Preparing the Next Generation of Faculty

Graduate School as Socialization to the Academic Career

The long anticipated retirement of significant numbers of senior faculty members is occurring at a time when societal expectations of academic institutions are expanding. Parents, employers, and legislators are interested in the quality of teaching provided by colleges and universities. Learning outcomes are emphasized, including traditional subject matter expertise and skills as well as abilities to use technology effectively, integrate and apply knowledge, and solve open-ended problems. Legislators and community leaders call for greater attention by faculty members to apply knowledge to solve societal problems. These same constituencies expect university research to aid local and regional economic development. All of these expectations take place for the most part within tight financial constraints. Without doubt, the individuals replacing retiring faculty members must demonstrate a wider array of talents than their predecessors, as well as higher levels of productivity (Fairweather, 1996; Massy & Wilger, 1995). In this context, the experiences of new faculty (Boice, 1992; Sorcinelli & Austin, 1992; Rice, Sorcinelli, & Austin, 2000) are characterized by stress, pressure,
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and uncertainty. Institutional leaders who hire new PhD graduates for faculty positions, analysts of higher education, and potential faculty members, including graduate students, raise questions about the appropriateness of graduate program preparation for the changing workplace contexts that the next generation of faculty will face. My thesis is that the socialization process in graduate school must change substantially for new faculty members to work effectively in the ever changing world of higher education.

Assessing the quality of the PhD experience as preparation for the professoriate is complex. Many PhDs will work outside of academe instead of becoming professors. Moreover, much of the structure of graduate programs serves as much to make the institutions work effectively as to prepare graduate students for future professional roles. Graduate students serving as teaching assistants provide much of the undergraduate instruction at the typical large university. The research mission of the American university depends in part upon the work of graduate students who serve as research assistants for professors. Although teaching and research responsibilities surely can provide training opportunities for the future faculty, these assistantship roles sometimes are structured more to serve institutional or faculty needs than to ensure a high quality learning experience for graduate students. A graduate student teaching Freshman English, for example, might already have taught the class several times and could benefit from a different teaching experience.

This article examines doctoral education as socialization for the professoriate. It addresses the question of whether or not the graduate school preparation process is adequate and appropriate given the academic workplace these scholars will enter. In the first section I discuss key points from the literature on preparation for the faculty career, arguing that the doctoral experience is the first stage of the academic career. In the second section, I examine the workplace context into which PhD graduates will move for employment. The argument here is that the academic workplace is significantly different from that which has characterized higher education in the past. In the third section I analyze graduate education as experienced by graduate students. I use data from a four-year qualitative, longitudinal study that examined the graduate school experience of a group of individuals preparing to be faculty members. In the fourth section I compare key findings from this qualitative study with findings from other recent quantitative studies of PhD students to identify discrepancies between the academic workplace context into which new faculty will be hired and the graduate school socialization process. I conclude with recommendations for reforms that will realign graduate education with the realities of the academic workplace.
Faculty careers can be conceptualized as including early, mid-career, and senior faculty periods (Baldwin & Blackburn, 1981; Boice, 1992; Finkelstein & LaCelle-Peterson, 1993; Menges, 1996; Rice, Sorcinelli, & Austin, 2000; Sorcinelli, 1992; Sorcinelli & Austin, 1992). Some authors incorporate the graduate school period, including the teaching assistant experience, as part of the early career period (Anderson, 1998; Anderson & Swazey, 1998; Golde, 1997, 1998; Golde & Dore, 2000, 2001; Nyquist & Sprague, 1992; Sprague & Nyquist, 1991). Although this work has shed light on the graduate experience, it focuses mostly on quantitative description. Long-term, qualitative research focused on exploring the voices of graduate students over time has not been part of the previous literature on graduate education.

The literature on socialization implies that an individual’s understanding of the faculty career begins with the graduate school experience or even earlier, not with the first faculty position. Van Maanen (1976) posited that socialization to an organization and a role begins with an anticipatory learning period during which prospective members begin to assume the values and attitudes of the group they wish to join. As socialization or a preparatory experience for the faculty career, the graduate experience is the crucial point in time to determine whether or not students are exposed to the types of skills and expectations likely to confront them on the job. While Bess (1978) argued that anticipatory socialization begins even prior to graduate school, he also saw the graduate school period as a time of socialization, asserting that this period involves “the confirmation through socialization of preexisting behavior tendencies” (p. 312).

Socialization is a process through which an individual becomes part of a group, organization, or community. The socialization process involves learning about the culture of the group, including its values, attitudes, and expectations (Corcoran & Clark, 1984; Staton & Darling, 1989; Van Maanen, 1976). Graduate students experience several socialization processes simultaneously: socialization to the role of graduate student, socialization to the academic life and the profession, and socialization to a specific discipline or field (Golde, 1998; Staton & Darling, 1989). Golde (1998) has argued that graduate students face four general socialization tasks. First, they must grapple with intellectual mastery and the question of “Can I do this?” Second, they must grapple with the question of “Do I want to be a graduate student?” Third, they must learn about the academic profession and ask “Do I want to do this work?” Fourth, they face the task of becoming part of a department where they may ask “Do I belong here?”
This article contributes to our understanding of how graduate school functions as a socialization process for those who aspire to the academic career, identifying the gaps or discrepancies in that socialization process. The study discussed in this article was guided by the view that socialization is a dialectical process through which newcomers construct their particular roles as they interact and engage with others (Staton & Darling, 1989; Staton-Spicer & Darling, 1986, 1987; Zeichner, 1980). Socialization is a two-way process where individuals both influence the organization and are influenced by it (Tierney & Bensimon, 1996). Socialization is not a static process in which newcomers only receive the imprint of the organization. It is a dynamic process in which the individual newcomer brings experiences, values, and ideas into the organization. Three perspectives on graduate school as a socialization process are important: (a) the way the socialization process occurs in graduate school; (b) the conceptions that graduate students develop about the academic career and faculty role; and (c) the students’ responses to and suggestions concerning graduate education as a socialization process.

