

Minutes*

**Senate Research Committee
Monday, September 21, 2009
2:15 - 4:00
238A Morrill Hall**

- Present: Melissa Anderson (chair), Linda Bearinger, Tom Hays, Seung-Ho Joo, Frances Lawrenz, Jennifer Linde, John Sullivan, Lynn Zentner
- Absent: Saif Benjaafar, Arlene Carney, Paula Chesley, Paul Cleary, Jerry Cohen, Leslie Delserone, Donald Dengel, Robin Dittman, Genevieve Escure, Maria Gini, Kelsea Hildenbrand, Toni Leeth, Timothy Mulcahy, Mark Paller, Federico Ponce de Leon, Karen Williams
- Guests: Dean Meredith McQuaid (Office of International Programs), Donald Amundson, Mark Bohnhorst (both Office of the General Counsel), Moira Keane (Research Subjects Protection Program); Michelle Chin-Purcell (Office of the Vice President for Research); Associate Vice President Pamela Webb (Sponsored Projects Administration)
- Other: none

[In these minutes: (1) international issues in research; (2) NSF responsible-conduct-of-research-training requirement]

1. International Issues in Research

Professor Anderson convened the meeting at 2:20 and welcomed the several guests to discuss international issues. She turned to Dean McQuaid to discuss international research collaboration.

Dean McQuaid began by noting that international programs involving faculty, students, and staff today extend across administrative and academic units, so there is considerable potential risk and liability.

Ms. Keane provided some background information. The University must follow federal regulations in the use of research subjects; the Food and Drug Administration and the OHRP (which stands for Office for Human Research Protection) in the Department of Health and Human Services, have jurisdiction over the code of federal regulations the University is expected to follow—and they apply to international research as well. The rules apply, but certain requirements can be interpreted by a local IRB to meet cultural standards. The federal regulations apply when the research is federally-funded; when it is not, it is possible to avoid some bureaucratic requirements, but the University still follows the standards. Student research usually has no external funding and is not administered through Sponsored Projects Administration, so is under the SPA radar.

There is an initiative underway to interpret cultural and international requirements, Ms. Keane reported. OHRP has on the web the requirements for 92 countries and there are resources available to

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help faculty and students doing international research. She said the IRB would like to have an expert opinion on what is culturally appropriate.

Professor Bearinger commented that since the U.S. federal code drew from the Nuremberg Code and the Helsinki agreement, it is odd that University research overseas that is not federally funded would not need to follow the rules. Ms. Keane said the code of ethics is the same but some regulations could be different. Professor Bearinger observed that student research that involves human subjects must be approved by the IRB regardless of funding; is that not true for overseas student research? It must still receive IRB approval, Ms. Keane said, but some of the regulations can change. It is possible to be more permissive in the mechanics if there is no federal funding involved, but not in the principles. Some requirements in other countries are MORE restrictive, and University researchers (students or faculty) must be sensitive to them.

Who helps faculty wade through the requirements of 92 countries, Professor Anderson asked? Her office helps, Ms. Keane responded, and identifies resources, but they want to become more expert on the topic so they can provide more assistance to faculty. The onus is also on the faculty, Professor Bearinger maintained; if faculty are doing research in another country, it is their responsibility to find the local codes and learn the culture—and if they do not, they should not be doing research in that setting. Ms. Keane agreed but said they encounter undergraduate and graduate students who want to do research in their home country or on a study-abroad project, and students will not be as well-educated about the rules as the faculty can be.

Dean McQuaid noted that she had joined the Committee last spring to introduce the range of risk and liability associated with international travel and research, and at that time shared some recent "bad news" stories. Today she wanted to provide an update on the Office of International Programs (OIP) efforts to inform and engage the University community about international risk and liability as well as University resources available to students, faculty, and staff.

She created the position of "Health, Safety, Compliance Coordinator" in OIP last September, in order to begin to get an overview of what the University had and what it lacked in terms of knowledge and resources. Stacey Tsantir has spent the last thirteen months assessing the situation and meeting with a wide range of faculty and staff across all five campuses to address concerns, collect information, and create policy. Both she and Ms. Tsantir have spent a great deal of time discussing these ideas with peers at universities large and small across the U.S., Dean McQuaid related. Every college and university is dealing with these same concerns. Some handle some of the risks and potential liabilities better than the University does; few of them have as comprehensive an approach to resolving the concerns as the University of Minnesota does.

