Duke University

Arts & Sciences Council Minutes: 2011-12

Meeting #3 (11/10/11)

Council Chair Ruth Day called the meeting to order. Approval of the minutes was unanimous.

Updates & Information

ECASC Election

--The two open positions on the Executive Committee of the A&S Council (ECASC) have been filled.
--William Seaman (Art, Art History, & Visual Students) has been elected to represent the Humanities.
--Charles Becker (Economics) has been elected to represent the Social Sciences.
--The complete ECASC roster is:

On the Horizon

--Discussion of the A&S Budget at December meeting
--"Institute Day" coming soon

Dean's Updates

Laurie Patton
Dean, Arts & Sciences

--Updates from "4-month old dean"

Dean's Lunches with Faculty

--Time for "intellectual repose"
--Informal form for engagement & connections
--Completed so far – 4 lunches, 48 faculty (7%); will include all 650 faculty … eventually

Interdisciplinary Leadership Initiatives (A&S)

--Invitation to join
--All Divisional Deans open for conversation, looking for ways to help faculty
--Excitement across the University about how A&S is leading on this

1) Computational Initiatives *(Natural Sciences)*
--Based on Big Questions such as:
--How does complex social behavior merge from simple interactions?
--What makes a van Gogh a van Gogh?
--How do Duke students navigate our curriculum, or any study navigate any curriculum?

2) Lives in Time & Place *(Social Sciences & Human Development)*
--Based on Big Questions such as:
--What are the impacts of childhood adversity in later well-being?
--What are the short and long term impacts of disasters on the course of lives?
--What are advantaged and disadvantaged pathways to retirement?

3) Humanities Writ Large *(Humanitites)*
--Based on Big Questions such as:
--How do humans survive and thrive in the wake of collective trauma?
--How do humans exist in and across boundaries?

Other Updates

--Meetings with Departments begun; how does each lead in A&S in the 21st century?

--Fundraising visits begun (across the US)

--Women in Science: first meeting

--Office of News & Communications meetings:
--new hires in Humanities and in Social Sciences
--new Associate Dean of Communications

--ID Barriers Committee: planning leadership

--The University course: pedagogical leadership

--Chair's workshops

--Faculty hiring considerations
--searches allocated for renewal across departments
--department strategic development
--opportunities to advance rankings
--respond to serious teaching needs
--continue pending searches from 10-11
--interdepartmental hires & interdisciplinary hires that advance big research questions of departments
--diversity is a priority for all searches
--need to create pipelines
--can you fill department needs across department boundaries and/or with expertise in Asia?

Everyday Life Concerns

--Faculty are experiencing disconnect with:
--"effort certification" procedures
--entertainment restrictions
--bureaucratic requirements in creating new positions
--How can we help individual departments raise funds?

Open Fora for Faculty *(coming soon)*

Likely topics include:
--Technology & the Classroom
-Global Education
--New Paths for Creating & Sustaning Diversity
--Language Pedagogy
RULES for Fora: come with insight into the nature of the problem AND with a solution

And GREAT NEWS

--Annual giving is up 44% from this time last year
--A little over $8M in October 2010
--Now $12M in October 2011

Looking forward to more

--Please don't be a stranger

Reminder about research

--A&S Council Committee on Faculty Research
--funds increased this year by $40K
--Allocation of funds & governance up to A&S Council
--Divisional Deans have more discretionary power for Conference Funds (see new form)
--Initiated hard conversation about distribution of individual research accounts

Q&A for Dean Patton

Randy Matory (Cultural Anthropology):
--Asked about university courses, hiring priorities, hiring underrepresented minorities in science

Dean Patton
--Key issue in hiring in the sciences is pipeline
--Want to create an assistant-associate focuses as well as post-docs and even grad students for developing the pipeline
--Want to create a winnable agenda and for me, that is to develop the pipeline as much as we can and go for the doable in terms of diversity immediately. So that's number one.
--Remember my mantra, leadership not ownership – how do we lead from A&S? People are stepping up in amazing ways to do that. And that includes a University Course on an issue of common concern.

Today's Meeting

Faculty Research: External Funding

Re-Introducing the Office of Research Support (ORS)

Keith Hurka-Owen
Director, Office of Research Support

Note: *Keith Hurka-Owen's slides are provided on the A&S Council website (http://trinity.duke.edu/arts-sciences-council/agendas).*

First, thank you Ruth for having me today. I've worked with a lot of you over the years, I know your names but not your faces but I thought I'd take an opportunity to reintroduce you to the Office. To touch on 4 things briefly to remind you of who we are and what we do. I want to look at the Funding Opportunities group, particularly the institutionally limited options we manage and briefly give you an idea of Arts & Sciences in terms of the funding situation and point out some recent developments – one that developed over the summer and one that's coming up in a couple of weeks. Make sure you've got them on your radar.

The Office of Research Support (ORS) reports to Jim Siedow (the Vice Provost of Research) along with the three other offices: the Office of Export Controls, Office of Postdoctoral Services, and the Office of Research Support. We basically have 4 functions: we house the IRB for the social sciences, we have an office for grants, contracts and compliance, and if you're submitting proposals, they go through our office for review and approval. If awards come through, we're negotiating them, setting them up eventually. I'll give you contact information to show you how to find out who your contact in ORS is. We also house the funding opportunities group. We have two FTEs that we'll take a closer look at in a second. For the fourth function, I don't have a good description of this. It's policy development and support. We'll convene meetings, set up committees and you have the wonderful summer salary proposal we've issued which really comes out of this type of function.