Any discussion of graduate preparation and socialization for academic careers must take into account disciplinary contexts (Austin, 1990; Becher, 1984; 1987; Biglan, 1973; Clark, 1987; Kuh & Whitt, 1988; Tierney, 1990). Each discipline uniquely defines and legitimates research questions, research methods, the relationship between teaching and research, and work relationships between scholars. These disciplinary variations can make significant differences in the lives of faculty members. For example, a faculty member in English is likely to conduct research alone, while a professor of chemistry is more likely to have a team of colleagues and graduate students with whom he or she collaborates. Humanities scholars tend to value books and monographs as products of intellectual work, whereas natural and physical scientists, and many social scientists, tend to favor refereed articles.

The Workplace that Graduates Will Enter

The modern academic workplace is characterized by student diversity, new technologies, changing societal expectations, a shift in emphasis toward the learner, expanding faculty work loads, and a new labor market for faculty. Edgerton, Rice, Chait, and Gappa (1997), Rice (1998), and Schuster (1999) believe that these characteristics indicate a major transformation in higher education, perhaps as extensive as the one that occurred in the latter part of the nineteenth century, when the modern American university emerged.

Changing approaches to teaching and learning. Irrespective of insti-
tutional type, the modern college or university increasingly is encour-aged by external constituencies to strengthen undergraduate education by shifting from an emphasis on teaching to an emphasis on learning (Barr & Tagg, 1995). Focusing on the learner, rather than the teacher, leads to new expectations for how the faculty will enact their roles. New faculty members are likely to need to know how to support and advise students, and how to facilitate learning through discussions, utilize a range of collaborative and other innovative learning processes, and link classroom learning with life experiences and service in the community.

Increasing diversity of students. Students are becoming more diverse in their backgrounds, needs, motivations, and expectations (Keller, 2001; Syverson, 1996). Faculty members must have some appreciation and preparation for working with students of diverse ages, genders, ethnicities, capabilities, levels of interest and commitment, life circumstances, and prior educational preparation. The diversity of students is one reason that faculty members must learn how to use a broad range of teaching strategies.

New technologies. As more academic institutions and their competi-tors incorporate virtual education into degree programs, faculty mem-bers will be expected to use technology-mediated teaching and learning strategies, as well as provide distance-learning opportunities (Connick, 1997; Gilbert, 1996; Green, 1996, 1999; Levine, 2000). At many institutions, faculty members are encouraged to teach on-line and to participate in curricular development that draws on delivery or learning options made available through new technologies. Such competencies increasingly are evident in advertisements for new faculty positions. Teaching on-line involves skills above and beyond those used in traditional in-class courses.

Changing societal expectations of the academy. The modern academic environment is defined in part by new expectations and pressures from the broader society (Fairweather, 1996). Parents raise questions about the quality of the undergraduate experience their children receive. Employers express concern about the skills and abilities of bachelor's degree recipients who enter the workplace. Legislators now sometimes mandate teaching expectations for faculty members, such as the Ohio policy of requiring the faculty to spend 10% more time on teaching. Community leaders ask how the university and its faculty contribute to public service. As they seek to respond to societal expectations and to demonstrate accountability, many campuses have adopted Boyer’s (1990) notions of “scholarship” to include the scholarship of discovery, the scholarship of teaching, the scholarship of integration, and the schol-arship of engagement or application.
The implications for new faculty members are extensive. In addition to the traditional expectations for teaching, research, and service, they must understand the broader expectations for scholarship and develop expertise in the different forms of scholarly work. Increasingly, faculty members must be able to collaborate with colleagues in other disciplines and with individuals and organizations outside the academic environment.

Demanding faculty life styles. Many new faculty members experience overload and stress from multiple demands. Rice, Sorcinelli, and Austin (2000) reported that new faculty members struggle with juggling multiple and sometimes conflicting professional responsibilities, and with achieving balance between professional and personal lives. Studies of new faculty also consistently report that faculty newcomers are isolated, perceiving a lack of collegiality that contradicts their expectations of faculty life (Menges & Associates, 1999; Rice et al., 2000; Sorcinelli & Austin, 1992; Tierney & Bensimon, 1996). These pressures and disappointments cause some new faculty members to consider leaving the profession almost before embarking on their careers (Rice et al., 2000). The importance of the intrinsic aspects of the work seems to be the critical motivator for many, even when pressures cause doubt and concern (Rice et al., 2000).

Changing conditions of the academic job market. The traditional full-time tenure-stream position is no longer the norm. In 1997, according to the U.S. Department of Education, 43% of the instructional faculty and staff in American colleges and universities were employed part-time (“The Nation,” 2000). Many faculty appointed to full-time positions receive term rather than tenure-stream appointments (Schuster, 1999; Finkelstein, Seal, & Schuster, 1998). Schuster (1999) has calculated that the faculty members who hold regular tenure or tenure-stream appointments are now outnumbered by those in term and/or part-time situations.

The academic labor market is both national in scope and quite tight. For at least a quarter of a century, the humanities have had an oversupply of new PhDs and undersupply of full-time faculty positions. In the sciences, the imbalance in supply of positions and production of PhDs has become a widespread concern more recently. Consider the life sciences as an example. Consistent with the belief that academic science would continue in a trajectory of growth, universities produced 47% more PhDs in the life sciences between 1987 and 1996 (Tilghman, 1998). During this same time period, the supply of resources to support academic science actually declined. Whereas 61% of individuals granted PhDs in the life sciences in 1963–64 were in tenure-stream appointments ten years later, the comparable figure for those who completed PhDs in
1985–86 was only 38%. In contrast, the latter group was twice as likely to end up in industry (24% versus 12%). Life science employment in “permanent” positions in academe, industry, or federal or government laboratories declined from 87% in 1975 to 73% in 1995 (Tilghman, 1998).

The precise statistics vary by discipline and field. Across fields, however, new doctoral graduates are facing a decline in tenure-stream positions and an increase in part-time and nontenure-track full-time positions. Although research universities prepare most future faculty members, they represent only a small portion of all institutions. It is very likely that many new faculty members will work in a comprehensive university, community college, or liberal arts college, each more oriented toward teaching and public service than research universities.

