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ABSTRACT

This publication reports on a 1994 forum on integrating research on college and university faculty and presents the commissioned papers and findings of the forum along with references to relevant research on faculty. A description of the forum notes that it addressed the lack of integration in current policy discussions about college and university faculty and that the forum concluded that there was a need for a thorough set of resources describing current research on faculty as well as some guidelines supporting the choice of data and the application of findings to policy questions about faculty. Key issue areas addressed by the forum were: the essence of being "faculty"; faculty demographics and diversity; faculty vitality; and faculty as institutional asset. The papers are: (1) "Integrating Research on Faculty" (Meredith Ludwig); (2) "Faculty Identity: Essential, Imposed, or Constructed?" (Estela Mara Bensimon); (3) "A Demographic Profile of Today's Faculty" (Helen S. Astin and Octavio Villalpando); (4) "Faculty Vitality in Higher Education" (Martin J. Finkelstein); (5) "The Impact of Higher Education's New Climate on Faculty Perceptions" (Robert Zemsky); (6) "Developing Faculty as an Asset in a Period of Change and Uncertainty" (Daniel T. Layzell and others); (7) "The Application of Data to Policy Questions About Faculty" (Jay L. Chronister and John W. Creswell); and (8) "Prospects for Integrating Research on Higher Education Faculty" (Laura Saunders). Most papers contain extensive references. (JB)

NATIONAL CENTER FOR EDUCATION STATISTICS

Conference Report

March 1996

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Sponsored by the National Center for Education Statistics, the Association for Institutional Research, and the American Association of State Colleges and Universities

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U.S. Department of Education
Office of Educational Research and Improvement NCES 96-849

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Introduction

Terrence Russell

The forum *Integrating Research on Faculty*, held in Washington, D.C. January 10-11, 1994, addressed the lack of integration in the current policy discussions about college and university faculty. Sponsored by the Association for Institutional Research (AIR), the American Association of State Colleges and Universities (AASCU), and the National Center for Education Statistics (NCES), the meeting was a response to discussions among research and policy analysts. These individuals, working at the institutional, system, and national levels indicated a need for a thorough set of resources describing current research on faculty as well as some guidelines supporting the choice of data and the application of findings to policy questions about faculty.

The forum meeting was organized around a set of commissioned papers addressing faculty-related research questions. The paper presentations were augmented by presentations, commentary, and discussion from panels of faculty, public representatives, and college and university administrators. The papers and the findings of the forum are presented in this publication, along with references to relevant research on faculty.

The idea for a forum began in a series of conversations among the co-editors of this publication and NCES staff about obvious changes in the climate for higher education faculty and the wide range of people doing research on faculty with little cross-communication among them. After a lengthy discussion with a group convened at the 1993 AIR Forum in Chicago, we felt that bringing together the authors and panelists whose work follows would help create a better understanding of each other's work and begin creating a common language for discussing faculty issues with groups inside and outside academia.

We aimed to be inclusive, both in terms of issues addressed and viewpoints presented. What was included and what was not is worth some discussion, for it points out the range of issues and relationships that, in the scope of the faculty role, are currently unsettled. These are the issues that will help advance the public understanding of higher education and the reconfiguring necessary for maintaining the viability of higher education.

The need for public understanding and reconfiguring has emerged partially as a result of the search for a new national rationale for academic research as the Cold War ended and the demand from the consumers of higher education that the learning and economic advantage of contemporary higher education be equal to what it was in past generations. These and similar issues have made higher education problematic and with it, the conditions of work for faculty and their relationships with institutions, departments, students, and colleagues. Professional stability has been replaced with a seemingly never-ending series of questions.

In today's climate, it is chiefly institutions of higher education that are being asked to investigate

and report on questions and issues regarding their faculty, but the institution may not be the best place to look for answers. Questions about higher education and the faculty are emerging from changed political and economic circumstances phrased in several "languages," some far removed from the discourse of the campus. In many cases, even within the fairly technical scope of institutional research, the definitions of terms (such as "productivity") are not clear and lack standardization across institutions. While these difficulties exist at the institutional level, it will remain a challenge to collect and provide nationally comparable data from institutions. There are some ground breaking efforts to raise awareness of the definitional problems and efforts to develop theoretical frameworks in which to collect and analyze data at the national level. For example, James Fairweather has used the 1988 National Survey of Postsecondary Faculty (NSOPF) to relate faculty activity and rewards and other participants in the forum are planning studies with the release of the newest faculty data file in 1995. Robert Zemsky and William Massy have studied the cost of curricular and faculty resource decisions within departments in a small number of selective private institutions. Dennis Jones, et al., have developed data standards for human resource databases in postsecondary education. These efforts are a beginning to the work of conceptual integration necessary to form a new language to communicate about faculty.

Structure of the January 1994 Meeting

The meeting was organized around the presentation of a set of commissioned issue papers and corresponding panels in which faculty, administrators, and legislators or public officials responded to the ideas and conclusions in the papers. The panels ran sequentially, so that all participants were able to hear all panels and presentations. Each panel was asked to go beyond evaluative comments on the paper and address the research area itself, gaps in the research, and methodological questions. In their presentations, panelists were asked to draw upon their professional work experiences and circumstances related to the topic of the issue paper.

The presentations were the core of the meeting. An opening panel addressed the current conflicts around faculty work, setting out the problems. A concluding panel, composed of conference observers, summarized the results of the meeting and offered suggestions for participants preparing to do research and policy analysis following up issues raised at the meeting.

Presenters were drawn from the ranks of those doing current research on faculty. Researchers tend to be loosely organized into four major research groups: those developing and implementing administrative productivity metrics; those involved in normative studies and discussions of faculty roles, responsibilities, and rewards; sociologists who have long studied faculty research productivity; and those who are studying the faculty as a labor force, concerned with issues of current and future supply and demand, and faculty demographics. Currently, these groups work in relative isolation, with little overlap among them. A key goal of the conference was to bring together workers in all four groups to exchange ideas, findings, and perspectives on the issues outlined below.

Drawing from all four of these research groups, 50 core participants were invited to the meeting, including the six scholars and specialists in the area of faculty research who were commissioned to prepare issue papers. Among the participants were attendees at an Association for Institutional Research planning session, representatives of governmental agencies and associations with program and research efforts devoted to faculty and members of the National Technical Review Panel for the NSOPF studies. A list of participants can be found at the end of this introductory chapter.

The following four issue areas were enhanced by a treatment of the climate surrounding higher education and the questions about data comparability and usefulness for policy.

The Essence of being "Faculty"

What do faculty members do? How is this constant and how does it vary across institutional types and disciplines? What do we like about what they do? What do we know about what they do? What do faculty know about each other? How can we learn what they do?

Faculty Demographics and Diversity

What changes in the demographic makeup of faculty can we expect in the future and how will these changes affect faculty careers, mobility, supply, and demand?

Faculty Vitality

What are the various stages of faculty career development and how could faculty rewards be structured to enhance the various stages of development? What is effective teaching? How do we assess effective teaching? What do faculty need to keep them involved and interested in all aspects of their jobs?

Faculty as Institutional Asset: Views from Outside the Institution

How, if at all, do the values of faculty members and public policy makers differ and do these possible differences affect their positions on higher education issues? Given public concern about teaching and undergraduate education, what are the implications of conflicts between institutional mission and goals and the faculty reward structure? What are the strengths and weaknesses of traditional faculty productivity indicators and what options exist for improvement of quantitative productivity indicators?

Conclusion

For better or worse, we are moving into the territory of an uncharted future in higher education. To have a faculty future is to use language and concepts to talk about and contribute to a faculty future. The forum began this journey by looking at the "traditional" language of past roles and relations of faculty and their others: students, administrators, and a variety of publics and by

suggesting some "new" language reflective of the new roles and relationships we could anticipate.

The environment of the academy is changing, and with it, academic roles and relationships both within and outside our institutions of higher education. What is, on the one hand, an increased dependency on "public others," both organized sectors and mass publics, is also an opportunity to expand the basic functions of the academy and the faculty role. We will have a chance to create and disseminate knowledge, learning, and teaching on a scale far beyond today's disciplinary concerns and today's students.

Communication is the basis of learning, and the forms of social organization, social roles, and technology that are emerging as dominant in creating communicative life owe more to the work of Steven Spielberg, David Geffen, and Walt Disney and the pioneers of telecommunications and business restructuring movements than to William Rainey Harper, Clark Kerr, and Robert Hutchins. The point here for the organization of faculty work is that new ways of doing that work are emerging and the generation of faculty now training in our graduate schools is going to be the bridge generation. Are we spending time on the language of the future in that training? Should we be doing so? What other voices have yet to be heard and must also be considered in constructing a new language?

The 1994 conference and this volume are highly delimited attempts to move toward a new language for fairly narrow publics: people outside of academia who make important decisions about academia. Without an effort to provide such a language, in the form of resolved definitional and data questions, it is likely that the information we have for legislators, governing boards, associations, foundations, and policy makers will continue to lack comparability and the way we speak about trends in faculty activity will lack the clarity necessary for good decision making and the wise allocation of resources. In the end, we will have to broaden our language while making it comparable and clear to the increasingly broad publics whom the faculty serve and who will have a strong impact on faculty and their institutions.

List of Invited Participants in the Forum

Members of the National Technical Review Panel for the National Study of Postsecondary Faculty
(Title and Affiliation were current at the time of the Forum)

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Integrating Research on Faculty

Meredith Ludwig

Introduction

The purpose of this chapter is to report on the findings of the forum *Integrating Research on Faculty*. To accomplish this task I had multiple resources at my service, including tapes from the sessions, papers of the authors, letters submitted in evaluation of the forum, and my own notes and impressions collected at the forum.

This paper explains the origins of the forum, describes the conceptual development of a framework at the forum to bring together the research and ideas of the various participants, synthesizes the main points of the papers presented and some of the research implications, and finally, describes the products of the forum, a set of maps representing our combined views of faculty life that were created at the forum by forum participants.

Establishing the Dialogue: Recognizing Perspectives on Faculty

In the fall of 1992, at the Northeast Association for Institutional Research (NEAIR) meeting, a session on the particular perspectives of institutionally and organizationally based researchers and their work resulted in the idea of finding a formal setting in which to bring together different perspectives on higher education research. At first the goals were very broad: to improve communication and explore the differences in perspectives on data sources and their uses. As the conversation extended beyond the conference, however, it became more optimistic in its vision. The idea of actually bringing together the resources represented at campuses and in organizations to address particularly challenging research and policy questions seemed achievable.

One of the most pressing challenges for institutional researchers at the time was collecting and reporting reliable and descriptive information on faculty activity. The field of study—faculty accomplishment, faculty vitality, and faculty supply and demand—was supported by strong research traditions. However, the current emphasis on productivity changed the orientation just enough to send researchers searching, not only for the best research and data collection methods, but also for a definition of productivity. This search was problematic because these researchers wanted the definition to be authentic to the population being studied. The current practice of describing faculty activity in terms of number of hours of contact per student was thought to be too limited. There was a concern that new methods of studying faculty were needed to accurately portray their contribution to higher education and to students.

Researchers believed resolving this problem would have an impact on the usefulness of the data collected and disseminated to decision makers. The data were being used to address human

resource issues arising from financial constraints, for future planning in anticipation of increased student enrollment, and to address challenges regarding the value of the academic work of faculty. At the time, only a few states and some institutions were at the point of developing work-load questionnaires and producing comparative studies based on characteristics such as institutional mission. The immediate data needs were real, but it was not clear that the available data gathering and analysis strategies were sufficient and since the implications for faculty and institutions were great, there was a decision to push ahead with the idea of a meeting which would produce recommendations for handling the challenges and some strategies to make these recommendations useful.

The conversations about the policy issues of faculty productivity were being held in separate venues. From each of these, we were learning about a different part of the faculty experience. The American Association for Higher Education was concentrating on supporting inter-institutional dialogue about policies of reward and tenure. A number of professional discipline organizations were cooperating in discussions regarding the definition of faculty work. The National Center for Education Statistics and the Carnegie Foundation were collecting national sample data on faculty background, work, and interests. Individual researchers were studying faculty effort in teaching and research, faculty and technology, and faculty diversity.

In May 1993, a group of individuals including researchers and policy analysts gathered together for an initial meeting under the aegis of the Association for Institutional Research (AIR). Their goals were to:

- Integrate the experience and knowledge of current research in the field;
- Broaden the current focus on faculty;
- Provide leadership, guidance, and direction in conducting research on faculty by identifying areas where research is done and should be done; and
- Develop resources for faculty, researchers, and policy makers.

They developed a research agenda outlining what needed to be studied about faculty and placed this set of questions within the framework of the research known to exist. The variety of individuals at the meeting was intended to ensure an integration of research findings and ideas about research methods. However, at that time, the term "integration" referred to a mixing of ideas and experiences, not a formal process of relating elements or theories. The participants left the AIR meeting with a plan to draft a proposal for the funding of a meeting where ways of integrating the research results and the individuals conducting the studies could be brought together in a more formal effort, through a forum and the production of a publication. This proposal led to the January 1994 Forum.

As Dr. Laura Saunders discusses in the last chapter of this publication, at some point in this continuing dialogue, the assumption was made that there was an underlying model which effectively linked the research traditions we hoped to bring together. We assumed that at the 1994 forum we could validate the linkage by identifying a set of domains of faculty life representing what we know about faculty. Then we assumed the data or research results could

be made to fit together and help us achieve a map of the landscape (our knowledge) of faculty.

What would our product look like? How would we express the results of the integration? In communications with the invited forum guests and with a bit more detail to the authors and designated observers, two conceptual tools from the literature in elementary/secondary teaching and learning were identified. These were "identifying the big ideas" and "mapping the landscape." However, there was no preforum training provided in using either of these tools. The participants picked up the "language" of mapping at the forum itself and worked towards the goal with exciting results.

Identifying the Big Ideas About Faculty: A Synthesis of the Forum Discussions and Papers

For the first meeting in May 1993, as a way of stimulating a research agenda on faculty, three domains of faculty life were culled from the current literature on faculty work. The three original domains took into account the communities within which faculty interact, but they did not express how faculty should behave when they interact with these communities, the effects of this interaction on faculty work and faculty life, or the external factors impinging upon these interactions. The domains were: faculty and student interaction, faculty interaction with multiple academic communities, and faculty as human resource.

In January 1994, at the forum *Integrating Research on Faculty*, the three domains were represented by six research areas of interest: essence of faculty, demographics of faculty, vitality of faculty, climate of higher education, faculty as asset, and the conditions and importance of data on faculty to policy making. Six experienced researchers were asked to write papers summarizing the research findings in their area, addressing the questions they were provided, and indicating ideas for research approaches pertaining to each area. Ten researchers and writers eventually worked on these papers.

The culmination of this effort was the identification of three big ideas about faculty which together formed the landscape as we knew it: identity, vitality, and integrity. These ideas represented layers of faculty life which were acknowledged by the participants to be overlapping. The challenge to us as a group at the forum was how to visually represent these overlapping areas to others. The visual representation was part of our assignment, to map the landscape of faculty life. This challenge was accepted by some of our observers and resulted in two pioneering maps, presented in the section "Mapping Our Knowledge About Faculty." Grounded in the discussions of our panelists, the second of these maps comes closest to a representation of an integrated conceptual model showing both the changing internal (higher education) and external conditions for faculty and the effects of these conditions on the layers or domains of faculty life.

In introducing the contributions of the six papers written for the meeting it is important to emphasize that the three ideas about faculty emerged from their contents and the discussions between panelists and audience which followed. While each paper addressed different research traditions, what was remarkable about the forum was the agreement among its participants about

the most important ideas about faculty. The papers reinforced each other; therefore I have organized their summaries by the main idea or the layer of faculty life under which they seem to fit. The research highlighted by the authors, the questions raised from their review and analysis, and the valued contributions of each paper to the big ideas are presented below. Table 1 at the end of this section summarizes the conceptual progression through which the big ideas were developed and the results: a classification of our collective knowledge about faculty.

The Identity of Faculty

When we began the meeting, most of those attending were coming from the perspective that faculty are more alike than different. We considered faculty essence to be locatable in a definition of a group's work. Indeed, much of the research on the characteristics of faculty begins with the selection of one or more individuals within faculty groups and then requires the researcher to confirm or reject the notion that the individuals in one group are more or less different from those in another. The challenge we were presented, however, was to consider that we cannot know all that faculty do or all that they are from which their individual essences are derived. How then do we find out how faculty construct their identities? How can individual faculty keep their identities constructed from their multiple reference groups and still center their identity as faculty in the needs of their students?

The papers presented on demographics and on faculty essence were thought to be the ones that held the keys to the "big idea" of faculty identity. The ultimate definition for identity was the result of the presentation of Estella Bensimon's paper on essence redefined as identity; a paper which immediately turned the question of essence on its head. Bensimon pointed out that to assume there is an essence is too frequently to assume that faculty are more alike than different. Pinpointing a common identity is helpful to policy makers and to university administrators because if the "what" of faculty behavior can be described and generalized to the group, then strategies to change the "what" can be formulated and implemented. Bensimon's discussion of essence went beyond trying to identify what faculty do or how they view each other and advised researchers to become "border crossers," discovering the difference essences of individual or smaller groupings of faculty.

Bensimon's review of literature covers research showing that cultures of the profession, the disciplines, the institution, the department, and institutional sector all "make it impossible to conceive of a generalizable faculty essence." Instead, she proposes that faculty identities are individually constructed and understanding the context in which this happens will lead the researcher to understand the "peculiarities of faculty lives." The themes addressed in studies of role, studies of modernist conceptions of knowledge, and studies of socialization of faculty to institutional culture are all brought together, as she recommends that we think in terms of difference rather than sameness thus enlarging our view and our ability to discover what faculty do, rather than restricting it, as we do now.

Both Bensimon and Astin/Villalpando reported research around the central theme of "whose experience stands for the group when we do research under the assumption that faculty are more

alike than different?" Experience made visible by a categorization choice will lead us to miss the differences and thus choose the wrong perspective. Thus the paper on demographics and the panel discussion about its findings are also important to the discussion of discovering the "essence" or the identity of faculty.

Astin and Villalpando wrote a paper describing the changes in the populations from which higher education participants and faculty will emerge in the coming years. The data used in the paper come from the Census Population Surveys, the American Council on Education's annual reports on the status of minority participation in higher education, the National Research Council's Doctorate Recipient Surveys, and National Center for Education Statistics' databases on higher education. The authors were asked to describe faculty and anticipate changes in the demographic makeup of faculty, indicating how these changes might affect faculty careers and the supply and demand of faculty.

Looking at high school graduates, college participants, and faculty characteristics, the authors conclude that the future growth in the educational pipeline will be driven by participation from racial and ethnic groups and women. They point to the current position of such groups on faculties of higher education institutions and chronicle the increased share that has gradually been obtained in traditional male fields of study and in ranks of faculty predominantly held by males. Hiring of new faculty will bring in more women and minorities as long as they continue to increase in the available pool of new doctorate recipients. The structural regularities in departments controlling advancement and reward, however, are also noted as factors which will control the future diversity of the faculty.

How did these data affect the question of essence/identity posed to the forum? The panelists for the session on demographics suggested that gender, age, and racial description of faculty were not where we would find the crux of the problem about faculty diversity. Instead, they suggested, that the research focus should be on the level at which individuals participate in the faculty experience. We need to understand the differences in faculty identity that are constructed by a dispersion of effort across categories of full-time, part-time, nontenured, nonfaculty, and adjunct faculty. In supporting these individuals as teachers, researchers, and institutional citizens, the higher education institution is investing considerable resources. It is important then to assess how faculty may interact differently with students and to learn how they construct their identities, especially if we accept the Bensimon notion that these identities will be constructed in particularistic ways, depending on the characteristics of the individuals and the characteristics of their work settings. Diversity of the faculty should not be a research focus unto itself, rather we should ask, as Astin and Villalpando do, "how the changing composition of faculty is affecting the educational experiences and persistence of racial/ethnic minorities and women enrolled in college."

Astin and Villalpando, raise some research implications of their data, such as the need for additional information on higher education participation and graduation by discipline and the need for a more complete sense of the current and prospective faculty's future plans. While these data can be applied to policy issues of supply and demand, they also would be helpful to address

the question of vitality which was emerging in the forum. That is, what can we learn about the relationships between diversity and productivity, diversity and opportunity, diversity and motivation of faculty?

The forum participants also raised a number of questions about diversity which had not been contemplated in the identification of this topic. They asked, is diversity among faculty desired by higher education? Does our understanding of equity and the "pool" change if we expand our focus from regular teaching faculty to include all the different participating faculties in higher education? Other questions related back to the notion of multiple identities across faculty groups and within an individual faculty member; for example, how do we study faculty who have not been well-studied? At what point does an individual take on the identity of faculty—how do we know and how do we capture that development? Are there particular points in this process of development that are related to the vitality of the individual faculty member or to the groups which are key reference points?

Finally, faculty identity came to be represented by the relationship between faculty and students. It was the panelists responding to Dr. Bensimon's paper who dealt with the "what" of faculty work who led us to this notion. Most of them work with faculty or are faculty but their institutional settings were different. They disagreed about what was "average" and what was "essence." Some asserted that teaching was the chief behavior that faculty share and others remarked it was the love of scholarship and its traditions, including nurturing this same love in students, that was the unifying aspect of all faculty. Out of this discussion, one researcher suggested that by looking at the domains in which faculty behavior exists—the self, the work setting, the culture of the institution, and the administration of the work of the institution—one could successfully integrate Bensimon's concern about difference. Given this framework, the forum participants returned often to Bensimon's directive regarding the many essences of faculty.

The Vitality of Faculty

The original query posed to the author Martin Finkelstein addressed the quality of faculty and how it might be determined. Under this large topic were questions about the way faculty might assess their own quality and that of their colleagues; the way in which the public and students might determine faculty quality. Dr. Finkelstein and the panelists for this session were also asked to consider what is important to faculty and how this might change at different stages in their careers and in response to significant trends or changes that affect their workplace and the expectations of their roles in it.

In response, Finkelstein addressed the idea of vitality as a nexus between motivation and opportunity. He identified the problem of vitality as a perceived decline of opportunity for a particular generation of faculty. The perception of decline in opportunity could be experienced at different points in the life of a faculty member, but the author pointed to that which occurs at the time of mid-career as being the most problematic for the individual and for the institution in which one is teaching. The paper addresses the loss of motivation and involvement stemming

from this perceived problem and describes ways in which faculty vitality has been studied as productivity, which may have limited our understanding of vitality up to this point. Finkelstein pointed out the factors of career stage, demographics of faculty populations and the pipeline, rates of expansion in academic fields, institutional context, and collegial support as those which would have the greatest effect on the future of faculty vitality.

Since one of the reasons behind the forum was to consider improvements in the way researchers discover and tell the story of faculty, Finkelstein's presentation was an important one to establish the research traditions through which quality and vitality have conventionally been studied. He identified studies of faculty life histories, analyses of research contributions, work load reports, studies of faculty satisfaction, and studies of teaching performance as examples of different approaches to identifying vitality. This research includes studying individual faculty, looking for the determinants of faculty vitality and productivity, and comparing high achieving faculty with a group of lower achieving or "more typical" faculty.

The forum attendees and the panelists in this session wrestled with the issues of career development, institutional brokering of opportunity, and systems of defining and assessing quality. As Dr. Marcia Mentkowski (observer for the panel on vitality) said, the potential for faculty lies in choosing the opportunity to reshape the institution and their roles in that institution, specifically the nature of their teaching. While most of their attention was devoted to exploring teaching as a source of vitality, the panelists agreed that other sources of vitality, namely research and service, were themselves in need of revitalization. The forum participants sought ways to study the cultures of teaching and service that were authentic, in today's vernacular. For example, they suggested involving the faculty member in the research process and, starting where faculty live, in the classroom, encouraging faculty to regard teaching as a public activity about which they could share their experiences, their teaching processes, materials, perceptions, and contributions.

The definition of vitality which emerged from the forum, via Mentkowski's observations and map, was this: vitality is sustained productivity over time. As we came to accept the implications of a broader definition, we realized that the papers on climate, essence, and demographics reinforced the idea that vitality is tempered or enhanced as faculty are affected by the mission and structure of the institution in which they work and the external forces as felt, noticed, and reacted to by the many constituents of higher education, including the faculty themselves.

Dr. Robert Zemsky was asked to address those trends and movements in higher education and in other social and economic domains which are directly affecting faculty. Zemsky identified the current perception of higher education faculty as one of their being "part of an industry that is exhausting itself in a futile attempt to escape from a morass of its own making." He proclaimed that trends of complexity, technological competition, and a considerable gap in autonomy and opportunity between the generations of faculty currently sharing responsibilities in many higher education institutions are making it harder for faculty to work together, responding to the challenges they are smart enough to see coming.

In Zemsky's presentation about the life or career stages of faculty there was support for the idea that vitality did not have to diminish as faculty moved toward the later years of their careers. He identified ways in which faculty at all career stages could work together.

This notion supported the forum discussion about the institution's responsibility to know about the skills and potential of its faculty in greater depth and to support faculty development because of their benefit to the institution and to other communities served by it. Zemsky's paper led the panelists in this session to consider what information was needed about faculty so that their value could be described to the public and their skills could be applied to the problems faced by educational systems. Once again, the forum participants concentrated on the opportunities to higher education and to faculty of becoming part of the changing climate, rather than standing aloof from it.

Originally, all of the forum paper writers were posed a set of questions reflecting the current reality, that is, the way faculty see themselves and the way the public and their representatives see them is less than congruent. This was the most visible conflict of which we were aware. However, the authors and the panelists reminded us of the internal institutional conflicts between institutional mission/goals and the faculty reward structure that were also critical to understanding and addressing the public's concern about teaching and undergraduate education.

The paper by Layzell, Lovell, and Gill provided suggestions as to how changing the regard in which institutions held faculty would have a decided benefit to its investment in the faculty as a human resource. They saw this change of view as going from one of faculty as employee to one of faculty as asset.

Layzell, Lovell, and Gill cited the current trend toward using traditional productivity indicators to assess the contribution of faculty and suggested improvements in ways of measurement which would come from changing the institutional view of faculty.

The authors of the paper on asset sought a way of reconciling priorities of the profession, the institution and the audiences served by the institution. Specifically referring to publicly-assisted institutions, they posited that faculty can be viewed as an asset to help states meet the enormous challenges they face in the education, welfare, economic, and social domains of their citizens. To reach this status, the institution (alternatively, some felt the department was the key unit of analysis) must examine its mission and the way in which the faculty as an asset is being developed to maximize the achievement of that mission. The faculty must understand and support this mission. A further responsibility for faculty in this asset model rests in their providing evidence of accountability to the public. Thus not only do they have to serve in ways that address the public's needs, they must also provide data to show how they have done so. Their contribution to the growth in the skills of undergraduate students, which the public and the business community value as outcomes of higher education, must be documented.

As panelists and participants considered this model, they suggested a number of studies which were needed to improve the way faculty activity was described: studies of the impact of

supporting faculty professional development and fostering innovation, studies of faculty professional service and its impact on particular sectors, studies of the process of transmission of knowledge and student growth, and studies of the quality of student experience and after-graduation activity. Studies such as these must take into account the stakeholder relationships within the institution and external to it, the existing arrangements which support faculty participation in state-requested initiatives, and the relationship of these initiatives to the professional disciplines and associations to which faculty belong.

While some forum participants regarded the term "asset" as diminishing to faculty, others were more concerned with the implications and possible risks to faculty engaging themselves on behalf of state-related goals. Are there any limitations to what faculty might be expected to do? Are there any boundaries to the mission of the institution? Does institutional sector affect the responsibilities and accountability of faculty? These questions were not answered; however they pointed out the conflicting feelings held by the forum audience. There was a high regard for the notion of congruence with mission and goals, and at the same time a concern about planning for faculty as a group, rather than respecting the individual identities which they were forming. In the final analysis, forum participants suggested, higher education institutions need to sharpen the conversations and understandings with their publics, particularly state legislatures, but this should not be done for the sole purpose of meeting marketplace forces.

The Integrity of Faculty

There was no one paper which addressed this issue separately; however, integrity emerged as one of the big ideas about faculty when the group of observers from each session came together to talk about the changing nature of faculty life.

According to a definition offered by Marcia Mentkowski, integrity is grounded in community and collaboration in the scholarship of knowing. Both Robert Zemsky and Mentkowski reminded the participants that in a complex world the terms and roles by which we knew faculty no longer apply. Taking us back to one of the original questions behind the forum, what do faculty do, the work of the many panelists, participants and observers culminated in a recognition that each of these popular and traditional adjectives or ways of being faculty is evolving to include the communities through which faculty are developing their identity and to which they are contributing their vitality.

Thus the teacher is replaced by teaching which incorporates learning; the example of the faculty as expert in a field is replaced by the notion of faculty as contributor to society, the idea of the faculty as an independent scholar gives way to an understanding of the faculty member as part of a profession, the disciplinary specialist turns his attention to scholarship in the ways of knowing, the individual recognizes the importance of professional interdependence to his work and to the development of his individuality. More about these evolving ways of being faculty are to be found in the description of Mentkowski's map, *Mapping Faculty Vitality: The Shifting Shoreline of Faculty Life*, and in *Summing Up: Visualizing the Integration of Research on Faculty.*

The Results of the Classification Work

Table 1 shows how the process of thinking about how to classify our knowledge about faculty developed from the three domains in May of 1993 to the final three big ideas about faculty in January 1994.

