
The summer of '93 was a time of considerable concern for supporters of higher education in Oklahoma. Adhering to a disquieting tradition of saving higher education appropriations until last, the Legislature adjourned, narrowly having averted anticipated major cuts by a one-time raid on the Rainy Day Fund. The lawmakers warned, however, that prospects for 1994, without such access to the reserve fund, looked dim indeed.

While the State Regents for Higher Education were measuring the effectiveness of their recent mandates for higher admission and retention standards and the reallocation of academic resources, the governor called on that board to implement his 13-point plan to streamline organization and financing of the state system. Capital improvement projects on university and college campuses statewide were under way for the first time since 1968, the result of voter approval

of a \$350 million bond issue containing \$258 million for higher education. And while savoring its success in recruiting national scholars and increasing externally funded research, the University of Oklahoma wrestled with matching its resources to its needs.

Against this background, four of the state's chief policymakers were asked to comment on the future of higher education in Oklahoma from the viewpoint of their offices. Contributing to this article are Governor David Walters, Speaker of the House Glen D. Johnson, Chancellor of the State Regents Hans Brisch

and OU President Richard L. Van Horn. Since accepting *Sooner Magazine's* invitation, events have moved swiftly for two of the four. Governor Walters announced that he will not seek re-election next November, and President Van Horn submitted his resignation, effective July 31, 1994, to return to teaching. The future, it seems, can be uncertain at best.

—*The Editor*



The Future of Higher Education in Oklahoma

Continued

“We must reform our delivery system.”

by Governor David Walters
The State of Oklahoma

It is with a great deal of pride that I say I am a product of Oklahoma's system of higher education. For a 17-year-old farm boy from Canute in 1969, the chance to become a part of the Norman campus was a great opportunity. It opened my horizons and my world.

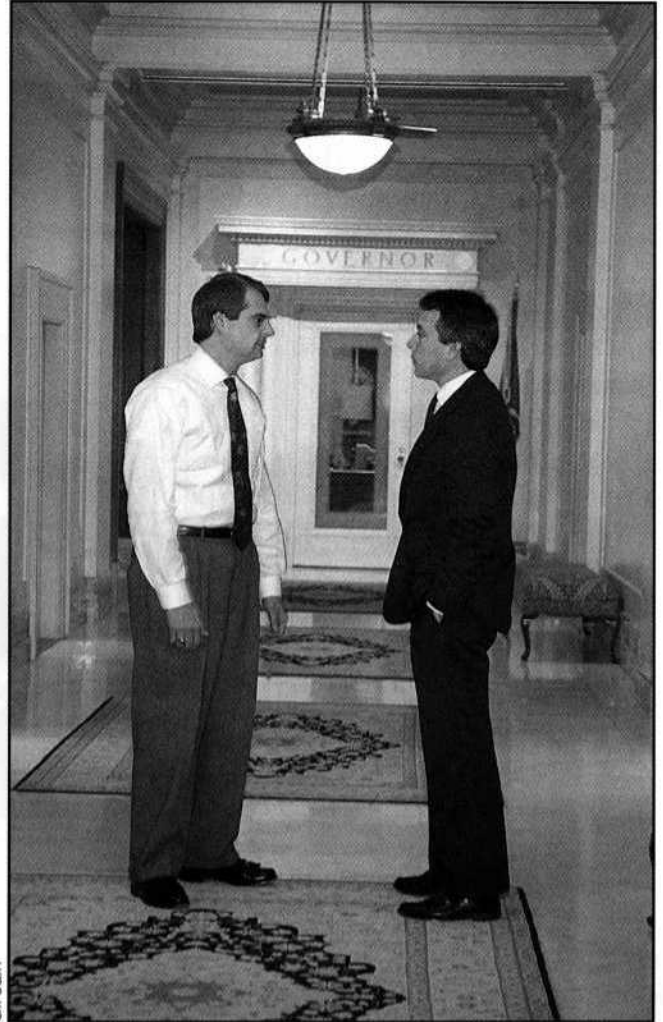
In the most challenging of ways, however, it also demonstrated for me the deficiencies of my preparation. As a small, relatively poor school district in the western flatlands of the state, Canute offered a curriculum that was limited. I was able to take advanced algebra because of the dedication of a wonderful math teacher, who would arrive an hour before school started to teach me one-on-one. I regret that I have never mastered the intricacies of a foreign language because none was offered at Canute. In my early days at Norman, I recall spending a lot of time with a dictionary because I was having difficulty understanding the words used by some of my professors. If a limited curriculum can have its advantages, mine was that taking three years of high school typing now allows me to compose my own E-mail with ease on my laptop computer.

Fortunately, much has changed in the 20 years since I graduated from OU. I believe students enter the University more prepared for college-level instruction, thanks in large degree to the reforms contained in House Bill 1017. We are moving constantly forward in elementary and secondary education in terms of reduced class sizes, updated curricula, higher teacher salaries and local accountability. The effects are being noted in higher test scores, higher graduation rates and a greater capacity for advanced studies. It is an achievement of which all Oklahomans should be proud because each of us had a hand in it by standing up for educational reform during the repeal initiative two years ago. We have fought that battle together, and we and our children have won.

