforce development needs and communicate them to appropriate colleges and universities.

Today's technology allows education to be brought to students, regardless of location. The question is no longer what to teach, but where and how to teach it.

#### Recommendation #21

Provide more educational opportunities and educational infrastructure for employees on site and/or in the context of their lives. Invest in distance learning on company sites or work with other businesses, local high schools, National Guard units, and colleges and universities to gain access. William T. Dillard II Chief Executive Officer Dillard's, Inc.

Partnering with others can be a winning strategy. Develop career advancement ladders based on performance as well as increasing educational attainment and skills development. Make time and training available to employees. Employees should be given the opportunity to learn to use instructional technology and take the courses needed for professional advancement.

#### UNIVERSITY OF ARKANSAS COMMUNITY

#### Recommendation #22

*Pick up the pace* in 1) improving academic quality and reputation; 2) increasing the size and quality of the student body; 3) increasing the diversity of the faculty, staff, and student body; 4) increasing private support; and 5) increasing federal and state support.

The success of The University of Arkansas directly impacts the success of the State of Arkansas. Making progress toward these five institutional goals will positively affect the quality of life of all Arkansans.

#### Recommendation #23

Realize the vision of becoming a nationally competitive, student-centered research university serving Arkansas and the world.

A nationally competitive University of Arkansas will stimulate the economy of the State and enhance the quality of life of its citizens.

#### Recommendation #24

Focus on being counted among the best in the nation, both as a university and as individual academic and administrative units. Strive to be ranked among the nation's top 50 public universities.

Benchmark against other national research universities and their respective units. Strive to compare favorably with other national research universities. Identify "best practices," improve on them, and apply them within The University of Arkansas.

#### Recommendation #25

Achieve the University's 2010 goals of enrolling 22,500 students, enrolling 4,000 minority students, having 88% of freshmen return as sophomores, and graduating 66% of entering freshmen within six years. Meet 2010 annual research goals, including \$100 million in new awards, \$150 million in expenditures, and \$50 million in federal expenditures. Increase annual private giving to \$100 million and endowment to \$1 billion by 2010. Secure operating revenues (from state support and tuition) of \$380 million by 2010.

Achieving these 2010 goals is essential both to the State of Arkansas and The University of Arkansas.

#### Recommendation #26

Develop a more concerted effort, between the University and the Arkansas Congressional Delegation, to seek out and support opportunities to bring federal research funds to the State.

Communicate to elected leaders that the University's research programs are positioned to make a profound impact on the State's economy. Every dollar invested in university-based research in Arkansas yields an annual return on investment to the Arkansas economy of 23.2 percent.

#### Recommendation #27

Provide leadership for the education systems in the State, private and public.

As the State's only comprehensive research university, The University of Arkansas must provide leadership statewide, from pre-kindergarten to post-doctorate level, to increase the state's collegegoing rate, to improve student retention throughout the system, and to specifically target improvement of six-year graduation rates among the state's colleges and universities. The University also must strive to increase research capacity in the State by working with other colleges and universities to insure that they become stronger research partners. The University must lead the way in increasing education standards across the State; it must be innovative, collaborative, and cooperative in working with other colleges and universities to address the teaching shortage and nursing shortage in the State; and it must serve the professional advancement needs of teachers and education administrators.

#### Recommendation #28

Encourage students and parents to realize higher education is an investment, not an expense.

To successfully educate students and parents regarding their investment in their future via higher education will necessitate a change of mindset, a change of culture for the State. But it must occur.

Too few understand the difference in purchasing a car or truck and paying for a college education. While willing to borrow money to purchase a vehicle that depreciates in value, too many are unwilling to borrow money to secure a bachelor's degree that appreciates in value.

#### Recommendation #29

Create a communications and marketing plan to ensure that *Picking up the Pace* is seen, read, and understood by key opinion leaders and multiple constituencies across the State.

Communicate regularly with business, education, government, and media leaders throughout the State regarding progress being made. Harness the power and prestige of the 2010 Commission in communicating the vision for the University and the positive implications for the State of realizing the vision.

#### Recommendation #30

Communicate that The University of Arkansas is the best hope for Arkansas to have a nationally competitive research university. Success in the knowledgebased economy of the 21<sup>st</sup> Century depends on having such an institution and the value such an institution brings to the State.

For this reason, it is essential that The University of Arkansas strive to be counted among the nation's best public research universities. JAMES ERIC GLINEBELL ACK GENE CLINE JR EVEN LYNN CLIFTON CKY JEAN CLIFT



# **APPENDICES**

# APPENDIX A Arkansas' Public Colleges & Universities, 2003

University of Arkansas

Name

Two-Year Public College

Branch of Two-Year Public College

- University of Arkansas for Medical Sciences Branch of Four-Year Public College
- Four-Year Public University

#### Abbreviation

Arkansas Northeastern College	ANC
Arkansas State University - Beebe	ASUB
Arkansas State University - Heber Springs	ASUB-Heber*
Arkansas State University - Jonesboro	ASUJ
Arkansas State University - Mountain Home	ASUMH
Arkansas State University - Newport	ASUN
Arkansas State University - Searcy	ASUB-Searcy*
Arkansas State University Technical Center - Marked Tree	ASUMT*
Arkansas Tech University	ATU
Arkansas Valley Technical Institute of Arkansas Tech University	ATU-AVTI
Black River Technical College	BRTC
Cossatot Community College of the University of Arkansas	CCCUA
Cossatot Community College of the University of Arkansas - Ashdown	CCCUA-Ashdown*
Cossatot Community College of the University of Arkansas - Nashville	CCCUA-Nashville*
East Arkansas Community College	EACC
Henderson State University	HSU
Mid-South Community College	MSCC
National Park Community College	NPCC
North Arkansas College	NAC
Northwest Arkansas Community College	NWACC
Ouachita Technical College	OTC
Ozarka College	OZC
Phillips Comm. College of the University of Arkansas	PCCUA
Phillips Comm. College of the University of Arkansas - DeWitt	PCCUA-DeWitt*
Phillips Comm. College of the University of Arkansas - Stuttgart	PCCUA-Stuttgart*
Pulaski Technical College	PTC
Rich Mountain Community College	RMCC
South Arkansas Community College	SACC
Southeast Arkansas College	SEAC
Southern Arkansas University - Magnolia	SAUM
Southern Arkansas University - Tech	SAUT
University of Arkansas Community College at Batesville	UACCB
University of Arkansas Community College at Hope	UACCH
University of Arkansas Community College at Morrilton	UACCM
University of Arkansas	UA
University of Arkansas at Fort Smith	UAFS
University of Arkansas at Little Rock	UALR
University of Arkansas at Monticello	UAM
University of Arkansas at Monticello - College of Technology - McGehee	UAM-CTM*
University of Arkansas at Monticello - Forest Echoes Technical Institute - Crossett	UAM-CTC*
University of Arkansas at Pine Bluff	UAPB
University of Arkansas for Medical Sciences	UAMS
University of Central Arkansas	UCA
· · · · · · · · · · · · · · · · · · ·	

\* These institutions do not have Arkansas Higher Education Coordinating Board approved abbreviations.