Table 1.--Classifying our knowledge about faculty

[illegible]	[illegible]	January 1994 Forum Results: Three Big Ideas About Faculty
Faculty and Student Interaction	*Essence and Demographics*: (1) What is a "faculty?" (2) What is the appropriate community to study when studying faculty?	Faculty essence and demographics becomes *identity* where the relationship between the faculty member and the students is the central question. While many are called faculty, the essence of faculty begins with the student.
Faculty Interaction with Multiple Academic Communities (within the discipline, with their colleagues on campus)	*Vitality and Climate*: (1) What do faculty value? (2) What are the stages of faculty career development? (3) What do we know about faculty diversity, the future of the faculty—supply and demand, the future pipeline?	Faculty vitality, with help from climate, demographics, asset and essence becomes *vitality* which explores the productivity of the faculty member and how the factors that relate to vitality are supported by the systems of reference (i.e., the institution, the institutional system, the professional discipline system).
Faculty as Human Resource (to the institution, to the external communities of interest)	*Asset*: (1) What do faculty do? (2) What are faculty responsibilities? (3) What do external stakeholders of higher education think about faculty? *Data:* (1) What are the policy issues about faculty? (2) What are the data needs at different levels in the postsecondary education community? (3) What types of data are being collected?	Faculty as asset becomes important to the domain of *integrity*, combining communities of reference and the work that faculty do in scholarship, teaching, and service. The value of what faculty do is also a part of the concept of vitality, and the two areas of faculty life must intersect for integrity to be maintained.

Using the Language of Geography to Reason About Faculty

Approaching the study of faculty as one would the study of a discipline, I was reminded of the research by Dr. Richard Prawat (1993) regarding the integration of ideas about science, a process he calls the integration of "the big ideas." I saw our task as taking the diverse concepts of faculty which we would bring with us, agreeing on the main ideas of faculty life without which a description of the landscape could not exist, then finding a way to visually relate the key ideas to the environment of higher education. This to me seemed like the exercise of mapping as expressed in the work of Denis Wood (1992, 1993, 1994) and Gregg and Leinhardt (1994).

In their article entitled "Mapping Out Geography: An Example of Epistemology and Education," Gregg and Leinhardt provide three aspects of the importance of geography which seem to support the task we were undertaking. First, they recall the definition of geography as "the relationship between human activity and the environment, describing and explaining the significance of location, distance, direction, spread, and spatial succession" (Cohen, 1988, 248, cited in Gregg and Leinhardt, 1994, 350). The discipline of geography allows the user to describe that relationship in unique spatial language. Gregg and Leinhardt cite Pattison on the contribution of geography, "it describes and explains spatial arrangements—positions, layout, and movement—in order to describe and explain the character of places or areas." The activity of geography is to "synthesize information from many disciplines and apply (ies) it to a given location; in essence, it deals with mappable phenomena" (Graves and Moore, 1972, cited in Gregg and Leinhardt, 1994, 350).

The discussion of faculty in higher education, like the Gregg and Leinhardt discussion of geography, required defining faculty and the information we had about faculty which would make it both understandable in itself and useful in a broader discussion of higher education, productivity, student outcomes, and all the other issues which are without a doubt related to who the faculty are and what they do.

In our work as researchers, managers of information, and policy analysts, we use all kinds of maps, building them into our research as diagrams, flow charts, matrices, sketches to show the links between the data we have and to illustrate the relationship of what we know to other realities. However, few of us have any special training in geographic reasoning. As a result, in the forum we concentrated on the aspect of the mapmaking exercise we could do, describing the landscape, or as Wood would say, "the threads of our relationship to the world." As organizers of the meeting, we had a responsibility to set the stage for the mapping experience with the information we provided to our participants. "Since maps are a kind of thinking out loud—that is, a kind of communication—the particular thread of the man-environment relationship invoked will depend on the communication situation calling it forth" (Wood, 1994).

According to Gregg and Leinhardt there are five elements requisite to reasoning with geography: landscape, maps, hypotheses, processes, and models. Wood adds the element of power to this list. The forum process and preparation dealt with each of these elements and each posed challenges for us. The meaning of these elements within the discipline of geography are

presented below, with an explanation of their relationship to the effort we planned.

Landscapes

Landscapes, according to Gregg and Leinhardt, are the "primary sources for geography," revealing both the "specific phenomenon" which is attracting the attention of the scientist and its "relation to other phenomena" in the landscape. For the participants in the forum, it was the public's concern about the value of faculty work which attracted our attention to the topic and compelled our effort to understand the relationship of that phenomenon to the larger world of higher education. Each of us came with a different piece of information about the landscape of faculty work and we were divided into topics as panelists, writers, and observers. We thought to cover the landscape we would need to address the identity of faculty, their demographics, their vitality, their representation as a resource to the institution for which they worked, and their life as it would be affected by social and economic forces.

For some of us, the landscape may have been an unfamiliar one. In fact, according to Laura Saunders, some of us may have considered it essentially unknown. Our effort to describe the landscape was complicated by our determination to place it within the larger world of higher education. Although the participants were game, more than once we asked ourselves whether the task could be completed in one forum session. That is, can a map be produced if those who commission it are not comprehensive sources as to the ideas for which it stands? Our expectation and hope was that the meeting would tap the experience and skill of enough observers and voyagers in the landscape to make the relationships and the ideas emerge and become known to all.

Maps

A map "may reveal the possibility of a link between two phenomena, but it cannot easily show hypotheses, processes, or models that explain the link (Gersmehl, 1992, cited in Gregg and Leinhardt, 1994, 329). The map we tried to produce used information about faculty life and related it to the forces affecting the institutions in which they work. To represent this relationship/link using two dimensions proved difficult. This was because the relationship was an evolving one and the repositioning of faculty has not been completed. Any map showing our knowledge would have to give the idea of the changing position and redefinition of faculty work and the reality that the domains of their work intersect. Changes in one would thus have consequences for the others. We considered types of maps, such as overlays, that might be appropriate, but we were more concerned with being comprehensive and using the right language, than resolving the mapping issue. Also, time did not allow all participants to work together on one consensual map. (In fact, two participants made the suggestion that we needed to break up into small mapmaking groups to complete this part of the task.) Recognizing that every map has built in distortions, we asked the authors of the commissioned papers to attend to the literature in their area and note the references so that the maps' readers could perform the consumer's role in map use: recognizing distortions and knowing how to improve the map or make corrections.

Hypotheses

Hypotheses in the reasoning process "predict the spatial distribution of landscape phenomena" (Gregg and Leinhardt, 1994). A set of questions representing our hypotheses about faculty work and the higher education environment were addressed by topic to each author. We wanted to explain the forces behind the faculty position in higher education. We recognized that one map would not represent all we knew or understood about faculty. We appointed observers to each panel representing the big ideas and asked them to help us develop the hypotheses and they did so, going beyond our expectations in some cases by creating maps themselves. Also, in developing hypotheses, we recognized the need for "flexible access to a rich knowledge base" (Gregg and Leinhardt, 1994, 329). The range of participant experience provided this base. In addition, we made data issues part of our study to assess that part of the knowledge base available to us. A paper on the issues of data utility and comparability was commissioned and a session was devoted to this in the forum.

Wood has expressed the concept that a map shows us the reality that exceeds our vision. Our hypotheses included ones about the future of faculty and the panelists were assembled who, we felt, could push the assumptions held by researchers about the world of faculty.

Processes

Processes "reveal how the phenomena and patterns of phenomena in a particular place were created" (Ford, 1984, cited in Gregg and Leinhardt, 1994, 329). In our task, the process we were trying to reveal with our map was that of change from an external world in which the simple functions once undertaken by faculty were becoming complex and the role definition of faculty was changing from one that emphasized autonomous activity to one of interdependent activity. As Gregg and Leinhardt (1994, 330) describe it "Knowledge of process is often linked to understanding the functional aspect of phenomena."

Models

Models "show how the processes that operate in one landscape can then be generalized to other landscapes" (Ford, 1984, cited in Gregg and Leinhardt, 1994, 330). The model we were building in the forum discussions was dependent on identifying the conditions under which faculty life and roles would be likely to change. One could call these external forces, as shown in table 2. Marcia Mentkowski called them waves. Robert Zemsky identified many of them in his presentation and the panelists in the session on Climate identified others. By calling this a model we are saying it will work as an explanation of what can happen for all kinds of faculty, no matter what type of institution and regardless of the group through which they are constructing their identity as a faculty member.

Power

Power is the key element in Denis Wood's work on maps. By power, Wood means the potential

inherent in the map for its use. Wood considers a map as powerful because it has the potential to not just describe our relationship to the environment, but help bring it into being by its representation of ideas. According to Wood, those who commission a map do so with a self-consciousness about how it will be used. It is likely that the maps we developed will be interpreted by the reader in light of those who made them. Some will agree about our interpretation of events and others will disagree. Our hope for the maps and the models they express is that the reader will be able to take this arrangement of meaning and apply it in other settings where "a better knowledge of themselves and their place in the world" is the result (Maddocks, 1989, cited in Gregg and Leinhardt, 1994, 351).

Mapping Our Knowledge about Faculty

As originally planned, the January forum allowed for the collaborative development of a map communicating our current knowledge of the terrain of faculty. We thought it would be helpful to policy makers as they work their way through questions and decisions about faculty. We perhaps did not fully understand the importance of the map to faculty as well. In fact many of the questions emerging about research and research method concerned what faculty have to say about themselves and making faculty partners in the research, identifying the focus and collaborating in the process.

Although we did not produce one map incorporating all the different relationships identified in the meeting, our sessions were very fruitful. Two maps illustrating higher education and faculty were sketched by two of the observers. Each one described the landscape as they saw it, and through different visual elements and accompanying narrative indicated the relationship of the elements to one another. Each of these maps taken separately is a model describing how faculty came to be where they are and offers the possibility of both generalization and future prediction and manipulation. Thus each has the kind of power we were seeking as a tool for faculty and for decision makers.

In addition to these, one of the papers which offered a guide to data decisions could function like a map to help people make decisions about sources of data, levels of data, and uses of data. Other observers offered suggestions for the representation of differences among faculty through a map and ideas about the language used on the map. Finally, with the landscape described and the additional information provided in the papers, we had all the elements needed to support an integration of research on faculty.

Two Maps, Two Different Views of Faculty

Two map presentations were made during the final session of the forum, one by Ernst Benjamin (Executive Secretary of the American Association of University Professors), and the other by Marcia Mentkowski (Professor and Director of the Office of Evaluation at Alverno College), observers of the panels on essence and vitality respectively. These two panels set forth the most profound issues regarding the identity of faculty and the meaning of their work. The maps are important because they show two different ways of realizing the landscape of faculty. Shown in

figures 1 and 2, these maps express first, a traditional view of faculty work and second, an evolutionary view.

A Pioneering Map: The Relation Between Institutional Mission and Faculty Work: Benjamin's map is a polar projection of faculty work by type of institution (figure 1). The map is designed to show that the distribution of faculty effort varies appropriately with institutional mission even though faculty generally aspire to scholarly publication. To explain the tension between faculty aspiration and practice, Benjamin presented the following story, the conceptual foundation of his map.

Every acorn is a seed and, potentially, an oak tree. The average acorn, however, nourishes the soil for other plants. A substantial number nourish small animals. Only a statistically insignificant number actually become oak trees. Similarly, faculty scholarship generally nourishes students and often nourishes colleagues, but only a minority of scholars become towering researchers and produce the seeds of future scholars. The map, like the faculty, is oriented to scholarly research, but composed more substantially of scholarly teaching and service.

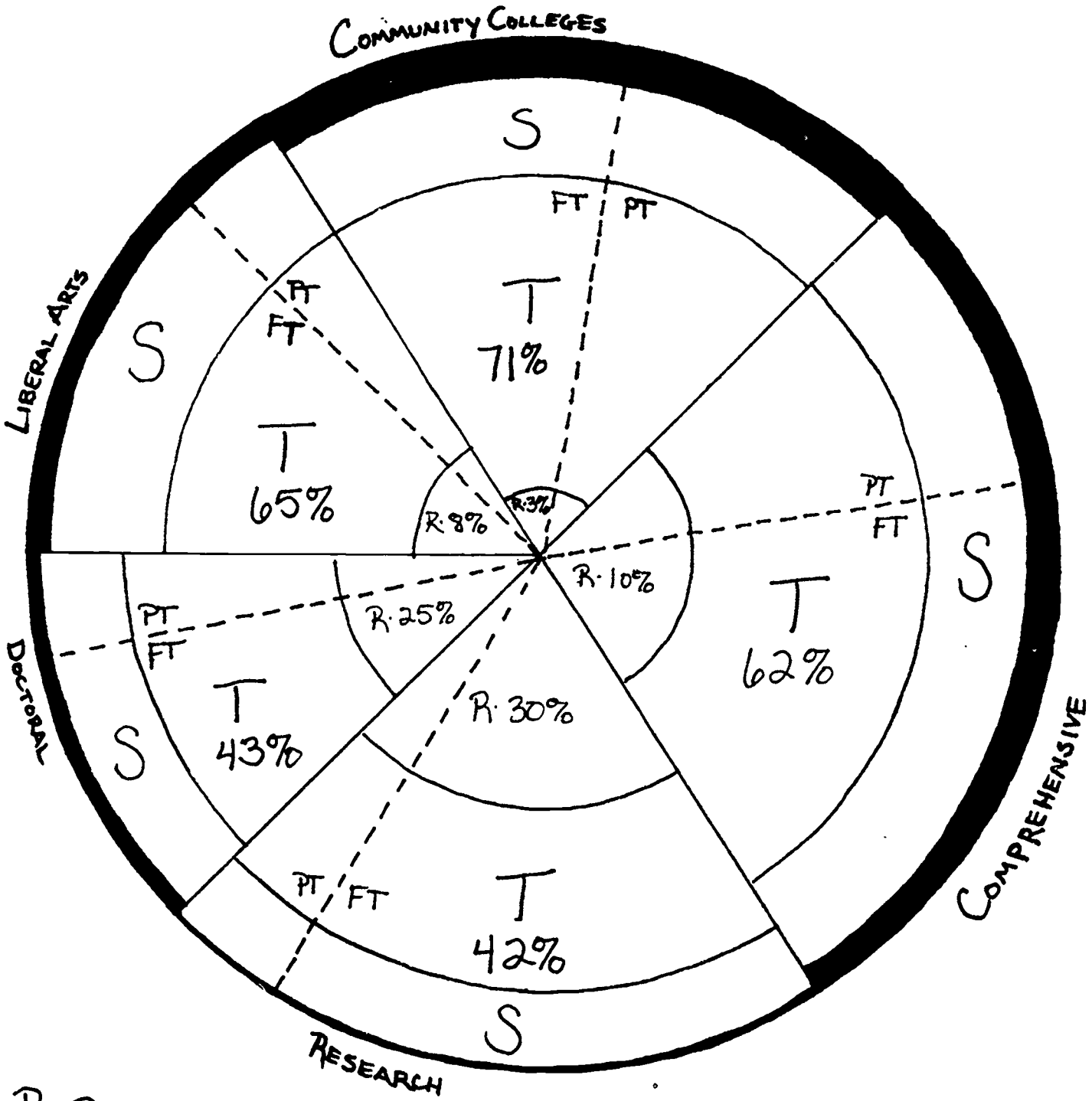
The solid radii separate several different types of institutions (research, doctoral, comprehensive, liberal arts, community colleges). The size of the resulting pie-shaped wedges is roughly proportional to the number of faculty in each type of institution. The latitudinal lines separate research (around the pole) from teaching and service as one moves to the periphery. The percentages in each segment represent the proportion of faculty time allocated to each activity in each type of institution. [Because faculty report fewer total hours of work in institutions where faculty do less research, the final latitudinal line suggests the lost faculty hours in those institutions.] The dotted longitudinal lines distinguish full-time from part-time faculty who compose a significant, but varying, proportion of faculty in each type of institution and spend a lesser proportion of their time on research.

The map reminds us that in general, faculty spend most of their time teaching, even as they aspire to research. But, if one wished to adopt a public rather than a faculty perspective, one could further represent the predominance of teaching by placing it at the center and moving research to the periphery. This might be termed an educator's projection in contrast to the scholar's projection. In either case, however, it would remain true that the allocation of faculty time varies appropriately with institutional mission. As to what would be lost, consider the story. If the orientation of an acorn were simply to nurture and not to produce an oak, there would soon be neither oak nor acorns. Similarly, if today's scholars are dedicated only to education and not to creation, they will be the last generation of scholars.

This represents a traditional partition of the faculty time and a traditional view of the meanings of educator and scholar. It represents a stable landscape which can be viewed from different perspectives, but whose components do not change. To refer back to Gregg and Leinhardt's components, this map is based on a landscape built on national data studies of faculty. The process of how faculty got to this condition is clear, and there is a model to generalize across

institutional settings. Whether this map can fit the future is a question worth asking, as is the question of whether it has the power to assist a public which seeks a different set of responsibilities for faculty.

Figure 1.--Polar projection of faculty time allocation by type of responsibility and institution



R = RESEARCH
T = TEACHING
S = SERVICE

PT = PART-TIME
FT = FULL-TIME

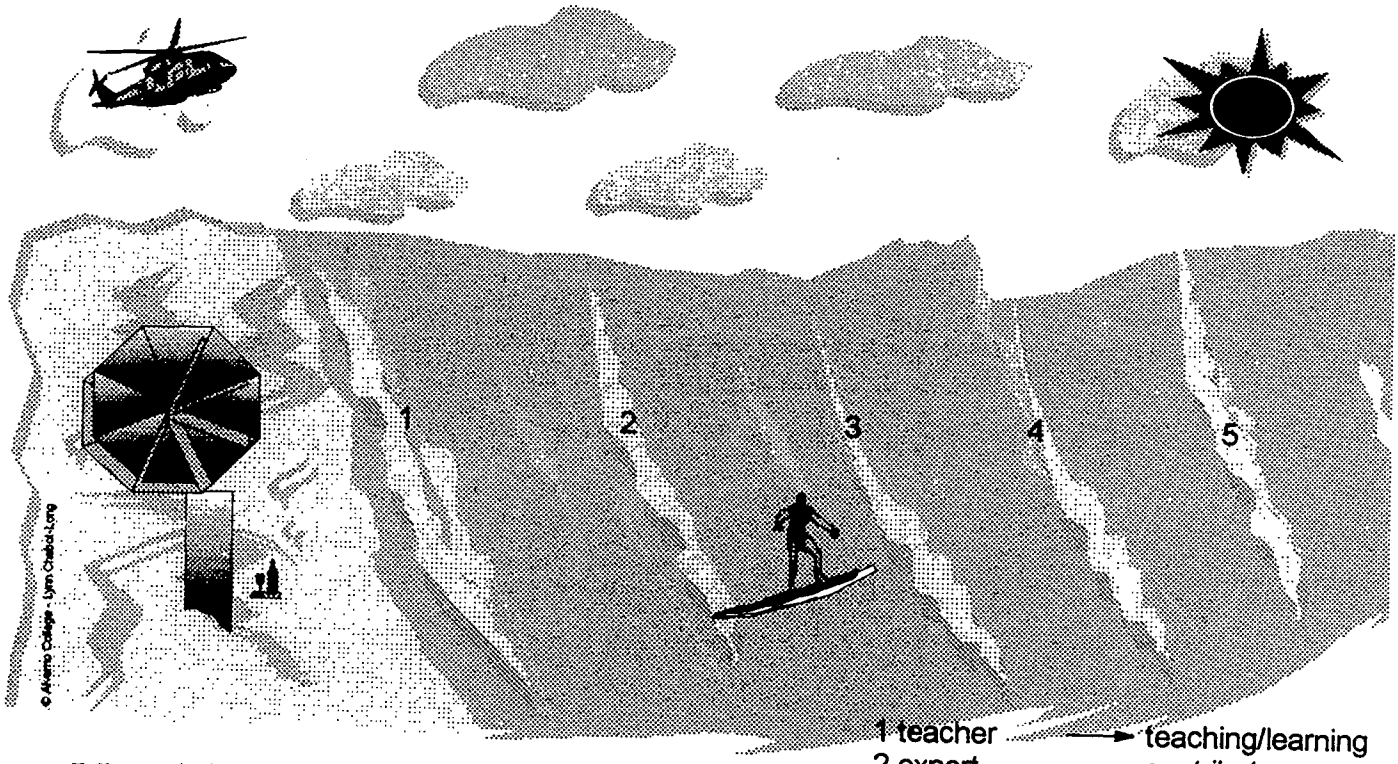
Mapping Faculty Vitality: The Shifting Shoreline of Faculty Life and Using and Creating Waves of Change: A different kind of map, more like one in a group of drawings for an animated feature, was presented by Marcia Mentkowski (figure 2). Her map assumes change and more changes to come in the dynamic of faculty experience and professional contribution. Marcia Mentkowski's views of faculty vitality in a dynamic context offered us one way to integrate the research, questions, and ideas about faculty vitality that emerged during the forum: it encompassed current societal pressures, internal institutional issues, and the very personal dilemmas that faculty face about their relationships with their students, their role, and their future.

Mentkowski began with this underlying premise: "The future of faculty vitality lies in reshaping the nature of teaching, reconfiguring learning as interactive with a changing, diverse student body, and doing this in the context of changing disciplines and settings for practicing our teaching, scholarship, and service." Mentkowski pointed out that faculty potential for growth lies in faculty-created opportunities to reshape their institutions to enable this kind of transformation in higher education.

To illustrate this, Mentkowski then drew two consecutive views of faculty vitality, each from a different perspective, using the metaphor of an ocean beach. In *View One: The Shifting Shoreline of Faculty Life*, Mentkowski characterized the more traditional research on faculty and current public perceptions of their role. In this view, Mentkowski observed, "Faculty are often described as having created a position for themselves on the sunny beach, a place primarily for reclining and reflection rather than action. In this view, we are perceived as professionally and financially secure. We are safe from the riptides and weather systems experienced by those who make their living on an unpredictable ocean. We enjoy the midday sun, at the peak of our careers, which develop lock-step toward retirement. Even when the sun is setting or the tide is coming in, we simply adjust our umbrella and blanket. We may notice rocks and shoals and approaching weather systems, but we study them from a distance. We have established our territory, comfortable in our place. In this view from the shore, the surf rolls gently in, there are a few clouds on the horizon, and no immediate sense of dramatic change in the picture." In Mentkowski's sketch, as in a Milton Avery drawing commented on by the curator of a recent National Gallery show of Avery's works, there is an "economy of line, a simplification of form and flattened space...the figures (there are two drawn in the Avery) are reduced to minute gestural forms that sit on the narrow band of beach" (National Gallery, 1994).

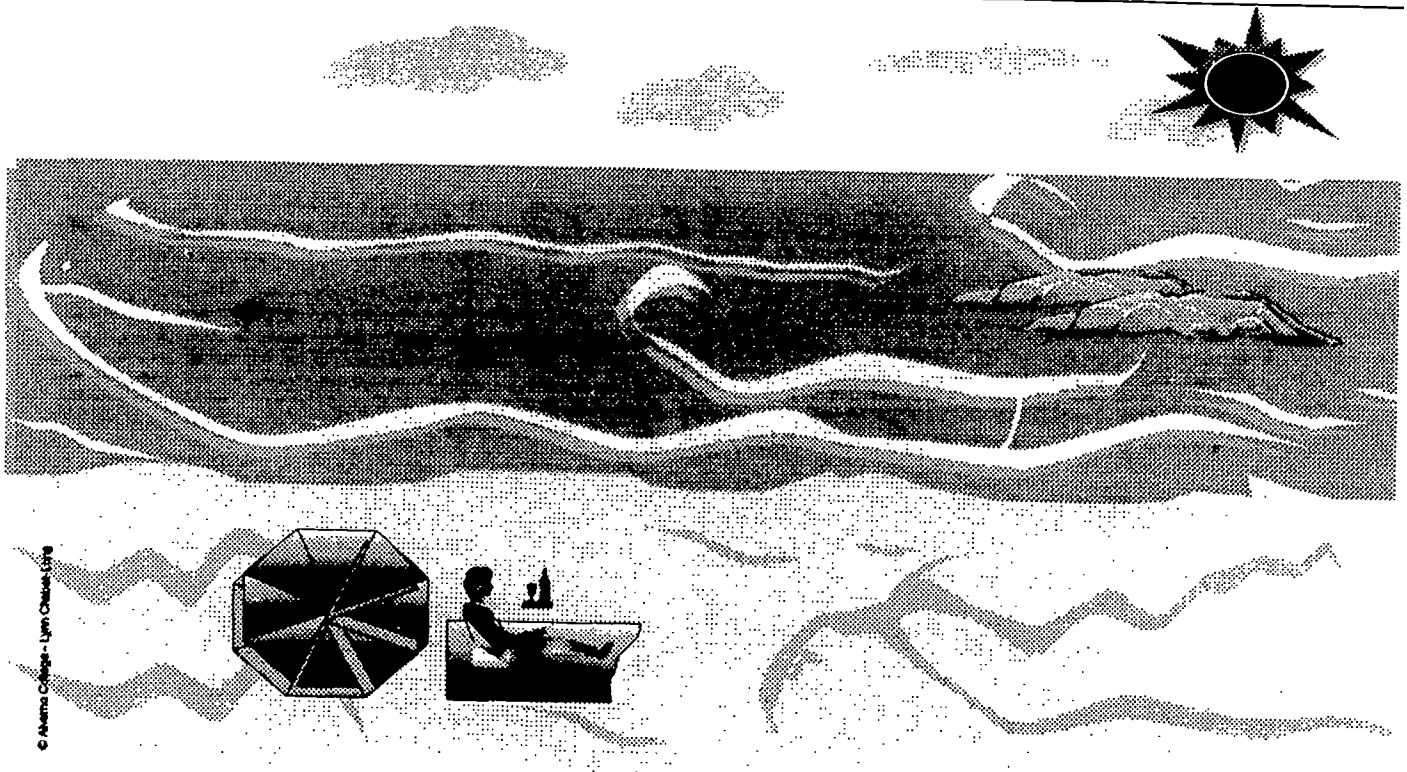
View One of faculty life is inaccurate, Mentkowski argued. A different perspective is needed. She then began to draw a second map to better reflect the presentations from and interactions among the forum participants. She asked the audience to remember the first view, leave their body on the blanket, and bring their minds on a helicopter ride to a holding position above the ocean beach. Here, she said, the multiple perspective-taking and mind-body disconnection of the academy is a benefit. "From this vantage point, we can see that wave action comes into the shore from far out at sea. It is influenced by tides, weather systems thousands of miles away, and seasonal changes. Collective wave action eventually transforms the shoreline, creating a

Figure 2.--Mapping faculty vitality



View Two: Using and Creating Waves of Change

1 teacher → teaching/learning
2 expert → contributor
3 scholar → professional
4 specialist → interdisciplinary
5 independent → interdependent



View One: The Shifting Shoreline of Faculty Life

dramatically different landscape for us as faculty. Unless these waves are the result of a hurricane or typhoon, these changes are likely to be gradual and can go undetected from our position on the beach."

In *View Two: Using and Creating the Waves of Change*, the waves of Mentkowski's map are great ideas that flow from and also influence the dynamic of faculty vitality. "Waves are metaphors for shifts in thinking about faculty vitality, identity, and integrity. Like many other professionals in law and health care, faculty are rethinking the professoriate, their workplace and the way they work, and they are beginning to reshape their institutions. Where are the faculty in this view? Some may remain on the beach at the mercy of the waves. Some may step gingerly into the ocean to test the waters. Most are surfing, using the waves for benefit. Others are reading the societal forces influencing this map, and actively creating the waves that transform higher education. Research that helps understand the waves and how to use and create them seems more essential than research that differentiates where individual faculty are on the map." Mentkowski suggested that faculty who are involved in using and creating the waves of change are more likely to be fulfilled and more vital to themselves, their students, and their institutions.

Mentkowski saw the wave action as externally and internally generated forces, fomenting changes in five broad "waves" or evolutionary processes that affect faculty experience and contribution. She sought to express the change as a movement from the simple terms once used to describe faculty characteristics to a set of more complex, overlapping ideas. Here, faculty are evolving professionally in interaction with their students and communities, and are actively shaping both the professoriate and their institutions. One implication is that faculty "productivity" is assessed in terms of individual student learning and performance, yielding a clearer picture of institutional effectiveness.

The simple terms once comfortably used to research or otherwise locate faculty were these: (1) teacher, (2) expert consultant, (3) autonomous scholar, (4) disciplinary specialist, and (5) independent individual. The more challenging and complex phrases that describe faculty as a result of the map's "waves" or evolutionary processes are:

(1) *Teaching* that includes taking collective responsibility for student *learning;*
(2) *Expert* consultant expands to using expertise in actively solving societal problems as a *contributor;*
(3) *Scholar* with disciplinary membership expands to membership in a *profession* that is based in an institution; the discipline, professoriate, and institution have multiple responsibilities to society for education;
(4) Disciplinary *specialist* includes *interdisciplinary* scholarship in multiple ways of knowing; and
(5) Individual, *independent* action considers one's professional *interdependence* and connection with one's institutional goals.

