

The State's University

State of the University Address 2001

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I'm very pleased that you have joined us for this annual event in the life of the university. Much unites us today. We are united by our sorrow and grief over the recent terrorist attack on our nation. We are united in our determination to comfort and support one another. And we are united in our strong desire to preserve our democratic way of life and bring to justice those who are responsible for these evil acts.

During the darkest moments of these dark days, I have found myself thinking about a poem one of our faculty members read at a gathering on the Bloomington campus. The poem was written early in the twentieth century during a time of war, and the images are compelling. Things fall apart, the center cannot hold; wrote the Irish poet William Butler Yeats. Mere anarchy is loosed upon the world the blood-dimmed tide is loosed, and everywhere/ the ceremony of innocence is drowned. The best lack all conviction, while the worst/ Are full of passionate intensity.

In opposition to these images stands the heroism of policemen and firefighters who gave their lives trying to save others. Added to their courage are the valiant efforts of rescue workers mining the rubble to provide families with news of their loved ones. Then there is the picture of our senators and representatives in singing "America the Beautiful" on the steps of the capitol building and President Bush's stirring words to Congress. Considering these images, I cannot accept the idea that anarchy is "loosed upon the world". Indeed, we can rest assured that our national leaders will take swift, appropriate action to respond to this horror and address the conditions out of which it arose.

Nor am I willing to believe the best lack conviction. It is up to us in this time of crisis to comfort one another in a spirit of compassion and civility and to condemn acts of bigotry and random retribution. Each of us has a role to play in that effort. It is false that the center will not hold. These values are our center, and to these we will hold firm.

It is important that our public institutions remain strong in this time of national crisis. It is important that we stand together to face the future. There is much to be done. There is much for *us* to do. I have no doubt that individually and as a university, we will rise to the occasion.

As I look out over this audience, I am reminded of another such gathering of individuals united by a common purpose. It occurred nearly two centuries ago. On a sunny day in June, a group of

Hoosier pioneers met beneath the spreading branches of a giant elm tree in the frontier village of Corydon, Indiana, the hometown of our Governor Frank O'Bannon. Surrounded by primeval wilderness, these pioneer legislators set about the task of drafting our state's first constitution.

The year was 1816, and these people faced problems of an urgency that can exist only on the frontier. The total food supply had to be produced by each tiny settlement. Trails had to be cut through the dense forest to provide for travel and communication between scattered enclaves. Protection against the elements had to be built.

Notwithstanding all these pressing problems, our state's founders recognized that higher education is essential to the preservation of a free government, and they made provision for it in the constitution. Thus they realized a great truth which holds firm today that the first duty of each generation is to prepare the next to meet the demands of the present and the future.

Responding to their mandate, legislators established the State's Seminary in 1820. It joined Vincennes University, founded four years earlier, in its chartered mission to brighten the lamps of science, literature, and the liberal arts.

But conditions were so primitive that it took four years to select the site, construct the buildings, and hire a teacher qualified in the instruction of Greek and Latin. In the spring of 1824, IU opened its doors to welcome its first 12 students. IU Trustee David Banta, described that historic moment. "On this May morning," he wrote, "a fire was kindled on the altar of learning that has never been extinguished."

Over the course of the last two centuries, that fire has grown brighter and stronger. It has fueled an engine of prosperity for Indiana and the nation. It has produced discoveries that improve our quality of life and help ensure our free society. It has educated Hoosier citizens. It has taught us new lessons and enduring truths about our shared humanity.

In 1829, Indiana State Seminary became Indiana College and hired its first president. Andrew Wylie began his inauguration speech by asking, "Of what advantage is a College to the community?" He then went on to discuss the covenant between a public university and the state that supports it. Of course, President Wylie spoke to quite a different audience than I address today.

At that point, Indiana College employed only two faculty members. Today our faculty numbers 4600. Indiana College taught only Greek and Latin, theology and mathematics. IU now offers over 900 degree programs in subjects ranging from literature to computer science. And yes, we still teach Greek and Latin. The 40 students who matriculated during Andrew Wylie's first year as president have today grown to 96,000. Two buildings and a professor's house constituted the original campus. Now IU's regional campuses and our two research campuses in Bloomington and here in Indianapolis provide educational opportunity across the state and beyond. Our academic mission is no longer to train local clergy, but, thanks to the vision of Herman Wells, IU's reach is international. Together with other pre-eminent American universities, we followed the lead of the great nineteenth-century German institutions and embraced research and scholarship as a central part of our mission.