Even so, Dean McQuaid commented, it is more clear today than it was a year ago when she created this position, or even six months ago when she last met with the Committee, that the University is still in the evaluative and experimental phase of how to best serve the institution, as well as its faculty and staff, in terms of international risk and liability.

Dean McQuaid provided a brief overview of how OIP, through Ms. Tsantir's office, has been spending its time and resources in an effort to understand what the University has and what it lacks in terms of international risk and liability responses:

- Review of insurance coverage for students, faculty and staff while traveling abroad for University work/business and time spent educating and informing those in the academic units best positioned to inform others;
- Development of University-wide emergency plans and responses both at home and abroad to address issues related to a pandemic, or a bombing, or the need for an emergency evacuation;
- Explore what would be included in a University website for travelers in terms of resources, links, and information on health, safety, and welfare. A committee has been formed to examine what it is faculty (particularly) would need when planning a trip to a place they might not ever have been. Included on that committee are representatives from the Office of the General Counsel, the Carlson School, the Academic Health Center, and Boynton's Travel Clinic;
- Exploration of how to engage more effectively with SPA and other funders of international travel and research by faculty in ways that broaden OIP's awareness of where people are/what they are doing, and there could be a change in the PRF to include a question if international travel is anticipated as part of the research, in which case OIP would be informed so that it could offer help;
- Working with OIT to begin a pilot on this idea of checking out "scrubbed" laptops when traveling internationally in order to avoid running afoul of national regulations that prohibit importation of laptops with encryption software. There may be a pilot with CSOM and one other college [subsequent to the meeting, Dean McQuaid amplified on this issue: "most countries in the world do not allow encryption software on computers imported into their country; sometimes that is carried over to not allowing computers which also have any encrypted documents as well. We encourage faculty/staff to travel with 'scrubbed' laptops, that is, laptops that have only word-processing functions and internet access in order to avoid this issue. Because the University requires encryption software (for valid reasons), this puts faculty in a bit of a predicament. OIT is experimenting with a couple of colleges in creating a stable of clean/scrubbed laptops that can be checked out by faculty/staff traveling overseas"];
- Discussing with Education Abroad Suspension Committee (EASC) members the role of EASC, its purview, policies and process. Currently, EASC is set up to respond to student travel to countries with a U.S. State Department warning; how can it be a resource for faculty? How to respond to crises in situations in countries without travel warnings?;
- Working with the Office of the General Counsel to standardize the language and extent of international agreements (Memoranda of Understanding and Memoranda of Agreement as well as student-exchange agreements) so that there is more consistency in our international efforts. Beyond the templates, the General Counsel's office and OIP (Ms. Tsantir) have made themselves available to units large and small across the University to then tailor the general language;
- Ms. Tsantir is a member of a University-wide committee on international employment, which is an area in which the University has simply not been engaged. This group, chaired by Susan Rafferty in Human Resources, is looking at everything from tax implications and worker's comp issues to visa issues, etc. This concerns University employees abroad, regardless of the nationality of the employee; and

- Case-by-case crisis intervention as students become ill, injured, are attacked, get arrested, lost, or homesick abroad.

The biggest challenge is not finding those with the interest and concern to address these issues, but the way to implement policy decisions and communicate them broadly across the University, Dean McQuaid told the Committee. She is in meetings similar to this one every time she is asked, and Ms. Tsantir is always looking to build alliances and make connections in an effort to ensure that the faculty are able to conduct the research they need to conduct, to lead global seminars where they want to lead them, and in general promote the work and reputation of this University all over the world.

Professor Anderson said that one of the most troublesome problems the University faces is bringing scholars to the United States; they regularly face visa problems. Dean McQuaid said there is an office to deal with the problems that is part of effective lobbying on the subject. It is a concern across the country. The State Department is aware it is a problem. OIP would like to know more about individual cases, she said, and they are happy to write on behalf of individual scholars. Professor Anderson asked if OIP has heard about possible changes under the Obama administration; they have not, Dean McQuaid said.