Mentkowski cautioned that understanding each new "wave" and its implications for the shifting shoreline means incorporating our earlier views, not disregarding them. "In the map's second

view, faculty build on autonomy, perspective, and creativity. They embrace change, self-assess their own position on the map, and their own vitality and contribution to societal goals. The discussion around each paper, together with these shifts in thinking, give us, as faculty and researchers, expanded ways to map our current and changing landscape and our responsibilities within it."

Summing Up: Visualizing the Integration of Research on Faculty

The Hypotheses and the Process

Mentkowski's second view communicates the forum's beliefs about the changing world of higher education and the opportunities of faculty in that world. It represents the complexity we were trying to deal with in our panel discussions and in our knowledge about faculty expressed in table 1. At the same time, it acknowledges that there are common themes or patterns in the research on faculty characteristics and behavior articulated in the sessions. This map explicitly combines the issues of essence, demographics, vitality, climate, and asset. It is grounded in the assumptions set forth by observers, writers, and panelists about the external forces interacting with the evolutionary processes in the nature of faculty described by Mentkowski as "waves."

By the end of the forum we had progressed from research questions to big ideas to a visual representation of the landscape of faculty. The big ideas about the layers of faculty life came to represent not only a way to integrate our knowledge about faculty but also the potential link we sought for our separate research strands.

Table 2.--Who are faculty and what do they do?
External forces and the evolution of faculty identity, vitality, and integrity

Simple Terms Describing Faculty and What They Do	Internal and External Forces Impelling the Evolution of Faculty	Complex Terms Describing Faculty and What They Do
Teacher	Diversity of Faculty/Students	Teaching Incorporates Learning
Expert	Technological Change	Contributor to Society
Independent Disciplinary Scholar	Public Expectation	Membership in a Profession with Responsibility to Society
Disciplinary Specialist	International Perspectives	Interdisciplinary Scholarship in Ways of Knowing
Independent Individual	Restructuring of Educational Systems	Professional Interdependence in the Context of Institutional Goals

The Landscape

Summarizing the contributions of the papers and the panel discussions provides us with the

description of the landscape from which the maps and table 2 are drawn. The names after each observation are the participants whose contribution raised or supported it:

- The changing intellectual, technological, economic, and social interactions within our society are creating an environment in which learning and teaching is not simple, but complex. (Zemsky)

- The future of faculty vitality lies in reshaping the nature of teaching, the interaction with students within the discipline which is also changing and results in rewards or growth potential for faculty including the opportunity to shape the institution. (Mentkowski)

- Higher education is changing the deal for faculty. We promised them that we would give them great job security and the autonomy to control their professional lives, but we would not be able to pay them a lot of money. Now every recommendation for faculty and for higher education indicates that one side is renegotiating the deal and that faculty must give up some of that autonomy to respond successfully to external forces. (Sanders)

- In the simple world, one-word descriptions of faculty were sufficient to explain what they did. In the complex world, the one-word description does not sum up the interaction, collaborative professional life, and multiple responsibilities for faculty. We are no longer in a closed-circuit world. Every professional action involves other individuals, impacts, and feedback. The change is not a dichotomous one, but a dynamic one. (The group)

- While faculty are being faced with the loss of one kind of autonomy, they are on the verge of another powerful individual opportunity, that is, the chance to shape the nature of the system in which they are working, much as other members of professions (teachers, judges, physicians) are reshaping theirs. (Sanders, Mentkowski, and Claussen)

- The essence of faculty can be understood through three intersecting domains of life: vitality (work), identity (self), and integrity (community of scholarship). How do we understand these and therefore understand the essence of faculty, without being so broad in our descriptions that we lose the distinctiveness represented now and in the future? How do we avoid telling only part of the story of faculty, giving visibility to only one kind of experience? (Bensimon, Astin and Villalpando, Mentkowski, and Mehallis)

- Identity is linked and centered in the students we teach. Vitality is sustained productivity over time and is tempered or enhanced as faculty are affected by mission and structure. Integrity is grounded in community and collaboration in the scholarship of knowing. (Mentkowski, Finkelstein, Layzell, Gill, and Lovell)

- Effective communication of the work of faculty involves redefining the debate, marketing the message we have about their value, and taking an active role in one's destiny. Faculty must take care of ourselves, our students, and our institutions. When others see that this is the business of faculty, they will understand what it is that faculty do. (Sanders, Mentkowski, Layzell, Gill and Lovell and group)

- The information we need to communicate about faculty is not always consistent, not always available, and we don't always ask the right questions. We need to understand the question, the level of data needed, and the purpose of the data collection or analysis product to do the best work we can in communicating what we know. Faculty must be convinced they are essential to this research and can gain from it. Moreover, faculty need to be active participants in research on their lives. We cannot study faculty without studying students. (Chronister and Creswell, Sanford, Middaugh, Dey, McLaughlin and the group)

The Legend of the Internal and External Forces

A description of the external forces generating the waves of change comes from the presentations on climate and from the final observers' session.

- Diversity of faculty: Diversity refers not only to the change in the race, age or gender of faculty in different types of institutions, but also to the level of participation of those who teach, i.e., full-time, part-time, adjunct, nontenured, contingent. Also, diversity is being expressed now in differences in expectations for opportunities by generation, recruitment of future faculty, faculty career, and life stages.

- Diversity of students: Diversity among students refers not only to demographic changes, but also to different learning styles, life expectations, valuing having fun while learning, and seeing higher education as a ticket to an occupation.

- Technology: Technology means not just the availability of hardware and software, but the implications for building partnerships with new providers and transforming higher education. The change in use of tools for improving teaching and learning was the chief implication raised. Skill expectations of faculty were as likely to be changing as those of students.

- Public Expectation: The public wants to know whether institutions can be accountable for their support thus far, i.e., what are students learning, what is the benefit of public investment in higher education? There is less money to spend on higher education, therefore, how can faculty represent themselves as an asset to the people who have the money to invest?

- International Perspectives: The political and economic conditions are now being

reflected in public policy about productivity and achievement of faculty, not only students, and the arguments are being made by referencing international comparisons of students, faculty, and systems of higher education.

- Restructuring of Educational Systems: The typical institution or system is no longer mono-structural. Within an institution there have been divisions in departments and a proliferation of interdisciplinary institutes and cooperative ventures, serving as wedges to stimulate change. The institutional mission is more focused but it must be flexible so that the institution can respond to the needs of more than one community as they are made known.

Implications for Data Development and Research

One of the motivations behind this forum was the determination to examine the way we collect data on faculty. To help all of us think about the relationships between policy questions affecting faculty and the data that exists to address them, a paper was commissioned on the application of data to policy questions and reporting requirements. The authors Jay Chronister and John Creswell systematically examined the policy questions and data resources available at national, state, and institutional levels. They responded with a guide relating the kind of data needed, the kind of data being collected, its strengths and problems, and offered recommendations for the level of data appropriate for different kinds of questions.

These authors identified the data needs in the areas of faculty demographics, workload, vitality and productivity, rewards and compensation, supply and demand, and workplace culture. They also addressed the need for better communication and coordination between the policy levels and the individuals collecting and reporting data at those levels.

The discussion in the forum around data issues generated many good ideas about ways of conducting research by institutional researchers and by graduate faculty. It also provoked numerous questions about the usefulness of data and alternative approaches.

With agreement that the story of faculty work was a multi-dimensional one, the participants asked whether the different levels of existing data could be made compatible, expressing the complexity of institutional organization and faculty interactions. They questioned the unit of analysis appropriate to reporting on faculty, the application of local data to state and national policy questions, and the amount of aggregation required and useful, considering the new notions of faculty identity which were evolving. Also questioned was the need to maintain confidentiality and still obtain the level of detail on individual faculty development needed to reflect the variety of faculty identities.

How and in what settings should we study faculty? Participants agreed that naturalistic observation and unobtrusive analysis of existing data would be two new ways to study faculty and that the participation of faculty in this kind of research was essential to reach the student and collegial relationships which were noted as the keys to understanding the changing life of

faculty.

Additional topics such as career development, faculty leavers and stayers, service experience were identified as worthy of study. Experienced researchers who have been involved with national surveys of faculty talked about longitudinal versus one-shot surveys and the need for crosswalks to guide data users through changing definitions from one survey to the next.

All participants agreed that data needs were real, but equally important is the person who will be communicating the results and the media for the reporting.

Conclusion

The forum afforded researchers at all levels of organizations and institutions the chance to compare ideas about the landscape of faculty life and to bring home with them, to their own work, new ideas for collecting and reporting the many changing stories of faculty. The policy questions may change and there may be less attention to the workload of faculty at a given moment; however, the importance of noting and describing the contribution of these individuals to the experience of higher education is not diminishing. We hope the papers which follow, when examined within the model we developed describing the changing world of faculty, will help others as they make decisions to learn more about faculty, particularly the faculty themselves. To continue the work of the forum, we encourage researchers to explore this model, challenging it or validating it. Using these maps and other new visions of faculty will help us to open the dialogue and change the way we communicate about faculty and their many individual contributions to the lives of students, to society, and to themselves.

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Faculty Identity: Essential, Imposed, or Constructed?

Estela Mara Bensimon

Introduction

This paper arises from the following eight questions on the essence of faculty which the organizers of the forum *Integrating Research on Faculty* asked me to address:

- What is a faculty member? Is it important to maintain the mystery of faculty, rather than seek to describe and understand them?
- What do faculty members do and how does this vary across institutional type and discipline?
- What do we like about what they (faculty) do?
- What do we know about what they do?
- How do faculty view their community of colleagues?
- What do faculty know and think about each other?
- How can we learn what it means to be a faculty member?
- What are the roles that faculty take in the learning community and are there alternatives for them? Are these alternatives possible through small changes in the current status of faculty or are they only possible through dramatic institutional change?

Rather than attempting to answer each of these questions through a synthesis of research on the essential characteristics of faculty identity and faculty work, I feel that it might be more useful and, hopefully, more provocative to discuss the theories of knowledge on which we rely, to make sense of both faculty identity and the work faculty perform.

I accomplish this by examining the assumptions about knowledge that posit individuals as having a discoverable and describable essence. Specifically, I address two problems: first, essence implies a concrete identity constituted in the roles of faculty as teachers, scholars, and university citizens; and second, faculty identity/essence can be changed/shaped by redefining the work that comprises teaching, scholarship, and service.

I begin by suggesting that the modernist conception of essence/identity creates an image of the professor as an individual whose work is divided into three separate and manageable roles: teaching, research, and service. I examine the problem of "identity as essence" by discussing the historical roots of essence in the modernist conception of the individual as constituted by a coherent and fixed identity (Fuss, 1989; Gergen, 1991).

My intent is to show that the idea of essence rests on an analytical presupposition that is false: the conception of faculty as a class of individuals with shared and uniform values about their roles as teachers, scholars, and university citizens, regardless of their race, gender, social class,

sexuality, histories, or interests.

Second, I suggest that dissatisfaction with a faculty identity/essence that is centered on research rather than on teaching and service has resulted in proposals to reinvent faculty (i.e., their work). These proposals are framed by questions and recommendations that locate the problem of research-based identity and the need for change on the professoriate, defined as a cadre of individuals, while totally neglecting to consider the structural core in which faculty work takes place. I propose that the identities of faculty as teachers or researchers are individually constructed and structurally imposed and that we must address the question of faculty identity and faculty work contextually. Simply put, unless academic leaders dedicate their attention to changing the institutional core so as to honor and reward teaching, change will be incidental, and unless researchers recognize the uniqueness of individual faculty as opposed to trying to classify faculty categorically, it will be difficult to understand the particularities of faculty lives.

I wish to note that I approach the questions of faculty essence and faculty work from the position of a faculty member affiliated with a graduate program in higher education and a research center on the study of higher education at a Research I University. On paper, my identity would appear to be more researcher than teacher, yet I define myself as professor rather than researcher. The perspectives that I bring to this topic reflect my interest in understanding taken-for-granted phenomena such as "faculty," "socialization," "community," or "leadership" through the interpretive lenses of gender, race, sexuality, social class, and organizational culture. While in this paper I will speak about the need to consider faculty as gendered subjects with racial and sexual identities—that is, in terms of differences rather than sameness—I do not focus on how the distinct cultures of institutional types, disciplines, and professions shape faculty identity and work. Rather, the organizational culture framework from which I write is the research university. To contextualize the core ideas of this paper, I use interview data from a Research I University that is a participant in a national study on the socialization of tenure-track faculty.[1]

My purpose in this paper is to provide different ways of thinking about some of the issues that have been identified for this forum. Even though I do not mention public four-year colleges, community colleges, or liberal arts colleges, I believe that the notion of thinking about faculty and faculty work from alternative and nontraditional standpoints that have been formed by faculty lives at the margins of the academy is an invitation to introduce experiences, interpretations, and understandings that speak from a location different than mine.

The Essence of Faculty Identity

It is generally accepted that the multiplicity of cultures that shape faculty identities—the culture of the profession, the cultures of the disciplines, the culture of the institution and department, and the cultures of institutional types (Austin, 1990)—make it impossible to conceive of a generalizable faculty essence. Declarations such as "The idea of academic man is a myth" (Light

[1]The "Faculty Socialization & Peer Review" project is a two-year study to investigate socialization patterns within the broad context of organizational culture. The study includes 12 public and private universities and is funded by the Lilly Endowment and TIAA-CREF.

cited in Austin, 1990, 61) and studies delineating how the work and identity of faculty are shaped differently by the cultures of the disciplines (Ruscio, cited in Austin, 1990, 61) and by institutional missions (Clark, cited in Austin, 1990, 61) make it plain that understanding faculty in terms of a singular and essential identity is not only pointless but misleading as well.

Despite our recognition of the futility of searching for a universal essence of faculty, we nonetheless view and talk about faculty as a generalized class of professionals. All-encompassing categories let us talk about large groupings of people in more succinct form (rather than having to address every individual member of the group). However, such categories also produce images that are incomplete and that distort reality (Harding, 1991). This is a point that feminist scholars are particularly concerned with, for example, as they speak about the need for gender specificity in the conduct of research and scholarship. This is due to the fact that traditionally white male dominated professions general categories such as scientist, professor, or leader are likely to conjure up the image of man (Bensimon, 1991; Glazer, Bensimon, and Townsend, 1993). I do, however, recognize that standard definitions of faculty roles and faculty work, even if they tend to generalize, are helpful in making ourselves understood by public officials and policy makers. Given the need for general categories, but the desire to avoid categorization that limits conceptualization of who might be included in a category we need to consider such questions as, "How might we develop categories, interpretive frameworks, and reporting formats that capture the particularities of faculty roles and faculty work in ways that are inclusive without being exclusionary?" and, "Should we develop categories for different purposes and audiences?"

The Modernist Conception of Identity

The notion of an essential faculty identity derives from modernist conceptions of knowledge as scientific discovery (Harding, 1991; Lather, 1991). The force behind modernism is the search for fundamentals or essentials in order to make the mysterious real and concrete. Modernism emerged in the 19th century in opposition to romanticism, which was then the dominant form of thought and interpretation (Gergen, 1991). The tension between romantic and modernist thought is discernable in one of the questions this panel was asked to address; that is, is it important to maintain the mystery of faculty, rather than seek to describe and understand them? This question appears to say, "Should we seek to understand the essence of faculty in romantic (e.g., spiritual, reflective, introspective, removed from reality, untainted by business) or modernist (e.g., rational actor engaged in concrete and measurable tasks) terms?"

The basic difference between romantic and modernist perspectives of essence is that, from the former perspective, "essence" is mysterious and spiritual, while from the latter perspective, "essence" is discoverable and describable. Parker Palmer's (1993) explication of teaching as spiritual activity is more romantic than modernist, whereas Ernest Boyer's (1990) classification of scholarship is more modernist than romantic.

Even though romanticism and modernism represent different ways of knowing and conceiving reality, they share in the conception of essence or identity as something that is fixed, unitary,

coherent, and knowable, perhaps, for all persons and all times (Tierney and Rhoads, 1993). In other words, they assume a oneness to the faculty, that in my view, simply does not exist. The notion of a fixed identity has been challenged by scholars who work from the idea of the individual subject as socially constructed and as having multiple and fluid identities (Neumann, 1993; Tierney, 1993).

The main body of scholarship on academic organizations, academic work, and academic leadership has been shaped by modernist thought and methodologies. In our research we endeavor to discover and describe the characteristics of colleges, the meaning of leadership, and the impact of colleges on students as though these could be known as unitary and coherent forces—as though we could discover and know them once and for all. These works presuppose that there is a reality out there waiting to be discovered. Modernism impels us to know by asking "whatness" questions and by attempting to sift reality from myth. For example, modernist thinking helped Anna Neumann and I to understand leadership by teams. Thus one of the initial questions we posed in our analysis of interviews with members of administrative groups was: "What are the functions of teams?" (Bensimon and Neumann, 1993). Similarly, the reason for this session is the desire of researchers, observers of higher education, and public officials to seek answers to questions such as, "What do faculty do?" and "What is faculty?" The "whatness" question is at the root of modernism's goal to discover the fundamental (i.e., essence) characteristics that are representative of the object being studied (Fuss, 1989).

In the scholarship on faculty the "whatness" question has spawned various studies of how much time faculty dedicate to the tasks of teaching, research, and service, all in an effort to determine *what* a faculty member is. These studies have, in turn, generated recommendations to reinvent faculty roles, in other words, to reformulate the "what" (this, of course, assumes, that this can be done from the outside, a point to which I will return later). For example, one recommendation that has been made to refocus faculty attention on undergraduates and community needs is for faculty to reduce time normally dedicated to research and eliminate the time spent on faculty governance (Edgerton, 1993). These studies have also provoked several states to adopt faculty workload standards in an effort to regulate the amount of time faculty spend in the classroom.

The "whatness" question presents a serious conceptual problem for researchers as well as policy makers, academic leaders, and not least of all for faculty for whom the turn toward rationalizing academic work may appear like a Tayloristic nightmare (Taylor, 1947). The "whatness of faculty" distorts faculty identity in at least three ways: (1) the conception of faculty identity separate from organizational context occludes how organizational structure imposes itself on what a professor is and does; (2) the conception of faculty as a universal category emphasizes sameness and obscures differences that result in an identity of many "essences;" and (3) the conception leaves out the idea of faculty as a construction from within rather than things to be shaped from out there (Neumann, 1993). Now, I turn to these conceptual problems.

University Culture and Professorial Identity: The Impact of Competition and Hierarchy

Our research cannot ignore that faculty identities are shaped by organizational culture. A professor in a research university occupies multiple cultures: each is a member of a discipline, department, academic unit, and institution, and each of these cultures has distinct norms, values, and expectations. Prominent features of the internal and external culture of Research I Universities include competition and hierarchy.

Internally, competition occurs among faculty within a department, among departments within a college, and among colleges within a university. Externally the competition is among research universities vying for dollars, prestige, and power. To be a player in this game requires the visibility, prestige, and dollars to be the best. Chairs want their departments to be one of the five or ten top ranked departments; deans want the same thing for their colleges; and presidents want the same thing for their universities. According to Jonathan Cole, Columbia's provost, the "script for legitimating the strength of a department, a school, or a research university" reads like this:

> To be recognized as the best, research universities try to monopolize the talent market. This is even more difficult today than fifty years ago, but that is the goal: to bring in as many truly distinguished faculty as budgets and persuasion will permit—both younger and more established eminences, whose research publications are envied by others and who have won recognition from institutions that confer recognition and rewards for research achievements (1993, 23-24).

From Cole's vantage point, the imbalance between research and teaching is the doing of academic leaders who covet the recognition and reputation obtained through research and creative achievements as much, if not more, than faculty. He also makes the point that reputation for research excellence provides one of the few tangible indicators of effective leadership for presidents, deans, and chairs.

Faculty Identities Produced by Competition and Hierarchy

I turn to interviews with four assistant professors in a Research I university and show the power of competition and hierarchy in the socialization of new faculty. These professors are recent Ph.D.'s and have been members of their department, which is located in one of the university's largest professional schools, for no more than four years. The department is unique in that it was recently formed, making the "bottom" (the new untenured faculty) the core faculty. This department is also nontraditional in that the faculty have different disciplinary orientations. I chose to use this department as an illustration because unlike most, it is not encumbered by organizational characteristics that stand in the way of innovation such as history, culture, and an entrenched senior faculty. Instead, it exhibits organizational features that create opportunities which make innovation happen: A new faculty, a department chair whom faculty perceive as an effective leader, and a cross-disciplinary faculty who is diverse in terms of gender and ethnicity. Additionally, the president of the institution has expressed concern about the importance of

teaching and the need to strengthen undergraduate education. As in many universities around the country, institutional commitment to improving teaching and learning is symbolized by the appointment of study committees charged with producing reports and recommendations. In other words, the department possesses the material conditions to redefine faculty roles and indicators of faculty performance and productivity.

Despite having features of a different academic culture, the department's structure, practices, norms, and values are a faithful replication of traditional departments. Specifically, the thinking and acting of faculty is very much dominated by the norms of competition and hierarchy. For these faculty members the dominant concern was in meeting productivity standards determined by research grants and publication in prestigious journals. In other words, the goal is to be a valued commodity, both in this department and others, as well as in research universities in general. One professor who had a good understanding of the rules said: "To be successful in this place and get tenure you should spend as much time as you possibly can on research and try to avoid all of the service activities you possibly can...I would say publish, publish, publish!"

According to this professor, one of the requirements for success was "having a coherent research program." She said, "The first and primary thing they look for is to see if you are working in a particular area and that you are not all over the board doing a paper here and there." She continued, "Second, there is a bias toward empirical work...you have to have a handful of papers that are empirical."

For this department to keep pace, or preferably, to surpass peer departments in sister institutions, means that faculty have to produce work that strengthens and improves the department's reputation. Thus the goal for this faculty is to publish their work in journals that have been graded as "A" on criteria of excellence established by the culture of the profession. One professor explains the strategy he has developed to comply with the norms of competition:

> I am expected to publish in the major journals of my discipline, but the reality is that there are only so many slots in each of these journals and you are not always going to get in. So first I send in my papers to the two top ranked journals. Then I either do the revisions recommended or send them to a second-tier journal. I think that the expectation is I will have a couple of things in one of the good journals and the rest of my stuff will be in the second tier.

Each piece of faculty work acquires value as determined by the reputation of the journal that accepts it for publication, whether it is single- or co-authored, and if co-authored what proportion of the contribution was made by each author. If a professor's article or research project is cited and talked about by faculty in other high-powered departments around the country, the value of that professor increases tremendously.

Competition based on research and scholarship takes place in the public sphere (e.g., articles are published and they can be read and cited by colleagues; grants generate funds that get one release time, equipment, travel money). In contrast, teaching happens in the private sphere and

tangible indicators of excellence in teaching are limited. The fact that teaching is taken for granted, as well as the proclivity to conceive of teaching as method or technique, makes it appear as less demanding than the mind-work required for scholarship. Faculty are socialized into being excellent at research and average at teaching. In fact, if a professor is a slow producer but an excellent teacher, it may be interpreted as a sign that not enough time is being dedicated to research. For example, a professor evaluated as excellent both by students and the department chair regretted having put so much time into teaching:

> I still get very high evaluations but it doesn't make any difference to them. If you are attaining those high ratings by putting more time into teaching, you should turn around and put the time into your research and not into your teaching...I actually go into my classes almost cold. It scares the heck out of me to go in unprepared but my biggest fear is that I will look back on the day and see that I haven't progressed...that I haven't completed five more pages on the article that I am working on.

The identity of these professors inheres in the words "scholar" or "researcher." They talk like scholars; they organize their lives like scholars; they inhabit the identities of "researcher" and "scholar;" they exhibit the anxieties of scholars. Implicit in the question, "What is faculty?" is the modernist presupposition of the individual as the architect of his identity. However, the interviews from which I have quoted suggest that we must ask also: "What kinds of faculty identities are produced by organizational culture?" and "How does organizational culture produce faculty identities?" My intent is not to suggest that faculty are powerless victims of organizations or passive recipients of imposed identities. Rather, the point I make is that the identities of faculty are constructed in relation to their contexts and in relation to how race, gender, social class, and sexual orientation shape the meanings professors impose on their work. For example, two professors, one who identified as "working class," and the other, a "Latina," spoke about how identities formed by experiences of "otherness" translated into the conception of teaching for social change.

Apparently there is considerable unhappiness with the socialization of university faculty into hyper-scholars and hyper-researchers. Indeed one of the questions that has been posed for this session is, "Do we like what faculty do?" and clearly the answer to this question, from the perspective of policy makers and government elected officials (and sensationalist accounts like *ProfScam*), the answer seems to be "No, we don't like it." The discourse on the crisis of undergraduate education defines the decline in the quality of teaching and learning environments as being caused by faculty spending too much time outside the classroom doing work that is not transparently connected to teaching. There is dissatisfaction with the emphasis faculty place on their role as researchers to the detriment of their role as teachers. This has led to proposals to reinvent the identity of faculty by creating new definitions of their work.

Redefining Faculty Work

The concepts of modernism that frame how we know what we know about faculty can be summarized as follows: (1) the individual's identity as professor is comprised of universally understood conceptions of teaching, research, and service; (2) the identity of faculty is made evident by the tasks they perform and the time they spend on these tasks; (3) the essence of faculty is comprised by the tasks that define their role as teachers, researchers, and university citizens.

The modernist script of conceptualizing reality unfolds in this manner: What do we know? What else do we need to know? How can we organize what we know? How can we use what we know to bring about change? In other words, we make sense of problems such as the imbalance between teaching and research by figuring out a way of organizing knowledge which will enable us to develop strategies for change. Accordingly, we frame the problem of the "whatness" of faculty identities and faculty work with the assumption that the answers to this question will lead logically to strategies for change. If we know what faculty are and what they do, we can devise ways of changing the "whatness" of faculty work that we don't like. (Who is the "we" is a question that I do not discuss here, but it must be discussed, specifically in relation to how "we" is often invoked to sanction practices that result in the exclusion of differences.)

The Carnegie Foundation's report *Scholarship Reconsidered: Priorities for the Professoriate* (Boyer, 1990) offers a proposal to expand definitions of faculty work, specifically, what kinds of faculty work, other than the discovery research model, constitute scholarship. This proposal aims at creating a framework that moves us away from a universal, and therefore restrictive, definition of faculty work to one that is more liberal and accommodating. The Carnegie report responds to the need for giving more attention to the neglected roles of teaching and service by making their associated identities more like the identity associated with the privileged role of researcher.

Redefining What Faculty Do[2]

Ernest Boyer's proposal is widely known and discussed. In a nutshell, he proposes a typology to classify the work of research, teaching, and service into four kinds of scholarship: (1) the scholarship of discovery, (2) the scholarship of integration, (3) the scholarship of application, (4) the scholarship of teaching. The typology represents a pragmatic attempt to deal with the reality that the identity of scholar is far more privileged than the identities faculty derive from teaching and service. Ernest Boyer's proposal provides a solution to the problem of changing or expanding what faculty do. Moreover, his work has stimulated discussion about teaching at the national level, particularly among academic leaders. It has also been the springboard for university proposals to reform how faculty work is evaluated, although it is too early to know

[2] In this section of the paper I am drawing on the analysis provided in "A Modern and Postmodern Critique of Boyer's *Scholarship Reconsidered*" an unpublished paper by Sheryl Samuelson and Chris Eisele presented at the Annual Meeting of the Association for the Study of Higher Education, November 5, 199?.

their implementation status and impact.

I too view the Boyer report as very important but for different reasons. The solution to the problem—redefining everything that faculty do as scholarship—says a great deal about the nature of the problem and how we think about it. Although not explicitly stated, the recommendation to redefine (or rename) all faculty work as scholarship of one form or another seems to arise from the logic that equality is made possible by sameness. The proposal assumes the scientific model as normative and seeks to remediate the stratification of faculty work by making teaching and service science-like. Samuelson and Eisele point out that "in trying to make all faculty work 'equal,' i.e., scholarly, [Boyer] has made it all sound the 'same'—based in scholarship" (Samuelson and Eisele, 1993, 2).

I am doubtful that "raising" teaching and service to the status of "scholarship" can have the effect of transforming the academic workplace, mainly because the problem is conceived as one of inducing change in faculty behaviors and roles without addressing how our thinking reproduces the realities we wish to change. For example, we cannot expect change to happen if proposals for reform leave untouched the hierarchical divisions that emanate from the scientific method of classifying phenomena. Feminist critiques of traditional conceptions of science (Harding, 1991; Fox Keller, 1985), disciplines (Hartman and Messer-Davidow, 1991; Smith, 1987) and knowledge (Minnich, 1990) view problems such as inequality between research and teaching as symptomatic of dualistic thinking that posits research as superior to teaching.[3] James Fairweather's (1993) findings that, regardless of institutional type and prestige, faculty who do research earn salaries that are significantly higher than faculty who primarily teach, reveals how organizational structures and practices maintain and reproduce divisions of labor that are viewed as detrimental.