Implications for PhD graduates. Traditionally, the organization of faculty work at most institutions has been based on the assumption that each individual faculty member engages in a full range of responsibilities. More recently, the notion is emerging of organizing faculty work around variable individual assignments—sometimes called “unbundling” the different dimensions of faculty work. Though it is possible that the organization of faculty work may change in significant ways in coming years, this article is based on the assumption that, for the foreseeable future, institutions will continue to expect full-time faculty members to demonstrate multiple skills and abilities as they engage in a full range of academic work assignments. Admittedly, most institutions typically do not delineate specifically how faculty members will engage in the range of work activities. The allocation of faculty time to various tasks is likely to be messy and largely based on the discretion of the individual. However, implicit institutional expectations tend to require individual faculty members to participate in the diverse responsibilities that support the range of missions of the particular institution. Thus, each of the changes just discussed has significant implications for the kinds of knowledge, skills, and abilities that new faculty members will be expected to demonstrate. These areas of knowledge, skill, and ability include knowledge of a range of teaching strategies, including technology-mediated strategies; understanding the implications of student diversity for teaching, advising, and working with students; knowledge of and ability to engage in various kinds of scholarly work, ranging from the traditional scholarly work of discovery to the scholarships of teaching, integrating bodies of knowledge, and applying knowledge to problems; ability to work across disciplines and to collaborate with colleagues with different perspectives; ability to balance multiple demands and set priorities; awareness of the role and responsibility of the acad-
emy in American life and society; and knowledge of the cultures and expectations that characterize the various types of higher education institutions. Realistically, those who aspire to be faculty members should learn about the job options outside academe given the limits to employment opportunities within the academy.

At a recent conference on “Re-envisioning the Ph.D,” held in Seattle in April, 2000, Leroy Hood (2000), president and director of the Institute for Systems Biology, offered a long list of the skills and abilities that students should develop while working on a PhD. The list certainly included the ability to do research and to read and analyze literature critically. It also included skills in communication, computation, teaching, mentoring, partnering, teamwork, managing complexity, and maintaining appropriate standards and expectations. He went on to argue that the changing world of employment for PhDs, an employment world that necessarily includes positions outside academe as well as in it, requires graduates to develop a philosophy about scholarship, education, and leadership; accommodate diversity; and understand how to continue to learn and adapt to changing situations. It is worth noting that all the skills and abilities discussed in this section represent areas in which PhD graduates might be expected to have not only good baseline training but also a commitment to continued learning and adaptability.

How do these lists of the knowledge, abilities, and skills required by the changing academic workplace relate to the socialization and preparation processes experienced by PhD students today? We turn now to research on the socialization process in graduate school as perceived by doctoral students.

The Graduate Experience as Preparation for the Academic Career

The research discussed in this section involved a four-year, longitudinal, qualitative study that followed a sample of graduate students who aspired to the professoriate and who held teaching assistantships at the start of their graduate programs. The participants were in various disciplines, including humanities (English and music), sciences (chemistry, zoology, engineering, and mathematics), social sciences (history, psychology, and communication), and professional areas (business, journalism, education, and food science) at three universities. Two of the institutions were large doctoral-granting, research-oriented universities, and one was a comprehensive, master’s-granting institution that primarily prepares many teachers. The sample studied was selected to include diversity in terms of sex and disciplinary home. Despite careful effort when developing the sample, the diversity in race and ethnicity was
quite modest and less than desired. This article draws on the data from
the 79 participants at the two doctoral-granting institutions.

Members of the research team conducted in-depth interviews with
each graduate student participant every six months from the start of their
doctoral study for a four-year period. The open-ended interview ques-
tions invited participants to reflect on their experiences as graduate stu-
dents and as teaching assistants, their disciplinary interests, career aspi-
ations, perceptions of the faculty career, observations about faculty
roles and responsibilities, and suggestions about the preparation appro-
priate for aspiring members of the professoriate. Each interview was
taped and transcribed. Analysis involved repeated readings of each tran-
script, and the development, refinement, and use of coding categories
around themes that emerged from the data. The two or three researchers
at each location checked each other’s coding consistency. The full re-
search team regularly discussed interpretations and implications of the
data.

The discussion below is organized in four parts. The first examines
the general process of graduate student development, socialization, and
preparation. The second section focuses on how socialization occurs in
graduate school, especially the processes, influences, and interactions
that graduate students use to make sense of their experiences and pre-
pare for the professoriate. The third examines graduate student concep-
tions and perceptions about the academic career and faculty work. The
fourth section discusses recommendations from doctoral students for
improving the graduate socialization experience.

The contribution made by this study is its emphasis on the perspec-
tives and voices of graduate students who were given the opportunity
over an extended time period to reflect on their graduate experiences.
These findings can be combined with quantitative surveys of large num-
bers of graduate students to provide a useful framework for policy rec-
ommendations.

Graduate Student Development

Interview data reveal that the development of graduate students as
prospective members of the faculty is shaped by many factors that take
place in a nonlinear, complex way. Factors affecting how an individual
experiences and develops in graduate school include age, educational
background (for example, those who attended a liberal arts college had a
better understanding of the complexities of being a college-level
teacher), family situation (including having other teachers in the family,
or being married or partnered and having children), and previous em-
ployment (especially prior teaching experience). Students enter graduate
school with different prior experiences. Some have had formal teaching experiences, such as serving as a tutor while an undergraduate or as a teaching assistant during a master’s degree program. Others have had informal teaching experiences in religious or community groups, where they served as leaders or planners of educational experiences. Some students have parents who are academics, whereas others come from backgrounds quite removed from academic life. Some are single and young; others come with family responsibilities that limit the time, energy, and resources the student can focus on the graduate experience. Other personal factors affecting graduate student development are the student’s locus of control (that is, the extent to which a person perceives that he or she has the power to make decisions and manage the graduate experience), the student’s sense of self-efficacy (that is, the belief that the student has the ability to do what is expected), and the student’s ability to make effective connections with people and opportunities.

