Chapter 1

A New Vision of Doctoral Preparation

Not only has the PFF program taught me "how" to become a professor, it has also assured me that this is the profession for me.

——Graduate Student in Communication, Indiana University

Graduate education in the United States is a large and enormously successful enterprise, attracting students from nearly every country in the world, and serving as a major source of research and innovation that supports economic development and enhances the quality of life. Yet, like any successful endeavor, there is room for improvement, and many studies and reports point to changes that would make graduate education more responsive to the needs of students and of society.

The Preparing Future Faculty program, known familiarly as PFF, sets forth a new vision of doctoral preparation for future faculty. This PFF program in the humanities and social sciences involved disciplinary societies in communication, English, history, political science, psychology, and sociology. These societies selected departments in their discipline to participate in a collaborative effort to better prepare doctoral students for the whole range of expectations of faculty in a variety of educational institutions. This volume describes these efforts and presents information to help those who wish to benefit from the lessons learned from this project.

The hallmark of a doctoral degree has always been and remains the requirement to demonstrate mastery of the field and to apply that knowledge to conduct original research that expands the knowledge base of the discipline. After World War II, a social compact evolved among government, business, and education that ceded to universities a major responsibility for conducting research in the nation's interest. An array of federal agencies was established to fund this work and to ensure that the United States maintained its leadership position. The great majority of this research is conducted as part of graduate, particularly doctoral, education. As a consequence, research has become the dominant or nearly exclusive requirement for the Ph.D. degree, and graduates are well prepared for research-related careers. In addition, all employers expect competencies in other areas, but preparation for such areas is seldom part of doctoral programs.

Approximately 50 percent of doctoral graduates pursue academic careers (Hoffer, Dugoni, Sanderson, Sederstrom, Welch, Guzmon-Barron, Brown 2002). However, only 25 percent of faculty positions (32 percent of full-time positions) are at research universities (Berger, Kirschstein, and Rowe 2001). Thus, only about one-third of doctoral graduates can expect to become faculty members at research universities similar to their graduate institution, where research is the predominant requirement for earning tenure. Approximately 75 percent of faculty positions are in other types of institutions, where teaching and professional and community service roles are of equal or greater importance. Doctoral programs seldom adequately prepare students for the realities of faculty life, particularly in these different sorts of institutions. Indeed, even research universities increasingly demand that faculty be attentive to their teaching and service roles. Better preparation for academic careers includes understanding the missions, faculty roles and rewards, and academic culture of

the various institutions. Preparation should also allow students to experience the full range of roles faculty play in these institutions and to develop the skills that will allow them to compete for and succeed in faculty positions.

Although a significant fraction of graduate students have teaching assignments sometime during their doctoral program, too often these are not structured experiences that prepare graduates to deal with the assessment and different types of student learning, the pedagogy of the discipline, curricular innovations, the impact of technology on education, or the variety of teaching styles that may be helpful with students from different racial, ethnic, or cultural backgrounds. Even less common are activities relating to professional and community service aspects of faculty work.

There is now a unique opportunity to enrich the preparation of those who aspire to the professoriate. One of the reasons is that a significant generational change in the faculties of the nation's colleges and universities is currently taking place. Large numbers of faculty members were hired in the 1960s and 70s as the "baby boom" generation entered college in record numbers. Those faculty and many hired since are now retiring. The United States had 1,344,000 postsecondary faculty in 2000, and will need an estimated 682,000 new faculty by 2010 to respond to an unprecedented number of retirements and to accommodate projected enrollment growth (Hecker 2001). California alone is projected to need 41,200 new full-time, tenure-track faculty between 2000 and 2010 for the University of California system, state university system, community colleges, and private institutions (Morey 2001).

The challenges facing faculty in coming years will be enormous. At a time when 75 percent of high school graduates enroll in postsecondary education within two years of graduation (The Education Trust-West 2002), students are nearly as diverse as the nation, whereas the faculties are not. Institutions of all

sorts are seeking to raise the quality of education against a backdrop of public concern that college graduates lack adequate knowledge and skills that they and the country need for the future. Faculties are seeking to improve the abilities of students to think critically, solve unscripted problems, express themselves cogently both in writing and orally, and deal effectively with different peoples in a globally interdependent world. Further, the academy is largely self-regulating, and faculty participate in the shared governance of their institutions; both of these traditions are challenged by increasing requirements to be more accountable. At the very least, faculty members will need to use their expertise to creatively shape the academic profession and its institutions to meet serious educational and organizational challenges.

