

**CITIZENS' COMMISSION ON THE FUTURE OF  
OKLAHOMA HIGHER EDUCATION  
FINAL REPORT AND RECOMMENDATIONS**

## PREFACE

Improving the quality of life through the power of education. It's more than a lofty thought. It's an achievable goal that Oklahoma higher education can make a reality for all Oklahomans.

It was with this goal in mind that the Oklahoma State Regents for Higher Education undertook the creation of a multi-year plan for Oklahoma higher education. But we wanted more than a list of strategies. We were seeking a set of concepts, parameters and benchmarks to serve as a long-term guide. We wanted a plan that would serve less as a roadmap and more as a compass to direct higher education in the promising but uncertain decades ahead.

To assist us in creating such a plan, the State Regents created the Citizens' Commission on the Future of Oklahoma Higher Education, and each Regent selected Oklahomans to serve on the 36-member Commission. Those men and women come from all four quadrants of our state and bring with them a cross section of educational backgrounds and professional experiences.

Because we were seeking fresh perspectives and new ideas, we urged Commission members to "think outside the box." We also realized that achieving superior performance in today's dynamic technological and economic environments means changing the way higher education does business, so we encouraged the Commission to focus on deregulation, performance incentives and rewards, and increased operational flexibility for our colleges and universities.

As chairman of the Citizens' Commission, I have been gratified by the enthusiasm, frankness and talent of my fellow Commission members. Since last October, they have examined

an amazing range of issues under the five broad headings of technology, higher education's markets, economic/workforce development, funding, and administration and management.

Nationally recognized experts met with the Commission and shared invaluable information and expertise. These presentations sparked discussions that were both thoughtful and thought provoking, with Commission members challenging old paradigms of education and creating new ones.

After identifying critical issues and strategies for each of the five areas, the Commission reached consensus on 41 draft recommendations.

The State Regents will now review the Commission's recommendations and select those for implementation. Some we will undertake this year; others will be scheduled for future implementation. No doubt, some will be short-term, while others may require years to achieve.

The result, in any case, will be a guide to help us in shaping the future of Oklahoma higher education so that we can best meet the needs of the citizens of our state.

A small steering committee of Commission members played a critical role in developing the Commission's written recommendations. I want to express my special appreciation to steering committee members Elaine Dodd, Susan Ellerbach, Martin Garber, Georgetta James, Robert McCormick, Richard Ratcliffe, and Russell Teubner.

Throughout the entire work of the Commission, the State Regents' staff provided professional, technical and clerical assistance. My thanks to Gary Smith, Cindy Ross, Ruth Ann Dreyer, Jeanie Edney and Laura Callahan. A very special thank you to Staff Director Larkin Warner and his assistant, Patty Dauphinais, who deftly managed the details of the Commission's activities.

My appreciation goes as well to Chancellor Hans Brisch who provided advice throughout the planning process and was especially helpful in obtaining the assistance of nationally recognized experts to advise the Commission. And finally I want to express my gratitude to former State Regents' Chairman Anne H. Morgan, who played a key role in the conception and design of the planning project. She is a valued colleague and mentor, and I deeply appreciate our friendship.

We are most indebted, however, to the 36 members of the Commission itself. For these individuals, "citizenship" means playing an active rather than a passive role, and the State Regents appreciate the energy, creativity and dedication Commission members have generously contributed.

At this time in our state's history, there is no undertaking more vital to the well being of our fellow Oklahomans than assuring that the state's higher education system is poised to prepare them to succeed in the 21<sup>st</sup> Century. The members of the Citizens' Commission on the Future of Oklahoma Higher Education can take special satisfaction in their achievement: they have helped to forge a richer future for all of us.

Bill W. Burgess, Jr.

October 1997

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## MEMBERS

### CITIZENS' COMMISSION ON THE FUTURE OF OKLAHOMA HIGHER EDUCATION

Chairman, Bill W. Burgess, Jr., Lawton	Robert L. McCormick, Stillwater*
Bob R. Agee, Shawnee	Thomas McKeon, Tulsa
Bruce T. Benbrook, Woodward	Rodd Moesel, Oklahoma City
Steve Burrage, Antlers	Ronald Rosenfeld, Oklahoma City
Don H. Carpenter, Durant	Richard Ratcliffe, Weatherford*
Tom Cole, Oklahoma City	Hannah Robson, Tulsa
William H. Crawford, Frederick	Robert Schooley, Tulsa
Don Davis, Lawton	George A. Singer, Tulsa
Elaine Dodd, Edmond*	Lucy Smith, McAlester
Susan Ellerbach, Tulsa*	Reggie Sullivan, Durant
Ken Ferguson, Altus	James Thomas, Ada
Martin Garber, Bartlesville*	Russell W. Teubner, Stillwater*
Fred A. Gipson, Norman	Gary L. Trennepohl, Stillwater
Georgetta James, Oklahoma City*	Jerry B. Vannatta, Oklahoma City
Virgil Jurgensmeyer, Miami	Dean VanTrease, Tulsa
Scott A. Klososky, Ponca City	Joe Wiley, Durant
Kenneth Lawson, Oklahoma City	Kara Gae Wilson, Oklahoma City
Edna Manning, Oklahoma City	Staff Director, Larkin Warner
Peter W. C. Mather, Oklahoma City	<i>*Member, Steering Committee</i>

## RECOMMENDATIONS

(\*suggested high-priority recommendations)

### TECHNOLOGY AND HIGHER EDUCATION

#### *ACCESS AND QUALITY*

**\*The State Regents should assure that distance education services provided by institutions in the State System are readily accessible and of high quality. Higher education resources in one part of the state must fill needs in other parts.**

**\*The State Regents must plan for the impact of interactive television and technology advances on the culture of Oklahoma higher education.**

**\*Future higher education strategies attempting to formally or informally reserve geographic market areas exclusively for service by local institutions are likely to fail because of the capability of other institutions both in-state and out-of-state to use electronic course delivery to penetrate virtually any geographic area.**

**The degree-granting and credentialing process must become more flexible in light of the options created by new educational technologies; new ways to measure competencies must be developed.**

**Oklahoma's state institutions of higher education should certify graduates' levels of competency in performing computer-based tasks and in managing information technology in graduates' areas of specialty.**

#### *INSTRUCTIONAL DESIGN*

**\*Institutions of higher education should be specific in articulating goals with respect to what technology is intended to accomplish and then should be held accountable.**

**The State Regents should adopt incentive programs stimulating institutions to provide training and technical assistance to instructors so that they can maximize the educational effectiveness of new technologies.**

**Strategies for reengineering courses for distance learning must recognize that the bulk of lower division credit hours is concentrated in a relatively small number of courses; this implies the possibility of achieving economies through the effective packaging of uniform course materials**

## ***FUNDING FOR TECHNOLOGY***

**Funding strategies for higher education technologies must be adapted to the dynamic nature of technology and particularly to the speed with which technologies become obsolescent.**

**The burden of funding must be shared appropriately by the State and by direct beneficiaries.**

**The State Regents should allocate funds with an awareness of the front-end effort required for the development of effective technology-intensive instruction.**

**\*For distance learning to be truly successful it is necessary to provide incentives and benefits to institutions/organizations operating receive sites as well as to the send sites.**

## ***STUDENT PREPARATION***

**Higher education in Oklahoma should expect recent high school graduates to already have some computer literacy before entering college; minimum requirements should include basic keyboarding and basic computer orientation.**

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## **DEMOGRAPHIC CHANGE AND HIGHER EDUCATION'S MARKETS**

### ***STUDENT DEMAND FOR HIGHER EDUCATION***

**\*The state system must plan for higher education delivery which responds effectively to the changing geographic location, age, race, and origin mix of Oklahoma's population.**

### ***EMPLOYER DEMAND FOR HIGHER EDUCATION***

**\*Specific policies must be implemented to assure that programs are preparing employable graduates; that once employed graduates have access to continuing education; and that business has access to technical assistance from higher education institutions.**

### ***GOVERNMENT DEMAND FOR HIGHER EDUCATION***

**Efforts to change higher education policies and practices in order to promote the public interest (government demand) should emphasize the use of financial incentives rather**

than regulatory controls; finance rather than governance is the key to changing institutional behavior.

Where financial incentives involve competition among institutions, care must be taken to avoid allocating excessive resources to the act of competing.

### *PUBLIC AWARENESS*

\*The State Regents need to conduct a major public information effort to explain the services Oklahoma Higher Education offers to Oklahoma and Oklahomans and the benefits the state and its citizens receive from those services.

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## **ECONOMIC DEVELOPMENT/WORKFORCE DEVELOPMENT**

### *HIGHER EDUCATION AND TARGETS FOR GROWTH*

\*Oklahoma should improve its competitive position by the design of workforce development programs to fit the needs of targeted sectors of the economy with potential for significant growth within the state.

Higher education should enhance and expand entrepreneurship training.

Higher education research activities must be linked to the commercial application of new technology especially by firms located in Oklahoma.

The Oklahoma Constitution and other statutes place impediments in the way of desirable cooperative arrangements between higher education and business. There must be more effective adjustment to this environment and/or changes in laws to facilitate joint activities which are in the public interest.

### *COOPERATION, COORDINATION, AND IMAGE*

\*Higher education must exhibit a unified, integrated impression when it is assisting the state's economic development specialists who are working with prospects considering Oklahoma locations, or who are assisting business firms already operating in the state.

Higher education needs to do a better job of publicizing its economic development capabilities and contributions; emphasis should be placed on information about unique,

specialized programs with implications for targeted industrial sectors.

The State Regents, governing boards, and institutional administrators should provide encouragement (including financial incentives) and regulatory flexibility when a new program of educational services is being developed to serve a particular industry.

No matter what the economic development issue, the effectiveness of higher education's assistance is often judged on the basis of quickness of response time.

Economic development specialists should be provided assistance in translating ACT scores into a comparable measure to use with prospects more familiar with the SAT tests.

#### *INCENTIVES AND FUNDING FOR ECONOMIC DEVELOPMENT*

Include in the State Regents budget formulae an incentive or reward for economic development activities by individual institutions; explore possibilities for embedding such incentives in the legislative appropriations process.

\*Higher education institutions need access to a source of state funding to finance customized firm-specific workforce development programs at no cost to Oklahoma businesses.

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### **FUNDING OKLAHOMA HIGHER EDUCATION**

#### *OVERALL FUNDING ADEQUACY*

\*A goal of achieving program expenditures per full-time equivalent student to match peer institutions is justified because of significant potential impacts on the quality of Oklahoma higher education.

#### *ALLOCATION OF APPROPRIATED FUNDS*

\*A larger share of the budget for institutions should involve performance and incentive funding, while a smaller share should be treated through the Regents' normal allocation procedures. Performance and incentive funding policies can be used for economic development, for academic planning/resource allocation, for high priority activities, and for achieving standards of performance.

#### *ALLOCATION OF THE FUNDING BURDEN*

State government appropriations must remain the mainstay of the system's funding.

Tuition and fees must play an increasing relative role in system funding; to this end, the State Regents should control tuition and fees without legislative constraint.

Increased student aid must complement higher tuition in order to assure that Oklahoma's higher education system does not erect barriers to higher education access on the part of competent students with limited financial resources.

Institutions should continue efforts to attract private contributions to endowments and for current operations.

\*Two-year institutions should be given greater access to local funding sources such as the ad valorem tax.

To the extent feasible, user charges should fund extracurricular activities.

### *RETIREMENT PROGRAM*

\*There must be a viable long-term solution to the underfunding of the Teachers Retirement System of Oklahoma (TRS). Higher education, vocational-technical education, and the common schools must coordinate in addressing this issue with a sense of urgency.

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## **ADMINISTRATION AND MANAGEMENT**

### *EFFICIENT ADMINISTRATION*

\*There must be both improved service and cost saving through economies of scale in administrative functions such as legal counsel, purchasing, record-keeping, and student information. This requires collaboration, coordination, and mergers of functions across campuses through such mechanisms as alliances with lead institutions, contracting for private services, and systemwide centralization if needed to achieve minimum costs.

### *EFFICIENT ACADEMIC PROGRAMS*

\*Opportunities for collaboration, cooperation, and substitution in academic program delivery should be a high priority for institution administrators. The State Regents Academic Planning/Resource Allocation program should continue to provide leadership in identifying such opportunities and in implementing cost-effective and service-improving developments.

### ***REDUCING REGULATION AND CONTROL***

**\*As the center of coordination and control for the state system, the State Regents must focus on broad strategies related to statewide goals while placing as little emphasis as possible on detailed regulation of procedural matters at the various institutions.**

**The State Regents need to reexamine their *Policies and Procedures* manual. Unnecessary regulations and regulations which create inefficiencies must be removed. Where current practice does not match the manual's regulations, then one or the other should be revised. The manual should be edited to assure clarity, consistency, and the absence of excessive wording.**

### ***INFORMING CONSUMERS***

**\*The State Regents should develop a consumer-based set of quality indicators of institutional performance to aid students, parents, employers, and policymakers in their personal, business, and governmental decisions about Oklahoma higher education. Criteria should include measures of student characteristics, instruction, time-to-degree, and on-the-job success of graduates. The criteria should also reflect appropriate measures for both traditional and nontraditional students.**

### ***IMPROVING THE EFFECTIVENESS OF BOARDS OF REGENTS***

**The Regents Education Program (REP) must continue to improve the effectiveness of all of the boards of regents. Emphasis on a systemwide perspective and enhanced opportunities for interaction of board members from different institutions will strengthen the program.**

## **CHAPTER I**

### **INTRODUCTION**

The thirty-six member Citizens' Commission on the Future of Oklahoma Higher Education was created to develop recommendations to the State Regents for the long-term improvement of the state's system of colleges and universities. This chapter presents a brief chronicle of the Commission's origins, membership, organization, and activities between July 1996 and October 1997. Also described are the Commission's initial efforts to develop guideposts for its deliberations in the form of recommended systemwide slogan, vision, and mission statements.

Those not familiar with the Oklahoma state system of higher education may want to examine Appendix A which contains a brief outline of the system's structure.

