

Minutes of the
NIU Board of Trustees
**AD HOC COMMITTEE ON SPONSORED RESEARCH ACTIVITY
AND TECHNOLOGY TRANSFER**
November 4, 2013

CALL TO ORDER

The meeting was called to order by Chair Cheryl Murer at 9:30 a.m. at NIU Naperville in Room 101A. Recording Secretary Sharon Banks-Wilkins conducted a roll call of Trustees. Members present were Trustees Robert Boey, John Butler, Robert Marshall, Marc Strauss and Chair Murer. Also present were President Douglas Baker, Committee Liaison Lisa Freeman, Deputy General Counsel Gregory Brady and Board Liaison Bill Nicklas. With a quorum present, the meeting proceeded.

VERIFICATION OF APPROPRIATE NOTICE OF PUBLIC MEETING

Confirmation of Open Meetings Act public notice compliance was provided by Deputy General Counsel Gregory Brady.

MEETING AGENDA APPROVAL

Trustee Butler made a motion to approve the agenda. The motion was seconded by Trustee Boey. The motion was approved.

CHAIR'S COMMENTS

For the record, one of the primary reasons we are here today for a meeting of this Ad Hoc Committee on Sponsored Research Activity and Technology Transfer, is because of the vision of our Board Chair, Dr. Butler, Chair Murer began. He was the one who really spearheaded the bifurcation of this committee. As most of you know, I have championed research as a critical component of university development. So, I was delighted to accept this responsibility, and to be able to work closely with the new Interim Provost, Lisa Freeman. I believe we have all recognized that a focus and an orientation to research is critical for NIU.

I would like to bring to your attention a timely article in the Wednesday, October 30, *Chicago Tribune* that showcased seven firms with roots in UIC research and went on to talk about how UIC has been the incubator in its research for seven major companies that have gone on to thrive in technology. This shows that there is a real practical dimension to what we are talking about, not only from the standpoint of an enhancement of the university, but this is how business and industry really move forth, through the research and technology transfer of universities.

Research is a critical component of our university, Dr. Baker said. We need to be creating the intellectual property and the artistic and creative works that set the groundwork for our future economies in our society. I talk a lot about student career success, but we cannot prepare students for jobs in the past, we have to prepare them for the future, and having cutting edge faculty working in the research and artistic areas does that. It is an area we need to build up and think strategically about in the university. Lisa leaves big footsteps to fill at this critical point, so we have had a quick, but thorough, search in the last couple of weeks for an interim to replace her. We had a large pool, and narrowed it down to two excellent candidates. Reed Scherer is one of our polar researchers. Unfortunately, with the government shutdown, that polar research was cancelled this year. Reed is an excellent scholar, a Distinguished Research Professor, Board of Trustees Professor and former Associate Dean. The other candidate, Lesley Rigg, is here with us today. Lesley is a geographer and was the Associate Dean for Research and Graduate Education in the College of Liberal Arts and Sciences, full professor in Geography, and has

served the university in a number of research leadership roles. We are working through the HR review processes and will shortly have an announcement on the appointment.

The Chair recognized Dr. Gregory Waas, the University Advisory Committee representative. I would like to thank all of you for coming out to the Naperville campus this morning, she said. We could not have picked a more lovely day and a more lovely setting.

As I said earlier, I spent time talking to Dr. Baker about his thoughts in regard to this committee. Dr. Freeman and I spent quite a bit of time talking about the structure of this first committee meeting and what highlights we wanted to promote at this point. What I hope is that this committee will not look at each committee meeting as an isolated discussion. Because of the scope of research we are discussing, we would like to set a topic that would be addressed in one committee, but then go in-depth in a subsequent committee or committees, depending on the topic, so that the structure of this committee will be to layer discussions rather than quantitatively expanding the number of topics we discuss. We would like to talk about specificity and be able to dig down into different dimensions of discussion of research. Also, we want to answer the questions what are we doing about it; where are we progressing; what is the relationship with business and industry; what are the opportunities for increased grant funding or continued grant funding? Once we feel we have suitably addressed a topic, we will move on to other subjects.