Despite these contrasts, Andrew Wylie's question, "Of what advantage is the College to the community?" is as relevant today as it was two centuries ago. The fate of IU and Indiana are so intertwined that neither can reach its full potential without the support of the other.

In 1852, the Indiana General Assembly enacted a constitutional mandate by explicitly recognizing Indiana College as the University of the State. Today Indiana University is part of a growing state system of public higher education, which includes six other institutions and an emergent community college system. Indeed, Indiana is fortunate in having two strong, public research universities. By virtue not only of its size, its essential professional programs, its history of excellence in the liberal arts, and its original mandate as the State's University, IU has a central role to play in Indiana. And that role grows increasingly larger.

Once a year we come together to take account of the university we love and serve. This afternoon, I would like us to consider the important relationship between Indiana and Indiana University. I will argue that the state and its university need to be more cognizant of their interdependence. I will also argue that both should take steps to improve the way we meet our reciprocal obligations.

II. Indiana University's Obligations to the State

Let me begin my discussion of this covenant by focusing on IU's responsibilities. Since its founding, Indiana University has embraced three primary obligations: to educate the state's citizens, to push forward the frontiers of knowledge, and to contribute to the state's economic prosperity and enhance the quality of life for its citizens. In short, Indiana University has a clear obligation to help solve the problems of the state and the nation.

One way we do that is by educating the state's citizens. Every resident student, whether a recent high school graduate or a returning adult student, can find a place at IU and earn a world-class education. While the Bloomington campus is composed primarily of recent high school graduates, half of all our undergraduates overall are nontraditional students. And a growing number are first-generation or minority students. On all our campuses, women outnumber men. In fact, several regional IU campuses enroll 70 percent women.

For the highest performing students, there are honors programs, including the Wells and Kelley scholarships. The Wells Scholarship, named in honor of the late IU Chancellor Herman B Wells, ranks among the most competitive and prestigious awards offered by any American university. At least one of our Wells Scholars is here today. Kunal Desai is a pre-med student from Terre Haute. Kunal is one of those young people who is dedicated to making the world a better place. He spent last summer working with an outreach program in Kenya providing AIDS education and helping to build a library. Incidentally, this volunteer program was founded by two IUB students who were so moved by what they saw and read about the HIV/AIDS devastation in Kenya that they resolved to do something about it. These students are helping to fill a powerful need. Kunal intends to continue with this work after he completes medical school. When you meet students like Kunal, you are assured that the future is in good hands.

Joseph Swain, who was president of IU at the turn of the last century, once said that “the State University exists for the state and must therefore be democratic. The young person from the farm, from behind the counter, stands side by side with the sons and daughters of the minister, the doctor, the lawyer. In a people’s university there can be no aristocracy of trade, profession, or wealth. The only road to high regard and distinction is through the avenue of superior excellence.” IU makes that road straight and wide for *all* its students.

There are many ports of entry in a people's university, one of the most prominent being the Passport program between IUPUI and Indianapolis Ivy Tech campus. This program is being extended to our other campuses. Let me tell you about Kate Andrews. Kate is an elementary and special education major who hated school. Tired of earning low wages and finding no job satisfaction, she decided to start college nine years after she graduated from high school. She enrolled in Ivy Tech and then transferred to IUPUI through the Passport program. Kate now works two part-time jobs and still finds time to serve as president of the Education Students Advisory Council. Last year, she was named one of the top ten female students at IUPUI. She and her family are with us today.

Kate will soon be starting her career as a teacher. She will go into her own classroom confident that her experiences in the Indiana University School of Education have prepared her well. The faculty work in close partnership with liberal arts and sciences faculty and with public schools throughout the state to ensure that its graduates not only know their subjects inside and out, but that they can also help their own students to learn and achieve. Kate has had such outstanding experiences as a college student that she cannot wait to get into the classroom and teach others.

Our state, our country, is not so successful that we can afford to leave behind any person, regardless of age, ethnicity, race, gender, disability status, or sexual orientation. Not only is that the most pragmatic approach, it is the morally right course of action.