## APPENDIX B Science and Technology Indicators National Rankings of Peer States

Metric	AR	GA	IA	KY	NC	ΤN	ТΧ	VA
Funding In-Flows R&D Expenditures/\$1,000 of GSP Industry R&D \$/\$1,000 of GSP Federal R&D \$/\$1,000 of GSP University R&D \$/\$1,000 of GSP Federal Obligations for R&D/\$1,000 of GSP SBIR Awards/10,000 Businesses SBIR Award\$/\$1,000 of GSP STTR Award\$/\$1,000 of GSP	46 39 27 44 49 48 47 37 35	36 36 21 21 8 35 35 24 31	32 33 35 38 50 49 n/a n/a	42 38 50 37 48 46 45 28 34	21 23 20 12 31 31 33 33 33 37	31 31 32 38 28 30 32 12 12	27 25 29 32 33 25 29 35 36	20 29 5 40 3 6 7 3 3
Human Resources NAEP Science Test Scores % of Population Completing High School % Associate's Degrees Granted/Pop 18-24 % Bachelor's Degrees Granted/Pop 18-24 % S&E Bachelor's Granted /Bach's Granted % Grad Student (S&E)/Pop 18-24 % of Workforce with Recent Bachelor's Degree (S&E) % of Workforce with Recent Master's Degree (S&E) % of Workforce with Recent PhD (S&E)	30 40 45 44 28 49 50 43 38	28 37 50 46 15 40 26 19 28	n/a 9 6 18 16 31 44 39	17 48 41 39 40 46 42 39 46	25 46 38 31 22 28 2 24 18	26 45 46 35 43 42 36 40 45	28 46 47 29 26 23 21 27	17 21 37 22 10 11 19 4 21
<b>Capital Investment &amp; Business Assistance</b> Venture Capital Invested/\$1,000 of GSP SBIC Funds Disbursed/\$1,000 of GSP IPO Funds Raised/\$1,000 of GSP Business Incubators/10,000 Businesses	43 44 39 26	13 18 4 20	45 33 8 41	39 30 38 37	16 23 30 16	31 21 26 21	7 20 17 43	10 12 9 15
<b>Technology Intensity of Business Base</b> % Establishments in Tech Intensive SICs % Employment in Tech Intensive SICs % Payroll in Tech Intensive SICs % Business Births in Tech Intensive SICs Net Tech Intensive Formations/10,000 Estab.	45 39 43 47 36	13 34 35 12 9	46 26 32 45 42	43 28 22 38 24	24 31 33 24 12	35 27 29 42 47	17 20 15 20 18	4 3 1 2 3
Outcome Measures Patents Issues/10,000 Businesses Inc 500 Companies/10,000 Businesses FAST Companies/10,000 Businesses Average Annual Earnings/Job % Population Above Federal Poverty Level Per Capita Personal Income Labor Force Participation Rate % of Workforce Employed % of Households w/Computer % of Households w/Internet Access Median Ranking	46 35 33 46 50 47 49 37 49 49 <b>44</b>	29 8 13 17 31 23 26 15 39 37 <b>26</b>	26 39 28 37 4 33 8 3 15 24 <b>32</b>	37 17 33 35 35 39 42 44 45 43 <b>39</b>	25 34 17 25 37 31 23 44 43 42 <b>25</b>	30 26 30 44 35 39 23 41 41 <b>32</b>	18 25 18 15 44 24 27 33 34 32 <b>27</b>	32 3 13 6 13 20 6 18 12 <b>10</b>
Previous Median Ranking	44 45	20	33	39 40	25 24	30	25	11

LEGEND: R&D (Research & Development); GSP (Gross State Product); SBIR (Small Business Innovation Research); STTR (Small Business Technology Transfer Research); NAEP (National Assessment of Educational Progress); S&E (Science and Engineering); SBIC (Small Business Investment Company); IPO (Initial Public Offering); Tech Intensive SICs (28 of the 3-digit Standard Industrial Codes included in the Bureau of Labor Statistics' definition of high-technology industries) Inc 500 (Inc. Magazine's list of 500 privately held companies ranked on revenue growth over the last 5 years); FAST (Delloite & Touche ranking of the 500 fastest growing U.S. technology companies over a 5-year period).

SOURCE: The Dynamics of Technology-Based Economic Development: State Science & Technology Indicators, Office of Technology Policy, U.S. Department of Commerce, Washington, DC, April 2003

# APPENDIX C Milken Institute – Science and Technology Index

Rank	State	Score	Rank	State	Score
4	Massachusetts	84.9	26	Idaho	51.0
1		80.6	20 27		
3	Colorado		II	Ohio	49.2
	California	80.4	28	Missouri	47.5
4	Maryland	77.9	29	Florida	46.5
5	Virginia	73.3	30	Indiana	46.1
6	Washington	71.8	31	Vermont	46.1
7	New Jersey	70.0	32	Nebraska	45.0
8	Connecticut	68.6	33	Alabama	45.0
9	Utah	68.3	34	Montana	44.1
10	Minnesota	65.9	35	Iowa	42.5
11	Delaware	65.5	36	Maine	40.5
12	New York	64.5	37	Oklahoma	40.3
13	New Hampshire	63.4	38	Wyoming	39.5
14	Texas	60.4	39	Alaska	39.5
15	Georgia	60.2	40	Tennessee	39.5
16	Pennsylvania	59.8	41	South Carolina	39.0
17	North Carolina	58.9	42	Nevada	38.6
18	Arizona	58.6	43	Hawaii	34.0
19	Illinois	58.4	44	Louisiana	32.5
20	New Mexico	57.9	45	North Dakota	31.7
21	Rhode Island	57.3	46	Kentucky	31.1
22	Kansas	56.9	47	South Dakota	30.5
23	Oregon	55.5	48	West Virginia	30.2
24	Michigan	54.5	49	Mississippi	28.7
25	Wisconsin	53.7	50	Arkansas	22.8

Source: The Milken Institute: State Technology and Science Index, Comparing and Contrasting California, September 2002

## APPENDIX D Peer 7 Profiles

#### GEORGIA

	ARKANSAS			GEORGIA	
Population <sup>™</sup>		Rank	Population <sup>m</sup>		Rank
1960	1,789,000	31	1960	3,956,000	16
2000	2,678,668	33	2000	8,234,373	10
2001	2,694,698	33	2001	8,405,677	10
2002	2,710,079	33	2002	8,560,310	10
Personal Income p	er capita <sup>∞</sup>		Personal Income pe	er capita <sup>∞</sup>	
1960	\$1,337	49	1960	\$1,610	42
2000	\$22,000	47	2000	\$28,103	23
2001	\$22,750	49	2001	\$28,523	26
2002	\$23,417	47	2002	\$28,703	23
College Going Rate	e (attending college in	home state)	College Going Rate	(attending college in hor	me state)
ٽ 1996	<b>47%</b>	27 ′	1996 1996	50%	23
1998	49%	27	1998	55%	16
2000	49%	26	2000	53%	18
College Going Rate	e (attending college in	any state)	College Going Rate	(attending college in any	y state)
1996	54%	41	1996	61%	25
1998	56%	37	1998	66%	21
2000	56%	36	2000	65%	23
Percent of Populati	on with Bachelor's De	gree or more	Percent of Population	on with Bachelor's Degre	e or more
1960	4.80%	50	1960	6.20%	40
1990	13.30%	49	1990	19.30%	25
2000	18.40%	49	2000	23.10%	35
2002	18.30%	50	2002	25.00%	30
Percent of Populati	on with HS Diploma o	or more	Percent of Population	on with HS Diploma or m	ore
1960	28.90%	49	1960	32.00%	43
2000	81.70%	41	2000	82.60%	38
2002	81.00%	40	2002	82.90%	38
Estimated Federal			Estimated Federal F		
FY1998	\$115,563,000	41	FY1998	\$3,446,388,000	6
FY2000	\$119,531,000	43	FY2000	\$2,641,429,000	7
FY2001	\$188,571,000	43	FY2001	\$3,415,961,000	7
Federal R & D per			Federal R & D per c		
FY1998	\$46	50	FY1998	\$451	7
FY2000	\$45	50	FY2000	\$321	9
FY2001	\$70	47	FY2001	\$406	8

#### University of Arkansas

Rank in Top 50 Public Inst......N/A Average ACT.....25 Average HS GPA.....3.60 Headcount.....16,449 Degrees/100 Students.....18.7 Programs/100 Students.....1.49 Research Expenditures.....\$76,528,063 Rank in Top 50 Public Inst.....21 Average ACT.....26.5 Average HS GPA.....3.70 Headcount.....33,856 Degrees/100 Students.....21.9 Programs/100 Students.....114 Research Expenditures.....\$227,283,033

University of Georgia

Georgia Institute of Technology

Rank in Top 50 Public Inst......9 Average ACT......30 Average HS GPA.....3.72 Headcount.....16,632 Degrees/100 Students.....22.8 Programs/100 Students.....0.63 Research Expenditures.....\$254,153,212

