

**Minutes of the
NIU Board of Trustees
August 27, 2015
Legislative Affairs, Research and Innovation
Committee Meeting**

CALL TO ORDER AND ROLL CALL

The meeting was called to order by Chair Cherilyn Murer at 10:35 a.m. in Altgeld 315. Recording secretary Cathy Craddock conducted a roll call of the Trustees. Members present were Trustees Robert Boey, John Butler, Wheeler Coleman, Robert Marshall, Raquel Chavez, Board Chair Marc Straus and Committee Chair Cherilyn Murer. Trustee Raquel Chavez was absent. Also present were President Doug Baker, Board Parliamentarian Jerry Blakemore and Committee Liaison Gerald Blazey. With a quorum present, the meeting proceeded.

VERIFICATION OF APPROPRIATE NOTICE OF PUBLIC MEETING

Confirmation of the Open Meetings Act public notice compliance was provided by Board Parliamentarian Jerry Blakemore.

MEETING AGENDA APPROVAL

Trustee Straus made a motion to approve the meeting agenda. Trustee Boey seconded the motion. The motion was approved.

REVIEW AND APPROVAL OF MINUTES

Trustee Straus made a motion to approve the meeting minutes from the May 28, 2015 LARI Committee meeting. Trustee Boey seconded the motion. The motion was approved.

CHAIR'S COMMENTS/ANNOUNCEMENTS

Chair Murer recognized the representatives of the University Advisory Committee, Professor Dan Gebo and Deborah Haliczzer.

Deb Haliczzer was introduced by Chair Murer and began by noting that the University Advisory Committee has been meeting to discuss campus concerns representing all of NIU constituencies you such as worries about pensions and the threats to employee's pensions and the impetus to have another wave of retirements come January 1st with the change in the actuarial calculations. The chief impact of that is the impending loss of really valuable researchers and teachers and staff throughout the university. She noted that this is also a concern that Professor Gebo has spoken about often as it pertains to our critical faculty who win awards and who are getting grants. Many of them are the very people we might be losing in a wave of retirements. Also of concern is the potential loss of senior mentors for junior faculty researchers and teachers. Ms. Haliczzer acknowledged that this is something over which the board has very little influence, but also stated the council presidents will write some quasi-political letters to legislators around the state about the financial status and the effect on universities. The Council will copy the Board on the letters that they send.

Chair Murer thanked Ms. Haliczzer and further stated it is important to continue to go on the record and that the Board certainly understands the implications. The genesis of this committee is to address the value and the place of research and in order to do that research you have to have senior people. If nothing else, she hopes this committee is an embodiment of the principles of retaining the most senior of staff and the most learned of faculty. The Board continues to encourage communication and also encourages UAC to continue to go on the record on this issue.

PUBLIC COMMENT

Committee Chair Murer asked Board Parliamentarian Jerry Blakemore if any members of the public had registered a written request to address the Board in accordance with state law and Board of Trustees Bylaws. Mr. Blakemore noted that no timely requests had been received.

UNIVERSITY RECOMMENDATIONS/REPORTS

Chair Murer took the opportunity to expand on her previous comment about the importance of the LARI committee. The fact that LARI is a standing committee is a reflection of the commitment of this university and this Board of Trustees to the critical aspect of research. She spoke of hosting a luncheon with President Baker, Provost Freeman, Interim Vice President for Research Jerry Blazey and Catherine Squires, foundation president. The purpose of the luncheon was to talk about the integration of research as it relates to foundation opportunities and as it relates to corporate giving. The university has done an extraordinary job over the years with personal giving and personal philanthropy. We continue to have great opportunities with corporate giving and foundation giving. Sitting down and breaking some bread and being able to talk at the highest level of how do we continue to break down silos, a goal of President Baker's, and not talking about foundation giving and corporate giving in a vacuum, but relating it back to what is the academic activity that is taking place at this university and what are the academic opportunities that we have to go forward. In the spirit of research, and the structure of this committee, is that we would like to address in depth, rather than superficially, various topics that we might flip from committee meeting to committee meeting as we did last year. We are committed to taking various aspects of this university – the committee looked at the social sciences last year in depth – and this year we are looking at physics in depth. One of the hallmarks of this university and a reputation that precedes us in terms of the excellent work we've done is in physics. Later Jerry will speak to that issue and some of the extraordinary things that are happening in this particular area of study. The committee will continue look at not only of the practicality of application of some of the research that happens here and but also the innovations that come from this university, but we have to relate that to funding and we're looking at both federal and state funding and so Mike Mann will have some comments. Finally, Dr. Anna Quider is reaching out to the committee by Skype and will have a presentation to talk about activities at the federal level. Printed information includes items on broadband and healthcare initiatives at NIU.

Information Item 7.a. –

Mike Mann thanked Chair Murer, members of the Board, and President Baker and began his report by saying today is day 58 of the budget impasse and the 99th General Assembly and Governor have still not finalized a comprehensive budget for fiscal year 2016. Unfortunately, there is little progress to report today. Despite the lack of a state budget, an estimated 90% of state spending is already underway when various budget approvals, court orders, statutory mandates, are considered. Specifically, this includes the budget for K-12 which has been approved for fiscal year 2016. But there are other items such as debt services payments that continue to go out. Pension payments are being made and although official state budgets aren't in place for state agencies, state employees continue to be paid.

