THE NATURE OF SCHOOL OF EDUCATION FACULTY WORK AND MATERIALS FOR PROMOTION AND TENURE AT A MAJOR RESEARCH UNIVERSITY

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Abstract

A critical issue facing university administrators and faculty, especially in professional schools, is the mismatch between promotion and tenure criteria and daily demands on faculty time. The purpose of this study was to investigate the relationships among institutional and personal expectations of faculty about the relative importance of teaching, research, and service activities as criteria for awarding faculty promotion and tenure in a School of Education, and its relationship to faculty work. By documenting the nature and extent of school of education faculty activities and products and relating them to institutional expectations and faculty members' own perspectives on the relative importance of the three roles of research, teaching and service, the nature and degree of mismatches were described, and a better foundation for more appropriate promotion and tenure guidelines could be developed.

Although individuals varied greatly, overall faculty reported spending 44.4% on teaching-related activities, 35.2% on research, and 20.3% service. They generally agreed that the promotion and tenure process weighted them as 25.6% teaching, 65.6% research, and 8.7% on service. Faculty recommended that these weightings be changed to 37.2% teaching, 49.3% research, and 13.5% service. These suggested changes still kept research as the most highly

rated, with teaching second, and service a distant third. Although the changes made teaching more important in promotion and tenure decisions, it still varied greatly how the school of education faculty spend their time.

It was recommended that professional schools review these relationships in their settings, and find ways to make promotion and tenure decisions more consistent with the work faculty carry out.

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Acceptance of this study is the culmination of a long journey. The experience of finally completing this study, and having it accepted by the faculty is especially rewarding. My entire professional career has been spent in some administrative capacity in support of the Academy. For the first time in my career I have completed something that is an integral part of the Academy.

As with any journey or experience that is worthwhile, the process has been rigorous, filled with challenges, and many times overwhelming. That is why the road to completion of this effort can never be traveled alone.

There have been a number of individuals who have supported me on this journey. First, there was my committee consisting of Drs. Nelson, Thomas, and Yeager, chaired by Dr. R. Tony Eichelberger. All of whom had a significant impact on ensuring the product I was producing was the very best it could be. All my committee made me feel that they took a personal interest in my accomplishing this goal.

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1. STATEMENT OF THE PROBLEM

1.1. Background

As higher education positions itself this millennium, a number of critical issues related to the core activity of the academy need to be confronted. Central to many of these issues is the clarification of the role and expected performance of faculty, particularly in professional schools such as education. In the 1990's there was renewed interest in accountability of higher education faculty who were being criticized for isolating themselves from the constituents they serve, being unproductive as scholars, and inefficient in the roles they assume. Numerous studies, reports, and books, such as those produced by the prestigious Carnegie Foundation for the Advancement of Teaching, citing pressures from various levels of government and mounting criticism from industry, have put pressure on leaders in the academy to adopt and implement rigorous productivity standards and align their standards with fair and equitable evaluation criteria for faculty research and scholarship.

Faced with this and other accountability challenges, university administrators actively initiated a new wave of long-range and strategic planning processes. Higher education institutions across the nation identified key faculty and administrators to aggressively pursue the difficult task of reviewing their missions and goals as they relate to both their internal organization and their external environment. Emphasis was placed on the identification of faculty roles and responsibilities within this structure that could be directly linked to measurable criteria that accurately document faculty productivity and efficiency (Creswell, 1985; Creamer,

1998). Developing evaluation criteria and operationalizing them has been and continues to be a challenging and complex process, especially within the context of a large research institution. One reason for the complexity is the variation and diversity among academic units within most large institutions.

Housed within a research university are a number of academic units, usually classified along two lines. One category comprises the traditional Schools or Colleges of Arts & Sciences and their related Faculty of Arts and Sciences. This category also brackets units associated with the "hard sciences" including the School of Medicine, Medical Center, and medically related professions, e.g., dentistry, pharmacy, rehabilitative sciences, etc. The second broad category encompasses the "professional schools." Schools of education, engineering, law, business, and social work are generally included in this category. In practice, expectations or perspectives of the nature and level of productivity of faculty differ across these two types of academic units. Evaluation criteria used by the university for promotion and tenure decisions, however, often do not reflect the inherent differences between the arts and sciences and professional schools.

Aligning *expectations for* and *productivity of* faculty with specific evaluation criteria for both School and University rewards is a serious issue in institutions of higher education. Solving the alignment problem is particularly difficult in large research universities where the roles and responsibilities of faculty in professional schools continue to be defined within a traditional "arts and sciences" framework, especially for promotion and tenure. The complexity of the alignment problem contributes many times to significant organizational changes within universities. These changes range from the closing of prestigious professional schools, such as the School of Education at the University of Chicago (<u>Chronicle of Higher Education</u>, 1997), to the downsizing of professional schools, such as the Schools of Education at the University of

Pittsburgh, and the University of Michigan or the merging of several professional schools into one unit, as was the case of the School of Human Services at the University of Minnesota in the early 1990's.

Faculty and administrators in professional schools, particularly education, are finding it difficult to determine appropriate expectations and evaluation criteria for the quality and productivity of their faculty. This is particularly problematic in large research universities where traditional values of research, scholarship, and service were originally developed for undergraduate arts and science colleges. The nature of a large portion of research in education, such as classroom research, often requires longitudinal studies or studies that yield complex qualitative data which may take extended periods of time to analyze and interpret. Consequently, the timelines expected for tenure and promotion in education may be significantly different than the timelines expected in the arts and sciences model.

Even though all university faculty have a primary focus on research and scholarship, a major focus of many faculty in Schools of Education is the use of this knowledge in service to local, regional, state, or national education agencies. These services, which tend to consume an inordinate amount of faculty time, often include conducting workshops and other forms of professional development for both teachers and administrators; facilitating strategic planning committees; teaming with teachers to align curriculum, instruction, and assessment with state or national standards; interpreting complex documents such as Individuals with Disabilities Education Act (IDEA) and Pennsylvania Chapter 4 Regulations: Standards-Based Education requirements; gathering and analyzing achievement data; planning and implementing reform; and guiding needs assessments. Faculty service efforts in the schools are carried out to improve

the planning, implementation and evaluation of activities and programs necessary for the academic success of students in those schools.

Although research universities value service to schools by education faculty, such services often do not positively influence judgments made about faculty during the promotion and tenure process. Given the emphasis on research and scholarly publications, faculty in units within research universities that devote their time and energies to publishing their work in traditional journals and books are generally rewarded by being granted promotion and tenure. Faculty that have either teaching and/or service as a priority, are often penalized during the reward process. This is especially evident in the promotion and tenure process. The interpretation of the criteria by all academic units within large research universities has become heavily weighted in the area of research and publication. The traditional research and publication emphasis by promotion and tenure committees across research universities is especially problematic in schools of education.

1.2. Statement of the Problem

As with any organization, a key element contributing to behavior, either positive or negative, is the reward structure. Within the University of Pittsburgh structure, the primary reward for faculty is manifested in the awarding of promotion and tenure.

Processes that currently exist to judge faculty productivity in schools of education housed in large research institutions may not reflect the schools' expectations for professional educators or perceptions of their faculty's role. Thus, many faculty who prioritize their work to meet the ever increasing demands of improving public education, and perform meritoriously in those duties, are not successful in the promotion and tenure review process. This may be due to the incongruous nature of their professional work and the criteria used to assess their productivity, or

to the unique and innovative ways they gain knowledge about education and disseminate it to others. There is little empirical data available in the literature to help us understand the actual nature of faculty work in Schools of Education, or how their work may be influenced by their perceptions of the relative importance of teaching, research, and service in university and school reward systems. This prompts the question: What are the relationships among institutional and personal expectations of faculty with regard to reward structures, the nature of faculty work, and criteria for rewarding them? The purpose of this study is to investigate this question in depth at a school of education in a large research university.

This information should inform higher education administrators about inconsistencies that exist, especially with traditional ways of documenting knowledge generation and dissemination, and imply changes that would be useful.

1.3. Context

The University of Pittsburgh of the Commonwealth System of Higher Education is a nonsectarian, coeducational, state related, public research University. The University is the most comprehensive educational complex in the tri-state area (Pennsylvania, Ohio, West Virginia) enrolling over 31,000 students and employing 9,600 faculty members, research associates, and staff. The University is a member of the Association of American Universities (AAU), an organization comprising 62 eminent doctorate-granting research institutions in the United States and Canada. The University has been a member of this group since 1974.

The University has five professional schools excluding its medical school and medicalrelated programs. They include the Katz Graduate School of Business, the Schools of Education, Engineering, Law, Social Work, and Information Sciences. The School of Education is the

oldest professional school within the University, established in 1910. It is also one of the largest in terms of number of students enrolled, number of faculty, and operating budget.

Over the last thirty years, the School of Education has been mandated to reorganize and restructure itself numerous times because of the increasing number of students served in the school, the complexity of the University, and changes in University and school administration. Currently, the school is being guided by an Academic Program Plan approved in the spring of 1998 by the Provost. Included in the plan is the school's newly articulated mission statement which reads --"The mission of the School of Education at the University of Pittsburgh is to create and disseminate knowledge that improves teaching and learning, and to develop and implement effective programs for the preparation of education professionals who will enhance both the practice and outcomes of education" (Academic Plan, 1998).

To operationalize this mission statement, the school developed eight strategies focused on creating not only a regional presence throughout Western Pennsylvania, but also a national and international presence. The first three strategies center on the South Western Pennsylvania region. They include:

S<u>trategy 1</u>. Prepare competent and reflective professionals for entry level careers in teaching, testing and measurements, and other professional educational specialties through offering post-baccalaureate degree and certification programs.

Strategy 2. Develop outstanding reflective practitioners and leaders in teaching, administration, teacher education, educational research, and other educational specialties through offering advanced degree programs, certification programs and professional development opportunities.

Strategy 3. Provide collaborative leadership and support to school districts and other educational agencies in the region and the Commonwealth.

The remaining five strategies center on helping the school accomplish its mission nationally and internationally. They include:

<u>Strategy 4</u>. Prepare graduate students for careers in which they will be reflective producers and consumers of educational research and scholarship.

<u>Strategy 5</u>. Generate and disseminate scholarly knowledge and innovative educational products to regional, national, and international educational scholars, practitioners, and policy professionals.

<u>Strategy 6</u>. Develop innovative, research-based models of a variety of educational practices that are suitable for regional, national, and international dissemination.

<u>Strategy 7</u>. Provide resources, training and educational programming support to the international community of educators.

<u>Strategy 8</u>. Collaborate in scholarly and programmatic endeavors with members of other academic and research units within the University of Pittsburgh in order to develop new educational theories, explanations, and innovative practices (Academic Plan, 1998).

A careful review of the School's mission statement and supporting strategies is illustrative of the paradox of evaluating faculty performance in a professional school. The mission statement and strategies were written by the faculty within the School and then approved by the faculty at large. The mission statement clearly indicates the importance of research in stating "create and disseminate knowledge". However the School's planning document, which outlines the eight strategies, goes much further in emphasizing the practical application of learning. The mission statement and strategies are a clear indication that the faculty see

themselves as more than "researchers." They view themselves as individuals who assume multiple roles that support the mission of the school and the education of children and adults. In addition, a cursory review of the School's promotion and tenure guidelines reflects a balanced research and teaching requirement for promotion and tenure. These guidelines appear to be aligned with the mission and strategies set forth in the School's planning document. The guidelines require excellence in teaching, research, and service. However, from past experience, implementation of the guidelines for promotion and tenure has resulted in inconsistencies between what is written and actual "practice" during the promotion and tenure review process. While the interpretation of those guidelines in actual practice does not appear to reflect or respect such a balance. The actual practice during the review process is much more in tune with the prevailing culture of the traditional "Arts and Science" model with a heavy emphasis on research, even though numerous education leaders are calling for more balance in all universities (Boyer, 1990; Bok, 1990).

1.4. Purpose of the Study

The purpose of the study is to identify activities and products of School of Education faculty consistent with their work responsibilities and views of their roles, in order to modify criteria used for rewarding faculty work. This was accomplished by identifying the nature of faculty professional work and delineating products for inclusion in guidelines for promotion and tenure to associate professor and from associate to full professor. Specifically, the present study focused on the following research questions:

- What are the nature and extent of specific activities in which School of Education faculty at different tenure levels engage in the areas of teaching, research, and service and the relative effort they expend on each of these activities?
- 2. How do School of Education faculty at different levels of tenure and productivity perceive the relative importance of teaching, research and service with respect to promotion and tenure?
- 3. What products do faculty rate as important for consideration of promotion with tenure to associate professor and promotion from associate to full professor?

1.5. Methodology

The research questions were investigated through an in-depth case study of the faculty in the School of Education at the University of Pittsburgh. The research questions were answered by studying the professional work and perceptions of faculty. The group studied was the current full time tenure stream faculty. All ranks were included in the study which included 22 full professors, 44 associate professors, and 12 assistant professors. One anonymous survey was administered. The survey asked faculty to define their activities and products and identify those activities that should be included in promotion/tenure guidelines from assistant to associate and associate to full professor.

- Objective 1. To document how faculty spend their time in terms of primary responsibilities of teaching, research, and service.
- Objective 2. To understand the relative importance faculty assign these activities in order to be granted tenure and promotion.

1.6. Significance of the Study

This study is designed to significantly impact not only the faculty and school of education, but also administrators responsible for schools of education. Its relevance to school of

education faculty and administrators could be a better alignment of the professional work of faculty and the reward system in terms of promotion and tenure.

Aligning the faculty work with the reward system would be beneficial to the school as a whole. Allowing the faculty workload to be more consistent with the reward system would enable schools to better accomplish its mission and objectives by more clearly identifying:

- 1. the extent of faculty activities in the areas of teaching, research and service.
- 2. specific knowledge creation activities school of education faculty carry out that do not result in traditional Arts and Science publications.
- mismatches between important activities carried out and promotion and tenure reward criteria.

2. **REVIEW OF LITERATURE**

The review of literature has two major foci. First, there is an extensive review of books and reports documenting the problem of defining faculty productivity on a national level. Care is taken to identify studies that highlight the problems associated with the relationship between teaching and research. Especially critical are those reports conducted at large research institutions.

The second major focus is a critical review of documentation of promotion and tenure related to the promotion and tenure process within the University of Pittsburgh. Critical to this analysis is a review of specific criteria used in the School of Education in comparison to standards set forth by the University incorporated in the Arts and Sciences promotion guidelines.

2.1. Nature of Faculty Work as Universities Have Changed

Boyer (1990) noted that "the colonial college was expected to educate and morally uplift the coming generation. Teaching was viewed as a vocation-a sacred calling, an art of dedication honored as fully as the ministry" (Boyer, 1990, p. 4). Theodore Beneditt, a noted historian, wrote "professors were hired not for their scholarly ability or achievement, but for their religious commitment. Scholarly achievement was not a high priority, either for professors or students" (Beneditt, 1990, p. 94). Lidstone, Hacker and Oien (1987) noted that teaching and service was the primary mission of our early institutions of higher learning. Historical examination reveals that most American colleges and universities were founded upon the principles of teaching and service. Teaching was the primary function of the college professor and service to mankind in order to help build an emerging nation was the fundamental mission of the institutions (p. 200).

An important date for the development of college research agendas was created by the Morrel Act of 1862, later called the Land Grant College Act. Boyer noted that "this historic

piece of legislation gave federal land to each state, with proceeds from sale of the land to support both education in the liberal arts and training and skills that ultimately would undergird the emerging agricultural and mechanical revolutions" (1990, p. 5).

The concept of academicians spreading knowledge that would improve agriculture and manufacturing soon developed into what we now call <u>Applied Research</u>. Applied research is often associated with the service components of faculty roles. In its simplest definition it is to apply knowledge to solve practical problems. Much of the research and scholarship of education faculty is classified as applied research.

Conversely, <u>Basic Research</u> can be described as a "commitment to knowledge for its own sake, to freedom of inquiry and to following, in a disciplined fashion, an investigation wherever it may lead" (Boyer, 1990 p. 17). <u>Basic Research</u> in this country can be traced to its beginnings outside of the college or university. Scholarly activity was conducted in the first years of this country by individuals, such as Thomas Jefferson, who were not associated with the academy (Boyer, 1990). It was not until the mid-nineteenth century that the academies, mainly located on the east coast, started to make the shift to scientific investigation and began the transformation to graduate and research institutions.

There were two other major influences which transformed the American University from one of teaching as its highest priority to research being the most respected activity. The first influence was that of the German University, who focused on research, especially at the graduate level. G. Stanley Hall, the first president of Clark University wrote, "The German University is today the freest spot on earth.....nowhere has the passion to push on to the frontier of human knowledge been so general" (Fallon, 1980 p.6-8). Boyer noted that Americans Tickor and Everett, who had studied in Europe, wanted to develop a similar research model here.

In the 1870's, the Ivy League Schools: University of PA, Harvard, Columbia and Princeton, followed the German research model and established Ph.D. programs. Of significant note, which identified research as paramount in the modern university, was the requirement set by William Rainey Harper, President of the University of Chicago, that "each appointee signed an agreement that his promotions in rank and salary would depend chiefly upon his research productivity" (Cowley, 1981, p. 8-10). By the end of the nineteenth century, the advancement of knowledge through research had taken root in American Higher Education. The colonial values, which emphasized teaching undergraduates, began to lose ground (Boyer, 1990 p. 9).

The second major event that influenced external public opinion in favor of universities having a strong research agenda was World War II. American involvement in the war created an urgent need for highly-trained scientific talent and knowledge production. Academics quickly responded and produced spectacular results. Rather than set up its own research facilities, the federal government's Office of Scientific Research and Development contracted with universities (as well as industry) to conduct the necessary research. After the war ended, these wartime arrangements were modified and institutionalized, as federal funds gave a tremendous boost to university research activities (Cowley & Williams, 1975, p. 183-190).

A report issued in a 1993 joint publication of the State Higher Education Executive Officers and the Education Commission of the States concluded that this influx of federal funds had a lasting impact on Higher Education, especially on faculty behavior. They concluded that the decision to utilize universities to conduct research continues to have a substantial impact on today's faculty productivity.

At that time after much debate, the federal government opted to award federal research grants to individual <u>faculty members</u> (i.e., principal investigators) rather than institutions. This approach pleased private institutions for their faculty could compete for

grants while circumventing possible legal challenges questioning the use of public dollars to assist private institutions (p. 10).

From the perspective of faculty productivity and workload, this decision had tremendous implications. It created powerful incentives for faculty to pursue grants and focus their primary attention on research. Henry reported, "By 1955 research was an acknowledged preoccupation of higher education" (p. 33). The productivity model for faculty had shifted from one of teaching to one of research. As with other faculty roles, service can be defined in different ways. In a report from the Ohio Legislative Office of Education Oversight (LOEO) released in 1993, service was defined in the following manner: "The expectation that faculty members are to provide 'service' could be interpreted as applying one's academic expertise to benefit the community outside the university" (p. 12). However, a survey done by the LOEO office concluded that service had a much broader application, to include service to the institution. This type of service included participation on internal committees, such as promotion and tenure, faculty senate, or even assigned tasks such as development of a new course.

Consulting is another service area that receives much attention. Consulting can be either paid or unpaid. Allard (1982) described consulting as "helping institutions fulfill their public service responsibilities and enhance faculty member's competence" (p. 55). Faculty assuming the role of consultant has become a growing concern for university

administrators. As Yuker (1984) explains,

Over the years, concern has been expressed that persons who engage in outside work may neglect their teaching duties, their students, or their institutional responsibilities. Faculty members have full-time jobs and, like executives, owe all of their time to the institution. Particular concern is apparent about persons who engage in private practice or paid consulting or with work for another organization (including another educational institution)...ethical problems can arise when faculty members use institution facilities while working on other than institutional business, particularly assignments for which they are paid (p. 54).