#### ***INITIAL PLANS AND APPOINTMENT OF MEMBERS***

During July and August, 1996, the Oklahoma State Regents for Higher Education, led by Chairman Anne H. Morgan of Norman and Chancellor Hans Brisch, initiated informal discussions about creating a citizens' long-range planning committee for the Oklahoma higher education system to undertake deliberations during the 1996-97 academic year. The committee's central role would be to make recommendations to the State Regents. This was to be undertaken with an awareness that the Regents themselves are in a position to respond directly to many recommendations and are also well-suited to initiate change to be undertaken by other entities

including the Oklahoma Legislature. An initial budget for a citizens' committee was developed and arrangements were made for the services of a staff director. The concept of a planning committee began to take more concrete form at a State Regents "Strategic Planning Retreat" held on the campus of Southwestern Oklahoma State University at Weatherford on September 4 and 5.

State Regent Bill W. Burgess, Jr., of Lawton was appointed chairman of the committee. This was an appropriate role for Burgess because he also served as chairman of the State Regents' own Strategic Planning and Personnel Committee. In addition, State Regent Robert L. McCormick of Stillwater was appointed to serve on the committee, with the thought that he was likely to assume the chairmanship of the State Regents in the spring of 1997 and thus would have a special role to play in implementing selected recommendations. An official name was chosen for the committee: the "Citizens' Commission on the Future of Oklahoma Higher Education."

Many sources were contacted requesting suggestions for persons to serve on the Commission. Members were appointed during September and October. It was decided that each of the nine State Regents would appoint two members--with the balance chosen by the Chairman. The thirty-six commission members are listed at the beginning of the report. The group was a representative cross-section of citizens concerned about higher education with representatives from urban and rural areas and literally from the four corners of the state. There was also a good mix from business, government, and education.

At their meeting of October 18, 1996, the State Regents adopted a charge to the Commission and discussed what they expected from the effort. The five themes of *quality*, *access*, *efficiency*, *accountability*, and *funding* were paramount in the charge to the Commission.

**Quality:** How can incentives can be developed to further improve student preparation? How can Oklahoma's public institutions of higher education assure that they are educating students who will be qualified to deal effectively with the rapidly changing work environments of the 21st Century and to contribute to the civic and cultural quality of the communities in which they live?

**Access:** How can the system maintain and improve access for qualified students in a era of limited growth in state government funding, constrained family budgets, and changing geographic population distribution?

**Efficiency:** What initiatives--including initiatives for creative management--should be considered to further enhance the efficiency and effectiveness of the state system and its institutions?

**Accountability:** What are the mutually developed and accepted goals of the various components of the system and what measures can be used to chart progress toward goals? Where are there gaps between goals and current levels of achievement?

**Funding:** How can Oklahomans ensure that their colleges and universities receive adequate funding from various sources to efficiently provide quality educational services? How can higher education ensure that students are paying an equitable share of their college costs, while also ensuring that higher education remains affordable and accessible to all qualified students?

The State Regents made it clear on October 18 that they were not interested in a big, thick, final report that would be likely to gather dust on a shelf. Rather, the concern was that the Commission's final report be readily accessible and of interest to the general public. They also indicated a desire to be kept regularly informed of the Commission's activities.

### ***COMMISSION DELIBERATIONS, OCTOBER-JANUARY***

The Commission held nine meetings between October 31, 1996 and June 25, 1997. An outline of these meetings is contained in Table 1. At its first formal meeting on October 31, the Commission heard Barry Munitz, Chancellor of the massive California State University System, discuss major challenges facing public higher education throughout the nation. The second meeting was held in December and included a detailed discussion, led by Chairman Burgess, of the powers and responsibilities of the State Regents.

Also at the December meeting, the members of the Commission were surveyed to identify major issues which they would like to see examined. The results of these surveys were then summarized and served as the basis for developing a plan of work which was presented at the January meeting.

Substantial effort at the January meeting was devoted to developing concise, attractive motto, vision, and mission statements for the Oklahoma state system of higher education. These were drafted as follows:

**Motto:** *"Oklahoma Higher Education: A Great Investment in Your Future"*

**Vision:** *"Be the most valued resource in Oklahoma"*

**Mission:** *"Be Oklahoma's driving force for cultural and economic well-being"*

The work plan adopted at the January Commission meeting focused on five general higher education issue areas with the intention of holding five successive monthly meetings (February-June) dealing with each of the topics. The topics adopted were:

- (1) Technology
- (2) Higher Education's Markets
- (3) Economic Development/Workforce Development
- (4) Funding
- (5) Administration and Management

The Commission opted to work as a committee of the whole as it developed recommendations in the five subject areas rather than to divide itself up into subcommittees . After each of the meetings on the substantive topics, a small set of key recommendations with accompanying narrative reflecting the Commission's discussion and the presentations of the guest speakers was drafted. Chairman Burgess appointed an eight-member Steering Committee whose

task was to meet a few days after each of the five Commission meetings to review and modify draft recommendations and to anticipate issues needing to be emphasized in upcoming Commission meetings. Steering Committee membership is noted on the list of Commission members at the beginning of this report.

### ***COMMISSION DELIBERATIONS, FEBRUARY-JUNE***

Each of the five meetings dealing with substantive topics utilized the services of experts to first present issues and factual background and then to interact with the Commission members as they pursued topics deemed to be important. Before each meeting, reading material relevant to the upcoming topic was provided to the Commission. Some of the material was suggested by the guest speakers and some was developed by staff. The guest speakers/resource persons for each topic are named in Table 1. The following illustrates their high levels of competence.

***Brenda Albright: Funding***--Currently with the Franklin Education Group, Franklin, TN. Consults extensively on higher education budgeting and finance. Discussed national funding issues and incentive/performance funding with the Commission.

***Robert Dauffenbach: Economic Development***--Director, Center for Economic and Management Research, University of Oklahoma. Economist expert in the supply and demand for technical personnel. Specialist on structure of Oklahoma labor markets.

***Dennis Jones: Higher Education's Markets, Administration and Management***--President, National Center for Higher Education Management Systems. Consults nationwide on issues of higher education demand and supply, and on issues relating to governance. Became especially familiar with Oklahoma higher education as he undertook a needs assessment for the Tulsa metropolitan area.

***James Mingle: Technology, Administration and Management***--Executive Director of the State Higher Education Executive Officers association. Serves as special consultant to the State Regents in the development of detailed recommendations for educational technology policy.

***Cindy Ross: Administration and Management***--Executive Vice Chancellor for Academic Affairs, Oklahoma State Regents for Higher Education. Manages evaluation and approval of academic programs for the state system.

**Gary Smith:** *Funding*--Executive Vice Chancellor and Chief Operating Officer, Oklahoma State Regents for Higher Education. Oversees entire budget process. Manages system for allocating funds to the institutions in the state system.

**Mickey Thompson:** *Economic Development*--Vice President, Economic Development Division, Metropolitan Tulsa Chamber of Commerce. Extensive practical experience working with new and expanding industry in Oklahoma and involving higher education institutions in economic development efforts.

**Kenneth Wiggins:** *Economic Development*--Professor and Head, Department of Aviation and Space Education, Oklahoma State University. Specialist in adult and vocational education. Involved in innovative interinstitutional cooperation in educational programs for aviation.

Following June 5, the last of the five meetings on subject areas, the entire draft of recommendations and narrative was collated and reviewed by the Steering Committee. The Steering Committee's further revisions were incorporated in a draft which was mailed to the entire Commission prior to a meeting on June 25. Extensive discussions at the June 25 meeting led to modification of several recommendations and the addition of several more. In these deliberations the Commission aimed at reaching consensus and did not work through all recommendations voting "yea" or "nay" on each. A final draft was mailed to the Commission on August 4. The Commission members agreed to review the final draft and respond quickly so that the entire project could be finalized. It was also agreed that the final set of recommendations would be published in two forms. In addition to the detailed information contained in this publication, a shorter, attractively designed, publication was prepared for use with civic groups and others interested only in the broad outlines of the Commission's key recommendations.

## CHAPTER II

### TECHNOLOGY AND HIGHER EDUCATION

Information technology utilizing electronic delivery is having a profound influence on higher education. The basic orientation of education delivery is shifting from being teacher-centered, institution-centered to being *student centered*. Higher education markets which had been *producer dominated* are becoming *consumer dominated*. Educational opportunities are increasingly being conceived in worldwide contexts with massive increases in alternatives available to students and an expansion of the scope of markets and services supplied by education institutions. Principal among the activities in which technology's influence is felt are distance education and on-campus classroom instruction.<sup>1</sup>

Distance education refers to the provision of educational services in which the student is at some distance from the teacher without face-to-face interaction. Often this permits students to study at their own time and at geographically convenient locations. Newly available video, audio, computer, and transmission technology is rapidly expanding the options for distance education in Oklahoma. Much new technology also has potential for innovative and more effective approaches to on-campus learning as well as distance education.

Included in the new information technology is Oklahoma state government's OneNet network which provides a variety of telecommunications services to nearly 900 clients through forty-five hub sites throughout the state. OneNet transmits video and data using fiber optic cable,

digital and analog microwave, satellite, and wireless technology. Oklahoma's higher education institutions are originating and receiving many instructional programs through the OneNet system. Additional programs from institutions and organizations outside Oklahoma's borders are also available through the Internet and other commercial media.

Because electronic delivery of higher education cuts across so many broad issues, the Citizens' Commission determined to examine this topic first. In addition, the State Regents commissioned a special intensive study of technology which was conducted under the direction of consultant James Mingle during the spring of 1997. A summary of detailed technology recommendations from the resulting special report entitled *Technology 2000* is contained in Appendix B. The Commission interacted with consultant Mingle at its February 19 meeting and also relied on the substantial electronic technology expertise of several of its own members. For the most part, the Commission's technology recommendations are complementary and consistent with those of the *Technology 2000* report.

The Commission identified three major challenges associated with the application of new technologies to distance learning and on-campus instruction. The first involves expanded access and quality education performance; the second links instructional design and technology; and the third deals with funding policies.

### ***ACCESS AND QUALITY***

**The State Regents should assure that distance education services provided by institutions in the State System are readily accessible and of high quality. Higher education resources**

**in one part of the state must fill needs in other parts.**

Distance education provided by Oklahoma institutions should continue to be accountable by standards of high quality. Quality distance education requires emphasis on the provision of needed student support as well as the production of high quality course materials. Course delivery must be program-based and faculty-based rather than institution-based. There must be multiple geographic points of access to postsecondary education. Students are increasingly insisting on higher education services being provided at sites and at times which are accessible while the student continues to hold a job. Separate access points do not require separate higher education institutions. In some instances conditions may dictate the delivery of instruction by electronic network rather than by resident faculty.

In implementing programs at access points across the state, it must be remembered that Oklahoma is a very geographically diverse state; "one size fits all" policies are not suitable for areas as dissimilar as densely populated metropolitan areas and sparsely populated rural areas.

Courses must be reengineered to be more responsive to the needs of employers. The major thrust must be to provide employed students with education and training related to "work-to-work" transitions rather than to the traditional "school-to-work" transition. This shift of emphasis requires a focus on the demonstration of competencies rather than the provision of a transcript of courses taken.

**The State Regents must plan for the impact of interactive television and technology advances on the culture of Oklahoma higher education.**

How will electronic delivery of course work affect the overall educational environment?

There is a good deal of uncertainty and a need for leaders to be aware of both desirable and potentially undesirable impacts on the culture of higher education. As a part of the *Technology 2000* project, the State Regents' Faculty Advisory Committee was asked to provide advice on issues related to technology. Some of the thoughts of that group serve as a basis for speculation about impacts on campus culture.

Among the potentially positive impacts of electronically-delivered programs are the following:

- o Even shy students may be more likely to interact via the computer and thus there may be more lively participation in the educational experience.
- o Students may be more likely to ask for and to receive assistance from instructors via e-mail.
- o Since some of the electronically-delivered course work is essentially independent of time and place, students and faculty can make more efficient use of their time.
- o Technology may permit covering more material over a shorter period of time.

There are, however, some possible problems which may develop as ever-greater reliance is placed on the computer and the television system.

- o There is bound to be a loss of face-to-face contact, and this loss may lead to feelings of social isolation.
- o Students learn from each other in traditional classroom settings. They learn subject matter as well as teamwork and many other dimensions of socialization. This

feature of campus culture is hard to replicate electronically.

- o Some students lack the necessary self-discipline to handle technology based course work.
- o Although a single professor communicates electronically with a large number of students taking a single course, all the students are exposed to only one point of view.

Awareness of the desirable and undesirable impacts of technology on the culture of higher education will enable Oklahoma's colleges and universities to implement policies that reinforce the positive, and alleviate the negative. In addition, by taking into account the growing number of off-campus students, administrations can better plan for personnel needs, student services, and classroom space.

**Future higher education strategies attempting to formally or informally reserve geographic market areas exclusively for service by local institutions are likely to fail because of the capability of other institutions both in-state and out-of-state to use electronic course delivery to penetrate virtually any geographic area.**

The State Regents should avoid unnecessary regulation in distance education. Strict controls over what institution provides what services at what locations are likely to inhibit access by reducing the range of courses and programs available in various communities. In addition, attempts to protect higher education markets within the state may result in greater market penetration from out-of-state education providers. However, duplication of effort and inefficient

use of state resources by Oklahoma institutions in the providing of distance education should be avoided and institutional collaboration should be encouraged.

**The degree-granting and credentialing process must become more flexible in light of the options created by new educational technologies; new ways to measure competencies must be developed.**

One of the traditional means for determining the successful completion of a course of study involves "seat time." Virtually everyone who has ever enrolled in higher education is familiar with the three-credit hour course meeting 150 minutes of seat time per week for 16 weeks during a fall or spring semester. A baccalaureate degree is granted for taking 120 hours of course work under these conditions. This traditional delivery system is inappropriate for a wide range of electronically-delivered course work. More emphasis will be placed on measuring and certifying competencies for modules of material, some of which may involve less extensive coverage than a three-hour course. New techniques for identifying progress toward traditional degrees will be needed. Institutions will be challenged by the need to broker packages of competencies acquired from other institutions as well as from the home institution.

**Oklahoma's state institutions of higher education should certify graduates' levels of competency in performing computer-based tasks and in managing information technology in graduates' areas of specialty.**

Computer literacy and competence in certain computer technologies have become very

important to many Oklahoma employers. State institutions require varying levels of student performance in these particular subject areas. Institutions should collaborate to assure that the completion of certain computer and management information course work at any institution in the system guarantees the same threshold of performance. Since graduates' lack of computer literacy and competence is a current irritant to some Oklahoma employers, there is an urgent need to deal with this problem.