But the war is far from over. During my campaign for Governor, I vowed to revitalize Oklahoma higher education the same way House Bill 1017 had rejuvenated common education. It had been 20 years since a bond issue had been passed in Oklahoma in support of higher education facilities. Others, I recognized, had tried and failed. Nevertheless, I am proud to have been the person who developed, advanced and sold to the people a \$350 million bond issue in 1992, which has led to scores of groundbreakings across the state for modern facilities to house the latest high-tech equipment. No longer is the construction crane an extinct species on Oklahoma's college campuses, and it is our children who will benefit.

At the same time, I believe we have to look ahead to our state's future, particularly as it affects higher education.

State Question 640, which requires a super-majority in the Legislature or a vote of the people to increase taxes in Oklahoma, will continue to have a dramatic impact on the operation of state-funded facilities, such as colleges and universities. At the same time, our need to invest in basic infrastructure improvements will only accelerate as technology advances. We must develop a long-term method of funding vital research and development in the areas of science and technology outside of regular state income



Gill Jain

Governor David Walters, right, with his communications director Randy Splaingard, '74 B.A., has endorsed the controversial state lottery proposal as a very workable solution in balancing Oklahoma's long-term needs and its current revenue sources.

sources, which already are overcommitted to existing needs.

One solution, which I have advanced and more than 200,000 citizens have already endorsed, is a state lottery. I understand that this can be controversial because of its very nature, but I see it as a very workable solution as we balance Oklahoma's long-term needs and its current revenue sources.

It is clear that because of recent federal decisions relating to Indian gaming that Oklahoma in time will have a lottery.



It is inevitable. If we are going to have a lottery anyway, I want our lottery to be different. I don't want the proceeds to be used to fund ongoing state expenditures. Instead, I want to use them to build an endowment for higher education and the Oklahoma Center for the Advancement of Science and Technology, with the interest earmarked for business and higher education research and development in the areas of science and technology. The ongoing benefit of this will be a considerable investment in our state's economic

correct situations within the system that undermine public confidence and possibly impair progress. Simply stated, we must reform our higher education delivery system to make it more efficient, more responsible and more accountable to the taxpayers and students who foot the bills.

Oklahoma operates 29 institutions of higher education, and I don't favor closing any of them. They provide a degree of accessibility and a community focus that is vital to each area of the state. But at the same time, I believe we need to enhance quality throughout the system, and I don't believe that can be accomplished unless we attack and overcome the waste and inefficiency within the system.

Last June I proposed to the State Regents a 13-point "Action Agenda for Change," a detailed plan to better use existing higher education resources. It has generated much discussion and considerable support because it makes inherent sense to face current realities as well as promote flexibility to meet the needs of the future.

- First, we must overcome wasteful program duplication, review offerings throughout the system and build incentives for cooperation among the institutions. The walls that separate higher education entities must begin toppling, and issues of turf protection must be eliminated. To truly operate as a system, we must build on institutional strengths, with free-flowing services among the various campuses.

- Second, we must examine missions, streamline governance and build support for local funding sources. Almost one-half of Oklahoma institutions are junior colleges that primarily serve local missions. I believe some element of local funding would provide greater local accountability, as well as free revenue for the senior, regional and comprehensive universities. At the same time, I am convinced we can save considerably by providing common governance for the three two-year institutions in the Oklahoma City area, incorporating Rogers State into the Tulsa Junior College system and merging Connors State's and Northeastern's functions in Muskogee. Efficient electronic service delivery could enhance course offerings at the University of Science and Arts and at Panhandle State.

- Third, we must conserve energy and utilize telecommunications as never before to attain our dual goals of high efficiency and universal access. Already I have asked that all new facilities, including those included in the recent capital improvements bond issue, accommodate current and future needs for telecommunications linkages and employ the most technologically advanced systems to maximize energy efficiency.

- Fourth, we must strictly enforce tight caps on administrative costs to assure that our precious resources are maximized in the classrooms and the research laboratories, not in the administrative corridors. We must refocus our efforts on the students and instructional excellence, putting our dollars where our hearts are.

Oklahoma higher education in the 21st century will be much different from the one we see today. As the world and our competitive position in it change, so, too, must our



Gil Jain

Shown above in the State Capitol's historic Blue Room, Governor David Walters has sent to the Oklahoma State Regents for Higher Education a 13-point plan to streamline organization and financing of the 29 institutions within the state system.

development efforts, as well as a necessary boost for higher education facilities and equipment.

We must continue to develop the framework for the broad strides we have made in higher education over the past three years, but funding is not the only, or even the primary, issue. Higher education, like so many other areas of state government, must develop a highly directed service approach to providing its services, and it must forcefully advance and

The Future of Higher Education in Oklahoma

higher education system. The education my daughter Tanna is receiving as a freshman at OU is much different from what I experienced over 20 years ago. I trust it will be even more different in 11 or 12 years when my youngest daughter, Elizabeth, is eligible to enter the University.

To provide our children what they need, we must be prepared to change, and what I foresee for Oklahoma higher education is continual and substantial change—change that will make it more flexible, efficient and accountable while preparing the next generation for the competitive challenges of tomorrow.