2.2. Roles of Arts/Science Faculty and School of Education Faculty

At the University of Pittsburgh, a major urban research university, the workload of a faculty member in the School of Education is viewed by the institution as similar to the workload of other faculty within the institution. The role of faculty includes teaching, research, and service, with particular emphasis on research and scholarship. Some of the similarities and differences between School of Education and Arts and Science faculty are discussed in each area, teaching, research, and service.

2.2.1. Teaching

The teaching component of faculty refers to all time spent on activities directly related to instruction. This includes preparation of courses, classroom instruction time, preparation for class, preparation for tests and assignments, grading tests and assignments, meeting with students in the classes, and other related activities. Within this teaching component, a number of differentiations can be made. Yuker reported in 1984 the following delineations for instruction.

- 1) Time spent in class this includes all time spent in the classroom during regularly scheduled hours as well as time spent in scheduled individual study courses.
- 2) Preparation time this refers to time spent in preparing lectures, demonstrations, laboratory experiments, course outlines, and reading tests, setting up laboratories or studios, and supervising course assistants.
- 3) Evaluation time this effort refers to time spent preparing and grading quizzes, tests, examinations, homework assignments, term papers, and other written work, as well as time spent writing evaluations of students. (Yuker, 1984, p. 29-35)

Lorents, in 1971, categorized instruction by distinguishing between group and individual instruction. He defined classroom instruction "as the type of traditional teaching that accounts

for most of the assigned teaching load of most faculty....grouped together in this category are lecture courses, seminars and laboratory sections that meet at regularly scheduled hours and involve interaction between a teacher and a group of students" (Yuker, 1984, p. 31).

Individual instruction, according to Yuker, is to include reading courses, independent study courses, research courses, honor courses, tutoring and supervision of thesis and dissertations (Yuker, 1984, p. 31). Unlike classroom instruction these alternative forms of instruction do not follow the traditional pattern of total hours per week or student credit hours. These types of courses characteristically involve an agreement between the faculty and student for the completion of a set amount of work without the same time limitations as those assigned to formal group classes.

Under the Arts and Science model, research agendas are established first, and then appropriate teaching loads are set. Faculty typically teach four (3-credit) courses per academic year. In a memo dated January 28, 1997 to his department chairs, Arts and Science Dean Peter Koehler, wrote, "As you finalize the teaching assignments of the faculty members in your department for the 1997-98 academic year, you should recognize explicitly that faculty members who do not maintain a high level of research productivity or involvement in graduate student supervision, must teach more sections than faculty members who maintain a high level of research productivity" (p. 2).

Conversely, the current teaching load for full-time faculty within the School of Education is mandated as five. As stated in School's policy approved June 25, 1997, "The normal teaching load policy for full-time faculty in the School of Education is five (3-credit) courses per academic year (two terms) (p.1). The key descriptor in this policy is the word "normal" to mean the basic load for all faculty within the school regardless of discipline.

Since the school's policy dictates a specific teaching load, a faculty member must "buy out" of a course or request released time to do research and officially reduce the teaching load. The school's official position on "buying out" of a course is in a policy statement approved by the school's executive committee – Fall, 1992.

Faculty can write into their grants funds that enable them to be released from 50% of their teaching responsibilities per trimester (generally one course) at the cost of 10% per course. If a faculty member desires more than 50% release, he/she must receive approval from the department chair who should notify the dean, indicating support and rationale for approval (p. 1).

The implication of this policy on the School of Education teaching load is that research must be funded before an exception can be made. A research program that does not have financial backing does not exclude a faculty member from a full five course load.

Another significant difference between faculty of Arts and Science and School of Education teaching workload is the number of graduate degrees produced by each school. At the graduate level, most educators in addition to completing required certification credits choose to complete master or doctoral degree requirements also. In the areas of higher education, counseling fields and educational administration, the norm is either a Ph.D. or an Ed.D. The amount of teaching, advisement, and mentoring required by large numbers of graduate students who are preparing for these fields, creates a teaching and supervision burden not associated with the limited number of Ph.D. students produced by their Arts/Science counterparts.

There are two other teaching roles that should be mentioned in discussing the differences between the Arts/Sciences and Education. The first is in mentoring or graduate advising. Because of the larger number of students per faculty member in the graduate programs in Education, the amount of time faculty spend in this role is significantly increased over their Arts and Science counterparts. Also unique to the teaching role in Education is the demand on faculty associated with student teaching or related field experiences for counselors and administrators. Teaching, administration, and counseling students are all required to have extensive practical experiences in schools. These must be supervised by University faculty, who must spend time observing and working with students on-site. These activities are both time consuming and labor intensive and reflect a tremendous commitment on the part of education faculty to work with these students in the field that is unknown to their Arts and Science counterparts.

2.2.2. Research

The research role includes all activities related to the production or application of knowledge in a particular field. Each faculty member is recognized as an expert in a specific area or field. For most faculty this expertise was developed through their past educational and work experience, which was focused in their doctoral study and dissertation research. Faculty members are expected to continue to develop their expertise and to contribute to their academic and professional field with or without external funding.

Faculty members are also expected to stay up to date in their field by reading relevant literature and attending annual conferences of their associations, and applying what they know to theoretical or practical issues or problems. The <u>University of Pittsburgh Faculty Handbook</u> indicates that faculty can take one day each week for consulting work. This consulting is expected to provide opportunities to apply their expertise in some relevant setting. The extent to which these activities are research or service is often difficult to classify – even by the faculty member.

How faculty document what they learn and communicate it to others so that society gains from it varies greatly by academic and professional fields. For example, Philosophy of Science

faculty publish in a few well-known refereed journals or write books in their area of specialty. Education faculty in teaching areas, such as reading, science, math, social studies, etc., also publish in specific refereed and non-refereed journals and write books. But, they also consult with school districts, state, and national agencies, carrying out research and other consulting activities that result in a number of different types of documents with various types of authorship. Some become authors of commercial science or reading texts that can result in high levels of remuneration. In the university culture, products that yield extensive income for a faculty member are, at least, suspect as meaningful contributions to knowledge. This leads to the fundamental issue in this study: which types of products are appropriate for documenting research quality and productivity of education faculty.

The major difference in research expectations between Arts and Science faculty and School of Education faculty is concerned with the norms of each particular discipline. Creswell commented "the norms of a discipline affect faculty research performance in two ways: by the degree of codification of knowledge (or stage of paradigm development) (Zuckerman & Merton, 1973) and by differences in the research activities, called the Social Activities of Discipline by Gaston (1978, p. 23).

Research on the codification of knowledge is attributed to Thomas Kuhn's 1970 development of paradigm structure in <u>The Structure of Scientific Revolutions</u>. His main conclusion was that fields of science are not uniformly developed. Creswell wrote, "Fields differ in their stage of paradigmatic development in the understanding of the accepted theory in the preferred methodologies; and in the understanding of the important areas to study." According to Lodahl and Gordan (1972), the paradigm "provides structure by suggesting which problems require investigation next, what methods are appropriate to their study, and even which findings

are indeed 'proven' (p. 58). These authors argue that disciplines are in different paradigmatic stages. Social Sciences (e.g., Political Science) are immature fields and are considered to be in the pre-paradigmatic stage, the physical sciences (e.g., Physics) are mature fields and in the paradigmatic stage" (p. 24). Educational Research, based primarily on the social sciences, would be classified in the pre-paradigmatic stage.

The paradigmatic stage of a discipline affects scholarly research of faculty (Lodahl & Gordan, 1972). Creswell contends that "it affects acceptance rates in Journals: in fields in which the acceptance rate are high (e.g., Physics), the degree of codification is high because individuals in the field agree on the important questions and appropriate methods to address them" (p. 24).

There have been numerous studies that lend validity to the paradigmatic stages of discipline theory. Some such studies have counted the number of publications by discipline as a method of illustrating a field or disciplines development (Biglan, 1973; Braxton & Hargens, 1996; Creamer, 1998). Creamer summarizes this research by saying:

Average levels of publication productivity vary widely between academic fields, as well as within subspecialties in the same disciplinary grouping. Disciplines with the highest average career publication rates are: cellular and molecular biology, physics, biochemistry, psychology, and chemistry. These might be characterized as high-consensus fields, or fields with high paradigmatic development...Academic fields with the higher percentages of faculty across institutional types, who publish 11 or more journal articles over the course of their careers include engineering, biological sciences and physical sciences. Health science faculty have the higher average number of career refereed journal articles (p. 10).

Paramount to this discussion is not only ease of publication by field or discipline but the rate of publication within each field. There are substantially different acceptance rates by discipline (Hargens, 1988, 1990; Ward & Grant, 1996; Creamer, 1998). Creamer found "in a study of 30 journals,

The average annual acceptance rates ranged from a low of 11 percent in two journals in political science and sociology to a high of more than 80 percent in several journals in chemistry. Also, there is a determination of an acceptance rate of 91 percent in a journal in the physical sciences, 59 percent in the biological sciences and 13 percent in the social sciences. The conclusion is that the disciplinary differences in the number of referees, associated with the amount of consensus in the field, influenced acceptance rates far more than the shortage of space in the journals. Acceptance rates are higher among journals in the high-consensus academic areas where there is a central research paradigm and where articles tend to be relatively short, such as chemistry (p. 11).

The conclusion that one can make in terms of a research distinction between Arts and Science faculty and Education faculty is that, in general, the Arts and Science Faculty have the edge in not only more developed paradigms with higher acceptance rates, but have the mechanisms in place to produce more research (i.e., more journal articles) than their education counterparts.

2.2.3. Service

Service for university faculty members is everything one does for one's program, department, school, university, community, and society that does not relate directly to either teaching or research. Each faculty member is expected to make contributions in each of these areas, but the extent of faculty contributions is highly variable. Some faculty work extensively within their program or department, and others make important contributions to the school. Others focus their service activities on university or community issues, and others become editors of journals or officers of their professional organizations – such as the American Educational Research Association or the University Council for Educational Administration.

The work of education faculty with local school districts, or other education institutions, is often difficult to classify, as their work is usually compensated by the district or an outside grant or contract. The experience usually results in increased knowledge that contributes to improved teaching and publications in some form. It is often classified as service because the money available rarely compensates a faculty member adequately for the time required by the work.

There is no area of a faculty role more distinct in terms of different expectations of Arts and Science faculty and School of Education faculty than with service. The key point being the constituents each faculty must serve. Arts and Science faculty have been charged with assisting in finding solutions to many of our societal problems. But the expectations to solve these problems working in the field cannot compare with the expectations of state legislators, school boards, and parents associated with Schools of Education "fixing" our school systems (Boyer, 1990; Legislative Oversight, 1992). Not only are there high expectations, but there is a long history of professional schools of education involvement with the schools. This commitment to the schools creates tremendous pressures on the service role of faculty.

2.2.4. Summary

What constitutes the major areas of responsibility for faculty have been discussed under the three areas of teaching, research, and service. Although there is broad agreement on this both within and across universities, their relative importance, the activities that fit within each category, and the indicators or documents that should be used to evaluate faculty-especially education and other professional school faculty-is not clear.

How faculty activities are classified in the three areas and how they relate to promotion and tenure at large research universities is delineated by describing the process as it functions at

the University of Pittsburgh. The specific indicators and documents utilized in the promotion and tenure review process are specified for Arts and Science and Education faculty. These provide detailed descriptions of the indicators and documents to demonstrate fundamental differences between Education and Arts and Science faculty in large research universities.

2.3. Reward Systems at a Major Research Institution

The major reward for faculty in both Arts and Sciences and Education is promotion and tenure. It also serves as the key motivator for faculty performance in both Arts and Sciences and Education.

2.3.1. Promotion and Tenure

In terms of accomplishment for faculty in both the Arts and Sciences and in Education, there is no significant award higher than the granting of tenure. Tenure signifies a major commitment by the University to give a faculty member an ongoing permanent appointment upon completion of certain criteria. This commitment not only provides employment security for the faculty member but involves protection of academic freedom. The LOEO Report entitled The Faculty Reward System in Public Universities (1993) noted that:

> Practice of granting tenure stems from university's desire to protect academic freedom—the search for knowledge and its free presentation. When academic freedom was first accepted as university policy...,its purpose was to protect the research and teaching of ideas which may have been unpopular at the time. Included in the concept of academic freedom is the responsibility to present material and viewpoints in a balanced way. The protection of academic freedom is considered fundamental to the advancement of knowledge through teaching and research, and to insure the rights of teachers and students (p. 6).

Faculty in both Arts and Sciences and Education are usually hired into tenure track positions at the assistant professor level. If awarded tenure, faculty usually receive a promotion to associate professor. Tenured faculty can also be promoted to full professor, which is the highest academic rank a faculty member can attain.

The process of reviewing a faculty member's work for promotion and tenure is similar in both Arts and Science and in Education. This process is somewhat standard for the rest of the University, and similar to that in other universities. Different units may have different timelines for the process.

Most universities allow a tenure stream faculty member a total of six years to develop the academic credentials needed for tenure. Traditionally this six year commitment by the University is divided into two three year contracts. Faculty members who are unable to make tenure during this period are given an additional optional one year contract. A new tenure stream faculty is initially given a three year contract. During his/her second year, he/she is reviewed. If the review is positive, then the faculty member is given a second three year contract, commencing after completion of those first three year contract. The faculty member has the option of asking for tenure at any time, but typically does it in the fifth or sixth year (i.e., year two or three of their second three-year contract). The one year contract is only used for those who were not awarded tenure at these times.

Arts and Sciences use a different variation. In their model, a tenure stream faculty is reviewed during the third year of the first three-year appointment, with an automatic one year extension. If the review is positive, the faculty member receives a second three-year appointment. The faculty member must request tenure in the fifth or sixth year, similar to the faculty member in Education.

The advantage of using the Arts and Science model over the School of Education model is that the faculty member has more time to develop a research agenda, (three years instead of
two years); thus allowing for a more in-depth evaluation by the department prior to the second three-year appointment. Typically, candidates for tenure and promotion in both Arts and Sciences and Education submit portfolios documenting their work in the areas of teaching, research, and service. This portfolio follows a number of steps in the review process.

Priest documented in 1993 the normal steps taken by a faculty member to apply for promotion and tenure (see Table 1). A review of the typical process involved in promotion and tenure reveals a number of noteworthy observations. First, all members of the review process in the first three levels of decision are faculty members who are not only familiar with the work of the individual faculty member but are familiar to some degree with the candidate's field. Candidates are always reviewed by faculty who hold ranks above them (i.e., full professors evaluate associate professors, and full professors and associate professors evaluate assistant professors.) As the decision process broadens from the department level, to the school level to the Provost level, the expertise with the candidate's given field, in most cases, decreases substantially. It is therefore probable that those making the decision on the candidate at the higher levels may review the criteria more on a quantitative basis rather than a qualitative basis.

Table 1. Typical Steps in the Faculty Review Process.

Step 1	Department level faculty committee reviews portfolio and votes to recommend candidate
Step 2	Department chairperson makes independent tenure or promotion recommendation decision
Step 3	College-level faculty committee reviews portfolio and votes whether to recommend candidate
Step 4	Dean of college makes independent recommendation decision
Step 5	Provost makes independent decision
Step 6	Board of Trustees give final approval

2.3.2. Criteria for Promotion and Tenure

A review of the criteria for promotion and tenure for both Arts and Sciences and the School of Education allow a number of observations to be made. First, the approval of the criteria documents is significant. The Arts and Science document was adopted on October 28, 1976, but was amended on numerous occasions, the last being April 1, 1998. The School of Education's document was approved on April 21, 1989, with no other amendments being noted.

These dates are important because they reflect some of the principles of promotion and tenure prevalent at those times in Higher Education. In the introduction of the School of Education's document, it refers to the principles and criteria set forth in the document as being heavily drawn from the guidelines developed by Dean Bernard Gifford at the University of California, Berkeley. This acknowledgment clearly indicates the school wishes to emulate the research model commonly known in Higher Education as the "Berkeley Model."

Of note in the Arts and Science document is the statement:

Tenure is awarded for demonstrated excellence together with the promise of continued excellence in scholarship, in <u>whatever form that scholarship takes</u>. Teaching and research (or creative activity), the two principal functions of the university, <u>are also the two principal forms of scholarship</u> (p. 6).

This operating philosophy, as viewing teaching as a form of scholarship, reflects the latest trend in faculty performance thinking, and can be attributed to the work of Ernest Boyer. Dr. Boyer is former head of the Carnegie Foundation for the Advancement of Teaching, and produced a report entitled <u>Scholarship Reconsidered</u>: <u>Priorities on the Professorate</u> (1997). In summary, the School of Education is operating on the more traditional research model as represented by the "Berkley Model" while the Arts and Science is operating under a more progressive model that is represented by Boyer's work.

In terms of specific teaching criteria for promotion and tenure, Table 2 is a summary for both Arts and Science and Education. The information in Table 2 documents similarities and differences in the ways that teaching is operationalized in the two schools.

A review of these criteria reveals a number of differences:

- (1) Under classroom instruction, education is very specific in requiring not only the number of courses taught but enrollments. These criteria are more relevant when reviewing faculty on a quantitative scale as opposed to reviewing course descriptions and student opinion, which are more qualitative in nature.
- (2) There is no direct evidence of advising required by Arts and Science as opposed to a very lengthy and detailed list of such activities for education. The listing of criteria, in addition to requiring data on both classes and enrollments is an indication of the school's commitment to fulfilling the educational needs of their graduate students.
- (3) There is no direct mention of involvement in professional training or instructional improvement in Arts and Science, while these are viewed as important indicators of a faculty member's contribution to the education community and to the School.

Fall 1999	Evidence			
Activity	School of Education	Arts and Sciences		
Classroom instruction	Number of courses taught and enrollment Colleague observations Opinions of students Course materials	Course materials -syllabi - course descriptions - reading list Student evaluations Self evaluation		
Advising	Number of advisees	None		
	Letters from advisees			
	Colleague comments			
	Number of advisees advanced to candidacy			
	Number of students completing			
	advanced degrees			
	Number of students supported on			
	research or training projects			
	Proportion of students' dissertations published			
	Prizes for dissertations of students			
	Opinions of advisees, current and former students			
	Employment setting of students			
Involvement in	Self reports	None		
Professional Training	Colleague observations			
Instructional	Self reports	None		
Improvement and	Course materials			
Innovation	Student opinions			
Collaborator observations				
	Instructional improvement grants			

Table 2. Criteria for Teaching in Arts and Sciences and Education.

In summary, based on the criteria put forth in the promotion and tenure documents for both units, one could conclude that education clearly delineates a much more detailed list of activities associated with teaching, both internal to the School and the broader education community, than Arts and Science. Because of this attention to detail for this activity, it may place a higher value, in terms of stated criteria, than their counterparts in Arts and Science, even though the broader arts and science statement about promotion and tenure implies greater weighting of teaching as an indicator of scholarship.

The criteria for research used by Arts and Science and education are summarized in Table 3. The specific types of evidence required by the two schools are listed for basic or applied research, and professional applications.

Although the School of Education is much more specific in identifying types of research productivity than Arts and Science, the nature and types of research productivity indicators are similar for basic and applied research. Where they differ is education's call for "Professional Applications" in fulfilling research expectations for faculty to attain promotion or be awarded tenure. Stated in the text of the School Promotion and Tenure Guidelines, "The activities and instances expand the forms of evidence that can be considered in the category of research and creative work beyond those of previous guidelines" (p. 7). The document further states that although these different kinds of evidence are acceptable, they must meet the standards of quality set forth by the promotion and tenure committee.