Dr. Lisa Freeman gave PowerPoint presentations on all four of the following agenda items, detailing state and federal budget funding as well as possible future funding scenarios.

PUBLIC COMMENT

The Chair asked Deputy General Counsel Gregory Brady if any members of the public had registered a written request to address the Board in accordance with State law and the Board of Trustees *Bylaws*. Mr. Brady noted that no timely requests had been received to address this Board Committee meeting.

UNIVERSITY REPORT

Agenda Item 6.a. – Status Update: Fiscal Year 2013 Sponsored Projects and Technology Transfer Activity

I want to start out by just saying how pleased I am to have the opportunity to be able to speak to an ad hoc committee that is really focused on sponsored research and technology transfer activity, Dr. Freeman stated. Across the Division of Research and Graduate Studies, we have new and old missions that interface with a number of the standing committees of the Board of Trustees. But to date, we have not had the opportunity to have the type of in-depth and continuing discussion that Trustee Murer just mentioned, with sponsored research and technology transfer as the foci.

As we go through the agenda, I am going to give an update on our annual activity for Fiscal Year 2013, and then spend time looking at external funding landscapes, administrative burden and unfunded mandates. I had the opportunity to talk to the Board of Trustees in the Legislation, Audit, External Affairs and Compliance Committee when Trustee Iosco invited me to talk about compliance recently. I would like to spend a fair amount of time on technology transfer since we have not talked about that as a Board of Trustees and a Division previously.

Dr. Freeman showed a graph on external funding from Fiscal Year 2008 through Fiscal Year 2013. The earlier years contained earmarks, which are no longer available, she said. The American Recovery and Reinvestment Act brought competitive grants to the university. Total external funding in millions for Fiscal Year 2013 was fairly flat compared to Fiscal Year 2012. She went on to break down the various areas in terms of mission and whether that funding was received for research, for public service or for instruction. As a regional campus with dedication to teaching, service and engagement, as well as

research, she said, we always have a mix of instruction, public service and research external funding coming into the university.

One of the things that really stands out this year versus last year is the increase in proposals submitted, 439 versus 371, with significant increases in all of the categories. The increase in proposal submissions was reflected not only in the number of proposals, but also in the dollar value of proposals. One of the reasons for this is because two years ago we did an amazing amount of hiring in research active departments, leveraging the Vision 2020 investment and the opportunity to replace retired faculty. In the College of Liberal Arts and Sciences, alone, we hired more than 40 faculty, many of whom came in with excellent research credentials prepared to hit the ground running and write their first grant. The staff members in the Division of Research and Graduate Studies and the Office of Sponsored Projects are very active in their national organizations, research development, research administration, and they are on a lot of "listservs" where professionals in research administration and research development compare notes. At the end of last fiscal year, there was a lot of talk on those listservs about submissions being down. At some very prestigious universities, public and private research, with large research portfolios, submissions were not increased at the level that NIU saw. We saw about an 18 percent increase in submissions, which stands out as quite unusual across the field when, for the most part, you saw either a flat rate or a decrease in federal proposals, in particular, because it is a very tight funding landscape. Dr. Freeman explained the differences in types of funding that can be included under sponsored projects and those that cannot and answered questions from the Trustees.

Agenda Item 6.b. – External Funding – Federal, State and Institutional Landscapes Overview

It is a different environment than anybody expected in terms of federal funding, Dr. Freeman said. Agencies and earmarks are a big piece of the picture, but they are not the biggest piece. It consists of entitlements, such as Social Security, Medicare and Medicaid; discretionary spending with a little more than half of that being defense related; and a very small piece for nondefense discretionary spending earmarks or congressionally directed funding for research.