Because we carry through on our commitments in this regard, *TIME* magazine recently named IU Bloomington its College of the Year among research universities, recognizing IUB’s highly effective programs to help first-year students make the transition to college life. Incidentally, the runners-up were Harvard, Stanford, and the University of Michigan. The editors said they “sought institutions with comprehensive freshman programs that have improved retention rates and created a sense of community for students.”

The magazine cited such programs as the Intensive Freshman Seminars, which bring small groups of freshmen to campus before the start of regular classes to work with faculty members and older students in specific subject areas. They praised the Freshman Interest Groups, in which freshmen live and study with other incoming students sharing similar academic interests. They also noted the success of our Groups Student Support Services, that offer low-income and first-generation freshmen summer courses and continuing financial and academic support throughout the year.

Michelle Daniels could tell you firsthand about the value of the Groups program. When she entered the program in the summer of 1996, Michelle was the first person in her family to attend

college. She had struggled academically in high school. But during her sophomore year at IUB she began to excel academically, once she decided that her major would be social work. From then on, she never looked back. She has been recognized as an outstanding volunteer in Bloomington and she was inducted into an honor society. She is currently enrolled in the accelerated master's program in social work at IUPUI. When she finishes her degree, she plans to set up programs for troubled teens. Michelle and her mother are here today. Michelle has great things to say about her experience at IU. She says that, "if you unlock the door of education, you will discover a whole new world. You will be able to help others who are less fortunate than you. You will come to see that education is the key to success in life."

Indeed it is. Thanks to programs like Groups Student Support, the Minority Achievers program, the Freshman Interest Groups, and numerous others, more students are making similar discoveries and staying on to pursue their degrees. IU Bloomington has a freshman to sophomore retention rate of 88 percent. It was 80 percent in 1994. Our retention rate for African American and Latino students has increased from 64 percent in 1994 to 82 percent today. At IUPUI, minority enrollments are up, and the campus has created a Diversity Cabinet, charged to develop a score card for diversity. That score card will be incorporated into annual State of Diversity message distributed on Martin Luther King Day.

Herman Wells used to say, "You can make a large university small, but you can't make a small university big." *TIME* magazine's naming IUB its College of the Year recognizes our efforts to provide excellent, personalized education with a wide range of opportunities. It says a great deal about the quality of the educational experience at IU.

But despite these efforts, and other noteworthy successes, I do not want to give the impression that our work is done. We must continue to be on the alert for new initiatives or changes in existing programs that will provide minority and first-generation students wider access and greater opportunities for success.

Ultimately the success minority students have at Indiana University depends on everyone: on the administration and staff who provide programs and support; on faculty members who serve as mentors and create positive learning environments; on other students, who create a respectful community; and on the trustees, who put a renewed emphasis on excellence in undergraduate education. "The Trustees want our students' undergraduate experience to be second to none," says James Morris, president of the Board. "We want to immerse our undergraduates in an environment that is exciting, challenging, and thought-provoking. We know that such an educational environment changes the lives of individuals and of communities."

I agree completely. And thus, I recommit myself to ensuring that Indiana University is a welcoming and caring place for students of color and first-generation students. I will explore with Vice President for Student and Minority Affairs, Charlie Nelms, what approaches are most effective. Under the direction of the campus chancellors, I will ensure that IU is positioned to achieve these ends.

A college degree has never been more important to individual success and to the well being of our larger community. For our state as a whole, college graduates are vital because they will

drive the 21st Century economy. Students invest their money and their educational dreams in our university. The state invests tax dollars. We want to guarantee the best return on all those investments.

IU is committed to using our funds wisely and providing high-quality services to our students, staff, and faculty in the most cost-effective way possible. According to an independent report compiled earlier this year by the Indiana Educational Policy Center, we are succeeding in this aim. The report indicates that IU spends a smaller portion of its budget on administrative costs than its peer institutions in other states. And, Indiana University has worked to keep administrative costs down; it has not increased the share of its budget spent on administration in the last six years.

But we cannot afford to rest on our laurels. In an effort to stretch our budget even farther, Indiana University has launched an extensive administrative services review. We are taking an in-depth look at how we deliver services and how technology can help us do so with even greater cost efficiency. We will leverage our critical mass and bring to bear the expertise of excellent staff members to reduce costs while increasing service quality. Administrative savings will be re-invested in the academic missions of the campuses.