Neither the Arts and Science document nor the School of Education document requires much written evidence on service. Both indicate that a faculty member should document his/her activities in this area. After specifying the importance of service, the School of Education guidelines state that "service activities by themselves, however, despite their importance, cannot replace distinguished achievement in teaching and in research and other creative work" (p. 9). One could conclude from this statement that a faculty member requesting tenure should include evidence of activities in the area of service, but their value or significance in the overall evaluation is minimal. Another way to describe them is that they are necessary, but not sufficient evidence for promotion or tenure.

Table 3. Criteria for Research in Arts and Sciences and Education.

	Evidence	
Activities	School of Education	Arts and Science
Basic research or applied research	Articles published in refereed	Record of publications
	journals	Public demonstrations of
	Chapters published by invitation	achievement
	Published critical reviews of	-films
	books and monographs	-recitals
	Application for research grants	-plays directed
	Reports printed by sponsoring	Record of research grants
	agencies	Other awards
	Frequencies of citations	Reviews of published work-
	Judgment by external peers	members field
Professional applications	Articles published in journals or other periodicals for professional educators	None
	Reports issued by professional organizations, legislative bodies, government agencies, foundations or private firms	
	Invited addressees before such bodies	
	Judgments of professional educators	

In summary, major observations can be made of both the Arts and Science and Education criteria for promotion and tenure guidelines. Although the specifics for each document are different, the activities for gaining promotion and tenure have some general similarities, but large differences in specifics. Neither document provides specific weights for the stated criteria in terms of importance. With no stated value for any given criteria, one could conclude that the individuals making the evaluation will make their own weighted judgment for each given criteria, or that each individual must combine all the complex evidence into a single whole that predicts how a faculty member will contribute in the future. Keep in mind that, even though they serve different roles, the evaluation process itself is one of review by individuals with less and less direct knowledge of the candidates' expertise as a candidate is considered.

At the national level, a review of literature referencing the effectiveness of faculty reward systems is extensive. Much of the literature focuses on the overall problems with the system. The key conclusion being that the system of evaluation considering teaching, research, and service is not inherently wrong, but the emphasis on research over teaching and service has created an overall imbalance that should be addressed. This could be a reason for the latest change in the Arts and Science guidelines, and why the School of Education guidelines, which have not been changed, still emphasize research.

One such study initiated by the National Endowment for Humanities (NEH) in 1990 concluded that although 71% of faculty surveyed reported a preference for teaching, "the road to success -or even survival -in the academic world is through publishing" (p. 25). In a report conducted by the Legislative Office of Educational Oversight (LOEO) entitled <u>The Faculty</u> <u>Reward System in Public Universities</u> (July 1993), they reported,

Although Universities state that the three criteria....research, teaching, and service---are considered in rewarding faculty, the most weight tends to be given to research. This is true even at the institutions which report that they are teaching-oriented. Faculty tend to be promoted or granted tenure more readily as a result of their research than for any other activity (p. 11).

In 1997 the Sid W. Richardson Foundation issued a report entitled "<u>Restructuring the</u> <u>University Reward System</u>". This report was in response to what it perceived was a public outcry calling for change in the university reward system. As they state in the preface of their report,

A significant area of contemporary public interest involves how universities reward faculty with tenure, promotion, and merit pay. Practices which once were deemed effective and appropriate currently appear obsolete and less than adequate. Consequently, higher education is being challenged to be more accountable to societal needs (p. iii).

In order to determine the state of the reward system in universities today, the foundation conducted a survey. The survey results involved responses from 135 institutions of higher education, including responses from 100 provosts, 157 deans, and 546 faculty representatives from 51 different colleges.

The results of the survey were significant. Less that 33% of the provosts, deans, and faculty were happy with the current system of promotion and tenure and other faculty rewards. More than half the provosts favored a change in the current reward system and agreed that faculty desire a change. Fewer than half of the deans reported that faculty are satisfied and motivated by current reward systems. The survey also revealed that faculty felt they were under strong pressure to do research and publish in refereed journals to gain promotion and tenure.

Another significant finding of the Sid W. Richardson Foundation report was the current reward system:

...especially troublesome for colleges of education, health, agriculture, etc., where close collaboration between university faculty and the field is necessary. If reward structures in universities which focus mainly on research, particularly those which grant doctoral degrees, do not change, then it will be difficult to convince faculty members at these leading institutions to join in establishing cooperative undertakings and participating in related service activities (p. 10).

Another study conducted by Marchant and Newman (1991) directly targeted faculty evaluation and reward procedures for schools of education. They surveyed 245 schools/colleges of education with the following institutional characteristics:

- Institutions represented at the 1988 American Educational Research Association (AERA) meeting held in 1988. AERA is the largest professional education association.
- (2) Membership of the Holmes Group. Holmes Group was a national consortium of research universities committed to making programs of teacher preparation more rigorous. Ninety six American research universities formed the group in 1987. In 1996 they realigned themselves with schools and other professional organizations to create a strategic reform agenda for education for the 21st century.
- (3) Institutions listed by <u>U.S. News and World Report</u> (1989) as a top university in general.

Their main research question was, "what factors motivate faculty behavior?" They concluded that tenure had the greatest effect on faculty behavior. They also had an interesting observation concerning teaching.

For the short term decision of year-to-year contract renewal, educational administrators turn to evaluations of teaching ability. However, publication of books or articles held the top two spots in decisions concerning tenure, promotion, and merit pay. It was also interesting to note that in two out of the four faculty reward areas, refereed article was rated as more important than the publication of a book (p. 18). To paraphrase the conclusions drawn by the authors "Teaching pays the rent, but publishing pays the mortgage."

In a study conducted by James S. Fairweather (1993), he concluded that research productivity was the principal factor in achieving promotion, tenure, and salary increases. He collected data on more than 4,000 full time tenure track faculty in four-year colleges and universities. He analyzed the data in order to determine which element was the most important in contributing to base salary. His results indicated the dominance of a research-oriented faculty reward structure regardless of institutional type. He further reported that the same researchoriented reward structure was evident in different disciplines, and that teaching activities seldom were rewarded. In some cases, he noted that time spent teaching was negatively related to salary.

Robert M. Diamond and Brownwyn E. Adam (1997), of the Center for Instructional Development at Syracuse University, produced a report entitled <u>Changing Priorities at Research</u> <u>Universities, 1991-1996</u>, part of a larger study entitled <u>The National Study of Research</u> <u>Universities on the Balance Between Research and Undergraduate Teaching</u> (Gray, Froh, & Diamond, 1992). The focus of their report was to determine how faculty, department chairs, and academic deans perceived the balance and any changes in this balance over time between research and undergraduate teaching at their institutions. Forty-nine research and doctoral universities participated in the study funded by the Lilly Endowment. Their findings across the institutions were consistent. All those surveyed (faculty, chairs and deans) reported that there should be a balance between teaching and research but perceived a strong institutional emphasis on research. Of most significance, they reported that "each group perceived every other group as placing more importance on research than the group itself reported" (p. 2).

In 1996-97 under a grant from the Carnegie Foundation, eleven of the original forty-nine institutions were surveyed again. The findings in this latter study reflected a significant change in perceptions at these institutions. The following is a summary of their conclusions

• Priorities are changing at many research universities. There was stronger support by faculty, department chairs, and academic deans for a balance between teaching and research than there was five years ago. In four of the eleven institutions surveyed,

all three respondent groups perceived that teaching should be favored slightly over research.

- Many faculty, department chairs, deans, and administrators perceived that their institutions were placing greater importance on teaching than did respondents in the first survey. While two institutions had changed very little and one is perceived as moving even further in a research direction, the majority (eight) are perceived by respondents as placing greater emphasis on teaching than was reported five years ago. In six institutions, the shift in perceptions was pronounced and reported by all respondent groups.
- Personal priorities are also shifting. The percentage of faculty, department chairs, deans, and administrators reporting a strong personal emphasis on research declined in all but two of the participating institutions.
- As a group, faculty perceived other faculty, department chairs, deans, and administrators as placing less emphasis on research than they did five years ago. This pattern was seen in responses from department heads, deans, and administrators as well.
- While all groups perceived others as having moved closer to supporting a balance between teaching and research, the gap between where individuals reported themselves to be and how they were perceived by others remained constant.
- Criteria used in the selection of faculty and department chairs may be changing. Newly hired respondents on some campuses placed greater personal emphasis on teaching than did their peers in the earlier study.
- Disciplinary differences play an important role in determining the priorities and perceptions of faculty. In 1992, all disciplines reported that there needed to be a better balance between teaching and research. By 1996, faculty in the natural and social sciences perceived that the appropriate balance between teaching and research had been reached.
- In open-ended comments, respondents reported that while institutional rhetoric has changed, policies and practices for promotions and tenure and merit pay continue to reward research over undergraduate teaching.
- Respondents' comments further noted that resources such as space, materials, and equipment continue to be allocated disproportionately to support research activities on campus (p. 3).

As part of fulfilling a congressional mandate to assess the state of the Humanities, the

National Endowment for the Humanities (NEH) produced a report on educational practices gone

wrong and recommendations for setting them right. In this report entitled Tyrannical Machines

(1990), they reserved an entire chapter for addressing the research and teaching imbalance

problem. They consider this imbalance as one of the paramount problems in American

Education.

The report reiterates many of the same points as expressed in other reports. It expressed a unique view on the imbalance between research and teaching when they linked it to a financial complication.

When faculty members teach less, (because of increased time spent on research), there is a financial consequence. Because more people must be hired to teach, the costs of education escalate – and so does tuition. Between 1980-81 and 1989-90, average tuition charges rose an inflation-adjusted 50 percent at public universities, 66 percent at private universities, and 57 percent at other private schools. Although many of these costs can be driven by other factors, such as increases in administrative costs, a typical instructional budget included 40 percent expenditures for instruction; the decline in the amount of faculty time in the classroom has a substantial financial impact (p. 28).

Displeasure with the current system is not exclusive to governmental agencies, foundations, and other administrative bodies but from faculty themselves. Martin Anderson, a former White House policy advisor to President Nixon and Reagan, a professor at Columbia University's Graduate School of Business and now a senior fellow at the Hoover Institute, Stanford University, wrote a powerful book on many of the corrupt practices in universities entitled <u>Imposters in the Temple (1996)</u>.

One of the topics that Anderson addresses is this imbalance of research over

teaching. As he states:

If teaching – the raison d'etre for being a professor – has fallen into such disrepute among academic intellectuals, then what does command their affection? The answer is scholarship. Today the most important prize in the world of academic intellectuals is a scholarly reputation, recognition that one has made an important contribution to knowledge. The degrees and nuances of such recognition are many, but appreciation is largely confined to one's peers; rarely do scholarly reputations reach such

heights that the general public is aware of them. For most professors, the surest route to scholarly fame (and some fortune) is to publish in a distinguished academic journal in their field. Not books or treatises, for these are rare indeed, but short, densely packed articles of a dozen pages of so (p. 79).

Anderson not only gives his own assessment but also goes on to quote a number of

Higher Education leaders. For example, he quotes Derek Bok (1990), president of Harvard

University, who wrote in Universities and the Future of America,

Armed with the security of tenure and the time to study the world with care, professors would appear to have a unique opportunity to act as society's scouts to signal impending problems long before they are visible to others. Yet rarely have members of the academy succeeded in discovering emerging issues and bringing them vividly to the attention of the public (p. 105).

Anderson also includes comments given by Donald Kennedy, President of Stanford, who

in a speech in 1991 to his faculty had great concerns on the quality of scholarly research. He

called for,

Significant changes in the process of appointment and promotion, so as to decrease the pressure on the quantity (not quality) of research production.....We can agree that the quantitative use of research output as a criterion for appointment or promotion is a bankrupt idea. The over production of routine scholarship is one of the most egregious aspects of contemporary academic life (p. 15-16).

No review of literature on the imbalance of research and teaching would be complete

without referencing the work of Ernest Boyer, the then President of the Carnegie Foundation for

the Advancement of Teachers, in his report Scholarship Reconsidered: Priorities of the

Professoriate. The focus of his report centers on what it means to be a scholar, what it means to

be part of the professorate, and what functions they should be doing. In this report, he states that,

Today, on campuses across the nation, there is a recognition that the faculty reward system does not match the full range of academic functions and that professors are often caught between competing obligations (p. 1). ... The time has come, we believe, to step back and reflect on the variety of functions academics are expected to perform. It's time to ask how priorities of the professorate relate to the faculty reward system, as well as to the missions of American Higher Learning Institutions (p. 2).

Boyer questions the primary role of a faculty member being that of a researcher.

According to the dominant view, to be a scholar is to be a researcher – and publication is the primary yardstick by which scholarly productivity is measured. At the same time, evidence abounds that many professors feel ambivalent about their roles. This conflict of academic functions demoralizes the professorate, erodes the vitality of the institution, and cannot help but have a negative impact on students. Given these tensions what is the balance to be struck between teaching and research? Should some members of the professorate be thought of primarily as researchers and others as teachers? And how can those various dimensions of faculty work be more appropriately evaluated and rewarded (p. 3)?

Faculty themselves question the increased value of research in the evaluation process.

McShane and Douzenis (1987) reported in a paper given at an annual meeting of the Mid-South

Educational Research Association that while faculty approved of research and publication as a

method of evaluation, there was too much emphasis on it, at the detriment of students. Other

studies (Carnegie Foundation, 1989, Schuster & Wheeler, 1990, Watkins, 1990) concluded that

the pressure to publish affected the quality of teaching.

There are a number of theories and reasons why the current reward system has become

out of balance. LOEO (1993) identified three factors embedded in the process of granting

promotion and tenure to faculty at four-year institutions throughout the country: national

competition among universities for prestige, funds, students, and faculty; the difficulty in

assessing faculty work; and the accepted imbalance in the university culture.

<u>The first factor contributing to the imbalance is a national competition among universities</u> for prestige, funds, faculty, and students. LOEO noted:

The colleges and departments within universities compete for recognition within their academic disciplines....Increasing or maintaining an institutional prestige is perceived as high priority by over 75 percent of the faculty surveyed by UCLA's Higher Education Research Institute (p. 13).

There is a tendency for many four year institutions to emulate the nationally acclaimed institutions known for their research. The feeling being since research has brought these

institutions national attention, imitating a research emphasis will increase their probability for national exposure.

Related to this competition issue, are universities competing for federal, state, and

corporate research grants and contracts. These funds provide money necessary to pay faculty

and staff salaries, support students through graduate assistant positions, and provide indirect

costs for the university. Many institutions deem these funds essential for fiscal stability.

A third factor to be considered under the competition umbrella is competition for faculty.

The LOEO report states:

The national competition among universities drives them to value faculty members who focus on activities which will help the institution earn recognition. Doing research, not teaching or service, brings attention and prestige at the state and national levels. Therefore, universities compete for faculty who are noted researchers, and who can help with research grants from federal, and state governments and corporations (p. 14).

The last competition consideration is for students. All institutions, no matter what size or

stature, compete for students. The LOEO report states:

Institutions with faculty members known for their research or institutions known for their exceptional department or colleges, attracts more applicants particularly at the graduate level. The ability to choose among applicants increases the quality of students enrolled in a university, and thus adds to the overall prestige of the university (p. 14).

Overall the competition for prestige affects universities' goals for themselves and affects

their criteria for rewarding faculty. Research is viewed as having the largest impact in this area.

Therefore, if research brings in funding, faculty, and students in a national market place, then it

will overshadow the local impact of teaching and service in the universities' mission and reward

system.

The second major factor influencing the imbalance between research and teaching is the

difficulty of assessing faculty work. The evaluation of teaching is very difficult. Methods of

evaluation such as student evaluations, or peer review are easily dismissed. LOEO noted that "although all academic departments state they value a combination of research, teaching, and service, they find it difficult to assess these criteria equally" (p. 14). To summarize a number of writers on this topic, research activities which result in published articles are the most straightforward assessment tool when considering a tenure or promotion candidate's contribution.

Boyer confirmed this when he said,

One reason research and publication loom so large is that published articles are relatively easy to measure, at least quantitatively. There is, in most disciplines, a fairly clear hierarchy of journals and a recognized process of peer review. Books also are used for evaluation, although practice here varies from one discipline to another...At research universities, one must publish in particular journals. Quantitative studies are better than qualitative studies....What's important, regardless of field, is that research results must be published and peer reviewed (p. 29).

<u>The third factor generally accepted as a major imbalance between teaching and research is the</u> <u>culture of the university</u>. With all the pressures to do research both internal and external, universities have internalized this scheme into its culture. This culture continually perpetuates itself through the actions of both administrators and faculty.

LOEO noted that explicit and implicit expectations for faculty to do research and publish are conveyed by department, college, and university administrators. In a study, published in <u>Phi</u> <u>Delta Kappan</u>, entitled "Viewing the Now-Distant Past: How Faculty Members Feel When the Reward Structure Changes", Soder (May 1990) reported that deans of education colleges are partly responsible for promoting research because they desire to increase their status in eyes of colleagues in other disciplines. This creates a particularly ironic imbalance of research over teaching in the very discipline that focuses on education. The influence of research on faculty culture has a number of dimensions. First, tenured faculty members are instrumental in influencing campus policies on the reward system. They serve on department and college level committees that review credentials and make tenure and promotion recommendations. LOEO noted that even though faculty would prefer to give more consideration for teaching and service, these faculty members continue to emphasize research and publication when deciding who in their department will be awarded tenure or promoted.

A second dimension of this process is that research productivity has become the main criterion to enter the profession. In order to obtain a doctorate, students must demonstrate that they can do research. The rigorous standards normally demanded of students by faculty develops this research culture which is passed on to the next generation of faculty.

The consequences of this imbalance on universities, especially professional schools, are profound. In a report [Restructuring the University Reward System, 1990] produced by the Sid W. Richardson Foundation, deans of professional schools outlined a number of challenges faced by professional schools because of this system.

Similar to universities in general, professional schools or college are often dramatically impacted by current reward systems. Evaluation and reward systems in such programs are frequently a source of controversy and concern among faculty and administrators. As a result, professional programs are often faced with unique challenges of their own, such as: *A reward system that focuses on scholarly achievements independent of relationship to students as learners*. Too often, faculty activities and accomplishments of least value or importance to students' preparation for professional life receive the greatest attention.

A disparity between what is demanded at the institution and what is needed to educate and train professionals. The culture of an institution of higher education and the realities of life in professional settings are sometimes at opposite ends of the educational continuum. Effective reward systems must provide incentives for college instructors to familiarize themselves with, and address directly, the challenges of realworld settings, particularly in professional fields such as education, nursing, or agriculture. *Mechanisms for rewarding those who make significant contributions to collaborative, field-based efforts.* Development of site-based teacher education programs, for example, suggests that traditional faculty reward structures need to be rethought. Time and effort required to deliver effective site-based professional programs should be appropriately and equitably rewarded. Action research generated through collaborative efforts must be recognized as valid.

Failure to link individual professional performance to the success of program graduates. Faculty in professional programs should be evaluated and subsequently rewarded in part on the basis of the success of their respective students (p. 13).

Current reward systems generally do little to encourage innovative collaborative fieldbased professional preparation programs. In many cases, the opposite occurs, which contributes to the crisis.

Typical problems faced by faculty in professional schools include the following. Much of the applied work of education faculty is reported in documents that are developed for a specific school or school district, or in reports resulting from funded projects. Some of this work is often developed into publishable articles, but the issue is how the original work becomes recognized as a contribution to society and is integrated into the university culture and its reward system. For example, English faculty members are recognized for their writing of essays, poetry, and commercially-viable books, but similar creative products of education and other professional faculty are not generally recognized in the university culture.