IOWA

Population <sup>∞</sup> 1960 2000					
1960		Rank	Population <sup>™</sup>		Rank
	1,789,000	31	1960	2,756,000	24
	2,678,668	33	2000	2,928,742	30
2001	2,694,698	33	2001	2,931,967	30
2002	2,710,079	33	2002	2,936,760	30
Personal Income pe	er capita <sup>∞</sup>		Personal Income p	er capita <sup>∞</sup>	
1960	\$1,337	49	1960	\$2,017	28
2000	\$22,000	47	2000	\$26,540	33
2001	\$22,750	49	2001	\$27,225	33
2002	\$23,417	47	2002	\$28,141	33
College Going Rate	e (attending college in	home state)	College Going Rat	e (attending college in I	nome state)
1996	47%	27	1996	59%	7
1998	49%	27	1998	59%	6
2000	49%	26	2000	60%	5
College Going Rate	e (attending college in	any state)	College Going Rat	e (attending college in	any state)
1996	54%	41	1996	69%	12
1998	56%	37	1998	68%	15
2000	56%	36	2000	70%	15
2000	50%	30	2000	70%	15
Percent of Populati	on with Bachelor's De	gree or more	Percent of Populat	ion with Bachelor's Deg	gree or more
1960	4.80%	50	1960	6.40%	36
1990	13.30%	49	1990	16.90%	40
2000	18.40%	49	2000	25.50%	23
2002	18.30%	50	2002	23.10%	38
	on with HS Diploma o			ion with HS Diploma or	
1960	28.90%	49	1960	46.30%	14
2000	81.70%	41	2000	89.70%	9
2002	81.00%	40	2002	88.30%	12
Estimated Federal I	<u>ع</u> ۶ ۹		Estimated Federal	R&D	
		11			24
FY1998	\$115,563,000	41	FY1998	\$243,261,000	34
FY2000	\$119,531,000	43	FY2000	\$275,165,000	31
FY2001	\$188,571,000	43	FY2001	\$340,872,000	33
Federal R & D per	canita≊		Federal R & D per	capita™	
FY1998	\$46	50	FY1998	\$85	36
FY2000	\$45	50	FY2000	\$94	38
FY2001	\$70	47	FY2001	\$116	38
	v of Arkansas	11-5-	arsity of lows	Jowa State II	nivorsity
Universit	y of Arkansas	Univ	ersity of Iowa	Iowa State U	niversity

Rank in Top 50 Public Inst.....N/A Average ACT ....25 Average HS GPA ....3.60 Headcount ....16,449 Degrees/100 Students ....18.7 Programs/100 Students ....149 Research Expenditures ....\$76,528,063 Rank in Top 50 Public Inst. ....19 Average ACT ....24.5 Average HS GPA ....3.49 Headcount ....29,745 Degrees/100 Students ....20.8 Programs/100 Students .....0.94 Research Expenditures ....\$176,032,316

Rank in Top 50 Public Inst. ....41 Average ACT ....24.5 Average HS GPA ....3.5 Headcount ....27,380 Degrees/100 Students ....19.1 Programs/100 Students ....1.3 Expenditures ....\$142,358,543

# KENTUCKY

	ARKANSAS			KENTUCKY			
Population <sup>™</sup>		Rank	Population <sup>™</sup>		Rank		
1960	1,789,000	31	1960	3,041,000	22		
2000	2,678,668	33	2000	4,048,832	25		
2001	2,694,698	33	2001	4,068,816	25		
2002	2,710,079	33	2002	4,092,891	26		
Personal Income p	er capita <sup>∞</sup>		Personal Income p	er capita <sup>™</sup>			
1960	\$1,337	49	1960	\$1,532	46		
2000	\$22,000	47	2000	\$24,258	39		
2001	\$22,750	49	2001	\$24,878	40		
2002	\$23,417	47	2002	\$25,657	39		
College Going Rate	e (attending college in	home state)	College Going Rat	e (attending college in h	nome state)		
1996	<b>47%</b>	27 ′	1996	<b>.</b> 50%	23 ′		
1998	49%	27	1998	52%	21		
2000	49%	26	2000	57%	12		
College Going Rate	e (attending college in	any state)	College Going Rat	e (attending college in a	any state)		
1996	54%	41	1996	57%	33		
1998	56%	37	1998	60%	32		
2000	56%	36	2000	65%	23		
Percent of Populati	on with Bachelor's De	gree or more	Percent of Populat	ion with Bachelor's Deg	ree or more		
1960	4.80%	50	1960	4.90%	49		
1990	13.30%	49	1990	13.60%	48		
2000	18.40%	49	2000	20.50%	43		
2002	18.30%	50	2002	21.60%	44		
Percent of Populati	on with HS Diploma o	or more	Percent of Populat	ion with HS Diploma or	more		
1960	28.90%	49	1960	27.60%	50		
2000	81.70%	41	2000	78.70%	49		
2002	81.00%	40	2002	80.80%	41		
Estimated Federal			Estimated Federal				
FY1998	\$115,563,000	41	FY1998	\$188,955,000	37		
FY2000	\$119,531,000	43	FY2000	\$206,415,000	40		
FY2001	\$188,571,000	43	FY2001	\$272,535,000	39		
Federal R & D per			Federal R & D per				
FY1998	\$46	50	FY1998	\$48	49		
FY2000	\$45	50	FY2000	\$51	49		
FY2001	\$70	47	FY2001	\$67	48		

#### University of Arkansas

Rank in Top 50 Public Inst. ....N/A Average ACT ....25 Average HS GPA ....3.60 Headcount ....16,449 Degrees/100 Students ....18.7 Programs/100 Students ....1.49 Research Expenditures ....\$76,528,063 Rank in Top 50 Public Inst. ....N/A Average ACT ....23.5 Average HS GPA ....3.50 Headcount ....25,246 Degrees/100 Students ....21.1

University of Kentucky

Programs/100 Students ....1.09 Research Expenditures ....\$151,155,902

Research Expenditures .....\$151,155,902

#### NORTH CAROLINA

ARKANSAS		NORTH CAROLINA			
Population <sup>™</sup>		Rank	Population <sup>™</sup>		Rank
1960	1,789,000	31	1960	4,573,000	12
2000	2,678,668	33	2000	8,082,261	11
2001	2,694,698	33	2001	8,206,105	11
2002	2,710,079	33	2002	8,320,146	11
Personal Income p	er canita <sup>m</sup>		Personal Income	ner canita <sup>m</sup>	
1960	\$1,337	49	1960		44
2000	\$22,000	47	2000	\$26,939	32
					32
2001	\$22,750	49	2001	\$27,308	
2002	\$23,417	47	2002	\$27,566	32
	e (attending college in			te (attending college in h	
1996	47%	27	1996	51%	21
1998	49%	27	1998	63%	3
2000	49%	26	2000	66%	2
College Going Rat	e (attending college in	any state)	College Going Ra	te (attending college in a	ny state)
ٽ 199 <b>6</b>	<b>`</b> 54%	41 <sup>′</sup>	Ŭ 1996	57%	33
1998	56%	37	1998	68%	15
2000	56%	36	2000	73%	8
Percent of Populat	ion with Bachelor's De	aree or more	Percent of Popula	tion with Bachelor's Deg	ree or more
1960	4.80%	50	1960	6.30%	38
	13.30%	49	1900	17.40%	36
1990					
2000	18.40%	49	2000	23.20%	34
2002	18.30%	50	2002	22.40%	41
Percent of Populat	ion with HS Diploma o	or more	Percent of Popula	tion with HS Diploma or	more
1960	28.90%	49	1960	32.30%	41
2000	81.70%	41	2000	79.20%	47
2002	81.00%	40	2002	80.10%	44
Estimated Federal	R & D		Estimated Federal R & D		
FY1998	\$115,563,000	41	FY1998	\$955,082,000	18
FY2000	\$119,531,000	43	FY2000		18
FY2001	\$188,571,000	43	FY2001	\$1,415,244,000	18
Federal R & D per	capita <sup>∞</sup>		Federal R & D per	r capita <sup>∞</sup>	
FY1998	\$46	50	FY1998	\$127	28
FY2000	\$45	50	FY2000	\$132	31
FY2001	\$ <del>4</del> 5 \$70	47	FY2001	\$172	27
1 12001	φιυ	47	FIZUUI	φιζ	21
Universit	y of Arkansas	University	of North Carolina	North Carolina St	oto University