Disciplinary and institutional contexts also play a critical role in graduate students’ socialization to the academic profession. Relationships between faculty members and graduate students differ across disciplines, as do career possibilities and the preferred balance in faculty work between teaching and research. Graduate students in the sciences, for example, more often participate in research teams, whereas students in the humanities and social sciences have more one-to-one relationships with faculty members. Students in the sciences have more research assistantships, whereas graduate students in the humanities and social sciences more frequently hold teaching assistantships. Teaching assistants in humanities or social sciences are more likely to teach sections on their own, whereas teaching assistants in the sciences typically lead labs rather than teaching whole sections alone.

Despite disciplinary differences, graduate students share common challenges and concerns. Most students must make sense of the academy and its values, its expectations of them as graduate students, its conceptions and definitions of success, and the models of professional and personal life that it offers to those aspiring to join the academic ranks. In this discussion, I report the themes and issues holding true across disciplines and other personal factors.

The Process of Socialization and Preparation for the Faculty

Socialization is an ongoing process, not the result of occasional events. From their entrance into graduate school, these prospective faculty members strove to make sense of academic work and faculty careers, how their interests and values fit with those they saw honored within the
academy, and the kinds of future they envisioned. Important aspects of this socialization process include observing, listening, and interacting with faculty, interacting with peers, and interacting with family and personal friends. That graduate students learn from observing and interacting with their faculty—as in an apprenticeship—is not surprising. More surprising is their reliance on others—peers, family, and friends—to make sense of their experiences in graduate school. Particularly noteworthy and a cause for concern is the lack of systematic professional development opportunities, minimal feedback and mentoring from faculty, and few opportunities for guided reflection. Although some students had faculty mentors who guided them carefully through the process, most did not.

Observation, listening, and interacting with faculty. Aspiring faculty are keen observers and listeners. They listen carefully to formal as well as informal conversations with advisors and supervisors. They pay attention to casual, off-hand remarks by professors and by more advanced students. Aspiring faculty members observe departmental policies (such as the absence of statements about teaching philosophies) and faculty members’ behaviors, including how they allocate their time across responsibilities, their degree of willingness or reluctance to take on various tasks, and their interactions with students. The participants often mentioned “mixed messages.” For example, they observed that statements made by institutional leaders about the importance of high-quality teaching do not coincide with the ways their advisors or supervising faculty spend their time, with advice offered in casual hall conversations, or with university reward structures.

When a graduate student is a teaching assistant (TA), the person for whom he or she TAs or the TA supervisor sometimes serves as a model. In the best cases, such a person is available to answer questions or talk informally about the class. Some respondents mentioned the helpfulness of departmental faculty and graduate directors who make themselves available for informal conversation about teaching in the discipline and the academic labor market.

Graduate students do not rely only on observations of their graduate professors. Some of the respondents discussed undergraduate faculty whom they would like to emulate. In other cases, previous professors are reminders of what the graduate student does not want to be like. As one explained, “Every teacher I have is a teacher I can use in some way. . . . I can always be thinking about how what I’m learning relates to teaching.” This apprenticeship of observation (Lortie, 1975), well understood by those who prepare K-12 teachers, is also a powerful influence on graduate students aspiring to the professoriate.
Interactions with peers. Many participants commented favorably on the opportunities for informal interactions with peers that occur when TAs see each other regularly. Some graduate students credit their friends in graduate school for helping them to manage the various requirements and hurdles of a graduate program. These peers also help to celebrate milestones in the graduate process.

Interactions with personal friends and family. Other family members and personal friends—spouses, parents, uncles, a professor whom one participant had dated at another university—had been or were current confidantes for many participants. Surprisingly, some participants saw these individuals as their primary referent group despite being outside the immediate academic environment.

Lack of developmentally organized, systematic professional development opportunities. Experiences as teaching or research assistants can provide learning opportunities. Many participants reported that their research experiences gave them confidence in their ability to frame research questions, design studies, and write for publication. For the most part, however, the graduate students we studied did not experience systematic, developmental preparation for the faculty career. Teaching experience is not necessarily required in PhD programs for those who aspire to be professors. When teaching opportunities occur, they are often not organized systematically to ensure growth or appropriate preparation. For example, we found few instances where the TA experience was used to encourage more complex activities over time, such as moving from grading for a faculty member, to managing a lab section under guidance, to running a course alone. The use of TAs usually responds to departmental needs to cover courses or sections, not the development of future professors. Furthermore, focused, regular feedback about teaching and in-depth conversations with faculty about teaching practices often are not planned into the schedules of teaching assistants or the faculty for whom they TA. Participants who experienced careful supervision and opportunities for conversation reported that they welcome such guidance.

Few graduate student respondents reported receiving any guidance about the array of other tasks that faculty members must fulfill, including advising, committee work, curriculum development, managing ethical issues, and public service and outreach. Specific guidance on how they might develop or adapt their professional skills for settings outside academe was not part of the preparation of most participants.

Insufficient feedback and mentoring. Several respondents mentioned that they received inadequate information about the basic requirements of graduate study, such as the rules, processes, and expectations about
comprehensive exams, dissertation proposals, and doctoral committees. Few reported opportunities to interact on a regular basis with a faculty member to discuss and explore such issues as career choice, meaning in faculty work, options for the future, and assumptions about teaching and learning.

Few opportunities for guided reflection. My colleagues and I asked participants to draw pictures showing their “path or journey through graduate school” (Nyquist et al., 1999). It is noteworthy that many pictures featured cliffs, swamps, mountains, and other challenging geographic details. Many respondents spoke poignantly of their struggles to move through graduate school and, particularly, to find the best ways to situate their own interests in the context of the values and emphases of their faculty advisors and disciplinary contexts.

Surprisingly, the interviews for this study became a substitute for the lack of opportunity for respondents to discuss their progress with their own faculty members. Many told us that these interviews were the only occasions where they had a serious conversation about their goals, how they thought about careers, or how they were developing as teachers, researchers, and prospective scholars. In sum, although focused and guided self-reflection are integral to graduate students’ sense-making process, it is not an activity that graduate advisors or doctoral programs facilitate.

Conceptions of the Academic Career and Faculty Role

The sections below address students’ motivations for pursuing graduate education and for aspiring to a faculty career. Also included are key themes about faculty work and the academic lifestyle of professors.