An example of this is the work done by W. W. Cooley on the issue of educational vouchers in Pennsylvania. He and his staff used the database they had developed for the PA Educational Policy Studies Center (PEPS) to demonstrate that the present number of students in non-public schools would cost the state over \$350 million if vouchers were voted in. This report had a major impact on legislative decision making, but was not appropriate for publication, particularly in a refereed journal.

2.4. Promotion and Tenure Guidelines of Research Universities

A number of promotion and tenure documents were reviewed from other comparable research institutions of higher education. There were a number of consistencies among the documents to include:

- (1) In general, the language used in the documents was broad in nature, allowing the reader the freedom to interpret their guidelines and criteria in a manner consistent with the mores on the particular institution.
- (2) All the documents stated the need for achievement in the three broad categories, of teaching, research, and service.
- (3) All required specific evidence of research in terms of publication.
- (4) In terms of teaching, documentation for performance was much more varied and nonspecific.
- (5) Evidence of service was, in general, not well defined.

With that being said, it is worthwhile to present some of the different emphases from each of the documents. Although there are many different principles that various schools of education utilize in the tenure and promotion process, the base criteria of research, teaching, and service is common to all.

<u>Stanford</u>. A noticeable difference used in the criteria for promotion and tenure for both assistant to associate and associate to full professor is the requirement to list the qualifications of the external reviewers in both the sections entitled "New tenured appointments and non-tenured associate professor appointments", and "Promotion of faculty already holding tenure". They state "to aid those outside the discipline who review the recommendation, the search committees"

report should describe the stature and competence to judge the candidate's qualifications of all referees whose judgments have a significant bearing on the recommendation" (p. 21, 22).

<u>University of Nebraska-Lincoln</u>. The criteria for promotion and continuous appointment at this institution clearly specify that their teacher's college has adopted the "School-practitioner" model. As stated in their document "this means establishing a strong linkage between research and practice; integrating work in teaching, research, and service; and teaching students to become reflective professionals who can investigate on their own"(p. 3).

This theme is continued when stating their expectations for promotion to associate professor, "when the faculty member is considered for continuous appointment (tenure) vs. a faculty member in teaching courses a record of development with appropriate evaluative evidence must be in place that clearly demonstrates continuous growth and renewal as a scholar practitioner"(p. 8).

The language of school-practitioner is evident in the criteria for promotion from associate to full professor. Their first statement under characteristics of a full professor includes "sustained and consistent pattern of self growth and renewal that is recognized by her or his stature as a preeminent scholar-practitioner" (p. 9). They further state that the scholarly activity of the faculty member must be judged by reviewers as "being significant to the improvement of practice and/or to the expansion of the knowledge base" (p. 9).

<u>Teachers College Columbia University</u>. The areas of performance for promotion and tenure at Teachers College Columbia University outline the three broad areas to be given primary attention; "productive scholarship (research), teaching and assessment, and service to the college and the profession" (Sec 5, p. 26). What is unique about their review of faculty production in these areas is their view of how these three areas should be interrelated. As stated in the section entitled <u>III. Patterns and Quality of Performance</u> "while the three areas of performance may be isolated for purposes of analysis and data gathering, they are inseparable in the development of a faculty members career.....Hence, decisions with respect to reappointments, promotion and tenure, are based on an overall qualitative assessment of performance which takes into account these close interrelationships" (Sec. 5, p. 29).

<u>Pennsylvania State University</u>. Of all the promotion and tenure guidelines reviewed the College of Education at the Pennsylvania State University was the most nebulous. As stated in the introduction "the following bases for awarding promotion and tenure at the college level are offered with the recognition that these procedures and criteria will continue to require reasoned judgments in determining academic and professional merit. Although these are formal statements, they are insufficient for the entire task of making a judgment on a given candidate because of the variety of fields, goals, and orientations represented in the several programs and departments within the College" (Intro).

The guidelines then indicate that more specific guidelines than those presented in their school wide promotion and tenure guidelines can be found in departmental publications. The implication of this statement is that individual programs rather than the school have the responsibility to provide programmatic specific criteria for promotion and tenure.

2.4.1. Summary and Implications

In this paper the reasons that research and scholarship are highly valued in higher education – especially in large research universities – were delineated. Many see this emphasis as a problem because it decreases the value and emphasis on both faculty teaching and service. How this plays out in formal processes related to promotion and tenure decisions in both a school of education and a college of Arts and Science have been described.

It is important that research be carried out to further document the nature of the problems, if any, experienced by education faculty as they attempt to fulfill the roles expected of them in terms of teaching, research, and service. It would be informative to identify what these faculty members perceive as the university culture in terms of the relative importance of these three roles, and their own views of what is most important for education faculty to accomplish and the types of indicators of quality and productivity that can be used to evaluate education faculty members.

This could be accomplished in a case study of one school of education by surveying and interviewing faculty members who have been productive in traditional models of research and publication and others who have not. By relating faculty members' own perspectives on the relative importance of their three roles and the nature and extent of their activities and products, a better understanding of the variety of contributions made by education faculty can be delineated, and a better foundation for appropriate promotion and tenure guidelines can be developed.

3. METHODOLOGY

3.1. Introduction

The purpose of this study was to understand more fully the relationships among faculty work, faculty perceptions of both the relative importance of their work in teaching, research, and service, and appropriate criteria for reward promotion and tenure in schools of education housed within large research institutions. In order to shed light on these relationships, a case study of the University of Pittsburgh was conducted. Specifically, activities and products of the School of Education faculty consistent with their work responsibilities and views of their roles were identified. The ultimate aim of the study was to inform modification of criteria for rewarding faculty work across the three areas of teaching, research, and service.

In the process of accomplishing these goals, it must be noted that the complex relationships between detailing faculty work and the reward for such faculty productivity cannot be measured in terms of typical economic indicators. [I.e. standard economic indicators such as return on investment (ROI), outputs, demand and so on]. Defining faculty productivity within the context of a reward system is a difficult assignment. As Peter Drucker (1999) said in his book entitled Peter Drucker on the Profession of Management.

The single greatest challenge facing managers in the developed countries of the world is to raise the productivity of knowledge and service workers. This challenge, which will dominate the management agenda for the next several decades, will ultimately determine the competitive performance of companies. Even more important, it will determine the very fabric of society and the quality of life in every industrialized nation (p. 145).

A number of studies and books cited in the Review of Literature indicate there is a major problem nationally within the academy concerning a mismatch between faculty productivity in both Arts and Sciences and professional schools, such as schools of education, and the reward systems widely in use. When this issue was combined with other difficult issues regarding the development of appropriate reward systems, then the task became extremely difficult. An important premise of the study was defining faculty productivity with respect to the actual work that faculty engaged in and identifying their perceptions of how their work should be rewarded.

In order to address the complexity of this problem a "case study" methodology was used. The rationale for this decision was based on a generally accepted definition of a case study. L.

R. Gay (1996) defined it as:

The in-depth investigation of one "unit", e.g., individual, group, institution, organization, problem, document, and so forth. In order to achieve a more complete understanding of a case under study, the qualitative researcher may well utilize historical research methods, thus, while historical research may well be done for its own sake, it may also be used in conjunction, with say, participant observation in order to gain insights into how and with things came to be the way they are, i.e., to gain historical perspective (p. 219).

Utilizing a case study method enabled the researcher to address a number of the complex relationships underlying the research problem. The School of Education at the University of Pittsburgh was the subject of the case study for a number of reasons.

The problem of faculty productivity for a professional school within this context was relevant and had been identified as a problem particularly important for the School. Unlike their counterparts in the community college systems, or liberal arts colleges, the research component within large research universities is much more prominent.

Second, because of the experience of the researcher at both the School of Education and the University, it was a logical and convenient choice for the case study. The researcher was familiar with the setting and had access to the faculty who were central to the study. The

researcher's familiarity with the institution was an asset during the collection, analysis, and interpretation phases of the study, in answering the following research questions.

- (1) What are the nature and extent of specific activities in which School of Education faculty at different tenure levels engage in the areas of teaching, research, and service, and the relative effort they expend on those activities?
- (2) How do School of Education faculty at different levels of tenure and productivity perceive the relative importance of teaching, research and service with respect to promotion and tenure?
- (3) What products do faculty rate as important for consideration of promotion with tenure to associate professor and promotion from associate to full professor?

3.2. Population

The population for the study was limited to full time tenure stream faculty of the School of Education at the University of Pittsburgh in 2001-02. All ranks were included, 22 full professors, 44 associate professors, and 12 assistant professors. Only tenure stream faculty were included in the study because only this group of faculty was held to specific requirements for merit increases internally and were subject to University guidelines for promotion and tenure, externally. The School of Education required specific information and products they used to make promotion and tenure decisions within broad University guidelines. These were used as the major guide in the development of the survey instrument.

3.3. Method

In order to address the three research questions, data were collected and analyzed from a survey administered to the faculty. The survey instrument was developed over a four month period in 2002. It was critical in the development of the instrument met the following objectives:

- (1) The design of the questionnaire would allow faculty to easily identify how they spend their time in terms of teaching, research, and service.
- (2) The activities associated with teaching, research, and service needed to be measured in terms of faculty projecting hours per week spent on those activities.
- (3) The instruments had to provide for additional activities not included in the survey.
- (4) The instrument had to provide the faculty clear and concise questions concerning their perceptions of the promotion and tenure process.
- (5) The development of specific indices for teaching, research, and service in terms of their importance in the promotion and tenure process had to be included. It was important to again allow faculty the opportunity to add indices not included in the survey.

The instrument was beta-tested by utilizing the researcher's dissertation committee in late spring of 2002.

Since the survey involved human subjects, approval had to be granted by the University's Institutional Review Board. This approval process had to be completed prior to sending the survey to faculty. This process took considerable time in the spring of 2002 and was occurring while the instrument was being developed.

First, the IRB committee requested that the access to the faculty names be approved by the Dean of the School of Education. The Dean gave approval to the request on May 6, 2002 (see Appendix A). Second, because the University IRB had concerns with confidentiality, additional documentation had to be provided to the board (in the form of a cover letter which would be attached to the survey) clearly indicating that the participants should not write their names anywhere on the instrument so as to remain anonymous and the researcher stated

assurance of the confidentiality of their responses (see Appendix B). The University's IRB approved the instrument on April 17, 2002 (see Appendix C).

The instrument was mailed to all tenure stream faculty in late spring 2002. Responses from faculty were received over a month period in June 2002. A second survey was mailed in September 2002. Collection of all surveys was completed by the end of September 2002.

3.4. Data Analysis

The surveys were analyzed by the University of Pittsburgh, Office of Measurement and Evaluation. SPSS software package was utilized to process the data. The data were summarized by frequency and percentages. All data were delineated by faculty rank, i.e., assistant professor, associate professor, and full professor.

To answer the first research question "<u>What are the nature and extent of specific activities</u> <u>in which School of Education faculty at different tenure levels engage in the areas of teaching,</u> <u>research, and service, and the relative effort they expend on these activities</u>?" Five tables were developed. The tables summarized data for teaching, research, and service by activity utilizing mean hours by faculty rank; total all ranks, then by assistant, associate, and full professors.

Data for the second research question "<u>How do School of Education faculty at different</u> <u>levels of tenure and productivity perceive the relative importance of teaching, research and</u> <u>service with respect to promotion and tenure</u>?" were presented in four different tables. Percentages of time as reported by faculty, all ranks and assistant, associate, and full professors were analyzed by category (teaching, research, service) to determine current proportions of time spent by faculty and what faculty <u>perceived</u> of what those proportions of time should be spent.

Data supporting the third research question "<u>What products do faculty rate as important</u> for consideration of promotion with tenure to associate professor and promotion from associate

to full professor?" were compiled in eight separate tables. A rating scale of 1=not needed, 2=sometimes needed, 3=important, and 4=essential was used. Mean scores were calculated for each of the indices scored. The indices were again categorized by teaching, research, and service. The data were presented as a school total, and also by faculty rank (i.e. assistant professor, associate professor, full professor).

The discussion of the data included ranking of the indices from most important to those indices having perceived less value for promotion and tenure. Also analyzed was the difference in the value of the indices between faculty ranks.

4. **RESULTS**

4.1. Introduction

One of the most important decisions a School of Education makes is the awarding of tenure. For most faculty members it will be a multi-million dollar investment in by the institution. It is also the primary reward for faculty for their contributions. Current processes to judge faculty productivity in Schools of Education, especially those housed in large research institutions, may not reflect the school's expectations for professional educators. Many faculty who prioritize their work to meet the ever increasing demands of improving public education, and perform meritoriously in those duties, are not successful in the promotion and tenure review process. This may be due to the incongruity between their professional work and the criteria used to assess their productivity, or to the unique and innovative ways they gain knowledge about education and disseminate it to others. Little empirical data are available in the literature to help understand the nature of faculty work in Schools of Education, or how their work relates to the relative importance of teaching, research, and service in university and school reward systems. This prompts the question: "What are the relationships among institutional and personal expectations of faculty with regard to reward structure, the nature of faculty work, and criteria for rewarding them? The purpose of this study was to investigate this question in depth at a school of education in a large research university.

A questionnaire was distributed to all tenure stream faculty members to address the following specific questions addressed by this study.

- (1) What are the nature and extent of specific activities in which school of education faculty at different tenure levels engage in the areas of teaching, research, and service and the relative effort they expend on these activities?
- (2) How do school of education faculty at different levels of tenure and productivity perceive the relative importance of teaching, research and service with respect to promotion and tenure?
- (3) What products do faculty rate as important for consideration of promotion with tenure to associate professor and promotion from associate to full professor?

The population for the study was limited to full time tenure stream faculty of the School of Education at the University of Pittsburgh. All ranks were included with 11 of the 22 full professors responding, 22 of the 44 associate professors responding, and 4 of the 12 assistant professors responding. In this chapter, overall results are presented, along with results by faculty level (full, associate, and assistant). Summaries of results for each research question are provided in each section.

4.2. Time Spent on Teaching, Research, and Service

What are the nature and extent of specific activities in which school of education faculty at different tenure levels engage in the areas of teaching, research, and service, and the relative effort they expend on these activities? To answer this question, data from the questionnaire are summarized for all faculty and by academic level (professor, associate professor, and assistant professor.)

Overall, faculty reported an average of 56.7 hours of work-related activities per week. Teaching-related activities consumed the largest amount of faculty time, with faculty reporting an average of 25.2 hours or 44.4% of their time, 19.9 hours per week on average were spent on

research activity 35.3%, and 11.5 hours or 20.3% of their total time were spent on service related activities. More information regarding the amounts of time faculty spent on specific activities in each of the three areas, teaching, research, and service follows.

4.2.1. Teaching Activities

Teaching activities were divided into two major categories: activities directly related to instruction, and activities related to advisement or mentoring by directly working with students. <u>Instructional activities</u>. Faculty reported an average of 18.1 hours per week in direct instructional activities. Professors reported 18.6 hours, associate professors 16.9 hours and assistant professors 24.6 hours. Faculty reported time in the classroom on an average of 5.2 hours per week. Professors spent an average of 5.9 hours, associate professors reported 5.0 hours, and assistant professors reported 4.5 hours in teaching classes. Faculty prepared for class an average of 4.0 hours, followed by preparing course materials 3.2 hours, and review/correct student work an average of 2.6 hours. Assistant professors spent an average of 6.3 hours preparing for class, 6 hours preparing materials, 4.3 hours reviewing student work, and 2.5 hours meeting with students about class. Each of these was much more than other faculty (see Table 4).

It is interesting to note that assistant professors spent the most time on teaching related activities and professors were second. Assistant professors spent the majority of their time preparing for their class and preparing course materials, while associate and full professors spend the most time on actual classroom instruction. Even though assistant professors do not teach as many courses, due to reduced loads, they spent more time on teaching-related activities.

		hours/week			
Ins	Instructional Activities		Full	Assoc.	Ass't.
a.	total in classroom hours	5.2	5.9	5.0	4.5
b.	prepare for class session				
	(include reading, personal res., etc.)	4.0	3.7	3.8	6.3
c.	prepare course materials	3.2	2.6	3.1	6.0
d.	review/correct student work	2.6	3.3	2.0	4.3
e.	meet with students concerning class	1.8	1.9	1.6	2.5
f.	develop and grade exams	1.3	1.2	1.4	1.0
	Total	18.1	18.6	16.9	24.6

Table 4. Mean Hours Spent by School of Education Faculty at Different Levels on Instructional Activities.

Advisement and other direct work with students. Overall, faculty reported an average of 7.1 hours, or 12.5% of their time, on these activities. Assistant professors reported the highest number of hours at 7.8 hours, representing 11.8% of their total time. Associate professors reported an average of 7.3 hours, or 13.2% of their total time, while full professors spent an average of 7.0 hours on this activity, which was 11.1% of their total effort (see Table 5).

Faculty indicated that meeting with their advisees on career or academic issues was most frequent, with an average of 2.1 hours. Associate professors reported the most time with advisees with 2.3 hours, full professors were second with 2.1 hours and assistant professors recorded 1.6 hours. The second most frequent activity for faculty was meeting with their advisees on thesis or dissertation issues as committee chairperson. Overall, faculty reported spending 1.7 hours per week, or 2.9% of their time doing this activity. Associate professors reported spending 2.0 hours per week, in contrast to full professors who reported spending 1.7 hours, while assistant professors spent .3 an hour.

		hours/week*			k
Adv	visement and other work with	Avg.	Full	Assoc.	Ass't.
stuc	dents	-			
a.	meet with advisees on career or				
	academic issues	2.1	2.1	2.3	1.7
b.	meet with advisees on thesis or				
	dissertation as committee				
	chairperson	1.7	1.7	2.0	0.3
c.	Supervise graduate assistants/				
	Researchers	1.2	1.5	1.0	1.7
d.	work with students on thesis or				
	dissertation committees but not as				
	chair	1.1	1.2	1.0	1.8
e.	advise students who are not your				
	advisees on advising, academic,				
	or career	1.0	.60	1.1	2.3
	Total	7.1	7.1	7.3	7.8

Table 5. Mean Hours Spent by Different Levels of Faculty on Advisement and OtherDirect Work with Students.

*average for those reporting this activity.

per week. This is consistent with school practice of not allowing junior faculty to chair dissertation committees early in their careers. (A dissertation chairperson must be a member of the University's Graduate Faculty.) This is done to protect their time so they can focus on building a program of research and scholarship.

Noteworthy was the 2.3 hours assistant professors reported advising students who are not their advisees. Time spent on this activity by assistant professors is much higher than associate professors (1.1 hours) and full professors (.6 hours)

Summary of teaching activities. Overall, faculty reported spending 18.1 hours on instructional activities and 7.1 hours in advisement and other work with students for a total of 25.2 hours was over twice as much time spent on instruction than individual work with students. Associate and full professors spent most instruction-related time in class (5.0 and 5.9 hours), while assistant professors (who spent an average of 24.6 hours on teaching-related activities),

spent the most time preparing for their classes (6.3) and preparing class materials (6.0). Overall, faculty spent the second most time preparing for class, then preparing course materials and reviewing/correcting student work.

Of the 7.1 hours spent on advisement, associate and full professors spent the most time (2.3 and 2.1 hours, respectively) advising their advisees on academic or career issues. Assistant professors spent the most time working with students who were not their advisees (2.3 hours). The second most time-consuming activity for full and associate professors was meeting with advisees on thesis and dissertation issues (1.7 and 2.0 hours, respectively).

4.2.2. Research Activities

Faculty time spent on research was divided into funded research and personal scholarship activities. Overall, faculty spent 6.5 hours on funded research and 13.5 hours on personal scholarship. This is a total of 20 hours per week on research activities. Their time spent on specific research activities follows.