### ***INSTRUCTIONAL DESIGN***

**Institutions of higher education should be specific in articulating goals with respect to what technology is intended to accomplish and then everyone should be held accountable.**

A degree of statewide coordination on technology is needed to assure effectiveness and efficiency. Such coordination is currently very much in evidence in two areas, i.e. automation of academic libraries and linkages to OneNet. There is also exploration of the possibility of negotiating a systemwide license for computer software for managing human resources, student services, and alumni affairs. However, caution should be exercised because institutional hardware and software needs may vary greatly based on institutional size alone. In other areas, such as personal computers, higher education is viewed as a "naive consumer" with a philosophy of trying to have "one of everything" on campus, with resulting problems of coordination and equipment maintenance. One view holds that the problem of lack of coordination and cooperation among institutions is due to a governance structure which fosters duplication of programs and effort. An

alternative view does not emphasize centralization of control, but rather focuses on specific goal-setting and accountability at the institutional level.

**The State Regents should adopt incentive programs stimulating institutions to provide training and technical assistance to instructors so that they can maximize the educational effectiveness of new technologies.**

Higher education instructors specialize in subject matter areas and often have had little or no training in instructional design. They have learned technique by watching teachers in courses which they took and by trial-and-error experience in their own classrooms. The impact of the use of new educational technology will be lessened substantially if instructors continue to teach in the same way as under traditional campus-based, semester-oriented courses. In that case, new technology is treated as an attractive accessory to normal lecture-based educational practice. Nevertheless, it must be remembered that faculty use of technology does not require complete mastery of the techniques and systems; what is needed is enough knowledge to use technology to achieve an educational end.

Advanced technologies must be associated with innovative approaches to delivering educational services. This will frequently require a team of specialists to develop curricula rather than the single-instructor, single-course method traditional in higher education. A shift in evaluating and rewarding faculty is also needed to encourage the effective use of new educational technology.

**Strategies for reengineering courses for distance learning must recognize that the bulk of lower division credit hours is concentrated in a relatively small number of courses; this implies the possibility of achieving economies through the effective packaging of uniform course materials.**

The concentration of credit hours in a small number of lower division courses means that achieving efficiencies in a few large-enrollment courses will generate significant improvements in systemwide efficiency. Equally important is the potential for improving the quality of the response and performance of students enrolled in the courses. The State Regents' existing faculty development initiative program should be used to establish incentives for faculty to create specialized technology-based instruction materials for high-volume lower division courses. This material should be made available throughout the state's higher education system. Competitive demonstration projects will require teams of discipline-based instructors from the three tiers of the system along with specialists in technology-related pedagogy. Such a strategy may have to deal with the potential commercial application of such course material and certainly will require adequate classroom equipment. Achieving such a high degree of uniformity in course presentation may raise questions about the appropriateness of charging differential tuition for a virtually identical course.

### ***FUNDING FOR TECHNOLOGY***

**Funding strategies for higher education technologies must be adapted to the dynamic nature of technology and particularly to the speed with which technologies become**

**obsolescent.**

Traditional approaches to funding higher education attempt to make clear-cut distinctions between expenditures on current operations and on capital. In Oklahoma there is a tendency to fund major capital expenditures with the proceeds of large, infrequent, general obligation bond and revenue bond issues with the assumption that new structures and equipment will last many years. However, most of the new educational technology expenditures do not fall neatly into old categories of capital or operations. Administrators must utilize multi-year operational planning and consider various alternatives for equipment acquisition including the use of long-term leasing.

**The burden of funding must be shared appropriately by the State and by direct beneficiaries.**

Massive institutional expenditures on technology in Oklahoma are already being partially covered by student technology fees at many colleges and universities. The continued expansion of computer labs at the various institutions is already becoming excessively expensive. The State Regents need to consider how the burden of new technologies should be shared with due consideration for the need to maintain broad access to both on-campus and distance education.

Whether the mode is on-campus instruction or distance education, a time may arrive when students need to purchase or lease their own computers. If such requirements are placed on students, then the institutions and State Regents should establish specific programs of aid so that lack of access to a personal computer does not become a barrier to participation in higher education.

Although institutional and interprogram competition is forcing the rapid adoption of new learning technology in higher education, leaders must be aware of the need to acquire new equipment in a cost-effective manner. State-of-the art technology is a must when the focus of a course or program is on state-of-the art technology. This may be the case, for example, at two-year colleges closely linked to certain advanced-technology employers. There are, however, many instances in which existing technology is adequate for the purpose and does not need to be supplanted by the very newest equipment. Administrators must understand when to say "no" to a new technology. There may be cases in which an administrator is faced with academic freedom arguments by a faculty researcher demanding a particular technology and the need for cost-effective management. Technology experts from the private sector, as well as specialists from the academic world should be included among those advising the State Regents and college and university administrations.

**The State Regents should allocate funds with an awareness of the front-end effort required for the development of effective technology-intensive instruction.**

Current approaches to the allocation of funds tend to be enrollment driven. While this approach may help control cost per student credit-hour for traditional on-campus instruction, it will need to be modified when technology is used in distance education. The front-end cost of developing a course that uses new electronic technology is likely to be relatively high. Other specialists besides the content-oriented instructor will be necessary in course preparation and will add to costs. The State Regents' Quality Initiative Grants program can serve as a basis for

expanding support for technology-based program development.

**For distance learning to be truly successful it is necessary to provide incentives and benefits to institutions/organizations operating receive sites as well as to the send sites.**

There is a tendency for everyone to want to be an exporter. This is not sustainable. In the extreme, a solution may mean something similar to what is transpiring today in Hawaii where the state government is giving community colleges the resources needed to buy or contract for upper-division courses for the people in their counties.

### ***STUDENT PREPARATION***

**Higher education in Oklahoma should expect recent high school graduates to already have some computer literacy before entering college; minimum requirements should include basic keyboarding and basic computer orientation.**

Keyboarding and basic orientation toward the personal computer should not be matters of remediation at the college level. There are, of course, many demands placed on the high school curriculum -- demands which may become more stringent with greater credit-hour requirements and current proposals recommending high school students take four years each of English, mathematics, science, and social science. However, learning keyboarding skills and developing basic familiarity with personal computers should be included within more rigorous high school curricula. Prior acquisition of such familiarity is already a requirement for hiring by major corporations in Oklahoma.

## CHAPTER III

### DEMOGRAPHIC CHANGE AND HIGHER EDUCATION'S MARKETS

In developing its recommendations, one of the first actions of the Commission was to examine the long-term prospects for the demand for higher education in Oklahoma. This demand is best viewed as consisting of three parts: students, employers, and state government. Students represent the most direct demand for higher education. This demand will be strongly affected by the future growth of various components of the population. Historically the most significant segment of this demand has been the population aged 18-22. However, future student demand will be driven increasingly by older persons. In addition, the racial and ethnic origin of the student population will change significantly.

Employers demand higher education in a less direct manner. Employers' concerns are based on their needs for higher education graduates who are specialists such as engineers, teachers, accountants, health care personnel, and management information experts. There is also an expectation by employers that higher education serve as a source of employees who are literate in language and mathematics, who can think logically, and who have initiative -- including the motivation to acquire even more education.

State government is of course the dominant *supplier* of higher education in Oklahoma. But it is also useful to think of the state as demanding higher education because of the contribution higher education makes to the public interest. By using financial incentives in its budgeting process, state government can demand certain types of performance by institutions.

The state's demand is examined briefly in this chapter and in more detail in Chapter V which deals with funding.

### ***STUDENT DEMAND FOR HIGHER EDUCATION***

**The state system must plan for higher education delivery which responds effectively to the changing geographic location, age, race, and origin mix of Oklahoma's population.**

As Oklahoma moves toward 2015, the changing character of the state's population is creating some significant challenges for its system of higher education. While trends may shift and projections may turn out to be wrong, the soundest projections available at this time indicate the following :

- o The state's population will become increasingly concentrated in the three big metropolitan areas of Tulsa, Oklahoma City, and Lawton. Western Oklahoma will generally experience population declines while the eastern nonmetropolitan half of the state is likely to continue growing.
  
- o The population will, on average, become substantially older as the baby boomers move toward senior citizen status; the size of the traditional college-age cohort will grow until around 2005 but will be relatively stable during the following ten years.
  
- o Oklahoma's population mix will change as the large non-Hispanic White

component grows relatively slowly in comparison with Asians, Blacks, Native Americans, and Hispanic Whites.

Additional quantitative detail and information about sources of projections can be reviewed in Appendix C.

The "college going rates" for the rapidly growing components of the Oklahoma population are generally lower than the rates for the currently dominant non-Hispanic White component. (Asian-Americans are one exception.) Not only are older persons less likely to attend college, when they do attend, they are less likely to be full-time students. These long-term demographic trends suggest the possibility of an Oklahoma population in the 21st Century with lower average higher education attainment. This outcome implies a relative reduction in productivity and per capita income -- *unless offsetting policy changes are implemented to increase college going rates of older persons and the rapidly growing minority components.*

Because they are more likely to be employed or with fixed residence after retirement, older persons are more likely to require higher education services at convenient locations and at convenient times. Current emphasis on distance education must recognize the importance of delivering higher education services to people at or near where they reside and/or work.

In the past, Oklahoma's efforts at recruitment of minority students and faculty have been undertaken under the general justification of promoting "social justice." As Oklahoma moves into the 21st Century, these efforts will become even more important as a necessary productivity-enhancing response to demographic change. Various forms of student aid and special student

counseling will become more important.

### ***EMPLOYER DEMAND FOR HIGHER EDUCATION***

**Specific policies must be implemented to assure that programs are preparing employable graduates; that once employed graduates have access to continuing education; and that business has access to technical assistance from higher education institutions.**

*Employable Graduates*--Employers are demanding strong basic higher order skills, ability to work as a team, good work ethic, commitment to high quality, and understanding of economic consequences of work. Employers are often critical of higher education for failing to produce students with problem-solving abilities and writing and math skills. These deficiencies do not require adding more resources and more courses to the higher education curricula. Rather they require a change in pedagogy -- the way knowledge is taught.

Even more serious are situations in which employers find that graduates have inadequate skills in communication and inadequate knowledge of basic mathematics and scientific principles. At the extreme are college graduates who verge on being functionally illiterate. The core curriculum must assure basic competencies.

Two-year or community colleges have always had strong curriculum development linkages with local communities and business sectors; there is now increasing need for closer linkages between the baccalaureate-granting institutions and communities and businesses. Such linkages must occur at the program and faculty levels rather than at the institutional level. The linkages

must be a part of the culture of the institution.

*Access to Continuing Education*--Employers are demanding higher education provide access to continuing education, particularly at the master's degree level. Both recent baccalaureate-level graduates and long-time employees need this access. Some educational services need to be available in modules which involve less than the standard three-hour semester course. Employers who have been practicing "just-in-time" inventory control are now speaking of the need for "just-in-time" services from higher education.

*Access to Technical Assistance*--Businesses must be able to turn to higher education to help solve business problems. In this respect, all higher education institutions should be operating with a "land grant institution" philosophy. Institutions need central points of contact so that those businesses needing assistance may efficiently discover the range of services available. Because different classes or tiers of institutions have different functions in Oklahoma's system of higher education, effective systems of interinstitutional referral are required in order for the system as a whole to maximize its effectiveness in the provision of technical assistance.

### ***GOVERNMENT DEMAND FOR HIGHER EDUCATION***

**Efforts to change higher education policies and practices in order to promote the public interest (government demand) should emphasize the use of financial incentives rather than regulatory controls; finance rather than governance is the key to changing institutional**

**behavior.**

The basis of traditional governance in higher education is the issuing of rules regulations, and constraints which establish actions that institutions and their managers are forbidden to undertake. Incentives are much more effective in implementing change and leave managers free to chose innovative and cost effective means to achieving clearly stated objectives

Financial incentives can be used in a competitive framework, within which institutions compete in the development of effective proposals for achieving stated objectives and successful institutions receive financial awards to implement their proposals. An alternative approach involves payments after the fact as a reward for achieving a certain goal.

**Where financial incentives involve competition among institutions, care must be taken to avoid allocating excessive resources to the act of competing.**

Collaboration is as important as competition -- especially for a relatively small state such as Oklahoma where higher education funding is severely limited. For example, it makes no sense to have several institutions provide teacher training programs at one site. One of the most important features of collaboration is embodied in what is labeled the "honest broker" concept. An institution detecting a need for a program that it is either unable to offer itself or is unable to offer at a desirable level of quality may contract for program delivery with an institution which has an effective program and has the delivery capacity. For example, Cameron University recently shut down its associate degree program in nursing and contracted with the University of Oklahoma College of Nursing to deliver its premier program on Cameron's campus. Another example involves baccalaureate programs in special education, physical education, business

administration, and criminal justice offered by Northeastern State University on the Carl Albert State College campus.

Unfortunately, the outsourcing of programs is sometimes viewed as a mark of failure by the faculty and administration of an institution. Reluctance to cooperate is further exacerbated by the misperception that the overall allocation of funds to institutions is exclusively enrollment driven. This misperception can be avoided. In the nursing education case mentioned above, the State Regents' Academic Planning/Resource Allocation system ensured that Cameron was not penalized for giving up its program.

### ***PUBLIC AWARENESS***

**The State Regents need to conduct a major public information effort to explain the services Oklahoma Higher Education offers to Oklahoma and Oklahomans and the benefits the state and its citizens receive from those services.**

More Oklahomans need to complete college -- and even to finish graduate or professional programs. In 1990, the state would have needed about 25,000 more residents with baccalaureate degrees and another 25,000 with advanced degrees just to match the shares accounted for by these educated groups in the population of the whole nation. The following chapter on higher education and economic development emphasizes the strong positive relationship between educational attainment and income -- a relationship which holds for a wide variety of occupations including those for which a college degree is sometimes viewed as an unnecessary requirement. An intensive and broad-based information campaign is needed to make Oklahomans more

sensitive to the long-term changes in their economic and social well-being which are likely to obtain from college and graduate degrees. This is particularly true for the minority and older cohorts described above who are going to account for a larger and larger share of state population growth but who have generally low propensities to attend college.

Fortunately, recent opinion research provides a starting point for a major higher education public information effort. In 1995 a telephone survey of 750 sample adults examined public perception of and consumer satisfaction with Oklahoma higher education.<sup>2</sup> The survey indicated that Oklahomans believe that their state system of higher education benefits them as individuals, helps them to obtain higher paying jobs, strengthens their communities, and bolsters the state economically. However there were special concerns in three areas: cost and affordability, financial aid, and efficiency and accountability.