PFF gives doctoral students an opportunity to experience faculty life in a protected educational context, and allows them to make an informed decision on whether they want an academic career.

Do aspiring faculty learn about these matters in their doctoral programs and acquire capacities to meet these challenges? The answer is that too often they do not, at least not in any systematic manner. Given these changing realities, traditional doctoral preparation that focuses almost exclusively on the acquisition of scholarly or research knowledge in a field of specialization is too limited. That is why leaders of the disciplinary societies involved in this project are convinced that a larger vision of the profession is needed in their fields. Broadening the scope and raising the quality of faculty preparation— giving greater attention to

teaching, to broader definitions of scholarship, and to professional service—are central to the future of their disciplines.

What is PFF?

PFF is a configuration of ideas designed to promote expanded professional development of doctoral students who are preparing for an academic career. It embraces the doctoral degree's traditional emphasis on research, and it expands its scope to include the broad definitions of scholarship (Boyer 1990)—discovery, application, integration, and teaching. For students interested in a faculty career, PFF introduces them to the academic profession. It also introduces information into doctoral education about the diverse colleges and universities that constitute the higher education landscape—with their different missions, student bodies, and expectations for faculty. PFF gives doctoral students an opportunity to experience faculty life in a protected educational context and allows them to make an informed decision on whether they want an academic career. For those who pursue an academic career, this experience helps them prepare for a position in an institution that fits their goals and talents. Furthermore, it provides them a competitive advantage in securing such a position and quickly establishing their new careers.

Fundamentally, PFF is based on the proposition that the doctoral experience for those interested in academic careers should a) continue to provide opportunities to develop and obtain recognition as researchers; b) include teaching experience that involves increasingly independent and varied responsibilities, support, and feedback; and c) offer exposure to and experience with service to the department, campus, community, and discipline. PFF is an intentional sequence of professional development activities.

Additional propositions that more specifically underlie various aspects of PFF include the following:

1. Apprenticeship teaching, research, and service experiences should be planned so that they are appropriate to the student's stage of professional development and progress toward the degree. For example, doctoral students assigned as teaching assistants often tend to be viewed as "covering a course section" rather than developing professional expertise benefiting themselves and students. Future faculty should be given progressively more complex assignments, more responsibility, and recognition associated with increased professional capacities.

2. Doctoral students should learn about the academic profession through exposure to the range of professional responsibilities in the variety of institutions that may become their professional homes. This exposure provides students a contextual awareness needed to find a better fit between their own interests and competencies and the needs of departments and institutions.

3. Doctoral programs should include a formalized system for mentoring in all aspects of professional development. Just as students have a mentor to guide their research, they also benefit from an ongoing relationship with an experienced faculty member as they develop their teaching and service expertise. Indeed, students can benefit from multiple mentors. A teaching mentor at a different institution, perhaps one with a mission that is distinctly different from that of the research university, may be especially valuable. The mentor program should be a primary responsibility of the director of graduate studies, the graduate committee, or the PFF director.

4. Doctoral experiences should equip future faculty for the significant changes taking place in the classrooms and curricula of today. For example, future faculty should be competent in addressing issues presented by increasing

heterogeneity among students, sophisticated about general education and interdisciplinary curricula, and capable of using the newer, active, collaborative, technological, and experiential approaches to teaching and learning.

5. Professional development experiences should be thoughtfully integrated into the academic program and sequence of degree requirements. Unless leaders of doctoral education are intentional about these matters and structure these new experiences into their programs, PFF activities are likely to be added on to an already full program and may increase the amount of time required to earn a degree. Careful integration overcomes the tendency to add new elements without modifying existing expectations and reduces inconsistent and contradictory messages received by students. Connecting and integrating all that students do is intellectually exciting and efficient.