ABOUT THE AUTHOR: *Born and reared on a farm near Canute, David Walters earned a bachelor's degree in industrial engineering from OU in 1973 and a M.B.A. from Harvard University in 1977. At OU he was a member of the President's Leadership Class and chair of Student Congress; he later became associate provost of the OU Health Sciences Center, at 29 the youngest executive officer in the institution's history. While engaged in the commercial real estate investment and property management business in Oklahoma City in the 1980s, he served as chair of the Oklahoma Human Services Commission and co-chair of the Commission on the Reform of State Government. He lost in his first bid for governor in 1986 but rebounded to win the office in 1990. His administration has emphasized energy and infant mortality issues, economic revitalization and state budget cutting and reallocation of resources. He has been chair of the Interstate Oil & Gas Compact Commission, the Southern States Energy Board and the Democratic Governors' Association and hosted the 1993 National Governors' Conference in Tulsa. Walters and his wife, Rhonda, have three daughters.*

**“We must all learn
to do more
with less.”**

*by Speaker Glen D. Johnson
Oklahoma House of Representatives*

Although I have always had high regard for the benefits received from attending an institution of higher education, as a member of the Oklahoma House of Representatives, I have developed a much stronger appreciation for the value our state receives from its higher education system. It truly is an investment in our future.

I do believe progress has been made in addressing post-secondary needs for Oklahoma students, but the job is

getting more and more difficult. In recent years, it has taken tremendous effort by the Legislature to increase funding for the system, but now we must all learn to do more with less.

In the post-State Question 640 era of tax limitations, all of state government must learn to strive for maximum efficiency within the resources available to us.

Although the 1993 legislative session brought about budget cuts of varying degrees to most state agencies, members of the Legislature were united in their efforts to find ways to protect higher education as much as possible. As a result, members of the higher education community joined with the Legislature to achieve access to \$28.4 million from Rainy Day Funds to keep higher education cuts at a minimum. Even though a modest tuition increase was also necessary, Oklahoma college and university students still receive a great bargain. They continue to pay less of their education costs than the average student in similar public institutions throughout the nation.

As the result of the 1992 voter approval of a capital improvements bond issue, the Legislature finally was able this year to address many long-term capital needs of the state's system. Higher education received \$258 million of the allocation for improvements to facilities, new structures and the purchase of vital and important equipment. This will serve not only as a critical boost to the quality of services the institutions are able to provide but also will impact the economies of local communities.

The Legislature always has been and must continue to be an active participant in addressing complex issues facing higher education, such as:

Access. With colleges and universities in virtually every part of the state, Oklahoma always has taken a certain amount of pride in the fact that we make access to higher education a reality for *anyone*. Therefore, more and more demands are being placed on the institutions and the systems that govern them. As a result, their challenge is to reduce costs and streamline program offerings while at the same time maintaining quality instruction.

In addition, tuition must be tied to “access” in such a way that education costs are distributed fairly between the student and the state. Financial aid for disadvantaged students also should be part of the tuition discussion.

The Changing Student Profile. The still-sluggish national economy is putting pressure on workers who see higher education as the best way to change or advance their careers. The system not only is being asked to continue the traditional role of educating the immediate high school graduate but also to accept the challenge of educating the older student. Statistics tell us the average age of today's student is 28, compared to 25 only a few years ago. That average is even higher at the community college level where an “open door policy” offers advanced education and training for anyone who wants to enroll.

As we explore alternatives for addressing the needs of such a diverse student body, the challenge is to help all students of all ages be more academically prepared for college in order to minimize the need for remedial classes, to provide adequate programs and courses to help students meet their career goals without unnecessary duplication



and to provide adequate auxiliary services to meet the demands of this thriving population.

An Economic Development Partner. While institutions of higher education are seen as major employers in their respective communities, they also play a role in statewide economic development opportunities. Whether by virtue of

reforms in recent years, the system can point to several areas of success. An emphasis on educational excellence has helped keep more and more high school students in Oklahoma for their higher education experience. We therefore are beginning to deter the "brain drain" that previously took away many of Oklahoma's best and brightest students. Dedicated faculty and staff have worked hard to create strong academic institutions that offer quality instruction in a nationally competitive environment. Local communities have united to show support for their institutions by voting to pass the higher education bond issue. The public is becoming increasingly aware of the important role higher education has in today's society.



Gill Jain

While recognizing colleges and universities as economic assets to their respective areas, Speaker Glen Johnson, above in the State Capitol rotunda, warns Oklahomans not to lose sight of the educational mission for which the institutions were created.

the research capabilities they undertake, the partnerships they develop with business to train and/or retrain the work force or simply through the cultural opportunities they provide, the higher education community has a significant impact on local business success and new business recruitment.

While higher education institutions are certainly economic assets to their areas, it is incumbent upon us that we not lose sight of the educational mission for which they were created.

As we look at efforts to implement higher education

Higher education is not a luxury but an investment in our future.

As we look ahead, I hope every citizen of this state will see higher education not as a luxury but as an investment in our future. I hope the higher education community will view the Legislature as a partner in maximizing the returns on this investment. I hope the Oklahoma House of Representatives can continue to be constructive in balancing the needs of our constituents, in responding to the concerns of students and in providing leadership to keep Oklahoma in the forefront of educational excellence.

ABOUT THE AUTHOR: In 1991 Glen Johnson's colleagues of the past eight years elected him Speaker of the Oklahoma House of Representatives, making him the youngest to hold that legislative office anywhere in the United States. Previously the Okemah legislator had held key House committee chairmanships and served as House majority caucus chairman and majority floor leader. Johnson earned a B.A. in government and a law degree from the University of Oklahoma, where he was named a Top Ten Freshman, made Phi Beta Kappa and won a Letzeiser Medal as an outstanding senior. He has been president of the Okfuskee County Bar Association since 1981 and the Oklahoma member of the National Conference of Commissioners on Uniform State Laws since 1986. Johnson serves on the executive committee of the South / West Energy Council and the Legislative Management Committee of the National Conference of State Legislators. One of the 1982 Outstanding Young Men of America, he was selected one of the three Outstanding Young Oklahomans by the Oklahoma Jaycees in 1986.