A public information effort could remind Oklahomans of the long-term benefits of earning a college degree and could overcome perceived barriers such as cost and financial aid which prevent some from pursuing colleges and universities. An additional benefit of such an effort would be more intensive provision of information to business about services available from higher education.

Oklahoma's higher education is uniquely positioned to carry out such a campaign. The state's system of higher education is the only system in the nation that has a council of communicators from the various institutions that implements broad, statewide communications strategies on an annual basis. The council recently provided leadership in the statewide preparation and production of reports relating to earnings and employability, systemwide

economic impact, and various economic development activities.

## CHAPTER IV

### ECONOMIC DEVELOPMENT/WORKFORCE DEVELOPMENT

There is a well-established association between education and economic performance. For individuals, higher educational attainment is associated with higher levels of personal income. For nations and regions, average economic well-being is higher where average educational levels are greater. Equally important is the linkage between the rate of economic growth, technological advancement, and education.

In the United States in 1994, the average annual earnings of full-time male workers with bachelor's degrees was twice that of high school graduates and three times that of workers with less than a ninth grade education.<sup>3</sup> A similar pattern was observed for Oklahoma using a special analysis from the 1989 Census of Population.<sup>4</sup> The differential between the earnings of college graduates and those with less education has been increasing in recent years.<sup>5</sup>

It is helpful to think of these higher earnings as extra returns for greater investment in human capital. Individuals with more human capital are more productive and, therefore, employers are willing to pay them more or they are able to earn more as business proprietors. A principal way that individuals acquire more human capital is through education.<sup>6</sup> This relationship between education and earnings applies across virtually all occupations including those not normally viewed as requiring a higher education degree. A recent study of the demand for college

graduates concluded that "the underlying relationship between basic academic skills and performance in a specific job is smooth, continuous, and close to linear."<sup>7</sup> Across nations, regions, states, and even across counties within Oklahoma, average educational levels are positively related to per capita personal income. Except for a brief period during the oil boom in the late 1970s and early 1980s, Oklahoma's per capita personal income has remained about 80 percent of the national average for half a century. One of the factors connected with this relatively low level of per capita income in Oklahoma is the relatively low percentage of the state's population with college degrees and graduate degrees.<sup>8</sup>

The rate of economic growth of the United States is strongly affected by education. This includes both the direct effect of more education per worker and the more indirect process by which technological advances are the result of work by highly educated researchers -- often working at universities and their laboratories. A recent examination of major research in this field concluded that education contributes about 50 percent to the growth of the economy, with higher education alone accounting for almost 25 percent.<sup>9</sup>

Finally, it must be remembered that higher education is, itself, a major economic enterprise. In the fiscal year ending June 30, 1996, the Oklahoma state system of higher education -- including student aid and auxiliary enterprises but excluding capital outlays -- was a \$1.4 billion enterprise.<sup>10</sup> In an October 1995 survey of state government employment, the U.S. Bureau of the Census reported that the Oklahoma higher education system had 23,505 full-time equivalent employees -- about one-third of total state government employment.<sup>11</sup> Researchers at Oklahoma State University estimated the gross employment impact of higher education in

Oklahoma to be about three times the direct state government employment because of additional private sector jobs required to service students, capital spending, and the overall multiplier effects of such spending as dollars circulate throughout the economy.<sup>12</sup> Institutions of higher education are the very economic life-blood of a number of smaller communities in the state.

### ***HIGHER EDUCATION AND TARGETS FOR GROWTH***

**Oklahoma should improve its competitive position by the design of workforce development programs to fit the needs of targeted sectors of the economy with potential for significant growth within the state.**

National projections can be used to identify major sectors of the economy that are going to expand relatively rapidly. Some of these sectors already have a record of locating and prospering in Oklahoma and nearby areas. These include aviation, telecommunications, electronics, and biotechnology. Oklahoma will be more attractive to future expansions and new facilities for such sectors if the state's workforce possesses required educational backgrounds. Higher education should aid in this effort by adjusting curricula, through student counseling and career guidance, and perhaps even through tuition and scholarship incentives. Curricula specialized to a specific industrial sector can be centrally developed by a lead institution in partnership with relevant business sectors, linked to targeted communities, and distributed to appropriate sites via OneNet. Where feasible, internships should be used to deepen students' understanding of targeted types of business enterprise. This strategy might result in increased outmigration of Oklahoma graduates if the targeted industries do not expand jobs in the state. In

this case, the strategy would be "win-win" for the students, but not for not for the state.

**Higher education should enhance and expand entrepreneurship training.**

Much of the nation's job creation takes place in relatively small firms. Entrepreneurs are able to identify new products, processes, and markets and to design firms to take profitable advantage of new opportunities. Successful small firm growth requires owners and managers with entrepreneurial values and competencies. The attraction of venture capital to Oklahoma is also partially dependent on the degree to which the state projects an image of entrepreneurial effort. Colleges of business and colleges of engineering, along with business related departments, should expand course offerings and internships aimed at nurturing entrepreneurial creativity of students.

Higher education institutions have an important role to play in working with the state's private sector to enhance entrepreneurship. Institutions should assist in the design of entrepreneurship training in the public schools and vocational-technical system. Research needs to be undertaken to explore the degree to which Oklahoma's environment needs to be changed in order to provide a more fertile setting for entrepreneurship. Expanded higher education emphasis on entrepreneurship training may require new institutional arrangements in order to achieve necessary statewide momentum. A recent proposal for an Entrepreneurial Institute by the Oklahoma Academy for State Goals illustrates a possible approach.

**Higher education research activities must be linked where appropriate to the commercial**

**application of new technology especially by firms located in Oklahoma.**

There are other areas in the United States in which new technology developed in higher education laboratories has served as the foundation upon which major regional industrial complexes have been built. In other areas, the linkage between research institutions and commercial development is more diversified than is the case in, say, Silicon Valley, Austin, or Route 128-Boston. Current efforts at the two comprehensive universities (the University of Oklahoma and Oklahoma State University) to expand "research park" and "incubator" activities should be supported. In a future environment of cutbacks in federal funding for university research, the state's academic researchers must, themselves, become more entrepreneurial in order to generate funds for their further research.

**The Oklahoma Constitution places impediments in the way of desirable cooperative arrangements between higher education and business. There must be more effective adjustment to this environment and/or changes in laws to facilitate joint activities which are in the public interest.**

Technology transfer is a principal means by which higher education can affect economic development. Research at universities and colleges generates inventions and new technologies which are the "intellectual property" of the institution or the faculty member. When this intellectual property is commercialized, it generates new jobs and higher income in Oklahoma. Oklahoma lags behind several other states in the intensity of technology transfer from higher education to business. A study of university-industry technology transfer was recently

commissioned by the Oklahoma Center for the Advancement of Science and Technology (OCAST).<sup>13</sup> Among other impediments to effective technology transfer, this study pointed to constitutional and statutory barriers.

It is common practice in other states and at private universities for institutions or faculty with potentially profitable intellectual property to take an equity (ownership) interest in the business firm actually commercializing the new concept. Such commercialization is often very risky, and firms involved may not be heavily capitalized and, therefore, may not be able to pay very much for intellectual property. The Oklahoma Constitution was written at a time when Populist attitudes were very unsympathetic with large corporations such as railroads.<sup>14</sup> State government was prohibited in Art. 10, Sec. 15(A) from being an owner or stockholder in a corporation. Thus a standard legal procedure facilitating technology commercialization cannot be used by Oklahoma's state institutions of higher education.

The OCAST study suggests two possible solutions. First, the Oklahoma Constitution could be changed. In fact, in 1988, the Constitution was changed with the intention of permitting OCAST (but not the universities) to purchase stock in private enterprises for economic development purposes (Art 10, Sec. 15(B)). The second approach involves more aggressive performance by private "501(c)3" corporations operated by the universities. These organizations could take equity positions in corporations. Another approach could involve the universities establishing trust authorities similar, say, to the authorities operating state retirement funds which currently invest billions of dollars in corporate stock without running afoul of the Oklahoma Constitution. OCAST is currently hosting a series of meetings of university counsel to explore

legal options in licensing and commercialization.

In addition to a concern not to overstep legal boundaries, limited involvement by Oklahoma institutions may also reflect an "organizational culture" which is at times openly hostile to technology transfer. Within academic institutions, real or contrived barriers to faculty entrepreneurship activities need to be removed. Cultural changes must be made that will result in researchers being both encouraged and rewarded for enhancing their institutions' well being and the state's economic welfare. For example, the 1997 OCAST technology transfer study noted this problem of institutional culture and recommended that "University leadership . . . needs to reexamine the tenure and promotion policies of institutions and units as they pertain to faculty involvement in technology transfer work with industry and the commercialization of faculty inventions."<sup>15</sup> Colleges and universities need to invest resources in their technology transfer activities, collaborate at the state level, and have a positive impact on both themselves and the Oklahoma economy at large.

### ***COOPERATION, COORDINATION, AND IMAGE***

**Higher education must exhibit a unified, integrated impression when it is assisting the state's economic development specialists who are working with prospects considering Oklahoma locations, or who are assisting business firms already operating in the state.**

There is a high degree of autonomy among the individual institutions in the Oklahoma system of higher education. On occasion, this structure fosters an attitude of turf protection and reluctance to cooperate with other institutions. When such parochial positions surface as higher

education institutions attempt to assist local chamber of commerce officials and other economic development professionals, the effect on business prospects can be quite negative. Unfortunately, the negative effects of inter-institutional competition is a major concern of those charged with attracting new industry to Oklahoma and assisting in the expansion of existing industry. There are, however, examples of high degrees of cooperation as in the aviation alliances in Tulsa and Oklahoma City. The aviation alliance concept served as a basis for a recent agreement between several institutions and Tinker Air Force Base in Oklahoma City in which the 20,000 civilian and military employees at that installation will be able to pursue associate, bachelor's, master's, and doctoral degrees in aviation or aerospace.

**Higher education needs to do a better job of publicizing its economic development capabilities and contributions; emphasis should be placed on information about unique, specialized programs with implications for targeted industrial sectors.**

Public information offices within the state's system of higher education have produced a volume of general publicity about the economic importance of Oklahoma higher education. Specific documents have been very useful in pointing those in need of business assistance to places within the system where help can be obtained. The State Regents' 1994 publication entitled *Directory of Business Development Services Provided by Oklahoma Higher Education* has been particularly useful in this respect. (This directory is now readily available at the State Regents internet web site address: <http://www.osrhe.edu>.) However, economic development specialists are concerned about the availability of highly specialized technical personnel and the potential for

commercialization of the results of work at higher education laboratories. Sometimes, the institutions and labs are missing opportunities to publicize their capacities and accomplishments with the community of economic development specialists. Higher education and the Oklahoma Department of Commerce should work together in designing a training program for local chambers of commerce to highlight the combined economic development assets of the state's colleges and universities.

**The State Regents, governing boards, and institutional administrators should provide encouragement (including financial incentives) and regulatory flexibility when a new program of educational services is being developed to serve a particular industry.**

Given the institutional structure of Oklahoma higher education with its many relatively independent units, it is natural that regulatory frameworks should arise reflecting both turf protection and the need to control interinstitutional competition. It is also natural that administrators of the various institutions are primarily concerned about the well-being of their own institutions even to the occasional detriment of other institutions. And, over time, the extent and intensity of regulation accumulates as one marginal policy change is added to another. There are, however, opportunities for higher education to marshal resources of multiple institutions and of other entities, such as the public and the vocational-technical schools, in order to design educational and research services needed by a particular industrial sector such as aviation or electronics. It usually requires one or more faculty entrepreneurs to take the leadership in designing and implementing such cooperative efforts. Those who have

attempted such efforts have encountered both regulatory and administrative resistance and a reluctance to devote resources to new innovative efforts. Special attempts should be made to overcome rigidities associated with the mandates of national and regional accreditation organizations.

**No matter what the economic development issue, the effectiveness of higher education's assistance is often judged on the basis of quickness of response time.**

Higher education in Oklahoma is not designed for quick response time in the development of specialized economic development-related programs. The integration of efforts of several institutions often requires substantial negotiation to overcome regulatory and administrative barriers to action. In cases involving profit-oriented business decisions, the old adage "time is money" always applies. Higher education in Oklahoma needs to be able to respond more rapidly to specific economic development challenges. On occasion, Oklahoma higher education's slow response time is compared to the very rapid response time available from the State Department of Vocational-Technical Education and the area vo-tech schools. However, economic development specialists must remember that much of higher education's structure is organized around the provision of courses -- one semester at a time -- and that it is sometimes difficult to respond quickly simply because of the normal schedule of on-going commitments of personnel.

**Economic development specialists should be provided assistance in translating ACT scores into a comparable measure to use with prospects more familiar with the SAT tests.**

Scores on college entrance exams are included in the data often requested by site location specialists considering Oklahoma locations. There are two major tests given to high school students anticipating attending college. These are the SAT (Scholastic Assessment Test) and the ACT (American College Testing) program. In general, the SAT is used in states in the Northeast and Far West, while the ACT is used in the South and Mid-continent area. Oklahoma uses primarily the ACT though either test is acceptable for admission to state institutions of higher education. Many prestige private schools tend to require applicants to have taken the SAT, although some, such as Rice, use ACT. Whether their reasoning is justified or not, a few commercial site location specialists look more favorably on the education system of a state using the SAT. Sometimes, however, it is the ACT that is requested as the best indicator of state scholastic achievement. There is, in fact, little substantive difference between the two tests as predictors of college success.

### ***INCENTIVES AND FUNDING FOR ECONOMIC DEVELOPMENT***

**Include in the State Regents budget formulae an incentive or reward for economic development activities by individual institutions; explore possibilities for embedding such incentives in the legislative appropriations process.**

Institutional administrators concerned about expanding higher education services in the field of economic development are often faced with the necessity of taking the needed funds away from other functions of the institution. With a budgeting system that is primarily enrollment-driven, it is sometimes difficult to emphasize economic development activities.

Incentives or rewards for economic development activities could be implemented by the State Regents in light of their constitutional power to "allocate to each institution according to its needs and functions." It is certainly conceivable that financing economic development initiatives could also serve as a basis for increasing the consolidated amount which the Oklahoma Legislature appropriates to higher education.

**Higher education institutions need access to a source of state funding to finance customized firm-specific workforce development programs at no cost to Oklahoma businesses.**

One of the most successful policies of Oklahoma state government linking education and economic development/workforce development has been the TIP (Training for Industry Program) of the Oklahoma Department of Vocational and Technical Education and the area vo-tech schools. In this program, state funds are available to develop customized training for specific businesses. Such funding is not available for similar efforts involving the level of training provided by institutions of higher education. Higher education institutions must apply ad hoc means to finance such services and normally must charge the firms being served. A funding policy similar to TIP should be available for higher education and would be especially useful to two-year or community colleges.

