

A Pre-Proposal

Summer Faculty Careers Institute
for Ph.D. students, Postdoctoral Fellows, and Junior Faculty

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Summary

We seek a grant to develop a model summer institute aimed at preparing graduate students and postdoctoral fellows for academic careers while simultaneously providing junior faculty with a better understanding of the diversity of academic careers and university life. In addition to subjects covered by conventional Preparing Future Faculty programs that focus on the faculty role as undergraduate educator, largely at liberal arts colleges and comprehensive universities, this institute would also introduce graduate students to a broad range of topics concerning faculty careers, ranging from faculty work life issues (e.g., teaching, research, service, student mentoring, graduate student supervision, university governance) to professional development (e.g., preparation for the job search, establishing oneself in a scholarly community, promotion and tenure).

We intend to design the five-week summer institute to be compatible with the ongoing demands of student research and dissertation work. The summer institute would involve the participation of faculty members from various types of institutions including research universities, liberal arts colleges, regional universities, community colleges and for-profit colleges, encouraging dialog among these diverse faculty communities. Using the combination of plenary and breakout sessions, we believe it is possible to develop a model capable of accommodating up to several hundred graduate students each summer. By involving junior faculty members as resources, participants, and discussion leaders, we can help them broaden their own understanding of their role in preparing graduate students for possible careers in higher education and provide useful materials to assist in their efforts. We believe it also important to include senior academic administrators in the program (at the level of deans, provosts, and university presidents) to provide a broad perspective of academic careers and university life.

Of particular importance would be efforts to attract an unusually diverse community of graduate student and faculty participants that includes many underrepresented minorities and women. The University of Michigan has had considerable success in attracting underrepresented minorities and women into its graduate student and faculty ranks through nationally-recognized programs such as the Michigan Mandate and the Michigan Agenda for Women. We believe that both our experience and success in these efforts provide an unusual resource for the summer institute, a feature of particular importance in disciplines such as science and engineering.

We intend to utilize the resources of Michigan's Center for Research on Learning and Teaching (CRLT) to address the development of college teaching skills. CRLT has

developed a widely known and highly effective PFF training program, with special emphasis on undergraduate teaching and multicultural classrooms.

Of particular interest is the development of financial models capable of mainstreaming such faculty career institutes into the PhD and postdoctoral experience without requiring further external funding, thereby facilitating propagation of the institute model to other major graduate programs throughout the nation.

The FIPSE grant would result in: 1) the design and conduct of model summer institutes, developed over a three-year period 2) the development of supporting resources (including a web portal) 3) the development of unique elements (such as modules in areas where we have particular expertise such as diversity and information technology); and 4) strategies for the scaling and propagation of the summer institute model to other major graduate schools, including the development of financial models adequate for sustained university support.

If successful, we believe that the summer institute model could become a valuable resource to graduate programs across the nation in preparing graduate students and postdoctoral fellows for academic careers, making explicit a little-discussed set of accepted values, ethics and practices in academic life, while enhancing the professional development of junior faculty members.

The Challenge

Most graduates of the highly specialized research-dominated PhD programs characteristic of research universities are relatively inexperienced as teachers and uninformed about academic life. They know little of the broader role of faculty in an academic community and even less about colleges and universities other than the one where they received their doctoral training. Moreover, institutional needs for graduate research and teaching assistants tend to drive the size of our graduate programs, often leading to a significant mismatch between the number of doctorates awarded and the needs of the academic marketplace. As a consequence, many of our PhDs are defeated in their search for faculty positions and frustrated with the placements they achieve. Even after years of experience, they know remarkably little about the demands on their colleagues in other fields. Those who aspire to faculty roles would benefit from understanding the professional challenges, issues and expectations they and their colleagues will face as professors.

For years, research universities have participated in “Preparing Future Faculty” programs, which provide exposure to campus cultures and undergraduate teaching experiences for graduate students at liberal arts colleges and comprehensive universities. More intensive internships available through PFF programs provide undergraduate teaching experiences in other campus settings. These are all valuable experiences but the traditional PFF programs are limited in several important respects. First, they focus almost exclusively on the faculty role as undergraduate educator. This focus is vital, of course, but it does not address many important issues that facing educators in other areas such as graduate-research intensive universities or professional education. Second, both the student commitment and the financial resources required for teaching internships limit most PFF programs to only a small number of student participants. Some dissertation advisors oppose student participation because of the perceived disruption that internships can cause for dissertation work or research progress, particularly in the sciences and engineering. Even those PFF programs other than internships -- e.g., our own CRLT-led summer program -- reach only a small fraction of the eligible graduate students. Third, the focus on preparation for classroom teaching is helpful as far as it goes but it does not adequately introduce

graduate students to the choices that some will have to make between industry and academe or between faculty and research roles. We have found that there is a tremendous amount of confusion and misinformation about the tradeoffs among such options. Fourth, PFF programs all too often prepare graduate students for the issues of today without sufficient attention to the rapidly evolving post-secondary education enterprise and the new roles that faculty will fill in it, such as lifelong learning and virtual universities.