Mr. Bohnhorst next reminded the Committee that he works with it on openness in research, sponsor requests to limit publication, and limitations on participants in research based on national origin (which University policy prohibits). A concern with respect to the last issue is that if the research work is subject to export controls, and prohibited foreign nationals work on the research, there can be deemed export, which can lead to researchers being accused of a crime. A faculty member in Tennessee was recently sentenced to four years in prison for violating export control law. There is an education effort in place because the University does not want its faculty and staff to get in trouble, and he has spoken with Mss. Zentner and Chin-Purcell about upgrading it. If someone has a problem, the Office of the General Counsel is the first line of defense for him or her.

The University has done a good job of keeping restrictions out of its research contracts and staying on the open side, Mr. Bohnhorst reported, and the University has not developed as robust a compliance function in this area as universities that accept restricted research have put in place.

Mr. Bohnhorst listed several areas of concern related to international research.

- If someone takes a laptop or flash drive or something similar with confidential information on it, it could be stolen, or the contents could be stolen and the individual does not even know it, or it could be seized when the person returns to the U.S. The release of confidential information could cause a lot of trouble and could be a tragedy for someone's career. If one carries any export-controlled information abroad, one is deemed to have exported it and could be subject to criminal penalties.
- One may need a license from the State Department to bring equipment overseas, and the equipment could be export-controlled.
- There are boycotts and sanctions against Sudan, North Korea, Cuba, etc., so there are limits on what one can do to support individuals in those countries.

There is a range of national-security concerns, Mr. Bohnhorst concluded, and development of a more robust website for international programs will be an opportunity to provide more robust information to University researchers.

Dr. Lawrenz said that an individual would know whether he or she had something confidential on a computer. Mr. Bohnhorst agreed that would be true in most cases but said the concern is about researchers who do not know (e.g., that an equipment component useful for ocean research can also be useful to develop missiles). So one could buy and use the equipment here but not export it, Dr. Lawrenz said. Mr. Bohnhorst said that is correct, as long as the researcher is not using confidential information about the equipment; the confidential information raises the "deemed export" problem even within the U.S. People often also overlook the "deemed export" rule when they share information with a foreign scholar, Dean McQuaid said. The same thing is true about sharing information with a foreign graduate student, Mr. Bohnhorst said, even if the student won't be leaving the U.S. for a couple of years.

The main export-control problem in company-sponsored research is confidential information, Mr. Bohnhorst went on to say. But the broad question, the main criterion for flagging an export-control issue, is the potential military application of information. Information can be military, which is controlled by the State Department, or it can be dual-use, in which case it is controlled through the Commerce Department. Professor Anderson asked what other information is export-controlled besides that related to the military. In addition to the strictly military information, the dual-use information covers a wide range of technology, Mr. Bohnhorst said, and there are over 125 pages of items identified as dual use, including such things as high-end circuits. The information can be found in the federal regulations. [Commerce Control List (CCL), 15 CFR 774, Parts 0 through 9, available at http://www.gpo.gov/bis/ear/ear_data.html]

Professor Bearinger said the University has a large number of foreign students and wondered how people learn about these rules. Must they go to the web? Read memos? She expressed concern about how far the information has spread and suggested they may need to use others methods. Dean McQuaid agreed. She said there is an OIP council, with representatives from all colleges who are expected to disseminate information. She also attends the meeting of the Council of Research Associate Deans. That lack of information is one reason she would like to see the PRF changed; it is a constant struggle, because this is information people really need but it is dull stuff—except that it is not dull when someone gets arrested. Professor Bearinger suggested that the travel request form, like the REPA form is being adapted, could be another way to communicate with people; the travel approval form could provide links to the information and trigger people to look at it. Dean McQuaid agreed and said she has spoken to Vice President Mulcahy about the REPA.

Professor Bearinger inquired if there is a way to identify countries in which one should have a "scrubbed" laptop. There is a link to the list, Ms. Tsantir reported, and it changes all the time. Dean McQuaid said she would encourage everyone to assume they cannot have encryption software on their computers, because it is hard for people when they lose their laptops. It may also be possible to link to University databases, Ms. Tsantir added, so that one can do work but not download anything. (Many people may not even know if they have encryption on their laptops, Ms. Tsantir commented.)