## **CHAPTER V**

### **FUNDING OKLAHOMA HIGHER EDUCATION**

Operating expenditures of the Oklahoma state system of higher education in the year ending June 30, 1995 totaled \$1.4 billion. About one quarter of the outlays was generated by auxiliary enterprises (business-like activities including union buildings, bookstores, and intercollegiate athletics) with the remaining outlays associated more directly with instruction, research, and the provision of scholarships.<sup>16</sup> Auxiliary enterprises are usually self-financing, while instruction and research (called Educational & General I and II) in FY95 were funded from state appropriations (55 percent), student fees (18 percent), payments for sponsored research (18 percent) and other sources (around 10 percent).

From the expenditures side of the funding equation, the important point to remember is that higher education is labor intensive. In FY96, for example, three-quarters of Oklahoma's higher education expenditures through treasury funds were for personal services.

Oklahoma exhibits some unique higher education funding characteristics. First, average expenditures per full-time equivalent student are among the lowest in the nation -- lower than is justified by the state's relatively low level of per capita personal income. Second, the state relies relatively much more heavily on legislative appropriations for funding higher education than does the average state. Third, the state has a relatively well-developed system of student financial aid. Fourth, tuition and fee levels, while rising recently, have long been among the lowest in the

nation. Fifth, the state's private college sector is relatively underdeveloped in

comparison with the public system. Finally, the retirement system covering most of higher education employees is woefully underfunded.

### ***OVERALL FUNDING ADEQUACY***

**A goal of achieving program expenditures per full-time equivalent student to match peer institutions is justified because of significant potential impacts on the quality of Oklahoma higher education.**

The most widely used measure for comparing funding performance across programs and institutions is revenue or expenditure per full-time equivalent (FTE) student. (A full-time equivalent student is an undergraduate taking 30 hours per year or a graduate student taking 24 hours per year.) There are various ways that data are collected for these performance comparisons, but no matter what approach is taken, Oklahoma's per student funding is well below average. For example, a 1996 nationwide study by the U.S. General Accounting Office reported Oklahoma's 1993-94 education-related expenditure per full-time equivalent undergraduate student of \$5,836. This figure was only two-thirds of the national average for four-year public institutions and placed the state next to the last among the fifty states.<sup>17</sup>

While such national comparisons are striking, more meaningful comparisons can be made for similar classes of institutions and for institutions which Oklahoma considers to be "peers" (or perhaps competitors). Peer institution comparisons are a basic building block for the State

Regents' budget development process or "Budget Needs Methodology." In this methodology, the state's institutions are divided into three basic tiers: the two comprehensive universities, the ten four-year regional universities, and twelve two-year colleges. Each of these groups of institutions identifies a set of peer institutions which are surveyed to identify expenditures per FTE student. When average expenditures per FTE for the peer tier institutions is multiplied by Oklahoma enrollment in that tier, the result is a measure of what expenditures would need to be in the state system if they were to match the peer average. In 1995-96, Oklahoma's instruction-related revenue per FTE was 61 percent of the peer average -- up from 58 percent a year earlier, but down from its 1992-93 level. Any attempt to eradicate the gap in FTE funding must be spread out over several years such as the five-year period proposed by the State Regents; the current gap is too large to close efficiently in a short period of time. Closing the gap must continue to be associated with budget information about specific improvements in the system occurring during the process.

### ***ALLOCATION OF APPROPRIATED FUNDS***

Even after Oklahoma achieves FTE funding parity with peer institutions and determines that the burden of funding is shared appropriately, there will always remain the problem of allocating resources among the various institutions in the state system. This allocation process is the sole responsibility of the State Regents under Oklahoma's constitutional system. The Oklahoma Legislature sends a single lump sum appropriation to the State Regents who then make the decisions about allocating funds within the system.

The State Regents use a detailed Budget Needs Methodology to allocate each year's new money (additional legislative appropriations) to the colleges and universities. The application of this system year after year defines the overall pattern of the state system's primary base operating budget. The detailed methodology applies three key variables to allocate funds: (1) expenditures per FTE at peer institutions for the three tiers, (2) standard program costs within the tiers of the Oklahoma system, and (3) enrollment. It thus applies direct information on the quantity of educational services demanded (FTE students) and the unit costs of providing those services. The system is described in detail in Appendix D.

This budgeting system has evolved since the late 1960s and is now well-established.

**A larger share of the budget for institutions should involve performance and incentive funding, while a smaller share should be treated through the Regents' normal allocation procedures. Performance and incentive funding policies can be used for economic development, for academic planning/resource allocation, for high priority activities, and for achieving standards of performance.**

Various types of performance and incentive funding policies should supplement the application of the Budget Needs Methodology. Such policies can be used for economic development, for academic planning/resource allocation, for high priority activities, and for achieving certain standards of performance.<sup>18</sup> Incentive grants can be used on a competitive basis to provide institutions with funding ahead of time to achieve certain purposes. The availability of special funding based on the record of past achievement also serves as a natural stimulus to

change behavior in order to achieve future budgeted rewards.

Depending on the mix of various programs, the State Regents currently allocate from 2 to 10 percent of their annual budget for special purposes targeted to achieve specific outcomes.

These special purpose budget items involve initiative funding using a peer review process, incentive funding granted on the basis of demonstrated progress toward a specific objective, and special student funding such as targeted scholarships. When properly designed, components of the budget allocated to incentives can have a large impact on the behavior of colleges and universities even though the percentage share of the overall budget devoted to incentive funding is relatively small. The State Regents should develop incentive policies to include economic development activities within the special purpose component of the budget.

A significant number of states are now devoting 2 to 3 percent of their higher education budgets to incentive funding directly related to performance.<sup>19</sup> In some cases the use of performance measures in the budget process has been legislatively mandated. There is a wide range of performance measures, some of which are easily quantifiable while others tend to be subjective. Tennessee's performance funding system provides a budget supplement of up to 2 percent of the educational and general instruction budget for exhibiting success in four areas: (1) getting programs accredited, (2) good performance demonstrated by graduating students based on standardized tests, (3) favorable survey results from students, graduates, employers and community members, and (4) subjecting academic programs to peer review.<sup>20</sup> Modest use of performance funding will enhance an image of accountability with the public at large and with the

state's political leaders. Some of the data for performance funding will also be useful in the preparation of the institutional quality indicators discussed Chapter VI.

### ***ALLOCATION OF THE FUNDING BURDEN***

Since student fees (tuition and special fees) and legislative appropriations account for nearly 90 percent of overall instructional (Educational & General I) revenues, it is clear that any significant effort toward achieving the goal of peer-equivalent funding per FTE must involve these two sources of revenue.

#### **State government appropriations must remain the mainstay of the system's funding.**

The state system of higher education in Oklahoma has always relied primarily on legislative appropriations. Although the relative importance of state appropriations has been declining in recent years, in 1996-97 appropriations were 64.3 percent of Educational & General I revenues -- down about 10.5 percentage points from their share a decade earlier. Even after that decline in share, Oklahoma's relative reliance on appropriations as a source of higher education funding remained higher than the typical state. The downward pressures on the appropriations share will continue as additional funding demands are placed on state government by such areas as corrections, roads, and health care and as the federal government devolves responsibilities to state governments while it pushes its own budget into balance.

It is, nevertheless, important that state support for Oklahoma higher education be

increased over time. Unfortunately, higher education is receiving less rather than more emphasis within the state's total appropriations process. From FY81 (the year ending June 30, 1981) through FY85, higher education's share of total state appropriations averaged 16.55 percent; the average share dropped to 16.18 percent during FY86-FY90 and dropped further to 15.57 percent during FY91-97. Even though there was a record absolute increase in appropriations during FY97, the overall level was still \$42 million less than it would have been if higher education had been allocated the same share as during FY81-FY85.

An additional factor unique to Oklahoma emphasizes the importance of appropriations to higher education. Private institutions of higher education in Oklahoma have a much smaller share of the student market than is typical elsewhere. In 1993, for example, public institutions of higher education enrolled 75.5 percent of total FTE students nationwide; in Oklahoma the state system's share of the total was 85.6 percent.<sup>21</sup> Thus the structure of the higher education industry in Oklahoma places an above average burden on the public sector.

Restructuring state funding of education in general would be helpful in maintaining state government support for higher education. The ability of Oklahoma state government to fund higher education is hampered by the overall pattern by which it funds all levels of education. More than most states, Oklahoma has chosen to centralize the funding of its elementary and secondary schools. In 1992-93 state government in Oklahoma provided 62.2 percent of total local school funding; nationwide state governments provided only 46.4 percent.<sup>22</sup> The low level of local fiscal support for K-12 schools is at least partially due to Oklahoma's relatively low property tax rates. If local jurisdictions carried a heavier fiscal load for local schools, funds could

be freed up at the state level for higher education appropriations. This is, of course, more easily said than done; the property tax remains very unpopular among Oklahoma's voters. Rightly or wrongly, many believe that the property tax is especially unfair because people not owning real estate avoid paying the tax.

**Tuition and fees must play an increasing relative role in system funding; to this end, the State Regents should control tuition and fees without legislative constraint.**

Oklahoma prices its public higher education services quite favorably. The system's students currently pay about 25 percent of institutional instructional cost of their education, with the balance being made up primarily by appropriations along with some revenues from grants, contracts, sales of services, and gifts. The General Accounting Office report mentioned above ranked the states according to average full-time undergraduate in-state tuition at four-year public colleges during 1995-96. Only three states were reported with tuition lower than Oklahoma's \$1,741 per year. The national average tuition in that ranking was \$2,865.

The State Regents' goal is to raise tuition rates over a three-year period to a point at which students are paying one-third of their instructional costs -- roughly the average share nationally. This strategy appears to be feasible in the current environment and is one of the few options the state has to reach peer-equivalent funding per FTE. Higher tuition might also motivate students to become better consumers of the services of Oklahoma higher education. Higher priced items are generally valued more highly. Another byproduct of higher tuition at the state's public institutions might be expansion of enrollment at the state's private colleges and universities. The

current relatively underdeveloped enrollment pattern at Oklahoma's private institutions may be due in part to the unusually low prices charged by the state system.

Since the Oklahoma Legislature sets caps for tuition and fees, the State Regents always operate within the constraints of those caps as they determine actual rates of payment. Many states provide more latitude to their governing boards in setting tuition and fees than is the case in Oklahoma. If there were more flexibility in setting rates, it is likely that local institutions could manage their resources more efficiently. It might be possible, for example, to charge differentiated rates to stimulate attendance at off-peak times of the day and week.

**Increased student aid must complement higher tuition in order to assure that Oklahoma's higher education system does not erect barriers to higher education access on the part of competent students with limited financial resources.**

Oklahoma's low tuition represents the most important form of student financial aid associated with the system. Taxpayers from throughout the state subsidize the state's college students in an amount essentially equal to higher education appropriations. This subsidy is available to all of the system's 220 thousand students irrespective of whether they are needy, average, or even very well-to-do. Higher tuition is probably more fair than the current low level even though it may go against the grain of Oklahoma's populist traditions. Personal economic benefits from higher education are substantial. Therefore, it is appropriate to attempt to have the beneficiaries of this government service to cover a reasonable portion of its costs.

Oklahoma is not a wealthy state. Its per capita personal income hovers around 80 percent

of the U.S. average. In 1993, the U.S. Bureau of the Census estimated that 18.4 percent of the state's population was living below the official poverty line. In the past, Oklahoma higher education has recognized the importance of needy students and has in place a system of aid for needy students which is more effective than that found in many other states.<sup>23</sup> Oklahoma is currently a low-tuition/high aid state which has bent over backward to provide access to its higher education system. However, it is on a path toward higher tuition and should be careful to offset tuition increases by expanding student aid to the needy. Without such expansion, higher tuition could have an especially negative effect on the ability of minority groups to experience the advantages of a college education. Legislative appropriations and federal funds targeted toward needy students are quite different from the provision of equivalent assistance to the same students as part of a massive "aid" system resulting from very low tuition to everyone.

Grants are to be preferred to loans for those with the greatest financial need. Should a needy student fail to progress in higher education, the repayment of a college loan can become an impossible burden. Detail on how student aid operates in Oklahoma is contained in Appendix E.

**Institutions should continue efforts to attract private contributions to endowments and for current operations.**

Although the Oklahoma system of public higher education is primarily tax-supported, its institutions are exerting increased effort to attract private donations. Recent successes in obtaining private funds have been notable, but the system overall does not have a long history of

substantial private financial support. In a 1996 nationwide ranking of 466 university endowments, the University of Oklahoma placed 94th with \$278 million while Oklahoma State University ranked 242th with \$78 million; no other public institution from Oklahoma was included, even though the smallest endowment on the list was only \$2.4 million.<sup>24</sup> The State Regents' Endowed Chair Program, which matches state funds dollar-for-dollar with private funds, has been used successfully by colleges and universities to raise private contributions and to attract and retain first-rate faculty. By 1997, \$93 million in state funds had been matched by an equivalent amount of private funds through this program.

Emphasis on attraction of private funds may cause public institutions to be more attentive to maintaining high quality programs and to linkages with the business community, charitable foundations, and wealthy potential donors. Success in raising private funds reflects a different type of market test than does the search for funds in the political arena.

As beneficial as private funds may be, they merely supplement revenues from tuition and especially from state government. There is really no comparison at all between state appropriations and private donations. It would, for example, require an endowment of \$7 billion to \$8 billion to generate income to the Oklahoma public higher education system equivalent to its FY97 appropriation of \$636 million.

**Two-year institutions should be given greater access to local funding sources such as the ad valorem tax.**

One of the principal ways that Oklahoma state government can help its system of higher

education to achieve the goal of peer-equivalent funding is to design a structure of revenue sources similar to those in many other states. Note was taken above of the unusually high reliance on state-level funding by Oklahoma's elementary and secondary schools and how that dependence is associated with an unusually low reliance on local property taxes. Another dimension of this unique feature of governmental finance in Oklahoma is seen in the funding of two-year or community colleges.