While we should definitely feel the loss of earmarks and think about how we should position ourselves with the agencies in our federal relations strategy, we also need to be mindful that this nondefense discretionary funding is very much in jeopardy right now as the result of the Budget Control Act and the sequester. The President was asked to submit a letter on behalf of the Association of Public and Land Grant Universities and have it delivered to Capitol Hill along with letters from presidents all over the country. When you look at the funding forecast going forward, flat is the best possible scenario for overall nondefense research and development funding.

Assuming the mandatory cuts associated with the sequester, which is a brutal across-the-board cutting strategy that was put down because nobody thought they would ever let it happen, the mandatory and very large cuts can be distributed across defense and nondefense discretionary spending or with political pressure coming to protect the homeland and spare defense, they can be distributed all along this little piece of nondefense discretionary funding.

When you think about what those cuts in the national research budget and investment will do to the states, it is important to recognize the states that are high in total research and development funding overall, and Illinois is number eight. On average, in those states, the federal government supplies about 60 percent of that funding. Depending on the portfolio of the state and whether we go with a shared nondefense emphasized cut, you stand to see a lot of the research and development funding available to states impacted by what happens at the federal level. Nationally, industry provides about six percent to states in research and development funding, and state and local government supplies about seven percent.

University investment in Illinois is a larger piece of the pie compared to many other states, but that is not Illinois' public research universities. That is the University of Chicago and Northwestern and the schools with very healthy endowments that support research and invest in research. One of the reasons the

institutional piece is high is because the industry and the state pieces are low. This is an area where we might be interested in drilling down at a subsequent session.

Right now Illinois has a relatively low level of Department of Defense funding compared to nondefense agency funding. We also are very heavily influenced by the presence of two national labs, Argonne National Lab and Fermi Lab, that have strong Department of Energy investments. The American Association for the Advancement of Science projection from 2013 to 2018, as a result of the sequester, is projecting that Illinois will go down at least eight percent in federal R&D. That is significant also because states around us are not projected to be as highly impacted. The number of new grants may decrease dramatically.

Agenda Item 6.c. – Unfunded Mandates – Administrative Burden Overview

The administrative burden of unfunded mandates is probably one of the subjects that we need to do a drilldown on at a later date. When we talk about meeting compliance requirements, many of which come without sufficient funding to support the effort, gathering the data, doing the reporting, separating the administrative processes, we create an administrative burden. That administrative burden impacts sponsored projects and technology transfer because it impacts units at all levels of the university from the faculty and the students who are trying to do the research and find funding to travel to meetings, to the units that actually have to do the reporting. The point that emerged from our earlier conversation that I want to make sure everyone understands is, we have three different lenses and three different levels of complexity when we talk about administrative burden. We do not control what the federal government tells us we have to do, whether or not it comes with added money to meet the new requirements, and the same is true of the State of Illinois. To some extent, NIU is forced to respond to these two entities and their requirements. Sometimes the federal and state requirements many times are redundant or actually contradict each other, and it is a struggle to figure out how to meet both requirements.

Agenda Item 6.d. – Trends in University Technology Transfer Overview

Trends are something we have not really discussed as a Board before, Dr. Freeman said. When we talk about universities and technology transfer, almost everyone immediately thinks of licensing intellectual property to either establish entities or new start-ups. However, going into a discussion on that topic, it is important to think about the fact that university technology transfer probably occurs to a much greater extent in a number of other venues, including the students we graduate. We are transferring technology every time we send a student, who is prepared for student career success, out into a workplace taking the knowledge and the skills they have developed here, and the knowledge and skills that have been developed since the owner of that enterprise graduated. The same applies to personal interactions, conferences, presentations, industry liaison, cooperative research.