I am also concerned that a typology that perpetuates the distinction between the scholarship of discovery versus the scholarship of integration hardens the distinction between scientific and empirical work versus work that is qualitative, deconstructive, feminist, post-colonial, etc. We must ask: What work is likely to get classified as representative of the scholarship of discovery and what work is likely to be characterized as the scholarship of interpretation? How will these differentiations be treated in tenure and promotion reviews, in determining merit increases, and in determining sabbatical leaves?

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[3] In *A Teaching Doctorate?: The Doctor of Arts Degree, Then and Now*, Judith Glazer chronicles the failure of the DA—a teaching-centered degree—to make teaching more equal to research. She observes, "Neither Boyer's advocacy of the scholarship of teaching nor Bok's formulations for training graduate students as junior faculty adequately addresses an extremely complex issue: the paradigmatic conflict between research and teaching. A resolution will occur not through better faculty-development programs in research universities or changes in promotion and tenure policies to give greater recognition to teaching but through a more fundamental restructuring of higher education" (1993, 36).

Conclusion: Rethinking Faculty From Standpoints of Difference

At the beginning of this paper, I said that my intent was to address two problems that I intuited in the idea of faculty essence: (1) that essence implies a concrete identity constituted in the roles of faculty as teachers, scholars, and university citizens, and (2) that faculty identity or essence can be changed and shaped by redefining the work that comprises teaching, scholarship, and service. By way of conclusion, I draw attention to points that might be part of the discussion on integrating faculty research:

- We need to understand that categories to standardize information about faculty are always exclusionary. This is not to say that information should not be made manageable but rather that we should be conscious of whose experiences are made visible by the categories in use and whose experiences are made invisible.

- We need to think in terms of differences rather than in terms of sameness. The notion of an essential identity is a conceptual straitjacket. In a paper on the conceptualization of colleagueship, Anna Neumann (1993) makes the point that we need to understand faculty lives in their particularity rather than their universality. Her work inspires us to think about faculty identity in terms of differences and unstable categories: (1) What does it mean to be a faculty member in a particular institution (rather than institutional type)?; (2) What does it mean to be a faculty member in a particular departmental culture?; (3) What does it mean to be a female faculty member in a particular department or institution?; (4) What does it mean to be a gay or lesbian faculty member in a heterosexist department or institution?; and (5) What are some of the features of institutional settings that may bear on the nature of professorial work?

- When we think from the standpoint of sameness we produce categories, classifications, knowledge, and interpretations that are self-referential and therefore limit our ability to know.

- To overcome the self-referential quality that characterizes the work on faculty, researchers need to turn to the margins where the experience of invisibility in "mainstream" research has inspired a multi perspective and multi vocal body of literature on lives in the academy. To take into account the diversity of faculty lives and identities, scholars dedicated to the study of faculty can no longer afford to not know works such as: *Spirit, Space & Survival: African American Women in (White) Academe* (James and Farmer, 1993); *Women of Academe: Outsiders in the Sacred Grove* (Aisenberg and Harrington, 1989); *Naming Silenced Lives* (McLaughlin and Tierney, 1993); *Working-Class Women in the Academy: Laborers in the Knowledge Factory* (Tokarczyk and Fay, 1993); *Talking Back* (Hooks, 1989); *All the Women are White, All the Blacks are Men, But Some of Us are Brave* (Hull, Bell Scott, and Smith, 1982).

- We must focus more on why we think it is important to integrate faculty research and why we believe it is necessary to develop "standardized definitions" of faculty roles and work.

A fitting conclusion or, better yet, a point of departure, for rethinking faculty identities and faculty work is the observation Jane Flax makes about sameness and difference:

> Domination arises out of an inability to recognize, appreciate and nurture differences, not out of a failure to see everyone as the same. Indeed, the need to see everyone the same in order to accord them dignity and respect is an expression of the problem, not a cure for it (1992, 193).

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A Demographic Profile of Today's Faculty

Helen S. Astin and Octavio Villalpando

In recent years we have witnessed demographic changes reflected in differential population growths, levels of educational attainment, and labor force participation. This changing picture provides a national background for viewing the changes that we are observing now and expect in the future with regard to faculty composition. Demographic changes in the population are going to affect both the demand for higher education and the supply side--the number and characteristics of future generations of faculty.

Based on population statistics, we foresee most of the population growth to be among people of color, especially women of color (tables 1 and 2). The future high school students, graduates, and college students are bound to represent a greater diversity of ethnic and racial backgrounds.

There has been an increase in the rates of high school graduation among students 18-24 years of age. Moreover, it is predicted that the high school graduation rates between now and 2003-4 will increase 42-46 percent in states (California, Arizona, New Mexico, and Florida) where we have some of the highest proportions of people of color in the population (*The Chronicle of Higher Education*, 1993; U.S. Department of Education, 1992). We have also seen increases over the decade of the 1980s in the proportions of high school graduates (18-24 years of age) who enrolled in college. Of all students enrolled in college today, 55 percent are women and 21 percent are minority students. Moreover in 1992, 63 percent of the high school graduates had enrolled in college (64 percent of white students, 49 percent of African Americans, and 34 percent of Latinos).

From these reported changes in the demography of the overall population, high school students, high school graduates and college youth, we would conclude that the future growth in the educational pipeline will be coming from ethnic/racial minority groups.

These demographic changes have direct implications for higher education regarding the staffing needs and availability of the future academic workforce.

Today's faculty, while predominantly white (91 percent) and male (70 percent), has undergone some changes in its gender and racial/ethnic composition primarily due to the influx of women and some faculty of color. Based on data we have collected at the Higher Education Research Institute (HERI) at the University of California at Los Angeles (UCLA) this chapter provides information on the characteristics of current faculty by gender and racial/ethnic background. The chapter concludes with general observations based on our data and analysis; identifies future data needs; and raises a few questions about the development and employment of future generations of academics. The data were collected during academic year 1989-90 from teaching faculty at a representative sample of 392 institutions. All data are weighted to represent population estimates. The weighted sample includes 401,431 teaching faculty at

2,528 higher education institutions, of whom 29 percent are women and 10 percent are faculty of color (women and men). Sixty-seven percent are tenured. Median age is 47 with 10 percent who are 35 years of age or younger and 24 percent who are 55 and older. Sixty-one percent hold a doctorate degree and 28 percent indicate a master's as their highest degree to-date.

Women Faculty

The faculty pool derives from those men and women who achieve the highest levels of education. A brief analysis of women's overall level of educational attainment is provided as a context for examining the current and expected demographic profiles of faculty.

Years of Schooling Completed by Women in the U.S.

Based on 1989 Census data, we observe that women's level of educational attainment has increased quite dramatically since 1970 (for example, in 1970 among white women, a little more than 8 percent had completed four years of college or more, by 1989, the proportion had climbed to nearly 19 percent). Nonetheless, comparing women to men, with respect to college education or more, women lag behind. In 1989, 18 percent of women compared to almost 25 percent of men reported having completed four years of college or more. However, women's college participation continued to increase, and in 1992 women were the majority (55 percent) of students (Astin and Malik, 1994). Women have also made great inroads into the traditionally male fields. Women's participation in engineering, business, and science has increased (table 3).

In the 1970s there were numerous federal laws and regulations enacted which were aimed at equalizing opportunities for women in higher education. These regulations, together with activism from the second wave of the women's movement, have resulted in changes in the structure of opportunity for women which accounts to a great extent for the changes we have described thus far about women's participation in higher education. In addition to women's increased participation in college, we have also witnessed a great growth in women's participation in graduate education and in doctoral attainment—the preparation for entry into academic careers.

Not only has the total proportion of women as recipients of Ph.D.'s increased dramatically (more than doubled between 1972 and 1992) (table 4), their participation in some traditionally male fields has also changed. Among doctoral recipients, women in 1992 were 37 percent compared to 16 percent in 1972. Likewise, their presence in some of the traditionally male fields has increased dramatically. For instance, while women among physical science doctorates were only 6.6 percent of the graduates in 1972, the proportion had climbed to 19.7 percent in 1992. Similar changes are observed among Ph.D. recipients in engineering and life sciences (table 5).

Trends in Women's Participation in the Academic Labor Market

Over time, the proportion of women in academic employment has increased from 22 percent in 1972-73 to 29 percent in 1989-90. Likewise, the proportion of women within each academic rank has also increased. Among assistant professors, the percentage changed from 23.8 percent in 1972-73 to 38.1 percent in 1989-90, among associate professors from 16.3 percent (1972-73) to 26 percent (1989-90), and among full professors from 9.8 percent in 1972-73 to 14 percent in 1989-90 (table 6). Another way of looking at women's ranks is by examining their distribution across ranks as they compare to men: 16 percent of women are full professors compared to 41 percent of men who are full professors. There are 31 percent of women who list their rank as assistant professors compared to 20 percent of the men. These differentials are pronounced when viewed by type of university, public or private (table 7).

Women's participation differs by type of institutional employer as well. While women constitute 28.8 percent of the faculty at all institutions, women are only 21.3 percent of faculty at public universities, but 39.2 percent at public two-year institutions (table 8). Women are much more likely to be in the faculties of two-year institutions and less likely to be faculty at universities or four year colleges.

Field distribution continues to differentiate faculty according to gender as well: 12 percent of the women compared to 33 percent of the men are in science and engineering; 14 percent of women and 21 percent of men are in the social sciences; 18 percent of women and 14 percent of men are in the humanities; and 24 percent of women and 11 percent of men are in education (table 9).

While gender differentials exist overall, it is important to examine whether academic practices with respect to hiring are changing given the large influx of women in the Ph.D. pool. When we examine the representation of women among the more recent hires we observe that nearly two-fifths (39 percent) of those faculty who were hired in the five year period prior to 1989 were women. From these data we may conclude that hiring patterns parallel the available pool of new Ph.D.'s. Whether women will move up the academic ladder in similar fashion to men remains to be seen (Special tabulations of HERI Faculty Survey, 1989-90).

Another aspect of the changing demography of faculty is the age distribution of current faculty and whether there are gender differences with respect to age, an aspect of faculty demography that has implications for the future composition of faculty. There are age differences between women and men faculty as well. Women being the more recent arrivals in academe (in 1989 the median year of appointment reported by men was 1974 compared to women who reported 1981 as the median year) are also younger (Special tabulations of the HERI Faculty Survey, 1989-90).

Faculty of Color

The representation of ethnic/racial minority faculty in U.S. colleges and universities has improved slightly during the last two decades (Milem and Astin, 1993). Although still underrepresented in proportion to their overall representation in the U.S. population, the numbers of African Americans, Native Americans, Asian Americans, and Latinos (including Puerto Ricans, Chicanos/Mexican Americans, Cubans, and other Latinos) in academe have increased.

Educational Attainment By People of Color

Again it is critical to examine and report on observed changes in the educational preparation and attainment of people of color since such changes will have implications for the faculty profile in years to come. The educational attainment level of students of color has increased substantially during the last two decades. For example, while only 6 percent of all ethnic/racial minorities had completed at least 4 years of college in 1970, the percentage increased to 17 percent by 1990. This improvement is perhaps best reflected in undergraduate enrollment trends during the 1980s which show a slow but steady increase in the college-going rates of minority students (from 17.3 percent in 1980 to 20.7 percent in 1990) (see table 10).

Minority students have also earned a higher percentage of bachelor's degrees in fields in which they have historically been most underrepresented. For example, while minority students earned only 8 percent of all biological/life sciences bachelor's degrees awarded in 1976, the percentage increased to 18 percent in 1989. Similarly, minority students received only 7 percent of all engineering bachelor's degrees awarded in 1976, but earned 16 percent of all engineering degrees conferred in 1989. Of the bachelor's degrees awarded in business in 1976, only 10 percent went to minorities, but the percentage increased to almost 13 percent in 1989 (Carter and Wilson, 1993).

Except for black students, the improved undergraduate educational attainment rates of underrepresented minority students has also been reflected in their participation in graduate education--particularly in their doctoral attainment rates (table 11).

There has also been a small increase for most minority subgroups in their attainment of doctoral degrees in fields in which they have traditionally been most severely underrepresented (table 12).

Trends in the Participation of Faculty of Color in the Academic Labor Market

The overall representation of faculty of color in the academic profession has increased by approximately 4 percent since 1972. In 1989, nearly 10 percent of the faculty identified themselves as African American, Asian American, Native American, or Latino. Similarly, the representation of faculty of color has increased slightly within each academic rank during the last 20 years. In 1972, nearly 96 percent of all professors were white, while approximately 3

percent were racial/ethnic minorities. In 1989, the percentage of ethnic minority professors increased to 6.5 percent. However, the largest representation of ethnic minorities has consistently been in the lower academic ranks. By 1989, faculty of color comprised about 10 percent or more of all assistant professors, lecturers, and instructors in U.S. colleges and universities (table 13).

The representation of racial/ethnic minority faculty also varies slightly across different types of institutions. The highest representation of ethnic minority faculty is at public two-year institutions. The lowest representation is among private four-year colleges and universities, where about 5 percent of the faculty identified themselves as members of a racial/ethnic minority group. Faculty of color comprised less than 8 percent of the professoriate at either public four-year colleges or public universities in 1989 (table 14).

Based on data reported in table 14, the stratification of racial/ethnic minority faculty along institutional type, size, and prestige is evident. The smallest and more prestigious institutions, like private four-year colleges and universities, have had the lowest percentage growth of racial/ethnic minority faculty during the last twenty years. In contrast, the largest and less prominent two-year institutions have had the highest percentage growth. These differential growth patterns suggest that the largest increase of racial/ethnic minority faculty has occurred in the two-year institutions which, coincidentally, also have the largest enrollment of ethnic/racial minority students.

The Supply of Future Academics

There is nothing new or profound in our statement that the academic labor market is a complex market indeed, and that our studies forecasting supply and demand for faculty are flawed in a number of ways. By no means do they represent accurate projections. However, such efforts help us collect data and look at variables that are critical to our having a better sense of the dynamics of the labor market. In addition, they make us more conscious of key questions we should be asking in our research studies as we examine the career paths of young people through the educational pipeline.

Knowing the characteristics of current faculty as well as their plans for retirement or separation from the academy, for whatever reason, or being able to project future enrollments (demand for faculty's labor) and how social and economic conditions may influence both sides of the equation enables us to have a better sense of control in planning the future of our institutions.

In the previous sections we presented and discussed both the changes in the educational aspirations and attainment of women and persons of color and changes in the demography of faculty. There is no question that the pool of future academics is becoming "feminized." In 1992, 55 percent of college students were women and 44 percent of the Ph.D.'s awarded to U.S. citizens were awarded to women (Carter and Wilson, 1993; Astin and Malik, 1994). It is also changing with respect to race and ethnicity.

Also based on changes in undergraduate enrollments and students' aspirations, we project a continuing growth in Ph.D. production and interest in academic careers. From data we have been collecting at HERI we see an increase in the aspirations of entering freshmen with respect to plans to obtain the doctorate (in 1971, 7.3 percent of all entering freshmen aspired to their Ph.D.; by 1992, this percent had risen to 10.2). In 1992 a higher proportion of women (5.5 percent) compared to men (4.7 percent) aspired to the Ph.D. Likewise minority students have increased their aspirations as well. African American students increased their aspirations by 50 percent, Latinos by 767 percent, American Indians by 175 percent, and Asian Americans by 525 percent. Given these changes in aspirations, participation, and attainment, we predict that future generations of faculty will be more diverse with respect to gender and color, especially with changes in the pool of doctorate recipients (HERI, special tabulations of 25 years of American Freshman norm data).

Doctoral Production

Earlier we mentioned changes in women's aspirations and completion of the doctorate. Table 15 lists the total number of doctorates awarded in selected years (to men and women) between 1962 and 1992. As can be seen from the data in this table, there was an enormous growth in the production of doctorates between 1962 and 1971 from 11,500 to 31,867. During the 1970s we observed a steady state with a small reduction from 31,867 in 1971 to 31,356 in 1981. However, the 1980s have experienced a steady increase in the numbers with a growth of an additional approximately 7,500 doctorates in 1992 over the number produced in 1981. As noted earlier, while there has been some increase in the number of underrepresented minorities receiving Ph.D.'s, their proportional representation in the pool has remained about the same.

Note an important caveat to these data: they do not address the field distribution of women and minority doctorates, which is a must in examining in more detail the supply side of the equation. The academic labor market is a multifaceted one characterized by diversity in institutional types, each with its own specific needs for faculty talent in terms of training, field of specialization, and interests. Field differences in terms of training requirements and career paths exist as well. As we know, the representation of women and minorities is greatest among the social sciences, humanities, and education. Thus, an important question for us is what will be the demand for faculty in these fields compared to the demand for faculty in the sciences and engineering?

Faculty Plans with Respect to Retirement

Data on retirement plans among current faculty can also help us project changes in faculty demographics.

Two questions in our 1989 survey of teaching faculty provide data on retirement plans: "Do you plan to work beyond age 70?" and "Have you considered early retirement?" We have looked at these pieces of information for different age cohorts. A brief look at the overall age distribution of current faculty (table 16) indicated that men and white faculty are among the

oldest in the total faculty population. Forty-four percent of male faculty are 50 years of age and older compared to 29 percent of women. Among the minority faculty, Latino faculty are the youngest. Based on these statistics alone we would expect changes in the demographic mix of faculty as a result of retirements (more men and more white faculty would be expected to retire given their comparative age).

To the question "Do you plan to work beyond age 70?" 64 percent of faculty age 60 and above answered they have no plans to work beyond age 70. Nonetheless, 36 percent say they plan to continue working. Overall a somewhat higher proportion of men (33 percent) compared to women faculty (29 percent) indicate plans to work beyond age 70. However, we do not see great age cohort differences among those who indicate that they plan to work beyond age 70 (44 percent of age 40 or younger; 39 percent of those 40-49 years of age; 30 percent of those 50-59 years of age and 36 percent of those age 60 and older) (table 17).

To the question "Have you considered early retirement?" 28 percent of all faculty indicate 'yes.' Forty-four percent of the oldest cohort (60 and older) say so compared to only 9 percent of the 40 and under group (table 17).

A third question dealt with whether faculty considered leaving academia altogether: 37 percent of the total group said 'yes' to this question. There are interesting but not unexpected differences between age cohorts: 47 percent of faculty age 40 and under reported considering leaving academe, compared to 16 percent of the older cohorts (table 17). This differential may be a function of overall satisfaction with the academic life—the older cohorts being more settled in their academic careers while the younger groups are still struggling with issues of tenure and adjustment into the academic careers. Monitoring such plans and documenting actual behavior can be quite useful in our forecasts about the demography of faculty in the future.

Research Questions

The following concluding comments arise from the data and analysis presented in this chapter. As we have already noted, there is a need for data that provide information on current and future faculty according to disciplinary fields and educational preparation. It would be useful to know what variables predict the choice of academic careers and pursuit of the Ph.D. among college students (i.e. gender, class, race/ethnicity, college experiences, etc.); and what factors ensure the persistence of women and minorities in the educational pipeline (college and graduate study). To gain a better sense of future plans among our current faculty, we would also benefit from knowing how the change in age discrimination legislation is affecting the choices of faculty in their 60s and those approaching age 70. Do they plan to retire? How would they like to spend their remaining work years while in academe?

Given the increasing ethnic/racial diversity of our students, we should also inquire about how the changing composition of faculty is affecting the educational experiences and persistence of minority students enrolled in college.

Data Needs and Methodological Concerns in Future Studies

Studies on the future supply of faculty would benefit greatly from longitudinal data on students in college and beyond. The data would be enriched with interviews about the experiences of women and minority students in graduate study, as well as case studies of successful institutions (success in terms of recruitment and persistence of graduate students to completion of Ph.D.). It is also essential that data collected and reported from different cohorts and level of educational attainment indicate the field of study of participants.

Table 1.--U.S. population estimates by race/ethnicity: 1980 and 1990
[in thousands]

Race/Ethnicity	1980		1990		
	Number	Percent	Number	Percent	Percent Change
Total U.S. Population	226,546	100	248,710	100	10
White	188,372	83	199,686	80	6
Black	26,495	12	29,986	12	13
Asian/Pacific Islander	3,500	2	7,274	3	108
American Indian	1,420	1	1,959	1	38
Other Races	6,758	3	9,805	4	45
Hispanic Origin*	14,609	6	22,354	9	53
Mexican	8,740	4	13,496	5	54
Puerto Rican	2,014	1	2,728	1	35
Cuban	803	0	1,044	0	30
Other Hispanic	3,051	1	5,086	2	67

* May be of any race.

NOTE: This disaggregation of persons of "Hispanic Origin" is provided for the purpose of clarification regarding the groups which comprise the category. The number of persons of "Hispanic Origin" have already been included in the total U.S. population above.

SOURCE: U.S. Bureau of the Census. June 12, 1991. *Press Release CB91-215.*

Table 2. --18-to-24-year-old population, by race/ethnicity and sex: 1982 and projections for 1992 and 2002

[numbers in millions]

		Projections		Change
	1982	1992	2002	1992 to 2002
Total	28.8	25.9	27.0	1
Men	14.1	13.2	13.7	.5
Women	14.8	12.7	13.3	.6
White	24.2	20.9	21.3	.4
Men	11.9	10.7	10.9	.2
Women	12.3	10.2	10.4	.2
Black	3.9	3.8	4.0	.2
Men	1.8	1.9	2.0	.1
Women	2.1	1.9	2.1	.2
American Indian	NA	.3	.3	0
Men	NA	.2	.1	-.1
Women	NA	.1	.2	.1
Asian/Pacific Islander	NA	1.0	1.4	.4
Men	NA	.5	.7	.2
Women	NA	.5	.7	.2
Hispanic Origin*	2.0	3.2	3.7	.5
Men	.9	1.7	1.9	.2
Women	1.1	1.5	1.8	.3

* May be of any race.

NOTE: Because of rounding, percentages of men and women within race/ethnic categories may not equal the category total.

SOURCE: U.S. Bureau of the Census. Current Population Reports, 25-1092. *Population Projections of the United States, by Age, Sex, Race, and Hispanic Origin 1992 to 2050.* Carter, Deborah J. and Wilson, Reginald. January 1993. *Minorities in Higher Education, Eleventh Annual Status Report, 1992*, Washington, DC: American Council on Education.

Table 3.--Percentage of baccalaureate degrees awarded to women in selected fields: 1979-80 and 1988-89

	1979-80	1988-89
Business	33.7	46.7
Engineering	9.3	15.2
Biological Sciences	42.1	50.2
Physical Sciences	23.7	29.7

SOURCE: Astin, H.S. and Malik, L. 1994. "Academic Women in the United States: Problems and Prospects," in *The Gender Gap in Higher Education*, World Yearbook of Education, eds. S.S. Lie, L. Malik, and D. Harris, London/Philadelphia: Kogen Press.

Table 4.--Number of doctoral degrees awarded to all students and percentage of doctoral degrees awarded to women: 1972-1992

Total Number	1972	1980	1986	1988	1992
Total Number of Doctorates Awarded	33,041	31,020	31,897	33,480	38,814
Percentage of Doctorates Awarded to Women	16.0	30.3	35.4	35.3	37.0

SOURCE: National Research Council. *Summary Reports: Doctorate Recipients from U.S. Universities*, Survey of Earned Doctorates, *1990, 1992.* Astin, H.S. and Malik, L. 1994. "Academic Women in the United States: Problems and Prospects," in *The Gender Gap in Higher Education*, World Yearbook of Education, eds. S.S. Lie, L. Malik, and D. Harris, London/Philadelphia: Kogen Press.

Table 5. --Percentage of doctoral degrees awarded to women in selected fields: 1972 and 1992

	1972	1992
Physical Sciences	6.6	19.7
Engineering	0.6	9.3
Life Sciences	15.2	39.3

SOURCE: National Research Council. *Summary Reports: Doctorate Recipients from U.S. Universities*, Survey of Earned Doctorates, *1992.* Astin, H.S. and Malik, L. 1994. "Academic Women in the United States: Problems and Prospects," in *The Gender Gap in Higher Education*, World Yearbook of Education, eds. S.S. Lie, L. Malik, and D. Harris, London/Philadelphia: Kogen Press.

Table 6. --Percent of faculty who are women by selected academic ranks: 1973-1990
[in percentages]

	All Ranks	Professor	Assoc Professor	Asst Professor
1972-73	22.3	9.8	16.3	23.8
1982-83	26.9	10.7	22.0	36.1
1989-90	28.8	14.0	26.0	38.1

SOURCE: Vetter, Betty M. and Babco, Eleanor L. 1986. *Professional Women and Minorities*, Washington, DC: Commission on Professionals in Science and Technology, 123. Astin, A.W., Korn, W.S., and Dey, E.L. 1990. *The American College Teacher: National Norms for The 1989-90 HERI Faculty Survey*, Los Angeles: The Higher Education Research Institute.

Table 7.--Academic rank by control of institution and sex of faculty: 1989-90
[in percentages]

	All Institutions		Public Universities		Private Universities	
	Women	Men	Women	Men	Women	Men
Professor	16	41	15	47	14	48
Associate	23	27	28	28	28	26
Assistant	31	20	34	21	40	23
Lecturer	3	1	7	2	13	1
Instructor	23	9	9	2	4	1
Other	4	2	7	--	1	2

NOTE: The percentages in each column may not total 100 due to rounding.
SOURCE: Astin, A.W., Korn, W.S., and Dey, E.L. 1990. *The American College Teacher: National Norms for The 1989-90 HERI Faculty Survey*, Los Angeles: The Higher Education Research Institute.

Table 8. --Percentage distribution of faculty by sex and type of institution: 1989-90

	Women	Men
All Institutions	28.8	71.2
Public Universities	21.3	78.7
Public 4-Year Colleges	28.1	71.9
Public 2-Year Colleges	39.2	60.8
Private Universities	20.3	79.7
Private 4-Year Colleges	31.4	68.6
Private 2-Year Colleges	47.7	52.3

SOURCE: Astin, H.S. and Malik, L. 1994. "Academic Women in the United States: Problems and Prospects," in *The Gender Gap in Higher Education*, World Yearbook of Education, eds. S.S. Lie, L. Malik, and D. Harris, London/Philadelphia: Kogen Press.

Table 9. --Percent of women and men faculty in selected fields: 1989-90

Fields	Women	Men
Science and Engineering	12	33
Social Science	14	21
Humanities	18	14
Education	24	11
Other Fields	32	21

NOTE: Only those fields with the highest concentration of faculty are highlighted in this table. Administrators were also surveyed by field.
SOURCE: Astin, A.W., Korn, W.S., and Dey, E.L. 1990. *The American College Teacher: National Norms for The 1989-90 HERI Faculty Survey*, Los Angeles: The Higher Education Research Institute.

Table 10. --Percentage distribution of undergraduate enrollments by race (White, non-Hispanic/total minority): 1980-1990

	White, non-Hispanic	Total Minority
1980	82.7	17.3
1984	81.6	18.4
1986	80.8	19.2
1988	80.2	19.8
1990	79.3	20.7

NOTE: The category "total minority" excludes non U.S. residents.
SOURCE: U.S. Department of Education. National Center for Education Statistics. *Digest of Education Statistics, 1992.*

Table 11. --Percentage distribution of doctorate recipients by race/ethnicity for U.S. citizens with race/ethnicity known for selected years in all fields: 1975-1992

	White, non-Hispanic	Black, non-Hispanic	Hispanic	Asian/Pacific Islander	American Indian
1975	93.7	3.8	1.2	1.1	.1
1983	91.4	3.9	2.3	2.1	.3
1992	89.4	3.7	3.0	3.3	.6

NOTE: Percentages within rows may not add to 100 due to rounding.
SOURCE: National Research Council. *Summary Reports: Doctorate Recipients from U.S. Universities,* Survey of Earned Doctorates, *1990, 1992.*

Table 12. --Changes in the percentage of race/ethnic minority doctorate recipients (citizens and noncitizens of the U.S. included) for selected fields: 1979-80 and 1989-90

	White, non-Hispanic	Black, non-Hispanic	Asian/ Pacific Islander	American Indian	Chicano/ Mexican American	Puerto Rican	Other Hispanic	Unknown
Physical Sciences								
1979	83.7	.9	7.2	.2	.2	.1	.7	7.0
1989	87.2	1.0	6.4	.1	0.5	1.0	1.5	2.3
Engineering								
1979	73.5	1.1	17.9	.2	.1	.2	1.5	5.5
1989	78.9	1.7	15.0	.2	.6	.3	1.5	1.9
Life Sciences								
1979	86.7	1.5	5.0	.2	.2	.1	.7	5.6
1989	88.3	1.9	5.5	.2	.8	.7	1.2	1.4

SOURCE: U.S. Department of Education. National Center for Education Statistics. *Digest of Education Statistics, 1992*, tables 285, 287, and 288, from the National Research Council, Survey of Earned Doctorates.