Nationwide, local government sources of funding account for an important share of two-year college revenues -- 17.8 percent in 1992-93.<sup>25</sup> However, as Oklahoma's public community college system developed during the '60s and '70s, the decision was made to rely almost entirely on state funding. Several of the two-year colleges which joined the state system had been municipally supported since their establishment during the 1930s as the thirteenth and fourteenth grades of local school districts.<sup>26</sup> Only the three two-year colleges in Oklahoma City and Tulsa currently have access to local property tax funding, with its use earmarked exclusively for vocational-technical operations. The other nine two-year colleges rely entirely on state funding for their governmental support.

Constitutional change enabling broader access to local funding, including the property tax revenue could help the two-year colleges fulfill their community and economic development job preparation responsibilities. Such local funding would create an even stronger linkage between the communities and their two-year colleges and would enhance the colleges' local accountability.<sup>27</sup> Resistance to local funding can be overcome if the local community is convinced that its two-year college is well-managed and if there is clear understanding of the localized

benefits of the institution.

**To the extent feasible, user charges should fund extracurricular activities.**

Instructional funds should not be used routinely to assist in funding extracurricular activities. It is recognized, however, that the maintenance of certain extracurricular activities of institutions may require some cost-shifting from other activities. It is also acknowledged that some activities such as athletics play a very important role in generating public support (including donations) of institutions of higher education.

### ***RETIREMENT PROGRAM***

**There must be a viable long-term solution to the underfunding of the Teachers Retirement System of Oklahoma (TRS). Higher education, vocational-technical education, and the common schools must coordinate in addressing this issue with a sense of urgency.**

The Teachers Retirement System of Oklahoma (TRS) is the state's major retirement program covering public school, vocational-technical, and state system higher education employees. TRS is a large system with about 30 thousand retirees receiving benefits paid from the system's \$3.6 billion in assets and with nearly 80 thousand contributing members. Twenty percent of what the system is estimated to owe is for beneficiaries from higher education. Revenues into the system include the earmarked tax on natural gas, employee and employer contributions, and earnings and capital gains from the system's investment portfolio. TRS is one of the most inadequately funded of the major state and local government retirement systems in the

entire nation; in a 1996 analysis of 85 of the largest systems, only three were in worse shape.<sup>28</sup>

It must be pointed out that the TRS situation has been frequently examined. Almost every year during the 1990s, the Oklahoma Legislature has undertaken a special analysis of the state's pension systems -- often with emphasis on TRS. During the 1996 legislative session, a TRS Fiscal Health Task Force was created to study the financial condition of the system and make recommendations. Out of this effort, two retirement consultants were retained and presented research results in 1997. During 1996-97, an Oklahoma State Chamber of Commerce and Industry special committee studied TRS and the state's two comprehensive universities had a task force prepare a report on the topic. Legislative leadership is planning to undertake further study prior to the 1998 session.

The virtually non-stop interest in studying TRS can be traced directly to developments in 1992. In that year TRS had an unfunded pension benefit obligation of \$3.3 billion -- more than double the unfunded liability of \$1.6 billion in 1986.<sup>29</sup> The unfunded obligation is based a comparison of the system's current assets with the present value of its future liabilities in order to determine the extent to which the system will be able to meet its obligations. As 1992 began, a major change in policy was seen as the only hope to resolving the problem. As a result, the 1992 Oklahoma Legislature passed S.B. 568 which enacted comprehensive increases in the contributions which employees and employers (public schools, vo-tech schools, colleges, and universities) are required to pay into TRS. Increased employer contributions are being phased in and will reach a maximum level in 2006. At the maximum, the employer contribution will be 18 percent of employee compensation and the employee contribution will be 7 percent.

From higher education's point of view, this increased contribution to TRS will absorb a significant share of available new moneys each year until 2006 and may even require cutbacks in regular educational operations in years in which there is little or no new money available for legislative appropriations. A rough idea of the impact of the greater contributions required on higher education budgets can be gained by comparing past growth in legislative appropriations with the additional employer payments to TRS. Between FY86 and FY96 the increase in legislative appropriations to Oklahoma higher education averaged \$12.3 million per year. In 1994, State Regents' staff estimated that each year following FY96, the system's educational and general instructional budget would need to pay out an additional \$4 million per year to cover the new retirement costs required by S.B. 568 and that by FY2005, the annual cost would have increased \$44 million over its level ten years earlier.<sup>30</sup>

These are conservative estimates because they do not include payments made by institutions for their employees. Many state institutions make direct employee payments to TRS and do not withhold payments from employees' salaries. (Thus employees avoid paying personal income taxes on the TRS payments.) It is not unreasonable to assume that the TRS payments could absorb 40-60 percent of new appropriated funds during the years before the payment levels are maximized in 2006. Estimates recently developed by Tulsa Community College show its TRS payments (both employee and employer) rising from 6 percent of its total budget in FY97 to 14 percent in FY2005 and dropping back to 13 percent in FY2006.

The only developments which might alleviate this problem are a significant increase in the state's revenues from the gross production tax on natural gas and/or a sustained long-term stock

market boom. Each year, the required employer contributions are reduced by the amount of the natural gas tax earmarked to TRS. For example, due to a significant increase in the price of natural gas during FY97, no increase in the mandated employer contribution was required for FY98. The long-term expectation of relatively flat gross production tax receipts coupled with the steadily increasing required rates of employer contribution will necessitate ever-increasing payments by employers. While recent performance of stock prices has been exceptional, experience suggests that the market is unlikely to grow at an ever-increasing rate over the long-term and there may be some major downward adjustments.

Although *in a definitional sense* it is correct to say that the unfunded liability problem of TRS was solved in 1992 with the passage of S.B. 568, in reality the solution to one problem only led to another. Of course the same sorts of fiscal pressures described above will also apply to the K-12 and vocational-technical systems. It is unlikely that Oklahomans will accept the downward pressures on the performance of their education systems that will be required by S.B. 568. Thus the problem remains: How to solve the unfunded liability of TRS?

Another development with TRS has already proved to be contentious. Retired teachers are up-in-arms over the end of COLAs (cost of living adjustments) and through their Oklahoma Retired Educators Association have initiated an active lobbying effort. Legislation adopted in 1994 applicable to all six of the state's retirement programs effectively blocks COLAS if a system's "funded ratio" would be less than 70 percent after a COLA increase is implemented. The funded ratio is defined in the statute as the actuarial value of a system's assets divided by the actuarial value of its accrued liabilities.<sup>31</sup> The TRS ratio has recently been in the neighborhood of

40 percent.

TRS is what is known as a "defined benefit" retirement program in which the retirees are guaranteed a certain amount per month based on eligibility criteria which are often only indirectly related to how much was paid into the system by the employee and by the employer on the employee's behalf. A typical goal of a defined benefit program is to provide the retiree a certain standard of living, and achieving that standard requires COLAs as the nation experiences inflation.

In the foreseeable future, TRS beneficiaries will, unlike those in other Oklahoma state retirement systems, not receive cost of living adjustments. This could result in substantial hardships for TRS retirees. Even at the current low inflation rate of 3 percent, a retiree will suffer a 27 percent reduction in the purchasing power of TRS benefits over an eight-year period. It is doubtful that the current no-COLA policy is either politically viable or ethically acceptable in the long term. Nevertheless, COLAs should not be granted without some means of covering the payment other than driving TRS further into a deficit. Beneficiaries not receiving COLAs but continuing to receive benefits are much better off than if the system collapsed and no benefits at all were available.

The TRS unfunded liability is such a serious issue for Oklahoma higher education that it is important to explore briefly how the problem developed. The problem is that revenues (past, present, and future) into the system have not matched commitments made to beneficiaries of the system. In the past, it has proven easier for politicians to commit payments to beneficiaries than to add revenues to TRS. In 1987, for example the Oklahoma Legislature, without providing additional funding, raised the maximum salary on which contributions are made from \$25,000 to

\$40,000 per year and applied member benefits at the higher rate to all previous years of eligibility.

One member of the Legislature pointed out that the state would need to put another \$450 million into TRS during the following fiscal year just to maintain its actuarial status prior to the 1987 increase in benefits.<sup>32</sup> This additional funding was not obtained and the system became even more inadequately funded.

While the studies continue, higher education, K-12, and vo-tech must also work together to increase public awareness of the TRS problem and the severe hardships on education likely to be imposed by the current "solution" embodied in the higher payments required by S.B. 568. There must be a sense of urgency about this. Otherwise, when conditions do deteriorate, even education supporters will wonder why they were not made more aware of the problem ahead of time.

## **CHAPTER VI**

### **ADMINISTRATION AND MANAGEMENT**

Oklahoma's state system of higher education relies heavily on tax-financed appropriations. The state's taxpayers are understandably concerned that the system should operate efficiently. Unnecessary administrative expense must be avoided, inefficient duplication of academic services must be identified and abolished, and inefficient programs cancelled. Governing boards must focus on the efficient operation of the institutions for which they are responsible. In accomplishing these improvements in efficiency, the perspective must often involve collaboration between institutions. Opportunities for reducing regulation and control must be explored so that efficient decision-making can occur at the operating level without being hindered by layer upon layer of administrative infrastructure. Students must be provided sufficient information so that they can pursue their degrees efficiently and in a timely manner.

Before proceeding with the discussion of Commission recommendations on administration and management, two issues need to be mentioned for which the Commission chose not to make recommendations. The first issue relates to the assertion often made in Oklahoma that there are too many state institutions of higher education. Sometimes this assertion is followed by a corollary assertion about governance, i.e., that there are too many boards of regents. (See Appendix A for a description of the system's structure including number of institutions and boards of regents.) The second issue involves the system of job security resulting from academic tenure for faculty.

It appeared to the Commission that consideration of the "too many institutions" issue is premature in light of the dramatic onset of electronically-delivered course work. In the future, there are likely to be more sites rather than fewer sites at which higher education is delivered in Oklahoma. In addition, the heavy political costs associated with attempts at closing institutions were viewed as likely to impede progress in other policy areas in which improvement is both feasible and likely. The relevant challenge is to improve the efficiency of administration and management within the existing structure of institutions and governance in Oklahoma.

The issue of academic tenure is being discussed all over the nation. The Commission examined the pros and cons of tenure, noted that only 38 percent of the state's full- and part-time faculty had tenure in 1993-94, and determined that the state would face competitive problems in certain national faculty labor markets if tenure programs were abolished. At the same time, there was concern that Oklahoma higher education be able to assure the public that tenure is not being used to protect incompetent faculty members.

### ***EFFICIENT ADMINISTRATION***

**There must be both improved service and cost saving through economies of scale in administrative functions such as legal counsel, purchasing, record-keeping, and student information. This requires collaboration, coordination, and mergers of functions across campuses through such mechanisms as alliances with lead institutions, contracting for private services, and systemwide centralization if needed to achieve minimum costs.**

Sharing system expertise is one of the ways of achieving cost saving for the state system of higher education. Such sharing is particularly important for the system's smaller institutions because there is a strong inverse relationship between total enrollment and administrative costs per full-time equivalent student.<sup>33</sup> In other words, the smaller the enrollment, the higher the administrative cost per FTE student.

A current example of a cost-saving initiative applies to institutional purchasing and the State Regents' development of a web site to assist institutions in linking with the state Office of Central Purchasing, with a nationwide college purchasing network, and with vendors selling under contracts with the federal General Services Administration. In addition, smaller institutions can benefit when they attach their purchasing activity to contracts initiated by larger institutions. However, to the extent that this new purchasing information system causes institutions to deal with large out-of-state rather than local vendors, the economic impact of an institution on its local economy is reduced. Another current example of systemwide savings involves an environmental safety program administered by the University of Oklahoma for all state institutions of higher education.

OneNet is Oklahoma's telecommunications and information network for education and state government. OneNet's activities and potential for instruction were discussed earlier in the Commission's recommendations relating to technology. Since this communications network is attached to all institutions and to key agencies in state government, it is possible to design or acquire systems which will achieve substantial unit cost reductions in data management for the various institutions. Savings can be achieved through licensing of data management systems in

such areas as human resources (personnel management), finance, enrollment, financial aid, and alumni relations.

### ***EFFICIENT ACADEMIC PROGRAMS***

**Opportunities for collaboration, cooperation, and substitution in academic program delivery should be a high priority for institution administrators. The State Regents Academic Planning/Resource Allocation program should continue to provide leadership in identifying such opportunities and in implementing cost-effective and service-improving developments.**

The State Regents' Academic Planning/Resource Allocation (APRA) program has resulted in the state's institutions dropping 483 programs (out of a total of about 1,700) between 1991 and 1997 while adding only 123 new programs during the same period. APRA is described in Appendix F. Cooperation between the two comprehensive universities has resulted in the deletion of 58 graduate programs and joint activities involving the colleges of engineering and business administration. Numerous cooperative agreements between area vocational-technical schools and two-year colleges have increased efficiencies at both types of institution.

The Commission's recommendations on educational technology have already noted that course development using computers and other instructional technology will require teams of experts in subject matter disciplines, in technology-based teaching techniques, and in computer operations. Future course development is an example of collaboration driven by technology. There are also opportunities for new arrangements driven by concerns over cost effectiveness and

quality. For example, it may be better for an institution to put its dollars into importing course work rather than creating or maintaining offerings of lesser quality, particularly when the need for the program may be episodic or cyclical and may not warrant adding faculty and related infrastructure.

### ***REDUCING REGULATION AND CONTROL***

**As the center of coordination and control for the state system, the State Regents must focus on broad strategies related to statewide goals while placing as little emphasis as possible on detailed regulation of procedural matters at the various institutions.**

The most important advantage of the current decentralized system of governance and locational pattern of institutions is the ability to readily identify and respond to community and regional interests without relying on edicts from a central authority. For the most part, the various boards of regents are able to understand localized problems and to direct their institutions accordingly. In contrast, the State Regents are the only element in the higher education governance system whose domain is statewide and whose responsibility is to all sectors of the economy.

In allocating the very scarce time of the nine citizen-members of the State Regents, the emphasis must be on statewide goals and proper strategic guidance to institutions. In the short term, the State Regents need to be cognizant of statewide imbalances of demands and resources and have in place a means for shifting capacity to where it is needed. This strategy requires flexibility and timely responses. State Regents must also be assured that management is efficient

and administrative costs are kept to a minimum.

The State Regents also face long-term challenges with respect to educational technology, demographic change, economic development, overall funding adequacy, interinstitutional allocation of funds, linkages with other policymakers, and general public acceptance. These challenges require asking strategic questions about what the system will be like, say, fifteen or twenty years in the future under different policy scenarios. To the extent that the State Regents (including staff) are deeply involved in detailed regulation of institutional conduct, time is necessarily taken away from dealing with overarching problems. No other entities -- except perhaps the governor and the legislature -- are charged with the duty of responding to statewide goals in Oklahoma public higher education. However, sometimes the short terms of office (and maximum term limits) of elected officials interfere with their motivation to take the long view.