With all of those things considered about 90% of the state budget is in play. Higher education however is one of the small remaining pieces that is part of the other 10% that is still not accounted for in this fiscal year. Earlier this week, Comptroller Munger announced that insufficient cash flow was preventing her from making some of the court ordered mandated payments. She also announced that if the state continues to spend on its current trajectory, the estimated and projected budget deficit will be in the range of four to five billion dollars by the end of the year. Later today you will hear more about the FY16 university budget and the FY2017 budget development process from Vice President Phillips. This particular item provides an update on the budget development process as we've gone throughout the year and also provides a few updates on some legislation that we've been tracking and that the university and our students remain interested in. Specifically, last week on August 19th the Illinois Senate approved Senate Bill 2043 which would provide \$373 million to the Monetary Award Program (MAP). At NIU this program helps and impacts almost 6,000 of our undergraduate students who receive about \$20 million from the MAP program. This bill was placed on first reading by the House earlier this week. Because of

the time it takes to wind its way through the House, this could take a couple of weeks before they may approve this legislation. The university is hopeful that House approves the MAP appropriation and hoping that the governor will sign it. Also, on August 19th, last week, the Senate voted to override the Governor's Veto of Senate Bill 1229. This legislation prevents the Governor from locking out state workers during contract negotiations and also prevents workers from going on strike. In addition, if either the state or union declares an impasse on labor and negotiations, the issue will be decided by binding arbitration. The House now has 15 days to either follow the Senate's lead and override the veto or take no action in which case the veto would stand. Another item is that on August 14th the Governor signed House Bill 3428 into law which amends the College and Career Success for All Students Act. Beginning with the year 2016-2017 academic year, scores of three, four and five on the College Board advanced placement exam will be accepted for credit to satisfy the requirements of public universities. He then asked if the previous score was four and above. Provost Freeman answered that previously it was variable by discipline to give the students what the discipline thought was the best foundation.

Mr. Mann continues, saying that initially this legislation was relatively harsh in its mandate. It was revised a couple of times, but now each institution shall determine for each test whether credit will be granted for electives, general education requirements or major requirements and the AP scores required to grant credit for those purposes. Finally, one bill that recently was introduced that we are going to track carefully is House Bill 4272. It was introduced in August and it doesn't apply to higher education. In fact it has language that guaranteed stability of funding to K-12 education. The piece of it that requires some careful consideration and monitoring, is the piece of legislation amends the Illinois Pension Code and it changes the funding goal from 90% to 100%, but it also shifts certain cost accruing after July 1, 2016 to employers. This bill is on first reading in the House. It has long been suspected that since the pension bill, Senate Bill 1, was struck down by the Supreme Court, that as new developing plans on pension solutions are discussed that a cost shift could occur for higher education as well as K-12. So this will be an interesting piece of legislation to keep an eye on.

Mr. Mann then directed the Trustees to table one in the handouts he provided the board. Starting at the far left when you look at NIU's original appropriation for FY2015 of \$93 million, that is where we started, last year, FY2015. This chart shows a walk-up of what happened in FY15. We suffered a 2.25 percent rescission, which reduced our appropriation to \$91 million. The Governor proposed a budget of \$63 million and the General Assembly then approved a budget of \$85 million for NIU. The governor vetoed that legislation and the general assembly did not take further action on that. So that budget is, as of right now, meaningless. When you look at the \$93 million for FY2015, in FY2002, our appropriation was \$118 million. So we have suffered a \$25 million decline in real dollar funding over that time period. So these draconian budget recommendations that we're facing this year are on top of 13 years of steady, serious decline in funding. He then asked if anyone wanted to raise any questions, and also noted that President Baker and he both have been extremely active in working with our various university groups and attending various meetings and subcommittee panel hearings and things like that. We had a meeting with the public university presidents and chancellors yesterday. Not a lot has been coming out of those meetings but they are trying to work with that group to come up with strategic ways to communicate with the leaders of the legislature and various policy makers to make the case for NIU and get something positive moving for higher education.

Trustee Boey asked for clarification that NIU is \$30 million dollars less right now when compared to 2015 and we don't know the status? Mr. Mann confirmed that at the governor's proposed level, it would be \$30 million less about 31.5 percent reduction. The next step was that the House and the Senate had a limited amount of time where they could attempt to override that veto and that did not happen so we're back at \$63 million. That's the only thing officially on the books as of right now which is the governor's proposed budget.

Dr. Baker commented on Mr. Mann's presentation, stating that Mike noted that we've dropped from \$118 million in 2002, so with inflation when you adjust that number to today at the \$93 million level, that's a 50% reduction in our purchasing power over that 12 year period. It's quite a different narrative than we hear in the public about universities being lush or fat cats or whatever. It's quite the opposite for all the

faculty and staff and students that are in this room or listening, clearly not the case. We've gone through tremendous budget reductions. We've gone through a lot of reorganization and a great deal of stress and strain to try and adapt to those and we're going through program prioritization and other budget reduction exercises. So in fact we have significantly less resources even when you add the tuition increases that were added in to offset that, we're still \$21 million dollars less than we were in 2002. We haven't used tuition to completely offset that. We've had to go through significant reductions. So it's the wrong narrative and it's disturbing that it's in the public. In fact it's not the case. This Board has done a great job the last two years holding tuition, room and board fees flat or declining this year so I thank the board for that. We're doing what we can to help the students maintain their affordability but it is putting a lot of strain on the budget that we're going to have to adapt to. We're trying to show the positive impact higher education can have. I've talked with the Secretary of Education, Purvis, about this recently and talked about the continuum from pre-K on through graduate education and career and how our P-20 network is trying to dovetail those pieces together and become a more efficient and effective system and she resonated with that and tomorrow I'm invited to the task force on the future of the workforce to be the luncheon speaker for them to talk about our innovative regional work in that regard. So I think there's a lot of interest in what we're doing and how we can be a solution and we have to show them we are the solution to many of the state's problems.