Excellence in education depends not only on a wide range of resources. It requires well-established libraries, state-of-the-art information technology, laboratories, and classrooms. But most importantly, it depends on the faculty, who are the very core of the university. Our faculty develop the curriculum. They recruit and hire other faculty members. They set the direction and tone of their disciplines. They establish the intellectual environment of the campuses. Because our faculty are members of national and international communities of scholars we will not maintain our position as a world-class center of learning and research unless we provide salaries, research facilities, and support staff comparable to that of our peer institutions.

Private giving is one means by which we are achieving this goal. Endowed chairs and professorships help us attract and retain top-quality academic talent. When the Bloomington Endowment campaign began, Indiana University ranked last among Big Ten public institutions in endowed professorships. Now, we have moved to the top of the conference, with more than 330 around the university and we recently kicked-off a major fund-raising campaign for IUPUI that will be of tremendous benefit to this great urban university.

The Trustees' have taken a further step toward ensuring future excellence by increasing the full-time faculty on the IUPUI and regional campuses. Like the majority of public universities, IUPUI and the regional campuses employ a number of part-time faculty members. Part-time lecturers provide expert classroom instruction. But there is an advantage to having full-time instructors who can devote all their energies to teaching. IUPUI and the regional campuses have begun a three-year program to increase the proportion of full time faculty.

Indiana University's second obligation to the state is to push forward the frontiers of knowledge. One good example is in medical research. I imagine there are at least a few people in the audience who watched Lance Armstrong win the Tour de France and become the first American to do so three times in a row. That thrilling victory would not have been possible, indeed, Lance

might not even be alive, without the groundbreaking research undertaken by faculty members at the IU School of Medicine. In 1996, Lance Armstrong was diagnosed with testicular cancer. This disease was a death sentence until Dr. Lawrence Einhorn declared amnesty for its victims. He developed an innovative drug combination that was the first in the world to cure cancer where chemotherapy had failed. In medicine, dentistry, optometry, and nursing, IU provides state-of-the-art diagnosis and treatment. As the state's only medical school, we educate the skilled professionals who guard our health and quality of life.

Other examples of research and creative excellence abound. Our internationally renowned School of Music, our Hope and Herron Schools of Fine Arts, and our humanities departments offer stimulating performances, exhibitions, and lecture series. On the Bloomington campus alone, there are over 1,000 concerts and music events each year. The IU South Bend Toradze Piano Studio draws virtuoso performers from around the world. IU performing and visual arts programs provide an unending feast of aesthetic pleasure throughout the state.

Included too in the category of quality of life issues is IU's obligation to provide a bridge to the world. Herman Wells understood this responsibility well. Like our university's founders, he believed public higher education was one of the greatest instruments of democracy. In internationalizing Indiana University, he helped us do our part to spread the spirit of democracy around the world. Now IU alumni from every corner of the globe have carried that message to their home communities. Today, we are among the national leaders in hosting Title VI area studies programs, focusing on outreach and research. Our students have a wide range of study-abroad opportunities. An IU Bloomington student can learn any of 36 languages and interact with over 3000 students from 125 different countries. Our other campuses are also hubs of international activity. An all-time high of 4500 international students are enrolled on all of IU's campuses.

To illustrate the importance of IU's international presence, I want to share a story with you. Several years ago I was invited to Warsaw University to attend the 20th anniversary celebration of the Indiana University American Studies program there. During the anniversary dinner in Warsaw, several persons stood and said that for over a decade, the only place in Poland where uncensored material about the United States was available was the IU center. They told of the threats of imprisonment and physical harm they faced to keep the center open. It was a moving moment, made all the more so for me because of IU's direct role in providing a small enclave of democracy. Later in the trip, I met with the American Ambassador to Poland, who told me that Indiana University is revered in that country.

This instance is but one of many in which Indiana University has provided an international bridge for the American people—one that connects IU scientists, artists, and professionals to their counterparts worldwide. Students and faculty cross this bridge in both directions.

Bringing the world to Indiana helps to create the cultural capital and research innovation necessary for 21st century businesses to thrive in our state. What Indiana lacks in mountains and oceans it makes up for with strong communities, with safe streets, vital arts offerings, cutting-edge healthcare, and great educational opportunities. IU's covenant with the state obligates it to be that catalytic institution which helps Indiana develop and sustain these advantages. This

responsibility has become dramatically more important to Indiana's well being in recent years.

