

Dear Dr. Lightbourne:

In this letter we have responded to each of the new questions raised in the 10/18/01 electronic mail message of Dr. Fortenberry concerning our proposal to develop a transportable model of a summer institute aimed at preparing graduate and postdoctoral students for faculty careers. To frame the responses, we have included the relevant portion of Dr. Fortenberry's electronic mail message followed by our response. We have also modified the corresponding proposal draft in an effort to address these issues.

We believe we have a project design capable of making a very substantial contribution to the preparation of graduate and postdoctoral students in science, mathematics, and engineering for academic careers. The proposed budget is quite modest, compared both to other NSF EHR activities (e.g., IGERT) as well as to potential impact. However, if it should be the case that the NSF is not interested in supporting such a venture, then it is our hope that you indicate this to us on a timely basis so that we can focus next summer's effort on students from the humanities, social sciences, and life sciences where we already have identified interested sponsors.

Thank you for your time and attention to this project.

Sincerely,

Response to Questions of October 18, 2001

Given that your proposed effort is fundamentally about graduate education, it makes sense for DGE to assume management responsibility for any future preliminary or formal proposals. DUE and HRD remain interested in the concept and will continue to collaborate with DGE as further progress is made. Your latest submission represents the first opportunity for staff in DGE to review the preliminary proposal, thus a few new questions have been introduced.

We note the three major changes made in the report in response to our recommendations: recasting from a 12-month to an 18-month budget to allow for proper time sequencing, explicit attention to the need to develop a plan for sustained financing (indicated as an outcome on page 2 and as bullet 2 under "Proposed Activities" on page 5), and addition of Connie Cook as co-PI to benefit from experience and resources of the Center for Research on Learning. These are reasonable and prudent measures with which we concur.

You have now included an explicit outline of a possible 5-week workshop and you have explicitly devoted attention to the instructional component of the faculty role (in Session 2 of week 1 and Session 2 of week 4). The outline also greatly clarifies the projected balance between "in-class" and "free" time. Our assumption is that participants would not have concurrent research responsibilities.

We believe that many of these graduate students (and participating faculty) will continue to have ongoing research responsibilities, even during a summer session. But this should not be a problem. In fact, we believe it important for participants to bring the issues they discuss in the seminars back to their labs and research groups and to learn to balance their research activities with other aspects of their faculty roles.

Nonetheless, important questions remain that, in our view, may militate against a favorable peer review:

1. A critical aspect of developing explicit attention to the plan for sustained financing will be exploration of the relative economics of the academic year versus summer models and balancing the apparently higher costs of the summer model with the advantages of the summer institute model.

It is our intent to develop financially viable models that can be adopted by other universities. While we believe that the use of a summer institute model will be far more cost-effective, this is a conjecture the proposed project will assess.

The advantage of the summer schedule is the availability of faculty and graduate student participants, as well as a more flexible schedule that allows for a much more intensive and richer experience. This gives participants time to discuss issues with senior faculty (e.g., dissertation advisors, department chairs) and prepare products such as portfolios, statements of teaching philosophy, and written summaries of interviews). Furthermore, we believe the summer institute

approach is far more amenable to scaling to handle large number of graduate and postdoctoral students

2. The proposal continues to framed exclusively in the context of Preparing Future Faculty and does not demonstrate "value-added" in the context of other NSF-supported workshops for graduate students and new faculty, many of which also make strong outreach to women and minorities. Recall my previous email which attached the abstracts for the following NSF awards: 9633755, 9633800, 9620004, 9904036, and 9814401.

Although each of these projects addresses an element of our institute, e.g., preparation for college level teaching (including problem-centered, student-centered pedagogy) and development of "survival skills" necessary for obtaining and sustaining academic careers, we believe the proposed institute as well as:

- ***An unusually broad introduction to the academic profession, including not only tactical issues such as an intensive (and, from past experience and independent evaluation, highly successful) teaching workshop, but moreover an introduction to the broad range of professional issues such as values and ethics, philosophies and strategies related to academic careers.***
- ***The involvement of significant numbers of junior faculty members as mentors and discussion leaders in the workshops associated with the institute, thereby introducing them as well to challenge of preparing graduate students for broader careers than the research university.***
- ***The involvement of senior administrators (deans, provosts, presidents) as plenary participants, capable of providing participants with not only a broader perspective of important issues in higher education, but moreover empowering them to discuss issues directly with key faculty in their departments (including department chairs).***