Wheeler Coleman asked Mr. Mann where he believes this budget situation is headed. Mr. Mann said he remains optimistic that we'll have a solution soon, but in Springfield any optimism is zapped by legislative staff and others down there who see no end in sight, literally. He continued, "We continue to receive a lot of legislative requests for information. Some of them are recycled. Some of them we've seen before. We dust off an e-mail from May and forward it on. But sometimes you can tell what's happening by the types of requests you're getting and now we are getting types of requests that are asking us to make comments, we're seeing the phrase "by the end of the year." So clearly the mentality is that, at least in Springfield in the minds of many, that there's nothing, there will be no solution found in the near term, which is not good news. Right now there doesn't seem to be a real clear pressure point on the General Assembly or Governor to get something done immediately, because K-12's budget has passed. Debt service payments are going out and state employees are being paid. Technically there's no budget in place, but things are kind of rolling along and we are very hopeful right now that the MAP budget will pass. We are crediting students' accounts. When the MAP issue came up in early August, we let folks know in Springfield that we felt very strongly about holding our students harmless during this budget impasse, our most vulnerable student population, and all of the universities are holding students harmless and crediting their accounts for the MAP awards even though at this time we are not sure when those payments will be received. Trustee Coleman, I'm not sure if I answered our question or not, but it's a grim situation and we're doing what we can to stay on top of it."

Vice President Phillips added that a lot of people don't understand that even though bills are being paid, they are still \$4 billion short. The money is going out at the same level as last year but it isn't there. There are enough funds to get them to about April and then the state will be out of money and won't be able to pay anything. I think the pain level is going to have to get more acute before they address the problem. When you talk about getting to the end of the calendar year, that's about a half year. Our concern is that the longer that it takes to reach a resolution and possible raise in taxes in terms of offsetting the shortfalls, you get half-way through the year and then you only have a half of a year that you can raise taxes without having to raise them very high, which means that they're about \$4 billion short. If they put something in place around the first of the year, even to offset the shortfalls, they're probably still going to be short about \$2 billion. Therefore, even with the tax increase we would still expect substantial cuts and that's across the board to everything. It sounds like they're paying all the bills, but the problem is they're still \$4 billion dollars short and they will run out of money well before the end of the fiscal year.

Trustee Coleman thanked Dr. Phillips for bringing up a great point. One of the issues that we have as an institution is if we don't receive funding once again we'll have a short time frame to make changes and it may put us in a radical situation where we have less time to make significant cuts. At some point, and maybe this is a budget discussion that we'll have a little later on, we're going to have to make some

decisions as well. Trustee Murer asked Mr. Mann if there is anyone, and if so, who is the champion of higher education in the legislature or are they none?

Mr. Mann replied that back in April or May the IBHE worked with the institutions and that there is a higher education caucus – a group of legislators that have come together. There are legislators that are supportive of higher education and there have been a couple of meetings of that caucus and where there have been discussions about, not only about support for higher education, but about the need for higher education to become more efficient and I think the entire session – starting about the time when the governor proposed a 31.5% cut – a lot of the focus has been on higher ed to become more efficient and so there is a group that is a champion of higher ed, but not much has come of it yet. Right now the budget debate is a legislative leader conflict between the House Speaker, the Senate president and the Governor. There aren't a lot of higher education champions. We have to champion for ourselves right.

Chair Murer thanked Mr. Mann and asked one last question of President Baker: When you look at the state universities and you look at a scale of vulnerability, are we pretty all much in the same situation or is someone worse than we are? Are we more vulnerable? What's your perspective on vulnerability? Because I see that the cut is pretty much across the board at everybody is getting the 8.6, but does that have a greater impact on one university over the other?

President Baker explained that a couple of the regional universities have already announced lay-offs and furloughs. NIU is not planning to do that in our current budget scenarios. There are definitely some that are significantly more vulnerable – size tends to give you pools of resources and so I would suspect the University of Illinois system has significantly more pooled resources to address the issue than any of the other schools.

Information Item 7.b. –

Dr. Jerry Blazey made a few comments to the chair before introducing the next speaker. "First of all, I'd like to thank you for hosting us earlier this week and encouraging us to work with the foundation to support research and innovation. Regarding our agenda today, one of the things we're working with in terms of the foundation is trying to learn how to take advantage of it to benefit our broadband and healthcare initiatives. Those initiatives are from the division of outreach, headed by Lisa K. Bergeron, who is sitting in the audience here. If the committee has any interest in getting some details, I hope Lisa will stay around and take their questions. Not only did it improve healthcare and offer opportunities in northern Illinois, it's something we might leverage and we're working with the foundation to do that. I'd like to start the rest of the talks by saying this is a good news story. I hope it will be a little bit more uplifting than what you just heard. With respect to federal relations and Dr. Quider you can see there in the lower right hand corner, we view this as in some sense the end of our support or the ultimate aspect of our support for the faculty and she'll talk about how we're trying to engage faculty and build our programs. Here at home our sponsored projects group is really supporting our researchers and you'll hear more about that. Finally we have a great example of the strength of our research program and Chairman Lurio from physics will be giving that presentation. And he'll be giving an overview and based on that overview we can decide where we want to take this in depth look into the physics department. So with that I'd like to turn it over to Dr. Quider.