Here's why. A higher proportion of the Indiana economy depends on basic manufacturing than that of any other state. During the final quarter of the 20th century, this strategy served us well. But Indiana's commitment to basic manufacturing is a two-edged sword. Hoosiers' per capita income is 32nd in the nation. We have not seen an increase in high tech jobs in the past five years. Basic manufacturing jobs are migrating off-shore, and plant closings have become all too familiar. These statistics bode ill for the 21st century, which is the age of the mind, not the back.

The Central Indiana Corporate Partnership recently commissioned a study on improving Indiana's economic future. The report concluded that while basic manufacturing will remain important to our future, Indiana must supplement it with solid performances in the biomedical, information technology, and advanced manufacturing sectors. Otherwise, the state's economy will decline over time, and Indiana will be less resilient to economic downturns than other states. The human costs of such economic difficulties are painful and significant.

The State's University can be of help in this regard. The IU School of Medicine and our science departments yield discoveries that can spur further development in the biomedical industry. The \$105 M grant from the Lilly Endowment positions IU among a small handful of other universities - Stanford, Harvard, John Hopkins - that are translating the map of the human genome into prevention and cure for disease. Though it is centered in the medical school, this massive effort involves the science departments at Bloomington and IUPUI. It also involves the humanities and social sciences, which will provide insight into the wider implications of new medical research and treatment. In fact, the grant has already enabled us to establish a center to study the ethical dimensions of this new field.

There are challenges to be met if this project is to be successful. To complement the superb researchers at IU, additional scientists must be recruited. High quality space must be found in which to conduct this research. And all this must be done quickly. These challenges are a high priority for the university. They should also be a high priority for the state.

IU has also earned a position of leadership in information technology. In an interview with *Forbes* magazine, Andy Grove, President of Intel, said, "If you want to see the future of information technology, check out what is happening at Indiana University." IU brings this leadership to bear on Indiana's economic development.

Thanks to solid state support and the leadership of our vice president for information technology, Michael McRobbie, Indiana University has achieved national, indeed, international, prominence in high speed networking and high performance computing. IUB has developed a state-of-the-art campus infrastructure. Last week we opened in Bloomington three pervasive technology laboratories. These labs will contribute to the development of Indiana's information technology sector through technology transfer, commercialization of innovations, and joint research and development partnerships with industry. This initiative, funded by a \$30 M grant from the Lilly Endowment, will also include three pervasive technology labs in Indianapolis.

IU recently launched the School of Informatics. Informatics studies the technical, psychological,

and social aspects of information technology and the way people work with and use information. The school, one of the first of its kind, offers undergraduate and master's level programs in the sophisticated application of IT, while also ensuring that students are well grounded in the arts and sciences. The students flocking to this new school will be tomorrow's entrepreneurs and high tech managers. They will be educated in Indiana, and they will draw high-tech businesses to Indiana. Even now, IU provides companies such as Virtual Financial and RealMed with the skilled professionals they need to compete in a 21st century economy. Incidentally, both companies credit Indiana University with their decision to remain in the Hoosier state despite lucrative offers to move elsewhere.

IU contributes to the state economy in even more direct ways: by providing jobs and by transferring technologies and other discoveries to the private sector. IU is the state's fourth largest employer. Moreover, IU faculty members are competing more successfully for grant money than ever before. This has significant benefits for the state. In the last ten years, IU's grants and contracts have nearly tripled - going from \$146 M in the 1991 academic year to \$397 M in 2001. According to a recent study by the Association of American Universities, each \$1 M in grants translates to 43 Hoosier jobs. Thus, last year, grants won by IU faculty supported over 17,000 jobs for Indiana citizens.

In the mid 1950s, Crest toothpaste, featuring a stannous fluoride compound patented by three Indiana University professors, hit the national market. Since then, IU faculty researchers have been making discoveries that lead to new products and serve as platforms for start-up companies. Often these faculty researchers need help moving their discoveries from the laboratory bench to the consumer market. That is where the Advanced Research and Technology Institute (ARTI) comes in. A corporation separate from IU, ARTI assists faculty, staff and students in transferring their discoveries to the private sector. In the past several years, IU researchers have generated 135 cutting-edge, patented technologies of significant interest to the private sector. Currently, IU has more than 100 active licenses generating innovative partnerships. Over the last five years, more than \$10 M has been received and distributed to the inventors of these products and to IU schools and departments.