For the funding opportunities group – we do grant deadlines. We have a funding opportunities webpage, you can search on it. It is available to all Duke faculty, grad students, post-doc and staff. We publish a funding alert newsletter – you can subscribe to this. We issue it every Monday. It's divided up by discipline. So you can quickly scroll down, click on the discipline and you'll get the most recent funding opportunities that have been posted. We did have a question whether or not people actually use the newsletter – we have about 3,000 subscribers. We were able to run some numbers on it and in about an 8-month period, we had about 150,000 people click on one of the links in the news letter and the group that clicked the most were the Arts and the Humanities. They even beat out the School of Medicine. They're looking – there's not much out there for them, but they're looking. But if you don't get [the newsletter], you can subscribe at our website.

For outreach activities, Alicia and Anastasia will come to your office and your department to help groups locate funding opportunities. We can do hands-on workshops on how to use the community of sciences database. It's a bit of a misnomer because it's a humanities foundations grant. We can target groups, if you want us to come out and give a presentation and a workshop for graduate students, post-docs and (another thought we have, but we're not currently doing it) undergraduates. They can get permission to use these resources too and if you know you have undergrads that are going to graduate school next year – you know they're applying and you're writing the recommendation letter. You might want to give us a call and they can start looking for funding their junior or senior year, instead of doing it in their first year of graduate school.

Institutionally-limited nomination is sort of one of the tasks that we've been asked to manage for the entire university. We also cover the School of Medicine and the School of Nursing and their proposals. The sponsor has a limited the number of proposals that an institution can submit and so they posted a solicitation somewhere and they said you're limited to one proposal. So we manage the process to determine which Duke proposal gets submitted. We developed an online system – if you go to our website and click on "institutionally limited nominations" you can see all the current open and closed competitions and you can see who won the competition. So you can search for your competition on this page. When you click on that link, if you're applying to the Duke competition, you can hit the applicant login with your NetID and password. We ask for a brief summary, a CV. And then we close the competition, we pull together a review committee and they logon to the same website and they can see all the applications, review their application and score them. And if we need to convene a meeting of faculty, they can come to our room, we'll sit them down and they can determine which proposal has the best chance of going forward.

Points to think about. The consequences for non-compliance are pretty brutal. We had a competition a couple of years ago – it was a big T32 grant – and we could submit one. The campus held the competition and we submitted our proposal and the School of Medicine submitted a proposal for the same competition – both were rejected out of hand. We repealed and we got rejected. So the consequences are real if we can't manage it, there's a pretty good chance that all our applications will be rejected. I would like to point out that there are more open competitions than applications. These are great opportunities for people if you have a match. They're limiting the competition, not open to anybody. We're losing these things with 0 applications. We send a list to the chair of your department, and if it's not filtering down, you might want to ask about it. You too can sign up for the list, it's just a listserve. We post these as they come out; if you're interested we will add your name to the list.

The faculty review committees. Everybody is busy, we understand that. But if you get a phone call from us, I hope you will consider participating on a review committee. It doesn't take too much time and it does serve a pretty good function. We try to match faculty who are knowledgeable in the area of the solicitation so we're not going to ask people to review stuff that's just way outside of your expertise.

So what's the funding look like in Arts & Sciences? Just over the last 3 years, the blue line represents the cost of recoveries and the red line the F&A recoveries. We are going up, looks good in Arts & Sciences. It doesn't mean that it's going to continue to go up. I don't know if you've been listening to our folks in the government, the writing is on the wall and it looks like there will be a decrease in research funding in the years to come, so we can expect things to get a lot more competitive. Probably not going to go up and up and up. But we'll see what happens.

In Arts & Sciences, no surprise – the largest majority comes from the Federal Government, 80%. Biggest funders, no real surprise there, NSF, NIH are pretty active.

Couple of these slides I'm just including for informational purposes – grants vs. contracts. [The numbers here] do mean something – restricted codes, the sponsors in the middle, the activity type. This is a restricted project from the National Science Foundation. [Here is] the link to the financial services page, if you're really interested in that. I've also included a cut-and-paste if you want to familiarize yourself with the activities and the sponsor numbers.

Last thing I want to touch on are couple of developments in the grants administration world. Many of you have probably have heard of the Sponsor Project System (SPS). Many of you have never used it or seen it. Mostly the grant managers are working in SPS; they're entering in the budget and using it to enter in the proposals and all that fun stuff. Faculty haven't been big users of that and they haven't been accessing it for several reasons. Not a lack of interest. What's been underway in the past several months is the migration of SPS from desktop based system to being on the web. In December, this will go live. It will be a read-only access at first but then we will build in the capability to make revisions as we move along. But in December, if you're working on proposals and want to see what's going on in SPS, what the grant managers are entering, etc, you'll be able to log on to My Research and see that through Duke@work and see the proposal as it develops. So that's right around the corner.

We're still trying to perfect SPS on the web. We've been using it for several months now. Using it to post awards for faculty and grant managers. New capability built in very recently is "contract tracking mechanism." We try to be transparent, but we're also a bit of a black box. Something comes into the office and we don't know where it is and where it's gone or who's doing what with it. As we receive contracts now, associated with proposals, we'll be able to create a contract history, where you'll be able to track your contract as it works through the offices for review. If it needs to go to risk management, insurance and indemnity clauses, we'll make a note of it here and it'll say when we sent it and who we sent it to and who's actually managing the data and the negotiations of the contact. You'll know whom to call. This is accessible through My Research today.