Thank you for the opportunity to come and speak with you today, remarked Dr. Quider. To recap from last November's presentation, my overarching goal for the office of federal relations in Washington D.C. is to be a bridge between DeKalb's campus, NIU and Washington D.C. This year I'm proud to say that we've established a physical presence in Washington D.C., which is our NIU office – a five minute walk from the U.S. Capitol building. Our proactive federal engagement strategy revolves around four key areas; leadership, collaboration, relationships and communication. On the leadership front, we look to showcase NIU's strengths and build upon our existing credibility, authority, and trust within Washington D.C. circles. President Baker was invited with three of our regional partners to the White House for College Opportunity Day of Action in December of 2014, where he showcased our regional P-20 network, which was selected for participation in this conference because it is a national model of regional collaboration. We've also been developing an outstanding relationship with Representative Adam

Kinzinger, who represents the NIU in DeKalb and Rockford areas in Congress. He has become quite a vocal and positive advocate for Northern Illinois University and our priorities in Washington. In December of last year, he introduced a statement into the Congressional Record recognizing NIU's leadership on campus safety issues. Congressman Kinzinger was on campus earlier this month to visit with our NIU student Super Mileage team from the College of Engineering and Engineering Technology. He introduced a statement into the Congressional Record congratulating them on their success. We're working to build collaborations throughout Washington D.C. ecosystem and those collaborations will provide us with a platform for engaging more effectively in the national conversation on key issues for the NIU federal portfolio. They also provide us with the opportunity to build relationships with other like-minded organizations and our peer institutions throughout the state of Illinois as well as national higher education and science and private sector partners.

NIU along with four Illinois peer institutions, successfully nominated Senator Durbin for the Champion of Science Award. We were able to give him this award along with our peer institutions at the 1871 incubator space in Chicago, which highlighted NIU's commitment to innovation as well as recognizing the senator for his strong advocacy on behalf of NIU priorities. NIU has participated through its faculty in two congressional briefings, and leadership has co-signed over ten letters to Congress expressing the university's priorities in many of these federal areas. I believe that the relationships that we build can help us to get to taking advantage of those opportunities and really executing on our strategic goals as they come down the pike. Part of our cultivation of relationships is bringing members of congress and their staff to our campus. Since I entered NIU service last year, we've had eight campus events with members of congress or their staff. You can see the image on the slide in the upper left is Senator Durbin hosting a roundtable with President Baker and a number of students on the issue of student financial aid here at the NIU. We've also had a number of faculty visits and administrator visits to Washington D.C. Again, part of this reciprocity of engagement and so through these faculty visits we've brought faculty to visit with members of congress as well as a number of federal agencies and also national non-profit advisory board organizations such as the national academies. In fact you'll see there in the bottom right, there's a picture of President Baker, myself, and Congressman Kinzinger. This was taken in March when President Baker came out to work on appropriations advocacy for the university.

Dr. Quider continued, Congressman Kinzinger co-signed a letter to the House Appropriations Committee requesting robust funding for the Department of Energy's Office of Science, which is an integral funder of NIU's participation in the national labs and part of our physics enterprise. Lastly, on the relationship front, a strong part of NIU's engagement strategy for our Washington D.C. office is facilitating faculty service opportunities at the national level. Relationships that we are cultivating can lead to opportunities such as testifying before Congress or serving on federal advisory panels which not only raise the profile of the university and the individual researcher, but is an important part of a strong democracy and fostering a strong scientific and research enterprise. So finally, communications is key to keeping all the trains running on track together. And so I'm working across campus to present accurate, effective messaging to our campus community and then to hear the priorities of campus and make sure that I'm delivering those messages back to Washington D.C. in a timely, clear, and useful manner. This two-way communication is really essential to making sure that this outpost in Washington D.C. is functioning optimally for campus. One thing that I have started this year is a weekly federal relations newsletter for NIU senior leadership. This provides them with sort of the latest, the currents change regularly here in D.C. so it's the weekly state of play for the currents, often funding related, and then also opportunities for NIU to share our voice with national leaders on issues that are a priority for us.

Dr. Quider went on to discuss a D.C. visit from Professor Sciammarella, who participated in an activity through the science coalition which is one of the organization that we participate in. And through the Science Coalition, he wrote a blog post that focused on his research in additive manufacturing and you can see this is the screen shot of the blog posting here on the left. He wrote this blog post about additive manufacturing. That has received over 1000 views so far and the quality of his post as well as the interestingness of it, led him to be invited to participate in two congressional briefings on the importance of federal research investments for our nation. From there he also, while he was in town, visited with the Department of Commerce and the Department of Defense as well as congressional offices. In telling his