Through these and other efforts, Indiana University is carrying out the covenant forged two centuries ago. We are making the road to educational opportunity straight and wide for all qualified students. We are enhancing Hoosier citizens' health, well being, and quality of life. We are providing skilled talent for the 21st-century economy. And university research is fueling an engine of prosperity for the state and the nation. While we must always seek avenues for improvement, we are fulfilling our reciprocal obligations to the state.

III. The State's Obligations to Indiana University

In a flourish of pioneer oratory, our founding fathers predicted that Hoosier higher education would "improve the intellectual qualities of the people as the ablest advocate of genuine liberty and the only source of solid and imperishable glory which nations can acquire." Lyndon Johnson put it another way. He said, "Once we considered education a public expense; now we know that it is a public investment."

From the state's perspective, the primary pay-off for this investment is educated citizens. Ironically, non-state sources - federal and foundation grants and contracts, graduate and professional student tuition and private giving by friends and alumni - fund a very significant portion of the university's budget. The state provides less than 30 percent of IUPUI's and Bloomington's total operating revenues. It provides an average of 48 percent of the total operating revenues for our regional campuses.

Compared to other states, how well does Indiana do in supporting undergraduate education? The candid answer is: mixed. The state does a good job in providing financial aid. Indiana ranks 7th nationally in direct funding of student financial aid. Through SSACI, the state's financial aid agency, support has been increasing by more than double the CPI for some time. Resident students, no matter their need, can afford to attend Indiana University, provided that they take advantage of the various forms of financial aid available to them.

Indiana does not do as well in providing direct operating funds to its research campuses. We are grateful that, even in these economically challenging times, the governor and the legislature found ways to support higher education this biennium, including informatics. Unfortunately, excluding new program funding, IUPUI, IUB, and Purdue West Lafayette do not receive even the average level of state funding increases for higher education. In this current biennium, for example, Bloomington received only 65 percent of the average increase allocated by the legislature to all state campuses. Indeed, over the past decade, IU Bloomington's state allocation has averaged one third less than that of the other public campuses in the state.

Let me explain. The Commission for Higher Education uses a formula that rewards enrollment growth. That makes sense, to a degree, since operational costs increase as enrollment rises. But this approach disadvantages Bloomington and West Lafayette because they have essentially reached enrollment capacity. According to the recent Indiana Educational Policy Center study, Indiana's research campuses are comparatively the most poorly funded campuses in the state.

We remain committed to providing the best in higher education to our students - even though Indiana's public research universities receive an average of \$1,500 less in state appropriations per student than our peer institutions in the Big Ten. General academic programs at IUPUI receive less funding per full-time student than those at Vincennes University, a two-year college. Bloomington and West Lafayette rank ninth and tenth in the public Big Ten in state support per student. Nevertheless, peer reviewed rankings of academic quality place IU Bloomington 4th in the Big Ten. In keeping with Hoosier values, we do more with less. But if we stretch our resources too thin, quality will suffer over time.

As part of its covenant with the State's University, Indiana has a reciprocal obligation to fund its three public research campuses at the same level it supports the rest of Hoosier higher education. Given the critical importance IUB, IUPUI, and Purdue have to the state, the current funding formula needs to be changed.

It may be argued that Indiana does not need excellent research universities, that a modest level of performance is satisfactory. And hence, additional state support is not really needed. I hope

that this is only a straw man argument, that no one would seriously advance it. It would be embarrassing to hear it espoused. Good enough is never good enough. It is not now, nor should it ever be the case, that Indiana students must leave the state in order to attend a first-rate university or to find a first-rate job. It would be short-sighted in the extreme if the state did not do all it could to strengthen its research universities.

Let me address the state's obligations to support IU's efforts in improving the quality of life and economic prosperity. I will focus on one key issue: the pressing need for Indiana to develop a 21st-century economy. As I mentioned earlier, the School of Medicine, along with scientists on the Bloomington campus, are playing a leadership role in the emergent medical sciences revolution through the Indiana Genomics Initiative.