Go to our website, http://www.ors.duke.edu. If you want to know who your point of contact is or anything pre-award or post-award, click on the compliance group, it'll pull up schools and departments. Click on your department and it will identify who you need to call. Here is Chemistry, and it's Carolina Angel in our office along with Michelle. We have phone numbers and email addresses for immediate contact.

Inter-/Multidisciplinary Retrospective

Jim Siedow
Vice Provost for Research

Note: *Jim Siedow's slides are provided on the A&S Council website (http://trinity.duke.edu/arts-sciences-council/agendas).*

It's a pleasure to be here. I must say until about 10 minutes ago, I thought I knew what I was going to tell you we were measuring, but since we're redefining interdisciplinarity almost by the minute, I'm not sure what we measure but I'll tell you what the data are and you can figure out exactly what that means.

This came about in the middle of the summer when Susan Roth and Peter Lange and I had some conversation and our staff. I wanted to know how we keep saying we're doing well in interdisciplinarity or multi-disciplinary research but do we really know how well we're doing? So we started to look at our research productivity. This, by the way, I should point out, is just done for campus so the medical school is not a part of this but on the other hand, to try to look at interdisciplinarity at large, we had to sort of include all of campus so interactions between A&S and the outside would be picked up in that regard because that represents a lot of what's happening here.

So this isn't perfect. The numbers I'm going to show you are surrogates for inter and multi-disciplinarity and in the end, we're really looking at collaborative research and you'll see the numbers are by and large pretty good. But I have to give a little bit of a warning that it's not necessarily always exactly what I'm saying it is. Because we don't know exactly what it is.
The first one, though, is simple. The question was how many proposals are being submitted and awards received when it's just a single faculty investigator versus more than one? So this is clearly collaborative research of any type. So if you go back to 2002, we're basically about six times as many individual investigators proposals as there were proposals that have more than one either PI or Co-PI or key personnel. But any proposal that has more than one regular rank faculty member on it in will get counted as multi-faculty proposal. And what you can see here is, that this was a fairly low number about 9 years ago but it's grown fairly considerably over time and you can compare the growth with the individual faculty award. So while we're still by and large far and away submitting individual proposals, we've now gone from a 6 fold differential to a 3 fold differential. So there's clearly been a fair amount of growth in this area. I'll give you some percentages in a second.

What's really interesting, though, if you look not at the number of proposals but the dollars requested, the multi-investigator proposals have caught up. It's also interesting even though with the individual investigator proposals, the number has grown – the amount of money being asked for individual investigators runs somewhere just north of 300,000 dollars on average. It hasn't really grown much over time, but clearly the multi-investigator proposals, you ask for more money than an individual investigator. But the two numbers are more or less the same right now in terms of what's being asked for. If you look at percentages again, this just sort of quantifies what you saw on the graph. For single PIs, the number of proposals has grown at the rate of about 2.5% a year, but the dollars asked for has not grown much at all. Whereas, with the multiple PIs, you can see the number of proposals have gone up about 10% a year and the dollars requested has jumped even further at 17% a year.

I'm not going to show you the data because of time constraints but we've also looked at awards and you can see similar, not quite as extreme, results – the number of single PI awards has gone up a little over 3% a year, as have the dollars. For the multiple PIs, the number and the dollars awarded have gone up at considerably a higher rate. As we push our interdisciplinarity efforts, you'd expect collaborative interactions would be part of that but I wasn't aware of Ruth Day's "individual interdisciplinarians," so we're missing them in this. But nevertheless, I think these data speak to the fact that Duke faculty have responded to the notion of being more collaborative as we move forward.

Steve Nowicki (Dean of Undergraduate Education): Just a quick clarification. You're counting the single PI data – how would it count towards a collaborative proposal with PIs from two different institutions?

Jim Siedow: that would have been a single PI. We were just looking at Duke faculty interacting with Duke faculty. It's a good point though. So again, we're under-counting in that regard, too.

Another way of looking at the potential of interdisciplinarity is to look at how when we look at Duke faculty, how many are from different groupings, if you will, and so what we've got here on the lower blue line is basically more than one faculty, where they cross schools or if they're within A&S, different divisions. So for example, if you have 2 people who have linked up – one from Pratt, one from A&S – they would be here. If you have someone from Political Science and English, they would also be here. If you had 2 people from Political Science, but as Susan Roth pointed out when we did this, we can still have 2 people from political science and being interdisciplinary in their approach. So the higher line, just 2 separate departments. It doesn't make any difference where they're from and they would show up on this one.

Susan Roth (Vice Provost for Interdisciplinary Studies) So the blue line is that they have to be in different divisions. And the red, they're in the same division but they have to be in different departments.

Jim Siedow: Correct. Again, I won't give you all the data but clearly there's been a high growth in both the number of proposals and awards. What these data basically show us is that over the past 9 years, we've had pretty robust growth in terms of the kinds of proposals that we tend to think about and we link up with interdisciplinary research.