“We have seen the future, and it is us.”

by Chancellor Hans Brisch
Oklahoma State Regents for Higher Education

To paraphrase one of America's legendary quotes, “We have seen the future, and it is us.” The future quality, strength and viability of Oklahoma higher education depend on the decisions we, as a state, make today. That future will be the product of not only our vision but also our resolve—our willingness to undertake the challenging and sometimes difficult initiatives that will enhance the quality of Oklahoma higher education.

Students and their success must be the focus of our vision and all our undertakings. Student success is more than a motto: it is Oklahoma higher education's constant impetus and foremost goal. For example, systemwide concern several years ago over the high drop-out rates and low graduation rates at Oklahoma universities prompted higher education to increase admissions standards at the state's two comprehensive universities and 10 regional universities. It was believed that requiring high school students to better prepare for the rigors of the college classroom would increase their ability to successfully complete challenging college curricula.

Recent data indicate that increased admissions standards are beginning to produce the anticipated results:

drop-out rates are down and ACT scores are up for first-time entering freshmen at both comprehensive and regional universities.

However, the alarming fact that 34 percent of the state's first-time entering freshmen must take remedial courses is seen as a remaining impediment to student success. The state system of higher education has responded by increasing the number of required high school courses for college entry from 11 to 15, thus broadening the foundation of knowledge that college-bound high school students must master.

As important, committees of college and university faculty have outlined course-by-course the specific skills and knowledge that high school students must acquire to be successful in college. That information has been disseminated to high schools throughout the state.

But student success means not only preparing students for the college experience but also ensuring that college and university classrooms are meeting students' academic and career preparation needs. A systemwide student assessment policy adopted in 1991 enables institutions to further strengthen the programs they offer and to more effectively help students fulfill their academic and career goals.

The most far-reaching impact of these student success initiatives is the quality of academic competition and enrichment that results in classrooms and learning laboratories across the state as bright young minds challenge one another and their instructors, broadening the academic and intellectual horizons for all.

A program begun five years ago further enriches the academic environment by attracting some of the finest young minds in the state and throughout the nation to Oklahoma colleges and universities. The Academic Scholars Program was initiated in 1988 to stem the alarming flow of Oklahoma's best and brightest high school graduates to higher education institutions outside the state.

Fall 1993 found 1,135 academically outstanding students participating in the five-year scholarship program at 19 public and independent Oklahoma colleges and universities. The quality of these students is exemplified by the fact that 523 were National Merit Scholars, one of the



Gill Jain

As decisions are being made on reorganization and reallocation of resources in higher education, Chancellor Hans Brisch sees students and their success as the only proper focus for discussion.



Gill Jain

Everyone in higher education is being asked to find new and better ways to do the job; the State Regents are no exception, as in this recent trial of teleconferencing between Oklahoma City and Tulsa.

nation's most prestigious academic honors. OU led the state with 619 Academic Scholars, including 139 freshman National Merit Scholars, the fourth highest number among public institutions and eighth among all institutions public and private.

Equally successful is the State Regents' Endowment Program. Also begun in 1988, the endowment program matches private donations one-for-one with state funds to support endowed chairs, professorships or lectureships. This visionary public/private partnership has enabled colleges and universities to retain and attract some of today's finest academic minds and has allowed Oklahoma higher education to attain a margin of excellence that state funds alone could not have achieved.

The endowment fund program currently supports 159 academic and research positions at 15 state colleges and universities (with 76 positions at OU's Norman and Health Sciences Center campuses) and has proven so effective that private funds consistently have exceeded available matching state funds.

Student success now and in the future depends on our willingness as a state to demand high standards of our students and to support and encourage our colleges and universities in their efforts to enhance the academic

strength and quality of the programs and courses they offer.

Enhancing academic quality in this age of scarce resources means identifying priorities, deleting lower priorities and reallocating resources to higher priority programs. From January 1991 through December 1993, Oklahoma colleges and universities deleted 243 lower priority academic programs as part of an ongoing process to focus resources on programs and services deemed most vital to students.

Likewise the state's growing support of higher education research is continuing to

reap benefits for our students, our institutions and our state. Approximately \$136.1 million was budgeted in 1993-94 for Oklahoma higher education research, up from \$129.6 million for 1992-93. On the whole, every state dollar invested in higher education research yields more than \$2 in outside funding, but a matching program that enables universities to pursue significant federal and private grants has

proven so effective that each state dollar it provides currently yields \$3.50 in outside funding.

But the significance of higher education research goes beyond its economic impact. Research enriches the classroom experience for all students, attracts leading researchers and graduate students to our universities and creates new technologies, new industries, new jobs.

CytoDiagnostics Inc., the leading urological cancer diagnostics firm in the nation, is an example. Founded in 1987 as a direct outgrowth of the research at the OU Health Sciences Center, the company now has 110 employees, realized 1992 gross revenues of \$4.8 million and expects a 1993 gross of \$9.7 million. Other higher education research enables existing Oklahoma industries to become more competitive, efficient and productive.

If we accept the premise that an investment in higher education will yield dividends in terms of better-educated

***The significance
of higher education
research goes beyond
its economic impact.***

The Future of Higher Education in Oklahoma

Oklahomans and increased numbers of high-quality jobs for our citizens, then we as a state are confronted with a public policy dilemma: as the importance of investing in higher education is increasing, the state's investment in higher education is decreasing.

