The Nuts and Bolts of Academic Careers: A Primer for Students and Beginning Faculty

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1 Introduction

SIGCSE has funded two clusters of schools to participate in the Preparing Future Faculty Program. PFF is a collaborative effort of the Association of American Colleges and Universities and the Council of Graduate Schools, sponsored by the Pew Charitable Trusts and the National Science Foundation, to prepare graduate students for the full range of faculty roles possible at academic institutions. The Cincinnati cluster developed a two-year program that spends the first year introducing graduate students to the inner workings of academia and to basic teacher training and observation. One of our goals has been to develop our ideas into forms exportable to professional meetings and implementable at other institutions.

We have two objectives in this session. The first objective is to present our preparing future faculty program which targets graduate students and show how it can be implemented at low cost to mentor new faculty or to encourage undergraduate interest in academia. The second is to introduce students and beginning faculty to the nuts-and-bolts issues of academia, revealing the details of the academic lifestyle, including its requirements, its stresses and its politics. Since the particulars of the lifestyle vary according to type of school, we are providing faculty from several different schools as a resource. By introducing students to this lifestyle, we hope to encourage more undergraduate students to investigate graduate school and more graduate students to choose life as faculty members. Departments may also wish to institute some of our PFF activities for beginning CS faculty, both to provide mentoring and to improve the retention of young faculty members in academic careers.

The session will begin by providing an overview of the activities the Cincinnati cluster has been carrying out in its preparing future faculty program. These activities can be replicated not only for graduate students but also for beginning faculty members at any institution. These mentoring activities will not only help new faculty to get off to a smoother start but should also help to stress the positive aspects of the academic life, and thus help to retain promising new faculty in academic positions.

The students in the Cincinnati program found the discussions about academia and how it differs according to the type of school one works at to be particularly interesting. Although students spend most of their time around faculty, and many graduate students go on to become faculty members, few of them had a clear understanding about life as an academic. The second part of this session will provide undergraduates, graduate students, and beginning faculty members a chance to explore many of the issues related to careers in academia.
2 Session Outline

1. Introduction to the Preparing Future Faculty Program.

Members of the Cincinnati Preparing Future Faculty Program will present their implementation of the Preparing Future Faculty program. Along with introducing students to the nuts and bolts of academia, this program introduces students to essentials of teaching, matches them with faculty mentors at a variety of educational institutions, and provides opportunities for graduate students to mentor undergraduates. The program can be instantiated at a low institutional cost and many of the ideas in this program can be implemented in training programs for new faculty members or to encourage undergraduates to consider graduate school.

2. Introduction of the faculty members, including a description of their schools.

3. Question and Answer Session: Moderated by Dennis Gibson

The moderator will accept questions from the audience. We will make available an email address and a suggestion box to receive questions before the session, and have also compiled a list of questions based on the Preparing Future Faculty seminar discussions at the University of Cincinnati; questions from these sources will be suggested by the moderator if there are no current questions from the audience.

The following list reflects the major questions from graduate students at the University of Cincinnati. Our session will spend some time on each of these areas of questions. As questions about a particular area subside, the moderator will introduce the next area with one of the questions from this list (or a related question submitted in advance).

(a) Definitions

• What is an assistant professor? associate? full?
• Does your job change with the title?
• What is tenure?
• What is service?
• What is a sabbatical?
• What is academic leave?

(b) Getting Your Job

• How do I read job ads to figure out which schools are the ones I'm interested in? (Example ads will be presented to showcase differences in institutions.)
• What goes in (or better not be in) the cover letter?
• What should be included in the application?
• What should my letters of recommendation talk about?

• How do I negotiate a salary and startup money?
• Can I spend time in industry first?
• How do I go about changing jobs?

(c) Academic life

• What's the proper balance of teaching/research/service? (what really matters to tenure?)
• How much do I need to publish?
• What are the expectations for grants?
• What's a typical day like?
• Who is your boss?
• What are your hours?
• How long is your contract and how is pay negotiated?
• How much vacation do you get?
• How does a department make decisions?
• How do you decide on a research topic?
• How do you find collaborators?
• What's it like dealing with students?
• How do I apply for a grant?
• How do I write a successful grant application?
• How do I make sure I am on track to succeed at my institution?
• What are the important, unwritten, factors in reappointment, promotion and tenure decisions?
• If I get tenure, do I have to stay there forever?
• How do I find help if I am having specific problems dealing with teaching/students?
• How do I do all this and still have a balanced life?
• How do I find a mentor?

3 Feedback

We will solicit feedback from session attendees to help us determine which information was most useful, and how to improve future nuts and bolts sessions.