Motivations. Study participants often mentioned that core values long associated with faculty work attracted them to graduate school. Many noted the opportunities to pursue disciplinary interests, to engage in creative work, to contribute to the development of a future generation in one’s discipline, and to interact with interesting and diverse people. These observations seem consistent with quantitative data collected by Anderson and Swazey (1998) a decade ago. They found that substantial percentages of graduate students indicated desire for knowledge in the field and wanting to do research as primary motivators. More than one-third responding to that survey also indicated that they desired to teach.

Aspiring faculty members begin their graduate education with enthusiasm and idealism about engaging in meaningful work. Some used the term “passion” to describe their excitement about the questions in their disciplines or fields that they want to pursue. For others, sharing their enthusiasm for the discipline or field with students is a primary motiva-
tion. Although historically faculty work has been seen as a “calling” (Finkelstein, 1984), this term does not characterize our respondents. Instead, prospective faculty members today want “meaning” in their work. They want to engage in work that has a positive impact on the students with whom they come in contact or on the broader society and work that has personal significance for them. Their motivations are largely intrinsic in character, which is consistent with research on early career faculty (Austin, 1992; Rice et al., 2000). Yet, these respondents do not view the faculty career as the only possibility for engaging in meaningful work. One PhD student in zoology explained that his Christian faith frames his thinking about his life and work. He used the term “calling” to describe his motivation, but explained that being a faculty member may not be the only way to pursue his commitments: “I’m here to do this as a career but, at the same time, it’s not the end all or be all.” Another respondent, a woman also in zoology, spoke of her love of science, her enjoyment of working with undergraduate students, and her excitement about communicating her love of the discipline to others. She explained that making choices about careers is difficult and suggested that being a faculty member may not be the only possibility:

Most people expect that, once they graduate from college . . . they know exactly what that they’re doing with their life. . . . And it’s just not true. . . . I think the 20-something years is a very stressful time in that you’re supposed to know exactly what you’re going to do. And nowadays, you don’t really have to. A lot of people make mid-career changes and it’s not something that you have to know exactly. You’re not going to make a decision at age 22 that is going to necessarily be the same thing for the next 35 years of your life. . . . I can’t see myself being a professor tomorrow, but in five years, maybe.

An English doctoral student explained that she would enjoy faculty work but is willing to pursue other ways to use her abilities as a thinker, writer, and teacher. She wants to have a balanced life where her spouse and children are as important as her potential faculty career.

Finding “meaningful” work better describes how these doctoral students have approached graduate school and considered faculty work than using the term “calling.” During their graduate programs, some respondents questioned whether or not faculty life is the vehicle to help them find the meaningfulness they seek. At the same time, most respondents have not developed a full understanding of what faculty work actually involves, nor have they gained understanding of specific career options outside academe.

Perceptions about teaching and research as aspects of faculty work. Respondents explained that their many observations provide messages, albeit often ambiguous, about the relative importance of teaching and re-
search. Some noted that graduate faculty members often devote little time to helping doctoral students learn to teach. Some teaching assistants were urged to avoid spending “too much time” on their teaching. Others saw that faculty members expressed reluctance to serve as administrators because time would be taken from their research.

The graduate students often mentioned mixed messages about teaching—the most obvious being public statements by institutional leaders about the importance of teaching contradicted by institutional policies and faculty behaviors emphasizing research. Their observations of university reward structures, including tenure processes and decisions, strongly affect aspiring faculty. A female student in Business explained this phenomenon:

There is a very heavy emphasis on teaching. At the same time, all the rewards and everything in the department are still research-based. I think what happens in our department right now is if you publish a lot you are golden. Unless you are an absolutely diabolical teacher, they’re not going to do anything about it. . . . I don’t think they are just giving lip service to teaching; I think they are really considering it important. . . . On the other hand, . . . that’s not the way it [faculty rewards] is structured at all. I am not into the system yet, . . . but if the incentives went that way, I don’t know.

Said more directly by another graduate student, no one “hassles faculty about poor teaching.” And a male student in zoology observed, “Teaching takes a back seat to research, . . . research gets the glory.”

Some graduate students were encouraged to value teaching. Some departments encourage teaching assistants to participate in special training sessions, and some teaching assistant supervisors or faculty advisors encourage discussion about teaching approaches and experiences. Nevertheless, the graduate experience—students’ daily experiences, conversations, and observations—appears to socialize aspiring faculty primarily to a vision of faculty work that has dominated the academy for at least four decades (Rice, 1986). This preparation for the faculty career stands in direct contrast to the national discussion about the importance of various kinds of scholarship (including teaching and service/outreach), institutional calls to encourage a balance between teaching and research, and the likelihood that many graduates will find positions in master’s- and bachelor’s-granting institutions.

Perceptions of the faculty lifestyle. By the second year of the interviews, respondents were offering many comments about the lifestyle associated with faculty work. The participants often noted constant pressure and stress, as well as conflicting demands. Observing their teachers and advisors, some wondered whether it is possible to have a “balanced life” with room for both personal and professional commit-
ments. Some respondents rethought their career goals based on these observations. For example, a woman in a science field remarked: “I used to think I wanted to work in a Research I institution, but after seeing how my advisor lives, I think maybe a four-year college would be . . . a better placement. . . . I want to have a life.” Another participant, working on a PhD in English, described her advisor’s life as a negative example: “My advisor never seems to have time for me. . . . She’s always busy at conferences or doing research. . . . I don’t want to be that kind of professor. . . . I want to be there for my students.” A woman studying psychology worried about balancing professional and personal lives:

I hope I’ll be able to find what I’m looking for. . . . I love the brain research I’m doing, . . . [but] sometimes when I observe the faculty in our department, they just seem too busy. I need more balance in my life. You know I’m pregnant. My husband and I both want to make sure we have time for our baby.

A woman studying for a doctorate in educational psychology gave the most poignant example of these concerns:

For a while I thought maybe I’d like to work in a research university, if I could, . . . but after my husband’s heart attack, I realized life is too short. I want time with him. I love teaching, . . . I like research, . . . but I need to choose a path that gives me time to have a life.