Rank in Top 50 Public Inst. ....39 Rank in Top 50 Public Inst. ....N/A Rank in Top 50 Public Inst. ....5 Average ACT ....25 Average ACT ....28.5 Average ACT ....26.5 Average HS GPA ....4.10 Average HS GPA ....3.60 Average HS GPA ....4.00 Headcount ....16,449 Headcount ....26,359 Headcount ....29,862 Degrees/100 Students ....18.7 Degrees/100 Students ....24.5 Degrees/100 Students ....19.3 Programs/100 Students ....1.09 Programs/100 Students ....1.49 Programs/100 Students ....1.02 Research Expenditures ....\$76,528,063 Research Expenditures ....\$213,833,000 Research Expenditures ....\$178,729,352

#### TENNESSEE

	ARKANSAS			TENNESSEE	
Population <sup>™</sup>		Rank	Population <sup>™</sup>		Rank
1960	1,789,000	31	1960	3,575,000	17
2000	2,678,668	33	2000	5,703,246	16
2001	2,694,698	33	2001	5.749.398	16
2001	2,710,079	33	2001	5,797,289	16
Personal Income p		10	Personal Income p		
1960	\$1,337	49	1960	\$1,536	45
2000	\$22,000	47	2000	\$26,290	34
2001	\$22,750	49	2001	\$26,808	35
2002	\$23,417	47	2002	\$27,378	34
College Going Rate	e (attending college in	home state)	College Going Rat	e (attending college in h	nome state)
1996	47%	27	1996	50%	23
1998	49%	27	1998	56%	13
		26			6
2000	49%	20	2000	59%	o
College Going Rate	e (attending college in	any state)	College Going Rat	e (attending college in a	any state)
1996	54%	41	1996 1996	60%	28
1998	56%	37	1998	68%	15
2000	56%	36	2000	72%	13
Percent of Populati	ion with Bachelor's De	egree or more	Percent of Populat	tion with Bachelor's Deg	ree or more
1960	4.80%	50	1960	5.50%	46
1990	13.30%	49	1990	16.00%	43
2000	18.40%	49	2000	22.00%	41
2002	18.30%	50	2002	21.50%	45
Democrat of Demulati	ian with LIC Dislama		Demonst of Demulat	lien with UC Dislama as	
	ion with HS Diploma o			tion with HS Diploma or	
1960	28.90%	49	1960	30.40%	45
2000	81.70%	41	2000	79.90%	46
2002	81.00%	40	2002	80.10%	44
Estimated Federal	R&D		Estimated Federal	R&D	
FY1998	\$115,563,000	41	FY1998	\$649,964,000	23
FY2000	\$119,531,000	43	FY2000	\$863,274,000	22
FY2001	\$188,571,000	43	FY2001	\$1,133,060,000	21
Federal R & D per			Federal R & D per		
FY1998	\$46	50	FY1998	\$120	29
FY2000	\$45	50	FY2000	\$151	26
FY2001	\$70	47	FY2001	\$197	21
Ui	niversity of Arkansas			University of Tennessee	
Rank in Ton	50 Public InstN/A		Rank ir	n Top 50 Public Inst47	
	Average ACT25			Average ACT23.	5
	verage HS GPA3.60			Average HS GPA3.3	
AV		40			
5	Headcount16,4	49	-	Headcount25,	
0	s/100 Students18.7			egrees/100 Students22.	
•	s/100 Students1.49			grams/100 Students0.8	
Researc	h Expenditures\$76,	528,063	Res	search Expenditures\$10	08,535,466

Average ACT	25
Average HS GPA	3.60
Headcount	16,449
Degrees/100 Students	18.7
Programs/100 Students	1.49
Research Expenditures	\$76,528,063

 $\ensuremath{\,^{\rm m}}$  Based on Mid-year Population Estimates

# Appendix D, continued Peer 7 Profiles

TEXAS	
IEAAS	

	ARKANSAS			TEXAS	
Population <sup>™</sup>		Rank	Population <sup>™</sup>		Rank
1960	1,789,000	31	1960	9,624,000	6
2000		33	2000		2
	2,678,668			20,955,248	
2001	2,694,698	33	2001	21,370,983	2
2002	2,710,079	33	2002	21,779,893	2
Personal Income p	er capita <sup>∞</sup>		Personal Income	per capita <sup>∞</sup>	
1960	\$1,337	49	1960	\$1,920	32
2000	\$22,000	47	2000	\$27,992	24
2001	\$22,750	49	2001	\$28,472	27
2001	\$23,417	47	2001	\$28,401	24
2002	φ23,417	47	2002	φ20,401	24
College Going Rate	e (attending college in	home state)	College Going Ra	te (attending college in h	nome state)
1996	47%	27	1996	51%	21
1998	49%	27	1998	48%	29
2000	49%	26	2000	50%	24
2000	1070	20	2000	00,0	- '
College Going Rate	e (attending college in	any state)	College Going Ra	te (attending college in a	any state)
1996	54%	41	1996	57%	33
1998	56%	37	1998	54%	42
2000	56%	36	2000	56%	36
2000	0070	00	2000	0070	00
Percent of Populati	ion with Bachelor's De	egree or more	Percent of Popula	tion with Bachelor's Deg	ree or more
1960	4.80%	50	1960	8.00%	20
1990	13.30%	49	1990	20.30%	22
2000	18.40%	49	2000	23.90%	30
2002	18.30%	50	2002	26.20%	24
2002	10.00 /0	50	2002	20.2070	24
Percent of Populati	ion with HS Diploma of	or more	Percent of Popula	tion with HS Diploma or	more
1960	28.90%	49	1960	39.50%	35
2000	81.70%	41	2000	79.20%	47
2002	81.00%	40	2002	78.10%	51
2002	01.0070	40	2002	70.1070	51
Estimated Federal			Estimated Federa		
FY1998	\$115,563,000	41	FY1998	\$4,146,558,000	5
FY2000	\$119,531,000	43	FY2000	\$4,686,037,000	4
FY2001	\$188,571,000	43	FY2001	\$4,346,897,000	5
Federal R & D per			Federal R & D per		
FY1998	\$46	50	FY1998	\$210	15
FY2000	\$45	50	FY2000	\$224	15
FY2001	\$70	47	FY2001	\$203	20
Univers	sity of Arkansas	Univer	sity of Texas	Texas A & M U	Jniversity
Rank in Top 50 Public	c InstN/A	Rank in Top 50 Public	c Inst18	Rank in Top 50 Public Ins	st28
Average	ACT25	Average	ACT27	Average AC	CT26
	GPA3.60		GPAN/A	Average HS GF	
	count16,449		count51,438		nt44,813
Degrees/100 Stu	,	Degrees/100 Stu	,	Degrees/100 Studen	,
Programs/100 Stu		Programs/100 Stu		Programs/100 Studen	
	itures\$76,528,063				
Research Expend	110165	Research Expend	itures\$263,419,192	Research Expenditure	±5\$209,002,010

 $\ensuremath{\,^{\ensuremath{\scriptscriptstyle m}}}$  Based on Mid-year Population Estimates

# VIRGINIA

	ARKANSAS			VIRGINIA		
Population <sup>m</sup>		Rank	Population <sup>m</sup>		Rank	
. 1960	1,789,000	31	1960	3,986,000	14	
2000	2,678,668	33	2000	7,105,900	12	
2001	2,694,698	33	2001	7,196,750	12	
2002	2,710,079	33	2002	7,293,542	12	
Personal Income p	er capita <sup>∞</sup>		Personal Income pe	er capita <sup>∞</sup>		
1960	\$1,337	49	1960	\$1.853	36	
2000	\$22,000	47	2000	\$31,210	12	
2001	\$22,750	49	2001	\$32,338	11	
2002	\$23,417	47	2002	\$32,676	12	
College Going Rate	e (attending college in	home state)	College Going Rate	(attending college in ho	me state)	
1996	47%	27 ′	ٽ 1996	46%	28 ′	
1998	49%	27	1998	47%	31	
2000	49%	26	2000	45%	34	
College Going Rate (attending college in any state)			College Going Rate (attending college in any state)			
1996	54%	41	1996	59%	30	
1998	56%	37	1998	60%	32	
2000	56%	36	2000	58%	33	
Percent of Populati	on with Bachelor's De	gree or more	Percent of Population	on with Bachelor's Degre	e or more	
1960	4.80%	<b>5</b> 0	1960	8.40%	16	
1990	13.30%	49	1990	24.50%	6	
2000	18.40%	49	2000	31.90%	5	
2002	18.30%	50	2002	34.60%	4	
Percent of Populati	on with HS Diploma o	or more	Percent of Population	on with HS Diploma or m	ore	
1960	28.90%	49	1960	37.90%	38	
2000	81.70%	41	2000	86.60%	21	
2002	81.00%	40	2002	86.70%	25	
Estimated Federal	R & D		Estimated Federal F	R & D		
FY1998	\$115,563,000	41	FY1998	\$4,721,556,000	4	
FY2000	\$119,531,000	43	FY2000	\$4,903,428,000	3	
FY2001	\$188,571,000	43	FY2001	\$4,924,297,000	3	
Federal R & D per	capita <sup>™</sup>		Federal R & D per o	capita <sup>m</sup>		
FY1998	\$46	50	FY1998	\$695	3	
FY2000	\$45	50	FY2000	\$690	3	
FY2001	\$70	47	FY2001	\$684	4	
University of	Arkansas	Univers	ity of Virginia	Virginia	lech	