6. Where high-quality teaching assistant orientation and development programs are available, PFF programs should build upon them. PFF is consistent with the best practices of teaching assistant development, while also advancing another, more comprehensive level of preparation. While teaching assistant development programs can be valuable preparation for certain faculty roles, PFF programs broaden preparation by including teaching experiences at different institutions. This is particularly valuable if the student shares responsibility with an institutional faculty member or has full responsibility for planning and teaching a course. These experiences provide mentors for coaching and feedback, and engage students in various professional service and governance responsibilities.

Another key element in the PFF model is the "cluster," a new form of institutional collaboration that brings the "consumers" (institutions that employ Ph.D. faculty) together with the "producers" (the universities that educate them). A cluster is a formal, cooperative arrangement involving doctoral-

granting "anchor" universities with a range of "partner" institutions or departments in a joint working relationship. Specifically, the cluster leadership:

- Decides what is needed in new faculty (and it is always more than specialized knowledge in a discipline);
- Gives students opportunities to experience faculty life in multiple institutional settings; and
- Increases awareness among faculty in both the anchor and the partner institutions about the expectations for faculty and the ways that faculty roles are changing in various institutions.

By enriching doctoral education for the professoriate, PFF adds value to any advanced degree program. Nonetheless, there is inertia that would maintain the status quo, and hence resist the changes PFF represents, even though there is mounting evidence that these changes better prepare students for faculty careers.

Overcoming Inertia

All educational innovations encounter inertia and even resistance. Educational programs operate because some group, such as a department or an entire faculty, has deemed them important. For faculty who have arranged their professional lives around their own roles and responsibilities, any proposed change in the way their students are prepared, even PFF, necessarily threatens the established order.

Some sources of resistance to change are particular to doctoral education, which operates largely within a prestige economy, that is, one in which

research, grants, publications, and prizes garner prestige to faculty members and to the departments and institutions to which they belong. Graduate students are expected to help professors conduct research to further their own education, to prepare for embarking on their own career, and to accrue a scholarly reputation for their research. One common concern among both graduate faculty and graduate students is that PFF will divert students from research. Students and faculty involved in PFF programs have discovered that, while these programs do take some time, they can be designed to take relatively little. Trips to other institutions and a careful plan of activities worked out with a PFF mentor can fit into most students' schedules without undue disruption to research.

Most graduate faculty who participate in PFF programs come to realize that each institution in the cluster has strengths and that a spirit of collaboration can draw out those strengths to benefit the career preparation and placement of students.

The spirit of the prestige economy is competitive, not collaborative, and therefore essentially hierarchical. Research university faculty and administrators may not perceive a community college, state university, or liberal arts college to have anything of value to offer their students. However, perceptions are likely to be different in the case of universities or departments that maintain contact with their doctoral graduates who become faculty at liberal arts or community colleges or at comprehensive colleges or universities. These graduates are generally open to continuing collaborations with their research university. They can be especially effective advocates for the value of PFF activities in the doctoral education program, and they may help to form cluster collaborations. Most graduate faculty who participate in PFF programs come to realize

that each institution in the cluster has strengths and that a spirit of collaboration can draw out those strengths to benefit the career preparation and placement of students.

Funding is another concern, and some believe that dollars allocated for a PFF program could better be used for research and direct support of talented students. PFF leaders acknowledge that PFF programs require small amounts of funding, though experience does not support the suggestion that PFF funds generally derive from sources that could support research or stipends. Increasingly, agencies that fund graduate education promote many of the aspects of PFF as improvements in graduate programs, so establishing a PFF program could be a positive factor in competitive funding proposals. The value that an institution attaches to PFF determines whether it will provide funding for the program.

Initially, partner institutions in the clusters also may be skeptical or resistant. Partner faculty who serve as mentors typically are fully employed and are concerned about finding additional time in their own schedules. In most PFF programs, partner faculty have found that they can carve out the relatively small amount of time required to mentor a graduate student. Partner faculty are also concerned about compensation and recognition for their contributions. In most PFF programs, they receive modest honoraria, professional development support, or other kinds of recognition instead of additional salary. Further, when partner faculty are approached by a research university, which may have been an insular neighbor, they may wonder what value they might bring to the preparation of doctoral students, whether they are being expected to assume the major responsibility for preparing doctoral students to join the professoriate, and what benefits might accrue to themselves and their institution. But after becoming acquainted with each other and working

together for some period, PFF participants typically begin to understand the strengths of the faculty at each institution, develop mutual respect, and become excited about their new roles. Moreover, most partner faculty report several intrinsic benefits from working with advanced graduate students, that are difficult to attain otherwise.