Insufficient understanding of faculty careers or other career options. Although careful observers of the stress and commitment in faculty lives, many participants did not have a rich, full understanding of academic life and faculty careers. They often were unable to articulate a comprehensive statement of what faculty life involves. Many expressed limited understanding of the variety of roles that faculty members must fulfill beyond teaching and research, such as advising, institutional service, and public outreach. Few actually understood the various types of service and outreach (although it could be argued that many faculty members themselves do not have a thorough understanding of service and outreach). The participants understood research success in their fields, but were far less articulate about other forms of achievement.

Faculty members seem to assume that graduate students either arrive with an understanding of faculty work or develop such understanding implicitly. Few advisors initiated conversations with their graduate students about possible career routes or about alternative opportunities for career success in the future. A doctoral student studying music illustrated the uncertainty expressed by a number of participants: “I don’t have any idea. . . . I have no idea what it’s like to be a faculty member. And I thought being a graduate student might give me some idea, and it doesn’t. . . . I don’t know anything. I feel like I should, but I don’t.” A
woman in psychology found that the faculty simply assumed that graduate students understand faculty work and academic life: “People coming into PhD programs aren’t as aware of what the system is like at all, what the universe, what being an academic is like. And that knowledge is taken for granted.”

Grappling with perceptions of faculty work. Some participants found it easy to make sense of the life and values embedded in the academy. According to one woman in a professional area:

It's the things that you don’t get grades for that are the most important, ... presenting papers, ... schmoozing at conferences, ... the politics of the department. ... I love all of it...I think I’m the ideal graduate student. ... I love my work, ... I believe in what I’m doing, ... and I don’t have a boyfriend so I can move anywhere.

More common were the students struggling with a different understanding of the academy than they had originally envisioned. Some perceived over time that their commitment to teaching was not valued as much as they had expected. Others worried about pressure and stress. Creating a life with balance between personal and professional commitments seemed elusive to these prospective faculty. The principal conflict for many respondents was feeling that they must adjust or sacrifice their own interests and goals (often the very interests and questions that led them to graduate school) to fit the expectations and interests of their advisors. Some graduate students handled these contradictions, remaining committed to graduate study and the professoriate. Others, such as the participant quoted here, could not find their place and chose to leave the academy entirely:

I came here because I really wanted to teach. Research was the hoop I had to jump through. ... I didn’t know if it would take more than I was willing to give. I’ve tried three times to find a “researchable project,” ... and, well, I’m just not that interested anymore. ... I think I’ll go into business.

Between these two extremes are the students who continue while resigning themselves to departmental expectations. Disappointment and disillusionment characterize the lives of some in this group. Consider a woman studying in the humanities who had anticipated with excitement the guidance she had hoped to receive from her advisor. Instead, she found her advisor distant and too busy to spend much time with her. Well into her program, this student struggled with her research focus and felt that her committee members were busy with their own interests, explaining that “they don’t have time to do what I think they need to be doing [with me].” She explained with resignation, “I realize I’m going to just have to reach deep down inside myself and just do it.” The disillu-
sionment and isolation experienced by some prospective faculty during graduate school do not bode well for the professoriate as a whole. Perhaps the most interesting group tries simultaneously to “be true to one’s own values” while recognizing and adapting to the dominant values of the academy and being competitive in the academic job market. These students actively seek opportunities to expand their abilities and to reflect on and connect the various elements of their graduate experience. Some students have started discussion groups among their peers to read about and discuss teaching. Others have found assistantships beyond their departments—such as in university administrative offices—that expand their knowledge of the academy. Some respondents have taken internships or volunteer work outside the university to use their disciplinary and research skills in nontraditional ways.

Student Recommendations for Improved Graduate Program Socialization

Participants articulated five recommendations for improving graduate school as preparation for faculty careers:

1. More attention to regular mentoring, advising, and feedback. The respondents called for their faculty members to provide them with careful, thorough advising and regular supportive mentoring. They value guidance on how to negotiate their way through the challenges of graduate education, the expectations and criteria that define success in academe, how to interpret conflicting explicit and implicit messages, how to balance the personal and professional aspects of their lives, and the possibilities for alternative career routes. Some also wish that the faculty would provide more explicit feedback about their progress as students, as teachers, and as future faculty members.

2. Structured opportunities to observe, meet, and talk with peers. Several doctoral students requested more structured opportunities for peer discussion about teaching, faculty work, disciplinary expectations, and career possibilities. Some also recommended that teaching assistants periodically observe each other and meet to discuss teaching-related issues.

3. Diverse, developmentally oriented teaching opportunities. Several participants praised the value of diverse teaching experiences and urged systematic attention to providing graduate students with opportunities to take on increasingly complex and more autonomous teaching responsibilities.

4. Information and guidance about the full array of faculty responsi-
Some respondents requested that their graduate education provide more occasions for skill-building, including grant and proposal writing, research budgeting, and various teaching strategies. Students in the sciences more frequently felt confident in research-related skills, whereas humanities and social science students reported greater confidence in teaching. Graduate students did not usually mention advising, institutional service, outreach responsibilities, or the likelihood of teaching with technology as areas in which they needed more information. These results indicate lack of awareness about these aspects of faculty work.

5. **Regular and guided reflection.** The respondents uniformly expressed enthusiasm and appreciation for the twice-a-year interviews in this project. Many of them did not experience extensive, thoughtful, periodic conversations with advanced colleagues.

**Discussion**

These results show discrepancies between the preparation of graduate students and the realities of both academic work and the academic labor market. Graduate students typically did not receive systematic opportunities to develop needed skills and abilities. They often reported considerable preparation for research, though some indicated they were not well prepared to secure funding and write grant proposals. In contrast, most did not experience careful guidance and training in many aspects of teaching, such as curriculum design or using technologies in teaching. Experience and training in advising, institutional service, outreach and public service, and ethical aspects of the faculty role were generally not part of the experience of those whom we interviewed.