<u>Funded research activities.</u> There were large variations among ranks for these activities. Overall, assistant professors spent an average of 20.3 hours (or 31% of their total work effort) on funded research activities. Full professors reported 7.8 hours, or 12.2% of their time, and associate professors spent 4.2 hours, or 7.8% of their time on funded research activities (see Table 6).

Work on sponsored projects represented the largest research activity for the three faculty groups averaging 4.2 hours. Assistant professors reported a high of 15.3 hours, full professors averaged 4.5 hours and associate professors reported 2.6 hours on sponsored research projects. Developing proposals was the second most frequent funded.

	hours/week			
	Avg.	Full	Assoc.	Ass't
Funded research activities				
a. work on sponsored projects	4.2	4.5	2.6	15.3
b. develop proposals for				
funding	1.1	1.2	1.1	2.0
c. dissemination of results of				
sponsored projects	0.8	1.4	0.3	2.3
d. complete all required reports				
for sponsored projects	0.4	0.7	0.2	0.7
Total	6.5	7.8	4.2	20.3

Table 6. Mean Hours Spent by Different Levels of Faculty on Funded Research Activities.

research activity (1.1 hours). Faculty reported .8 hours for dissemination of results, and .4 hours per week for completing reports. Clearly, assistant professors focused a major part of each week on sponsored research activities, as well as on related activities. It is interesting to note that they spent only about 10% of their funded research time writing and disseminating results.

<u>Personal scholarship activities</u>. Overall, faculty reported that all personal scholarship averaged 13.5 hours, or 23.8% of their total time. Full professors spent an average of 20.1 hours (31.5% of their time) on personal scholarship activities, associate professors spent 11.3 hours (20.2% on time) on these activities, while surprisingly, assistant professors averaged only 9.3 hours on these important activities (14.2% of their time) (see Table 7).

Work on research/ scholarship activities ranked highest across all faculty on personal scholarship (3.2 hours). Noteworthy for this activity was the wide variation by rank. Full professors spent an average of 5.7 hours, associate professors 2.4 hours, and assistant professors reported an average of .7 hours per week. Preparing manuscripts for journals was rated as the second highest activity, with faculty reporting 3.0 hours. By rank, full professors reported an average of 5.3 hours, associate professors averaged 2.0 hours, and assistant professors averaged 2.3 hours.

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 Table 7. Mean Hours Spent by Different Levels of Faculty on Personal Scholarship Activities.

Reading books and journals ranked third by faculty with an overall average of 2.7 hours. The fourth rated activity related to personal scholarship was preparing manuscripts for books; the overall average was 1.5 hours per week. Full professors were engaged in this activity more than associate and assistant professors. They reported an average of 1.5 hours while associate and assistant professors reported .6 hours and .3 hours, respectively. Analyzing information and writing reports of research and scholarship ranked 5th in personal scholarship time spent by faculty (1.5 hours). Faculty reported their time on activities such as developing proposals for books and monographs consumed 1.1 hours and preparing monographs an average of .5 hours. Again, it is interesting to note that assistant professors spent the most time reading journals, books, etc. (3.7 hours), and preparing manuscripts for journals (2.3 hours). They spent very little time writing reports of their scholarship (.7 hours), preparing manuscripts for monographs (.7), or preparing manuscripts for books (.3 hours).

<u>Summary of research activities</u>. Faculty spent a total of 20 hours per week, or 35.2% of their time, on research and personal scholarship activities. Assistant professors spent the most
time on these activities, an average of 29.6 hours representing 45.0% of their total hours. In comparison, full professors spent 27.8 hours of their time, representing 43.9% of their effort, while associate professors spent the least amount of time, reporting 15.9 hours, or 28.1% of their total time.

Faculty time on research was divided into funded and personal scholarship activities. Of the 20 hours a week faculty reported spending 6.5 hours on research related activities, and 13.5 hours spent on personal scholarship. The range of funded research time was reported as high as 20.3 hours per week by assistant professors to a low of 4.2 hours reported by associate professors. On personal scholarship activities, time spent on these activities ranged from a high of 20.1 hours by full professors to a low of 9.3 hours reported by assistant professors.

4.2.3. Service

The amount of time faculty spent on service were divided into three categories: (1) institutional activities, (2) service to organizations outside the University, and (3) community/public service activities. Faculty only reported activities on the fist two categories. Overall, faculty averaged 11.5 hours, or 20.3% of their time, on service activities. Variations among ranks were significant. Associate professors averaged 15.6 hours, or 28% of their time, full professors reported an average of 9.8 hours, or 15.5% of their time, and assistant professors spent 3.5 hours, or 5.6% of their total faculty efforts on service (see Table 8).

			Hours	s/week	
1. Insti	tutional Service Activities	Avg	Full	Assoc.	Ass't
a.	Program service				
	1) Program chairperson/coordinator	1.8	1.5	2.3	0.0
	2) Program meetings, etc.	1.2	1.2	1.3	0.6
	3) Academic program committee	0.8	0.9	0.8	0.6
_	activities				
	Total program	3.8	3.6	4.3	1.2
b.	Department service				
	1) Administration	2.5	0.5	4.0	0.0
	2) Standing committee activity	0.7	0.7	0.9	0.0
	3) Ad hoc committee	0.4	0.5	0.3	0.3
	Total department	3.6	1.7	5.2	0.3
c.	School of Education service				
	1) Standing committee activity	0.7	0.9	0.8	0.0
	2) Administration	0.4	0.3	0.6	0.0
	3) Ad hoc committee	0.1	0.2	0.1	0.3
	Total school of education	1.2	1.4	1.5	.3
d.	University service				
	1) Standing committee activity	0.5	0.6	0.6	0.0
	2) Administration	0.0	0.0	0.1	0.0
	3) Ad hoc committee	0.0	0.0	0.0	0.0
	Total university	.5	.6	.7	.0
Tota	1 Institutional	9.1	7.3	11.7	1.8
2. Serv	ice to Organizations Outside the				
Univ	versity				
a.	Serve as a paid consultant	1.2	1.6	2.4	0.7
c.	Serve as a project coordinator	0.8	0.9	0.8	1.0
b.	Serve as a non-paid consultant	0.4	0.0	0.7	0.0
	Total outside	2.4	2.5	3.9	1.7
Tota	1 Service	11.5	9.8	15.6	3.5

Table 8. Mean Hours Spent by Different Levels of Faculty on Service Activities.

The largest amount of time faculty spent on service was by associate professors who function as department administrators. Overall, faculty averaged 2.5 hours per week on this activity. Associate professors averaged 4 hours per week, full professors .5 hours, and assistant professors spent no time on administrative duties for the department. This may be somewhat misleading due to the fact that all School of Education department chairpersons and associate

deans are all associate professors. The 4 hour average for associate professors was caused by a relatively few spending 20-30 hours per week on administration and others reporting an hour or less.

Time allocated to program service was relatively low, but consistent across faculty (3.8 hours). Faculty reported an average of 1.8 hours for program chairperson/coordinator. Associate professors reported an average of 2.3 hours, full professors 1.5 hours, and assistant professors 1.4 hours. Program meetings took an average of 1.2 hours. Associate professors reported 1.3 hours, full professors 1.2 hours, and assistant professors .7 hours attending program meetings weekly.

Significant service outside the University was reported by faculty in terms of a paid consultant (1.2 hours). Associate professors reported 2.4 hours, full professors 1.6 hours, and assistant professors .7 hours. Service as a project coordinator or unpaid consultant also averaged 1.2 hours per week. Professors spent .9 hours, associate professors 1.5 hours, and assistant professors 1 hour. Note here that some faculty indicated that service should not be part of their time reported for merit. Such activities may be viewed as part of their "free time", and they choose to provide these services personally.

4.2.4. Summary of Time Spent by Faculty on All Categories

Overall, faculty reported spending a weekly average of 56.7 hours on teaching, research and service. They averaged a total of 25.2 hours (44.4%) on all teaching activities (both instruction and advising). They spent another 20 hours or 35.2% of their efforts on research (both sponsored research and personal scholarship). They spent the least amount of time on service, reporting a weekly average of 11.5 hours accounting for 20.3% of their total effort. Table 9 is a summary of their activity by totals and by rank.

	Total		F	ull	Asso	ociate	Assistant	
	Hours	%	Hours	%	Hours	%	Hours	%
Teaching	25.2	44.4	25.7	40.5	24.2	44.0	32.4	49.3
Research	20.0	35.2	27.8	43.9	15.5	28.1	29.6	45.0
Service	11.5	20.3	9.8	15.5	15.3	27.8	3.6	5.6
Total	56.7	99.9	6.3	99.96	55.0	99.9	65.6	99.9

Table 9.Summary of Reported Time Spent By Faculty on All Categories of Teaching,Research and Service.

Full professors reported spending the most hours per week on teaching, research and service averaging 66.3 hours per week. They spent more time on research, 27.8 hours or 43.9% to their time, than teaching related activities, where they averaged 25.7 hours or 40.5% of their total effort. Full professors reported spending a total of 9.8 hours or 15.5% of their time on service.

Associate professors reported spending the least amount o f total hours (55.0) on teaching, research and service. They reported spending 24.2 hours or 44.0% of their time on teaching, while reporting spending almost equal time on research and service, 15.5 hours (28.1%) and 15.3 hours (27.8%) respectively.

Assistant professors reported 32.4 hours or 49.3% of their time on teaching. They reported an average of 7.2 hours more on teaching than the overall school average. Similarly, they reported spending a weekly average of 29.6 hours on research, which is 9.6 hours more than the school average. They spend the least amount of time, 3.6 hours or 5.6% of their effort on service activities.

4.3. Relative Importance of Teaching, Research and Service in Promotion and Tenure

<u>How do School of Education Faculty at different levels of tenure and productivity</u> perceive the relative importance of teaching, research, and service with respect to promotion and <u>tenure</u>? This question was analyzed by reviewing data from section 2 of the questionnaire. Data were analyzed overall and by academic level (i.e. assistant professor, associate professor, and full professor).

When asking faculty what they perceive as the relative contribution of teaching, research and service at present for promotion and tenure decisions, they responded that research productivity is the most important factor in promotion and tenure (65.5%) (see Table 10). Teaching had an over-all rating of 25.6% in terms of importance; while service was rated at 8.7%. The over-all ratings indicated a heavy concentration of research over teaching, a difference of 40%, which is a relatively high percent. The difference between teaching and service was16.9%

Table 10. Faculty Perceptions of Current Contributions of Teaching, Research and Serviceto Promotion and Tenure.

	Total	Full	Assoc	Ass't
Research	65.6%	66.3%	65.2%	65.3%
Teaching	25.6%	26.3%	25.2%	26.0%
Service	8.7%	7.2%	9.5%	8.3%
Total	99.9%	99.8%	99.9%	99.6%

A review of faculty perceptions of the relationships of teaching, research, and service by rank was not meaningfully different. Teaching was rated at 26.3% by full professors, 25.2% by associate professors and 26% by assistant professors. Emphasis on research again was consistent among ranks with full professors reporting 66.3%, associate professors 65.2% and assistant professors 65.3%. There was little difference across ranks in their rating of service. Full professors rated service at 7.2% while associate professors reported 9.5%. Assistant professors reported 8.3%, which ranked between full and associate professors.

Faculty perceptions of what the relative importance of teaching, research, and service should be for promotion and tenure were quite different than their perceptions of current practices, and varied widely by rank. Overall, teaching increased to 37.3%, and service to

13.5%, reducing research to 49.3%, (see Table 11). A review of data across ranks indicated that all faculty indicated a higher value should be given to teaching. Full professors weighted teaching at 34.5%, associate professors at 37.6%, and the four assistant professors at 45%. All three ranks agreed that research should be valued less for promotion and tenure than under the current system, but all three indicated it should still be the highest contribution (nearly 50%). Full professors reduced research to 55.4%, associate professors 47.1%, and assistant professors 41.6%. In terms of service, again, all three ranks agreed that the percentage should be increased. Full professors increased the service commitment to 13.4%, associate professors 15.4% and assistant professors 13.3%.

Table 11. Faculty Perceptions of Relative Contributions Teaching, Research, and ServiceShould Make to Promotion and Tenure.

	Total	Full	Assoc	Ass't
Research	49.3%	55.4%	47.1%	41.6%
Teaching	37.3%	34.5%	37.6%	45.0%
Service	13.4%	10.0%	15.3%	13.3%
Total	100.0%	99.9%	100.0	99.9%

4.3.1. Actual Versus Ideal Promotion and Tenure Criteria

Of importance was the comparison of the reported differences between "actual criteria and what criteria should be for teaching, research, and service" as they relate to promotion and tenure. Assistant professors reported the highest percentage change between "what is and what should be" for teaching and research. They indicated teaching should be assessed for promotion and tenure by an increase of 11.7% and service by 5% (see Table 12). They recorded that research productivity should be valued 23.7% less than it is presently for promotion and tenure. There is some concern that responses were obtained from only 4 (of 12) assistant professors and they were very different from other faculty.

 Table 12.
 Comparison of Perceived Relative Contribution with Ideal Criteria for

 Promotion and Tenure of Teaching, Research, and Service.

		Total			Full			Associate		Assistant		
	Present	Should	Δ	Present	Should	Δ	Present	Should	Δ	Present	Should	Δ
Research	65.6	49.3	-16.3	66.3	55.4	-10.9	65.2	47.2	-18.0	65.3	41.6	-23.7
Teaching	25.6	37.3	+11.7	26.3	34.5	+8.2	25.2	37.7	+12.5	26.0	45.0	+19.0
Service	8.7	13.5	+4.8	7.2	10.0	+2.8	9.5	15.4	+5.9	8.3	13.3	+5.0

All faculty levels indicated the need to place less value on research in the promotion and tenure process. All faculty ranks agreed that a larger percentage of teaching activity should be considered in the promotion and tenure process. The range of increase went from 19% reported by assistant professors to 8.2% by full professors. The value of service in terms of value in the promotion and tenure process also was increased. In this category, associate professors reported a 5.9% higher percentage of value of 15.4% to 5.0% higher for assistant professors (13.3%). Full professors reported the smallest value with a 2.8% change to 10%.

4.3.2. Time Spent and Ideal Promotion and Tenure Criteria

After reviewing the different amounts of time faculty reported spending in each of these areas, it was interesting to note the similarities to what they think should be the relative contribution of the three areas, both overall and by rank. Overall, faculty reported that they spent 44.4% of their time associated with teaching activities, 35.2% on research, and 20.3% on service. These compare with 37.3%, 49.2%, and 13.5% respectively for the three sets of activities of what should be considered for promotion and tenure decisions. Comparisons between ranks indicated similar differences (see Table 13).

		Total			Full			Assoc			Ass't	
	Time	Ideal	Δ	Time	Ideal	Δ	Time	Ideal	Δ	Time	Ideal	Δ
	Spent	Criteria		Spent	Criteria		Spent	Criteria		Spent	Criteria	
Teaching	44.4.	37.3	-7.1	40.5	34.5	-6.0	43.8	37.7	-6.1	49.3	45.0	-4.3
Research	35.2	49.3	+14.1	43.9	55.5	+11.6	28.1	47.2	+19.1	45.0	41.6	-3.4
Service	20.3	13.5	-6.8	15.5	10.0	-5.5	28.1	15.4	-12.7	5.6	13.3	+7.7

Table 13. Comparison of Actual Activity Spent by Faculty with Ideal Criteria forPromotion and Tenure.

Full professors reported that 40.5% of their time was spent on teaching-related activities, while they reported that teaching should be weighted 34.5%. Associate professors reported that they spent a total of 43.8% of their time on instruction, while indicating it should be weighted 37.7%. Assistant professors reported the largest amount of time on instruction at 49.3% and indicated that it should be weighted 45.0% for promotion and tenure decisions.

There were substantial differences in the relative amount of time faculty spent on research activities and the contribution that research should be used in reference to promotion and tenure. Overall, faculty reported spending 35.2% of their time on research activity, compared to 49.3% that they felt should contribute to promotion and tenure decisions. A 14.1% difference between the two was reported for research activity.

The different ranks varied in how they spent their time, and the relative contribution they recommended for promotion and tenure decisions. Full professors, who reported that they spent 43.9% of their time on research, recommended that research should contribute 55.5%, a difference of 11.6%. Associate professors reported the largest difference. While reporting that they spent a total of 28.1% of their time on research activity, they indicated that research should contribute 47.2% to promotion and tenure decisions, a difference of 19.1%. Assistant professors data reversed this trend. They reported spending 45.0% of the time on research activity, while reporting that this type of activity should contribute only 41.6% to promotion and tenure decisions, a -3.4% difference compared to faculty in other ranks.

Most faculty reported doing much more service than it presently counts in promotion and tenure decisions and its relative contribution in an ideal process. Only a few assistant professors reported doing less service (5.6%) than they recommended for promotion and tenure decisions (13.3%). Overall, faculty reported spending 20.3% of their time on service, but recommended that it contribute13.5% to promotion and tenure decisions.

4.3.3. Summary of Faculty Perceptions Related to the Relative Contributions of Teaching, Research, and Service in the Promotion and Tenure Process

When faculty responded to questions ranking the importance of teaching, research, and service in the promotion and tenure decision making process with what these categories should be valued, substantial differences were reported. There was agreement by all ranks that teaching should be weighted more (25.6% to 37.3%) in the promotion and tenure process, but still less than research (49.3%). Conversely, faculty indicated that research should play a smaller role in the promotion and tenure process (65.6% to 49.3%). Faculty also indicated that the value of service should be increased in the promotion and tenure process; however, to a lesser degree than the increases noted for teaching (8.7% to 13.5%). The order of importance among the three faculty roles did not change with research first (49.3%), teaching second (37.3%), and service third (13.5%). They indicated a need to decrease the weighting for research from nearly 2/3 of the weighting to approximately half the weighting for a promotion and tenure decision. This reaffirms faculty recognition of their primary role in producing and disseminating knowledge in their area of expertise. Faculty indicated that both teaching and service should make a greater contribution to promotion and tenure decisions.

The changes in faculty weightings turned out to more closely reflect the ways they spent their time on teaching, research, and service. All faculty ranks reported that they spent more time on teaching activities than what they recommended as a weighting for promotion and

tenure. This indicates a fundamental mismatch between the ways faculty spent their time, and the criteria that are used to make promotion and tenure decisions. This issue is discussed in Chapter 5.

4.4. Importance of Indices for Teaching, Research, and Service

What products do faculty rate as important for consideration of promotion with tenure to associate professor and promotion from associate to full professor? Data were reviewed collectively [summarizing all levels of faculty, and by individual rank (i.e., full, associate and assistant professors)]. Data were compiled by calculating the mean for each indices based on the following ratings: 4 for essential, 3 for indices important but not essential, 2 for indices sometimes needed, and a rating of 1 for indices or material not needed.

4.4.1. Importance of Teaching Indices for Promotion and Tenure

Overall faculty rated student evaluations of courses with a mean of 3.26 the most important teaching index related to promotion and tenure (P&T). Both specific courses taught and materials (syllabus, handouts, etc.) were scored at 3.06. Peer review of teaching, with a mean of 2.74, was rated 3^{rd} overall in importance for P&T (see Table 14).

 Table 14.
 Ratings of Instructional Indices for Promotion and Tenure by Faculty Rank.