In brief, PFF leaders encounter both general and specific resistance, which most have overcome, largely by making a convincing case for the benefits of PFF to students, as well as to faculty, the department, the institution, and the discipline.

The Need for PFF

In recent years, a good deal of empirical study has documented the need for a new approach to doctoral preparation. Studies of graduate students show a strong desire for more information about potential careers, greater attention to teaching, better mentoring, and a closer relationship between doctoral preparation and the realities of faculty work (Golde and Dore 2001; Lovitts 2001; National Association of Graduate and Professional Students 2001; Nyquist, Austin, Sprague, and Wulff 2001). For instance, from their survey in which the majority of students were in the humanities and social sciences, Golde and Dore (2001) found that, while students were satisfied overall with their doctoral experience, nearly half of the respondents recommended changes in their program. The area of greatest concern was a perceived mismatch between the training students receive and the expectations of their careers. Students especially felt unprepared for aspects of work other than research.

Studies of new faculty similarly point to the need for better graduate preparation and clearer expectations about the nature of faculty work (Rice, Sorcinelli, and Austin 2000; Sorcinelli and Trower 2001). Also supporting the

need for new approaches such as those represented by PFF is a study of doctoral recipients—some employed in the academy and some outside it—several years after they received their degrees (Nerad and Cerney 1999). In this study of alumni from several disciplines, respondents from all fields surveyed, but particularly English Ph.D. graduates, were critical of their doctoral programs for not providing adequate professional development opportunities for students and for not supporting them in their job search. Suggestions included: enhance teacher training (the top priority among those employed in the academy), improve career and placement services, assist students to publish their work and to attain professional visibility, broaden the educational offerings, and increase opportunities for interdisciplinary study.

In the Nerad and Cerney study, a large fraction of respondents reported seeking help in the job search but not obtaining enough help or the type of help they felt they needed. For example, 41 percent of respondents who wanted help preparing for an academic job interview reported that they never received help, and 32 percent received "some help, but not as much as needed." One-third sought advice on preparing a résumé, writing cover letters, or locating job openings, but never received assistance.

A summary of these studies can be found in the summer 2002 issue of *Liberal Education* (Gaff 2002).

Why PFF and Disciplinary Societies?

The Pew Charitable Trusts provided the original support for PFF, which resulted in a national competition among universities with doctoral programs to develop model PFF programs. In the first of four related programs, the national competition resulted in grants to graduate deans to organize univer-

Table 1. PFF Program History

PROJECT PHASE	DATES	GOALS	FUNDING	PARTICIPANTS
I	1993-1997	Develop model programs	The Pew Charitable Trusts	17 anchor institutions and 68 partner institutions
II	1997-2002	Institutionalize and spread programs	The Pew Charitable Trusts	15 anchor institutions and 119 partner institutions
III	1998-2002	Develop model programs in the sciences and mathematics	National Science Foundation	19 departments and 92 partner departments
IV	1999-2002	Develop model programs in the humanities and social sciences	The Atlantic Philanthropies	25 departments and 130 partner departments

sity-wide PFF programs. These initiatives brought together clusters of diverse institutions to develop model programs based on PFF concepts (see Table 1). A subsequent grant, the second phase, allowed graduate deans to further institutionalize PFF programs, assess results, disseminate findings, and spread the PFF vision to other institutions. This strategy was successful in building a broad base of support for PFF among graduate deans, the leaders of these early initiatives, and within a limited number of disciplines, notably the humanities and social sciences.

Despite early success, the total number of graduate faculty involved in these first two phases was limited, and academic departments did not develop much sense of ownership for the PFF program. Too few faculty members were aware of the changing expectations for new faculty, the difficult job market facing their graduate students, what they could do about that market, and the

potential benefits of PFF programs for their graduate students, undergraduates, and departments.