Table 13. --Trends in distribution of faculty by race/ethnicity and academic rank: 1972 and 1989

[in percentages]

	White, non-Hispanic	Total Minority	African American	Asian or Asian American	American Indian	Mexican American/ Chicano	Puerto Rican
Professor							
1972	95.7	3.4	1.8	1.0	.4	.2	.0
1989	92.2	6.5	2.1	3.0	.8	.5	.1
Associate Professor							
1972	93.8	4.9	2.2	1.7	.6	.2	.2
1989	89.5	8.3	3.4	3.3	.7	.6	.3
Assistant Professor							
1972	91.8	6.2	3.3	1.3	.8	.2	.3
1989	85.2	11.3	5.6	3.6	.7	.8	.6
Lecturer							
1972	85.5	11.4	6.1	3.4	1.4	.1	.5
1989	86.4	9.6	5.4	1.8	.9	.7	.8
Instructor							
1972	91.2	7.3	4.3	1.5	1.0	.4	.1
1989	86.1	11.5	6.0	2.4	.6	1.6	.9

NOTE: The categories "Other Latino" and "Other" are not included on this table, therefore, the percentages in each row will not total 100.

SOURCE: Milem, J. and Astin, H.S. March/April 1993. "The Changing Composition of the Faculty," *Change*, 25(2). Astin, A.W., Korn, W.S., and Dey, E.L. 1990. *The American College Teacher: National Norms for The 1989-90 HERI Faculty Survey*, Los Angeles: The Higher Education Research Institute.

Table 14. --Trends in distribution of faculty by race/ethnicity and type and control of institution: 1972 and 1989

[in percentages]

	White, non-Hispanic	Total Minority	African American	Asian or Asian American	American Indian	Mexican American/ Chicano	Puerto Rican
All Institutions							
1972	95.0	3.7	1.3	1.3	.7	.2	.2
1989	90.9	7.0	2.1	2.9	.8	.8	.4
Public Universities							
1972	95.9	3.0	.7	1.4	.7	.2	.0
1989	90.1	7.3	1.3	4.1	.7	.8	.4
Private Universities							
1972	95.7	3.5	1.2	1.7	.4	.0	.2
1989	92.1	5.5	2.0	2.8	.4	.2	.1
Public 4-Year Colleges							
1972	92.2	5.5	1.9	.6	.8	.2	1.0
1989	90.6	7.4	2.4	.2	1.0	.6	.2
Private 4-Year Colleges							
1972	96.3	2.6	1.1	.7	.6	.1	.1
1989	93.3	5.0	1.4	1.7	.5	.3	1.1
Public 2-Year Colleges							
1972	94.0	4.6	2.0	1.2	.8	.6	.0
1989	89.4	8.8	3.3	2.3	1.2	1.8	.2

NOTE: The categories "Other Latino" and "Other" are not included on this table, therefore, the percentages in each row will not total 100.

SOURCE: Milem, J. and Astin, H.S. March/April 1993. "The Changing Composition of the Faculty," *Change*, 25(2). Astin, A.W., Korn, W.S., and Dey, E.L. 1990. *The American College Teacher: National Norms for The 1989-90 HERI Faculty Survey*, Los Angeles: The Higher Education Research Institute.

Table 15. --Doctorates awarded by U.S. colleges and universities: 1962-1992

1962	1965	1971	1975	1981	1985	1988	1991	1992
11,500	16,340	31,867	32,952	31,356	31,297	33,490	37,503	38,814

SOURCE: National Research Council. *Summary Reports: Doctorate Recipients from U.S. Universities,* Survey of Earned Doctorates, *1990, 1991, 1992.*

Table 16. --Age distribution of faculty by sex and race/ethnicity: 1989-90
[in percentages]

Age	Men	Women	White	African American	American Indian	Asian or Asian American	Latino*
Under 40	22	34	25	30	18	30	39
40-49	34	37	35	36	48	31	35
50-59	30	21	28	23	26	30	17
60+	14	8	12	11	9	9	9

* May be of any race.
NOTE: Column totals may not equal 100 percent due to rounding.
SOURCE: Astin, A.W., Korn, W.S., and Dey, E.L. 1990. *The American College Teacher: National Norms for The 1989-90 HERI Faculty Survey*, Los Angeles: The Higher Education Research Institute.

Table 17. --Retirement plans of faculty by age cohort: 1989-90

Plans	Under 40	40-49	50-59	60+
Percent Who Considered Leaving Academe	47	42	32	16
Percent Who Considered Early Retirement	9	23	46	44
Percent Who Plan to Work Beyond 70	44	39	30	36

SOURCE: Astin, A.W., Korn, W.S., and Dey, E.L. 1990. *The American College Teacher: National Norms for The 1989-90 HERI Faculty Survey*, Los Angeles: The Higher Education Research Institute.

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Faculty Vitality in Higher Education

Martin J. Finkelstein

Introduction

What is faculty "vitality"? Put another way: what is the "vitality problem" about which the higher education community is so privately concerned? As I understand it, the problem, simply put, is that many faculty, especially those at mid-career and non-research universities, are not performing in one or more of their organizational roles at some standard acceptable to their units or campuses. They are not growing professionally in ways that can be linked to changing organizational needs. In employing the concept of vitality, one usually makes a critical attribution (inference): that the performance (or, non-performance, as the case may be) in question is attributable to some internal or intrinsic motivational complex (or its demonstrable absence)—the "fire in the belly"; the animus or vital force that sustains constructive work activity over periods of time when external conditions may not always be entirely favorable. Vitality, then, is the antithesis of stuckness (Kanter, 1979), disengagement, or middle aged disillusionment (Boice, 1993). While it may often be used interchangeably with morale or satisfaction, it is clearly not either of these: morale having to do with feelings toward one's institution and vital faculty may be counted among some of our most serious morale problems (i.e., they may be frustrated by their institution). Moreover, an absence of vitality needs to be distinguished from the related concept of some currency, namely "burnout." Burnout refers to the temporary results of too intensive or too protracted an engagement with work—without appropriate opportunities for self-replenishment (Menendez and Guzman, 1983). Indeed, it is often associated with some of our most vital faculty.

Clearly, then, as a concept, faculty vitality is concerned with motivation, engagement with work and work-related goals—albeit motivation that is sustained over time (i.e., that has a temporal dimension). It also has one other critical dimension: opportunity. Vital faculty are those who are consistently motivated by some sense of purpose to identify and take advantage of opportunities. Those opportunities may be readily presented by the employing organization. More often than not, they are not; so that vital faculty are faculty who are not only motivated, but also are able to identify opportunities or potential opportunities and take advantage of them. Indeed, this connection with available opportunity explains the rise of interest over the past decade in faculty vitality. American higher education is at a time when not only are faculty aging, but opportunities for faculty appear to be diminishing.

Vitality issues have come to the fore precisely with the coming to mid-career of that large cohort of new Ph.D.'s who were hired in the late 1960s and early 1970s to staff the great post World War II baby boom expansion. These faculty, who embarked on their careers with heady expectations of nearly unlimited opportunity at a time of unprecedented growth, have collided head-on with the realities of the 1990s—extraordinary economic pressures on higher education, limited mobility, and generally speaking, less of everything. The problem of faculty vitality

arises precisely with the perception of a decline, a virtual disappearance, of opportunity (Bowen and Schuster, 1986; Rice and Finkelstein, 1993).

Having made these preliminary observations, the remainder of this paper will address three basic questions:

- How has the "problem of vitality" been studied? What aspects/dimensions of vitality have been studied (individual versus group)? What research approaches have been used (methods and samples)?

- What have we learned about faculty vitality? How vital are American academics? What makes them that way? What is the role of individual factors? Institutional and disciplinary factors?

- What is the relevance of what we have learned for addressing the problems of faculty vitality?

How Has Faculty Vitality Been Studied?

Faculty vitality (or its lack) has been nearly uniformly examined as a characteristic of individual faculty members, rather than groups or collections of faculty (such as departments)—although there have been studies of institutional vitality or functioning, such as those pioneered at the Educational Testing Service (Peterson and Loye, 1967) and more recently by Clark and Corcoran (1980) and Maher (1982). This individual focus is significant because it indicates the way we tend to view faculty and the way they tend to view themselves (i.e., primarily as individual actors in a culture that values individual prerogatives and autonomy).

What is it about individuals and their "motivation-opportunity" nexus that has been studied and how? At least three types of studies are readily discernable. The first includes biographies and autobiographies of high achieving or highly successful academics. Exemplars of this genre include biographies and autobiographies of historical figures such as William James (Santayana, 1920) and Einstein (Frank, 1947), recent autobiographies by Earl McGrath (1980) and Stephen Jay Gould (1993), and collections such as Epstein's *Masters: Portraits of Great Teachers*, a compendium of "critical appreciations" by now well-known former students of famous teachers (1987).

A second genre is a variant on the static group comparison of survey research (Denzin, 1970), which compares high achieving and highly successful academics with less active and/or more "typical" colleagues—in terms of their attitudes, orientation, backgrounds, and career experiences. The prototype for this approach is the work of Shirley Clark and the late Mary Corcoran (1980) reported in the Clark and Lewis volume, *Faculty Vitality and Institutional Productivity (1985)*. Their comparative study of the University of Minnesota faculty was supplemented by Robert Boice's (1988, 1993) comparative studies of mid-career faculty at an east coast and a west coast university. Similarly, LaCelle-Peterson and Finkelstein (1993)

conducted career retrospectives on senior faculty at 11 institutions including community colleges and liberal arts colleges as well as research universities.

The third genre of studies brings career and adult development theory (Levinson, et al., 1978) to bear on questions of vitality throughout the lifespan. These efforts include retrospective analysis of faculty initial expectations colliding with the realities of midlife exemplified by Rice's (1980) study of Danforth fellows and the study of midcareer faculty at the University of Michigan (Bieber, Lawrence, and Blackburn, 1992). A second stream within this developmental perspective includes Baldwin's 1979 and 1981 works applying Daniel Levinson's developmental stage theory to liberal arts college faculty as they ascend the academic ranks. Related to this thrust is Blackburn's (1985) attempt to relate critical career events reported by faculty to various life stage theories.

Beyond these direct attempts to get at the faculty vitality issue per se, there is also a long history of inquiry into the determinants of teaching performance and productivity. Among the determinants studied have been correlates of student ratings of faculty instruction integrated by Feldman (1986, 1989) and Finkelstein (1984), and age and teaching performance (Lawrence and Blackburn, 1986). Nearly as much work has been done in the area of faculty research productivity and publication, especially the effect of aging on productivity (see Lawrence and Blackburn, 1986; Creswell, 1985, 1990; Finkelstein, 1984). Nearly all of these efforts, both on teaching performance and research productivity, have been descriptive statistics drawing on archival data or data from national faculty surveys.

The second set of vitality-relevant or related studies have been those of faculty morale and satisfaction. These include many discreet surveys as well as the analysis of items in various national faculty surveys by the American Council on Education (Bayer, 1973), The Carnegie Council (Trow, 1975; Clark, 1987; Carnegie Foundation for the Advancement of Teaching, 1989; Mooney, 1994), the National Center for the Improvement of Postsecondary Teaching and Learning (Blackburn, et al., 1991), the Higher Education Research Institute at UCLA (Astin, Korn, and Dey, 1991), and the National Center for Education Statistics. In these efforts, morale has tended to refer to the respondents feelings toward their organization and/or the academic profession as a whole, while job satisfaction has related to their personal feelings about their particular job responsibilities. (For a fuller discussion, see Clark, 1992.)

What Have We Learned About Faculty Vitality?

There are no regular readings taken on faculty vitality for us to report. We can make some inferences that involve leaps of faith of varying magnitudes. For example, we might begin by observing that faculty in the early 1990s are, as a group, older than they have been since the 1960s and therefore likely manifest the physiological and developmental concomitants of aging. Age in itself could be independent of vitality as we have defined it.

Secondly, we might observe that the majority of faculty in the early 1990s entered the profession in the late 1960s and early 1970s and this generation is characterized by the great

expectations to meager opportunity mismatch that has been so clearly associated with career disappointment by Rice (1980), Blackburn, et al., (1991) and Bowen and Schuster (1986). Having hazarded this observation, I would hasten to point out that some of our most vital faculty may be precisely those who are most frustrated and dissatisfied about not being able to realize their goals. So, these preliminary inferences may not be directly on the mark.

I have found very instructive a simple taxonomy of mid-career faculty presented by Wilbert McKeachie (1993) at an earlier meeting focusing much like this one on research on college and university faculty. McKeachie's three groups of mid-career and senior faculty were as follows:

- The vitals, who are engaged actively with their work on many dimensions;
- The solid citizen, the uncelebrated majority who work hard but who are no longer inspired and are frequently overlooked; and
- The derailed (Robert Boice's middle-aged disillusioned faculty), who in the early years did not build the necessary career infrastructure and who are at present not meeting their institution's expectations.

There was, in that earlier forum, some debate about the precise proportionate representation of these various categories in the American professoriate. The consensus judgement seems to be that about 20 percent vitals, 60 percent solid citizens, and 20 percent derailed would approximate well the true population parameters.

The temptation to apply these should be tempered by our knowledge that factors such as career stage, discipline, and institution type are likely to create variation:

Vitality is basically a problem of mid-career and later career (i.e., it is related to career stage).

During the early years, the probationary period, external necessities of tenure review drive faculty along without the need to call upon autonomous internal fires. It is after tenure review, or after the last promotion that questions of self-generated goals and the means to achieve them emerge as paramount and "blocks" are first experienced which may (or may not) lead to vitality problems.

Vitality problems also correlate with the faculty demographics and rates of expansion/opportunity for academic and professional fields.

Some fields are younger and others are more dominated by mid- and late-career cohorts, depending principally on historic patterns of undergraduate enrollment as well as research funding and graduate student enrollment. Generally speaking, arts and science fields (outside of biology and mathematics) and education are dominated by mid- and late-career cohorts.

Vitality problems are shaped by institutional context.

Vitality issues may surface at teaching-oriented institutions, and among teaching-oriented faculty at research institutions. The theory is that research-oriented faculty are involved in the life of their discipline off-campus to an extent and with opportunities that are simply not available to most faculty at teaching-oriented institutions and to teaching-oriented faculty at research universities.

What Accounts For These Contours Of This Faculty Vitality Problem?

The literature is really quite clear on these matters. First, and foremost, is the individual; vitality to a great extent is a matter of individual differences. When Clark and Corcoran asked their "highly active successful group" the reasons for their success, they most frequently mentioned "hard work" and other "personal factors." We all know faculty who could generate their own stimulating career in a seeming vacuum of opportunity or support. Clark and Corcoran (1985) reported that 80 percent of their "highly active" faculty saw no decline in productivity over the years and fully half never felt stuck or never experienced a decline in energy.

Individual differences, however, are hardly the whole story. Significant proportions of faculty in Clark and Corcoran's (1985) sample found institutional and colleague support to be key factors. This is predominantly confirmed by Boice (1993) and LaCelle-Peterson and Finkelstein (1993). We have known for some time of the strong positive association of collegial support to research productivity (Lawrence and Blackburn 1986; Finkelstein, 1984; Cresswell, 1985). More recently, Bob Boice's work (1988, 1993) has shown us how relations with colleagues were a critical differentiating factor between high achievers and those faculty who seemed headed for mid-career disillusionment. High achievers were able to command recognition and validations from their colleagues and develop collegial networks to support their work, while middle-aged disillusioned faculty had experienced less validation and recognition and were most strikingly characterized by isolation from colleagues during their formative career years. This key role of colleagues was confirmed by Clark and Corcoran (1985) and LaCelle-Peterson and Finkelstein (1993) at a variety of types of institutions. An alternative, but related view is that too many faculty operate in relative isolation. Indeed this is what Parker Palmer, a sociologist and advocate of learning communities, has been talking about for the past decade with great resonance in the national higher education community. Research has shown that many faculty experience colleagues as competitors for rewards and resources rather than collaborators (Austin and Baldwin, 1992).

At all levels of participation and at all types of institutions, students are also an important source of stimulus to faculty vitality (LaCelle-Peterson and Finkelstein, 1993).

Beyond colleagues and students, there is another form of institutional support. That includes opportunities for faculty to take on new responsibilities or work in new settings off campus; it includes time and money to pursue their interest as they arise. The key concept here is Kanter's opportunity structure. Vital faculty create opportunities for themselves or manage to find opportunity in their immediate environment where they feel competent and have a high sense of

self as locus of control. Non-vital faculty, on the other hand, typically see obstacles rather than opportunities. They are less likely to see themselves as competent and more likely to see themselves as powerless. Perceptions of "locus of control" have emerged in several recent studies as a key predictor of faculty performance (Blackburn, et al., 1991; Perry, 1993).

Regardless of their career stage, what matters is that, while vital faculty may become stuck at mid-career transition point, they work themselves out of it. Not all, or even a majority, of faculty are so resourceful. Institutions have a critical role in "opportunity brokering." As matters stand, however, faculty are treated as sacred cows (or untouchables, depending on your vantage point). Their growth and vitality commands significantly less organizational attention than that accorded a typical department secretary.

What Is The Relevance Of Research To Promoting Faculty Vitality?

There are three critical points here. Together they indicate a need for colleges and universities to begin adopting a human resource management perspective in order to sustain productive careers for their faculty.

First, institutions need to focus on facilitating development of a solid career infrastructure for their new and junior faculty that includes the development of colleague support networks, providing opportunities for validation and recognition, etc. This focus is beginning to take hold with the advent of various mentoring programs, and serious attention to new faculty orientation and socialization. This bodes well for the next academic generation—if such an institutional focus can be sustained.

Second, institutions need to focus on issues of motivation and opportunity for those faculty members who are in mid- and late-career stages. Perceived opportunity, or lack thereof, is in itself a major motivator. Too often, owing largely to our individualistic academic culture, we assume that all faculty have the resources and "know how" to identify at once meaningful and feasible work-related goals and find opportunities to realize them. This is decidedly not the case. Many opportunities require extensive searches and linkages with unfamiliar units within or outside the campus. (Indeed, in New Jersey, a statewide office, the New Jersey Institute for Collegiate Teaching and Learning, was established precisely to promote such linkages through vehicles such as a statewide faculty exchange.) Many faculty are more attuned to obstacles and barriers than to opportunities. Their campuses have enormously important roles to play as "opportunity brokers." Such a role includes staying in touch with faculty work experiences and identifying blocks before they become self-sustaining.

A final issue that institutions concerned with faculty vitality need to address is that of promoting faculty colleagueship. This they do not need to do because it makes people feel better, as Parker Palmer (Seal, 1993) says, but because it helps faculty perform better over time. Professional networks may be the passe-partout or the key for maintaining and improving faculty performance over time (Boice, 1993). Can campuses promote colleagueship among faculty? Sure they can! They can encourage it on-campus within and across departments

through formal structuring of the teaching situation (e.g., use of team teaching, course clustering, common final examinations and/or syllabi in multi section courses) (LaCelle-Peterson and Finkelstein, 1993). They can encourage it through the local structures they create for research (e.g., multi-disciplinary institutes). Moreover, particularly in the major metropolitan areas, they can encourage it through the establishment of interinstitutional cooperative structures that provide the nexus for faculty within disciplines to come together around common intellectual interests. The work of both the Washington Center for Improving Undergraduate Education and the New Jersey Institute for Collegiate Teaching and Learning attest to the potential of regional cooperation; and that of the Great Lakes College Association as well as the Bush Foundation Consortium suggest, in addition, that even geographic barriers can be overcome.

What is critical is that institutions begin thinking through carefully their interests in, and their responsibilities for, shaping the careers of their faculty.

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The Impact of Higher Education's New Climate on Faculty Perceptions

Robert Zemsky

More than once I have been heard to mutter, "The fundamental problem with colleges and universities is that they are too full of smart people." In most cases, the occasion for my observation is yet another endless meeting with my faculty colleagues, full of trivial wrangles about issues that don't matter—the academic equivalent of fiddling while Rome burns. But I also make the observation whenever I am confronted with the faculty's seemingly inborn penchant for legalistic discourse.

The first time I remember remarking on a faculty's over-endowment with "smarts" was more than twenty years ago. One of the more venerable leaders of Penn's faculty senate, when told that the University's President Martin Meyerson had decided to close the Graduate School of Education, declared, "It's absolutely the right decision, but he has no right to make it. I will oppose him to the death." The professor's declamation might have been slightly melodramatic, but it turns out to be accurate in its estimation of the power of faculty to prevent logical, if not necessarily smart, decisions from being made.

As originally intended, my witticism about smart people was meant to suggest that my faculty colleagues were too full of "book smarts" to make practical decisions—that, like the scholastics of old, they were too concerned with process and method to comprehend the real world around them. That image of the American professoriate is again in ascendance. But now it no longer refers to the kind of respectable bemusement that once characterized American attitudes toward collegiate faculty. There is, instead, a sense that professors belong to a privileged class largely out of touch with the tough realities of the 1990s.

Among the makers and shapers of public policy, in particular, there is a mean edge to this image. What is being caricatured today is not so much the absent-minded, but the simply absent professor, the self-absorbed scholar unconcerned with much outside his own research and consulting. Disdainful of students and their communities, he enjoys the fruits of a tenure system that leaves him blithely unaware of what worries most Americans: job security, obtaining adequate health care, and securing a safe retirement. What angers public officials most is faculties' proclivity to invoke the issues of process and academic freedom whenever questions of teaching loads are raised, or when there is public insistence that institutions of higher education be more openly vocational in the kinds of courses and degrees they offer.

To a growing number of the press, these characteristics have begun to add up to another kind of image as well. Reporters have begun, in private conversation, to portray colleges, universities, and their faculties as modern dinosaurs trapped in the "tar pits" of their own inefficiencies. They see a higher education that is not just blithely unaware of the world outside of academe, but hopelessly oblivious to just how much and how fast that world is

changing. They see faculty who do not recognize, let alone understand, their own growing irrelevance—who teach old, outmoded courses, pursue research specialties that have trivialized the definition of scholarship, and use their traditional claims to autonomy to strengthen institutional processes whose sole purpose is to protect the status quo. Seen as neither recognizing nor giving credence to the public's demand for a different, more student-centered higher education, faculty are being portrayed as part of an industry that is exhausting itself in a futile attempt to escape from a morass of its own making.

What emerges from these kinds of images is a portrait of a professoriate that has lost touch with reality, either by being unaware or dismissive of what is happening around it. I have too long been a faculty member to be persuaded by this picture, and I am convinced that colleges and universities are in fact blessed, as well as burdened, by an overabundance of "smarts." Mr. Chips we are not, and probably never were. But Ichabod Crane strikes me as no more reasonable an approximation of the typical faculty member than does the image of modern dinosaurs, or of hierophants in a priestly class too much taken with its own sense of privilege. In reality we are, I think, pretty much like everybody else—confused about what we see happening around us, reluctant to give up privileges if we don't absolutely have to, and too easily persuaded in the face of enormous uncertainties that doing nothing is better than doing the wrong thing.

In general, my image of the American professoriate derives from my own experiences, not only as a faculty member but as an administrator at the University of Pennsylvania. More particularly, however, my understanding of the dilemmas facing faculty today derives from three major studies conducted by Penn's Institute for Research on Higher Education. The first dates from the mid-1980s, and involved an attempt to map the structure and coherence of the American collegiate curriculum. The project was initiated by the Association of American Colleges (AAC) just after its 1985 publication of a report to the academic community entitled *Integrity in the College Curriculum*. The AAC wanted to know whether or not anecdotal evidence was correct in portraying curricula in institutions of higher learning as frayed and fragmented. Our answer, based on the analysis of over 30,000 transcripts of graduating seniors from more than fifty baccalaureate-granting institutions, was yes. If anything, *Integrity* understated the absence of curricular coherence and structure.

En route to reaching its conclusion, the research team made regular presentations to groups of faculty, inviting them to challenge and, where necessary, correct our findings and improve our methodology. We sought in particular to meet with humanities scholars, since our statistical analysis indicated that it was in the humanities that structure and coherence were most lacking. After the necessary arguments over definition—one professor's structure is another's straight-jacket—we were surprised to learn that most humanities faculty understood quite well what they had done over the years to change the character of curricula. Faced with an increasing reliance on market mechanisms to distribute resources within their institutions, as well as the near-abolishment of formally-required courses which once served to regulate student distribution, most humanities departments did what was necessary to build enrollments. One result was the increased teaching of "stand-alone" courses that students

were encouraged to take, without prerequisite, at any point in their college careers. Moreover, as the chair of one English department in one of the country's more selective liberal arts colleges pointed out, teaching stand-alone courses meant "we didn't have to fight anymore over what was proper curricular practice." The value conflicts of the late 1960s and 1970s had left him and his colleagues exhausted, willing to preserve collegiality by avoiding any and all potential conflicts.

Our second study, which began in the late 1980s, provided further evidence of the faculty's awareness of what they were doing, and of their search for strategies that minimized conflict even at the cost of sustaining collective action. Ursula Wagner, Bill Massy, and I interviewed department chairs and leading faculty at four highly selective liberal arts colleges, and two major private research universities. The interviews were part of our study of faculty discretionary time and what we later came to understand as the workings of the "academic ratchet." One of the questions we regularly asked was how teaching assignments were determined. In more than half the cases, the answer was: through bilateral negotiations between the chair and individual members of a department. The goal of such negotiations, we were told, was to avoid the necessity of a meeting which would only produce more of the wrangling increasingly typical of the process by which the department recruited new faculty. No one was unaware that there was less collegiality now than before, less a sense of tight-knit community. On the contrary, they understood that the preservation of what community remained was dependent on making discussion within the department more narrow, more concerned with nuts and bolts—with procedures—and less given to wide-ranging discourse on either the nature of the canon or the components of a comprehensive undergraduate education.

Our third and most recent study involves 30 campuses drawn from almost every sector of American higher education, and includes community colleges, major research universities, selective liberal arts colleges, and comprehensive public institutions. Under the auspices of the Pew Higher Education Roundtable, the 30 institutions each convened their own campus roundtables. Each meeting was attended by 20 to 30 participants, more than half of whom were members of the college's or university's standing faculty. The remaining members were drawn from the ranks of institutions' senior administrators, student leaders, and in some cases, senior trustees.

Discussion at each of the campus roundtables began with a consideration of the issue of *Policy Perspectives'* essay "A Call to Meeting," a tough-minded exploration of how changing market conditions for higher education are demanding fundamental alterations in the way colleges and universities do business. What followed in every case was an exchange that fit neither the image of a privileged elite disconnected from events beyond the campus, nor that of dinosaurs incapable of adapting themselves to a new and suddenly more hostile environment. Instead, the conversation was remarkably frank and animated, and was led in most cases by the faculty themselves. If they felt the market analysis and terminology used in "A Call to Meeting" devalued higher education's larger calling, faculty also recognized without hesitation that times are indeed changing; that too often their college or university

lacked the capacity to act as a collective; and that it had been too long since anyone could speak realistically of a sense of community that bound them together in a common purpose.

In these conversations—which higher education's critics thought would never happen, and now argue can only result in more talk and less action—is suggested something of the confusion and uncertainty that changing external conditions are having on faculty attitudes and perceptions. I identify here three perspectives that I think will have the largest impact over the long run. Each is necessarily a personal observation. Each begins with the same basic premise: faculty are too smart to miss what's going on. What we lack, and what is hence the source of our anxiety, is a clear sense of what constitutes a smart response.

Life Certainly has Grown More Complex

Pat McPherson, President of Bryn Mawr College, regularly points out that the fundamental change in faculty lives is the sheer growth in their complexity. Not so long ago, most faculty enjoyed remarkably supported lives. Most were white males and had spouses who ran their households in well-defined, collegiate communities in which the rules were clear and what was expected of individuals—in terms of both professional achievement and personal comportment—was known, and for the most part, observed.

Revisionists and debunkers would have us believe that this evocation of a "golden-age" of higher education is not even a myth, but a fairy tale, a nostalgic glance backward at a time that never was. I am not so sure. The academic community into which I was recruited certainly appeared to have those characteristics. If one was expected to teach too much for too little reward, there was nonetheless a sense of continuity and safety. There was also a sense of separateness—not like that of a cloister, but of a distinct community given to its own rhythms largely determined by students, faculty, and the requirements of an academic calendar.

Today, there is almost everywhere a vanishing sense of community. The faculty itself is more heterogeneous, which means it contains—in addition to substantially more women and a few more African-Americans and Hispanics—more two-earner households, more split and recombined families, and in general, more individuals attuned to events and circumstances beyond the institution's confines. There is a near-uniform sense that faculty are on campus less often, that they spend less time in the library and common-room—and not just less time with students, but with each other as well. While many, particularly at small, liberal arts colleges, argue that their relations with students have not eroded, they readily concede that they are more distant from each other—that there is, as one of our campus roundtables put it, less "cross-talk."

This increase in campus disconnection, along with the growing complexity of personal lives, provides a backdrop for understanding the relentless push of professionalization-cum-specialization that has become the hallmark of the modern academic community. The lessons the American professoriate has learned best over the last thirty years are that research

counts, that specialization accelerates publication, and that disciplinary achievement is necessary for institutional advancement. It is this triad that has driven faculty to seek a greater proportion of discretionary time in relation to time spent as instructors—a process we call the "academic ratchet." For that portion of the professoriate dependent on external funding, the turning of the academic ratchet has meant paying greater attention to a research market that is at once more competitive and more diverse: increasing numbers of scholars are seeking funds from a constantly widening array of agencies, foundations, individual donors, and for-profit enterprises. The most successful scholar-entrepreneurs have built not-so-small, self-sustaining enterprises comprised principally of technical and support staff rather than faculty colleagues. In the process, they have increasingly turned their universities, as one prominent dean lamented privately, into "holding companies for research entrepreneurs."