Now, one other point that I want to get across here, and it's one of the things that we're looking toward in the future and I'd be interested in anyone's thoughts and comments. We took a look at success rates and one of the things we've found – I'm just using federal proposals here, I have the data for all proposals but it basically looks the same. What you see here, the blue bars represent the single investigator proposals. The red, green and purple represent the multi-investigator falling into the various categories that I've talked about earlier. The thing you can notice is that all Duke faculty are doing really well terms of being funded in general (in the 40+% for individual investigators), but the thing that really surprised us was that these multi-disciplinary, multi-investigator awards have uniformly have been funded at a lower rate than the individual proposals. I'm not sure that I know the exact reason for that. One reason could be that the competition is a bit steeper when we have multi-investigator, interdisciplinary proposals but I'm not entirely sure that it's true. It's tough enough to get a proposal funded through the normal channels even as an individual investigator. You'll notice that in these 2 years, multiple investigator proposals seem to have caught up a bit and that probably is due to the fact that these 2 years were when the stimulus funding was basically being applied for and those proposals were being funded at a much higher rate so we're not convinced that this represents a long-term trend.

So the question really does come up – why are these proposals not being funded at the same rate as the individual investigator proposals? Any of you that are involved in multi-investigator and interdisciplinary projects know that getting – particularly when you get beyond two investigators – people together, getting proposals put together is not trivial. These proposals can be often times complex, relative to a simple R-01. And I think we're coming around to the fact that this is probably research development in terms of helping people put together complex proposals is a research development group. It's probably a really good idea and we've seen data at NC State where multi-investigator proposals that have gone through their development group versus ones that haven't are funded at a much higher rate and so we're actually doing that now. The Social Sciences Research Institute (SSRI) has a development group in the economics department. We're beginning to look into the use of these groups and it can't hurt in putting the proposals together but will it help in increasing the seemingly lower success rate with those proposals? Again, there's other issues associated with the data that are kind of interesting but I thought what I'd do today is to show you some of the primary data and simply point out again, on the whole, what we see is that there's a real robust movement in the direction of collaborative, multi-, inter-disciplinary research on the part of Duke campus faculty. And I'd be happy to answer any questions.

Ruth Day: Can a subset of your slides be put on the web? We'll post them and that'll answer a lot of questions.

Laurie Patton: Just want to say thank you for this presentation. I want to remind everyone here that parts of the budget that I have a control over at all are the annual fund and F&A's. The more we can get people sending out proposals of whatever kind, the better off we are going to be. It's an obvious thing to say but it bears repeating again and again. And what happens, I remember when I was a faculty member, I always felt like I was being encouraged to do all these grants but where was the support for it? Sometimes it was there, and sometimes it wasn't. So the more we can get a wide base of support across the divisions for these development groups who manage social sciences and sciences, the better off we'll be.

Faculty Research: Internal Funding

Committee on Faculty Research: News

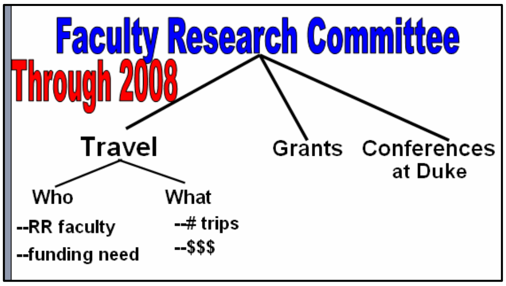
Ruth Day (Council Chair)

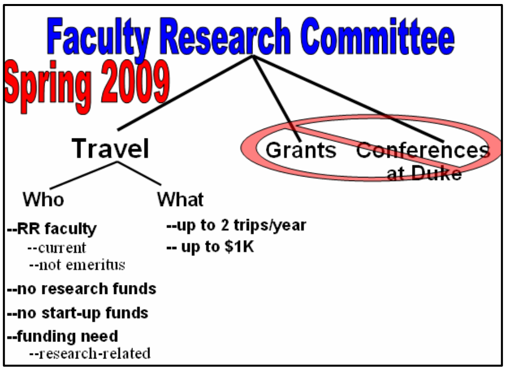
According to the Council bylaws, the Committee on Faculty Research oversees three types of funding programs:

It shall
a) Administer & allocate funds
by awarding grants for
--research
--conferences hosted at Duke
--conference travel expenses

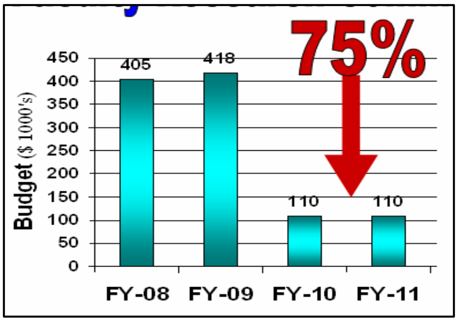
b) Address larger issues of research

Recently, funding for two of the programs was eliminated and more restrictions were applied to the remaining program:





Funding for the Committee dropped:



Concerned about faculty governance issues in these changes, the Council passed a resolution (11/11/10):

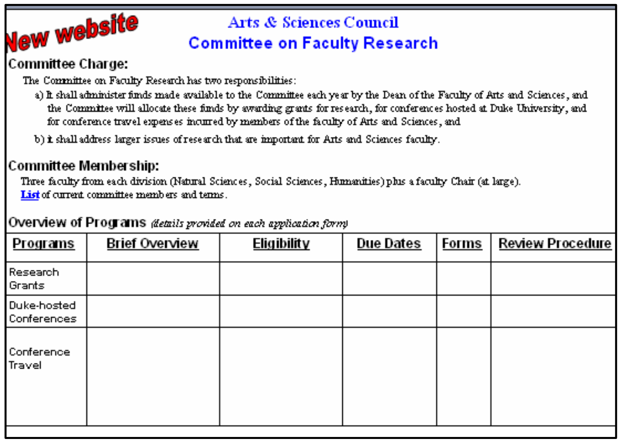
RESOLVED, that the budget for the Arts and Sciences Committee on Faculty Research be restored to support the critical role of faculty research in the overall mission of the university, and be it further

RESOLVED, that the budget be increased, to assist faculty in obtaining outside funding, and be it further

RESOLVED, that the Executive Committee of the Arts and Sciences Council be consulted if budget restriction is considered in the future.