In developing the third and fourth phases of the PFF program, the PFF national leaders at CGS and AAC&U formed partnerships with disciplinary societies to harness their resources and their influence among faculty. The assumption was that, through their meetings, newsletters and other publications, and public advocacy, disciplinary societies could highlight the benefits of PFF activities to graduate as well as undergraduate students and to faculty and departments. They also can encourage graduate faculty and departments to carefully compare the expectations of new faculty with the preparation students receive in their graduate programs and to align doctoral programs more closely with expectations.

Doctoral education is a powerful socialization experience in which academic departments play primary roles. It is through doctoral education that scholars in a field of specialization educate future practitioners and cultivate their capacities to make advances in the field. Leaders of the disciplinary societies that have embraced PFF have discovered that PFF creates synergy with other national agendas of the societies, such as efforts to diversify the faculty, improve the teaching of new faculty, encourage social and community engagement, and explore the scholarship of teaching and learning.

The third phase of PFF was funded by the National Science Foundation (NSF) and involved partnerships in the biological and life sciences, chemistry, computer science, mathematics, and physics (Pruitt-Logan, Gaff, and Jentoft 2002). Societies in each discipline conducted a national competition among departments and awarded grants to develop model PFF programs. Originally, a society in the biological and life sciences agreed to participate but withdrew because it reported little interest in PFF among its members. The PFF office

subsequently served as a surrogate for the biology association in soliciting proposals and found significant interest among universities. Each selected department created a cluster of departments in different kinds of institutions to collectively design and implement the PFF program. The societies provided technical assistance to the clusters, highlighted their work at meetings and in publications, and interpreted the innovations in faculty preparation to their memberships.

A fourth phase of PFF, which is the focus of this volume, involved collaboration with the disciplinary societies in the social sciences and humanities listed below.

- American Historical Association
- American Political Science Association
- American Psychological Association
- American Sociological Association
- National Communication Association
- National Council of Teachers of English

Support for the fourth phase of PFF was provided by The Atlantic Philanthropies, which, like the other two funding agencies, was primarily interested in improving undergraduate education. The support of innovations in graduate education was intended as a means to enhance the learning of undergraduates.

What Did the Disciplinary Societies Do?

The structure of the fourth phase is similar to that of the third. Each of the societies conducted a national competition in the spring of 2000 that resulted in matching grants to academic departments to create model PFF programs. In

addition, they provided technical assistance to those departments, assisted with the assessment of programs, highlighted PFF programs at their regular meetings and in their publications, and generally promoted PFF as a beneficial way to educate future faculty in their fields. More details about the activities of the societies are provided in chapter four. The national PFF office coordinated work among the disciplinary societies and also conducted summer working conferences, operated a national PFF network, disseminated information, and served as a national advocate for PFF initiatives.

Twenty-five academic departments were selected to participate in this project: five in English and four each in communication, history, political science, psychology, and sociology. The departments, the name of a contact person, and the partner institutions in each cluster are listed in Appendix II. Each department organized a cluster of departments in its discipline, and each cluster, by design, represents the variety of higher education institutions likely to hire new faculty. Fourteen departments were located on campuses with existing university-wide PFF programs, nine were stand-alone programs on campuses without either a centralized program or a program in other departments, and two were on the same campus. Although social science and humanities faculty and doctoral students had been involved in the earlier PFF phase one and phase two projects, this volume is based largely on the experiences of the disciplinary societies and the departmental clusters with which they worked during phase four.

During the first two PFF phases, graduate deans provided leadership to engage graduate faculty and to secure a sense of ownership for departmentally based PFF programs. They identified certain academic departments as loci for creating PFF programs, recruited key faculty to participate, and obtained departmental approval for students to participate. In phases three and four, departments were invited to identify a faculty principal investigator and to

apply to their respective disciplinary society for a grant to implement a PFF program. During the process of applying for a grant, principal investigators sought the involvement of departmental colleagues and the support of graduate and academic deans. The grant proposal required letters of support from the graduate dean, dean of the arts and sciences unit, and chief academic officer at the university and from the department chair and academic dean at the partner institutions. In addition, the university was required to match grant funds, often with resources from the graduate or academic deans, or from the department. If a centralized PFF program had been established on the campus, departments were urged to take advantage of these resources as well, in the belief that doctoral education works best when the department, the university, and other institutional partners work together to support a broader education for doctoral students.