story to those agencies and discussing with them NIU's priorities in engineering and specifically in advanced and additive manufacturing, he was then invited to a conference by the US Navy to assist them with developing their fiscal year 2017 additive manufacturing research funding priorities. So that was an excellent experience where NIU is now contributing to the development of the funding opportunities as opposed to chasing after them once they've been announced. So I thought that was a really great way to show how our coalition participation and a focus on communications has led to potential positive outcomes on the funding side. NIU as an institution really focused on including students in everything that we do and so I'm working through the office of federal relations to incorporate student career success and activating the triangle of student, the university, and the community throughout our federal engagement. And so the RIPS is working to bring interns into all of our offices and to date, I have hosted two student interns and so you'll see here a picture on the left is my student intern Charles Moore standing with representative Davis from Illinois who he was able to have lunch with when Charles was visiting with me in Washington D.C. as part of his internship. Another strong example of our broadening of the student participation is last September I had the opportunity to attend a conference on connecting the physics community with the private sector in Brazil and I was able to bring four students with me, two from Physics and two from the College of Engineering and Engineering Technology. And so you'll see pictured there myself and the four students and then one of those students was, I was able to facilitate for him the opportunity to write about his experience in a nationally distributed magazine for physics undergraduate students. And finally, with my own background as a scientist, I think it's very important that our undergraduate science students learn more about how they can be engaged in the policy process and to that end I've led two summer workshops for up to 50 NIU students in the summers about science policy. So those are just some examples of how I'm trying to incorporate students into the federal advocacy effort. So finally looking forward, coming up in the queue, we have a few really exciting projects. The first is that we're working to develop what we're tentatively calling the Washington Fellow Program and this will be as Vice President Blazey mentioned, a capstone of our faculty development in RIPS. We'll be working with faculty to bring them to Washington D.C. to meet with federal agency officials both to learn more about the federal process and funding opportunities, but also to provide their expertise on shaping the direction of future funding calls throughout federal agencies. Of course while they're in town they would also meet with congressional representatives and other relevant federal officials. I'm also working with the honors programs, the NIU honors program director of scholarships, on facilitating student's participation in the national scholarship programs that are out there. Myself, as a recipient of three national scholarships as an undergrad, I feel very strongly about the importance of making sure that our students are being showcased in this way on the national and often international stage as much as I can. And certainly that would assist us with our federal advocacy efforts as well. On the federal agency front, one of the outcomes of Professor Sciammarella's visits while he was in town is that the National Institution of Standard and Technology, which is part of the Department of Commerce, is now interested in looking into hosting a workshop on advanced manufacturing at Northern Illinois University in the spring. This will be an excellent way of NIU demonstrating our national leadership on this important area of manufacturing. While I'm on at leave, Dr. Blazey will be handling my portfolio and working across RIPS with our colleagues to ensure that any holes are covered. I have been working with our federal officials both on the congressional and the agency side with our key contacts so that they understand the timeline of my absence as well as sort of the procedure for how to engage with NIU while I'm out. So thank you very much for the opportunity to speak with you today. I just wanted to end on this positive note, sorry Mike, but we have a good running head start to our federal engagement for the first year and I'm looking forward to continuing to work across campus and across the federal government on behalf of the NIU community. Dr. Quider closed by mentioning the upcoming STEMfest event on October 17th and how STEM education and STEM engagement has been a strong point of interest in Washington D.C. and in fact in the House of Representatives, there's a STEM education caucus co-chaired by Representatives Dan Lipinski and Randy Hultgren, both Illinois. We've been working with our colleagues in Outreach to identify key congressional members to invite to STEMfest and we've had interest from Representatives Tammy Duckworth, Randy Hultgren and Bill Foster to attend STEMfest. Unfortunately, Congressman Kinzinger is unavailable that day, so he has expressed interest in doing something written to recognize the importance of STEM education and NIU's commitment to an excelling in STEM engagement.

Chair Murer thanked Dr. Quider for her presentation.

Information Item 7.c. – (no presentation given)

Information Item 7.d. –

Dr. Blazey opened the next information item by introducing Dara Little, Assistant Vice President for Sponsored Programs Administration to give an overview of how we've done in FY15, a review of the success of the program, and some activities we've undertaken to improve research administration efficiency. Dr. Blazey credited Dara for being the inspiration and the driving force behind that.

Thank you for giving me the opportunity to address the board this morning and to present our FY15 sponsored funding report, said Ms. Little. She continued, "To give you some background since it is my first presentation to the board, I have been in research administration for over 15 years. Prior to joining NIU in 2005, I worked in the Central Sponsored Programs offices at the University of Minnesota and at the University of Illinois at Chicago. I received my MPA from NIU in 2013 with a focus on Public Management and my research was in the area of organizational change and work design. I'm also a certified research administrator. My talk this morning will include two parts. The first part will be an assessment of our FY15 funding activities, and secondly the things that we are doing in research administration to help facilitate external funding going forward. We finished FY15 just short of \$30 million in total external funding. The spike in 2014 was due to a large State of Illinois award to build a statewide technology platform for P-20 education. Excluding that award you can also see that we've held fairly steady since 2012, but you can also see that the makeup of our funding is shifting and that research is becoming a larger portion of our total sponsored funding portfolio. The composition in the shift is due to a number of factors. One factor is changes that we've made over the last year in sponsored programs to how we classify external funds. So as a result that did pull some projects that would have been reported previously under public service. Those projects are now being reported under research. An example is there's a long standing, a large award that NIU has to provide R&D consulting to small manufacturing firms. In previous years that award was identified under public service. That's now under research. Certainly there's many other efforts underway at the university to support research and to increase external funding. We're also seeing that faculty who were hired three or four years ago with clear expectations for funding, they're beginning to hit with the agencies. We're also seeing that early career investigators who have received support through the Division of Research through programs like the PI Academy, they're beginning to win their grants as well. And a final driving factor in the changing composition is that in the last few years we had a number of large one-time service projects, so things like broad band, electronic health records and specialized legal assistance. You can see here that the federal government continues to be our largest source of funding. I think that fact that our funding has remained steady over the last few years at a time when federal discretionary funding and R&D investments have been declining is pretty good. The Department of Education, the Department of Commerce, Department of Energy and National Science Foundation are our largest federal funders. Most of the state funding that's shown up here represents a large intergovernmental agreements that we have with different state agencies to carry out state mandated work. Some of these projects there for the provision of human services, large scale data collection efforts and P20 programs. Then the significant instruction, the red part of the bar, for the other sponsors represents internships, practicums, contract courses for public and private entities. So this slide is just a quick look at how this year's funding has been split out between the colleges and other university divisions. As you can see, the College of Liberal Arts and Sciences brought in almost half of the funding this year. The College of Health and Human Sciences share a funding increase from less than one percent last year to three percent this year. They brought in over \$600,000 in research awards this year. The College of Engineering and Engineering Technology and the College of Education are on par with 2014 levels. Facilities and administrative cost or overhead indirect costs cover the institutional expenses that are associated with carrying out our sponsored programs. It's important that we look at these because these costs not only support central facilities and administrative functions, but they can also provide seed funding for our research and faculty development programs that can lead to additional sponsored funding downstream. Our negotiated rate for research instruction that we negotiate with the federal government is 47% and that's that blue line up

at the top and our effective rate, our actual recovery rate is the red line and you can see that that's hovering right around 15%. The effective rate will always be lower than our negotiated rate because there are certain budget line items that were not allowed to calculate F&A cost done and there are just some sponsors who refuse to pay indirect costs or they prohibit and only reimburse at a lower rate, sometimes as low as five or eight percent. But you can see that from where we were at in 2012, we are doing a better job at recovering these costs. The spending patterns will mimic or the recovery patterns will mimic spending in any given year because again we only recover the indirect costs as our grant funds are spent out. So it really is important that we in administration also monitor grant expenditure rates. This is something that we're looking closely at in the Division of Research and we want to make sure that we're maximizing recovery without doing undue harm to our important sponsored programs.