We recognize that there has been attention given to including faculty preparation experiences in earlier efforts sponsored by FIPSE and other agencies and foundations. Although each of these earlier projects addresses an element included in our proposed 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 our proposed institute differs from these efforts in several important respects, including:

- An unusually broad introduction to the academic profession, including not only tactical issues such as an intensive teaching workshop utilizing the highly successful model developed by our Center for Research on Learning and Teaching, 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).
- The development of 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.

The First Steps

During the past several years we have developed at Michigan highly successful workshops in college teaching and specific courses designed for graduate students interested in academic careers for students drawn from academic programs across the university (including humanities, sciences, engineering and medical sciences). Not only has student response to these workshops and courses been overwhelmingly positive, but more formal evaluations have established evidence of their effectiveness. Our goal now is to build on these earlier efforts to develop a paradigm for introducing advanced graduate students, postdoctoral fellows, and junior faculty to academic careers that is not only capable of being scaled to large numbers of participants (hundreds at a time)

but furthermore is financially self-sustaining within the existing resource base of research universities.

Based upon our earlier experiences, we have identified several elements we believe important to include in such programs:

- The experience should be highly interactive, providing students with the opportunity to question faculty members such as dissertation advisors, department chairs and new faculty members on topics rarely discussed now in academic settings, such as the roles of teaching, research, and service in academic success.
- The experience needs to provide graduate students from different academic programs an opportunity to share perspectives and experiences with each other (including the sciences, humanities, and professions).
- It should draw upon experienced faculty and staff members for the discussion of important topics, such as academic and professional integrity, faculty rights and responsibilities, faculty governance and the social contract between universities and society.
- We believe that racial and gender diversity should be a very important component of such experiences, both in terms of the composition of participating students and faculty as well as in the content of the program.
- It should involve faculty participants from diverse academic institutions, such as liberal arts colleges, regional universities, community colleges, and for-profit colleges.
- Finally, students in our early prototyping courses have convinced us that broad academic career programs are importantly enhanced by the involvement of faculty members with experience as senior academic officers (deans, provosts or presidents). Such leadership provides a broad perspective on careers in higher education, but more significantly it enables a degree of candor and credibility in the discussion of sensitive topics such as hiring decisions, tenure evaluations, and faculty rights and responsibilities. The involvement of senior academic leaders provides participating students with the license to discuss such matters with faculty in their home departments.

The Summer Institute on Academic Careers

Having evaluated last year's experience, we are now prepared to restructure our initial seminar approach into a program that reaches many more graduate students at one time; to involve faculty members in ways that will encourage broader and more effective mentoring of graduate students in the future; and to develop a paradigm that can be propagated to other graduate programs throughout the country. We believe a summer institute program is a vehicle that could be used to engage up to several hundred graduate students each year on a given campus together with faculty members (as discussion leaders) from the host graduate institution as well as from a diverse set of other colleges and universities. Most faculty members would benefit from broadening their own perspectives about university life, learning more about the types of settings

where most of their students will work. We think we can achieve that in a summer institute as we generate enthusiasm among faculty for their future involvement in preparing graduate students more adequately for academic careers. Finally, we expect to assemble teaching materials, including online content, and demonstrate their use and exportability through the summer institute mechanism.

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.)

We propose to develop a five-week summer workshop designed to be compatible with the ongoing demands of student research and dissertation work. The workshop would involve a commitment by students to two half-day sessions each week, with additional luncheons, informal gatherings, readings, and discussion assignments. The formal sessions would stimulate intensive, interactive experiences involving both plenary sessions with invited guests, breakout group discussions led by faculty members, luncheons with special topics, and informal discussions (coffee klatches, web-based list-serves and chatrooms, etc.). The University's Center for Research on Learning and Teaching would be partners in planning and delivering these workshops, bringing the experience of techniques drawn from their highly successful Preparing Future Faculty program.

This approach has several positive features. By scheduling it during the summer, we anticipate being able to attract enthusiastic and active participation by graduate students and faculty. We can also involve faculty members from various types of institutions including liberal arts colleges, regional universities, community colleges and for-profit colleges, encouraging dialog among these diverse faculty communities. Using the combination of plenary and breakout sessions, we can eventually handle up to several hundred graduate students each summer (a significant advantage for an institution that graduates over 600 PhDs each year). By involving faculty members as resources, participants and discussion leaders, we can help them broaden their own understanding of their role in preparing graduate students for possible careers in higher education and provide useful materials to assist in their efforts.