Most significantly, it is our intent to develop a model that is capable of scaling to accommodate a large number of graduate and postdoctoral students in each institute, numbering in the hundreds at large campuses such as Michigan. Key in the effort is the development of financial models capable of mainstreaming these institutes into the PhD and post doctoral experience without requiring future external funding, thereby facilitating their propagation to other major graduate programs.

Finally, we would note that our proposed institute builds on past efforts at Michigan characterized by strong participation by women and underrepresented minorities. In fact, of the natural science and engineering participants in our earlier workshops, over 50% were women and 20% were underrepresented minorities. Since Michigan ranks among the nation's leaders in the production of minority doctorates, we are confident that our proposed institute will also reflect and serve this diversity.

3. While the transportable project outcomes have been clarified, provision for the labor and expertise to conduct the web development and videography remains unclear. We

presume, perhaps incorrectly, that you and Edie will not be developing all the instructional materials by yourselves. Who else will be involved and what is their expertise?

Through the University of Michigan Media Union, the Center for Research on Learning and Teaching, and the Chrysler Center for Continuing Engineering Education, we have extensive capabilities in the development of digital resources. (These organizations have produced not only major instructional technology such as Course Tools, used by several major universities, but have also worked with us to build entire virtual universities such as the Michigan Virtual University.) However in this experimental phase, we are not aiming at producing commercial quality materials but rather using internally developed prototypes to scope out what is possible. Hence we intend to support internally the costs for equipment, faculty, and key support staff time, aside from modest graduate student and staff assistance. In this effort, we will examine as well the use of commercially available products compatible with other NSF programs.

4. You have indicated your plan to involve faculty at other universities as discussion leaders, what is the projected identification and selection process? How will expertise be correlated with workshop topics?

Since we intend to invite junior faculty members as both mentors and participants, these would be chosen broadly across the University. However, in addition, we are particularly interested in identifying and inviting faculty members who have had successful careers to date that have spanned two or more different types of institutions. We have many such faculty who have spent their early careers in liberal arts colleges or regional universities before coming to Michigan. These faculty members bring a unique ability to understand and articulate the differences in ways that many of the colleagues, experienced only with research universities, cannot. We intend to supplement such faculty, as needed, with colleagues from other types of institutions where we have ongoing relationships (e.g., Oberlin and Kalamazoo among liberal arts colleges, Eastern Michigan University and UM-Dearborn among regional universities, and the Michigan Virtual University from cyberspace efforts.)

5. What criteria will guide the identification and selection of graduate student participants? What provision, if any, is made for follow-up activities when they return to their home campuses?

In earlier planning, we had thought at one point about bringing to Ann Arbor students from other campuses. However, as we thought more about the extent of the unmet need here (and at other major graduate schools) and the costs and logistical challenges of bringing students from elsewhere, we concluded that a sounder approach would be to target Michigan graduate and postdoctoral students for our institute and develop a transportable model for use by other graduate institutions. Because we have one of the largest graduate schools in the nation, we can easily demonstrate the scalability of our model with this population.

6. As previously indicated, explanatory budget detail pages would be helpful. For example, we previously indicated questions arising from assumptions about the level of support to be provided to graduate students; those questions remain.

It is important to understand that we do not intend to provide stipends to graduate students. Indeed, at some future point we may even include the costs of the institute in the tuition base for these students (and the fringe benefit pool for postdoctoral students). In two years of conducting our Preparing Future Faculty workshops, we have found that the absence of a stipend was not a barrier to participation.

The amount budgeted for graduate students is intended instead for project assistants to help us in preparing materials, coordinating sessions, other tasks associated with the workshop, not for the support of participants.

However we have included a modest stipend (\$2,000) for each faculty participant, since we believe that some incentive is useful in securing their participation. But, of course, this also is an we intend to examine more carefully.

A more detailed budget spreadsheet is provided with the revised proposal (enclosed).