This situation has changed the entire education enterprise, even in fields and at institutions where externally-supplied research funding is not the norm. The most visible and visceral sign of altered circumstances is the persistent question, asked as often within the academy as without, "What business are we in?" Like enterprises everywhere, there is a nagging feeling that the academy has been caught without purpose or direction in the midst of a cycle of change.

If in the campus roundtables convened under the Pew program there was a general suspicion of market metaphors and analogies to business—"we neither make money nor are expected to give the customer what he wants"—there was nonetheless a fascination with the lessons that have lately been imposed on big business. Three examples, like apocryphal tales, kept echoing through the discussions. Most of those present knew the story of Mike Walsh, who took over a dispirited Union Pacific that thought it was in the railroad business, when in fact its future prosperity lay in the business of general transportation. Other roundtables expressed wonderment at the fact that Sears, Roebuck & Co., faced with a changing market but unable to change its way of doing business, had been forced to abandon "The Book" and the system of catalog sales it had pioneered. In Sears' place had risen hundreds of smaller, more nimble competitors who understood how to combine modern telecommunications, direct-mail sales, and distributive delivery systems to make catalog sales the fastest-growing segment of the retail industry. Then there was the case of IBM, which has always held a special fascination for academics.

My suspicion is that many of us, if we had to work in business, might fancy ourselves IBM material. To be sure, we are disdainful of corporate dress codes and the monolithic culture they represent. But we understand that this is a company filled with smart people—people like us. IBM never compromised. It didn't withhold funds for research and development, didn't skimp on employee training and education, and didn't rush products to market before they were ready. Here was a corporate giant that seemed to be doing everything right, and yet had found itself bested by Microsoft and its happy band of college drop-outs who understood that the name of the game was neither hardware nor software, but ease of access. IBM had failed because it realized too late that its business had changed—and it hadn't.

When colleges and universities in general, and faculty in particular, ask, "What business are we in?" they are posing neither a rhetorical nor a naive question. Rather, they are asking, in a kind of short-hand, "Hasn't the world become too complex, too uncertain—alas, too much beyond our control?" In the question is a recognition that markets, rather than institutions, are in ascendance; that higher education is no longer perceived as a public good in and of itself; and that a college education is something individuals invest in, in pursuit of better-paying, more secure jobs.

Far from being oblivious to the world around them, faculty, like the technocrats at IBM and the marketers at Sears, have a sense of being overwhelmed. If their reactions are, for the moment, defensive—if they have suddenly become inordinately adept at the practice of denial—it is because they are no longer sure what business they are in. They are no longer certain of the goals they ought to be seeking, in either their personal or professional lives. In other words, faculty are like everyone else—perhaps a little smarter, perhaps more inclined to calculate the odds against finding solutions to what, for now, appear to be insoluble problems.

It's Not Technology, But the Competition It Spawns

The IBM example also reflects my second perspective for understanding how changes external to the academy are recasting faculty attitudes and perceptions. Ours is an age in which the invention of new technologies is less important than their mutation through adoption and adaptation. IBM, it is said, wasn't "user friendly." Its products made consumers employ them as IBM intended, rather than growing and adapting themselves to consumers' needs. In a sense, IBM understood the technologies they were inventing too well, but understood the market implications for changing products and secondary processes not at all.

My suspicion is that the American professoriate is dangerously close to having that kind of description applied to itself. It is not that we have ignored technology. We are no more modern Luddites than we are disappearing dinosaurs. We are, in fact, among technology's biggest boosters, and some of its best customers. Since we use it in our research, we understand better than most how the digitalization of almost all sensory experience has made possible the kinds of universal languages and sharing of perspectives that have long been central to the scholarly quest. Even the most confirmed humanist won't do without a word-processor, won't forego the ability to roam effortlessly and instantaneously through literally hundreds of library catalogs. Among social scientists, access to computing and related technologies is taken for granted, along with the myriad of databases now routinely available. In the natural sciences, research and technology are inextricable, just as measurement and observation have always been two sides of the same coin.

As faculty, our problem is that we have approached technology more as individual consumers than collective producers. We are fascinated, even gratified, by what the technology can do

for us. But we tend not to think very much about what the same technologies in someone else's hands can do for others in general, and our student-customers in particular. What we have failed to understand is just how quickly technologies can alter the market for even the most traditional goods and services. We remain studiously unaware of how, along with new products, technology creates new markets—and just as importantly, new providers.

One of the things the new technology is spawning is the information superhighway: five-hundred communication channels capable of turning every office, household, and school into an interactive learning center. What telemarketing and phone banks did for catalog sales, what QVC did for home shopping and ATMs did for banking, the information superhighway is about to do for distance learning and higher education. Just as the adaptation of new technologies fundamentally changed many kinds of business, it is about to change higher education.

When the transforming qualities of technology are introduced into academic discussions, the defensive rhetoric is well-honed: computer-assisted instruction promotes rote learning; technology provides access to information but doesn't teach students how to use it; the new technologies are untested, and prohibitively expensive when they don't work. Academics remind technology's advocates of PLATO, with its 1960s promise of interactive screens delivering computer-assisted instruction, which proved to be both expensive and difficult to explain. Technology, they say, is impersonal, further dispersing communities and turning faculties into electronic dispatchers, as opposed to mentors; and anyway, televised programs and courses will never be accredited.

One by one, these notions are being abandoned. What the information highway promises has little to do with the learning technologies of the 1960s. The interactive nature of the new systems makes them as adaptable—and some would say, as intimate—as any classroom setting. The notion that higher education's traditional monopoly over the college degree will protect colleges and universities from competition is being abandoned as the accrediting industry itself fragments.

What is not well-understood is that the information highway makes possible a fundamental shift in the set of educational suppliers. My suspicion is that most faculty, like most Americans, are entertained by, more than they understand, the multi billion-dollar bidding wars and mergers currently taking place among the cable and telecommunications giants. The battle for control of Paramount Pictures, which was eventually won by Viacom, was seen principally as an electronic soap opera for an electronic age. Too often lost in the coverage and ensuing analysis is the most basic fact of all: someone thinks there is money, an awful lot of money, to be made in controlling both the electronic highway itself and the programming the highway will deliver. The key question, in fact, is no longer one of feasibility, but of federal regulation and its likely effects on the size and scale of impending corporate mergers.

The need for programming, conjoined with the rising demand for collegiate credentials that provide access to better jobs, makes postsecondary education an especially inviting opportunity for those who would invest in the information highway. Potential suppliers include the major producers of conventional cableware, the hardware manufacturers who now understand their business is information rather than machines, and the software producers who have developed many of the interactive technologies upon which the information highway will depend. Not so coincidentally, the likely providers of programming will include Microsoft, which is already angling for alliances with cable conglomerates and with one of the nation's major suppliers of cellular communications. According to some accounts, at least, Microsoft is also seeking an educational partner to develop courseware leading to a baccalaureate degree.

When these possibilities are laid before faculty groups, the nature of the conversation shifts, often dramatically. Traditional arguments that "it won't happen" are transformed into quiet laments: "Well, it shouldn't be allowed to happen here." There is less dismissive talk about inferior educational products, but the tone becomes one of almost sullen resignation: "Well, if that's what the customer wants." What finally chills the discussion is the amount of talent, experience, and capital these new providers of education or information will likely bring to the task—more capital, in fact, than higher education has invested in its own renewal over the last three decades. In one faculty Roundtable this line of speculation was sparked by a report that Bill Gates had called Chris Whittle to suggest that Microsoft had $100,000,000 to invest in educational courseware, and had asked if the Edison Project might be interested. Remembering the example of IBM, the faculty Roundtable came quickly to a key question: Are we next?

Whose Assets?

My third perspective for understanding a faculty's likely response to changing conditions focuses on an accident of demography. The great expansion of American higher education in the 1950s and 1960s introduced a periodicity into the profile of the American professoriate that will continue to reverberate well into the next century. The generation of faculty recruited to the profession in the 1950s and 1960s—my generation—are now well into their fifties. By almost any measure, we have proved to be a remarkably advantaged generation. There was a sense of optimism about our choice of careers—we were going to be professors because we wanted to be, and more importantly, because the nation needed us. Extraordinary investments in national fellowship programs like Woodrow Wilson and Danforth effectively recruited the "best and brightest" to be Ph.D. candidates at the nation's top research universities. Graduate schools everywhere competed for our enrollment, funded our studies, and made clear that a position within the academy was available to all who could muster the discipline and fortitude to complete a dissertation. The chill of McCarthyism was a thing of the past; the nation's disillusionment with the Vietnam war had yet to become apparent.

The generation that followed mine had wholly different experiences. The Vietnam war became a searing and immediate experience. Campuses in general, and graduate students in particular, became politicized, while, perhaps not coincidentally, graduate fellowships became scarce, and tenure-track positions scarcer. The great expansion fueled by the Baby Boom gave way to a kind of stagnation, and then a bust, as institutions slowed and postponed continued expansion. An over-supply of newly-minted Ph.D.'s emanating from the nation's top research universities meant that a whole host of institutions—from smaller liberal arts colleges to public comprehensives—could command young research scholars of the first rank. To earn tenure, these new recruits achieved substantial publication records, and in the process, came to see in research, more than in teaching, their paths to future advancement and recognition. Inevitably, this was a generation of scholars that became more disciplined as well as conservative, more careful in how it invested energies, and resentful of those senior faculty who, when judging their junior colleagues, applied standards they themselves could not meet.

We are now in the process of recruiting a third generation of new faculty. While there is better balance between supply and demand, the competition for new jobs somehow seems keener, having developed a sharper edge. Candidates are advised to have a substantial publication record *prior* to seeking a tenure-track position. There is a greater distinction between those who win top jobs and those who accept lesser positions; between those with permanent positions and those who become part of the growing cadre of academic gypsies.

This generation is entering the academy largely devoid of the romanticism of earlier cohorts. Its members know what they are seeking: entry into a profession whose rewards are keyed to disciplinary achievement. They belong to a generation that, unlike those that preceded it, was asked to bear a substantial portion of the cost of its own education. Many have considerable loans to repay from their undergraduate years. More than a few were told that institutionally supplied graduate assistantships would not be available until their second year—until after they proved their mettle.

It is the starkness of this contrast between the first and third academic generations—in terms of recruitment, opportunities, support, and sense of their own place in the firmament—that concerns me. The visible gap between the advantaged and the disadvantaged generation is growing wider. It is deepened, no doubt, by the fact that the former is mostly white and mostly male, while the latter is increasingly diverse. The generation that came into the job market of the 1950s and 1960s was the last to be the unabashed product of an "old boys network" that placed its students and steered them through the hurdles of first publication and tenure. The scholar starting out today has a different perspective: the sense of having done it on his or her own, of having personally paid the price.

We are just beginning to learn that this price may, in fact, be substantially greater than first imagined. Economically advantaged at the outset, the current generation of senior faculty may prove to be even more advantaged in these, its last, years of active employment. No one is quite sure by just how much current pension plans are over-funded. Enough smart

people believe there are genuine budget savings to be achieved by making "early retirement" a financially attractive option to make the rest of us wonder. The retirement inducements offered to senior faculty in the University of California system are only the best-known of a growing number of truly rich packages designed to encourage the departure of faculty in their late fifties and sixties. A number of institutions have had the sobering experience of calculating the net cost of their unfunded pension and health care liabilities (the result of applying FASB-106 to colleges and universities). Most have been amazed that the numbers are real—that the longer the generation of senior faculty is active, the greater their share of the institution's expanding budget for benefits. Two items in particular generate substantial extra cost: fully-paid as opposed to co-pay health care for retired faculty and their dependents; and continued institutional contributions to senior faculty retirement accounts, even after the individual is past the normal age of retirement. In the latter case, the retirement program provides not so much for the financial security of the faculty member as for the transference of wealth to his estate and heirs. In both cases it is the institution—and, of course, those faculty who will serve after this advantaged generation departs—that must foot the bill, even as the institution moves to ensure that similar bonanzas will not be available in the future.

From the senior faculty's vantage point, the view is necessarily different. What we are owed, we earned. We understand that, in the future, colleges and universities will be different—more subject to market pressures, more vocational and technological in their orientations, less able to grant individuals the absolute right to decide what and how to teach. In most institutions, there will be less emphasis on research, though there is also the prospect that a handful of major universities will become predominantly research institutions almost wholly shaped by the availability of external funds. Graduate schools will have to change as well, and will spend more of their time teaching acolytes how to teach and less time introducing them to and testing them by the rigors of research.

For faculty who came into their professions in better, more robust times, these are not necessarily happy prospects. There is a wistfulness for times past—for what seems, by comparison, a truly golden age. There is a sense that society will not be able to afford its commitments to higher education in general, and scholarly pursuits in particular—that the decision to make higher education a consumer good rather than a public good is wrong, but for the moment, at least, irreversible. The response is not so much anger as resignation.

What, then, do smart people do? One answer is to make a private peace with an increasingly contentious future. Most senior faculty are willing to do their share—to teach more, devote more time to institutional pursuits, be more responsive to a student culture that is itself being transformed. They may, however, have little appetite for leading the effort, or for changing more than is absolutely necessary for the time being. They are watching carefully to see what happens to their colleagues who accept an "early retirement buy out," and calculating just how good the package must become before it proves irresistible.

Is this generation of senior faculty essential to the recasting of American higher education? I have always argued that it is, if for no reason other than self-interest. But I was confronted recently by a younger scholar who wasn't so sure, who wasn't convinced that our privilege hadn't made us poor leaders for the arduous tasks ahead. How, she asked, could a generation of professors who were the products of the "old boys network," who had been placed in their first jobs, rather than having undergone the rigors of the competitive job search; whose march to tenure was more stressful than actually painful—how could such leaders understand what would be required in the future? "Take your early retirement," she snapped. "We will all be better off."

My retort, and the perspective with which I want to conclude these speculations, was two-fold. In the first place, I observed, mine is a generation of extraordinarily talented and accomplished scholars. Having overseen the specialization and professionalization of academia, we are in a unique position to redress the balance, to use our disciplinary acumen to make the work of the academy more cross-disciplinary and, in that sense, more integrative. We have the status to redefine the nature of faculty work, to make it more student- and less self-centered, and to make our institutions more important in our own and others' lives. We understand as well as anyone, and perhaps better than most, just how a world grown more complex and divisive has encroached on the academy. We know which worldly forces need to be resisted, and which need to be accommodated and made our own. The recasting of the university, I argued, was a task we had a special obligation to undertake.

If that appeal to faculty patriotism proved unpersuasive, I had another, more practical answer. Despite the short-term budget savings, few colleges and universities can, in the simplest financial terms, afford this generation's premature departure. The price of our exit would be too great, and would leave most institutions saddled with long-term retirement and health care costs that would even further limit their capacity to invest in the new products and technologies on which their futures depend. Put simply, higher education needs to get more out of us before it picks up the tab for our retirement.

I began with the premise that faculty are generally smart people who, better than most, understand the world around them—that we are sufficiently practical, and more than sufficiently articulate, to frame and understand the choices we have to make. The current confusion and disarray within the academy is only evidence of just how uncertain we are as to what constitutes a good response to our altered circumstances. It would be best if colleges and universities, under the leadership of their senior faculty, could define clearly the kinds of changes they need to make, and then use the processes and procedures of academic discourse to redefine and recast themselves as institutions of learning. Lacking such institutional consensus, one would expect most senior faculty to gradually reduce their institutional ties, behaving responsibly as long as they remain within the academy, ever ready to make a timely departure once the moment is right.

Developing Faculty as an Asset in a Period of Change and Uncertainty

Daniel T. Layzell, Cheryl D. Lovell, and Judith I. Gill

Introduction

Higher education, and especially public higher education, is facing some significant challenges as it approaches the twenty-first century. Funding constraints, addressing the needs of increasingly diverse student populations, and concerns over access to higher education, coupled with increased skepticism of the public toward the academy have created a very uncertain future for public colleges and universities.

If we turn the lens outward for a minute, however, it becomes evident that the problems confronting public higher education are but a small piece of the patchwork of issues confronting states in the 1990s. Social issues, such as health care and welfare reform, and public concerns about crime, K-12 education, taxes, and government spending all appear to have greater political and policy salience at the moment than those pressures faced by higher education.

Higher education, most prominently the faculty, could (and should) play a significant role in meeting the challenges facing state and local governments. Without a doubt, higher education's ability to meet its own challenges hinges on the abilities and dedication of the faculty. These concepts have historical precedence beginning with the establishment of the land grant institutions and their emphasis on service to the community.

However, these historical linkages with faculty have been weakened over time by a number of forces to the point where some of our external stakeholders feel that the faculty are more interested in perpetuating the status quo instead of as actively trying to fashion solutions for change. To be fair, there are as many in the faculty ranks across the country who feel alienated and frustrated by this criticism and the apparent lack of understanding about who they are and what they do.

We should note up front that because of our backgrounds and experience we take an almost exclusively public policy/public higher education bent in addressing this issue. As suggested previously, we view faculty not just as an institutional asset, but also one for the public good. Thus, the purpose of this paper is to take a fresh look at the role and function of faculty in higher education—that is as an *asset* for institutions and states in addressing important issues. In this paper, we address the following questions:

- What are the major external challenges currently facing public higher education?
- What do we know about faculty activities and productivity?
- What are the public perceptions of the role of faculty in higher education? What are the faculty's perception of their role?
- How do we begin to address the issue of faculty as an institutional and state asset?

Public Higher Education In a Period of Change and Uncertainty

Public higher education is currently in a period where some tremendous external forces are creating an uncertain future. This period is marked by at least three interrelated trends:

- *Stagnating or declining state financial support.* For public higher education in many states, state support for higher education has waned in recent years after a period of relative growth in the 1980s. Data from the Center for Higher Education at Illinois State University indicate that nationally, state tax appropriations for higher education declined one percent between fiscal years 1991 and 1993 (approximately $400 million). This was the first two-year decline ever recorded by the Center in its 35 year history of reporting this information. Data for fiscal year 1994 suggest some improvement in the national trend, although several states, notably California, remain in poor fiscal condition.

  This absolute decline in state appropriations has been paired with a declining share of state funding for higher education. Data from the National Conference of State Legislatures indicate that, nationally, higher education as a percent of state general fund spending declined from 14.6 percent in fiscal year 1988 to 12.2 percent in fiscal year 1993.

- *Increased interest at the state level in "accountability."* At the same time, public higher education is being called upon to justify itself to state policy makers. Accountability itself has become an umbrella for several sub-issues (e.g., the quality of and access to undergraduate education, administrative costs, affordability, and contributions to state economic and social needs). While the issues vary somewhat from state to state, the common thread running throughout is an increased emphasis on outcomes and products benefitting the state. Put another way, states are asking the question, "What are the citizens of this state receiving from their investment in higher education?"

- *Concerns about faculty productivity.* Increasingly, state policy makers and citizens are asking questions about what faculty do, how much they work, and what they accomplish. According to *The Chronicle of Higher Education* (1993), 23 states conducted faculty workload studies in 1992-93. The development of this issue is clearly a logical extension of the previous two trends. Faculty salaries constitute a major portion of institutional budgets. Likewise, concerns about the quality of undergraduate education have at their core a concern about the degree of faculty involvement and interest in undergraduate instruction.

Research on Faculty Activities and Productivity

While this is not a paper on faculty productivity per se, we need to address what is known about the topic because this is the issue currently framing the debate among our external stakeholders over the role of faculty. While the definition and measurement of faculty activities and productivity in higher education have their limitations, the empirical research in this area should be explored.[1] Most empirical research on faculty productivity covers three broad categories: "workload" studies; instructional productivity; and noninstructional productivity.

Faculty Workload Studies

Faculty workload analyses are not new. One source notes that the first study of faculty workloads occurred in 1919 (Yuker, 1984). Subsequent studies of this issue have shown a fairly consistent pattern of faculty workload within the traditional tripartite workload model (instruction, research, and public service). While there are variations among different types of institutions, disciplines, and instructional staff types, faculty generally report working 50-60 hours per week, with approximately one-half of the time devoted to teaching and other instructional activities.

There is little empirical basis for determining if and how the internal dynamics of faculty workload have changed. A 1991 report by the State Council of Higher Education for Virginia (SCHEV), which compared faculty survey results from 1975 and 1991, however, found the distribution of time spent in teaching, research, and service did change for faculty members at public institutions in Virginia. Generally, this report found that faculty at all types of institutions, four-year and two-year, were spending proportionately more time in research in 1991 than in 1975. William Massy has developed an explanation for this phenomenon termed simply, "The Ratchet." In short, Massy argues that "The Ratchet" works as follows for any given academic department (assuming constant or declining enrollments):

- Increases in the number of faculty in a department or in the leveraging of faculty time with lower cost part-time instructional staff or teaching assistants lead to a broader and more specialized curricular array for the department. They also lead to smaller classes because existing enrollments are spread out over a larger number of course offerings;
- Instruction under this scenario takes less time because smaller, more specialized courses are easier to teach for the faculty member, resulting in a reduced "effective" teaching load; and
- The lowered "effective" faculty teaching load leads to increased time spent in other activities, namely research and other scholarship (1990).

The results of the 1988 National Survey of Postsecondary Faculty (NSOPF-88) were consistent with these past studies. Full-time faculty at all institutions (public and private) reported

[1] See the appendix at the end of this chapter for discussion of caveats to defining and measuring faculty productivity.

working 53 hours per week in fall 1987. Among the various types of public institutions, this average ranged from 57 hours per week at research universities to 47 hours per week at two-year institutions (U.S. Department of Education, 1991). Data from this same survey on the allocation of faculty time among the different workload categories indicate that for all institutions, faculty spend an average of 56 percent of their time in teaching activities, 16 percent in research, 13 percent in administration, and the remainder in community service and other activities. This distribution varied predictably among the various types of public institutions with faculty at research universities spending more time than average in research and faculty at comprehensive and two year institutions spending more time than average in instructional activities.

Instructional Productivity Analyses

Another type of productivity analysis focuses on the instructional activity of faculty. Typically such studies focus on average course loads, contact hours, and credit loads. Yuker's (1984) analysis of the literature found the following patterns:

- By type of institution: Faculty at research universities tend to have lighter teaching loads than faculty at comprehensive institutions and community colleges;
- By discipline: Faculty in the "soft" disciplines (e.g., humanities) tend to devote more time to instruction than faculty in the "hard" disciplines (e.g., sciences); and
- By faculty rank: There is an inverse relationship between rank and teaching load such that full professors tend to have the lightest teaching load, while assistant professors and instructors tend to have the heaviest teaching loads.

NSOPF-88 examined two measures of instructional productivity: classroom contact hours and student contact hours.[2] In the fall of 1987, faculty at all institutions reported an average of 9.8 classroom contact hours and an average of 302 student contact hours. Among public institutions, average classroom contact hours ranged from 6.6 at research universities to 15.2 at two-year institutions. Average student contact hours ranged from 259 at research universities to 427 at two-year institutions (U.S. Department of Education, 1991). Evidence on trends in instructional productivity remain largely at the institutional level, given that NSOPF-88 was baseline data. For example, Middaugh and Hollowell (1992) found in their study of instructional productivity at the University of Delaware that between 1985 and 1991, average faculty course loads, classroom contact hours, and student/faculty ratios all declined.

Productivity in Noninstructional Activities

Much of what is known about faculty productivity in noninstructional activities is descriptive and is confined to research activities. For example, NSOPF-88 found that faculty in research

[2] "Classroom contact hours" are the number of hours per week spent teaching group instruction courses. "Student contact hours" are the number of hours per week spent teaching group instruction courses multiplied by the number of students in those courses.

and doctoral institutions produced greater than average numbers of journal articles, books/book chapters, and monographs than did faculty in comprehensive and two-year institutions. There was also variance across discipline areas that was attributable to differences in modes of publication among disciplines (U.S. Department of Education, 1991). For example, faculty in the health sciences and natural sciences had above average numbers of journal articles while faculty in agriculture/home economics and engineering produced above average numbers of technical reports and nonreferred articles.

Perceptions of the Role of Faculty in Higher Education

Increased interest in faculty accountability and productivity reveal an uncertainty about the role of higher education in society and the role of faculty in higher education. Likewise, anecdotal evidence about shifts in faculty priorities indicate some dissonance between faculty goals and the expectations of faculty by higher education stakeholders.

The Role of Faculty: Public Expectations

For many, a college education is seen as the way to improve one's economic standing. A national survey of new freshmen at all types of institutions in fall, 1992 found that 78.5 percent noted "getting a better job" as a very important factor in deciding to go to college (Dey, et al., 1992). Thus, the public see faculty as teachers, first and foremost. Other activities (e.g., research and service) are seen by those outside of the academy as tangential to the "true" mission of public colleges and universities and not really understood by some. For example, when asked about faculty research activities, a Virginia legislator recently stated, "... the vast majority of people aren't aware that research goes on" (Pratt, 1993, 16). Unfortunately, much of the blame for the public's indifference to or misunderstanding of these non-instructional missions must rest with those within the academy. Higher education in general has been extremely ineffective in providing insight into what and how it does what it does outside of the classroom.

Of greatest interest, of course, is the amount of time that faculty spend in the classroom. A California legislator was quoted as saying, "For years, universities faced with decreasing budgets would rather get rid of students than increase faculty workload. They all want to be like Harvard and lessen the teaching load. That can't continue" (*State Policy Reports*, 1992, 20). The concern of state policy makers can be stated simply: faculty are paid primarily to teach and reducing that commitment is unacceptable. Both policy makers and the general public increasingly perceive faculty at public colleges and universities as concerned more with their professional advancement through research and publication than the education of undergraduate students.

The Role of Faculty: Faculty Expectations

Faculty expectations of their role are largely shaped by the cultures of their institution and field of study. These expectations are reinforced by institutional reward structures. Increasingly, we

hear that research and publications are the coin of the realm, not teaching. The 1989-90 UCLA Higher Education Research Institute Survey of Faculty found that in public four-year institutions, less than 10 percent of faculty believed that they were definitely rewarded for being good teachers at their institutions (Astin, et al., 1991). As noted by James Mingle, Executive Director of the State Higher Education Executive Officers, "Teaching credentials aren't very portable, while research credentials can carry one from institution to institution" (1993, 5). There is evidence that the rewards do go to those who do research. A recent study using NSOPF-88 data found that for full-time tenure track faculty, generally:

- The more time spent on teaching and instruction, the lower the salary;
- The more time spent in the classroom, the lower the salary;
- The more time spent doing research, the higher the salary; and
- The more publications one had, the higher the salary (Fairweather, 1993).

These findings would suggest that the rational faculty member would want to spend more time conducting research and less time in instructional activities. Again, there is evidence that this is the case. NSOPF-88 posed the question, "If you changed jobs, would you want to do less, the same, or more teaching and research?" For all institutions, 50 percent of full-time faculty responding to that question would want to do more research compared with 11 percent wanting to do more teaching. On the other hand, only 8 percent would want to do less research while 30 percent would want to less teaching (U.S. Department of Education, 1991).

The Dissonance of Public and Faculty Goals

The available evidence suggests that there is a great division between what state policy makers and the public want from higher education and what higher education wants for itself. This leads us back to the renewed interest in accountability for higher education at the state level. There is no doubt that this interest is directly related to state-level perceptions that higher education is out of sync with state needs and goals. Part of this gap is attributable to the basic differences between the external political and institutional cultures. However, there should be no doubt that if public higher education does not work to improve the gap between institutional/faculty goals and state goals, there will be further state studies of faculty workload and ultimately, legislative solutions will be fashioned to "fix" the situation (e.g., mandated faculty teaching loads).

In the end, we are left with the question of whether traditional views of faculty activities (both internal and external) are still valid and if quick fix solutions to external concerns about faculty productivity are the right thing to do. It is doubtful that further studies of faculty workload or instructional productivity will provide any greater insight into these issues. It is also highly likely that legislative actions such as mandated teaching loads would further alienate the faculty from their external stakeholders with no resulting benefit for students. The core issue in our eyes is not how many hours a faculty member spends in the classroom, but instead how the activities of an institution's faculty fit within the context of the institutional mission and ultimately how the role and mission of that institution meet the needs of the state. Viewing

faculty in this context quickly changes the focus from a faculty member as a service-provider to that of an asset, both at an institutional and state level.

Faculty as an Institutional Asset

For years, colleges and universities have counted facilities, equipment, library and computer resources as assets on their books. Yet, little to no attention has been given to its greatest asset: its faculty. Faculty salaries constitute a major portion of the total institutional budget and is one of the biggest investments institutions make.

The concept of viewing the faculty as an institutional asset was recently proposed by Jones and Lovell in *The Handbook on Human Assets: Recording-Keeping and Analysis* (1993). They suggest that accepting the notion that our human resources (faculty and staff) are institutional assets requires a paradigm shift. This shift begins by viewing faculty as a long-term institutional investment to be developed and maintained instead of just service providers. In turn, this results in drastic changes in our human resources management practices. The perspective of simply "purchasing services" then shifts to the perspective of "investing in capacity" which puts the management of human assets within a different decision making context. For example, institutional managers who embrace the human asset perspective must now contemplate questions of what is necessary to create and maintain the asset and what must be done to continue the on-going management and cost effective utilization of this asset. This paradigm shift forces more of the institution's efforts to be spent on the selective acquisition and effective utilization of the institutional assets and less on merely accomplishing the tasks at hand (providing the educational services).