In spring 2011, the grant program was reopened, but without any additional funding.

Although these various changes were announced on the Committee website, the situation was confusing – many faculty thought that there were no funds at all, even though some funds were still available. We have redesigned the website with a permanent template showing all three grant programs, with details to be filled in for each fiscal year:


New website

Arts & Sciences Council
Committee on Faculty Research

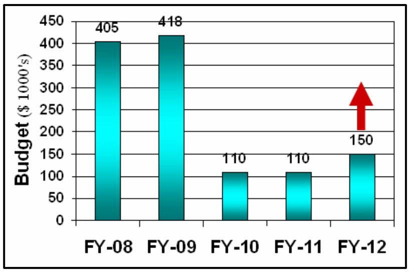
Committee Charge:
The Committee on Faculty Research has two responsibilities:
a) It shall administer funds made available to the Committee each year by the Dean of the Faculty of Arts and Sciences, and the Committee will allocate these funds by awarding grants for research, for conferences hosted at Duke University, and for conference travel expenses incurred by members of the faculty of Arts and Sciences, and
b) it shall address larger issues of research that are important for Arts and Sciences faculty.

Committee Membership:
Three faculty from each division (Natural Sciences, Social Sciences, Humanities) plus a faculty Chair (at large).
List of current committee members and terms.

Overview of Programs *(details provided on each application form)*

Programs	Brief Overview	Eligibility	Due Dates	Forms	Review Procedure
Research Grants					
Duke-hosted Conferences					
Conference Travel					

In fall 2012, Dean Patton added funds. The Committee and ECASC decided to allocate them to the research grant program:



The faculty, through the Council, are now functionally responsible for allocation of Committee funds.

Committee on Faculty Research: Dean's Perspective

Laurie Patton (Dean of A&S)

Just to talk a little bit, I've had some wonderful hours with Ruth discussing all of this and the great thing about being new, is that I get the history and you can kind of push the reset button. So we want to push the reset button and begin – again, I didn't consult the faculty like Sandy Connelly about putting money back into the account. I'm hoping that's okay. We're going to try to push on that upward trajectory as much as we can. Faculty governance is really big value for me for any number of reasons, so we'd like to have the allocation of those funds be up to the A&S Council Committee, as much as is possible. We'd like to have the governance of the funds be up to the A&S Council Committee. I think that was the original intention of the Committee. So whatever misunderstandings have been in the past, here we are.

Couple of things I want to let you know about, is that we've given the divisional deans more discretionary power over conference funds. Two of them are here. So that a lot of times, there are these brilliant minds in the room in A&S, and it seems sometimes we're spending a lot of time on small things and I'd much rather power the divisional deans to make those adjudications themselves, particularly around conference funding. Local Duke conference funding have given them the discretionary power for those exceptionally large cases.

We've also developed with Sandy Connelly a new form, so that when you do apply through the divisional deans, we need to ask you first if you have your own research account, your own start-up account, and if you've gone to the A&S Council so that we're clear that there's a process that's been followed. We know how to be fair to funding folks who may not have access to other funds so we can prioritize them in the spirit of fairness. And that form is ready and available. We've already started using that as a process. We're very excited about it.

My number one priority is to get all these funds into the hands of faculty as soon as possible so we can just go and work as usual.

The final thing I want to say is that we have started the very hard conversation of looking across the arts and sciences about who has individual research accounts and why, so we can make it a little bit fairer for everybody for different ranks. So we are going to be looking at that and we will get back to you this year about that. It's really important that we get this money into your hands.

Leslie Digby (Evolutionary Anthropology): I had one of those faculty members who was convinced that she was being turned down for travel funds. So the research funds and the start-up funds: this is money from Duke that you're talking about. This faculty member that I'm talking about has NSF funds, and apparently was turned down for travel because she had money for research and she said she didn't include travel funds as part of her NSF and Duke was turning her down for that.

Ruth Day: We'll be discussing these things at another Council meeting soon. I also wanted to thank Scott DeMarchi who's been the chair for the Faculty Research, Committee, struggling through these lean years and helping us through the transition. We'll be making some new appointments to the committee and getting that going again soon.

Interdisciplinary Initiatives

Susan Roth (Vice Provost for Interdisciplinary Studies)

Ruth thought we would give a quick overview of the funds that are available from my office and the seven institutes. Hallie Knuffman who put this all together will take you through that and then if you want to go down to the sources of funding, down to the individual institutes, there may be an opportunity to bring down some of the folks from the institutes.

Hallie Knuffman (Administrative Manager for Interdisciplinary Programs)

Hello. Thanks to Ruth and the Council for inviting us today. I just wanted to take this opportunity to talk through with you and make sure that you are aware of internal funding opportunities and interdisciplinary initiatives that are coming both through our office (which is the office of the Vice Provost for Interdisciplinary Studies) and also through the UIC – institutes and centers that we work very closely with.