Instructional Indices	Avg.	Full	Associate	Assistant
Student evaluation of courses (OET)	3.26*	3.09	3.43	2.67
Specific courses taught and				
enrollment	3.06	3.36	2.90	3.00
Materials(syllabus, handout, etc.)	3.06	3.36	3.10	1.67
Peer review of teaching	2.74	3.09	2.67	2.00
Average	3.03	3.22	3.02	2.33

*1=not needed, 2=sometimes needed, 3=important, 4=essential

Responses differed among ranks. Full professors rated specific courses taught and materials the highest in terms of contribution toward promotion and tenure with a mean score of 3.36. They also valued peer review and student evaluations high with a mean of 3.09. Full professors valued all four of these activities higher than the overall highest score of 3.03 for all faculty. Associate professors with a mean score of 3.43 ranked peer review of teaching as the most important teaching activity related to promotion and tenure. This was the highest mean score reported for any activity at any faculty level. Associate professors rated materials with a score of 3.10 as second most important activity. Specific courses taught rated third overall with a mean of 2.90, while peer review of teaching was least valued at a mean of 2.67.

Assistant professors viewed these activities in relation to promotion and tenure very differently. They rated teaching specific courses with a 3.00 rating. This mean of 3.00, which represented their highest value activity, was lower in comparison with the highest rating for an activity of the full professors at 3.36 and associate professors at 3.43. Their rating for the other activities related to teaching in comparison to full professors and associate professors were also low. They had a mean rating for student evaluation of teaching at 2.67. While rating both peer review of teaching at 2.00 and valued course materials even less with a 1.67 value.

Overall full professors rated teaching and advising contributions for promotion and tenure the highest with scores of 3.21. Associate professors ranked these activities with an overall score of 3.02. Assistant professors valued these activities substantially less with an overall score of 2.33.

Importance of advising indices for promotion and tenure.

Overall faculty rated letters from advisees, with a mean score of 2.91, the most important advising index for making promotion and tenure decisions. The number of advisees and the

number of advisees advanced to candidacy was rated second highest among faculty with a mean score of 2.89 (see Table 15).

Overall, faculty considered number of advisees completing advanced degrees and opinions of current and former students with mean scores of 2.77 the third most important advising activity related to promotion and tenure decisions. Overall, faculty considered the number of students supported on their research or training grants the least important index with a score of 2.69.

 Table 15. Ratings of Advisee-Related Indices as Important to Promotion and Tenure by Rank.

	Total	Full	Associate	Assistant
Letters from advisees	2.91	3.00	2.90	2.67
Number of advisees advanced to				
candidacy	2.89	2.82	3.00	2.33
Number of advisees	2.89	2.73	3.05	2.33
Opinions of current and former				
students	2.77	3.00	2.62	3.00
Number of advisees completing				
advanced degree	2.77	2.82	2.90	1.67
Number of advises on research and				
training grants	2.69	2.73	2.70	2.33
Average Rating	2.82	2.85	2.86	2.38

As with instructional activities, there were notable differences in the importance of advising indices by academic rank. Full professors considered letters from advisees and opinions of current and former students as most important with a mean score of 3.00. They rated number of advisees who advanced to candidacy and number of advisees completing advanced degrees second with a mean score of 2.82. Number of advisees and number of students on research and training projects were rated third with a mean score of 2.73.

Associate professors considered the total number of advisees as most important with a mean score of 3.05. They considered the number of advisees who advanced to candidacy second

with a score of 3.00. Letters from advisees and number of advisees completing their degrees were rated a close third with a mean score of 2.90. Associate professors rated number of students on research and training projects fourth with a score of 2.70. They considered opinions of current and former students with a mean score of 2.62 as a "sometimes needed" index. Their rating on this index was nearly opposite of full professors and assistant professors who rated this index as most important with a mean rating of 3.00.

Assistant professors' perceptions of the importance of advising activities as they related to the promotion and tenure process were different than full professors and associate professors. As previously stated, they rated (along with full professors) opinions of current and former students as most critical. They considered letters from advisees as the second most important index, but only rated this activity with a 2.67 score. All other indices were rated lower. They considered number of advisees, number of advisees who advance to candidacy, and number of students supported on research and training projects, third most important, but with a relatively low score of 2.33 (sometimes needed). They considered number of advisees completing their degrees lowest with a mean score of 1.67 (not needed to sometimes needed).

Overall, full professor and associate professor ratings of indices concerning advising students as indices for promotion and tenure were similar, with ratings of 2.85 for full professors and 2.86 for associate professors. These scores were less than their overall rating for instructional activities. Full professors overall rating of teaching activities was 3.21 and associate professor rating of 3.02. Assistant professors overall rating of advisee indices was much lower with an overall rating of 2.38. This rating was consistent with their overall ratings of teaching indices of 2.33. In the next section, indices of professional training or education activities faculty carry out are discussed as a part of their teaching responsibilities.

Importance of involvement in professional training/education indices as related to promotion and tenure. Overall faculty ratings of these indices were low in comparison to other teaching indices. Faculty, overall, rated self reports or evaluation by participants and training materials as the two most important indices with mean scores of 2.49 and 2.47, respectively (between sometimes needed and important). Colleague observations were rated third with a 2.34 mean score (see Table 16). The highest rated index by full professors was training materials with a rating of 2.55. They rated colleague observations second with a mean score of 2.36, and self reports third with a score of 2.27 as indices rated low in terms of promotion and tenure decisions.

 Table 16.
 Ratings of Importance of Involvement in Professional Training/Education

 Indices for Promotion and Tenure by Faculty Level.

	Avg.	Full	Associate	Assistant
Self reports or evaluation by				
participants	2.49*	2.27	2.52	3.00
Training materials	2.47	2.55	2.40	2.67
Colleague observations	2.34	2.36	2.33	2.30
Average	2.43	2.39	2.41	2.65

*1=Not needed, 2-Sometimes needed, 3=Important, 4=Essential

Associate professors considered self reports or evaluation by participants with a score of 2.52 the most important professional training index for promotion and tenure. They found lower values in training materials mean score of 2.40 and colleague observations with a mean score of 2.33.

Assistant professors reported the highest index score of 3.00 (Important) for self reports or evaluation by participants. In comparison with their full and associate professor counterparts, they rated training materials less important with a 2.67 score. They rated colleague observations third with a low score of 2.3 which were similar to the scores of full professors at 2.36 and associate professors of 2.33.

Overall scores for full professors and associate professors, 2.39 and 2.41, respectively were similar to their ratings for involvement in professional training/education. Assistant professors scored these indices somewhat higher with a score of 2.65. Full professors valued much lower indices involved in professional training, with an overall score of 2.39, than they valued indices for advisees (2.85) and teaching (3.21). Associate professors were consistent with full professors valued professional training activity low 2.41 in comparison with advising (2.86). Assistant professors valued their involvement in professional training as more important 2.65 than their involvement with advising (mean score of 2.38) or teaching (2.33).

4.4.2. Importance of Research Indices for Promotion and Tenure

Importance of publications and other writing indices as related to promotion and tenure.

As in the traditional arts and science model, faculty rated published articles in referred journals as the most important index in the promotion and tenure process. Overall faculty rated articles published in refereed journals/books with a mean score of 3.49 as the single most important index related to promotion and tenure. Second most important overall index in the promotion and tenure process related to publications and writings were the judgment of external reviewers unknown to them with a mean score of 3.29. Multiple authored publications, with a rating of 3.23, was rated third overall by the faculty (see Table 17). Faculty ranked judgments by internal reviewers selected by the department with a score of 3.17 as the fourth most important index. Book authors/co-authors was a close fifth with a score of 3.11. Chapters in books (3.09), single authored publications (3.06), judgments by external reviewers known to the faculty (3.03) and judgments by internal reviewers known to the faculty (3.0) and frequency of citation (2.97) were

ranked next in importance. Of less value in rank order to the faculty overall, were honors or

awards for research/scholarship (2.83), published critiques or books and monographs (2.56) and

reports for funding sources (2.53).

Table 17.	Ratings	of	Importance	of	Publications	and	Other	Writings	Indices	for
Promotion an	nd Tenure	by	Faculty Leve	el.						

Indices	Avg.	Full	Associate	Assistant
Articles published in refereed journal	3.49	3.82	3.38	3.00
Books authored/co-authored	3.40	3.27	3.05	3.00
External reviewers unknown to you	3.29	3.73	3.19	2.33
Multiple authored publications	3.23	5.55	3.10	3.00
Internal reviewers selected by dept/ others	3.17	3.36	2.99	2.66
Chapters in books/monographs	3.09	3.36	2.95	3.00
Single authored publications	3.06	3.36	2.95	2.67
External reviewers known by you	3.03	3.09	3.10	2.33
Internal reviewers selected by you	3.00	3.00	3.10	2.33
Frequency of citation	2.97	2.91	2.95	3.30
Honors, awards for research/ scholarship	2.83	2.91	2.76	3.00
Published critiques of books/monographs	2.56	2.55	2.65	2.00
Reports produced for funding sources	2.53	2.50	2.57	2.33
Average	3.02	3.18	2.99	2.66

As with teaching, advising, and professional training, faculty emphasized different research indices by rank. Full professors considered articles published in refereed journals/book with a score of 3.82 as the single most important index in relation to promotion and tenure. Second most important index in their view was the value of judgments by external reviewers unknown to the faculty with a mean score of 3.73. Full professors considered multiple authored publications the third most important index with a score of 3.55. They ranked a number of indices similar with a score of 3.36. They include chapters in books, single authored publications, and internal reviewers selected by their department. Full professors rated books both authored/co-authored with a score of 3.27 very high in the indices needed for promotion and tenure. Indices related to judgments by external reviewers known to them (3.09) and internal

reviewers selected by them (3.0) was also rated high by full professors. Honors or awards for research/scholarship, and frequency of citation held slightly less value for full professors with a score of 2.9. Published critiques of books/monographs held the lowest value for full professors with a score of 2.55.

Associate professors considered articles published in journals/books, like their full professor counterparts with a score of 3.38 as the most important research index for promotion and tenure. It should be noted that their overall score of 3.38 was less than the full professor score of 3.82. Associate professors ranked both judgments of external reviews unknown to them and internal reviewers selected by their department with a mean score of 3.19 as the second most important indices. They considered multiple publications, judgments by external reviewers selected by them with a mean score of 3.10 as third most important. Associate professors considered books authored/co-authored having high value with a score of 3.05. They ranked chapters in books/monographs, frequency of citation, and single author publication the same with a score of 2.95. Honors or awards for research/scholarship (2.76) was rated next in value, while published critique of books rated 2.65 and reports produced for funding scores held the lowest value (2.57) for associate professors.

Assistant professors considered frequency of citation as the most important index with a score of 3.33 for the promotion and tenure process. They considered a number of indices of equal importance, rating them second overall with a 3.0 rating in the promotion and tenure process. They included articles published in refereed journals, chapters in books/monographs, books authored/co-authored, multiple authors' publications, and honor, awards for research/scholarship. Assistant professors rated single authored publications with a mean score of 2.67 as fourth highest. Unlike their full professors and associate professors counterparts, they

rated a number of publication and writing indices as having little value in the promotion and tenure process. They considered judgments by external reviewers, both known and unknown to the faculty and internal reviewers, both selected by the faculty member and those selected by their departments, "as sometimes needed" with like scores of 2.33. They did agree with their counterparts giving lowest value to reports produced by funding sources, also with a rating of 2.33. It is important to note that even the lowest ratings fell between "sometimes needed" and "important" in the ratings.

Overall, all full professors valued the indices associated with publication and other writing the highest with an overall score of 3.18. This value is similar to the overall value for teaching of 3.21. Associate professors rated publication and writing indices at somewhat less than full professors with a 2.99 score. This was also close to the value they put on teaching indices of 3.02. There was a difference in the overall rating for publications given by assistant professors with a 2.66 overall score. Although this score is low in comparison with their full/associate professor counterparts, it is somewhat consistent with their overall perceptions of promotion and tenure indices for teaching and advising, with overall values of 2.33 for teaching, 2.38 for advising and 2.65 for involvement in professional training/education.

Importance of grants and other funded work indices for promotion and tenure. Overall faculty considered the actual total number of grants received the most important grants and other funded work index (3.06) in relation to promotion and tenure. The second most important index in relation to grant activity was the number of applications for research grants (3.0). Consistent with this perspective, faculty considered the total amount of funding third most important index in this area (2.9). Overall faculty rated number of applications for non-research grants a close fourth with a score of 2.83 (see Table 18).

	Avg.	Full	Associate	Assistant
Number of grants received	3.06	3.00	3.19	2.33
Number of applications for research				
grants	3.00	2.82	3.19	2.33
Total amount of funding obtained	2.91	2.82	2.95	3.00
Number of applications for non-research				
grants	2.83	2.64	3.05	2.00
Average	2.95	2.82	3.09	2.41

Table 18.Ratings of Importance of Grants and Other Funded Work Indices forPromotion and Tenure by Faculty Level.

Full professors ranked total number of grants received as most important with a score of 3.0. They ranked both number of applications for research grants and total amount of funding received equally important with mean scores of 2.82. Full professors ranked number of applications for non-research grants as the least most important index for promotion and tenure with a score of 2.64.

Associate professors valued both the number of applications for research grants and the total number of grants received as equally most important and scored these indices slightly higher than full professors with a score of 3.19. They ranked total amount of funding received second and again rated this index slightly higher value of 2.95. Associate professors considered number of applications for non-research grants fourth but rated this index higher than full professors with a rating of 3.10 compared to 2.64.

Assistant professors' responses to the importance of grant and funded work indices for promotion and tenure reflected the highest range. They considered the total amount of funding received as the most important index with a score of 3.0. They considered the value of both the number of applications for research grants and the total number of grants received far less important (a score of 2.33), than their full and associate professors who ranked number of applications 2.82 and 3.19, respectively, and total number of grants received 3.0 and 3.19,

respectively. Assistant professors placed less value on the number of applications for nonresearch grants and scored them with a value of 2.0 (sometimes needed).

Overall, full professors considered indices related to grants and other funded work (2.82) as important as advising activities 2.85. Associate professors' overall rating of 3.09 was higher than their full professor counterparts. Assistant professors' overall rating of 2.41 was much lower than full and associate professors. They gave this group of indices similar value to their perception as housing indices which they rated at 2.38.

4.4.3. Importance of Service Indices for Promotion and Tenure

Faculty rated a number of indices related to service. These indices included both internal (those related to program, department, school and university activities) and external) those related to service activities outside of the university).

Ratings of service indices internal to the university. Overall faculty considered membership on committees at the program level with a mean score of 3.0 the most important service index to be considered in the promotion and tenure process. They considered membership on departmental committees close in value to program committees with a 2.91 mean score. The faculty rated membership on school committees third with a value of 2.68 and participation on University committees lower with a 2.39 score (see Table 19).

Table 19.Ratings of Importance of Committee Membership Indices for Promotion and
Tenure by Faculty Level.

	Avg.	Full	Associate	Assistant
Program level	3.00	2.73	3.15	3.00
Department level	2.90	2.64	3.10	2.67
School level	2.68	2.55	2.70	3.00
University level	2.39	2.30	2.35	3.00
Average	2.74	2.55	2.82	2.91

Full professors ranked program level membership the most important with a score of 2.73. They valued department level involvement second with a rating of 2.64. School level activities were given a 2.55 rating, while University level membership had the lowest score of 2.30.

Associate professors placed a higher value, 3.15, than 2.73 for full professors on memberships on program level committees. They also scored departmental committees higher (3.10) in comparison to their full professor colleagues. They rated school level committees third in importance with a 2.70 score. There was negligible difference with full professors in their value of membership at the University level (2.30 for full professors and 2.35 for associate professors).

Assistant professors' rating of the indices for committee work in relation to promotion and tenure gave equal weight to committees at program, school, and University level with a score of 3.00. They rated department level committee similar to full professors (2.67 vs. 2.64 for full professors). This was lower in comparison to the associate professors, who scored 3.10 for this index.

Overall values for service indices related to committee membership by full professors (2.55) were the lowest by level. Associate professors' summary score was 2.82, while assistant professor ratings were slightly higher at 2.91.

<u>Ratings of service indices external to the university</u>. Overall faculty considered being an officer in professional associations with a mean score of 2.71 as the most important index for service activities related to promotion and tenure. They rated honors awards for service to education/non-profit organizations the second most important index with a score of 2.68. They

valued unpaid work with school districts, governmental bodies, and non-profit organizations alike with scores of 2.47-2.48 (see Table 20).

Full professors valued being officers in professional associations as their most important index of service outside the University with a mean score of 2.90. They rated honors, awards for service next with a slightly lower score of 2.68. Unpaid work with governmental bodies and non-profit organizations ranked next with scores of 2.30 and 2.70, respectively. Unpaid work with school districts was rated the lowest among full professors with a low rating of 2.09 (sometimes needed).

 Table 20. Ratings of Importance of Service Indices Outside the University for Promotion and Tenure by Faculty Rank.

	Avg.	Full	Associate	Assistant
Officer in professional associations	2.71	2.90	2.50	3.33
Honors, awards for service to education	2.68	2.82	2.60	2.67
Unpaid work with :				
Governmental bodies	2.48	2.30	2.55	2.67
Non-profit organizations	2.48	2.20	2.55	3.00
School districts	2.47	2.09	2.60	3.00
Average	2.56	2.46	2.56	2.93

Associate professors rated unpaid work with school districts, and honors, awards for service the two most important indices with respect to promotion and tenure with a 2.60 score. Unpaid work with governmental bodies and non-profit organizations were rated slightly lower with a mean score of 2.55. They rated officers in professional associations the lowest with a 2.50 score.

Assistant professors valued offices in professional associations, as most important and rated this index with the highest individual index score of 3.33. They considered unpaid work with school districts and non-profit organizations second most important with ratings of 3.00.

Unpaid work with governmental bodies and honor and awards received their lowest ratings with 2.67 mean scores.

Overall scores by full professors ranked indices associated with service outside the University low with scores of 2.46. Associate professors considered this group of indices slightly higher in importance 2.56 for associate professors vs. 2.46 for full professors. The value of this set of indices was similar to the values full and associate professors rated involvement in professional training indices with ratings of 2.39 and 2.41, respectively. Assistant professors rated service outside the university indices as one of their highest groupings with a score of 2.93. This is comparable to their overall ratings of committee membership with a rating of 2.91.

4.4.4. Summary of Importance of All Indices

A review was made regarding the most important indices for promotion and tenure by category for each faculty rank. Table 21 is a summary of these data. A range of the top 15 overall scores went from a high of 3.49 for articles and publications in refereed journals to 3.0 for membership on committees. Eleven indices for research was the highest number of indices for any category, (research, teaching, and service). Full professors recorded a total of 13 indices most important (3.00 or above) for the promotion and tenure process, with 6 of the 11 indices involved in personal scholarship and 1 involved with research grants. Full professors considered all three teaching indices reported by faculty overall as important with a range of 3.09 for student evaluation of courses to 3.36 for both course materials and specific courses taught.

					F	aculty	Ι	Levels	
Overall Rank	Index	Cate- gory	Total	Full Prof.	Rank	Assoc. Prof.	Rank	Ass't Prof.	Rank
1.	Articles publ. in ref. journal/book	R	3.49	3.82	1	3.38	2	3.00	3
2.	Judgments by external review, unknown	R	3.29	3.73	2	3.19	3	2.33	
3.	Multiple authored publications	R	3.23	3.55	3	3.10	8	3.00	3
4.	Student evaluation of courses (OET)	Т	3.2	3.09	10	3.43	1	2.67	
5.	Internal reviewer selected by dept.	R	3.17	3.36	4	3.19	3	2.33	
6.	Book authors/co- authors	R	3.11	3.27	9	3.05	13	3.00	3
7.	Chapters in books/monograph	R	3.09	3.36	4	2.95		3.00	3
8.	Single authored publications	R	3.06	3.36	4	2.95		2.67	
9.	Number of grants received	R	3.06	3.00	12	3.19	3	2.33	
10.	Judgments by external reviewer known	R	3.03	3.09	10	3.10	8	2.33	
11.	Course materials (syllabus, handouts)	Т	3.00	3.36	4	3.10	8	2.33	
12.	Specific courses taught	Т	3.00	3.36	4	2.90		3.00	3
13.	Internal reviewers selected by you	R	3.00	3.00	12	3.10	8	2.33	
14.	Number of applications for research grants	R	3.00	2.83		3.19	3	2.33	
15.	Membership on comm. (program level)	S	3.00	2.73		3.15	7	3.00	3
16.	Publication frequency of citation	R	2.97	2.91		2.95		3.33	1
17.	Total amount of funding obtained	R	2.91	2.82		2.95		3.00	3
18.	Membership on comm. at dept. level	S	2.91	2.64		3.10	8	2.67	

 Table 21. Highest Rankings for All Indices Reported by Faculty to be Considered Most Important for Promotion and Tenure.