Oklahoma students currently are funded at 66 cents on the dollar when compared to their fellow students in other states. But rather than moving to close the funding gap, 1993-94 state funding to higher education was reduced by 3.3 percent. Although \$28.4 million in one-time funds was included in the higher education appropriation during the closing minutes of the 1993 legislative session, state funding to higher education fell from \$575.2 million in 1992-93 to \$556.4 million for 1993-94, an \$18.8 million reduction.

Although 1993-94 marks the first time in seven years that Oklahoma higher education has received a reduction in state appropriations, higher education's share of total state appropriations has fallen from 18.55 percent in 1979-80 to 15.51 percent in 1993-94, the lowest in this 15-year period. Had higher education maintained its 1980 share of total state appropriations, an additional \$109 million would have been available for enhancing the quality of the higher education system so vital to the future of our state and its citizens.

Ironically, House Bill 1017 and the recent enrollment growth experienced by common education also are affecting higher education. HB 1017 mandated common education make far-reaching and widespread changes to improve the quality of the education children receive. As a result of HB 1017 and a recent surge in K-12 enrollments, it is anticipated that larger numbers of better-educated high school graduates will be entering our colleges and universities. It is imperative that Oklahoma's higher education institutions are able to meet the needs and aspirations of this new generation of students.

The future of Oklahoma higher education depends on our willingness as a state to fund our students at the average funding levels students at similar colleges and universities in other states experience. It depends on our willingness to return Oklahoma higher education to its 1980 share of the state budget. It depends on our willingness to ensure that the kindergarten through graduate school educational con-

tinuum is a succession of quality educational experiences.

Higher education truly pays dividends as investments over the past few years already are showing. But if higher education is to continue to produce and even increase those dividends, then we as a state must be willing to make the long-term investments that are so crucial to supporting and enhancing Oklahoma higher education.

ABOUT THE AUTHOR: As chancellor of the Oklahoma State Regents for Higher Education, Hans Brisch provides state-level leadership for 26 public higher education institutions, nine constituent agencies and three higher education centers with a total annual enrollment exceeding 228,700 students. At the time of his 1987 appointment, he was serving as chief of staff for Nebraska Governor Kay Orr, previously having held major administrative positions at the universities of Nebraska and Kansas and the Illinois Board of Higher Education. Brisch holds three degrees in political science—a B.A. from Park College and a M.A. and a Ph.D. from the University of Kansas—and was a faculty member at the universities of Nebraska, Kansas and Alabama and Nebraska Wesleyan University. His academic research expertise is in the areas of public administration and management, legislative politics and Soviet studies. A native of Kaiserslautern, Germany, he immigrated to the United States in 1957 at the age of 17 and became a naturalized citizen in 1964. Brisch and his wife, Margaret, have three children.



Oklahoma Tourism Photo/Fred W. Marvel

Higher education forces will be working hard to convince the Legislature and the people that funding for colleges and universities should be returned to the 1980 share of total state appropriations.



“A critical key to success is learning from the past, not reliving it.”

*by President Richard L. Van Horn
The University of Oklahoma*

For the near future, higher education faces a disturbing dilemma. The economic success of our nation and of the state of Oklahoma over the next 10 years depends to a major extent upon the productivity of our professionals and most skilled workers. In our society, professionals—for example, scientists, engineers, managers, physicians, teachers and others—are prepared largely by higher education institutions. Our economic success and the ability of our society to provide good jobs and good quality of life depend on the effectiveness of our universities in educating professionals who can compete successfully in a global economy.

In the past, the health of the Oklahoma economy relied heavily on natural resources. Agriculture and the production of oil and gas provided the state's economic foundation. For example, the decline in petroleum markets in the mid-1980s led to a major drop in employment, personal income and state tax revenues. Per capita personal income for Oklahoma started at 85 percent of the national average in 1970, increased steadily each year until it reached 99 percent of the national average in 1982, declined to a low of 81 percent in 1989 and stood at only 82 percent in 1992.