Intellectual property, which is the most discussed, most measured, most quantified and debated, is what most people envision when they think about technology transfer. Even though licensing of intellectual property is what most people envision when they think about technology transfer, it is probably not the major mechanism for a university technology transfer. But, that said, in terms of university technology transfer, the Bayh-Dole Act was passed in 1980, and universities were allowed to own their own intellectual property. The agencies felt that the universities would be incentivized to develop intellectual property to commercialize it into the marketplace and, hopefully, reap a profit. The Bayh-Dole Act has been revisited on its twentieth anniversary. Over the past 20 to 30 years, we have seen a change in the types of intellectual properties that universities develop. Licensing revenue is a pretty small fraction of university research revenues, approximately four to six percent at the best major research universities. There are very few highly remunerative university licenses. Less than one percent yield more than a million dollars annually. We all know about Gatorade, Lyrica, and Rogaine, but we know about them because those are the homeruns. Beyond that, there are many patented university intellectual properties that do not make it to market. More than 50 percent of university technology transfer offices lose money patenting intellectual property (IP), meaning that the money spent on the cost of managing and protecting IP exceeds the money received in royalties.

When NIU was compared to its median comparison group in our Vision 2020 assessment, we felt two things really stood out, that we had almost a one to one ratio of inventions disclosed and patents filed, whereas it is much more typical to see about half that. Penn State has about 20 percent of its research portfolio in industry-sponsored research versus federally-sponsored research. An analysis was done to see if industry-sponsored research could more likely be successful than agency-sponsored research in terms of spawning licensing, revenue or startups, and their answer was no. This stood 30 years of what we have all thought about university technology transfer on its head. The conversation started by this analysis has led many universities to question their assumptions, and the first three that came up with new policies based on responding to this were Penn State, Minnesota and Iowa State. Others are moving in this direction and are looking at new, more flexible approaches to partnering with industry and managing IP. Collaboration is a big piece of that, as are transparency and standardizing terms, focusing less on protection and more on getting something to market while building in a homerun clause so that if you do have a hit you do not give it away. These are the kinds of things that we are seeing other universities do, and they are doing it with the industry IP first because it is easy to do. With the federally owned IP that we get from the agencies, we still have to follow Bayh-Dole, but can actually be more flexible in licensing. Most recently, the federal agencies are saying we are interested in looking at universities thinking about things differently than we told you to do in 1980, and we are willing to invest and see if some of those models work. This is an important drilldown for us to think about, going forward in NIU's life history with the changing landscape of technology transfer and industry partnerships, what we are going to do to best position ourselves and take advantage of Chicagoland and the knowledge that has been accrued about the history of university IP and technology transfer

If you take our overall Vision 2020 goals and couple them with the emphasis President Baker has related not only to student career success, but also to building research excellence strategically through the hiring of faculty at multiple ranks with the idea of engaging students as a high value return on research that our overall framework is okay.

I want to thank Chair Murer for her important leadership on this issue, BOT Chair Butler said. Cheryl's history with the Board includes a number of fine examples of leadership in these areas, including her work in the proton therapy area, from which she continues to derive many benefits for us on the research and academic fronts.

OTHER MATTERS

I would be remiss if I did not mention that NIU hosted its first Research Roundtable in Washington, D.C. in July, Chair Murer said, which Board Chair Butler and I attended with President Baker, Vice President Freeman, Vice President Buettner, Dean Vohra and others representing the university. It was well attended and well received. While there, we met with our senators and congressmen, and with NIU students serving internships in those offices.

Vice President Buettner distributed a summary of the 98th General Assembly session to the committee.

ADJOURNMENT

Chair Murer asked for a motion to adjourn. Trustee Strauss so moved, seconded by Trustee Boey. The meeting was adjourned at 11:39 a.m.

Respectfully submitted,

Sharon M. Banks-Wilkins
Recording Secretary

In compliance with Illinois Open Meetings Act 5 ILCS 120/1, et seq, a verbatim record of all Northern Illinois University Board of Trustees meetings is maintained by the Board Recording Secretary and is available for review upon request. The minutes contained herein represent a true and accurate summary of the Board proceedings.