How frequently are people prosecuted, Professor Hays asked? They know of very few, Dean McQuaid said. Professor Hays asked whether, given the size of the problem, this is something that

people need to worry a great deal about. And is it something the University should list as a priority on which to spend its limited resources. Dean McQuaid agreed this is a low-impact matter, but laptops can be taken at airports. If something ruins one's career, no matter how low the frequency of occurrence it's a big problem.

And things are getting more complex, Mr. Amundson said. The Foreign Corrupt Officials Act will permit one to be jailed in the U.S. if one makes payments to officials in another country in order to get research done, even if it is common practice to do so in some countries. (This does not bar legitimate payments.) Professor Anderson said she has heard of people who include money in their grants so they can pay to get research done; is that a risk? It is becoming more of one, Mr. Amundson said.

How much is at risk for the University, Professor Anderson inquired? People travel all the time with their laptops, and faculty believe they know what they should do. Mr. Bohnhorst said that based on current information, the risk does not seem to be that high, at present, and the Tennessee case is unusual. The risk varies with the country, Dr. Lawrenz said. Dean McQuaid said the horror stories get the attention, and the University does not want to restrict faculty activities; so long as faculty know the risks and circumstances, they can make the choice.

How many times do these things happen, Professor Sullivan followed up. The University needs to do a cost-benefit analysis to decide how much funding to contribute to deal with the issue. What will be saved if four more staff are hired to deal with it? This Committee should ask if there is a problem, and if not, it can question whether the University should spend money on it. The goal is to get information to faculty and serve as a better resource for them, Dean McQuaid responded.

In the big picture, acquiring and renewing visas is a common and frustrating personnel problem, and in my view more significant than the loss of computers and data from travel mishaps, Professor Hays said. Most people traveling with computers back up their data. Does the University need to spend limited resources on protecting people who travel without backing up their data, he asked? Ms. Tsantir said they worry about much more than laptops; there are visas, insurance, and so on; they want to have a wide variety of information available because they do not know what questions will draw people in, and when they arrive at the website they will likely find helpful information they didn't even know they wanted. That is why a robust website would be a good idea, Mr. Bohnhorst commented.

Dr. Lawrenz inquired if one could be jailed if officials took one's laptop. Usually not, Mr. Bohnhorst said. Dean McQuaid said that customs officials around the world can do what they want, legal or not. And rights to privacy are very limited when crossing an international border, even when returning to this country, Mr. Bohnhorst said.

Professor Anderson thanked Dean McQuaid, Ms. Keane, and Messrs. Amundson and Bohnhorst for their comments.

2. NSF Responsible-Conduct-of-Research (RCR) Training Requirement

Professor Anderson next welcomed Michele Chin-Purcell to the meeting to discuss the new NSF requirement for responsible-conduct-of-research training.

Dr. Chin-Purcell began with background information. In August 2007, NSF funding in the America COMPETES Act included a requirement to provide RCR training for all students supported by funding; in February 2009, NSF asked for comments on the new requirement; in July 2009, the University established an ad hoc committee that began meeting to develop a plan to meet the new requirements, and in August 2009, NSF published the implementation plan for the requirement. What it published was this: "Effective January 4, 2010, NSF will require that, at the time of proposal submission to NSF, a proposing institution's Authorized Organizational Representative certify that the institution has a plan to provide appropriate training and oversight in the responsible and ethical conduct of research to undergraduates, graduate students, and postdoctoral researchers who will be supported by NSF to conduct research." NSF did not specify the content of the training or how to do it. Associate Vice President Webb is the Authorized Organizational Representative; the institutions must verify that it met the requirement, Dr. Chin-Purcell said.

The University's ad hoc committee comprised representatives from academic units with histories of receiving NSF funding and has as its overall goal developing a plan that is beneficial and feasible. This covers a large number of faculties because there is a large amount of NSF funding across many units. And while the Graduate School requires that students be exposed to training in ethical conduct in research, how departments meet the requirement varies enormously. The ad hoc committee adopted several principles:

- This will be new information for some (perhaps many) and review for others
- PIs vary in their understanding of issues
- There is a need for consistent, approachable, available options
- Tracking of completion should be electronic
- The best format to get information to students will combine online with live interaction (the online format must be interactive as well)
- The effort needs to use existing resources and not be redundant
- This RCR training will not replace other required training (e.g., research subjects protection, lab safety).