Ms. Little continued with a mention of some notable accomplishments by NIU faculty. These accomplishments highlight the caliber of our research across our disciplines as well as the accomplishments of our departments and colleges in supporting research and sponsored funding. Dr. Wendy Bostwick in Nursing and Health Studies secured the National Institutes of Health's first grant ever to study a particular topic. Securing the NIH's first grant to study something is an accomplishment in and of itself, but she secured her grant on her first attempt and the institute that she received funding from has a success rate of about 19%. Dr. Joe Magliano received a five-year grant from the research arm of the Department of Education that will bring together a multi-disciplinary team of NIU and external partners. It's worth noting here that receiving this award required three proposal submissions and multiple negotiations and clarifications with the sponsor to finally get to an award. Dr. Magliano's ability to strategically navigate those conversations with his agency program officer really paid off. The success rate for that particular program is less than nine percent. And then finally, Dr. Mark Schuler received the National Science Foundation's most prestigious award, the Faculty Early Career Development Award, or the career award, that integrates outstanding research and education with the context of NIU. Funding rates for career awards range between ten and twenty percent. So I'm going to segue into the second part of my talk, but before I really get into the meat of it, I do want to talk briefly about the funding climate that research and sponsored programs is operating in. This is a diagram that sort of shows that there's a number of factors that are impacting sponsored funding and that at any given time these factors are overlapping with one another. So increasing administrative burden, a study by the federal demonstration partnership found that principle investigators spend at least 42% of their research time managing the administrative requirements of doing research. This is certainly a burden that we're seeing here at NIU amongst our investigators as well as our sponsored program staff. Fewer federal dollars and greater competition. Since 2010 federal R&D investments and discretionary funding have gone down. Success rates in recent years with federal agencies hover anywhere between ten and thirty percent. Put simply, there is less money to go around and there is more people fighting for it. New federal regulations, we're also in a very interesting time right now in that the last year the federal government completed a total overhaul of their grant regulations and they moved all of them under one set of rules called the uniform guidance. I assure you there's nothing uniform about them, but we are very committed to helping faculty and staff navigate these new rules, but the reality is that they're onerous and they do require a significant interpretation. And finally, we're seeing more complex proposals and awards. Agencies are funding projects that can find solutions to complex problems so we have more multi investigator projects. An unintended consequence of this team science is that it does place additional burdens on sponsored programs offices. The demands can increase significantly when we're partnering with industry or international partners who may not understand the federal funding system or have the infrastructure in place to manage those funds. So with the increase in administrative burden, coupled with competitive funding, competitive funding environment and shrinking university resources, we really needed to think differently about how sponsored programs supports external funding here at the university. On May 1st the Division of Research and Innovation Partnerships and the Division of Administration and Finance collaboratively announced the merger of NIU's two critical front line offices, the Office of Sponsored Projects and Grants Fiscal Administration to form Sponsored Programs Administration. Prior to the merger, Grants Fiscal Administration reported to the controller up to the vice president for administration and finance. The Office of Sponsored Projects reported up to the vice president for research. In Sponsored Programs functional areas are generally separated out by pre-award and post-award and so the Office of Sponsored Projects provided pre-award support to faculty here and

that is support up until an award is received. Where Grants Fiscal Administration is our post-award office providing support to faculty after an award has been received. The merger brings both of these areas of support under one unit. We're maintaining what's called a hybrid model so staff will retain their area of expertise in either pre and post award and both functional areas are overseen by an associate director. The associate directors are reporting up to me where I report up to the vice president for research and innovations partnerships and I have a dotted reporting line to the vice president for administration and finance. This is a fairly common shift and a lot of universities are beginning to structure their sponsored programs this way. In just the last year I have learned that Western Illinois, University of Chicago, and the University of Akron merged their offices. Three weeks ago my colleague at the Illinois Institute of Technology called me and said we're merging, please help. When you keep that 42% metric in mind, the long term goals of this merger are really to provide more convenient support for our faculty, both in managing and planning and managing their sponsored awards. We need to find ways to streamline grants administration, identify administrative efficiencies, and enhance compliance throughout that sponsored programs lifecycle. I really appreciate Dr. Blazey and Dr. Philips support thus far with the merger. I look forward to working with them in the future on how we can address these goals. I would also emphasize that these goals are guiding other areas within the Division of Research. Areas such as research compliance, to figure out how we can maintain the compliance that we need to maintain to do research, but to reduce that administrative burden. In four months, our pre- and post-award staff are now using one electronic system to internally track workloads and monitor activity between our areas. We've taken another step towards improving communications between these areas and we've leveraged existing software to enhance our post award operations. Second, we've reduced and obvious redundancy between our pre- and post-award areas. Before the merger, both pre- and post-awards sent out award notices to our investigators which as I understand caused a bit of confusion with them. Our new process now has us sending out one notice of award. And then finally to offer additional convenience to our faculty and our investigators, our research development specialists and grant administrators will begin holding open forums on a regular basis across campus for faculty to drop by and basically ask any question or talk about anything that they want with regard to external funding, whether it's about preparing a proposal or managing an award. I want to mention that the short term successes would not have been possible without the core leadership team in Sponsored Programs Administration. Kelly Dyslin, the associate director over pre-award is here, as is Craig Mulligan, associate director, who is overseeing day-to-day post-award operations and who have been instrumental in helping us to achieve these short term successes. They've done a lot of the hard work on the ground and really should be commended. In conclusion, funding is holding steady but the composition of our funding is changing. Support for research and sponsored funding is a shared responsibility across many university units. That support needs to be investigator focused and compliance centric. The Division of Research and Innovation Partnerships and Sponsored Programs Administration within it, is invested in identifying ways to reduce the administrative burden to increase research productivity. Chair Murer thanked Ms. Little and asked for questions.