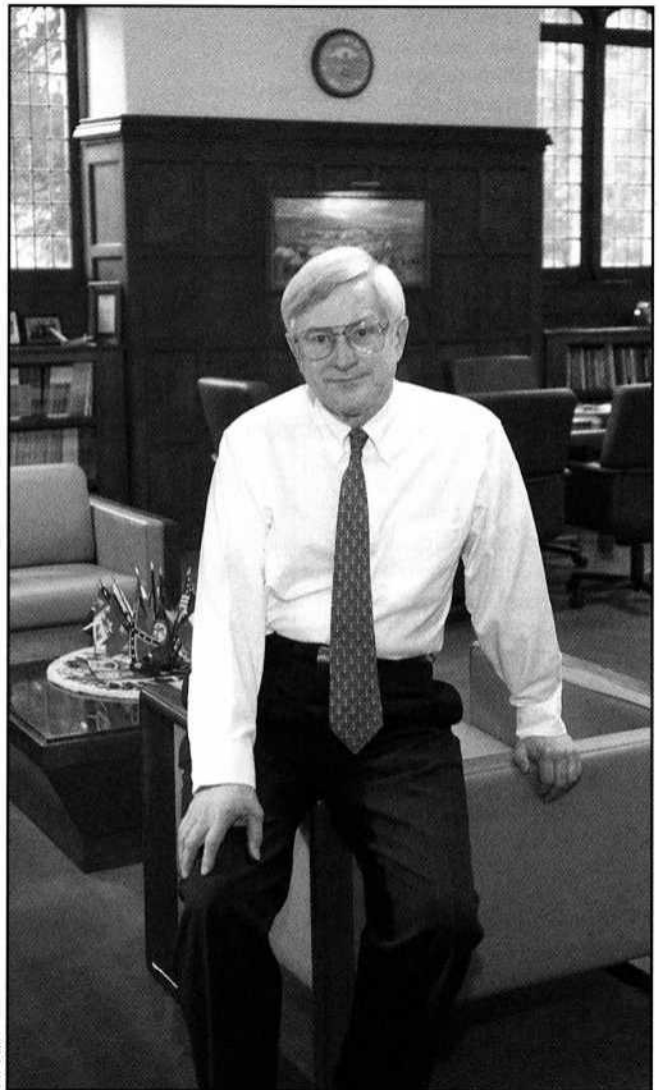
Today and increasingly in the future, Oklahoma operates as part of the national economy and the global economy. The real competition for many businesses is not other Oklahoma businesses but similar businesses worldwide. In the modern world, traditional blue collar productivity is well understood and effectively mastered by most states and nations. To a large degree, competition in our information society is a competition of professionals. If Oklahoma expects to make progress—for example, to move personal income up from 82 percent of the national average—Oklahoma will require professionals of above-average productivity.

Despite the critical need for universities to educate successful professionals, society shows increasing skepticism or even hostility toward higher education institutions. Legislatures in most states have reduced the percentage of the state budget appropriated to higher education and in a number of states have reduced the actual dollar amounts. Clearly, any plan for the future of higher education should address the apparent paradox of the increasing importance of and decreasing support for higher education.

In Oklahoma, institutions of higher education are funded at less than 65 percent of the average of their peer group institutions. The average Big 8/Big 10 university received about \$10,600 per student last year from tuition and state

appropriations. OU received slightly over \$6,600 per student. Some of the well-funded state universities receive \$18,000 per student. The proportion of state funds for higher education in Oklahoma also has fallen. Appropriations for higher education that totaled 18.6 percent of the state budget in 1980 dropped to 15.5 percent of the state budget by 1994. Societal desires and sometimes federal mandates have led to more money for common schools, prisons and public assistance programs with the result of a decreasing proportion of the state's budget going to higher education.

Higher education remains more highly regarded than many segments of society, but the last several and next several years appear to be a time of increased criticism for higher education. A September 13, 1993, *Wall Street Journal* article, “College Teachers, the New Leisure Class,” suggests that most faculty members do not work very hard



Gill Jain

Despite a critical need for university-educated professionals, Richard Van Horn sees a society that is showing increasing skepticism—even hostility—toward educational institutions.

or certainly not hard enough. The article asks, "Do you have any idea how many hours a week the average college teacher actually spends in class with students? A total of 9.8 to 10.5 hours, according to various surveys. That's right, an amount of time slightly greater than the workday of most Americans." The article notes but dismisses time spent in preparations for classes, advising and counseling students, research, writing, attending committee meetings and doing administrative tasks.

The recent report of a national panel of distinguished educators and citizens known as the Wingspread Group on Higher Education had an equally critical message. For example, the report states, "It is hard not to conclude that too much undergraduate education is little more than secondary school material warmed over and reoffered at much higher expense, but not at correspondingly higher levels of effectiveness."

The future of higher education clearly is affected by these and other trends and attitudes. A good understanding of the past and present offer a guide to the future, but only a partial guide. Much of what will be important or significant in the future remains unexpected, unknown and probably unknowable. With these limitations in mind, current trends do suggest a picture of higher education in the future.

In the year 2005, students in higher education will be highly diverse—young, older, multi-ethnic, multi-racial and highly serious or career-minded. Students will expect universities to provide a good environment for learning, to transfer knowledge effectively and to offer education that is relevant to the desires of society. The continuing decline in state funding and the resulting inevitable increase in tuition will produce students who expect universities to function effectively in every area. With higher tuition costs, students will expect to graduate in four or fewer years with an education that will make them competitive professionals.

Universities will face a number of challenges. Some elite private universities may continue traditional education with low student-faculty ratios. Many public universities, stressed by declining state support and public pressure to hold tuition well below that of the private universities, must search for new approaches to higher education that meet student and societal expectations at lower cost. Universities will move toward a no-frills operation by reducing administrative costs and many desirable services—for example, advising, counseling and other student services. While the idea of reducing administrative costs and expensive low-

usage programs always evokes instant popularity, real solutions sadly lie elsewhere.

The cost of operating a typical university educational program is approximately equal to: (number of faculty members) x (average salary and benefits) x 2.5.

At a super no-frills university, the final multiplier may be 2, while at a plush university, the multiplier may reach 4. The basic fact remains that the number of faculty members and faculty compensation in large part determine the cost of a university. Similarly, with a given student-faculty ratio, the number of students largely determines the cost of a university. In times of declining budgets at universities, enrollment is forced down and/or student-faculty ratios go up, exactly what the model would predict.

Some of the choices for public universities in the future now are clear. Carefully review non-faculty costs to try to reach or approach a multiplier of 2.0 (i.e., the point at which faculty compensation is 50 percent of the education and

general budget). At some universities, further reductions in libraries, computing, building and grounds maintenance, administration and student services may be contrary to providing a quality education. But at many universities, some reductions in these areas are possible without a significant impact on education. However, reducing non-faculty expenditures is not a solution by itself. The two

other practical choices are to find (1) ways to reduce the unit cost of education without reducing quality, and (2) sources of revenue other than state appropriations.