To support the workshop, we intend to prototype materials (web-based, video, written) as well as a more sophisticated web portal or knowledge environment. These resources would be developed using widely available technology so that they are capable of distribution to other institutions. 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.) 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.

Proposed Activities

We seek a grant to support the design and development of the summer institute for graduate students, postdoctoral fellows, and junior faculty members. In particular, we seek support for the following elements:

- To conduct surveys and focus groups involving both graduate students and junior faculty, to identify areas of particular interest to influence the design of the institute.
- To address an array of cost-related issues (e.g., do participating faculty need to be provided with stipends; how would the graduate students be supported) and develop sustainable financial models that can be adopted by host institutions.
- To seek the participation of external organizations that would support the development of elements of the institute in other areas such as the arts and humanities.
- To develop the necessary supporting materials (e.g., reading materials, lecture notes) and web-based resources (e.g., web-sites, web portals, and knowledge environments to support interactions).
- To involve faculty at other types of institutions (liberal arts colleges, regional universities, for-profit universities) in both the design and conduct of the institute.
- To conduct assessments of student learning from both the pilot and prototype institutes utilizing student and faculty evaluations and focus groups.
- To involve several other major graduate schools (e.g., Cornell, UC-Berkeley, U Washington, U Wisconsin) in assessing and refining the institute model.
- To develop a strategy for scaling up and sustaining the faculty careers institute paradigm and propagating it to other graduate schools across the nation.

Products Resulting from the Grant

We anticipate developing the following products during the grant:

1. The design and conduct of model summer institutes at significant scale.
2. The preliminary design of supporting resources (including web environments).
3. The identification and development of unique elements (e.g., modules in areas where we have particular expertise such as diversity and information technology).

4. The development of a strategy for major scale-up and propagation of the institute, including financial models for self-sustaining operation within existing university budgets.

Budget the Faculty Careers Institute

We seek a grant from FIPSE in the amount of \$550,000 over a three-year period to support the development of the proposed institute. A preliminary budget is provided as appendix to this document.

Conclusion

The quality and commitment of the faculty determine the excellence of the academic program at any college or university. Faculty quality and commitment, in turn, affects the quality of the student body, the excellence of teaching and scholarship, the service to society, and the resources attracted from public and private sources. During the next decade, most colleges and universities will experience significant faculty turnover. They will face the challenge and opportunity to use these appointments to sustain and enhance the quality of their academic programs and their institutions more broadly, and they will do so during a period of unprecedented change in higher education.

Is today's form of graduate education preparing the future faculty adequately for their roles at colleges and universities? We think not. We see a mismatch between the one-dimensional goal of preparing the next generation of researchers and the broader needs of higher education. We see graduate faculty trying to clone themselves through their graduate students. And we note the absence in graduate training of significant exposure to the values, traditions and ethical practices that should characterize the academic profession. This convinces us that a different approach is required. Our graduate students are asking for this sort of experience. We know our faculty colleagues will join us enthusiastically once they understand the need. We believe that through the proposed summer institute we can take an important step toward restructuring the education for academic careers, making explicit a little-discussed set of accepted values, ethics and practices in academic life.

Preliminary Budget
1/2002 to 7/2003

Principal Investigator Support		
E. N. Goldenberg (2 months summer)	\$40,000	
J. J. Duderstadt – none required		
C. E. Cook – none required		
Graduate student project assistants ¹		
1.5 FTE	30,000	
Staff support		
Clerical, computer assistance, administrative	30,000	
Faculty participant stipends		
2002: 5 @ \$2,000		
2003: 10 @ \$2,000	30,000	
Total salaries and wages		130,000
Logistics		
Travel	\$3,000	
Supplies	15,000	
Computer support (software, hardware)	20,000	
Total non-salary		38,000
Modified Indirect Costs		65,000
Total Budget (18 months)		\$233,000
University Cost-Sharing		
E. N. Goldenberg (10% academic year)		20,000
J. J. Duderstadt (10% academic year, 1 month summer)		50,000
C. E. Cook (10% academic year, 1 month summer)		30,000
University IT Environment (including software development) ²		
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¹ Graduate student project assistants to provide help in gathering course materials, assisting in course logistics, conducting evaluations, etc.

² We intend to utilize our existing information technology and software development environment in the Media Union and CRLT for prototyping resources for supporting the institute.

Appendix A; Biographical Sketches

Edie N. Goldenberg

Edie N. Goldenberg is Professor of Political Science and Public Policy at the University of Michigan. She has published numerous articles and two books: *Campaigning for Congress* (with Michael W. Traugott) and *Making the Papers*. She joined the Michigan faculty as Assistant Professor of Political Science in 1974.