Trustee Marshall inquired if in the two areas of pre- and post-award if there are opportunities, even though people will still be dealing primarily with their areas of expertise, to do cross training? Ms. Little answered that this is something that we will be looking at in the long term. Right now the two areas are pretty specialized and for a number of reasons and that's important, but yes we do see opportunities for cross training.

Chair Murer commented on the efforts of the team at cost containment through greater efficiencies but what we really need to continue to emphasize is research as the essence of who NIU is as an institution. We are a research institution and one of the things that we excel in at NIU is the opportunity that we give undergraduates to perform research projects, and as Dr. Blazey has indicated to me, that has impact on retention and on student success and on their response to the benefits of NIU on both the short term and long term basis. Research isn't just about funding but it's a critical aspect, it is also who we are and what we do, and so the diversity of what we do is really important and I think that we knew as we were moving into this and that's why Dr. Quider became an important hire, is that we were moving from a political orientation to really a programmatic orientation through agencies as opposed to Congress with earmarks disappearing and discretionary funds disappearing. So this is a new dimension for us and we

thank you very much for all your efforts.

Information Item 7.e. –

Chair Murer continued with the next information item by describing how she and Dr. Freeman wanted to work on looking at different areas of research at NIU. The committee spent a great deal of time last year on the Center for the Study of Family Violence and Sexual Assault. This year the committee will continue with an orientation to the Department of Physics. Dr. Laurence Lurio, chair of the department, brought comments to orient the board to some of the new opportunities and successes that this department is bringing to the university.

Dr. Lurio thanked the board for giving him the opportunity to talk about the physics department research and started with an overview of the research program in the department. The research in the department focuses mainly in three areas. First, condensed matter physics, which is the study of the physics of materials and liquids and solids and things. We looked at particle beams and we looked at high energy physics and the particle beams program and high energy physics program are very closely tied because obviously you use high energy particle beams to study high energy physics. A unique aspect of the physics program is that we've very closely tied our research program with the research programs at the two near national laboratories with are Argon National Lab and Fermi Lab. In fact, of the 24 faculty we have in physics, seven of them hold joint appointments with one of the two national laboratories. The annual funding for the research program typically fluctuates around \$2 million. The current year funding was about \$2.3 million and we're actually expecting significant increase for the next fiscal year's funding. The research in physics is also focused in two centers: the Institute for Nano Science and Engineering Technology, which is a center focused on the study of materials, and in particular, the unique aspects of materials which occur when they are at very small sizes down to two tens of atoms. I had a conversation in the car this morning with our person who teaches our nano science course who said, 'Nano science is like if you take a piece of copper and you cut it in half, it's still a piece of copper, but if you keep repeating that longer and longer, eventually it doesn't act like copper.' That is the interesting physics that we're trying to study at the center for nano science. The second center is the Northern Illinois Center for Accelerator and Detector Development (NICADD). That center coordinates activities for high energy physics and for the development of accelerators to support high energy physics and development of detectors to support high energy physics. Some of those technologies we're using to broaden out and to look at industrial applications so that the technology used for sort of the esoteric hydro-physics applications actually has a lot of interesting practical applications as well.

Dr. Lurio continued, saying the physics research program fits into the university's mission statement because it blends both research and education, especially with these partnerships in the national laboratories because they have beautiful equipment there but they don't have students and so by partnering with them they have access to our students. Those students can not only help do the research at these national laboratories, but some of the technologies and training that they need to support those laboratories into the future are very specialized and by partnering with the university they can insure that the next generation of people is there to keep those technologies and preserve them for the future. The Chicago region has two of the nation's only 17 national laboratories. This puts us in a great position if we leverage our high tech concentration of national laboratories with the university's position in this region, we can really use that to great a national and international profile and I'll actually show how we've done that as we go on. So I thought I'd talk a little bit about the highlights from the three different areas. The condensed meta-physics program I would say we have faculty who work in three different areas of developing the materials. We have some faculty who actually work on synthesizing new materials with unique properties and I'll talk about two of those examples there, but in addition to creating something you have to figure out what it is and so this requires faculty who specialize in characterization and one of the most unique aspects in the Chicago area is we have a x-ray source called the advanced photon source which is more powerful as an x-ray source than let's say the x-rays in your dentist's office by about a billion times. This allows us to do amazing things in terms of characterizing materials and then once you know what you've got you've got to make sense of it all and

we also have theoretical materials physicist who will then sort of close that circle and between these three groups we can really get a good understanding of what new materials are and where to point to in the future and so two really exciting results in the past year, Professor Xiao who is also joint with Argonne National Laboratory has been studying a phenomena called giant magneto resistance. Now that may seem a bit obscure but for example the material that exhibit giant magneto resistance are used in the very tip of the head that reads the hard drives on the computers. If those materials are improved we can spin those hard drives faster and ready your hard disk faster. And so if you're sitting there frustrated waiting for something to happen on the computer, realize that if you can improve a giant magneto resistance you can actually speed that process up. Dr. Xiao's insight was working with a group at Argonne when they discovered a new way to view the mechanism of how resistance has changed by magnetic fields. This will provide a new theoretical foundation of how to improve these kinds of materials. Another insight came out of Dr. Dabrowski's work - I should say that both Dabrowski and Xiao are Presidential Research Professors – in that he has been looking at materials which exhibit a phenomenon called super conductivity and those are materials that when you put electric current through them no energy is lost as heat. So these materials are phenomenally useful in principle but the trouble is they have to be cooled to very low temperatures. In the late 1980's it was discovered that you could make materials that almost went to room temperature, but not quite. You could make them superconductors at liquid nitrogen temperatures, and people have been trying to understand how that happened, and there is still no known mechanism for this and so it was found that you could actually – he found insight on to how these things work and if this could happen you could make all sorts of interesting electrical appliances that use high currents and don't lose any energy.