These results support the conclusions of quantitative survey studies. Based on data from a survey of 9,645 students in eleven disciplines at 28 major research universities, Golde and Dore (2000, p. 6) concluded that “what students are trained for is not what they want, nor does it prepare them for the jobs they take.” They learned that aspiring faculty have interests in research, teaching, advising, and service, but their training primarily emphasizes research and publishing. Teaching preparation generally is limited to lectures. In an earlier study of 187 doctoral students at six universities, Golde (1997) found that 90% felt prepared to conduct research, whereas only 63% felt prepared to teach undergraduates, 33% to teach graduate students, 30% to advise undergraduates, 26% to advise graduate students, 38% to get research funding, and 19% to participate in university governance and service. Davis and Fiske (2000) reported that 63% of their 6,529 respondents were not carefully supervised in
their assignments. All of these studies show that graduate students who aspire to the professoriate perceive that they do not receive systematic preparation in many aspects of the job.

Second, and related, aspiring professors receive little guidance about academic careers in different types of institutions. Although the Preparing Future Faculty Program (Gaff, Pruitt-Logan, Weibl, & Others, 2000) and others like it are praiseworthy exceptions, many graduate students have little exposure to the differing faculty cultures and expectations across institutional types. Most graduate students consider the faculty position from the research university perspective, even though many will teach at other types of institutions. Davis and Fiske (2000) found that 37% percent of their respondents reported receiving little guidance for academic careers; less than one-half received guidance about nonacademic careers.

A third theme is that graduate students do not receive focused, regular feedback or mentoring. Many of the graduate students in this study were on their own to make sense of their graduate experiences. Though there were exceptions, many did not receive specific feedback about their teaching or other activities, or focused and regular mentoring and advising about career aspirations and progress toward goals. Anderson and Swazey (1998) found similar results a decade ago, reporting that “only about half agreed—very few strongly—that faculty members were explicit in their expectations of students and that evaluation was successful in ‘weeding out’ the weak students” (1998, p. 6).

Fourth, graduate students value their interactions with their peers for both its social value and the information shared. Much informal socialization occurs through those peer interactions. Similarly, Anderson and Swazey reported that “about half of our respondents said that students in their program learned more from each other than from the faculty” (1998, p. 6). These findings raise questions about the faculty’s engaging in serious and sustained ways with their students about the graduate experience, the academic workplace, and career goals and options.

Fifth, graduate students who aspire to the professoriate are concerned about their observations of faculty life. Especially important is the perceived difficulty in finding a balance between professional and personal commitments. This theme occurs in the research on early career faculty (Rice et al., 2000), and in other studies of graduate students (Golde, 1997; Golde & Dore, 2000, 2001). Despite the prevalence of concern about faculty life, few faculty members talk with graduate students about how to build a satisfying life as an academic.

Sixth, the graduate student experience can adversely affect the commitment of students to the professoriate. Anderson and Swazey found
that "nearly a third of our respondents agreed with the statement that graduate school was changing them in ways they did not like" (1998, p. 9). Many of the 79 participants in this qualitative study experienced conflicts between what they valued and what they perceived their graduate education to encourage. These conflicts may not necessarily be disadvantageous. In some cases they represent important developmental struggles that many young adults must experience as they choose careers, including the decision not to pursue an academic career. Yet the struggles and conflicts about personal values, and the values and emphases that the students perceive they are being socialized to accept, often occur with little provision for guided reflection, systematic advising, or thoughtful mentoring.

**Recommendations**

Calls for reform in graduate education come from professional associations, government agencies, philanthropic organizations, and institutional leaders (Association of American Universities, 1990, 1998; Committee on Science, Engineering, and Public Policy, 1995; Golde & Dore, 2001; Hartle & Galloway, 1996; Kennedy, 1997; LaPidus, 1997a, 1997b; Malcolm, Van Horne, Gaddy, & George, 1998). A conference focused on "Re-envisioning the Ph.D.", sponsored by the Pew Charitable Trusts and directed by Jody Nyquist, brought together individuals from various groups within and outside academe, to develop alternative scenarios for the PhD (See http://www.grad.washington.edu/envision/ for reports and strategies for strengthening the PhD).

Based on these research reports, I make several recommendations to faculty advisors working with doctoral students, department chairpersons, teaching assistant supervisors, and graduate deans. Each of these groups has the means and opportunity to implement some aspects of the recommendations for strengthening graduate education as a socialization experience for aspiring faculty.

First, doctoral experience should include systematic and developmentally organized opportunities for students to learn about the many aspects of faculty work. Attention to research development should continue. Additionally, all students who aspire to be faculty members should have opportunities to think deeply about teaching (including philosophical assumptions that guide teaching, diverse teaching strategies, characteristics of learners, curriculum development, and the implications of technology for teaching and learning). Graduate students should learn about expectations for institutional service, the meaning of public service and outreach in their discipline or field, how to work with
colleagues from other disciplines and with people outside academe, how
to communicate with the public beyond the walls of the university, and
what the changing nature of students will mean to the new faculty.
Prospective faculty also should learn about the various institutional
types and the different roles for the faculty in them. Certificate programs
in College Teaching, now available at some universities, offer opportuni-
ties for students to supplement their content preparation with experi-
ences, mentoring, and workshops that broaden their preparation for fac-
ulty work. The Preparing Future Faculty Program (PFF) offers a good
example of how doctoral programs in research universities can partner
with other colleges and universities to address these professional devel-
opment needs (Gaff et al., 2000). In the PFF program, clusters of diverse
institutions—involving liberal arts colleges, community colleges, com-
prehensive institutions, and historically black colleges and universi-
ties—work together to integrate preparation for the faculty career into
the graduate experience. Graduate students in the program participate in
faculty roles at nearby institutions as they complete their doctoral work.
Through seminars, mentoring, workshops, and observation, prospective
faculty members learn about the options and differences in faculty work
at various institutional types. Participants are enthusiastic about how the
PFF program expands their knowledge and strengthens their preparation
for faculty work (Gaff et al., 2000; Pruitt-Logan, Gaff, & Weibl, 1998).