Rank in Top 50 Public Inst.....N/A Average ACT ....25 Average HS GPA ....3.60 Headcount ....16,449 Degrees/100 Students ....18.7 Programs/100 Students ....149 Research Expenditures ....\$76,528,063 Rank in Top 50 Public Inst. ....34 Average ACT ....26.5 Average HS GPA ....3.6 Headcount ....27,756 Degrees/100 Students ....23.1 Programs/100 Students ....0.63 Research Expenditures ....\$138,986,756

<sup>m</sup> Based on Mid-year Population Estimates

Rank in Top 50 Public Inst. ....2

Average ACT ....29.5

Research Expenditures ....\$153,870,172

Headcount ....19,658

Average HS GPA ....3.96

Degrees/100 Students ....24.4

Programs/100 Students ....0.89

### APPENDIX E Fifty-four Public Research Universities

Including the University of Arkansas, benchmarking is performed for the following 54 national, public research universities:

Arizona State University Auburn University Clemson University Colorado State University Florida State University Georgia Institute of Technology Indiana University Iowa State University Kansas State University Louisiana State University Michigan State University Mississippi State University North Carolina State University Ohio State University Oklahoma State University Oregon State University

Pennsylvania State University Purdue University Texas A&M University Texas Tech University University of Alabama University of Arizona University of Arkansas University of California-Berkeley University of California-Los Angeles University of Colorado University of Connecticut University of Delaware University of Florida University of Georgia University of Illinois-Urbana-Champaign University of Iowa University of Kansas University of Kentucky University of Maryland-College Park University of Massachusetts-Amherst

University of Michigan University of Minnesota University of Mississippi University of Missouri University of Nebraska University of North Carolina University of Oklahoma University of Oregon University of Rhode Island University of South Carolina University of Tennessee University of Texas University of Virginia University of Washington University of Wisconsin Virginia Polytechnic Institute and State University Washington State University West Virginia University

University	2001	2002	University	2001	2002	University	2001	2002
Georgia Tech	30.0	30.0	Texas A&M	26.0	26.0	Louisiana State	23.5	24.0
Virginia	29.5	29.5	Washington	25.0	26.0	Nebraska	24.0	24.0
UC Berkeley	29.0	29.0	Colorado	25.5	25.5	Oregon	24.0	24.0
North Carolina	28.0	28.5	Oklahoma	24.5	25.5	South Carolina	24.0	24.0
Illinois	27.5	28.0	Arkansas	25.0	25.0	Alabama	23.5	23.5
Maryland	27.5	28.0	Connecticut	25.0	25.0	Arizona State	24.0	23.5
Michigan	28.0	28.0	Florida State	25.5	25.0	Auburn	23.5	23.5
UCLA	28.5	28.0	Massachusetts	24.5	25.0	Kentucky	23.5	23.5
Florida	27.0	27.5	Minnesota	25.0	25.0	Mississippi State	23.5	23.5
Wisconsin	27.5	27.5	Ohio State	25.5	25.0	Oklahoma State	23.5	23.5
Clemson	26.5	27.0	Purdue	25.0	25.0	Rhode Island	24.0	23.5
Texas	27.0	27.0	lowa	24.5	24.5	Tennessee	23.0	23.5
Georgia	26.5	26.5	Iowa State	24.5	24.5	Texas Tech	24.0	23.5
Missouri	26.5	26.5	Michigan State	24.5	24.5	Mississippi	23.0	23.0
North Carolina State	26.0	26.5	Arizona	24.0	24.0	Oregon State	23.5	23.0
Penn State	26.5	26.5	Colorado State	23.0	24.0	Washington State	22.0	22.5
Virginia Tech	26.0	26.5	Indiana	24.0	24.0	Kansas State	23.0	22.0
Delaware	25.5	26.0	Kansas	25.0	24.0	West Virginia	22.0	22.0

Source: U.S. News & World Report, Best Colleges Edition - 2003, 2004

University	2001	2002	University	2001	2002	University	2001	2002
UC Berkeley	99%	99%	North Carolina State	35%	37%	Connecticut	23%	26%
UCLA	97%	97%	Arkansas	35%	36%	Kentucky	28%	26%
Michigan	69%	87%	Mississippi	36%	35%	Louisiana State	26%	26%
Virginia	82%	84%	Delaware	29%	34%	Michigan State	26%	26%
Florida	71%	75%	Arizona	31%	32%	Nebraska	24%	26%
North Carolina	64%	71%	Ohio State	33%	32%	Iowa State	26%	25%
Florida State	47%	58%	Oklahoma	32%	32%	Kansas State	24%	24%
Georgia Tech	60%	58%	Washington State	20%	31%	South Carolina	25%	24%
Maryland	47%	58%	Minnesota	29%	30%	Colorado	22%	23%
Illinois	55%	56%	Auburn	26%	29%	Colorado State	24%	22%
Texas A&M	55%	55%	Missouri	31%	29%	Texas Tech	22%	22%
Wisconsin	50%	55%	Kansas	28%	28%	Indiana	22%	21%
Texas	50%	53%	Mississippi State	30%	28%	lowa	21%	21%
Georgia	40%	46%	Purdue	28%	28%	Massachusetts	19%	21%
Clemson	45%	45%	Alabama	27%	27%	Oregon	21%	20%
Washington	43%	44%	Oklahoma State	28%	27%	West Virginia	18%	19%
Penn State	42%	41%	Tennessee	23%	27%	Oregon State	19%	17%
Virginia Tech	39%	40%	Arizona State	25%	26%	Rhode Island	20%	16%

Source: U.S. News & World Report, Best Colleges Edition - 2003, 2004

			Average High	Schoo	ol GPA			
University	2001	2002	University	2001	2002	University	2001	2002
North Carolina	4.08	4.10	Colorado	3.50	3.50	Arizona State	3.34	3.36
North Carolina State	3.90	4.00	Colorado State	3.50	3.50	Arizona	3.35	3.30
UCLA	4.10	4.00	Delaware	3.50	3.50	Mississippi State	3.33	3.30
Virginia	4.00	3.96	Iowa State	3.50	3.50	West Virginia	3.00	3.22
Clemson	3.90	3.90	Kentucky	3.53	3.50	Kansas State	3.47	3.12
Maryland	3.80	3.86	Oklahoma State	3.50	3.50	Connecticut	N/A	N/A
Florida	3.80	3.80	Oregon	3.43	3.50	Illinois	N/A	N/A
Florida State	3.60	3.80	Penn State	3.60	3.50	Indiana	N/A	N/A
Georgia Tech	3.70	3.72	lowa	3.50	3.49	Minnesota	N/A	N/A
Georgia	3.60	3.70	Auburn	3.34	3.45	Missouri	N/A	N/A
Michigan	3.80	3.70	Oregon State	3.40	3.44	Nebraska	N/A	N/A
South Carolina	3.59	3.70	Washington State	3.40	3.43	Ohio State	N/A	N/A
Washington	3.60	3.66	Massachusetts	3.35	3.42	Purdue	N/A	N/A
Arkansas	3.54	3.60	Kansas	3.40	3.40	Rhode Island	3.40	N/A
Virginia Tech	3.60	3.60	Louisiana State	3.36	3.40	Texas	N/A	N/A
Wisconsin	3.60	3.60	Tennessee	3.30	3.38	Texas A & M	N/A	N/A
Oklahoma	3.60	3.56	Alabama	3.39	3.37	Texas Tech	N/A	N/A
Michigan State	3.50	3.55	Mississippi	N/A	3.37	UC Berkeley	3.90	N/A