The high energy physics program is centered at Fermi National Laboratory but in addition we've also begun a program that has started doing some work at the high energy accelerator in Switzerland, and so the work at Fermi Lab has now focused on using the original accelerator that previously had the highest energy beam to provide very high intensity beams and that allows us to look at very subtle phenomenon that deviate from expected models of physics and the picture you see on the right is actually a giant magnet that was moved from the national laboratory in Long Island, Brookhaven National Laboratory, to Fermi lab so that they could take advantage of Fermi Lab's higher flux to look for some subtle changes to the properties of an elementary particle called a muon. We have two new faculty we just hired in the past year in Physics; Vishnu Zutshi and Jahred Adelman. Vishnu is working on experiments tied to FermiLab and Adelman is working on experiments that are going to be occurring at the large collider in Geneva, Switzerland. In their first year as NIU faculty they've already acquired over one million dollars in external funding to support these two projects. In terms of beams physics research, the president has just started a new initiative to pursue joint research in particle beams with Fermi Lab. We've hired a very prestigious faculty member, Swapan Chattopadhyay, who was formerly the director of the Cockcroft Institute in England for particle accelerators. He has in the past year acquired a base grant to support all of our faculty in this area with a \$600,000 support. So I would say of our three new faculty that we've hired in high energy physics and beams, we've probably doubled the already significant research profile in that area.

I want to conclude with a lot of this work is basic research, but in fact we have also been doing applied research. There as a research program started as part of an initiative that NIU was going to go into a proton therapy and one thing that came out of that was the idea to design an imaging system that used protons. That's a great idea and protons are particularly good at delivering the energy where you want them instead of just throughout the whole body. That only works if you can accurately place things where you want it. So you can have pinpoint precision, but if it's the wrong place it still doesn't help and so an imaging system is just as important as a delivery system. What we've been using is a system that uses protons themselves to image the body and by doing that the alignment errors between the imaging technique and the treatment technique become significantly reduced. This can then maybe, you know right now I think radiation treatments has about a 70% success rate, I don't know if anyone really knows if that 30% is due to the fact that you don't put enough radiation or that it doesn't work. It could go significantly better if these kinds of technologies really make a difference. And so I think I could go on, so here's a – we commissioned this detector in the last year. A graph on the right sort of shows that what we expected we got and I think the most interesting slide is the next one as you can see that we actually

took a phantom head and you can image it with protons and you get a very beautiful image. This is not a real head but a plastic head that's designed to look like a real head. It has a skull like object. The funny hollow bit is where we put film to calibrate the dosimetry. I have to tell this story is that I didn't know much about this project about two years ago when the phantom head arrived from the manufacturer and it happened to arrive on Halloween day. There's this box phantom head, but it turned out that this was kind of working well and I should also give credit to the – it's not just a physics issue, the computer science department has done a tremendous job of taking the algorithms to reduce the particles information to an actual image that previously took a few hours which would make it impractical for imaging to I think less than six minutes. Finally, Dr. Lurio said, I want to summarize that we have faculty from physics in three major areas; condensed matter physics, high energy physics, and beams. We have had three hires in the recent year and I have to say that I have never seen a situation where three new hires have all achieved funding at over \$500,000 a year each, which is just a phenomenal level of funding and success. I'm really impressed with these new people. We have recently completed another high profile hire; a particle beams physicist from Michigan State University. Thank you.

Chair Murer thanked Dr. Lurio and continued by stating that the high energy physics group, which was originally started by Jerry Blazey and Dave Hedin, has done a tremendous job of trying to cultivate the next generation of scientists. We have some very good senior scientist in that program, but not all good senior scientists take responsibility for looking out for the next generation and these guys have done a great job of doing that. I really credit the senior people who created NICADD, who got it going, who have really been looking out for the future, and have made sure that we have brought new people in who are going to be of excellent quality.

OTHER MATTERS

Chair Murer asked the Board if there were other matters for discussion. Trustee Butler commented, thanking Trustee Murer for maintaining the integrity of the committee's agenda. This was an outstanding meeting and I think it really shows the value of putting together the subject matter that we have as a board in this particular committee and I want to commend the chairman of the Department of Physics for an excellent presentation. I have a funny feeling that it's not entirely common for the chair of a department to have as much intimate knowledge of the research of his or her faculty colleagues as you do and I'll leave here today really understanding in a very clear way what your department is doing. Jerry Blazey also mentioned the PCT is a joint program between physics and computer science and much of the intellectual advance in that program came out of computer science and then went on to recognize Nick Karonis, the chair of the computer science department who led that part of the effort.

NEXT MEETING DATE

The next meeting date of the LARI Committee will be Thursday, November 12 at 9:00 a.m.

ADJOURNMENT

Chair Murer asked for a motion to adjourn. Trustee Boey made a motion and was seconded by Trustee Strauss. The meeting adjourned at 12:13 p.m.

Respectfully submitted,

Cathy Craddock
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.