Universities today still operate in the mode established by the first universities in the 12th century. Faculty members prepare and lecture while students sit and learn. The 21st century university can and probably will be vastly different. Most lectures will be provided on video, often by an international leader in the field, and viewed by the student at his or her convenience. Much of the learning will take place using computers, electronic communication and interactive video and audio. Homework will be combined with study in the interactive multimedia system, and the system will provide immediate feedback on how well the student is mastering the material. The ability to use knowledge—i.e., to solve problems—will be the dominant educational goal. Students will end up memorizing many facts, but such memorization will be mostly incidental to learning to solve problems. The nature of the education process also will encourage cross-disciplinary study. Inserting calculus or history modules at appropriate places in an interactive multi-media phys-

*Universities still operate
in the mode established
by the first universities
in the 12th century.*



ics course is straightforward and natural.

In an interactive multi-media environment, students more actively will manage and conduct their own education. Students also will spend considerable time working in groups. Both group learning and group problem solving yield better results for many areas than individual work. In addition, learning to work effectively in groups is essential to preparing students for a productive role in society.

Several characteristics in the new environment are of note. Students on average will learn more. Most students will perform at what is now an A grade level—i.e., they will be able to solve most basic problems relevant to the discipline. Because of the fast feedback and interactive nature of the education process, students who pass a course will have mastered most of the material—an essential aspect of educating productive professionals. While almost all students will master most of the material, the more capable or more highly motivated students will master it faster, and the system will provide the flexibility to move ahead at a faster (or slower) than normal pace. Good students may graduate in three years, much to the joy of their tuition-paying parents.

Faculty members will serve as planners, managers and advisors. Faculty members will design or select the course materials, motivate and monitor the progress of students and meet individually or with small groups of students as appropriate. While faculty members will hold a role that is certainly as intellectually satisfying and demanding as at present and perhaps more so, this 21st century environment will allow faculty members to deal with more students. Student-faculty ratios of 30 or more to one should be consistent with quality education and will lead to a significant reduction in cost. In short, the new environment will substitute capital—computers, communications and multi-media program packages—for labor, the traditional route to higher productivity. In addition, it substitutes lower-cost labor—i.e., a more active role for students in directing and imple-

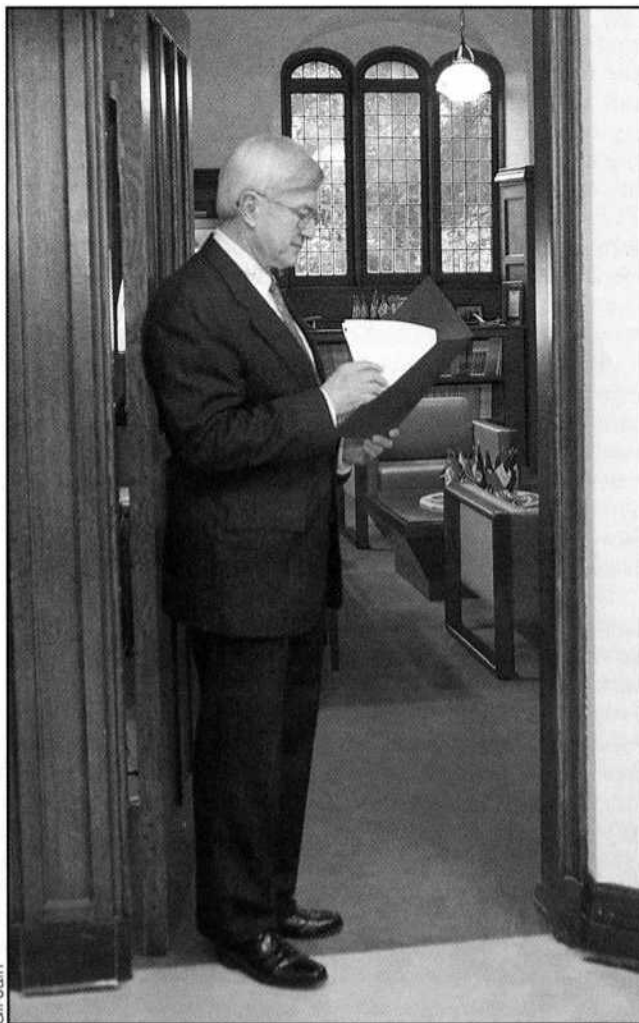
menting their own learning—for higher-cost faculty time. Finally, it increases learning effectiveness from more extensive use of study groups, fast feedback and flexible, student-controlled lesson plans.

Universities certainly must place more emphasis on generating additional non-state appropriated funds. Solicitation of private gifts already is well developed at many public universities, and many big donors—foundations, corporations and individuals—are at or near their giving limits. The main potential source of new revenue probably is fee-for-service activities—i.e., the universities' selling of education and research products.

Continuing education markets should continue to grow. With the current rapid rate of change in professions expected to increase, most people in the work force will face an increasing need for upgrading current skills or retraining for new areas. Both individuals and businesses are great potential customers for continuing education programs, but universities must be aggressive and effective enough to compete with the many other potential suppliers. Universities that (1) move rapidly to the new education systems described above and (2) build a highly effective marketing organization can realize significant revenues (tens of millions of dollars) from continuing education.

