Annual Report of the Faculty Committee on Research

Research Committee 2004-05
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Kenneth Bollen (Sociology)
Shelton Earp (Medicine)
Sandra Funk (Nursing)
James Hosking (Biostatistics)
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Suzanne Kirby (Medicine)
Gary Marchionini (Information and Library Science), chair
John B. Stevens (School of Government)
Tony Waldrop (Vice Chancellor for Research and Economic Development), Ex-Officio

The Committee met twice in the Fall 2004 semester and three times in the Spring 2005 semester. This year, the committee has focused on the drivers and challenges of interdisciplinary collaborative research on campus. A number of possible courses of action have arisen and are summarized below.

Collaborative Interdisciplinary Research at UNC-CH

Universities are organized around convenient disciplinary themes and this organization generally serves the academy and society well. However, many kinds of problems require collaborative interdisciplinary research (CIR) that may incorporate multiple talents and points of view, complex data from multiple sources, and large-scale resources beyond the scope of individuals and individual academic units. Many of the significant breakthroughs in knowledge come from people working with others at the boundaries of disciples. For example, comparing the effectiveness of medical solutions requires involvement of clinicians, physiologists, engineers, and ethicists; bioinformatics requires life scientists, statisticians and computer scientists; alleviating poverty requires sociologists, economists, epidemiologists, and political scientists. On many fronts, public-private partnerships and multi-campus consortia are addressing large scale, real-world challenges, and national and international governmental policies (e.g., the NIH Roadmap) are encouraging CIR. The value this campus places on CIR is strongly reflected in the campus Academic Plan and in the many existing interdisciplinary centers, institutes, and groups on campus. Although UNC-CH in many ways achieves the state motto to 'be rather than to seem' with respect to practicing CIR, the Faculty Research Committee believes that we can do more to facilitate CIR. Over the course of the 2004-2005 semester, the committee discussed CIR on campus and beyond and offers this report to Faculty Council with the hope that some actions can be taken immediately and that future committees continue to develop ideas for fostering CIR.

Over the course of our discussions in the committee and with our colleagues throughout the year, two principles emerged with respect to CIR:
- Because there are strong opinions about CIR, the committee agreed that any reports or actions **preserve individual faculty control over their research** while advancing the goals and aspirations of the campus.

- We want to promote and protect CIR because it makes the UNC campus better, and those who do this kind of research deserve encouragement and recognition. We recognize that not everybody needs to do CIR. We do hope that the promotion and tenure, and merit review systems will acknowledge the value of CIR when faculty choose to engage in such scholarship.

The UNC-CH community has been highly successful in CIR, as illustrated by the many interdisciplinary centers and institutes on campus, and most recently by the three NIH Roadmap grants this year (Obesity, Inflammation, Genes) and CIR is a tenant of the campus Academic Plan. Nonetheless, there are many challenges to initiating and conducting CIR, especially for junior faculty and in small units without existing exemplars or infrastructure support. The committee identified two kinds of challenges: disciplinary cultural and administrative.

Disciplinary Culture Challenges
- There are very different incentive and reward structures for collaboration in different departments.
- The university and academic enterprise is organized for in-depth disciplinary research. Because our disciplinary knowledge accrues over our careers and becomes so central to our lives, it is often difficult to appreciate the depth and rigor of other fields that may use different methods and principles.
- There are many ways to fail in collaborations given the management issues with meetings, communication styles, and structural boundaries.

Administrative refer to different structural arrangements, employment expectations and incompatible methods between units within UNC-CH and in other potential institutional partners.
- Some faculty are 12 month, mainly on grants/contracts and others are 9 month with grants/contracts used for summer salary or course reduction.
- Some units flow some of the F&A back to principal investigators, others do not.
- Different campuses and corporate or governmental institutions have different procedures and policies that are difficult to mesh with UNC-CH policies and procedures.
- Some faculty do not run grants through departments but through centers or institutes.
- Funding agencies are increasingly limiting the number of proposals that can come from an institution; they are also limiting the number of proposals with which a single person can be associated. These rules tend to work against CIR.