To accept the view that faculty are assets and to maximize the institution's acquisition and utilization efforts assumes a clear understanding and widespread commitment to the institution's mission. Identifying potential new assets is predicated on the assumption that the institution first knows who and what it purports to be and is able to determine whether the prospective asset can contribute to the existing environment.

A broader question of appropriate and desirable staffing patterns must be addressed to fully realize the asset concept. Therefore, questions of fit between the faculty member and the institutional culture become paramount. A closer look at the experiences of new faculty and a solid sense that previous experiences are appropriate for specific institutional environments are necessary. Moreover, since most faculty today tend to have a stronger allegiance to their professional disciplines, it would be in the institution's best interest to discuss whether the prospective faculty member's personal and professional priorities are consistent with those of the institution.

This paradigm shift also requires the institution to address its commitment to creating and maintaining the asset. What level of investment will the institution make to create the asset and at what level will the institution continue to provide adequate compensation to maintain the

asset? Salaries are not necessarily the only consideration; investments in laboratory spaces, graduate students, and equipment often become negotiating tools.

Additionally, effective utilization is critical. Institutions must be as concerned with the utilization of the collective assets' skills and experiences as they are with their creation and maintenance. With limited financial conditions, the allocation of the asset in the most cost-effective manner must be a top institutional priority. Again, the institution's mission provides the framework for allocating scarce assets to important functions of the institution. Finally, as with any investment, care and attention must be given to make sure the asset does not depreciate. With the human asset concept, on-going renewal is critical. Periodic staff development activities in the form of sabbaticals, faculty development, professional travel opportunities increase the institution's investment in the human asset and help ensure that faculty continue to provide significant contributions to the institution.

Institutional Mission and Faculty Activities

Viewing faculty as an institutional asset must be made within the context of the institutional mission. The missions of public institutions have often been developed within the broader context of the overall system of higher education in a state. While the issue of faculty as a state asset will be addressed in the next section, it is appropriate here to briefly touch on faculty activities as they relate to different institutional missions within state systems of higher education. Given the significant role of faculty within the academy, it is understandable that external stakeholders are increasingly interested in what faculty do. However, a more appropriate question rarely addressed by state policy makers is whether the distribution of effort by the faculty, as a whole, is appropriate given the institutional mission. Focusing on this question may lead to more useful and productive discussions for state policy makers.

Questions relating to institutional mission and faculty workloads were addressed in a recent study conducted by the National Center for Higher Education Management Systems (NCHEMS). The study set out to determine how a state's public institutions defined, measured, and monitored faculty workload and productivity. In the investigation of the policies relating to faculty workload, several significant observations were made. First, it was clear, given the different statutory missions, faculty workloads did vary according to institutional mission. Second, an abundance of data about faculty workloads and productivity are available. Third, almost all activity relating to the assignment of and monitoring of faculty occurred at the department level. If there was a review, it occurred at the dean's level (dean of the academic school/college). Fourth, policies and data collected about faculty focused on the individual as the unit of analysis. Lastly, faculty workload was not reviewed on a campus-wide basis.

The state's initial interests focused on increasing faculty workload and productivity; however, it became clear that the greater interests and gains for the state were not questions relating to the amount of productivity but questions about the appropriateness of that effort given a particular institution's mission. Additionally, sharpened distinctions and expectations among institutions

with different missions seemed to be a way the State could achieve its objectives without "micro managing."

To have this type of discussion, both the higher education community and the state must develop a relationship that begins with clear expectations and pointed conversations about the responsibilities of both in providing postsecondary education opportunities for the state's citizens and in meeting state needs. A new discussion will provide a chance for both sides to achieve their goals.

Faculty as a State Asset

The debate about the role of faculty at the state-level is not one of whether faculty work hard, but one of what they do. Therefore, a discussion of faculty as a state asset should not focus on faculty productivity, but on faculty activities that promote the achievement of the public's objectives and needs for higher education.

Tying faculty activities and responsibilities to the achievement of state and public needs requires a fairly significant shift in the way we think about higher education, especially academic programs and faculty research on four-year campuses. However, it is only with this paradigm shift that faculty may come to be seen as a state asset and that higher education may regain the public's support and confidence.

As illustrated earlier in this paper, at most four-year campuses, the greatest rewards are given for research. Frequently this research is in areas that neither the general public nor state legislators find truly meritorious (or even know about). Instead, the public's interest is focused on other outcomes of faculty activity. These outcomes include:

- College graduates who can get jobs and advance in given careers;
- An education comparable to the tuition charged; and
- Solutions to state, social, and economic concerns, including improved public school systems and meeting workforce training needs.

Faculty activities and accomplishments in these arenas will promote an acceptance of faculty as a state asset. But how do we get there from here?

First, faculty and higher education leaders must accept the need for change. During the past four years of declining appropriations and public claims of dissatisfaction, the stated antidote was the need for improved communications between higher education and the public. There is an increasing awareness, however, that greater support will require new behavior, not better public relations (Western Interstate Commission for Higher Education, 1993).

Change is needed not only because of limited finances, but because the issues encompassing the economy and society are enormously complex. If we are to achieve a comprehensive understanding of these issues and develop a direction and possible answers for the challenges

we face, there must be greater collaboration among higher education leaders and stakeholders. Change will come only with an infusion of interest and resources from higher education's external constituents. These collaborative relationships are also needed because higher education is a self-referencing institution. Public institutions of higher education, while financially dependent on state governments, tend to be significantly more autonomous than other state agencies, campus perceptions to the contrary. Because of this, the focus of public colleges and universities tends to be inward not outward. Collaborative relationships would help to temper the self-referencing nature of higher education.

The coalition must include higher education leaders (e.g., presidents, chancellors, state higher education executive officers, campus board members, administrators, faculty, and students), and its stakeholders (e.g., the governor, state legislators, local officials, business and industry, elementary and secondary education, the media, and the public). This coalition must identify and achieve consensus on higher education's role in meeting state goals. Given finite state resources and increasing competition for state funds, higher education's ability to meet state goals will, in most states, require readjustments to campus roles and missions. And with this must come a renegotiation of faculty roles and responsibilities.

Most frequently, the answer for change and more efficient use of resources has been to "increase faculty productivity" which, in some states, has been translated as mandating faculty contact hours. The rationale behind this argument is that if faculty teach more hours, campuses can do without additional resources; students will not be closed out of required courses; and the public's demand for a greater emphasis on teaching will be answered.

However, mandating teaching loads is an approach that assures the continuation of a traditional higher education system, and does not enable an exploration of new service delivery approaches, especially the use of telecommunications and other methods of instruction. Faculty contact hours equate with "seat time" and provide little opportunity for creativity. Finally, and importantly, mandated contact hours bring us no closer to a view of faculty as a state asset.

On the other hand, holding faculty accountable for a "product" (e.g., instruction) may promote this new view. Logically, there is a greater sense of analogy between product and asset then between number of hours and asset.

Faculty as a State Asset: a New Model

The concept of state government's voice in the assignment of faculty responsibilities produces many a raised eyebrow on college campuses. While faculty accept the legal mandates of role and mission, linking teaching, research, and public service responsibilities to state objectives raise concerns of intrusion into academic freedom.

Therefore, a new model is needed in which institutions will be held accountable for achieving identified state objectives. Upon agreement of higher education's responsibilities for meeting state goals, state government leaders must retreat, and campus administrators and faculty should

determine new assignments. Higher education must have the flexibility to reorganize and renegotiate faculty roles and responsibilities, and this must be done with the full participation of the faculty.

The bottom line of this new model is a significant change in academic culture. It means a new faculty orientation to state not discipline needs, and it also requires a change in the campus approach to faculty development, rewards, and incentives. In this new model a premium is placed on faculty activities and products that align with identified state objectives.

State Government's Role in Faculty Issues

The role of state government in faculty issues is somewhat problematic for most higher education leaders and stakeholders. Despite cries of "legislative efforts to micro manage higher education," few legislators want to play such a role and most legislators respect the importance of higher education's unique status in the state's budget. The difficulty for state legislators is that funding is no longer available to support higher education in the manner to which it has become accustomed. If higher education is to be responsive to this new fiscal climate, then change must come on the part of individuals who collectively receive the largest share of the budget—the faculty.

State Senator Lyle Hillyard, Chairman of Utah's Senate subcommittee on higher education appropriations, argues that discussions on faculty workload and productivity are driven by state funding limitations and legislators' interest in higher education's more effective use of state funds. Senator Hillyard, however, strongly supports the doctrine that state government must take a hands off approach to higher education management including issues related to faculty productivity. Because higher education's budget request cannot be met, the Senator believes that the appropriate route is to allocate higher education its fair share and then remove any budgetary restrictions that might preclude administrators from making the wisest use of these dollars. But he is quick to add that any move to decrease enrollments because faculty teaching responsibilities are not increased will force a change in Utah's higher education-state government relationship. A final comment from the Senator is that Utah has developed a strongly collaborative system of higher education, and, therefore in the absence of "foolish or embarrassing conduct" the Utah legislature is comfortable in providing the higher education system with significant autonomy.

Another perspective on state involvement in faculty activities is provided by Terry Roark, President of the University of Wyoming. Dr. Roark believes that one approach to avoiding legislative involvement in faculty activities is a sensitivity to legislative concerns. As a discerning observer of state legislative warning signs, Dr. Roark went before his faculty senate in fall 1993, to announce the need for a university policy on faculty productivity. He discussed the climate in the state capital and the opportunity for the university's faculty to develop a policy that would permit distinctions to be made among the several colleges and faculty groups. The harsh, but realistic, bottom line was that in the absence of a university policy that, in time,

can demonstrate a reorientation of faculty activity toward state objectives, the legislature would mandate faculty teaching loads.

State governments can assume a proactive and positive role in the reorientation of higher education in meeting state objectives. For example, the Illinois Board of Higher Education (IBHE), a coordinating board, recently sponsored two workshops to explore issues and questions related to faculty roles and responsibilities (1994). Discussions focused on three broad areas: faculty development; breadth of faculty contributions; and incentives and rewards. The purpose of this initiative is to support and stimulate related institutional activities within the context of an ongoing statewide initiative being led by the IBHE regarding "priorities, quality, and productivity."

There are other potential approaches as well. If funding is available, state dollars might be used more efficiently to develop a grant program enabling faculty members to apply, on a competitive basis, for funds that would be given to state agencies and used for the research and development of projects focused on state problems.

An excellent example of this concept at work began a few years ago in Wyoming. In the late 1980s, the state was concerned about declining oil revenues and wanted to know if it were possible to more effectively utilize the reserves. The legislature, in cooperation with the University of Wyoming, develop and funded "institutes" designed to address the specific concerns identified by the legislature. The faculty were awarded research dollars in a competitive process for their applied research. This kind of program sends a very clear message to faculty members that the state values their work and is interested in cooperative ventures that support their work and support the state's interests.

Another approach might be the establishment of research centers to study state and regional problems. States and higher education institutions need to spend considerable time and energy selecting investment targets, and identifying a small number of problems to be tackled. One way to crystallize this discussion is to identify or establish problem-oriented research centers in which the state invests for an extended period of time. Each center would have a clearly defined mission, and provide an environment in which faculty interested in addressing important issues can pursue applied research within a supportive work context. It should be noted that such centers need not be solely within the purview of major research universities. There are many important issues—such as workforce literacy—that can be addressed effectively by faculty.

An Existing Model: Community Colleges

Most of the concerns regarding faculty activities have involved faculty at baccalaureate degree-granting institutions. As we move forward toward our new paradigm of faculty as an asset, there is much to learn from faculty at community colleges. The reason for this is that these institutions, by their very nature, have developed close, sometimes symbiotic, relationships with

their communities and have tailored their instructional and other activities to the needs of their communities.

In 1992, staff from the Western Interstate Commission for Higher Education (WICHE) conducted interviews with 22 "Frontier Thinkers" whose insights were sought on issues that must be addressed if higher education is to be responsive to the economic needs of the 1990s and beyond. Interviews with Dr. Clark Kerr, President Emeritus, University of California and Dr. Ernest Boyer, President of the Carnegie Foundation for the Advancement of Teaching contribute to our understanding of faculty as an asset.

Dr. Kerr stated that faculty activities and programs at community colleges demonstrate that these colleges have "inherited" the role and mission of the land-grant institutions. The meaning of this dramatic statement is that by their nature, community colleges are integral parts of their locales, much as the original land grant institutions were in their infancy. Much of this is due to the growth in the community college movement over the past few decades. These institutions serve both the educational and economic needs of their regions, fostering an intimate relationship between institution and community.

Dr. Boyer's comments pay the same high tribute to the community college faculty. He states that before long, community colleges will be awarded the status of higher education's "favored nation." In short, the lessons to be learned from community colleges lie in their responsiveness to the needs of their stakeholders.

Conclusion

Clearly, higher education is at a critical juncture. Signals from our stakeholders are too loud and too consistent to misinterpret their meaning. We think that viewing faculty as institutional and state assets are first steps toward addressing these concerns.

Without a doubt, this change in paradigm will require significant cooperation, commitment and mutual trust on the part of all concerned. Institutions will need to make clear the mission of the institution and the resulting faculty expectations. As well, institutions and faculty will need to honestly assess whether their needs and goals are mutually beneficial. Institutions will also need to treat faculty as a strategic asset, requiring continuous maintenance and reinvestment.

States must take a strong leadership role in forging this change. As such, state policy makers will need to develop clear and reasonable expectations and objectives for their institutions of higher education with the involvement of the higher education community. Higher education may have to "do more with less," but it will not be able to do everything, and certainly not everything equally well. This will require a reexamination of institutional missions and the setting of clear priorities for higher education (and a clear articulation of the opportunity costs involved in such decisions).
In the end, however, it is the faculty that remain the key to this change in viewpoint. Without a reorientation of faculty thinking about their relationship to their institution and the needs of the

public, all efforts to change are meaningless. However, with faculty interest and involvement in the process, creative initiatives *can* be developed to promote a change in how this significant asset is viewed and utilized.

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Appendix

Some Caveats to Defining and Measuring Faculty Productivity

At its most aggregate level, *productivity* refers to the measure of output per unit of input. In the classic economic sense, the basic inputs to production are *land, labor, and capital*. Outputs, of course, are the items being produced. In industrial settings, productivity is relatively easy to define and measure. One need only to take a selected output for a firm and divide by the input of choice (e.g., per worker). For institutions of higher education, however, "outcomes are diffuse, and difficult to measure" (Mingle and Lenth, 1989, 13).

There are various reasons why the definition and measurement of productivity in higher education is challenging to say the least.[3] One reason is related to the types of higher education inputs and outputs. Hopkins (1990) points out that for institutions of higher education there are both *tangible and intangible* inputs and outputs. Tangible inputs include such things as the number of new students, faculty time and effort, library holdings, and equipment. Intangible inputs include the quality of new students, the quality of the faculty, and so on. Tangible outputs include student enrollment in courses, the number of degrees awarded, and the number of scholarly works produced by the faculty. Intangible outputs include the quality of instruction provided in courses, the knowledge gained by students over their college career, and the quality of faculty scholarship. Hopkins notes that "all efforts to date at specifying and estimating the higher education production function have provided only partial results" (1990, 13). Thus, while we may be able to identify certain inputs and outputs in higher education (i.e., the "tangible"), capturing productivity in its entirety is unlikely at this point.

Another one of the challenges in defining and measuring productivity in higher education is that the primary activities of most institutions of higher education (instruction, research, and service) are often jointly produced by faculty. Thus, evaluating one specific aspect of production (e.g., undergraduate instruction) without controlling for the other aspects engaged in by the faculty provides an inaccurate picture. Further, increasing the production of one of these activities may come at the expense of another. For example, increasing faculty productivity in undergraduate education may result in decreased productivity in graduate education and research activities. Gilmore and To (1992) found in their analysis that there was a tradeoff between teaching productivity and research productivity.[4]

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[3]In this context, the term "productivity" refers to academic productivity only (i.e., faculty). Productivity in other aspects of higher education (e.g., administrative) is not addressed here.

[4]Some economists have hypothesized that if the production of one service supports another, then the joint production of each may be more efficient than producing each one separately - "economies of scope" (Halstead, 1991). Brinkman (1990) notes that there have been few studies of this issue, although there is some evidence that economies of scope do exist for instruction and research.

Weaknesses of Past Productivity Analyses

Traditional ways of analyzing faculty productivity have a number of drawbacks. A significant drawback, as noted by Hopkins (1990) and others, is the failure of most studies to account for "quality" in quantifying both inputs and outputs. Measuring the hours spent in a classroom or the number of journal articles produced tells us little about the quality of instruction provided or the quality of the scholarship. Unfortunately, while many have attempted to develop theoretical frameworks incorporating these "intangible" aspects of academic productivity, there have been no empirical studies (Gilmore and To, 1992).

A related but more minor flaw has been the misrepresentation of certain inputs as "productivity" measures. For example, while we included such studies in our previous discussion of productivity, it is conceptually inaccurate to equate "workload" with productivity. The time spent by faculty in their various activities is only an input and does not reflect any outcome. Thus, workload studies should be viewed in the context of specific outcomes in those activities if one is truly attempting to measure productivity.

Another flaw, related to measures of instructional productivity is the fact that such measures as average classroom contact hours do not account for the time spent by faculty in preparing for that class, time spent with students outside of the classroom, or other instruction-related activities.

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The Application of Data to Policy Questions About Faculty

Jay L. Chronister and John W. Creswell

Contemporary American postsecondary education faces a major crisis of accountability. Legislators, parents, students, administrators, the media, funding agencies, and other policy makers challenge what faculty do, how much time they spend doing it, and whether it is what they should be doing. In response, college administrators and faculty have been less than articulate and convincing.

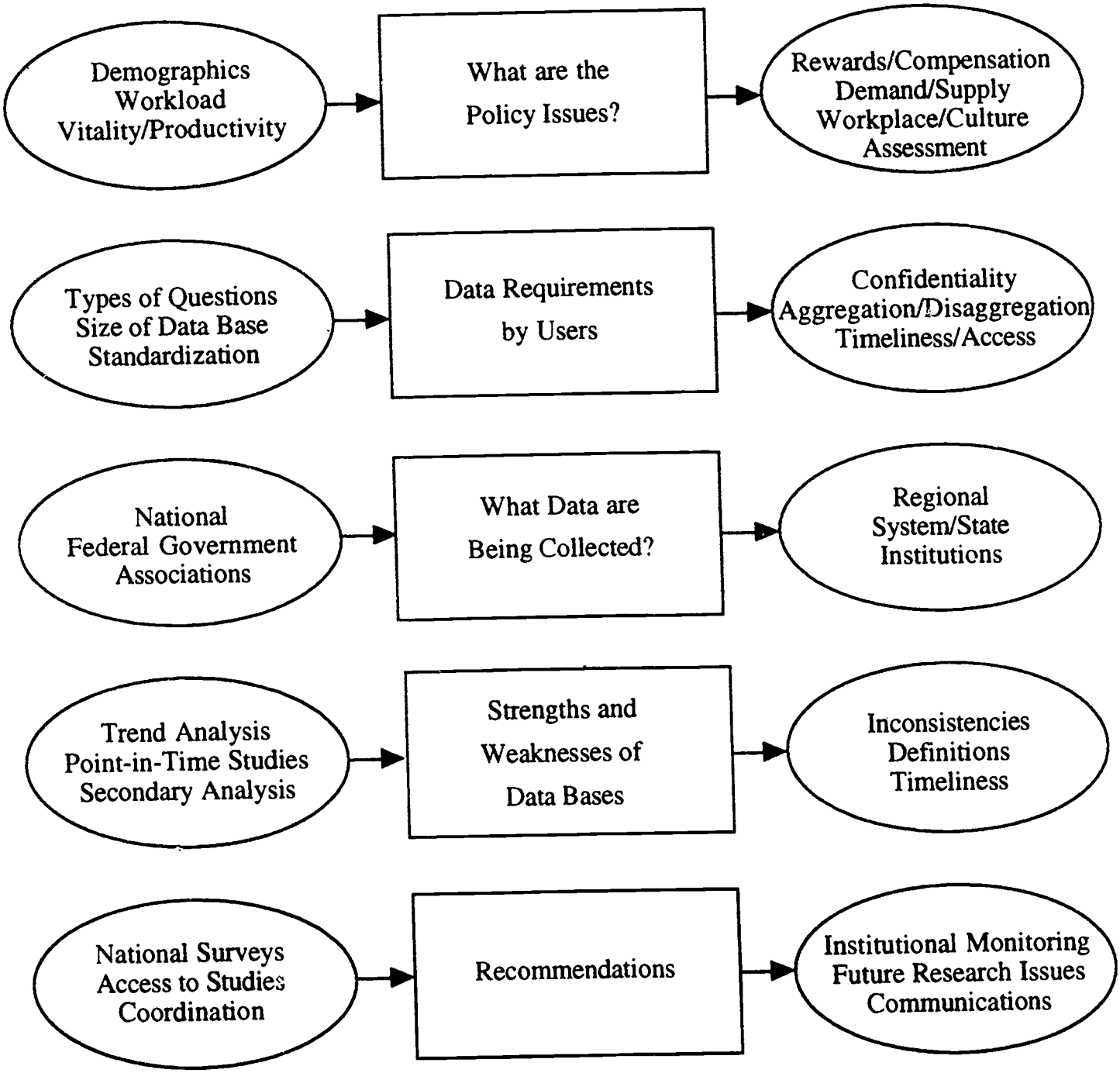
Their response may be due partly to the complexity of the relationship between policy decisions and faculty data. Policy questions arise from different levels in the postsecondary education sector, such as the institutional, state, regional, or national levels. Furthermore, the policy issues seem to be expanding in response to social, economic, and political concerns, varying from demographics questions to faculty performance and compensation issues. The needs at different levels in the education sector vary too, from detailed breakouts of the data to more general analyses. Into this complexity also comes the multitude of databases being collected by institutions, state agencies, professional associations, major private foundations, and the federal government. Unfortunately, these databases are competing and largely uncoordinated, leading to volumes of descriptive data that lack common definitions about what is meant by "faculty" or "faculty workload." In short, the different levels of policy makers, the different faculty data requirements by levels, and the current state of data collection needs to be assessed so that higher education administrators and faculty can provide better answers to the external public.

This paper will address key questions that relate to policy decisions and faculty data in postsecondary education. It addresses five questions:

- What are the policy issues being raised about faculty?
- What information is needed to address these questions by structural levels (i.e., national, regional and state, institutional, secondary researchers) within the postsecondary education community?
- What types of data are being collected at the institutional, regional, state, and national levels?
- What are the strengths and weaknesses of databases?
- What are some recommendations for future data collection to best respond to policy issues?

A model, shown in figure 3, presents an overview of the analysis to be presented in this study.

Figure 3.--An analysis of data needs for faculty policy



What Are the Policy Issues?

The relationship between data needs about faculty and policy questions must begin with an assessment of fundamental questions around which policy issues have or are likely to develop. One might classify these into seven topical areas.

Demographics

What is the workforce? Who are the faculty, what are their characteristics (age, race, ethnicity, gender, etc), and what is the nature of their training, their career aspirations, their level of satisfaction and morale? What are the numbers of full-time and part-time faculty? What is the number of full-time equivalent (FTE) faculty?

Workload

What does the workforce do? What is their role, what is their workload, and are the roles and workloads appropriate for the institutional mission? What proportion of instruction is undertaken by part-time faculty?

Vitality and Productivity

How well do faculty fulfill their role? Are they productive? Are faculty successful as teachers and/or researchers? Do they address needs of students and the public? Are they meeting the public needs for quality? How do faculty develop professionally?

Rewards and Compensation

How are faculty rewarded and compensated? Are the rewards/compensation adequate and equitable? What are the sources of funding for compensation and rewards?

Supply and Demands

What are the causes of the attrition rate of faculty? Are enough qualified faculty being prepared to meet numerical demands for replacements and additions to the workforce? Is postsecondary education able to recruit and retain the "best" potential candidates for faculty positions?

Workplace and Culture

Do responses to the above questions vary by institutional characteristics, discipline, geographic region, gender, race, age cohort, rank, etc.?

Assessment Issues

Are students learning? What are the grading practices and how do they relate to learning? How do institutions/faculty assess the effectiveness of the instructional/learning process?

What Are the Data Needs by Different Levels in the Postsecondary Education Community?

Policy questions arise on Capitol Hill, at national professional association meetings, at state capitols, on college and university campuses, and among secondary researchers who study faculty issues. The data needed to answer questions are a function of the level at which the policy question is raised or resolved and the parameters which surround the question. Five parameters, as shown in table 1, provide common ground for assessing the needs for data at different structural levels: aggregation, timeliness, standardization, size, and type of question.

Table 1. --Data requirements by users

Data Requirements	National Policy Officials	Regional, State, and System Officials	Institutional Policy makers	Secondary Researchers
Level of aggregation of the data	High level of aggregation as found in longitudinal studies, trend analyses; association interest in disaggregation at institutional level	High level of aggregation of data but the capability to disaggregate by state, system, and institution levels	Low level of aggregation of data beyond institution level so that institutional profile can be obtained	Raw data needed for analysis
Timeliness of the data (quick access to the database)	Need varies by agency or association utilizing data	Moderate level needs with state and systems having high level needs on certain policy issues	High level needs to respond to specific requests for information	High level needs to analyze current issues
Clear and standard definitions	An important need to communicate among agencies	An important need to communicate among states and regional groups	An important need as long as the definitions meet institutional context	An important need so that longitudinal studies can be conducted using same variables
Size of the database and adequate response rate	The larger the better for monitoring national trends	The size of the database may be less than the national database; it should cover the institutions in the region or state	The database may be small based on faculty on a specific campus	A large database is needed so that one can perform statistical analysis with adequate cell sizes
Type of questions asked	Primary focus would be on demographic issues, topics addressed in national surveys and some limited questioning based on current issues	Questions would have a topical focus depending on the needs of the region, state, or system issue being addressed	Questions would be specifically focused on the topic under study	Some demographic questions, specific attitudinal items needed for analysis

At What Level Should the Data Be Aggregated and Reported?

Users differ in the degree of aggregation or disaggregation of the data needed for analysis. This means that the decision maker who shapes the questions to be addressed often dictates the unit for data analysis. Policy makers at the national level will be interested in broad summary reports as well as more detailed smaller units of analysis, depending on the agency/organization and the policy issue or question being addressed. These thoughts hold true, as well, for state or system level policy makers where the capability must also exist to disaggregate data by state or system. Institutional policy makers need faculty data about individuals on their own campuses and institutional profiles for peer comparisons. Secondary researchers look for raw data sets so that they can choose and select specific items (or variables) for analysis.

Muffo (1986) reflected on the needs of policy makers to have brief statements summarizing the most important issues and conclusions. Executive summaries, bulletted highlights, and dramatic graphs add to the clarity and conciseness needed by policy makers at the highest levels of the postsecondary community. These thoughts will hold true, as well, for state or system level policy makers.

A key consideration in this level of aggregation issue is concern over the confidentiality of the data. In some cases the nature of the data acquisition and compilation raises questions about the confidentiality of data about individual faculty members, while in other cases there is concern about maintaining confidentiality about institutional data. Each of these areas of concern must be recognized and dealt with up front in determining the data gathering, data availability and access, and data reporting processes.

How Timely Should the Information Be?

The need for timely access to data will also vary by structural level. At the national level, policy makers seek to be responsive to trends and they require timely data. At the state/system level, officials need access to databases in order to monitor trends regarding faculty resources, to assess the effectiveness of current policies, and for defining alternatives in the development of new policies. At the institutional and secondary researcher level, access to data to respond to immediate needs or to publish results that are current are of paramount concern.

Are Standard Data Definitions Needed?

Across all levels of data use standard definitions are needed. Standard definitions provide the following:

- They establish a common language for use across national agencies;
- They enable states and regional groups to make peer comparisons;
- They enable institutions to forward information to the federal and state level using common terms; and
- They enable secondary researchers to study variables worded the same way from study to study.

These needs for common definitions of data elements and their use are major motivations behind the development of the Handbook on Human Resources Record-Keeping and Analysis, a project sponsored by the National Center for Education Statistics (NCES) and executed jointly by the National Center for Higher Education Management Systems (NCHEMS) and the State Higher Education Executive Officers (SHEEO). The guide will provide a framework of standard definitions and recommended methodologies for the reporting and interpretation of data about faculty and staff in higher education. A key issue in the development of standard definitions of data elements is the need to develop a crosswalk so that data elements from earlier studies can be assessed and paired with the new standard definition elements in order to

facilitate trend analysis and to retain the value of earlier databases. The need for crosswalks applies to institutional as well as national databases.

What Should Be the Size of the Database and How Representative of the Population of Faculty Should the Data Be?