From 1989 through 1998 Professor Goldenberg served as Dean of Michigan's College of Literature, Science and the Arts. Her term is identified with major improvements in the undergraduate experience, significant strengthening of academic programs, and the successful completion of a \$180 million College fundraising campaign. She also held positions as Director of Michigan's Institute of Public Policy Studies and as senior executive at the U.S. Office of Personnel Management. She taught at Stanford University and worked as a reporter at the Boston *Globe*.

Professor Goldenberg is a member of the National Academy of Public Administration and the Corporation of the Massachusetts Institute of Technology. She was a Fellow at both the Center for Advanced Study in the Behavioral Sciences and the Woodrow Wilson Center of the Smithsonian Institution. She is currently serving as Academic Fellow to the Carnegie Corporation. Dr. Goldenberg holds a B.S. degree in political science from the MIT and a masters degree and Ph.D from Stanford.

James J. Duderstadt

Dr. James J. Duderstadt is President *Emeritus* and University Professor of Science and Engineering at the University of Michigan. He received his baccalaureate degree in electrical engineering with highest honors from Yale University in 1964 and his doctorate in engineering science and physics from the California Institute of Technology in 1967. After a year as an Atomic Energy Commission Postdoctoral Fellow at Caltech, he joined the faculty of the University of Michigan in 1968 as Professor of Nuclear Engineering. Dr. Duderstadt became Dean of the College of Engineering in 1981 and Provost and Vice President for Academic Affairs in 1986. He was appointed as President of the University of Michigan in 1988, and served in this role until July, 1996. He currently holds a university-wide faculty appointment as University Professor of Science and Engineering.

Dr. Duderstadt's teaching and research interests have spanned a wide range of subjects in science, mathematics, and engineering, including work in areas such as nuclear systems, computer simulation, science and education policy, and information technology. Dr. Duderstadt has served on and/or chaired numerous public and private boards. These include the National Science Board; the Executive Council of the National Academy of Engineering; the Committee on Science, Engineering, and Public Policy of the National Academy of Sciences; the Nuclear Energy Research Advisory Committee of the Department of Energy; the Big Ten Athletic Conference; the University of Michigan Hospitals; the Presidents' Council of State Universities of Michigan, and serves as a director of Unisys and CMS Energy. He was the founding president of the Michigan Virtual Automotive College (now the Michigan Virtual University).

During his career, Dr. Duderstadt has received numerous national awards for his research, teaching, and service activities, including the E. O. Lawrence Award for excellence in nuclear research, the Arthur Holly Compton Prize for outstanding teaching, and the National Medal of Technology for exemplary service to the nation. He has been elected to numerous honorific societies including the National Academy of Engineering, the American Academy of Arts and Science, Phi Beta Kappa, and Tau Beta Pi.

Constance E. Cook

Constance Ewing Cook has served as Director of the Center for Research on Learning and Teaching (CRLT) at the University of Michigan (UM) since 1993. CRLT, established in 1962, was the first university teaching center and is now the largest of its kind. As part of the Provost's Office, CRLT works with UM faculty and graduate student instructors in all nineteen UM schools and colleges to support the improvement of teaching. CRLT provides orientation programs for new instructors, faculty roundtables and workshops, individual consultations and midterm student feedback, multicultural teaching and learning services, evaluation research on curricular reforms, programs to prepare future faculty, grants competitions for teaching enhancement projects, research-based publications on teaching and learning, and a popular website on teaching strategies (www.cr.t.umich.edu). CRLT also provides many customized programs and services for individual academic units to help them improve student learning.

Dr. Cook is also Associate Professor of Higher Education at the Center for the Study of Higher and Postsecondary Education, as well as Adjunct Associate Professor of Political Science. Her expertise concerns American political interest groups, which is the topic of her two books: *Nuclear Power and Legal Advocacy: The Environmentalists and the Courts* (D.C. Heath/Lexington Books, 1980) and *Lobbying for Higher Education: How Colleges and Universities Influence Federal Policy* (Vanderbilt University Press, 1998). The latter was written with grants from both the Spencer Foundation and the W.K. Kellogg Foundation. Dr. Cook teaches graduate seminars on two topics: Public Policy in Higher Education and Improving Teaching in Higher Education.

Prior to becoming Director of CRLT, Dr. Cook served as executive assistant to the president of the University of Michigan from 1990-1993. From 1987-90, Dr. Cook was coordinator of the FIPSE Comprehensive Program at the U.S. Department of Education. Previously, Dr. Cook taught political science at Albion College in Michigan, where she chaired the Political Science Department. She received a B.A. from Barnard College, an M.A. from Pennsylvania State University, and a Ph.D. from Boston University, all in political science.