**The State Regents need to reexamine their *Policies and Procedures* manual. Unnecessary regulations and regulations which create inefficiencies must be removed. Where current practice does not match the manual's regulations, then one or the other should be revised. The manual should be edited to assure clarity, consistency, and the absence of excessive wording.**

The State Regents' *Policies and Procedures* manual is the official operational guide for The Oklahoma State System of Higher Education. It sets forth the system's regulatory framework. It does not contain all of the State Regents' policy pronouncements nor does it contain the higher education code from the *Oklahoma Statutes*. It is in loose-leaf form so that it

can be modified easily as the State Regents revise old policies and initiate new actions. The regulations have accumulated over time as the State Regents have dealt with various policy issues. Given this process of accumulation, it is natural that the manual now may contain an excessive volume of regulations, that some of its provisions are no longer utilized and may actually be in conflict with current practice, and that it needs editorial improvement.

### ***INFORMING CONSUMERS***

**The State Regents should develop a consumer-based set of quality indicators of institutional performance to aid students, parents, employers, and policymakers in their personal, business, and governmental decisions about Oklahoma higher education.**

**Criteria should include measures of student characteristics, instruction quality, time-to-degree, and on-the-job success of graduates. The criteria should also reflect appropriate measures for both traditional and nontraditional students.**

If the State Regents are to emphasize statewide, strategic, long-term goals and minimize attention to detailed regulations, it follows that institutions themselves should be encouraged to collaborate in areas of joint concern where there are benefits to be shared. It also follows that effective performance should be stimulated by interinstitutional competition, i.e. by market-based decision-making. The incursion of competitive supply of electronically delivered higher education services from out-of-state by institutions specializing in distance learning guarantees that Oklahoma's institutions are going to have to learn to operate in a more competitive environment. One of the preconditions to the effective operation of *any* market is the existence of an informed

group of consumers.

Currently, the principal published sources of information about institutions of higher education in Oklahoma include special books on colleges and universities along with ratings developed by *Money* magazine and *U.S. News and World Report*. The State Regents annual publication of institutional quality indicators will assist higher education's customers in making optimal decisions about where to attend, where to turn for assistance, and even where to donate money.

Care should be exercised in designing higher education quality indicators for Oklahoma. There should be maximum use of clearly defined published data. Indicators of teacher quality and effectiveness of instruction should be high on the priority list of information to be reported. Parents will be very interested in comparative data on the incidence of crime in the campus community. Also important are student graduation probabilities and employment prospects after graduation. The report card must go out of its way to assist consumers in their interpretation of the information presented. For example, an institution should not be downgraded in a rating system if it reaches out to serve persons poorly equipped for college or if it specializes in services to adult learners with full-time jobs who will naturally take longer to graduate. However, there is no way of avoiding controversy over such a system of quality indicators; all institutions cannot be like the children of Lake Wobegon--above average. Some of the quality indicators can also serve as data inputs to use in incentive and performance budgeting.

### ***IMPROVING THE EFFECTIVENESS OF BOARDS OF REGENTS***

**The Regents Education Program (REP) must continue to improve the effectiveness of all of the boards of regents. Emphasis on a systemwide perspective and enhanced opportunities for interaction of board members from different institutions will strengthen the program.**

The Oklahoma Legislature and the State Regents have been national leaders in establishing training programs for newly-appointed members of the boards governing the various institutions. The Regents Education Program (REP) requires all new or reappointed board members to take fifteen clock-hours of training within the first two years of appointment. This program would be even more successful if greater emphasis were placed on informing regents of the system's overall policy agenda and providing more extensive information about administrative responsibilities including the oversight of budgets and auditing. Board members from different institutions should have forums to interact with each other on issues involving potential gains from collaboration.

**APPENDIX A**

**THE STRUCTURE OF THE OKLAHOMA STATE SYSTEM  
OF HIGHER EDUCATION**

This appendix provides a brief overview of the structure of Oklahoma's state system of higher education. Publications of the Oklahoma State Regents for Higher Education provide more detail on the system. Of particular help in describing the system are the annual reports of the State Regents<sup>34</sup> and a recent brochure entitled "Oklahoma Higher Education, An Overview,

The state system consists of 25 institutions, several of which have separate branch campuses and/or constituent units. There are 39 sites throughout the state with campuses or special buildings devoted to delivery of state higher education services.<sup>35</sup>

For purposes of budgeting and designating primary functions, the system is divided into three tiers of institutions: comprehensive universities, regional universities, and two-year colleges.

*Comprehensive Universities:* The University of Oklahoma (OU) and Oklahoma State University (OSU) offer bachelors, masters, and doctoral degrees; undertake organized basic and applied research; and implement statewide programs of public service and economic development. These institutions, their branches and constituent agencies had full-time equivalent (FTE) enrollment of 43,478 students in the fiscal year ending June 30, 1995 (FY95) -- 36 percent of the systemwide FTE enrollment of 121,601 students.<sup>36</sup>

*Regional Universities:* The ten regional universities emphasize undergraduate education.

Seven of the ten also offer first-professional degrees and graduate study below the doctoral level with emphasis in the field of education. Their extension and public service activities emphasize local geographic areas. In FY95 the regionals had a total of 43,027 FTE students, with individual institution sizes ranging from 1,115 to 12,055 FTE.

*Two-year Colleges:* These are often referred to as junior colleges or community colleges. Included in the functions of the two-year colleges is the provision of the first two years of general education for those planning on obtaining a baccalaureate degree, one- and two-year technical and occupational education programs, and remedial programs for individuals not prepared for higher education studies. The state's thirteen two-year colleges had FTE enrollment of 35,097 in FY95. The smallest of the two-year institutions had FTE enrollment of 970 while the largest enrolled 9,605.

It is reasonably accurate to view the three tiers of the system as each handling about one-third of the system's total FTE students. However, the FTE enrollment data understates the total number of students served--particularly for the two-year colleges where 60 percent of the students are attending part-time. Only 30 percent of the students at the comprehensives are part-time, while the share part-time for the regionals is 40 percent.

There are unique and special features of several of the institutions. The comprehensives have constituent agencies including two colleges of medicine, a law school, and a college of veterinary medicine. OSU operates two "technical branches" which are essentially two-year colleges specializing in technical subjects. Three of the regionals have branch campuses, one of the two-year colleges has a branch, and the principal two-year college serving Tulsa operates four

separate campuses. There are two “higher education centers” in southeastern Oklahoma where courses are offered by several different institutions. Five institutions in the Oklahoma City metropolitan area operate as a consortium providing classes in an office building in downtown Oklahoma City. In addition there is an institution in Tulsa which is an amalgam of a nearby two-year college and a center where upper division and graduate course work is offered by the two comprehensives and two of the regionals.

Although institution campuses and other state system higher education delivery sites are scattered throughout the state, enrollment is concentrated in the state’s population centers. The metropolitan statistical areas of Oklahoma City, Tulsa, and Lawton encompass 12 of the state’s 77 counties, but account for 62 percent of the FY95 full- and part-time enrollment in the state system.

The comprehensives are more expensive than the regionals, and the regionals are more costly than the two-years. In FY95, tuition and fee revenues per FTE were \$1,934, \$1,304, and \$843 for the comprehensives, regionals, and two-years, respectively.<sup>37</sup>

The overall dimensions of the system are illustrated by the system’s aggregate budget data. For FY98, the state system’s budgeted outlays will include about \$1 billion of educational and general costs (largely for instruction), two-thirds of which will be funded by legislative appropriations.<sup>38</sup> Other outlays will include about \$80 million for student aid and other special programs, with \$200 million in outlays funded by external grants and contracts--largely federal funds flowing to OU and OSU. Expenditures by higher education auxiliary enterprises such as bookstores, union buildings, dormitories, and intercollegiate athletics will be in excess of \$400

million. Auxiliary enterprises are funded largely by fees and user charges.

The system is controlled by a set of governing boards composed of citizen-members. At the center of governance is the constitutionally established Oklahoma State Regents for Higher Education with nine members serving staggered nine-year terms and appointed by the governor with confirmation by the state senate. Under the Oklahoma Constitution, the State Regents are a “coordinating board of control” with powers to prescribe standards at institutions, determine functions and courses of study at each institution, grant degrees, recommend budgets and fees to the legislature, and allocate appropriations to the institutions.

Fifteen additional boards of regents each oversee the administration of one or more institutions in the system. At the institutional level these boards guide the implementation of personnel policies, the allocation and management of financial resources, the acquisition and use of physical assets, and response to or instigation of legal actions. Each of the two comprehensives has its own constitutional board of regents, but these boards also oversee other institutions. Among the regionals, one has its own board, three are placed under the regents of the comprehensives, and six institutions which were formerly teachers colleges answer to a single constitutional board. Most of the two-years have their own separate boards, though two are under the OSU board and one is under a board which also oversees the center with upper division and graduate course work in Tulsa. Virtually all of the regents for the fifteen boards are appointed by the governor with the consent of the state senate.

## **APPENDIX B**

### **SUMMARY**

#### ***TECHNOLOGY 2000: RECOMMENDATIONS ON THE UTILIZATION OF INFORMATION TECHNOLOGY IN THE OKLAHOMA HIGHER EDUCATION SYSTEM***

A report to the Oklahoma State Regents for Higher Education by James R. Mingle, 1997

#### **OBJECTIVES:**

1. Strengthen capacity to utilize information technology tools in carrying out instruction, research, and public service
2. Target state resources on projects with statewide goals; improve institutional quality and competitiveness
3. Expand Oklahomans' options on how, where, and from whom they receive educational services and programs

#### **RECOMMENDATIONS FOR SYSTEMWIDE ACTION**

##### **Regents Academic Policy and Related "Receive Site" Financing**

1. Regents move steadily to eliminate "geographic service area" in oversight of electronically-delivered courses and programs.

2. Electronically-delivered programs to be high quality and compatible with institutional missions
3. Use "best practices" methodology in program approval and review
4. Use incentives to get institutions to import curricula through OneNet to stimulate program development to meet market needs and to terminate low productivity and low quality programs.
5. Establish policies to provide more support to cover receive site costs.
6. Use accrediting policy to assure quality for customers of electronic media programs
7. Plan for participation in Western Governors University

#### **Student Access to Computing Resources**

8. Support a "laptop university" approach in one or more pilot institutions

#### **Faculty and Course Development**

9. State Regents, K-12, and Vo-Tech establish regional centers for instructional development
10. Reserve some of faculty development grants for collaboration in content development

#### **Library Initiatives**

11. Acquire shared full-text databases for all libraries
12. Oklahoma Council of Academic Library Directors become a council of State Regents with mission to create "virtual" library for state

#### **Administrative/Student Support and Equipment Financing Initiatives**

13. Use Quality Incentive Grants to develop multi-institution electronic application form, web-based registrations system, electronic job postings, electronic degree audit system
14. Electronic transfer of student records and transcripts across higher ed. and K-12
15. Comprehensive plan for technology equipment replacement

16. Master Leasing Program to help acquire technology equipment

17. Incentives for small institutions to merge functional administrative areas and/or be served by service centers in lead institutions

**OneNet Management and Governance**

18. Strengthen OneNet management and service functions

19. Broaden OneNet governance and policy direction to include major user groups

**Economic Development Initiatives**

20. Tie technology investment strategies to state priorities for economic development

## APPENDIX C

### OKLAHOMA DEMOGRAPHIC CHANGE, 1995-2015

The following comments are based on the latest population projections for Oklahoma made by the U.S. Bureau of the Census and the Washington-based National Planning Association.<sup>39</sup> The Oklahoma data are part of a system of projections for all states. During 1995-2015, Oklahoma's total population is projected to grow a little more slowly than the nation as a whole. Projections are extensions of recent trends and do not account for major new external changes; it would not take much for Oklahoma to grow more rapidly than the U.S.

#### Age

- o Both the propensity to enroll in college and the credit hours per student are highest for the traditional college age group aged 18-24. Enrollment propensity and course load per student are much lower for those 25-44, and drop off even further after 45.
  
- o The absolute number of Oklahomans in the traditional college age group remains relatively stable over the entire period--increasing around 9 percent over the 20 years.
  
- o The recent significant growth in the 25-44 group will not continue as the "baby boomers" increasingly reach their mid-40s; the Bureau of the Census projects a 7 percent decline in the number of Oklahomans in this group during 1995-2015.

o There will be a massive increase in the 45-64 age group--most of whom will still be at work, with the 65 and over group beginning to grow rapidly after 2005.

### **Race/Origin Group**

o The propensity for members of a group to attend college varies with race/origin classifications. For those in the 15-24 age bracket, the percent enrolled in the fall of 1994 was Asian (22%), White non-Hispanic (18%), American Indian (15%), Black (15%), and White Hispanic (11%). These propensities are associated with differentials in high school experience as reflected by ACT scores.

o With roughly four-fifths of the total Oklahoma population, the White non-Hispanic group continues to dominate, but its share of state population declines throughout the period.

o The majority (58 percent) of the Oklahoma population *increase* during 1995-2015 is composed of persons in groups other than White non-Hispanics.

o Census estimates show Oklahoma's total population growing 16 percent during 1995-2015. Growth for component groups is White Hispanic (95%), Asian (69%), Black (45%), American Indian (26%), and White non-Hispanic (8%).

### **Geographic Location**

- o To summarize geographic changes, Oklahoma's 77 counties are divided into five regions. There are six counties in the Oklahoma City Metropolitan Statistical Area (MSA), five counties in the Tulsa MSA, and one in the Lawton MSA. The balance of the counties are in western and eastern non-metropolitan areas divided by I-35.
  
- o Oklahoma's population is increasingly concentrated in the twelve counties in the state's three big (MSAs) -- with a metropolitan share projected by the National Planning Association to rise from 57.6% in 1995 to 58.9% in 2015.
  
- o Excluding the three big MSAs, the western half of Oklahoma is unlikely to experience much population growth by 2015 and will have many counties losing population; the eastern non-MSA half of the state will grow almost as fast as the three MSAs.
  
- o The 39 sites operated by the state system are distributed as follows: 8 are in the western non-metropolitan half, 18 are in the eastern non-metropolitan half, and 13 are in the three big MSAs.