A variety of courses of action arose that might be taken to address some of the challenges and improve CIR opportunities on campus. We urge Faculty Council, department chairs and Deans, and the Vice Chancellor for Research and Economic Development to address these challenges. We offer these ideas as a starting point to strengthen CIR opportunities at UNC-CH. Because interpersonal interactions are so important to CIR, we single out two actions that we recommend that the campus take action to implement as soon as possible:

- Sponsor collaborative lunches, possibly focused on newly tenured faculty to spread CIR interests; These could use a 5-minute madness format (faculty get 5 min to say what they are doing and want to do next year) or be centered on specific problems.

- Create sabbaticals for a pair of faculty to come up with a proposal. Whether this should be for untenured faculty was a point of contention (e.g., some departments will not value publications in out-of-mainstream field journals). One approach would be to offer newly tenured and senior leaves, for example, paired leaves for a newly-tenured faculty member to work with a senior faculty member in building one or more CIR projects.

Other ideas that arose and we hope that the campus will consider, amend, and supplement through ongoing conversation include:

- Empower visiting appointments on campus in other units, with release time or other incentives.
- Foster face-to-face relationships. Many examples arose:
  - Idea competitions where groups propose specific projects that are judged with seed money prizes to further the development of the ideas;
  - Random or topical lunches with self selection in which recently tenured faculty are invited to meet one another and discuss their research;
  - Summer grants for IRC teams[1];
  - Workshop grants where people organize 1-2 day workshops on specific topics[2].
  - Include some experienced collaborative researchers on the tar heel bus tour
- Create a campus think tank for interdisciplinary research. It was noted that this requires good leadership for such a think tank to work well, and the Office of Research Development serves this role to some extent. A campus CIR incubator was also suggested.
- Revise/create an F&A agreement for the campus that formally shares F&A across units[3].
- Create top-down support for identifying and nurturing collaboration; e.g., a database that identifies existing collaborations across campus; alerting services to bring disparate faculty together to discuss RFPs.
- Because opportunity drives some kinds of CIR efforts it is important that good data systems be available, several suggestions emanated from this theme:
  - Fix or create data systems that list co-investigator names, allocate F&A, and reflect collaborations in unit and campus internal and public reports. Some kinds of information that researchers might find valuable include expertise and skill sets; administrative and laboratory support/availability; and teaching experience and curricula for training grants. There was strong support for keyword-based search facility in such a database.

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[1] For example, The College of Arts and Sciences and The Odum Institute for Research in Social Science Social Science "Seed" Grant for Multidisciplinary Research Sponsored by the Latane Fund received three high quality proposals this year; additionally, a new summer grant program for Arts and Humanities faculty will be launched by the Office of Research and Economic Development.

[2] The Office of Research and Economic Development in partnership with several Schools and the College of Arts and Sciences provides seed grants that have led to interdisciplinary research proposals to NIH.

[3] The Vice Chancellor for Research and Economic Development has appointed a committee to address this issue.

- o Consider campus-wide consistent annual reports[4][4] It is especially important to have similar formats on publications and on trainees for training grants.
- Improve campus communication about CIR, however, support must be 'just-in-time' rather than generic and periodic, especially with email
- Survey the faculty about what they need vis-à-vis CIR resources[5][5].
- Develop a set of collaborative thinkers/mentors across campus who could serve as resources to faculty

Clearly, these suggestions are only part of what is an ongoing conversation about CIR at UNC-CH. Many faculty here are already engaged in CIR and we should find ways to publicize, applaud and reward them. Likewise we should offer new kinds of opportunities, especially for junior faculty to engage in CIR. Maintaining such a conversation will ensure that our institution continues to create new knowledge that benefits society as well as our disciplines.

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[4][4] As with many of the points summarized here, this issue garnered substantial discussion. In this case, we wondered what are the principles for reporting and building new collaborations. How would this affect faculty time to enter data and deal with different formats and research qualities.

[5][5] Judith Wegner met with the committee to discuss how the study of faculty retention and quality of life shows CIR support is important to faculty.