Other states, including those in the Midwest, have targeted biomedical research for investment. Michigan has devoted its tobacco settlement monies, \$1 B, for this purpose. Kentucky has allocated \$69 M to a research challenge trust fund and \$11 M to universities for lung cancer research. Ohio has set aside \$493 M of its tobacco settlement money for biomedical research and technology transfer. Indiana is also well positioned to build strong biomedical industries. It already has significant strength in the pharmaceuticals industry, in medical and orthopedic devices.

In the biomedical and other industry sectors, future progress requires a three-way partnership between higher education, the private sector, and state government. Frankly this is not rocket science. We merely have to look around the country - Stanford and Silicon Valley; MIT, Harvard and Boston's Route 128; Chapel Hill, Duke, North Carolina State and the Research Triangle; and others - to recognize that this partnership model works well. In the past several years, IU has built a number of private sector partnerships. We have developed an ongoing collaboration with industry associations such as the Indiana Health Industry Forum. Similarly, we worked very closely with the Indiana Information Technology Association (INITA) over the last year to support their growth - to over 350 members statewide. We provide free space on the IUPUI campus for their administrative headquarters.

Incentives for collaborative research with higher education can do much to advance these collaborations. Much to its credit, Indiana has created the 21st Century Research program funded at \$25 M per year. The state has had the foresight to renew this fund for a second biennium, despite a difficult state budget. Over half of the expenditures from this fund have been made in the biomedical area, to companies such as Zimmer Orthopedics in Warsaw. This fund, which was advanced and strongly supported by the private sector, especially the Indiana Health Industry Forum, is a prime example of the tripartite partnership about which I spoke earlier.

State government has made a number of sound initial steps, but more needs to be done to fully mobilize the vital, three-way partnership that will transform Indiana's economy. That is the challenge for state leadership over the next decade. The economic well being of Hoosier citizens demands it. But this challenge is made more difficult in the near run by the state's constrained budget. As the State's University, IU stands ready to fulfill its reciprocal obligations and bring its resources to bear in helping Indiana accomplish this transition.

IV. Conclusions

I began my speech by quoting IU's first president, Andrew Wylie, who sought two centuries ago to demonstrate the benefits Indiana University brings to the state it serves. President Wylie said something else that warrants quoting today. He said he believed "in the omnipotence of education." As the State's University, IU has both the power and the obligation to help solve Indiana's problems. It is part of our covenant with the state, and we take it seriously.

Obviously, IU has many more obligations than these. It is an internationally renowned research university with proven excellence in many academic disciplines, from mathematics to history to religious studies, and in a wide range of professions, from nursing to education to journalism. Similarly, the state has responsibilities that far outreach the university, from the maintenance and building of roads to incarcerating convicted criminals, from overseeing primary and secondary schools to caring for the indigent. Despite these differences, I have here focused on the similarities, on IU's and the state's mutually supportive objectives.

These reciprocal obligations fall into three main categories. First, Indiana University has the responsibility to provide excellence in undergraduate education. The state's parallel responsibility is to provide the funding to make that possible. Secondly, Indiana University has the responsibility to enhance the quality of life for the state's citizens. The state of Indiana has the reciprocal obligation of enabling IU to succeed in these endeavors. And finally, the state must develop those conditions that enable Hoosiers to prosper. In turn, IU must work in partnership with the state and the private sector to this same end.

In the multifaceted relationship between two complex organizations - the state government and Indiana University - progress is to be assessed by looking at the trend lines for improvement. Is IU doing a better job of meeting its responsibilities in these three areas? Is, for example, the quality of undergraduate education improving? Are we better positioned to make scientific discoveries that enrich the quality of life and promote deeper understanding of the human condition? Is the state more supportive of IU's efforts, given real-world constraints? Is the state fully engaged in the partnerships with higher education and the private sector that are essential to a prosperous economic future?

I firmly believe the trend lines are pointed in the right direction. But I also believe there is need for further improvement, for increasing the slope of these trend lines, as it were. IU provides outstanding education on all its campuses. But, with the exception of Bloomington, retention to graduation should be better. The governor and the legislature were supportive of higher education during this most recent biennial session. Yet, the funding distribution formula disadvantages the research campuses when they are most needed to assist Indiana in building a 21st-century economy.

We can and should feel proud of Indiana University's role in the state for these past 181 years. We can and should take pride in our state's accomplishments and goals. But we should not become self-satisfied or complacent. There is much to do to if we are to live up to our reciprocal

obligations. I pledge to you that I will do everything in my power to make that happen.

Thank you.