**APPENDIX D**  
**BUDGET NEEDS METHODOLOGY**  
**OF THE**  
**OKLAHOMA STATE REGENTS FOR HIGHER EDUCATION**

(This summary is derived from OSRHE Budget/Fiscal Affairs presentation  
to the Council of Business Officers, April 30, 1997)

**State Regents Funding Goals**

Two broad goals are the basis for the State Regents' budget needs methodology.

- o **Peer Funding Parity**--Students of Oklahoma's universities and colleges should be funded at the average level of per-student funding of students at peer institutions.
- o **Funding Parity for Institutions within Each Tier**--Within each tier of like-type Oklahoma institutions, the institutions should be funded at approximately the same per-student funding level from state appropriations for like-type programs.

**Purpose of Methodology**

The budget needs methodology achieves the Regents' funding goals through three primary purposes. First, it determines an ideal level of revenue based on the average revenue per full-time equivalent (FTE) student in sets of peer institutions in other states. Second, it provides a cost-based methodology for allocating that ideal level of revenue among institutions, thus developing a measure of individual institutional need. Third, and closely related to the second purpose, it is a

method for allocating any increase in funding across the institutions in the system. It is a system that is driven by enrollment, peer institution funding levels, and specific program costs.

This methodology establishes the *broad outline* of the budget process for Oklahoma higher education in which a lump sum appropriation is passed by the legislature and allocated to institutions by the State Regents. The specifics of each year's budget process are vastly more detailed and include description of great variety of special actions such as funding the operations of new buildings, salary adjustments, special scholarship programs, endowed professorships, capital funds, revolving funds, etc.

### **Application to Legislative Appropriations**

The methodology focuses on the need for, and allocation of, legislative appropriations. It indicates how much of an increase in total appropriations would be needed to reach peer institution averages. In performing its allocation function, it focuses on the allocation of *increases* in appropriations ("new money"). The budget needs methodology does not allocate all institutional funding. Each institution's base funding remains intact, i.e. each institution starts the budget process with appropriations equal to what it received during the previous year.

### **Three Tiers of Institutions**

There are major differences in functions performed by the various institutions in the state system. Thus it is unreasonable to lump them all together. The system is divided into three "tiers": comprehensive universities, regional universities, and two-year colleges. Highly

specialized units in the system including medical schools, the law school, and veterinary medicine are treated separately in the budget process.

#### **Four Step Process in Developing Budget and Allocating Funds**

The budget needs methodology is applied in a four step process including development of budget need for each tier, utilization of a program cost base, development of cost-based total budget need for each institution, and allocation of additional state appropriations.

##### **(1)Development of Budget Need for Each Tier of Institutions**

Institutions for each of the three tiers within the state system identify a set of peer institutions which they believe represent norms of financial capacity which they desire to attain. The peer institutions are similar in locational setting, nature and extent of programs, and size. Each year the peer institutions are surveyed and average revenues per full-time equivalent (FTE) student are identified. When the peer funding per FTE is multiplied by Oklahoma FTE enrollment in that tier, the resulting figure indicates how much total revenue would be needed for that tier of Oklahoma institutions to match the peer average. That total revenue figure is then scaled back to represent only the share of the total to be accounted for by legislative appropriations. (The appropriations share in Oklahoma is around 75 percent.) The required appropriation is referred to as "**Total Budget Need for Tier.**" Note that this budget need applies to the totality of all the institutions in the tier; it does not yet identify the budget needs of the individual institutions.

It is also important to note that this step of the budget needs methodology recognizes the

severe shortfall of funding of Oklahoma institutions; all tend to be far below national averages in funding per FTE. The Oklahoma methodology using the peer average as a goal would not be used by a state system whose funding was well above the average of its peers. However, some well-funded systems have a goal of 125 percent of their peer average.

## **(2)Development of Program Cost Base**

Once the total budget need (appropriation) to match peer performance is determined, it remains to determine how that need is to be allocated among the institutions within each tier. A cost-based allocation procedure sometimes referred to as "program budgeting" is used for this purpose. This is an extremely important feature of the system because some academic programs are more costly than others, because all institutions do not deliver the same mix of programs, and because even the same academic program may be more costly at one institution than at another institution.

The State Regents collect detailed annual data on students, faculty, courses, and related institutional direct and indirect costs. This methodology develops a cost figure *for each course for each institution* for each fiscal year. The individual course cost data are summed across groupings of courses called "academic programs" or "fields of study" for all the institutions in a given tier. When that total is divided by FTE enrollment in the program, the result is called **"Standard FTE Program Cost."**

The system then develops **Standard Cost Bases** by multiplying enrollment and Standard FTE Program Costs. No attempt is made to forecast enrollment for the budgeted fiscal year.

Instead, the methodology uses a **Budget Need FTE Enrollment** figure which is the greater of either the current year enrollment or the average of the last three years. These Budget Need FTE Enrollment figures are then multiplied by Standard FTE Program Cost to develop a hypothetical cost total for that program as if each institution had the tier average program cost for each of its programs. When that hypothetical total cost measure is added for all of the programs at an institution, the result is the institution's "**Total Standard Cost Base.**" The sum of these totals for the entire tier is the "**Total Standard Cost Base for Tier.**"

### **(3)Allocation of Budget Need to Each Institution Based on Program Cost**

As emphasized above, the revenues and costs per FTE for the Oklahoma state system of higher education are well below the peer average for each of the three tiers. On a tier-by-tier basis, each institution's Total Standard Cost Base must be increased by an amount which, when summed for the institutions in the tier, will raise the tier total to the "Total Budget Need for Tier" described above. For each institution, the resulting figure is its "**Total Budget Need.**" This figure identifies what that institution's legislative appropriation would need to be if its entire tier were funded at an FTE level to match the peer institutions *and* if that institution had peer-average program FTE costs.

### **(4)Allocation of Additional State Appropriations Based on Budget Need**

Actual state appropriations in any given fiscal year are, in the reasonable future, always going to fall far short of a figure which would allow each tier to meet its total budget need. Often, however, there will be an increase in higher education appropriations as the state's

economy continues to expand. From FY88 through FY97 the average annual increase in Oklahoma higher education appropriations was 5.2 percent. As mentioned above, in a given year, that portion of the higher education appropriation equivalent to last year's appropriation is apportioned among the institutions in exactly the same manner as the previous year. This maintenance of base level funding is sometimes referred to as a "hold harmless" policy. The State Regents' budget needs methodology is then used only to allocate the "new money." Since there is a "Total Budget Need" for each institution and for each tier, it is a simple matter to calculate percentage shares of the aggregate budget need for the system and to apply those percentages to the total for the new money. The budget needs methodology is not applied to cuts. In a year when there is a decline in appropriations, funding of institutions is cut back proportionally so that institutions maintain their base level relative shares in spite of the cuts in dollars. The base level shares, however, are the result of the past fiscal years' application of the needs methodology.

The budget needs methodology thus insulates institutions from having to manage large year-to-year swings in revenue from appropriations. Over time, however, it adjusts the mixture of funding at the margin to reflect changes in an institution's enrollment, changes in program mixes, and changes in program costs. Applied and cumulated year after year, these marginal adjustments have a significant impact on how total appropriations are allocated to the institutions in the system.

## APPENDIX E

### FINANCIAL AID IN OKLAHOMA

This is an overview of student financial aid and Oklahoma higher education. It is not a complete picture of all the types of aid available. In 1994-95, total financial aid to students in Oklahoma public education was \$392 million. During the same period, total expenditures of all the institutions in the state system was in the neighborhood of \$1.4 billion. Some of the student aid was used to pay tuition, fees, and other institutional charges. However, students also used their aid funds to pay for regular living expenses--often involving expenditures with private businesses as well as with college union buildings, bookstores, etc.

#### **Loans versus Grants**

Financial aid is in the form of *grants* and *loans*. A grant is a gift which does not have to be repaid; a loan must be repaid, normally with interest and the threat of punitive action in the case of default. In recent years, governmental student aid in the form of loans has grown more rapidly than grants so that students tend to leave college with a greater volume of debt.

#### **How Students Get Aid: The First Step**

A U.S. Department of Education form called "Free Application for Federal Student Aid" must be filled out by the potential recipient of aid. This questionnaire gets information on family size, and income and wealth, for both the student and the student's parents. The form is sent to a

federal office where all the information is computerized and fed back to students, states, and institutions. At this stage, the information is in the form of a "Student Aid Report" (SAR). This permits determination of eligibility and ranking or classification of applicants for aid wherever need is a consideration. A critical variable here is "Expected Family Contribution" (EFC) in comparison with costs of attending an institution.

### **Direct Federal Assistance**

Four main programs of aid are handled by direct dealing between the individual institutions' student financial aid offices and the federal government with no state government involvement. **Pell Grants** are the most important type of direct federal aid. Other programs are **Supplemental Educational Opportunity Grants, College Work Study, and Perkins** direct loans. The direct federal assistance is supplemented by federal programs operated by state government.

### **Oklahoma State Government Assistance**

A federally-funded program of **Stafford Loans** is administered by the Oklahoma State Regents for Higher education and is called the **Oklahoma Guaranteed Student Loan Program (OGSLP)**. The State Regents office guarantees loans made by commercial banks and other eligible entities. These loans may be **subsidized** with lower rates of interest for more needy recipients, or **unsubsidized** with market based interest rates for students in middle class status. Lenders and secondary markets assure that student loans are serviced. In case of default, OGSLP

utilizes reserve funds managed locally on behalf of the federal government to reimburse the lender that made the original loan. Then the OGSLP staff and collection agencies under contract initiate action with the borrower to recover defaulted funds. The **PLUS (Parent Loans for Undergraduate Students)** is a similar federal-state program, but with loans made to parents rather than students.

The **Oklahoma Tuition Aid Grant (OTAG)** program provides grants to needy eligible students financed by annual legislative appropriations. These grants are made only to Oklahomans attending Oklahoma institutions. During FY94-FY96, total OTAG grants averaged about \$15 million per year with about \$1.2 million of that amount allocated to students attending the state's private institutions of higher education. OTAG is also administered by the State Regents in cooperation with the financial aid offices of the various institutions.

For OTAG, Stafford, and PLUS loans, the State Regents use information from the Student Aid Reports compiled by the federal central processing center. Eligibility for OTAG support is dependent not only on the need data derived from the SAR database, but is also affected by the timeliness with which the students have provided the SAR data.

A separate state agency, the **Oklahoma Student Loan Authority**, provides funds for Stafford and PLUS loans to students and parents just as the various private financial institutions. It issues revenue bonds and uses the proceeds to fund the loans. It is a trust authority whose operating revenues are derived from interest and other charges associated with its loans. The authority was established in 1972 at a time when banks were less familiar with making federally guaranteed loans to college students. At that time it was viewed as a lender of last resort. In

addition, in recent years the Authority has begun serving as a secondary market buying student loans issued by smaller Oklahoma banks. The Authority's assets at the end of FY95 were \$137 million.

Oklahoma law permits state institutions of higher education to grant **Tuition and Fee Waivers** to both Oklahoma residents and to those paying the higher nonresident tuition. General enrollment fee waivers for Oklahoma residents may be granted up to an amount equal to 3 percent of an institution's educational and general budget. Nonresident waivers are limited to the difference between the resident and the nonresident tuition. In FY96 these waivers totalled \$36 million. Waivers are granted for many reasons including efforts to attract superior students.

### **Other Scholarships and Aid**

At each institution there are other sources of financial aid in addition to those discussed above. Many of these sources are derived from private donations. Some are related to student achievement, fields of specialization, and other factors besides financial need.

### **State Appropriations as Student Aid**

The above programs all relate to specific financial aid to help individuals attend and succeed in college. It should be noted that legislative appropriations are by far the greatest source of student aid in Oklahoma's state system of higher education. In the fiscal year ending June 30, 1997, state appropriations were \$582 million while total student tuition and fees are estimated to be \$233 million. For every dollar that students contribute to tuition and fees, the taxpayers of

Oklahoma contribute \$2.50. This form of aid is received by all students irrespective of their financial status while the taxes financing the aid are paid by all taxpayers irrespective of their association with higher education. If the system were private instead of public, it would require a \$7 billion endowment (at 8 percent) to generate annual income equal to appropriations.

## **APPENDIX F**

### **APRA: ACADEMIC PLANNING/RESOURCE ALLOCATION**

The Academic Planning/Resource Allocation (APRA) program and the budget needs methodology described in Appendix E are two basic policy foundations for actions by the State Regents. This appendix presents a brief description of APRA and how it influences the academic programs of the state system of higher education.

APRA requires each institution in the state system to prepare and submit an academic plan. The institutional academic plans, including their mission statements, are used by the State Regents in regular reviews of existing programs and in handling requests for new programs. The APRA process also assures that the institutions are engaged in their own internal academic review and planning activities; such internal activities are a prerequisite to the procedures required by APRA.

Each year the institutions submit an academic plan report to the State Regents. The plan report follows a standard format which begins with a brief summary of the institution's mission, function, and history. Various data are included dealing with student characteristics, the faculty, and administrative organization. Most important is a statement of the institution's four or five key academic priorities. A fiscal section is required providing information about how funds have been reallocated in connection with the plan.

Specific programs at the various institutions are reviewed by the State Regents on a five-year cycle. Programs are usually synonymous with departments, e.g. physics or sociology. An

assessment is made as to the "centrality" of the program with respect to the institution's mission, priorities, and other aspects of its academic plan. In addition, programs are reviewed for their cost effectiveness, student and faculty quality, library collections, supporting facilities, graduation rates, and employment opportunities or success in entering graduate school.

When an institution requests approval to initiate a new program or to modify an old program, the same criteria for evaluation are used as in the five-year reviews of existing programs. Continuation of an approved new program beyond a certain date depends on its meeting specific criteria consistent with APRA. Productivity criteria include minimum requirements for number of degrees conferred and majors enrolled.

Poor performance in program review can serve as a basis for deletion. Between January 1991 and May 1997, the APRA process was associated with 483 program deletions while only 123 new programs were approved.

Several specialized activities also operate under the aegis of APRA. Teacher education programs throughout the state system have been the subject of special program review activities. This has led to greater emphasis on course work in subject matters such as English, mathematics, science, and social science. Another special effort has involved coordinating academic efforts of five state institutions in the Oklahoma City metropolitan area with course offerings at a location in downtown Oklahoma City. The Council on Graduate Education and Research has focused on strengthening graduate programs at Oklahoma State University and the University of Oklahoma, eliminating unnecessary duplication, and promoting academic cooperation.

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