Source: College Comparison Worksheet, U.S. News & World Report Web site corresponding edition - 2003, 2004

University	2001	2002	University	2001	2002	University	2001	2002
UCLA	97%	97%	Delaware	88%	88%	Auburn	81%	82%
Virginia	97%	97%	Indiana	88%	88%	Colorado State	82%	82%
Michigan	95%	96%	Purdue	88%	88%	Oklahoma	81%	82%
North Carolina	95%	95%	Virginia Tech	88%	88%	South Carolina	81%	82%
UC Berkeley	95%	95%	Clemson	86%	87%	Arkansas	79%	81%
Florida	91%	92%	Florida State	85%	86%	Nebraska	80%	81%
Illinois	92%	92%	Ohio State	84%	85%	Mississippi State	79%	80%
Pennsylvania State	93%	92%	lowa	83%	84%	Oregon State	79%	80%
Georgia	90%	91%	Iowa State	84%	84%	Texas Tech	79%	80%
Maryland	90%	91%	Missouri	84%	84%	Kansas	79%	79%
Texas	90%	91%	Alabama	82%	83%	Kentucky	79%	79%
Wisconsin	92%	91%	Colorado	83%	83%	Rhode Island	79%	79%
Washington	90%	90%	Louisiana State	83%	83%	Kansas State	78%	78%
Georgia Tech	88%	89%	Massachusetts	82%	83%	West Virginia	78%	78%
Michigan State	88%	89%	Minnesota	83%	83%	Arizona	77%	77%
North Carolina State	89%	89%	Oklahoma State	83%	83%	Tennessee	78%	77%
Texas A&M	88%	89%	Oregon	82%	83%	Arizona State	75%	76%
Connecticut	88%	88%	Washington State	83%	83%	Mississippi	76%	76%

Source: U.S. News & World Report, Best Colleges Edition - 2003, 2004

University	2001	2002	University	2001	2002	University	2001	2002
Virginia	92%	92%	Maryland	64%	69%	Oregon State	58%	59%
UCLA	82%	85%	Michigan State	68%	69%	Kentucky	57%	58%
Michigan	83%	84%	Auburn	68%	68%	Louisiana State	58%	58%
UC Berkeley	82%	84%	Georgia Tech	68%	68%	Rhode Island	58%	58%
Illinois	78%	80%	Colorado	65%	67%	Tennessee	59%	58%
North Carolina	79%	80%	Iowa State	64%	65%	Kansas	56%	57%
Penn State	81%	80%	Missouri	65%	65%	Mississippi	52%	57%
Florida	70%	77%	lowa	65%	64%	Mississippi State	53%	56%
Wisconsin	77%	77%	North Carolina State	62%	64%	West Virginia	55%	56%
Texas A&M	74%	75%	Purdue	62%	64%	Arizona	52%	55%
Virginia Tech	72%	74%	Alabama	59%	63%	Kansas State	52%	55%
Clemson	69%	72%	Colorado State	62%	63%	Oklahoma State	54%	55%
Delaware	72%	72%	Florida State	62%	63%	Minnesota	51%	54%
Texas	70%	71%	Washington State	60%	62%	Nebraska	53%	54%
Georgia	69%	70%	Massachusetts	59%	61%	Oklahoma	51%	54%
Washington	70%	70%	South Carolina	58%	60%	Arizona State	49%	52%
Connecticut	70%	69%	Ohio State	56%	59%	Texas Tech	51%	52%
Indiana	68%	69%	Oregon	59%	59%	Arkansas	45%	46%

Source: U.S. News & World Report, Best Colleges Edition - 2003, 2004

			Student to F					
University	2001	2002	University	2001	2002	University	2001	2002
Washington	11:1	11:1	Purdue	16:1	16:1	Kansas	17:1	19:1
Delaware	13:1	12:1	UC Berkeley	16:1	16:1	Massachusetts	18:1	19:1
Georgia	13:1	13:1	Virginia	16:1	16:1	Nebraska	19:1	19:1
Illinois	15:1	13:1	Virginia Tech	15:1	16:1	Oklahoma State	18:1	19:1
Maryland	13:1	13:1	Arkansas	16:1	17:1	Oregon	18:1	19:1
Wisconsin	13:1	13:1	Colorado State	17:1	17:1	Texas	19:1	19:1
Georgia Tech	14:1	14:1	Connecticut	17:1	17:1	West Virginia	19:1	19:′
North Carolina	14:1	14:1	Mississippi State	18:1	17:1	Indiana	20:1	20:1
Ohio State	13:1	14:1	Penn State	18:1	17:1	Kansas State	15:1	20:1
Clemson	16:1	15:1	South Carolina	14:1	17:1	Texas Tech	20:1	20:1
lowa	14:1	15:1	Washington State	16:1	17:1	Florida	22:1	21:1
Michigan	15:1	15:1	Alabama	19:1	18:1	Louisiana State	21:1	21:1
Minnesota	15:1	15:1	Michigan State	18:1	18:1	Mississippi	21:1	21:1
Auburn	16:1	16:1	Missouri	18:1	18:1	Oklahoma	19:1	21:1
Colorado	15:1	16:1	Rhode Island	18:1	18:1	Oregon State	12:1	21:′
Iowa State	16:1	16:1	Tennessee	19:1	18:1	Texas A & M	22:1	21:′
Kentucky	16:1	16:1	UCLA	17:1	18:1	Arizona State	22:1	22:1
North Carolina State	16:1	16:1	Arizona	19:1	19:1	Florida State	22:1	23:1

Source: College Comparison Worksheet, U.S. News & World Report Web site corresponding edition - 2003, 2004

University	2001	2002	University	2001	2002	University	2001	2002
UC Berkeley	57%	54%	North Carolina	39%	40%	Kentucky	39%	34%
Missouri	56%	52%	Arkansas	39%	39%	Louisiana State	33%	34%
Kansas State	49%	49%	Colorado State	39%	39%	Georgia	33%	33%
UCLA	49%	49%	Delaware	40%	39%	Georgia Tech	31%	33%
Michigan	50%	48%	Washington	34%	38%	Texas	41%	32%
Virginia	49%	48%	Massachusetts	39%	37%	Florida State	33%	31%
Iowa	46%	47%	Mississippi State	36%	37%	Illinois	30%	30%
Colorado	48%	46%	Oklahoma	37%	37%	Penn State	32%	30%
Washington State	49%	46%	Maryland	35%	36%	Arizona	30%	29%
Connecticut	45%	45%	Nebraska	36%	36%	Arizona State	30%	29%
Alabama	44%	44%	Purdue	36%	36%	Auburn	29%	27%
Ohio State	44%	44%	South Carolina	37%	36%	Oklahoma State	28%	27%
Kansas	42%	42%	Tennessee	36%	36%	Rhode Island	30%	27%
Minnesota	47%	42%	Florida	33%	35%	Texas Tech	23%	23%
Mississippi	39%	41%	Iowa State	33%	35%	Clemson	21%	22%
Oregon	40%	41%	North Carolina State	32%	35%	Michigan State	22%	22%
Wisconsin	42%	41%	Oregon State	33%	35%	Virginia Tech	26%	21%
Indiana	39%	40%	West Virginia	35%	35%	Texas A & M	17%	18%