The ad hoc committee recommendations were these:

- Postdoctoral researchers must complete RCR course 1 & 2
- Graduate and undergraduate students must complete a course, activity or online tutorial
- The minimum topics to address in this training include authorship & plagiarism, data & research integrity, and reporting misconduct
- In terms of format, the preference is for in-person courses. Online tutorials must include interaction and/or assessment of knowledge
- The sessions need to be long enough that they can address topics in a substantive way
- The training must take place within 90 days of the start of funding.

In terms of time required, it needs to be more than ten minutes during orientation, but the ad hoc committee did not wish to dictate a minimum amount of time. Committee members believe the training takes about two hours.

Dr. Chin-Purcell reported that she took the proposal to the Council of Research Associate Deans and received a positive reaction. In terms of implementing the recommendations, the associate deans are

to serve as a local clearinghouse on courses/activities to meet the requirement, which may be University courses/activities meeting the topics, format, and length recommendations. Or they may review new or revised courses/activities. Online courses identified and approved by the NSF RCR committee will also meet the requirement. PIs must sign off that individual students have completed the requirement. What has yet to be determined is the training record data entry.

In terms of tracking, Dr. Chin-Purcell reported, all records will be retained in the PeopleSoft system; reports from the Office of the Vice President for Research will identify students who need to complete the requirement, based on payroll and training records; automated email (including reminders) from the Vice President's office will be sent to the student, the PI, and/or the collegiate contact about the requirement and options to complete it; and the consequences for non-compliance will be monitored and handled centrally by the Office of the Vice President for Research. (For example, if a student does not complete the requirement but works on the grant, one possible consequence may be that the student's salary would have to be paid back.) The requirement, however, is not retroactive before the start date of January 4, 2010, she assured the Committee.

Professor Hayes raised a question about enforcing the policy. PIs can't enforce the policy. That is the point of making the PI responsible, Dr. Chin-Purcell said, in order to ensure data integrity and be sure that everyone is on the same playing field. If PIs and students do not do as required, they are violating University policy, Professor Sullivan pointed out. He asked if the University must certify to NSF that everyone has taken the training; that is not required, Dr. Chin-Purcell replied. So, he said, NSF is simply saying that institutions must have a plan and must certify that they have a plan. And it must be reasonable, Dr. Chin-Purcell said.

Professor Sullivan commented that he has been at the University for 44 years and has seen a cultural development at the institution: If there are rules and regulations out there somewhere, the University will take them two steps farther, and it will be harsher and more moral. He wondered if that is necessary; the University does it "better than right" and faculty spend 50 hours per year less on research. His view is that the University should do what NSF requires, but not more. Dr. Chin-Purcell said the ad hoc committee talked about that issue and agrees with Professor Sullivan; they tried to balance the requirement and she is bringing it to this Committee as a reality check.

Professor Hayes asked if someone must do both online and in-person instruction. One must do one of them, Dr. Chin-Purcell responded. Professor Hays said that the idea of tracking seems more aligned with an online system. The instructor in classes would certify the student had completed the requirement, Professor Anderson said. They are trying to make the requirement less onerous, Dr. Chin-Purcell added.

Professor Anderson responded to Professor Sullivan. "Exceptional Status" from NIH made the University nervous, she said, and so it tries to do better. When something is part of the law, she said she does not believe the University should test NSF's intent. Professor Sullivan agreed but said he has seen examples of overly-conscientious University attorneys making people do things he did not believe they needed to do. The University needs to hire more East Coast and Illinois attorneys who take a more practical position about these kinds of requirements.

Professor Bearinger said that the anonymity of the reporting service (when trainees have concerns or have seen questionable things) must be emphasized. This training is directed at students and it should not suggest to them that they are supposed to be watchdogs, because they are very vulnerable.

Professor Anderson thanked Dr. Chin-Purcell for her presentation and adjourned the meeting at 3:45.

-- Gary Engstrand

University of Minnesota