The disciplinary societies used the following criteria to select departments:

- Commitment to PFF concepts
- Commitment to create and lead a cluster that included departments in partner institutions
- Evidence of enrolling and graduating traditionally underrepresented graduate student populations and plans to continue to do so
- Likelihood of sustainability after the funding period
- Willingness and ability to disseminate information about PFF: to other departments within the discipline, throughout the university, and at national meetings
- Feasibility of the program design
- Willingness to participate in assessment activities
- Commitment of institutional funds to match their awards

Table 2 lists the numbers and types of colleges and universities in the fourth PFF phase.

Table 2. Distribution of Institutions Participating in Phase Four PFF by Discipline

Type of Institution	History	Political Science	Psychology	Sociology	Communi-cation	English	TOTAL
Doctoral	5	8*	7	7	8	7	42
Masters	10	8	5	14	10	5	52
Baccalaureate	1	5	6	3	6	1	22
Associate	6	6	3	3	7	9	34
Specialized	1	1	1	0	2	0	5
TOTAL	23	28	22	27	33	22	155

**Includes Stanford University, which collaborated with the University of Colorado in a joint PFF project.*

Across all disciplines, 70 percent of the institutions were non-doctoral granting, which approximates the 64 percent of the faculty in higher education who are employed at non-doctoral institutions (American Council on Education 2001). The institutions included 42 doctoral, 52 master's, 22 baccalaureate, 34 associate, and 5 specialized. The clusters reflect the rich diversity of American higher education and expose graduate students to quite different institutional missions, histories, campus cultures, and student bodies—and hence, different expectations for faculty.

How Do PFF Programs Operate?

Campus leaders are encouraged to develop PFF programs that are both in keeping with PFF concepts and reflect their particular needs, interests, and cir-

cumstances. PFF programs concentrate activities in three loci: the *department*, because some learning is particular to the disciplines; the *university*, because some learning is general and appropriate for all PFF students; and the *partner institutions*, because some learning is dependent on the institutional context.

Departments typically provide sequences of supervised teaching experiences, offer a course on the teaching of their discipline, coordinate their activities with the center for teaching and learning and other resources, host discussions in which faculty members from different institutions describe their careers, and sponsor talks by alumni in which they discuss their experience as new faculty and the adequacy of their preparation.

University activities typically include forums on faculty life and careers, discussions of faculty governance issues, a course on the general topic of college teaching and learning, and development of professional portfolios documenting student expertise in teaching, research, and service.

Partner institutions often assign a mentor to work with doctoral students, invite students to attend department or faculty meetings, include them in faculty development activities, and offer supervised teaching opportunities.

The specific kinds of program elements developed by the social science and humanities departments in this project are discussed in Chapter 3.

What Insights Have Been Gained From the PFF Initiative?

Numerous assessments have been conducted since PFF programs began. The major lessons learned from these assessments are:

- It is possible for institutions as dissimilar as doctoral degree granting and primarily undergraduate institutions to collaborate in the preparation of aspiring faculty;

- Regardless of the variety in content and implementation among programs, PFF programs broaden the background of participating students in ways that better prepare them for the many roles expected of new faculty;
- Doctoral students and alumni are enthusiastic about the benefits of their PFF programs, which include learning about the academic profession and developing a competitive advantage on the job market;
- Faculty members from partner institutions enjoy working with doctoral students and derive benefits that apply to their own professional development;
- Graduate faculty members appreciate the professional development their students receive through PFF programs;
- Virtually everyone involved in PFF would recommend the program to others; and
- Benefits to academic departments and universities include better recruitment, greater satisfaction among graduate students, and better placement. These benefits outweigh the modest investments of time and money that are required.

Recognizing that more assessment is needed, especially related to the long-term and possible unintended consequences of PFF programs, The Atlantic Philanthropies and NSF have jointly commissioned a three-year independent assessment of the PFF initiative through all four phases, and these data are gradually becoming available. The early results generally confirm the positive findings of the assessments of PFF; they are discussed further in chapter five.