Associate professors reported a total of nine indices in the top 18 that related to research as most important in the promotion and tenure process (ratings of 3.0 or higher). The range of these indices was from a high of 3.38 for articles published in refereed journals and books to 3.05 for a book authored/co-authored. They ranked two teaching indices as most important for promotion and tenure: student evaluation of courses (3.43), and course materials (syllabus, handouts) (3.10). Associate professors ranked two service indices as most important for promotion and tenure: membership on committees at program level (3.15), and committees at the department level (3.10). Associate professors ranked a total of 13 indices as most important for the promotion and tenure process (3.0 or above).

Assistant professors ranked seven research related indices as most important for the promotion and tenure process. Of the seven, three of the indices: frequency of citation (3.30), total amount of funding obtained (3.0), and honors-awards for research, (3.0) were not in the overall faculty top ten indices. Of the seven research indices, six were related to personal scholarship and one to grant related activities. The range of the research indices reported by assistant professors as most important was from 3.33 for publication frequency of citation to 3.00 for the other 6 highest rated indices. Assistant professors reported three teaching indices as most important to the promotion and tenure process, all with a score of 3.0. Two of the three indices reported on teaching opinions of current/former students and professional training self reports were not in the overall top indices reported by all faculty. Assistant professors reported six service indices as important for the promotion and tenure process. That is twice as many combined of their full and associate professor counterparts. They recorded a range of 3.33 for being an officer in professional associations to 3.00 for five of the other service indices.

Based on these rankings, faculty still rated research related indices as most important in terms of promotion and tenure. Overall, faculty rated research indices 9 of the top 10 in importance, and ranked 13 research indices of the top 18 most important indices (rated 3.0 or higher by 1 or more of 3 ranks). Faculty ranked overall only 3 teaching indices in the top 18, while only two service related indices were rated in the top 18.

Full professors tended to rank highest indices directly associated with scholarship, i.e., articles, publications, etc. Seven of their top ten indices associated with scholarship had ratings ranging from 3.0 to 3.8. Their rating for grant indices ranged from 3.00 to 2.82. Full professors' teaching indices, three in number, ranged from 3.36 to 3.00. There were two service indices which were rated most important. The first was membership on committees at the program level (overall rating of 3.0) which were rated lower by full professors with a 2.73 scale. The second service index rated highest overall was membership on committees at department level, with a score of 2.91. This was rated even lower by full professors with a rating of 2.64.

Associate professors tended to show more balance across the three areas in rating the top indices important to the promotion and tenure process. They rated indices associated with scholarship in a range from 3.38 to 2.90, and grant related indices ranged from 3.19 to 2.95. The teaching indices showed greater variability among associate professors in comparison with full professors with a range of 3.43 to 2.90. Top service indices were rated higher among associate professors in comparison with their full professor counterparts, ranging from 3.15 to 3.10.

Assistant professor ratings of the top indices needed for promotion and tenure were much different than those of full and associate professors. In the overall rankings of the most important indices, assistant professors ranked indices associated with their scholarship from 3.33 to 3.00. They ranked only four research indices (all associated with scholarship) in the overall

top ten. The top research indices related to grants were rated low by assistant professors, ranging from 2.67 to 2.33. This is much different than the ratings overall by full and associate professors. Only one teaching index, specific courses taught, with a score of 3.0, was rated high by assistant professors. Their ratings for the overall top teaching indices ranged from 3.00 to 2.33. Their rating for the top service indices ranged from 3.00 to 2.76.

Assistant professors rated a number of indices high with a 3.0 rating or better which were not ranked overall by faculty as to be generally important in the promotion and tenure process. Table 22 is a listing of these indices in comparison with the overall school rankings.

A review of these indices in comparison with the overall ratings indicates there are major differences between how assistant professors perceive their importance with

their full and associate professors counterparts. Four of those indices, honors or awards for research, opinions of current/former students, offices in professional associations and membership on school level committees, were rated on the low end of the scale with ratings ranging from 2.83 to 2.55.

Four of the indices, professional training-self reports, unpaid work with non-profits, unpaid work with school districts, membership committees at the university level, fall below the minimum score of 2.5 for relevance to promotion and tenure process with scores ranging from 2.49 to 2.39. It is important to note that assistant professors perceived this high number of indices (8) as being important while their counterparts considered them either slightly relevant or not relevant to the promotion and tenure process.

Overall	Index	Category*	Overall	Assistant
Rank			Score	Professor
22	Honors-Awards for research	R	2.83	3.00
24	Opinions of current/former students	Т	2.77	3.00
27	Officers in professional associations	S	2.71	3.33
21	Membership on school level	S	2.68	3.00
	committees			
24	Professional training-self reports	Т	2.49	3.00
25	Unpaid work with non-professors	S	2.48	3.00
26	Unpaid work with school district	S	2.47	3.00
27	Membership committee University	S	2.39	3.00
	level			

Table 22.	Comparison of Ratings of Important Indices by Assistant Professors not Highl	y
	Ranked by Other Faculty.	

* R=research, T=teaching, S = service

At the end of the third section of the questionnaire, faculty were asked to directly respond to the question "Do you agree that major service contributions by candidates with weak or mediocre research scholarship does not necessarily result in promotion and tenure?" Faculty were asked to respond with a yes/no response. If their response was "no", they were given the opportunity to describe their view. Thirty faculty (88.2%) who answered this question responded positively. Four faculty (11.8%)responded negatively to the question. Table 23 is a summary of these data.

Table 23. Response to the Question "Do You Agree That Major Service Contributions by
Candidates with Weak or Mediocre Research Scholarship Does Not Necessarily
Result in Promotion and Tenure."

	No. of "Yes"		No. of "No"	
	Responses	%	Responses	%
All Faculty	30	88.2%	4	11.8%
Full Professors	9	81.8%	2	18.2%
Associate Professors	18	85.7%	2	10.0%
Assistant Professors	3	100.0%		

Faculty were somewhat consistent by rank. Nine full professors (81.8%) agreed with the question, while eighteen (85.7%) of associate professors also agreed. Three (100%) of the assistant professors agreed with the question.

Five of the thirteen faculty took the opportunity to further expand on the question. Two of the five were full professors and three were associate professors. One full professor wrote, "This is a tricky issue. Service is necessary to keep this institution functioning so the efforts of a few are essential. However, students, especially graduate students, require faculty who keep up with their fields and contribute outside the school/university." The second full professor responded much more directly by saying, "Service is never a factor." Three associate professors also had divergent views on the value of service in the promotion and tenure process. One associate professor implied that there were limitations in the promotion and tenure process. He wrote, "When these criteria are identified without the relative weight of each, decisions of this type suggest someone has a priority that is exercised and kept secret." The second associate professor felt that service should be part of the process, focusing more on the candidates' area of expertise. This faculty member wrote, "The quality and scope of service is what is important. It should relate to one's area of expertise." The third associate professor indicated that service or teaching was not considered as valuable in the promotion and tenure process, but also indicated that it should have a role in the process, especially if viewed from a different prospective. The faculty member wrote that during the review process, "I remember a chair saying – Any objections to his teaching? No? Anything that can pass as service? Yes? Now let's get to the publication. This is a naïve view of administration. More realistic and sophisticated questions may include - How does the sum of the person's effort contribute to institutional sustainability?

What has been their impact on attracting quality students, alumni contributions, legislative support, grants and contract, collegial respect?"

4.4.5. Other Feedback on Promotion and Tenure Issues

In section IV, the last section of the questionnaire, faculty were given the opportunity to give their own personal views on a number of issues related to the promotion and tenure process. The six questions ranged from a yes/no response for the first question, to open ended responses for questions two through six. Thirty five faculty took the time to respond to some or all of the questions.

The first question of this section dealt with faculty perceptions on whether or not there should be different criteria used for candidates seeking tenure to the associate level as opposed to the criteria used for a candidate seeking to be a full professor. The overall results were just about evenly divided among the respondents. Of the thirty five who responded, eighteen (51.4%) responded positively to the question and seventeen (48.6%) responded negatively. Table 24 summarizes these data.

Overall, more than half of the respondents (51.4%) thought that the criteria for granting tenure should be different than the criteria for promotion. Six (54.5%) of the full professors responded positively, while 5 full professors (45.5%) were opposed to having different criteria. Surprisingly, associate professors reported slightly in favor of not having different criteria. Ten associate professors (47.6%) responded positively, while eleven associate professors (52.4%) responded that criteria should not be different. Of the three assistant professors who answered this question, two (66.7%) responded yes while one (33.3%) responded no.

 Table 24. Response to the Question "Do You Think Criteria for Promotion Materials

 Should Be Different For the Granting Of Tenure than for Promotion to Full Professor?"

	No. of "Yes"		No. of "No"	
	Responses	%	Responses	%
All Faculty	18	51.4%	17	48.6%
Full Professors	6	54.5%	5	45.5%
Associate Professors	10	47.6%	11	52.4%
Assistant Professors	2	66.7%	1	33.3%

Question 2, an expansion of question 1, asked faculty who thought that the criteria for tenure and promotion should be different, to identify the primary differences in the products used. A total of twenty faculty responded to question 2. Eight full professors responded to the question with the following comments supporting changes in criteria:

"The criteria needs to change from 'promising' to 'accomplished', from 'show leadership potential' to 'has demonstrated leadership."

"More relevant to the profession, breadth of the contributions, leadership in the field and mentoring."

"More focus on teaching and advising."

"Faculty incorporating their published research into courses taught."

Other comments supported the traditional promotion criteria.

"Promotion to full professor requires demonstrated mastery attained in their field of specialization."

"Please see promotion and tenure guidelines."

Ten associate professors responded to question 2. Like their full professor counterparts, their comments represented a broad range of possibilities for utilizing different criteria for promotion to full professor. Some could be categorized as supporting current criteria with comments such as:

"Full professors should be held to a higher standard, continued research performance, excellence in teaching and service. Materials for full professors should demonstrate a well-established national reputation."

"Full professors should have major research recognition."

"Full professors should be concerned with scholarship products involving synthesis and analysis and understanding in their field."

Other associate professors made comments that could be categorized as encouraging a broader set of criteria and more assessment of the faculty role within the broader context of the school for promotion from associate to full professor. They made comments such as:

- "The criteria should include service outside the university, awards/honors, and publications such as books."
- "Candidates for full professors should have a full national reputation, leadership, have different types of publications and do more work with doctoral students."
- "The criteria should include realistic assessment of roles and functions required to keep the school as a viable teaching-learning organization. Based on the relative importance of each role and function, a set of criteria that reflect that relative importance."

Two assistant professors responded to question 2 and were both in agreement that criteria for promotion to full professor should be different than the criteria for tenure.

"For full professors, more emphasis should be placed on outside indicators rather than inside either program/department/school of education/ university based on contributions in the field. For assistant to associate, it should be mainly contributions inside programs/departments/school of education/university." "Service can be considered more seriously for full professors and the contribution to program/departments is more significant."

Questions 3, 4 and 5 were similar in design asking faculty to identify any current or

additional products that were associated with teaching, research or service that were not valued

in the promotion and tenure process. Responses were categorized in one of three ways:

- (1) by faculty indicating that "no change is needed,"
- (2) by faculty indicating a need for "additional products or increased value", or
- (3) by faculty adding comments that were unclear or unrelated to the question.

Tables 25 and 26 summarize the data for questions 3,4 and 5. Table 25 summarizes the data by faculty rank and Table 26 summarizes the comments and suggestions for the additional products and added value.

	Total	No Change	Need for Add'l Products or	Unclear/
	Responses	Needed	Added Value	Unrelated
Question 3	22	6 (27.3%)	13 (59.1%)	3 (13.6%)
Teaching	7 Full	1 Full	6 Full	0 Full
-	12 Assoc.	4 Assoc.	5 Assoc.	3 Assoc.
	3 Ass't.	1 Ass't.	2 Ass't.	0 Ass't.
Question 4	22	10 (45.5%)	9 (40.9%)	3 (13.6%)
Research	7 Full	3 Full	2 Full	2 Full
	12 Assoc.	6 Assoc.	5 Assoc.	1 Assoc.
	3 Ass't.	1 Ass't.	2 Ass't.	0 Ass't.
Question 5	16	8 (50%)	6 (37.5%)	2 (12.5%)
Service	4 Full	3 Full	1 Full	0 Full
	11 Assoc.	5 Assoc.	4 Assoc.	2 Assoc.
	1 Ass't.	0 Ass't.	1 Ass't.	0 Ass't.

 Table 25.
 Summary of Faculty Responses for Additional Products or Added Value for Teaching, Research and Service by Faculty Rank.

Twenty-two faculty responded to both questions 3 and 4 concerning whether or not they had documents or products that demonstrated the quality of their teaching and research that were

not generally used or valued in the promotion and tenure process. Only sixteen faculty responded to question 5.

With respect to question 3, seven respondents were full professors, twelve were associate professors and three were assistant professors. Overall, thirteen (59.1%) of the respondents felt that there were additional documents and/or products that should be taken into consideration for teaching related work. Six (27.3%) felt that there was no need for change and only three (13.6%) were unclear as to what products needed to be added. Six of the seven full professors identified specific products. Associate professors were somewhat evenly split on this issue with 5 identifying additional products, 4 indicating no changes were needed, and 3 not being clear about what changes were needed.

As shown in Table 26, the identified products or increasing values for teaching centered on student related issues and instruction. Faculty products related to students included: success of students in terms of measuring student achievement, number of students who produce papers and go to conferences, and number of students who successfully complete advanced work. Products outlined by faculty related to instruction include: identifying development of course materials and utilizing technology in the classroom. Although a number of products were identified, no one product or value was regularly mentioned.

With respect to question 4, seven respondents were full professors, twelve were associate professors and three were assistant professors. Overall, nine (40.9%) of the respondents felt that there were additional documents and/or products that should be taken into consideration for <u>scholarship/research related work</u>. Ten (45.5%) felt that there was no need for change and only three (13.6%) were unclear as to what products needed to be added. Unlike question 3, only two of the seven full professors identified specific products. Similar to question 3, associate

professors were somewhat evenly split on this issue with five identifying additional products, six

indicating no changes were needed and one not being clear about what was needed.

Table 26.	Summary of Comments of Faculty Responses for Additional Products or Added
	Value for Teaching, Research and Service to Be Included In the Promotion and
	Tenure Process.

	Total	No.	Additional. Products or Added Value/Comments
	Responses		
Question 3.	22	3	Student work/ syllabi/conference presentations
Teaching		3	Develop course materials; use of technology in
		1	courses
		1	Books published as text
		1	Pre/post testing to measure student achievement
		1	Written document from students
		1	Incorporate research into teaching
		1	Number of students who advance
		1	Number of dissertations generated
		1	Self reflection on teaching
Question 4.	22	1	Video productions, shared stories, poetry, cases and
Research			software
		2	Grants submitted and received
		1	Reports from granting agencies
		1	Think pieces
		2	Evaluation work
		2	Editing textbooks and other works
		1	External funding receiving more weight than internal
			funding
		1	Project reports
		1	Testimonials from other organizations about
			collaborative work
Question 5.	16	1	Being on editorial boards of national, well respected
Service			journals
		1	More credit for coordinating programs
		1	Workshops
		1	Evaluation efforts to various education related
		1	organizations
		1	Recruitment of students
		1	Developing educational networks
			Local and regional board participation

As shown in Table 26, the identified products or increasing values for research centered on activities generally identified with grants. In particular, they mentioned the work that is involved in the grant writing process. Some faculty mentioned evaluation work and the editing of textbooks. Similar to teaching related products, there were no clear-cut products identified by the faculty overall which indicated a general consensus.

With respect to question 5, four respondents were full professors, eleven were associate professors and one was an assistant professor. Overall, six (37.5%) of the respondents felt that there were additional documents and/or products that should be taken into consideration for service related work. Eight (50.0%) felt that there was no need for change and only two (12.5%) were unclear as to what products needed to be added. Only one of the four full professors identified specific products related to service. Three full professors felt that no change was needed. Similar to questions 3 and 4, associate professors were somewhat evenly split on this issue with four identifying additional products, five indicating that no changes were needed and two not being clear about what changes were needed.

Since service is such a broad area, there seemed to be no general "theme" or "focus" to the additional activities or values faculty reported to be considered for promotion and tenure. Similar to activities related to teaching and research, there was not general agreement among the respondents for any specific activity.

Questions 6 and 7 asked faculty if they had any problems with the products required for the promotion and tenure process, and if there were additional products that should be considered in promotion and tenure unique to the School of Education faculty.

Responses for both questions were categorized in one of three ways:

- (1) by faculty indicating that there are "no problems" with the current process
- (2) by faculty identifying and listing problems, concerns and /or improvements
- (3) by faculty adding comments that were unclear or unrelated to the question
| | | No | | | |
|----------------------|-----------|-------------|------------|-----|-----------|
| | Total | Problems or | Problems | and | Unclear/ |
| | Responses | Changes | Concerns | | Unrelated |
| All Faculty | 18 | 4 (22.2%) | 12 (66.7%) | | 2 (11.1%) |
| Full Professor | 5 | 1 | 3 | | 1 |
| Associate Professors | 10 | 3 | 6 | | 1 |
| Assistant Professors | 3 | 0 | 3 | | 0 |

 Table 27. Summary of Faculty Responses Related To Their Concerns and Problems with

 Products Associated With Promotion and Tenure by Rank.

Tables 27 and 28 summarize the data and list the identified problems and concerns for question 6. Tables 30 and 31 summarize the data and list the suggested improvements in the process for question 7.

Eighteen faculty responded to question 6 in which they were asked to indicate any problems or concerns with the information and products required in the present P&T process. Five of the eighteen were full professors, ten were associate professors and three were assistant professors. Overall, twelve (66.6%) of the faculty who responded to this question identified problems and concerns with the information and products required in the current P&T process. Half of the twelve were associate professors. Only four (22.2%) of the faculty indicated that there were no problems or changes with the current system. Three of the four respondents were associate professors.

As listed in Table 28, only two comments were made concerning the value and weight of teaching and related advising in the promotion and tenure process. The majority of the responses were directed at problems identified outside of teaching, research and service and dealt more with the process itself. Faculty noted their concerns on issues such as consistency of criteria across programs and departments, excessive documentation of the promotion and tenure process, and also to the competence of the faculty making decisions on the promotion and tenure committee.

Table 28. Listing of Faculty Concerns and Problems with Products Associated With Promotion and Tenure.

No. of	Additional. Products or Added Value/Comments
Comments	
2	Need for consistency among departments and programs
1	Confusion with P/T guidelines and materials
2	Provided excessive evidence
2	Weight of teaching in the process
1	Needs to be more focused on teaching and advising
1	Question accuracy of OMET evaluations
1	Influence of less productive faculty on process
1	Bias of decision makers in the process

Table 29. Summary of Faculty Responses Related To Changes in P&T Materials.