Second, faculty members should provide regular, ongoing advising
and thorough, periodic feedback and assessment. Assessment should
help students determine their progress as scholars and future faculty
members. Such advising requires department chairs and graduate deans
to work with faculty members to develop effective, mutually respectful,
efficient advising relationships. In addition to effective advising,
reducing the conflicts between faculty members and graduate students
is important. One promising program to help students and faculty
members create mutually acceptable expectations and resolve con-
flicts is currently underway at Michigan State University (see
http://grad.msu.edu/conflict.htm).

Third, departments can make deliberate use of informal peer relation-
ships to foster socialization. Departmental sponsorship of regular oppor-
tunities for graduate students to talk with each other as well as with fac-
ulty members can lay the groundwork for deeper professional
conversations. Programs to link experienced graduate students with in-
dividuals just starting out in graduate school may also be helpful.

Fourth, graduate students should be encouraged to engage in ongoing,
systematic self-reflection. Socialization for doctoral students is largely
about making sense of graduate school and the academic career, devel-
oping one’s interests and areas of strength, determining how one’s values and commitments relate to those in the profession, and developing one’s own sense of place and competence within that profession. The time and support for reflection are important ingredients in the socialization process. As reported, many respondents told us how much they looked forward to the interviews as the only opportunity for structured self-reflection with an interested professional.

These recommendations envision a doctoral education with explicit attention to the various roles and responsibilities that typically characterize the life and work of a faculty member, the differing cultures and emphases of the various institutional types that comprise the higher education sector, the ways faculty members may handle the challenges and choices of lifestyle, possible ways to link teaching and research, and the expectations, norms, and values of the specific discipline or field. Doctoral education also should provide opportunities for students to learn about alternative careers and choices.

These suggestions may sound fairly straightforward and relatively easy to implement. Yet calls for reform and improvement in graduate education are not new. Actually effecting change is challenging due to the culture, values, and structures of the American research university where doctoral students are educated. Large numbers of undergraduates must be taught, and institutional needs in terms of teaching assistant assignments do not always match doctoral students’ developmental needs. Universities depend on external research monies, and project work and deadlines must sometimes take precedence over graduate student learning needs. For example, doctoral students sometimes report that they cannot take on teaching assignments or other projects suitable for their own professional development because faculty members depend on them as key employees on funded research projects. Also, faculty members interested in devoting time to thoughtful graduate student advising may fear that their research time will suffer. If graduate education were to change in substantial ways, these kinds of expectations, values, and structures within the university would need to be considered. The history over the past decade of institutional efforts to reconsider scholarship (Boyer, 1990) shows that such conversations and related actions are difficult to initiate and maintain.

In the coming decade, however, various pressures on higher education institutions may encourage serious rethinking of faculty work and the related question of how to prepare new faculty members. Pressures to reach new student markets, to enhance competitiveness and productivity through the use of technology-assisted distance learning, to link research expertise more closely to specific societal problems, to reduce
costs for higher education, and to meet learners’ expectations for life-long, easily accessible, relevant educational opportunities challenge the American academy to think in new ways about how to prepare, organize, and deploy human resources. Part-time work is already a major component of the faculty labor market. Segmented or “unbundled” assignments that ask professionals to specialize in particular areas of expertise rather than traditional positions that require each person to assume all roles are possibilities at some institutions. In a context where long-held assumptions about faculty work are challenged, serious attention needs to be given to the preparation of the new professoriate.

Improvements in graduate education need not wait for major changes in faculty work to occur, however. Some modest changes could have important results in the near future. What might a modestly revised doctoral experience look like? A revised doctoral program could begin with an opportunity for entering students to discuss with faculty members their intellectual and professional goals. Though students’ goals often change as they gain experience and learn more about the questions of their fields, the initial assessment could be used to begin focused planning and decision making. A planning session at time of entry could be followed by annual discussions with a faculty advisor about how the student’s goals are changing and how courses, research, teaching, and other experiences are contributing to progress toward the goals. Organizing teaching and research experiences to offer more developmentally challenging experiences is likely to be difficult in many universities where teaching assistantships are based on departmental needs and research assistantships depend upon faculty grants. However, simply conceptualizing teaching assistantships according to the variety and complexity of skills required and assigning doctoral students to the most relevant teaching experiences on this basis, can help students develop a range of skills and abilities over time. Some faculty members who supervise teaching assistants already arrange periodic discussions about such relevant topics as how learning occurs in the specific field, how curricular choices are made, assumptions about the roles of learners and teachers, and how to address difficulties that arise in the classroom or lab. Similarly, directors of research projects might think carefully about how research responsibilities for graduate student assistants could be diversified over time, rather than leaving this process to happenstance or to the individual preference of a doctoral student. Encouraging students to create portfolios that document the particular skills and abilities developed in each teaching experience as well as their research experiences and related skill development would also contribute to more systematic development of teaching and research skills. Department chairs and faculty
advisors could save time and capitalize on the already present peer interaction by organizing group sessions for students. Students would meet once a month or so with representatives of the faculty to discuss events, expectations, changes and priorities in the field, career options, ethical dilemmas in the profession, linking academic work with community or social concerns, the various vehicles for communicating research findings to diverse audiences, and other issues in the specific discipline or professional field.

Without a plan these recommendations might appear to add more time to a doctoral program or to the work of already busy faculty members. Yet many of these suggestions involve reorganizing, not adding time. For example, using peer groups as the site for providing departmental information and discussing professional and disciplinary concerns could save time for faculty members who would no longer have to arrange individual conversations on such issues with their advisees. Adding advising sessions to discuss students’ development as teachers and scholars could result in more appropriate work assignments that enhance the quality and efficiency of their research and teaching contributions and avoid the time-consuming problems that faculty members must sometimes resolve. Although time to degree might increase when students take teaching internships such as those arranged in the Preparing Future Faculty Program, the testimonies of those who have had such opportunity suggest that the additional months of experience are a valuable option as preparation for faculty roles (Gaff et al., 2000).

The faculty members of today have a significant responsibility to prepare and support future faculty members. One of the long-lasting contributions of most current faculty members lies in preparing highly capable, innovative new colleagues for the challenges they will face. Socializing the new professoriate may require more organized institutional attention than historically has been true. Listening to the reported experiences and thoughtful suggestions of those who wish to enter the professoriate is a good place to start.

References


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