So first to talk about the initiatives through our office. So this is the PFIRST – Problem Focused Interdisciplinary Research Scholarship Team. So this is an annual call, the average award is 30,000 dollars. We did this call for the first time last year and awarded five projects in Spring 2011. This took place of the Provost Common Fund, which many of you have been familiar with. So this is the new version of that. So the PFIRST are funds that support faculty collaborations and address societal issues from multiple perspectives. So that, in some ways, is a common theme you'll see in a lot of these opportunities offered. So these funds are out now, so I can link you to it in the links and other information that I give to Ruth to give to y'all. Proposals are due January 9. So that comes out in early fall and the proposals are due in January and funding is awarded in the spring. So these are the five PFIRST projects we awarded last year. The first one is – some of you may be familiar with it - the Cookstoves Project, the next one is Understanding when to use Climate Change for Resources in Ethiopia, the third is Regulation led by Ed Balleisen in history and connected with the Kenan Institute. The fourth one is a PTSD project in the Haiti Humanities Lab, looking at post-earthquake Haiti and looking at cross-cultural constructions of that diagnosis. Faculty in the School of Medicine and Fuqua, looking at persuading pregnant women to abstain from drinking alcohol. So that'll give you an idea of the breadth and some of the diversity in the collaborations coming through that.

So next we'll talk about the funding opportunities in the UIC but first I want to talk to you about who and what the UICs are. So the University Institutes and Centers: 7 university institutes (DIBS, SSRI, IGSP, Nicholas Institute, Global Health, Kenan, Franklin Humanities Institute and there are a host of Centers that are within those institutes and a couple of centers that are now across those institutes. So this is the group that I'm going to be talking about. And so there are 3 categories of funding that are offered in the institutes since a part of the requests for today was to cover not only the opportunities but the types of opportunities that the institutes offer.

So first type is Seed Pilot Funding. These are larger (relatively speaking) awards, usually $25-30,000. Some are larger as listed in the details. These are usually given 1-3 years and often tied to areas of strategic priority - these are just some examples of specific institute offerings. So again we will give all the links to Ruth and you can of course just go to our website – http://www.interdisciplinary.duke.edu and find these opportunities. There's a research section on the website and faculty collaborations and opportunities. So the Nicholas Institute has $25,000 seed funds and Kenan Institute has faculty grants – that call changes each year but they offer one every year. The most recent one was on public ethics. Global Health has pilot grants – they're offered for 2 years at a time. The FHI has humanities labs so those are based on the $50,000 annually, anywhere from 1-3 years, but that's also an annual call. And then the DIBS incubator award which go up to a $150,000 but then they have smaller versions at $25,000. Then we have smaller grants, relatively speaking. These are often for travel and workshops and another piece is that sometimes these are the initial awards within the institute that will kick start a collaboration that will then be eligible for the larger opportunities at a later time. So Global Health travel grants, FHI interdisciplinary working groups, and DIBS has their transcending boundaries workshops. And again, when there are not dollar amounts listed, it is variable, depends on what the group is asking for. They have faculty working groups. These are often not regular calls, these are as opportunities arise in the planning of the institute; they're often tied to strategic priorities in the institute. So the regularity and the amount vary but this will give you a sense that each institute has opportunities as faculty groups to get together. They can approach the institutes.

To return to the Nicholas Institute, they have 4 working faculty groups right now. Kenan welcomes proposals in their 3 primary areas of focus. DIBS has research groups and the same thing with SSRI and IGSP. And then other opportunities that did not fit neatly into the 4 categories. FHI has some book manuscript workshops and their completion fellowships. Several of the institutes offer RAs to help facilitate faculty research. And then the last one about external funding opportunities – that relates back to what Jim was talking about – with research development, that as opportunities arise, the institutes are in good place to help bring the faculty together around a particular area and conversely the institutes are looking for opportunities based on the faculty groups and interests that they see. So in addition to all the internal opportunities, there are also ways to be involved with institutes with external funding opportunities. And I will share all the links and contact information for the institutes as well.

Ruth Day: Thank you. Let me just ask the audience -- how many of you have seen at least one type of initiative that you didn't know about before? *[Hands were raised]* That's just about everybody in the room. This is a remarkable array of funding opportunities, both internally and externally.

Quantitative Sciences (QS) Proposal: Overview, Options, Data

Ruth Day (Council Chair)

Last time, we began discussing the Quantitative Sciences (QS) report. Since then, there has been a deluge of reactions – discussions in departments, emails and phone calls to the Council, etc. We might call it "QS Immerse" for its intensity and duration. Reactions have been all over the map:

Some faculty are very concerned, while others are thinking it through, or wondering what it is all about, or are happy with the proposal. Still others don't care much about the issues involved.

Usually we present a report and discuss it; then discuss and vote at the next meeting. However, given the considerable interest in this proposal and the effects it would have on man departments and programs, we will not vote today. We will take as long as need to discuss and reflect on the proposal as is needed.

Keep in mind the QS Committee charge:

1. Define quantitative literacy
--enable students to achieve specific learning objectives

2. Is the current requirement working?
--students achieve designated learning objectives

3. If not
--propose an alternative

4. Develop
--methods for standardizing
the assessment of learning outcomes

Here is a brief "snapshot" of the proposal:

Must complete:
--2 QS courses
--1 one of these
--in the Mathematics, Statistics, or Computer Science department
--at or above the level of math 25L, Statistics 101 or Computer Science 6.

Courses satisfying QS:
--in any discipline
--primary focus:
quantitative problem solving or modeling

Data Updates

We have obtained some additional data, based on questions and requests at the last Council meeting, e.g.,

--The percentage of Trinity students who took no courses in math, computer science, or statistics was 4.1 and 4.8 in the last two graduating classes.