National policy makers would want to generalize to the entire population of institutions; hence, the database should be quite large. The size and response rate should be representative of the region or the state to be meaningful to these two levels. For institutional policy makers, the size of the database should be representative of their faculty or representative of faculty in comparable institutions. For secondary researchers, the size should be large so that statistical analysis can be conducted on cells of adequate size when the data are partitioned. Furthermore, the response rate should be average to high (e.g., over 70 percent) for national surveys, and checks should be made by the researchers for potential response bias.

What Types of Questions are Relevant to Different Data Users?

Policy makers at the national level are most interested in demographic profiles of the faculty and supply and demand issues. Interest also exists in longitudinal analyses (e.g., faculty workloads, resource availability, changes in the proportion of minorities in the professorate, etc.). Professional disciplinary associations, such as the American Chemical Society (ACS), and the National Science Foundation (NSF), are interested in databases that can be disaggregated to specific discipline and degree fields and in which the data element definitions will remain consistent over time. NSF needs data that can be disaggregated to the institutional level to assist in making funding decisions affecting individual institutions. ACS and other discipline-specific organizations utilize data that can be disaggregated to degree levels for the purpose of assessing faculty supply and demand, work role, workload, etc.

A more topical focus is often needed at the state and system levels in order to address key issues raised by policy makers and constituents. In many cases these issues will overlap those raised at the national level, but regional and state contexts may provide unique circumstances which must be addressed. Institutions collect data to respond to campus or governing board inquiries, and these inquiries typically require specific information concerning the institutional environment within which the issue has arisen.

Secondary researchers need an expansive list of questions that lend themselves to building indices of constructs, developing causal models, portraying longitudinal trends, and capturing timely pictures of current issues. These questions may include faculty demographics, and attitudinal and factual items.

What Types of Data Are Being Collected?

The policy issues and information needs have led to an ever-expanding effort to collect faculty data. The data collection is so vast that a complete assessment of databases is impossible. However, data sets in the public domain and those discussed in the literature about faculty surveys provide a starting point to assess the current information collection effort. One conceptualization is to consider these data sets from the micro-institutional level to the macro-national level. This discussion will present examples of institutional data, regional data exchange information, coordinating agencies data, and national databases including those collected by private foundations, federal agencies, and national professional organizations.

Institutional Databases

Institutions serve as the basic organization for the gathering of data about faculty. Much of the data gathered is shaped by institutional culture and the policy issues and questions addressed at the local level to effectively allocate and manage resources in support of the institutional mission and goals. Among the types of studies for which the institution may gather data and serve as the unit of analysis are: 1) internal analyses of faculty workload and productivity; 2) issues related to salary compression and salary equity involving variables such as race, age, gender, time-in-rank, and discipline; and 3) studies related to faculty attrition, retirement, and supply and demand. In addition, data are usually gathered from a variety of sources, including from individual faculty as part of an annual performance review. An area of study that has gained increased attention in recent years, possibly as a result of the assessment movement, is the attempt to link student achievement with faculty data. There is also a continuing need at the institutional level for data that will facilitate comparison with peer institutions on variables such as salary, workload, performance/productivity, etc. In cases of peer comparison, the unit of analysis may be disaggregated to the school, department, or program/discipline level within the institution. Peer comparison requires that data element definitions be comparable from institution to institution.

An issue that should be addressed at the institutional level is the role of faculty in determining the nature of data that are to be gathered. Response to this question is directly related to the purpose for which data is being gathered. This question may be especially pertinent for data gathering as part of an annual faculty performance review. Institutions, by and large, have multiple databases about faculty on campus in the form of payroll data files, central employment personnel files, and registrar files on credit hour production (Hickson, Stacks, and Scott, 1992). Development of these databases may be assumed to be necessitated by requirements related to policies affecting employment and institutional finances. When studies of workload, productivity, performance, and student achievement are undertaken in order to respond to questions related to those topics, what should be the role of faculty in defining the questions, in shaping the data that will be gathered, and in determining how the data will be used?

Some databases are developed to meet specific needs of units within an institution and therefore may, for example, be maintained at the college or department/ division levels. The University of Georgia, the Division of Health, Physical Education, Recreation, and Dance developed a faculty evaluation system to identify and differentiate meritorious performance of individual faculty (Brassey, 1983). In this process, each faculty member annually presents a report of his or her professional activities to a Merit Service Committee for review. Thus, at the division level, files are kept on faculty about their professional activities including instruction, research and scholarly activity, and service. This is an example of data compiled in response to a policy to which an accountability requirement is attached: the data gathered has direct relationship to the unit's reward system.

At the institution level, offices of institutional research serve as major database clearinghouses for reports such as those required under the Integrated Postsecondary Education Data System (IPEDS) and other state or system reporting requirements. Campuses might prepare databases to respond to regional accreditation teams (Colorado Technical College, 1988). In terms of today's environment, it is becoming increasingly important for institutions to have one source of comprehensive and accessible data about faculty in order to be responsive to policy issues and policy development. The need for a central source to meet a variety of institutional purposes was the impetus behind the development of the Faculty Information System at Carnegie Mellon University in the mid 1980s (Gibson and Golden, 1987).

Regional, State, and System Databases

There are numerous examples of regional, state, or system-specific data gathering programs designed to assist with policy development or evaluation of faculty issues at those levels. As an example, the Southern Regional Education Board (SREB), a consortium of 15 Southern states, utilizing data gathered through national studies and the SREB Data Exchange, publishes reports that include information on faculty salaries broken out by state, SREB region, discipline, degree level of full-time faculty, number of full-time and part-time faculty by gender, race, type of institution, etc. (Mark, 1992). This type of regional report, developed utilizing a variety of national and local databases, proves to be beneficial in disaggregating national databases for the purpose of assessing the impact of regional and local conditions on faculty issues and faculty policy.

An example of a policy issue that has generated the development of discrete databases is provided by the current debates surrounding faculty workload. States have found it necessary to develop and analyze databases to address this specific question and/or policy. SHEEO recently completed a survey of state agencies regarding a number of faculty policy issues, including the workload issue in an attempt to ascertain which issues were of major concern at the state level and on which policy concerns legislation existed or was under consideration (Russell, 1992). SHEEO has also compiled reports on individual state case studies dealing with workload (Jordan and Layzell, 1992) and faculty productivity (Heydinger and Simsek, 1992).

In the Spring of 1991 a survey of faculty in public institutions in Virginia was conducted for The State Council of Higher Education for Virginia (SCHEV) which was designed to assess faculty workload, how faculty spent their time, how they would prefer to spend time, adjustments to their role they felt were necessary because of shrinking financial resources, and faculty morale in the face of significant budget reductions (The State Council of Higher Education for Virginia, 1991). This is an example of a point-in-time study designed to provide a database that permits a "condition of the professorate" analysis at the state level while identifying key policy issues that may need to be addressed at the state and institution levels. A spin-off benefit of the Virginia study was that participating institutions were able to draw subsamples of their own faculty from the database to analyze institution-specific profiles of the variables under study.

An example of a state policy mandating institutional accountability is reflected in Section 18B-1-8a of the West Virginia Code which mandates the submission of annual "report cards" by public institutions in the state. These report cards are designed to make information available to parents, students, faculty, staff, state policy makers, and the general public about the quality and performance of the public institutions on selected variables. An important requirement in the compilation of the report cards is that the information is to be consistent and comparable among and between state institutions, and where possible, with peer institutions nationally. Among the various data reporting areas compiled and reported are items dealing with student assessment, student access, instructional and scholarly activity of faculty, diversity, and fiscal support (State College and University System of West Virginia, 1993).

National Databases

The national databases have been analyzed and recognized more than others in the scholarly literature on higher education (see Bentley and Blackburn, 1990; Creswell, Chronister, and Brown, 1991). For example, the series of studies on the condition of the professorate by the Carnegie Foundation for the Advancement of Teaching (1969, 1975, 1984, 1989) are frequently referenced. These studies provided self-reported faculty perceptions on such topics as work role, work environment, job satisfaction, and career issues and concerns.

In 1988 the National Center for Education Statistics conducted The National Survey of Postsecondary Faculty (NSOPF-88) designed to provide reliable and current data for higher education researchers, planners, and policy makers at the institution, state/system, and national levels. This study provided a national profile of faculty on a number of dimensions including demographic variables, responsibilities, workload, compensation, benefits, retirement plans, and career satisfaction, to name a few. The next study in what is planned to be a quadrennial series of surveys of faculty (NSOPF-93) is currently underway. NSOPF-93 is designed to provide a second major database on faculty which will update and expand on the findings of NSOPF-88. This series of studies has as a goal the development of databases that will permit longitudinal studies of faculty and their work environment on a large number of variables, including the assessment of changes in the workforce.

An additional data source available from the National Center for Education Statistics is the annual faculty data tape from the Integrated Postsecondary Education Data Systems (IPEDS). The IPEDS tape includes data on such items as full-time faculty salaries, fringe benefits, tenure status, gender, academic rank, and length of contract from in excess of 3,300 institutions. This source of data is utilized by a number of organizations and agencies for reports on faculty.

The Doctorate Records Project of the Office of Scientific and Engineering Personnel of the National Research Council serves as a rich source of data dealing with questions about the preparation of faculty and potential supply of new faculty (see Ries and Thurgood, 1993). Reports from this project provide data on trends in doctorate productivity, demographic characteristics of doctorate recipients, time-to-degree, post-graduation career plans, and how the graduates funded their doctoral study. The Council has also maintained files on humanities doctorates through survey and resurvey of doctoral recipients. This longitudinal database permits the preparation of reports on such variables as the size and composition of the population, employment status, type of employer, work activity, median salary, etc. (Brown and Pasquini, 1991). Another rich data source derived from the Survey of Doctorate Recipients are the reports on the demographic characteristics and employment characteristics of doctoral scientists and engineers published by the National Science Foundation (1991).

Among other national studies of data regarding faculty that may be utilized for policy development or analysis on more restricted topics are the annual reports on faculty salary and compensation conducted by professional organizations—the American Association of University Professors (AAUP) and the National Education Association (NEA). The AAUP reports (1994) are based on a national survey and are reported by such categories as rank, institution type, gender, institution, institutional affiliation, and region of the country. This information is not only useful at the national level, but also is valuable at the regional, state, and institutional levels. The data may be used for developing peer group comparisons and for determining institutional salary policies. The NEA salary and compensation reports, utilizing IPEDS data, are also reported by rank, institutional type, institutional affiliation, gender, length of contract, and average salaries and percent change in salaries by state (National Education Association, 1994).

A number of professional associations, in addition to the American Chemical Society mentioned previously, also collect data which are beneficial to their constituents for policy analysis or development. An example of a professional association which shares data among its member institutions is the Association of American Universities Data Exchange (AAUDE). The primary purpose of AAUDE is to annually exchange faculty salary and teaching load data that is timely, mutually confidential, and based on common definitions. This is an example of national cohort of peer institutions sharing data to meet individual institutional policy needs; however, the data are restricted to use by AAUDE institutions.

What are the Strengths and Weaknesses of Databases?

A body of literature has emerged to suggest both strengths as well as weaknesses of the databases, especially the national surveys. The surveys have provided insight into longitudinal trends when questionnaire items are replicated from one survey to another (Creswell, Chronister, and Brown, 1991). For example, the Carnegie Foundation has repeated items from one survey to the next so that comparisons can be made. Such replication has made it possible for researchers to examine trends from several surveys conducted at different times (e.g., Bentley and Blackburn, 1989). For example, in an invited address to the American Educational Research Association, Astin, (1981) compared Carnegie data (on tenure, workload, publications, and job satisfaction) from 1969, 1972, and 1980 for women in science. It should be noted, however, that to compare surveys over time requires weighting the data to estimate the total number of faculty in the years corresponding to the surveys (see Bentley, Blackburn, and Bieber, 1990, on weighting tables).

For higher education researchers, the surveys have provided national databases for secondary analysis (Creswell, Chronister, and Brown, 1991). For example, Clark (1987) relied heavily on the 1984 Carnegie Foundation for the Advancement of Teaching survey in his study of college professors. For campus institutional researchers, the surveys have provided normative information at minimal cost. National norms can prove useful for campus planning, academic program reviews, and salary comparisons.

Some of the drawbacks of these national surveys were noted by Creswell, Chronister, and Brown (1991) as well as other authors.

- The national surveys do not provide institution-specific information and present information typically aggregated by institutional type. This makes specific peer comparisons difficult.

- Definitional "shifts" in the items occur from survey to survey, limiting comparability across surveys and over time. For example, as mentioned by Drew and Tronvig (1988), the National Research Council asked respondents to indicate their "fields of study" while the National Science Foundation asked for "discipline" affiliation. Such subtle shifts in meaning render comparisons unreliable. Leslie and Fygetakis (1992) note how items purported to be measuring the same idea (i.e., asking faculty about retaining or abolishing tenure) were scaled in opposite directions in the 1989 Carnegie Survey and the NCES-NSOPF-88 survey.

- Some of the surveys are based on limited responses (e.g., 4-5,000 responses). For secondary researchers conducting analysis by partitioning the data set into smaller units, the responses in some categories became unreasonably small for analysis.

- The response rate is low for several surveys (e.g., 34 percent return rate for the Faculty Survey conducted by the Higher Education Research Institute (HERI) at UCLA, 55 percent for the Carnegie, 1989 Survey) introducing the question of potential response bias and unreliability of the data sets (Drew and Tronvig, 1988; Leslie and Fygetakis, 1992).

- Minimal documentation, such as a description of the database, a codebook for variables, and technical reports exists for some surveys (Drew and Tronvig, 1988). For example, documentation was not available publicly for the 1980 HERI survey, and sampling procedures were not fully described for the NCES NSOPF-88 Survey (Leslie and Fygetakis, 1992).

- Access to the databases also poses a problem. For instance, secondary researchers did not gain immediate access to the NSOPF-88 database because of issues purportedly related to confidentiality of the data. When access was initially available, it was limited to a "table generator" which does not allow more than selected cross-tabulations to be performed (Leslie and Fygetakis, 1992).

- Those who develop the surveys do not examine instrument validation and item reliabilities in the detail to be expected (Bentley, Blackburn, and Bieber, 1990; Leslie and Fygetakis, 1992).

- The items selected for the surveys seem to be arbitrary and not related to a theoretical or policy rationale (Leslie and Fygetakis, 1992). Drew and Tronvig (1988) felt that the national surveys included superficial indicators of background, environment, and performance and few questions about the barriers to performing effective research and the social and administrative environment for conducting faculty work. The federal agency studies exhibited excellent sampling but limited skeletal data; the academic studies employed limited samples and idiosyncratic foci.

Summary and Recommendations

Policy questions abound about faculty in postsecondary education. These question relate to demographics, workload, vitality and productivity, rewards and compensation, supply and demand, workplace and culture, and assessment. To respond to these questions, policy makers at the national, regional, state, institutional, and secondary research level need faculty data. These structural levels may differ in their needs in terms of the level of aggregation of the data, the timeliness of it, the appropriateness of standard definitions, the size and adequacy of the data set, and in the type of questions to which they must respond. In response to these needs, a multitude of databases are being collected. A sampling of these databases would indicate that institutions have multiple faculty databases about payroll, registration, personnel information, performance reviews, and IPEDS information. Regional and state agencies have data exchange information, survey data on special topics, and statewide faculty workload information.

National faculty surveys have been undertaken by private foundations, the National Center for Educational Statistics, and quasi-governmental agencies such as the National Research Council. At the national level, too, professional organizations have developed their own faculty databases. Although these national databases provide useful information, they have increasingly been the subject of concern over issues of the level of aggregation of the data, definitional shifts in the meaning of terms, limited samples, low return rates, minimal documentation, and access to the data by secondary researchers.

In view of these concerns, and the assessment of policy questions, current needs, and available databases, the following recommendations are advanced for future faculty collection and utilization.

Attention should be given at the national level to the suggestion by Drew and Tronvig (1988) who recommended that a national government survey should be conducted every four years. They recommended the national survey should combine standard demographics, traditional attitudinal items for longitudinal analysis, and items related to timely issues. This database should incorporate standard faculty terms and their definitions, be distributed to a large sample so that secondary researchers can conduct analysis.

The current NCES National Study of Postsecondary Faculty project addresses the need for quadrennial studies to develop major databases, and with the move to a sample of slightly in excess of 30,000 faculty, meets the need for large samples. But there is a need for the series to be truly quadrennial. The current 1993 survey is at a five year interval from the original 1988 survey. This delay of one year plus the approximately two years for conduct of the study, including report writing and federal review and approval for release of the data tape, raises questions about timeliness of the information. The development and maintenance of common definitions has been a goal of the study teams and the advisory committee for the NSOPF surveys. The committee should be assisted in this process as a result of the development of the NCES-sponsored, NCHEMS-developed *Handbook of Human Resources* mentioned previously. With the completion of the Handbook, one might hope that institutions and state agencies will adopt the common definitions in their own data gathering in order to permit and facilitate the comparison of institutional and state data with the national data on faculty that is derived from the national surveys.

Descriptive results from the national surveys should continue to be widely publicized, especially at national conferences and in leading journals and newspapers (e.g., *The Chronicle of Higher Education* "Fact File"). The descriptive reports should be available in the ERIC system for easy access by higher education personnel at all levels. In addition, the federal government should consider convening forums for discussing the strengths and weaknesses of national surveys that involve policy makers at the state and regional levels as well as secondary researchers.

At the regional and state levels, better coordination needs to exist among groups studying faculty issues. Brief summary reports need to be shared widely, and efforts made to coordinate

studies and their reports with the national level. Data archiving and multipurpose use of such data at the state level similar to the intent of the NSOPF studies at the national level should be encouraged. Studies need to be conducted about the types of data being collected, the needs for data for policy decisions, and the sharing of faculty data among regional groups and state organizations.

At the institution level, an office on campus should monitor national and regional reports and provide executive summaries from those reports to key administrative and faculty officials on campus (Baldwin and Blackburn, 1983). Campuses, too, need to continue to compile local data on key indicators of faculty issues, and share these with the higher education community at large. This data will be aggregated in different units of analysis from individual faculty information, to departmental and college profiles, and institutional profiles. Additional study needs to be made of the types of routine and non-routine data being collected on college campuses their use and reporting requirements, and their availability.

For those who study faculty issues, this analysis of issues, needs, and data sets raises challenging questions that have yet to be answered. For example, if standard definitions emerge, how will future data collected under the new definitions be compared with historical data collected under different definitions? As standard definitions emerge, thought needs to be given to the "bridge" between the old and new definitions. Also, how much variation should be allowed from standard definitions? Should faculty data be gathered that is more qualitative in nature, should faculty be studied in their "natural habitat" through case studies? Also, are the models of faculty activities rigorous enough? What is the most appropriate approach for grouping faculty by disciplines? And finally, how can research about faculty be best communicated to policy makers?

Recommendations applicable to all levels are: 1) recognize (as shown in table 1) that issues often differ by levels and this difference will influence the data needs, and 2) enhance better communication among all levels. This communication may be encouraged by national forums, the establishment of a national clearinghouse of information, or telecommunication networks such as a bulletin board or e-mail dialogue among policy makers and those who conduct research about faculty.

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Prospects for Integrating Research On Higher Education Faculty

Laura Saunders

The range of opinions expressed in these papers and at the forum suggest two things: there is a need to integrate research on faculty, but there is also no clearly evident, underlying basis that can bring all of the work together. The papers and ensuing discussion make it apparent how many different conceptual frameworks of research on faculty there are, and how varied are the views of the participants.

To integrate the present research on faculty, we must discover commonality among existing research streams and build bridges across them. The breadth of the forum's set of papers and remarks warns us that the task will not be easy. An analysis of the forum materials points to difficulties we may encounter when we attempt to integrate the body of research on faculty. What conditions must be satisfied, before independent research streams can be meaningfully combined? It may be argued that a meaningful integration is possible only when separate research traditions possess an underlying commonality. The metaphor that comes to mind is islands in the sea. To the eye, islands are separated, but if we could walk along the ocean's bottom we would see the deep seabed from which the islands rise and which connects them. Integration begins with a search for deep structures. However, it is useful to remember that we may have deep structures like an ocean floor, or we may have barges on an ocean, each going their own way, carrying their own cargo.

Some Research Does Fit Together

Our dilemma has something to teach us about the nature of the problem and of higher education policy research in general, and thus is worthy of consideration as an introduction to the contributions of these papers. We assume that existing research on faculty is "integratable" because we have borrowed a model from the physical sciences. The paradigm of the physical sciences leads us to believe there is a strict connection between the knowledge we gain from our research on a physical system and our capacity to manipulate the natural or human worlds. Solutions to problems in the physical science follow as surely as silicon engineering springs from solid state physics because both are not inventions of mind but discoveries about nature.

On the other hand, in hermeneutic fields such as those involved in determining meaning, problems, solutions and research present themselves as unrelated texts which do not coalesce into a practical means to manipulate social nature. Thus knowing the demographic statistics of our faculty may not help us defend against a charge that we discriminated against a group, just as knowing the law does not guarantee a lawyer will win his or her case.

Much of the research we are trying to combine can be treated as empirical and verifiable, and this research may be brought together under an encompassing umbrella. Survey results, for example, are empirical and can be melded, reduced to summary statistics, or manipulated by familiar technical procedures. Common definitions can be developed and an empirical core of

measurable knowledge can be brought together in a way in which meaningful similarities and differences can be discerned and discussed.

But not all of the research on faculty in higher education has this narrow character. Much of what we are interested in learning originates in mental states—motives, attitudes, sentiments, intentions, self-attributions—and can not be easily subjected to empirical analysis. In this last chapter, I consider each paper and the extent to which it addressed both the content and the structural dilemmas created by our identified task, to integrate the research on faculty as well as the research traditions.

The Hunt for Faculty "Essence"

The difficulties of integrating the research on faculty were well illustrated by Bensimon's paper. Bensimon applied tools from the theory of knowledge to the issue of faculty essence, and demonstrated that if by "essence" one means an identity that is socially constructed and known, there is no possibility that all faculty will have the same essence. The closer we look at faculty, the more differences predominate. Bensimon's argument should caution us that while any trait may be used to classify faculty (role, gender, ethnicity, seniority, discipline, etc.), the trait is at best a useful attribution and nothing more. A consequence of Bensimon's argument is that faculty may be collectively and individually unknowable in the sense that we can never settle on who and what they are for all times and all audiences.

A different approach to integrating research on faculty in higher education is to study how our present research fails to adequately map what really goes on in higher education and then correct these deficiencies. An ideal map has, in a general sense, a one-to-one correspondence with the topography it describes. Not every point on the original surface can be on the map, but if by some principle of reduction, general topographical features are preserved in their right relationship, the map will give viewers a coherent overview of the terrain the map represents. From Bensimon's paper we can ask, how fairly does higher education and institutional research represent the terrain of campus life to external audiences? Is it possible that our current map is not a fair representation? Imagine (those of you who work on campuses, and particularly, those of you in faculty roles) the entirety of everything you know about higher education and campus life. Does the research on faculty fairly map the terrain you are imagining? Or is it possible that we do not have a map at all, but only a few abstracted features that are easy to represent? A good cartographer mapping research on faculty in higher education might have to leave most of the map blank because it is terra incognito.

Turning to another of the papers, we find that the Lovell, Layzell, and Gill paper describes again some of the quantitative aspects of faculty within the traditional boundaries and in accord with much of the current policy analysis in this field. The research on faculty seems to concentrate on sameness measures rather than trying to wrestle with the questions of the nature and importance of the intellectual work that is being done. Layzell, et al., suggest that we respond to these issues by changing what faculty do and how they are described. Perhaps it is more important to change what the stakeholders believe about the nature of higher education.

Astin and Villalpando's paper is a respectable example of the "gold standard" in research on faculty. The research is hard to fault and it is hard not to say that this is what we ought to be discussing. Working from unstated, unquestioned normative underpinnings (faculty diversity is a good thing and colleges and universities must seek it), the paper provides straightforward guidance for those who wish to know how we are doing in the nation's effort to create a more diverse faculty. Astin and Villalpando give us trends, dynamics, and clues to what the future may be like. They document changes in gender and ethnic composition of faculty over two decades and attempt some modest predictions about future supply and demand for faculty based on present labor market dynamics.

Astin and Villalpando's and Bensimon's papers are exemplars of different research traditions. Bensimon draws us to the particular nuances of the context in which our action takes place and to the experiences of persons living in the context. Astin and Villalpando give us global summaries of how the status' of simple abstracted categories of persons change over time. Each are needed for different purposes.

Finkelstein's paper on faculty vitality may be seen as walking a middle line between the two research traditions and perhaps is an attempt to integrate them. Finkelstein bridges the two paradigms by moving back and forth between descriptions of documentable structural conditions that affect all members of a faculty cohort and interpreted responses of archetypal faculty persons to these common challenges. Finkelstein's cohort is the boom cohort that became faculty in the expanding educational system of the '60s and '70s. These faculty, now in mid-career, face very different structural conditions than their predecessors. The academic ethos is dominated by growing economic pressure on higher education and a resultant loss of opportunities for mobility, advancement, and professional growth. Finkelstein's central argument is that changing structural conditions have affected faculty performance. Mid-career faculty now are failing to grow professionally in ways that are required by organizational needs. The problem of loss of faculty vitality is couched here as the increasing divergence of organizational needs and faculty behaviors.

Robert Zemsky's paper takes us yet closer to the minds of faculty—and further from empirical research. Zemsky wrestles with the question of how faculty perceptions are shaped by higher education's new climate. Zemsky shows that faculty behavior is rational and explainable if we are cognizant of the pressures they are experiencing. Zemsky's paper begins with an account of charges that faculty have lost touch with reality, either by being unaware or dismissive of what is happening around them. Drawing from his own experiences as a faculty member and administrator, and upon his work with others, Zemsky suggests that faculty behavior is reasonable, given their environment. He suggests that studies indicating fragmentation and a lack of coherence in the undergraduate curriculum may be the result of the near-abolishment of formally-required courses. Humanities faculty, faced with market mechanisms to distribute resources, had no choice but to embrace stand alone courses that were popular with student audiences. Faculty found ways to retain students who could not be compelled to take their classes. Furthermore, the move to stand alone courses ended internecine fighting over what the core curriculum should be.

Running through Zemsky's paper is an important argument: faculty's puzzling behavior is the result of role constraints. Faculty compete for students, prestige, and research funding, under a set of ancient rules that are supposed to regulate the competition but which are maladapted to present realities. Higher education is an institution in which every valuable resource is limited. The expansion of faculty and the costs of supporting them outstripped capacity and willingness to pay. In response, faculty grew increasingly good at working the system, finding ways to maintain their own (individual, departmental, institutional) share. But the game is zero-sum; winners have to be increasingly aggressive, and as resources tighten, the rules of the game become very peculiar as faculty fight to keep playing and winning.

If there is a paper in this set that formally addresses the problem of integrating research on faculty, it is Chronister and Creswell's. Their paper begins by observing that most public concerns about higher education tie to faculty salaries, teaching loads, and the pressure on faculty to do research at the expense of undergraduate education. Chronister and Creswell argue that data from available research bases are unstandardized, and (taken as a whole) not powerfully useful for policy analysts and policy makers who attempt to respond to public concerns. The purpose of Chronister and Creswell's paper is to proceed sensibly from available data on faculty to types of data and databases needed to respond to policy issues (differentiated by user, degree of aggregation, and reporting requirements for particular audiences), and so establish criteria for a comprehensive and coordinated plan for integrating research on faculty everywhere. Chronister and Creswell cover a great deal of ground in their paper, but they do not sufficiently address the process of constructing future, more-integrated, faculty research data systems.

Bring Research Closer To Its Subject

Perhaps it is time to undertake something that begins with a broader view of what faculty are and what they do. This is one of the most important implications of the forum and its effort to integrate research on faculty. The first task is to construct a way to represent the highly abstract information that describes who faculty are and, more importantly, what they do. It is clear what some of this information is not: it is not the large quantitative data bases that describe faculty workload; it is more similar to the richly nuanced commentaries on academe distilled by Burton Clark in his work of some years ago. From this kind of descriptive information we could then begin to ask the questions that make sense to policy makers and institutional researchers alike. How do faculty in various fields work, what is their lifetime intellectual profile; and how can it be enriched and sustained? How do disciplinary differences bear on the transmission of knowledge?

In the discussion of the forum, one question is raised again and again: What do faculty do? One participant remarked that we may have to answer this question ethnographically. We may have to follow faculty around, because faculty, unlike other workers, are in the business of consciously reflecting upon and telling others what they do. Of course, it is not just a matter of seeing what faculty do, but understanding it. How is a research idea developed, how does a faculty member help a student come to understand historical truth? Thoughts of a faculty

member have to be evaluated in an intellectual context, not in the context of hours and minutes of time spent teaching. What I am arguing here is that the great body of existing research on faculty is needlessly narrow. What is missing is the intellectual content of faculty work. Certainly it is useful to integrate our present research in the sense of drawing together its disparate threads and assembling it into a body that can be queried easily by different audiences who wish to make use of it. But the present research is removed from what faculty actually do and how they think about themselves. It is unlikely that anyone who is asked to make 20 statements about oneself would begin with "I am .8 FTE." Faculty define themselves paramountly by referring to their intellectual work. Our failure to present this adequately in the aggregated data we collect, analyze and disseminate, undermines our efforts to understand, let alone defend, our institutions.

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