The other major revenue growth areas are research, development and consulting. Universities have focused mostly on basic research, the advancement of knowledge with no specific focus toward an improved product or service to society (although basic research is critical for and often directly leads to such improvements). Future research funding increasingly will require work directed at specific societal or business goals. Often these projects will involve interdisciplinary teams

with faculty members, full-time research staff members and students working together in a carefully coordinated and managed mode. Traditional one-person or small-group research within a discipline will continue to exist at about present levels. Growth in research will take place largely in



Gil Jain

Richard Van Horn will experience the future of higher education in Oklahoma from the faculty side in the College of Business Administration when he leaves his Evans Hall office in July 1994 after five years as the University's 12th president.

The Future of Higher Education in Oklahoma

the structured project environment. The effective performance of large, structured research projects will demand organizational changes at many universities toward more cross-disciplinary centers and semi-independent research subsidiaries.

At universities today, some faculty members, often a small minority, practice their discipline as well as teach and do research in it. In medicine, a large percentage of faculty are involved in practice, while in history or English, only a few practice or consult. Both the need to generate funds and student demands for more relevance will create pressure to expand broadly the medical scholar-practitioner model. Here again the best opportunities for growth will exist in multi-disciplinary, carefully coordinated and managed team projects. The building of consulting teams in universities will provide consulting opportunities for faculty members in such areas as the humanities and social services where traditionally few opportunities have existed. Teams also are necessary to take on larger or more complex assignments. The universities that move rapidly and effectively in this area again will realize significant revenues.

In summary, the most successful universities may be vastly different in a few years—more diversified and more relevant with students more actively involved in their own education and almost all faculty members combining teaching with research and/or practice. Those faculty members who are effective at basic research, a relatively small number at most universities, will continue to pursue basic research. Much of the applied research and consulting growth will come from faculty members who are less interested in or effective at basic research. Both students and faculty members should enjoy the new educational environment because it encourages better use of the strengths and abilities of both groups.

It is important to note that a number of the current critics of higher education, including many from such key groups as legislators and parents, offer a solution much different from the one outlined here. In their view, faculty members only should teach, not consult or do research whether basic or applied. Faculty members should teach a lot in the faculty-lecture-while-students-listen mode, because the critics believe that the only real work faculty members do is lecture in the classroom. Universities that succumb to this criticism—and a number will—are condemned to a mediocrity that will worsen with each passing year. A critical key to success is learning from the past, not reliving it.

In this challenging and difficult environment, the University of Oklahoma must find its own future. In many ways, OU is well positioned for the next century. Because OU for years has operated with a relatively low level of state support, many of the budget cuts that today are causing trauma at better-funded universities happened over a number of years at OU. For example, in fiscal 1994, approximately 44 percent of OU's educational and general budget will go to faculty compensation compared to 35 percent at the average university. Only 8.7 percent of OU's budget will go to central administration compared to 12 percent at a typical university.

In the last few years, OU has moved rapidly to find non-

state fund sources. While the state appropriated funds represented 50 percent of the OU total revenues as recently as 1979, total state appropriations of \$148 million are 31 percent of the current total OU budget of \$478 million. Total grant and contract income generated by the efforts of faculty and staff increased from \$64 million in 1989 to \$89.3 million in 1993, an increase of more than 39 percent. Private gifts increased by 38 percent from \$21.4 million in 1989 to \$29.5 million last year. OU, with some difficulties, has learned to manage and carry out its first large, complex, cross-disciplinary project, the \$18 million Fracturing Fluid Characterization Facility. The newly formed OU Research Corporation, a vehicle to carry out applied research, development, training and technology transfer, is about to enter into a mutual cooperation contract with the University.

OU has moved forward decisively in education. At the same time that OU reached a top-four ranking among public institutions for recruiting national scholars, the University also greatly increased the enrollment of minorities and has carried out a major effort to make all university activities more user-friendly for all students. The OU core curriculum addresses well the criticism on lack of structure made by the Wingspread panel. The College of Business Administration is a leader in using groups as part of the education process. Engineering and geosciences have led the way in using computers and communications in education. The College of Medicine is one of the national leaders in telemedicine.

To win major national recognition as a role-model, 21st-century university, OU needs to do much more and indeed to move much faster. The further decline in the absolute level of state appropriations expected this year makes the task far more difficult. Fortunately OU has a solid foundation, a thoughtful plan, good people, a bright record of accomplishments, strong momentum and highly supportive alumni and friends. Go Sooners! Let's win this one.

ABOUT THE AUTHOR: *Richard L. Van Horn became the 12th president of the University of Oklahoma in July 1989, having completed six years as president of the University of Houston. A native of Chicago, raised in Fort Wayne, Indiana, Van Horn earned a B.S. in industrial administration from Yale University, a M.S. in industrial management from the Massachusetts Institute of Technology and a Ph.D. in system sciences from Carnegie-Mellon University. After 10 years with the Rand Corporation, he returned to Carnegie-Mellon as faculty member, associate dean of the Graduate School of Industrial Administration, vice president for business affairs, vice president for management and provost. He spent a two-year leave of absence as director and professor of management systems at the European Institute for Advanced Studies in Management in Brussels, Belgium. In October 1993 he announced his resignation as president of OU, effective July 31, 1994, to return to teaching in the College of Business Administration. The father of three daughters, Van Horn is married to Dr. Betty Pfefferbaum, a child psychiatrist at OUHSC.* 