--The top 20 course combinations that students used to fulfill the QS requirement were mostly math, statistics, and economics.

--The top courses taken by students in the natural sciences, social sciences, and humanities varied somewhat, but raised no concerns.

Sample Issues

Sample issues raised about the proposal include:
--its rigor
--QS across disciplines
--effects of the proposed requirements on enrollments
--why focus on QS?
--why not review other codes?
--do we have "Code Creep" (increase in the number of codes per course over time)
--why not review other codes?
--"best plan" for QS? (there might not be any)
--maybe vote separately on the requirement (number and which courses) from the learning objectives?

Lee Baker: So another way of saying that is that 95% students are fulfilling it the way that it's supposed. So they're taking one or the other.

Ruth Day: So they're not avoiding these departments.

David Malone: And I think, correct me if I'm wrong, within that percentage, some of those students might be taking economics courses and a prerequisite that they've already had.

Ruth Day: That's a good point. So they may be fulfilling it with something else, but they already have a prerequisite in math.

QS Response: Duke Student Government

Kaveh Danesh (DSG Vice President for Academic Affairs)

I'll start off by saying I thought it'd be weird to be a student talking in a room full of professors and I can verify that hypothesis now. I guess now that I'm here to talk about QS. I lead a group of 10 student representatives who represent the student body with respect to issues of academic interests and so I gathered this group and we talked about the new QS proposal and discussed it. And I just want to share briefly with you some of the comments that came forth. They're briefly talked about as well in the hand-out that you all have.

So the first thing is that there was general approval. I expected a lot of the members would think that it would be too overbearing to have one of these courses come from one of the three departments. But people were generally supportive, understanding and you know the purposes of a liberal arts education is to have people branch out and I guess we saw today that not many people are branching out in the first place, so, that's the first issue.

Second issue is that I personally think that an effort to change the curriculum should be coupled with an equally vigorous effort to make sure that the courses that are being offered are appropriate. I think that those courses should unveil the quantitative issues folded into everyday life. So to give an example, I took a course my first year and it was a great course. I very clearly remember the professor talking about heart attacks – this was a math class. And he told us how for some reason a right heart-attack is much more dangerous than a left heart-attack and it results in much more fatal consequences and very elegantly, he showed how this problem can be broken down into a mathematical one and showed us how to solve it and how to retranslate that into a biological issue. So, again, I just wanted to share that to give you an idea of the things we thought would be important.

Third and last, we also expressed concern about the fact that the lower level QS courses might get really big enrollments and we want to make sure that the quality of learning isn't compromised. One way that came forth was to leverage some of the new teaching techniques that for instance are going on in chemistry is to have students work together in small groups in class to really have people discuss and work on problems actively because that's the only way we learn how to problem solve. I think that's generally the sentiment that came forth.

Ron Grunwald (Biology): So the first set of observations are essentially referring courses that are analogous to what the natural science departments do, like natural science for non-majors courses and that meets a lot of demand from students in the humanities. I just want to be clear – was that explicitly the model what you were thinking of?

Kaveh Danesh: It doesn't necessarily have to be for non-major courses. It can just be any course that seeks to motivate through a broad array of examples while also giving some of the theoretic background, so not necessarily the non-majors course.

QS Response: Department of Statistical Science

Dalene Stangl (Assoc.Chair)

Mine Cetinkaya-Rundel
Kari Lock-Morgan

We've really taken the hard approach to the statement: "come with a solution." So I want to preface this all with "that's what we're doing." Again I want to thank the committee for all their hard work – I know it was hours and hours that they put in to come up with something that they thought would work. I think the proposal – what I really like about it – it's very clear in terms of showing that they understand a quote that I'm going to show here and I believe it's at the top of your hand out too. This quote is attributed to several people…. "Statistical thinking will one day be as necessary for efficient citizenship as ability to read and write." One of the ways in which that it is demonstrated – if you look at the AP exam over the last 10 years, across the board, the number of AP exams have doubled and in Statistics, it has quadrupled. The demand has just outpaced almost every other area.

When I first looked at the proposal and read it through, I thought about a whole host of questions that came up but we didn't get to them last time and we may not get to see them today. But I gave them to the committee and I'll just read them to you:

We wanted to know how the proposal ensured quantitative literacy required for students to understand basic quantitative data analysis. How did it ensure depth versus redundancy. How did it use faculty resources efficiently and without redundancy across many disciplines. How did it impact enrollment in Math, Computer Science and Statistics and are these departments in favor? How could it help develop and rehearse students' abilities to transfer quantitative results without using specific discipline jargon and methods that impede interdisciplinary collaboration? And how would students from all disciplines communicate with mathematicians, computer scientists and statisticians so that seeking quantitative experts when needed is routine?

After coming up with those questions, I thought – it's really odd that we're asking them to answer these questions so we turned it around and said what can our department do to make sure that these things happen? We've got a small department which can offer about 35-45 courses per year. How those resources are distributed are about a third-third-third in terms of about a third go to non-majors which we teach about 900 a year. About a third go to our undergrad majors and minors – there's about 200 students enrolled in those courses and about 200 students in our graduate courses. The bulk of our undergrad non-majors were taught by a team of post-docs who were on one or two year contracts so I was forever recruiting and training, recruiting and training and we were always on the steep part of our learning curve. It was exhausting to say the least. Now, what we've done is that we've hired a team of professors hired to practice specifically because of their commitment to undergraduate education and they're going to walk you through one of the things that we've been thinking about to advance the statistics education in a way that would meet all the criteria for the QS proposals.