Source: U.S. News & World Report, Best Colleges Edition - 2003, 2004

		Und	lergraduate Classe	es with	n 50+ Stu	dents		
University	2001	2002	University	2001	2002	University	2001	2002
Tennessee	8%	7%	Oregon	17%	14%	Arizona State	17%	18%
Kentucky	9%	9%	Auburn	13%	15%	Colorado State	18%	18%
Rhode Island	9%	9%	Delaware	15%	15%	Illinois	19%	18%
Clemson	10%	10%	Massachusetts	14%	15%	Ohio State	17%	18%
Kansas	10%	10%	Virginia	15%	15%	Wisconsin	18%	18%
lowa	11%	11%	Washington	15%	15%	Indiana	19%	19%
Missouri	10%	11%	Washington State	15%	15%	Mississippi	19%	20%
South Carolina	10%	11%	West Virginia	16%	15%	Penn State	17%	20%
Kansas State	11%	12%	Colorado	16%	16%	Florida	22%	21%
Alabama	13%	13%	Louisiana State	20%	16%	Iowa State	21%	21%
Arkansas	12%	13%	Michigan	17%	16%	Virginia Tech	17%	21%
Nebraska	14%	13%	North Carolina State	14%	16%	Georgia Tech	24%	22%
North Carolina	12%	13%	Oklahoma State	17%	16%	Michigan State	23%	23%
Connecticut	13%	14%	Purdue	17%	16%	Texas Tech	22%	23%
Georgia	15%	14%	Arizona	16%	17%	UCLA	24%	23%
Maryland	14%	14%	Florida State	15%	17%	Texas	19%	24%
Mississippi State	14%	14%	Minnesota	18%	17%	Oregon State	24%	25%
Oklahoma	13%	14%	UC Berkeley	15%	17%	Texas A & M	37%	33%

Source: U.S. News & World Report, Best Colleges Edition - 2003, 2004

	In State	Out of State	Weighted		In State	Out of State	e Weighted		In State	Out of State	eWeighted
University	Tuition	Tuition	Average	University	Tuition	Tuition	Average	University	Tuition	Tuition	Average
Michigan	\$7,975	\$24,777	\$13,352	Oregon <sup>w</sup>	\$4,874	\$16,230	\$7,713	Nebraska	\$4,684	\$12,064	\$5,717
Delaware	\$6,498	\$16,028	\$12,121	Ohio State <sup>w</sup>	\$6,624	\$16,488	\$7,709	Arkansas	\$4,768	\$11,518	\$5,578
Penn State <sup>w</sup>	\$9,706	\$19,328	\$12,015	Michigan State	\$7,088	\$16,992	\$7,682	Alabama <sup>s</sup>	\$4,134	\$11,294	\$5,566
Virginia <sup>w</sup>	\$6,338	\$22,358	\$10,824	Virginia Tech	\$5,095	\$14,979	\$7,665	Arizona State	\$3,595	\$12,115	\$5,555
Minnesota <sup>w</sup>	\$7,145	\$18,786	\$10,172	UC Berkeley <sup>w</sup>	\$5,858	\$20,068	\$7,421	Mississippi⁵	\$3,916	\$8,826	\$5,487
Rhode Island <sup>w</sup>	\$6,200	\$16,334	\$10,051	Auburn	\$4,618	\$13,078	\$7,241	Kentucky	\$4,547	\$11,227	\$5,482
Massachusetts <sup>w</sup>	\$8,232	\$17,085	\$9,826	South Carolina <sup>s</sup>	\$5,778	\$15,116	\$6,992	Texas A&M <sup>s</sup>	\$5,051	\$12,131	\$5,263
Indiana	\$6,517	\$17,552	\$9,607	Iowa State	\$5,028	\$14,370	\$6,803	Oklahoma <sup>s</sup>	\$3,741	\$10,254	\$5,109
Illinois	\$8,452	\$18,046	\$9,507	UCLA	\$5,814	\$20,022	\$6,666	Texas Tech	\$4,745	\$11,825	\$5,099
Maryland <sup>s</sup>	\$6,759	\$17,433	\$9,428	North Carolina	\$4,165	\$16,606	\$6,404	Georgia	\$4,078	\$14,854	\$5,048
Colorado <sup>w</sup>	\$4,022	\$20,346	\$9,409	West Virginia	\$3,548	\$10,768	\$6,292	Kansas State <sup>w</sup>	\$4,059	\$11,949	\$4,848
Wisconsin	\$5,140	\$19,150	\$9,343	Washington State	\$5,210	\$13,312	\$6,263	NC State <sup>s</sup>	\$3,970	\$15,818	\$4,799
Connecticut	\$6,800	\$17,584	\$9,280	Arizona	\$3,603	\$12,373	\$6,234	Mississippi State	\$3,874	\$8,780	\$4,757
Clemson	\$6,934	\$14,532	\$9,213	Oregon State <sup>w</sup>	\$4,620	\$17,376	\$6,151	Oklahoma State	\$3,898	\$10,324	\$4,669
Purdue	\$5,860	\$17,640	\$8,687	Washington	\$4,968	\$16,121	\$6,083	Texas <sup>s</sup>	\$4,188	\$11,268	\$4,542
Missouri	\$7,278	\$16,725	\$8,412	Kansas	\$4,101	\$11,577	\$5,895	Florida State <sup>s</sup>	\$2,860	\$13,888	\$4,404
lowa	\$4,993	\$15,285	\$8,389	Colorado State	\$3,744	\$14,216	\$5,838	Louisiana State <sup>w</sup>	\$3,964	\$9,264	\$4,388
Georgia Tech <sup>s</sup>	\$4,076	\$16,002	\$7,892	Tennessee	\$4,450	\$13,532	\$5,721	Florida <sup>s</sup>	\$2,780	\$13,808	\$3,331

Source: U.S. News & World Report's America's Best Colleges, 2004 Edition <sup>s</sup>Source of Tuition Data - SUG Tuition and Fee Survey, 2003-04 <sup>w</sup>Source of Tuition Data - University Web Pages

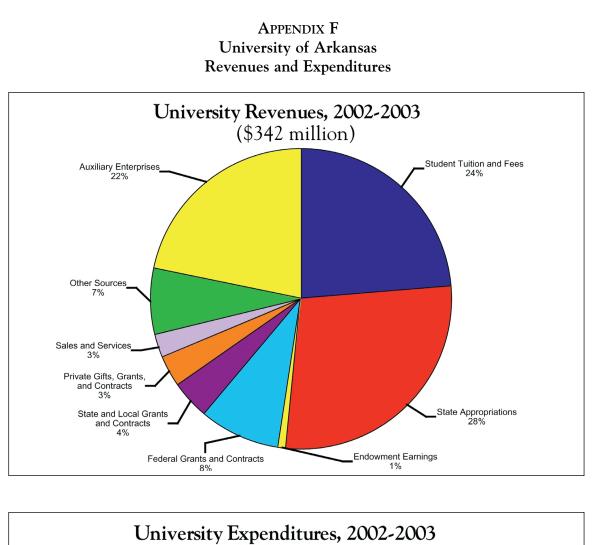
	State Appropriatior	ı			State Appropriation			State Appropriation			
University	FY04 (in	Fall 2003	State \$ per Student	University	FY04 (in	Fall 2003	State \$ per Student	University	FY04 (in thousands)	Fall 2003 Headcount	State \$ per Student
UC Berkeley	\$568,576	33,166	\$17,143	Florida	\$334,718	47,890	\$6,989	Rhode Island*	\$80,742	14,800	\$5,456
North Carolina	\$382,000	26,359	\$14,492	Iowa State	\$180,531	27,380	\$6,594	Arizona State	\$263,294	48,901	\$5,384
UCLA	\$537,500	37,678	\$14,266	Michigan State	\$293,384	44,500	\$6,593	South Carolina	\$131,513	24,855	\$5,291
Massachusetts	\$299,764	23,562	\$12,722	Ohio State	\$334,265	50,731	\$6,589	Oklahoma State	\$124,026	23,571	\$5,262
Georgia Tech	\$179,691	16,632	\$10,804	Washington State	\$147,900	22,753	\$6,500	Nebraska	\$117,353	22,559	\$5,202
Minnesota	\$483,917	49,474	\$9,781	Illinois	\$245,781	38,872	\$6,323	Clemson	\$86,807	17,115	\$5,072
Georgia	\$321,452	33,856	\$9,495	Missouri	\$168,392	26,805	\$6,282	Indiana	\$191,813	38,589	\$4,971
Kentucky	\$236,522	25,246	\$9,369	Tennessee	\$157,999	25,300	\$6,245	Kansas	\$132,033	26,814	\$4,924
Washington	\$311,628	34,264	\$9,095	Alabama	\$121,828	20,333	\$5,992	Kansas State	\$111,492	23,050	\$4,837
Texas Tech	\$250,933	28,549	\$8,790	Mississippi State	\$96,982	16,226	\$5,977	Virginia Tech	\$132,769	27,756	\$4,783
NC State	\$261,327	29,862	\$8,751	Arkansas	\$97,338	16,449	\$5,918	Mississippi	\$61,532	12,984	\$4,739
Michigan	\$327,206	39,031	\$8,383	Auburn	\$136,004	23,152	\$5,874	Delaware	\$99,451	21,121	\$4,709
Wisconsin	\$338,293	41,595	\$8,133	Texas	\$299,082	51,438	\$5,814	Oklahoma	\$114,847	24,500	\$4,688
Maryland*	\$278,579	35,329	\$7,885	Purdue	\$225,602	38,847	\$5,807	West Virginia	\$107,692	24,200	\$4,450
lowa	\$233,580	29,745	\$7,853	Texas A&M	\$256,180	44,813	\$5,717	Oregon State	\$79,000	18,979	\$4,162
Connecticut	\$197,689	26,156	\$7,558	Virginia	\$111,500	19,658	\$5,672	Oregon	\$60,765	19,922	\$3,050
Arizona	\$263,688	37,083	\$7,111	Louisiana State	\$175,562	31,234	\$5,621	Colorado State	\$75,740	25,042	\$3,025
Florida State	\$261,267	37,314	\$7,002	Penn State	\$232,508	41,795	\$5,563	Colorado	\$58,693	29,827	\$1,968

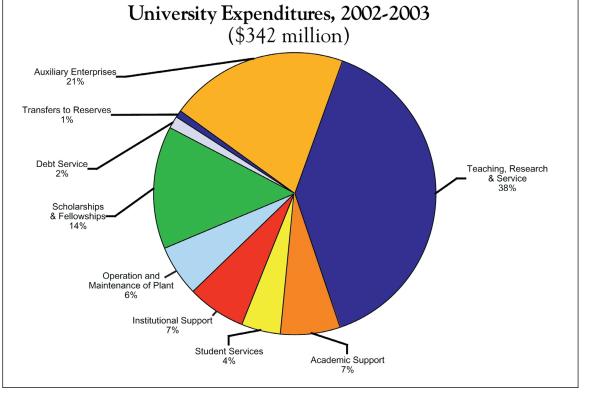
Data Year: Fall 2003 headcount data; FY04 State Appropriation Data Source of Appropriation data: Grapevine (Illinois State Univ.), university Web sites, interviews Source of Headcount data: university Web sites, interviews Note: AES/CES Funding removed except for Missouri \*Prorated estimate of state appropriation

# Fiscal Year 2003-2004 - Weighted Average Tuition, State Appropriations per Student, and Their Sum

		Weighted				Weighted				Weighted	
University	\$/Student	Average	Sum	University	\$/Student	Average	Sum	University	\$/Student	Average	Sum
UC Berkeley	\$17,143	\$7,421	\$24,564	Missouri	\$6,282	\$8,412	\$14,694	Florida State	\$7,002	\$4,404	\$11,406
Massachusetts	\$12,722	\$9,826	\$22,548	Indiana	\$4,971	\$9,607	\$14,578	Colorado	\$1,968	\$9,409	\$11,377
Michigan	\$8,383	\$13,352	\$21,735	Georgia	\$9,495	\$5,048	\$14,543	Texas A&M	\$5,717	\$5,263	\$10,980
UCLA	\$14,266	\$6,666	\$20,932	Purdue	\$5,807	\$8,687	\$14,494	Arizona State	\$5,384	\$5,555	\$10,939
North Carolina	\$14,492	\$6,404	\$20,896	Ohio State	\$6,589	\$7,709	\$14,298	Nebraska	\$5,202	\$5,717	\$10,919
Minnesota	\$9,781	\$10,172	\$19,953	Clemson	\$5,072	\$9,213	\$14,285	Kansas	\$4,924	\$5,895	\$10,819
Georgia Tech	\$10,804	\$7,892	\$18,696	Michigan State	\$6,593	\$7,682	\$14,275	Oregon	\$3,050	\$7,713	\$10,763
Penn State	\$5,563	\$12,015	\$17,578	Texas Tech	\$8,790	\$5,099	\$13,889	West Virginia	\$4,450	\$6,292	\$10,742
Wisconsin	\$8,133	\$9,343	\$17,476	NC State	\$8,751	\$4,799	\$13,550	Mississippi State	\$5,977	\$4,757	\$10,734
Maryland*	\$7,885	\$9,428	\$17,313	Iowa State	\$6,594	\$6,803	\$13,397	Texas	\$5,814	\$4,542	\$10,356
Connecticut	\$7,558	\$9,280	\$16,838	Arizona	\$7,111	\$6,234	\$13,345	Florida	\$6,989	\$3,331	\$10,320
Delaware	\$4,709	\$12,121	\$16,830	Auburn	\$5,874	\$7,241	\$13,115	Oregon State	\$4,162	\$6,151	\$10,313
Virginia	\$5,672	\$10,824	\$16,496	Washington State	\$6,500	\$6,263	\$12,763	Mississippi	\$4,739	\$5,487	\$10,226
lowa	\$7,853	\$8,389	\$16,242	Virginia Tech	\$4,783	\$7,665	\$12,448	Louisiana State	\$5,621	\$4,388	\$10,009
Illinois	\$6,323	\$9,507	\$15,830	South Carolina	\$5,291	\$6,992	\$12,283	Oklahoma State	\$5,262	\$4,669	\$9,931
Rhode Island*	\$5,456	\$10,051	\$15,507	Tennessee	\$6,245	\$5,721	\$11,966	Oklahoma	\$4,688	\$5,109	\$9,797
Washington	\$9,095	\$6,083	\$15,178	Alabama	\$5,992	\$5,566	\$11,558	Kansas State	\$4,837	\$4,848	\$9,685
Kentucky	\$9,369	\$5,482	\$14,851	Arkansas	\$5,918	\$5,578	\$11,496	Colorado State	\$3,025	\$5,838	\$8,863

Data Year: Fall 2003 headcount data; FY04 State Appropriation Data Source of Appropriation data: Grapevine (Illinois State Univ.), university Web sites, interviews Source of Headcount data: university web sites, interviews Source of Tuition data: U.S. News & World Report AMERICA'S BEST COLLEGES, 2004 edition, Web sites, interviews Note: AES/CES Funding removed \*Prorated estimate of state appropriation





# APPENDIX G MAKING THE CASE Projections for the University and Actual Growth in Selected Fields

			Base					
			Year				_	Goal
Fiscal Year	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY10
Actual								
Enrollment (Headcount)	14,740	15,060	15,226	15,396	15,795	16,035		
Enrollment (FTE)	13,538	13,637	13,935	14,011	14,487	14,624		
Tuition Revenue ('000s)	\$47,036	\$57,121	\$61,193	\$71,733	\$75,569	\$80,859		
State Appropriation ('000s)	\$84,163	\$86,321	\$92,611	\$94,917	\$96,420	\$92,874		
Other Revenues ('000s)	\$17,301	\$17,558	\$31,096	\$28,950	\$25,211	\$28,566		
Total Resources ('000s)	\$148,500	\$161,000	\$184,900	\$195,600	\$197,200	\$202,300		
	I	Fiscal Year	FY00	FY01	FY02	FY03	FY04	FY10
20	01 Projecti	ons						
En	rollment (H	eadcount)	15,226	15,832	16,463	17,118	17,800	22,500
En	rollment (F	TE)	13,935	14,439	15,014	15,612	16,233	20,519
Tu	ition Reven	ue ('000s)	\$61,193	\$66,900	\$73,140	\$79,962	\$87,420	\$149,270
Sta	ate Appropri	iation ('000s)	\$92,611	\$99,647	\$107,218	\$115,363	\$124,128	\$192,611
Ot	her Revenu	es ('000s)	\$31,096	\$32,163	\$33,195	\$34,179	\$35,099	\$38,120
Tot	al Resourc	es ('000s)	\$184,900	\$198,711	\$213,553	\$229,504	\$246,647	\$380,000
		. ,						

# The Gap between Projected Growth and Actual Growth

Fiscal Year	FY01	FY02	FY03
Enrollment (Headcount)	(436)	(668)	(1,083)
Enrollment (FTE)	(428)	(527)	(988)
Tuition Revenue ('000s)	\$4,832	\$2,429	\$897
State Appropriation ('000s)	(\$4,730)	(\$10,798)	(\$22,489)
Total Resources ('000s)	(\$3,111)	(\$16,353)	(\$27,204)



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