Mine Cetinkaya-Rundel (Statistical Science)

So I'll quickly introduce it and Kari will talk about its implementation. So basically, our goal is to revamp the non-calculus based Statistics introductory courses within the confines of our current courses and basically what we're thinking of is coming up with 3 tracks that are based on both proficiency of the student and their comfort with quantitative reasoning needed in these

interdisciplinary fashion. We're calling them a smorgasbord of applications for two reasons: one, we love saying smorgasbord out loud – so we've found out over the last couple of weeks – and also and more importantly, because we're truly devoted to exploring research questions, data analysis and examples from all areas of knowledge, schools and disciplines that are listed on the hand-out that you have. And basically we want to split the students into these 3 tracks within the confines of our resources and also because what Dalene was saying with the AP Statistics that students are coming into our classes with varying degrees of exposure to Statistics and one of the comments earlier from Kaveh was that we don't want these courses to be diluted so much if they're going to grow and one way to handle that is to make sure that within a course, within a track, students have similar levels of comfortableness with quantitative reasoning and similar previous exposure to statistics.

So with the first level, students maybe are taking slower stuff toward data analysis for the first couple of weeks and in the advanced track, students are able to get their hands dirty with data analysis from week one, and do a little bit of computation. So nobody's lost along the way and the courses aren't diluted. Obviously the courses are going to vary in terms of breadth and depth of the techniques and the pace but the overall goal is that students coming out of these courses are all comfortable with exploratory analysis and statistical inference and statistical thinking and also modeling.

The idea is to keep the same interdisciplinary examples across all tracks but at different degrees of detail. So I think that this way, students are going to be able to see the relevancy of what we're doing to everyday problems and all tracks maybe using slightly different methodology. And our goal is to teach these basic concepts in a way that they take the concepts with them and are able to generalize these methods across many disciplines and fields. Our hope is that if we were to put this into place, students take these classes early and often but maybe take one of them early and basically sample the taste of this smorgasbord and help students decide what their academic interests are and we believe it might actually help them choose what major they want to pursue as well.

Kari Lock-Morgan
(Statistical Science)

We're all thinking very hard about how to make these courses the best they can be statistically and pedagogically. We also want to make them the best they can be interdisciplinarily, or if Dean Patton comes up with a better word, whatever that word is.

So we want to get all of you involved. We're going to be hosting an educational summit in the Spring that's going to convey to you what we're doing in Stat and what we think is important. And we also want to engage in a dialogue with all of you about what you think is important and how we can best make this course really be an interdisciplinary experience. We're also going to ask all of the departments – and anyone is welcome to contribute – to give us data sets, examples and ways that data analysis is used in your field and we'll incorporate that into the course and let students do that. So this is a way for you to ensure that students are able to analyze the types of data you want them to but also a way for all of you to showcase your field or show what research or applications you have in your field. So especially if students are taking this early, it's a way to advertise to the students about your field and show them what they might like.

Ruth Day: This is a surprise to me, I knew that the Statistics department was exercised about the proposal from the QS committee but I had no idea that they were going to come in with a proposal within their own department and bring it here today.

Dalene Stangl: We wanted to come up with something regardless of what the Council proposed.

Ruth Day: That's wonderful, that shows great flexibility and creativity and working with whatever's going to happen. Thank you so much.

Comment from the Math Department

Ruth Day: I wanted to just recognize the math department and computer science if they'd like to say anything today. The math department has been quite quiet. There have been many emails from us to them and so on. Clark, would you like to comment informally?

Clark Bray (Department of Mathematics)
I talked to a few people in the math department and I think most of us are generally approving of the proposal.

I want to make a quick observation about the one course requirement – that one course should come from what either Math, Computer Science or Statistics – and that's based on the observation that there is a different disciplinary approach in those departments and there's value in that difference. In particular, I'd like to observe that I'd looked at these departments to see how many courses are listed with the area of knowledge other than QS and the number is very low. There's the occasionally 49S, there are a couple of courses in CS and I think Stat that had 0 as I recall. And what I think this points to is that there is a very significantly different disciplinary style in these departments and I just wanted to offer that in support of that clause.

Comment from Computer Science

Carlo Tomasi (Chair, Department of Computer Science). Very briefly, I'm the chair of the department. Thanks first of all for letting us do this and giving us the time to consider it and thanks to the committee for looking at a very important problem and to the students to came up with a very thoughtful document about that.

We didn't come up with an amendment because we didn't have data and we are a quantitative department. We like to make our decisions based on data and I really appreciate today seeing some data for the first time. What that data seem to suggest though is that there isn't really a problem that needs to be fixed and it seems that students who want to benefit from a quantitative approach can do so now and will be able to do so with the new proposal. Students who game the system now can game it later because there will be loopholes in either proposal that they can always exploit. So frankly, at this point, even the current proposal will be better because it's shorter and it lends itself to fewer opportunities for gaming.

I just want to mention that we have no interest in forcing students to take courses that they don't want to take and we are very open to reviewing current labels…. I'd be very happy to work with the course committee if the proposal passes and if it doesn't pass and we stick with the current requirements, I'd like to ask my own curriculum committee to review all our labels and make sure that they are still appropriate.

Ruth Day: That's one good thing that's coming out of all of this. Whether the proposal passes or not, it may be time to review course codes. And perhaps not only for QS but the others as well.

Close of Meeting

Professor Day thanked everyone and the meeting was adjourned.

Respectfully submitted,

Donald J. Fluke
Executive Secretary