	Total Responses	No Problems or Changes	Problems Concerns/ Improvements	and	Unclear/ Unrelated
All Faculty	24	4 (16.7%)	15 (62.5%)		5 (20.8%)
Full Professors	7	1	4		2
Associate Professors	14	3	8		3
Assistant Professors	3	0	3		0

As noted in Table 29, twenty-four faculty responded to question 7 in which they were asked to identify changes they would make in the P&T materials to improve promotion and tenure review of the unique roles or contributions of faculty. Seven of the respondents were full professors, fourteen were associate professors and three were assistant professors. Overall, fifteen (62.5%) of the faculty who responded to this question made suggestions to improve the process. Eight of the fifteen were associate professors. Only four (16.7%) of the faculty indicated that there were no problems or changes with the current system. Three of the four respondents were associate professors.

No. of	
Comments	Additional Products or Added Value/Comments
1	More balanced view of scholarship than publications
2	Monitoring of young faculty
2	More emphasis/value on teaching
1	Advising
3	Consistency between department evaluations and P/T committee
1	Scholarship should have more value than grant dollars
1	More emphasis on personal pedagogy

Table 30. Listing of Faculty Responses Related To Changes in P&T Materials.

In responding to question seven, the faculty focused more on themes present throughout many of their responses in the survey. Faculty reported they wanted a more balanced view of scholarship, with more emphasis given to teaching and advising. Again, they took issue with the consistency in criteria between departments and the promotion and tenure committee.

5. DISCUSSION, CONCLUSIONS, AND IMPLICATIONS

5.1. Introduction

At the University of Pittsburgh, a major urban research university, the role of a faculty member in the School of Education is viewed as similar to the roles of other faculty within the institution. The major activities included in this role are teaching, research, and service. Currently, the school is being guided by an academic program plan that was approved by the University in spring of 1998. Included in the plan is articulation of a very specific mission statement.

The mission of the School of Education at the University of Pittsburgh is to create and disseminate knowledge that improves teaching and learning, and to develop and implement effective programs for the preparation of education professionals who will enhance both the practice and outcomes of education. (Academic Plan, 1998)

A review of this mission statement gives some insight into the problem of faculty performance in a professional school in a major research university. The mission statement, which was approved by the faculty, clearly states the importance of research in the statement "create and disseminate knowledge". However, the mission statement dictates that the knowledge be applied, and emphasized the practical application of knowledge to education. The mission statement is a clear statement of how faculty perceive themselves as more than "researchers". They view themselves as having multiple roles that support the overall mission of the school in teaching and service, as well as research.

For faculty, granting of tenure confirms their contributions to the school and potential for contributing to research and scholarship in their field. Tenure signifies a major commitment by the university to give a faculty member an ongoing permanent appointment. Faculty in the School of Education are usually hired into tenure track positions at the assistant professor level. If awarded tenure, faculty also receive a promotion to associate professor. Tenured faculty can also be promoted to full professor, which is the highest academic position a faculty member can obtain.

The model used for promotion and tenure at the University of Pittsburgh is generally called "The Arts and Science" model. Although there are some differences in the types of evidence provided for promotion and tenure between the graduate school of Arts and Sciences and the School of Education, the most important criterion area in both schools is research and scholarship.

As noted in the review of literature, at the national level, faculty in professional schools experience a mismatch between the work they carry out and the criteria used for promotion and tenure decisions (Fairweather, 1993; Marchant and Newman, 1991). Many studies reviewed concluded that the system of evaluation considering teaching, research, and service is not inherently wrong, but the extensive emphasis on research over teaching and service has created an overall imbalance that should be addressed. The purpose of the present study was to investigate the nature and extent of that mismatch.

The following national studies were cited related to this imbalance between research, teaching, and service. One study conducted by the Ohio Legislative Office of Educational Over-Sight (LOEO) entitled <u>The Faculty Reward System in Public Education</u> (July 1993) concluded:

Although universities state that the three criteria....research, teaching, and service – are considered in rewarding faculty, the most weight tends to be given to research. This is true even at institutions which report that they are teaching-oriented. Faculty tend to be promoted or granted tenure more readily as a result of their research than for any other activity (p.11).

Other studies substantiated this theme including reports from the S.W. Richardson Foundation in a report entitled <u>Restructuring the University Reward System</u> (1991), a study which directly targeted faculty evaluation and reward procedures for schools of education, and a report written by Diamond and Adam, entitled <u>Changing Practices at Research Universities</u>, 1991-1996.

5.1.1. Purpose of the Study

The purpose of the study was to compare workload activities of school of different levels of education faculty with criteria used for promotion and tenure, and to identify activities and products of school of education faculty consistent with their workload activities for use in promotion and tenure reviews. These activities and products were then reviewed in the context of value for the promotion and tenure process, utilizing "traditional" faculty duties of research, teaching, and service. Specifically, the study focused on the following research questions.

5.1.2. Research Questions

- 1. What are the nature and extent of specific activities in which school of education faculty at different tenure levels engage in the areas of teaching, research, and service and the relative effort they expend on each of these activities?
- 2. How do school of education faculty at different levels of tenure and productivity perceive the relative importance of teaching, research, and service with respect to promotion and tenure?

3. What products do faculty rate as important for consideration of promotion with tenure to associate professor and promotion from associate to full professor?

5.1.3. Method

The research questions were investigated through a survey of all tenure-stream faculty in the school of education at the University of Pittsburgh. Eleven of the twenty two full professors, twenty-two of the forty-four associates, and four of the twelve assistant professors responded to the survey. The SPSS software package was used to analyze the data, with all results presented both in total faculty summaries and by individual rankings of assistant, associate, and full professors.

5.2. Summary of Results

5.2.1. Time Spent in Teaching, Research and Service

Overall, faculty reported that they spent an average of 56.7 hours per week on activities related to teaching, research, and service. Although the faculty responses varied greatly, the largest portion of their time on average was spent on teaching and teaching related activities. This represented an average of 25 hours per week (44%) of their time. Faculty reported activities related to research consumed 20 hours of their time (35.2%), while the faculty reported they spent 11.5 hours (20%), of their time on service related activities.

This distribution of time was most critical at the assistant professor level, while reporting spending 65.7 hours per week on teaching, research, and service, with 32.4 hours (49.5%) on teaching, 29.6 hours (45%) spent on research, and 3.6 hours (5.5%) on service related activities.

Data on associate professors revealed that teaching related activities represented the most significant portion of their time spent with an average of 24.2 hours (43.8%). Unlike their colleagues at the full professor and assistant professor ranks, associate professors reported

spending equal amounts of time (approximately 15 hours per week) on both research and service (28.1%).

Only full professors indicated that they spent more time on research and scholarship than on teaching. They reported spending an average of 27.8 hours (43.9%) or 2.2 hours more on research activities than teaching (40.4%). Although full professors put more emphasis on research, it must be noted that the majority of their activities was still balanced between teaching and research, with substantially less time on service related activities (9.8 hours or 15.5% of their total effort).

5.2.2. Perceived and Ideal Weighting of Teaching, Research, and Service in Promotion and Tenure Decisions

Faculty perceptions on the weighted values of teaching, research, and service used in the promotion and tenure process were consistent among all ranks, with 65.6% research, 25.6% teaching, and 8.7% service. Overall, faculty reported that there should be an increase in the value given to teaching and service in the promotion and tenure process to: 49.3% research, 37.3% teaching, and 13.5% service. Although there was general agreement on increasing the value of teaching, the amount to be given varied among ranks ranging from 45% by assistant professors to 34.5% by full professors.

All ranks agreed that service should be slightly more valued in the process going from the current perceived weight of 8.7% to 13.5%. Associate professors saw the need for an even higher value for service by reporting a 15.4% weight. Overall, the faculty perceived the major shift between teaching and research, creating a better balance between research and teaching (49.3% to 37.3%, respectively). While still acknowledging that research activity (productivity) has the most importance in the promotion and tenure decision, they indicated a need to move it

from approximately two-thirds (65.7%) to contributing half (49.8%) to the promotion and tenure decision.

5.2.3. Time Spent on Teaching, Research and Service and Suggested Rating of Importance

Interestingly, there was a relationship between proportion of time spent by faculty on teaching, research and service in question one and their views on the relative importance on teaching, research, and service should have for consideration of promotion and tenure. Overall, faculty reported spending more time on teaching activities (44.4%) than they proposed weighting teaching (37.3%) for promotion and tenure. In respect to research, it was the opposite with faculty spending 35.2% of their time, but reporting the percent of effort that should be counted for research at 49.3%. Faculty reported spending 20.3% of their time on service, while reporting it should be valued at 13.5% for promotion and tenure. The results were consistent at each faculty level, full, associate, and assistant professors.

5.2.4. The Relative Importance of Indices of Teaching, Research, and Service

Rating the importance of indices for promotion and tenure by faculty provided mixed results. First, in general, faculty did not provide any additional activities or indices that were not stated in the questionnaire. Second, the ratings of the indices in relation to their importance to promotion and tenure differed somewhat for the three faculty ranks, especially assistant professors.

Faculty rated research indices as most important for promotion and tenure. Overall, faculty rated research indices as 9 out of the top 10 in importance, and ranked research indices13 out of the top 18 most important indices. Faculty ranked, overall, only 3 teaching indices in the top 18, while service had two indices in the top 18.

All ranks considered the documentation of teaching specific courses as important to the promotion and tenure process, but differed on other teaching indices. Full and associate professors rated student evaluations high, while assistant professors rated them as not important. In general, full and associate professors rated advising indices rather high, while assistant professors felt these indices had little or no value in the promotion and tenure process. Some of the assistant professors' ratings for many commonly used indices of teaching were so low as to raise questions of their validity.

As indicated above, indices related to research and scholarship were generally rated high for the promotion and tenure process. In general, full professors rated most indices related to research and scholarship as important to the promotion and tenure process. Associate professors reflected more variation, while each assistant professor's ratings were somewhat unique.

The importance of indices related to grant work also showed large differences by indices and faculty rank. Associate professors ranked grant work indices as the most important in the promotion and tenure process, while full professors rated these indices lower. Assistant professors valued only the index related to the total amount of funding obtained as important, while considering all other indices related to grant work of minimal or no use for promotion and tenure.

Indices related to service were considered by all three groups as less important for promotion and tenure. Ratings were somewhat consistent by rank. Full professors only considered being an officer in professional associations as important and rated all other indices as not very important. Associate professors showed the greatest variation considering indices such as committee memberships at the program and department level the most important, while considering membership on university committees the least important. Assistant professors,

collectively, considered activities related to service as important to the promotion and tenure process, but varied greatly in those judged as most important.

5.3. Conclusions and Implications for Practice

5.3.1. Conclusion 1: More Time on Teaching Than Research Activities

It is quite apparent from the data that most faculty reported spending more time on teaching and teaching related activities than they do on research, with only some full professors reporting more time on research and scholarship activities. It was surprising to find that assistant professors spent the most time on teaching-related activities, even though they taught one to three fewer courses in the academic year.

<u>Implications for Practice</u>. The mismatch between what faculty actually do and how they are rewarded in terms of promotion and tenure presents a number of problems for administrators. Any reward system that is not consistent with activities would appear to be counter productive. This is especially critical in an era of increasing accountability, as outlined in the review of literature. Either faculty need to change how they spend their time or the University needs to change the criteria for promotion and tenure.

The effects of this mismatch between work and reward for faculty in a school of education can be manifested in a number of ways. First, it may affect daily performance of faculty, especially in the areas of teaching and service, which are valued less in the system. Behaviors that would be problematic in this area could be lack of proper student advising by faculty, poor teaching evaluations of faculty, or lack of participation of faculty on critical program, school, or university committees.

The long term effect of this mismatch between work and reward is its implication on the promotion and tenure process. The mismatch may affect all ranks of faculty. Assistant

professors could be affected the most, as tenure is an up or out decision. Lack of production of activities needed for tenure is a sure formula for not granting tenure. The loss of young faculty after five years creates numerous problems for the academic programs they leave. It is an inefficient use of human capital in terms of initial investment and ongoing development.

Another problem related to the mismatch between work and rewards that administration must consider is the recruitment of new faculty. One aspect of this problem is the perception of potential faculty candidates that an institution is a "revolving door" for young faculty, and securing tenure is problematic. This perception or reputation of an institution can be devastating in trying to attract a talented faculty. Second, this mismatch between work and reward creates confusion for young faculty in determining what is valued by the school and determining the activities needed for them to be successful both in the school and in their specialty area. The survey indicated that there was confusion on the part of Assistant Professors on the amount of time needed to be spent between teaching, research and service.

This mismatch between work and reward also has implications for tenured faculty. Once a faculty member is granted tenure and promotion to the associate professor rank, it is generally assumed that they will aspire to be full professors at some time during their academic career. This mismatch between what faculty actually do and the reward system can present a major obstacle for associate professors aspiring to be full professors.

An indicator of this problem senior administrators must be aware is a disproportionate number of associate professors in comparison with full professors. Excluding the major morale problem of a significant number of faculty not being able to achieve such a career goal, other significant problems could be present, such as lack of senior leadership, unequal salaries, and unwillingness of experienced tenured faculty to accept assignments and responsibilities needed to fulfill the mission and goals of their unit but are not valued by the promotion process.

5.3.2. Conclusion 2: More Emphasis on Teaching in Promotion and Tenure Decisions

All faculty want teaching activities to have more value in the promotion and tenure process and research to have somewhat less. On average they would like teaching to move from 25.6% to 37.3%, reducing research from 65.6% to 49.3%. Although faculty, in general, reported service is important (especially at the associate professor level), there was no evidence that service should play more than a minor role in the promotion and tenure decision (8.7% to 13.5%). Faculty indicated that presently research carries too much weight, but still see it as the most important function for promotion and tenure.

<u>Implications for Practice</u>. It was apparent from the data that there was strong support from the faculty to increase the value of teaching, thus decreasing the value of research for purposes of promotion and tenure. In theory, such a shift from what faculty currently perceive the value of teaching at 25.6% to 37.3%, reducing research from 65.6% to 49.3% sounds relatively straight forward. However, to accomplish this shift in value would pose some serious problems for administrators and faculty.

The first problem would be in establishing empirically the current values perceived by faculty are assigned to research, teaching, and service in the current system. The questionnaire dealt with faculty "perceptions". It would be important for further research to produce current benchmark data for the weights for research, teaching, and service given by promotion and tenure committees.

Assuming that administrators could produce the data to establish the current percentages for research, teaching, and service, the next major challenge would be to establish the proper ratios or correct percent of efforts that faculty should perform to be rewarded for promotion and tenure. Additional questions need to be answered, such as, should there be different ratios for assistant to associate vs. associate to full? Should these ratios change over time and most importantly who is responsible to establish the weights?

5.3.3. Conclusion 3: Current Indices for Promotion and Tenure Most Important

Faculty perspectives of indices important for promotion and tenure were consistent with present indices for teaching, research, and service. No additional indices were identified in any of the three areas, and most indices identified as most important related to research (13 of 18). Few teaching indices were identified as most important (3 of 18). Indices that were traditionally held in high esteem for the promotion and tenure process (such as articles published in refereed journals/books) were rated as most important by all three faculty groups. The 18 most important indices in the three areas identified by faculty were:

Research

Articles published in refereed journal/book (1)
Judgments by external reviewers, unknown by candidate (2)
Multiple authored publications (3)
Internal reviewer selected by department (5)
Book author/co-author (6)
Chapters in books/monograph (7)
Single authored publications (8)
Number of grants received (9)
Judgments by external reviewer, known by candidate (10)
Internal reviewers selected by candidate (13)

Number of applications for research grants (14)

Publication frequency of citation (16)

Total amount of funding obtained (17)

Teaching

Student evaluation of courses (OET) (4)

Course materials (syllabus, handouts) (11)

Specific courses taught (12)

Service

Membership on committees (program level) (15)

Membership on committees at department level (18)

Implications for practice. Faculty indicated in the survey that the current indices used for promotion and tenure in all three areas (teaching, research, and service) were relevant and they identified no additional indices. The distribution of these indices, as identified by faculty, gave considerable weight to the research indices (13). These indices are considered the traditional values used for promotion and tenure, emphasizing indices such as articles published in refereed journals/books. Faculty on the other hand only ranked three indices related to teaching as important. Service had only two indices ranked as important.

These rankings of indices heavily weighted toward research create a predicament for administrators who would want to shift the values of the reward system from over-emphasizing research to increased importance for teaching, since the indices (activities) as reported by the faculty, are heavily skewed toward research. Additional teaching indices would have to be identified and verified as important. Faculty in this study, when given the opportunity to identify any new indices did not. This is an area for future research.

5.3.4. Conclusion 4: Research Activities and Most Important Indices

Although faculty believed that the reward system should be modified to give greater weight to teaching and service, they still indicated that research and research related activity should maintain the pre-dominant weight in the system and are considered by faculty as the most important indicators of promotion and tenure.

Implications for Practice. This conclusion seems to be inconsistent with the

faculty reporting a greater emphasis on teaching. It is important for administrators to consider this inconsistency before trying to correct any deficiencies in the promotion and tenure system. Any revision of the weights given to the three areas in the promotion and tenure system which still supports an imbalance between what faculty actually do, and how they are ultimately rewarded, may have limited effect. This is an issue that each school or university may need to decide uniquely for their institution.

5.4. Summary of the Study

Given the extent of time these faculty reported for teaching and other student related activities and the lower weight of promotion and tenure criteria for teaching, schools of education and other professional schools may want to examine what is occurring in their setting. Following is one way for schools to carry out this process that identifies some of the most fundamental issues central to a meaningful review.

- A. Look at the mission and vision for the school.
- B. Examine the relative weighting of research, teaching and service for promotion and tenure decisions.
- C. Examine the variety of ways in which faculty distribute their time and effort to each of the three categories.

- D. Identify inconsistencies and the likely reasons for them.
- E. Identify a process for School of Education faculty and administrators to determine the nature and extent of any problems, and alternative methods for addressing them.

5.5. Implications for Further Study

Overall, thirty-seven of the seventy-eight, tenured/tenure stream faculty responded to the survey. However, few of the faculty responded to the open ended questions. Additional resources could be done to identify better open ended questions, especially questions designed to help faculty articulate their ideas on identification of additional indices per teaching and service.

The low rate of return by assistant professors, four of twelve, would indicate additional research is needed to ensure all ranks of faculty, full professors, associate professors, and assistant professors are equally represented in future surveys. Since assistant professors responded much differently than other faculty, more research is needed to clarify their views.

The central focus of the study was on what faculty members actually do (indices) in comparison on how they are rewarded (promotion and tenure). Additional research needs to be undertaken to measure the adequacy of the reward system in terms of faculty activity and yearly salary compensation increases.

APPENDIX A

Dean's Approval to Use School of Education Faculty List



School of Education Office of the Dean 5T01 Wesley W. Posvar Hall 230 South Bouquet Street Pittsburgh, Pennsylvania 15260 412-648-1780 Fax: 412-648-1825

<u>MEMORANDUM</u>

To: Sean Hughes Human Subjects Committee

From: Alan Lesgold Alan

Date: March 6, 2002

Subject: Dan May's Dissertation Research

I am writing in support of Dan May's request for permission to have access to a listing of School of Education faculty names and campus addresses for the purpose of his dissertation research. It is my understanding that this information is needed for a mailing in conjunction with his survey instrument.

Thank you for your consideration of this request.

AML/es

APPENDIX B

Memo to University IRB Concerning Confidentiality and Supporting Documents



School of Education

Pittsburgh, PA 15260

MEMORANDUM

To: Shannon Nixon

From: Daniel C. May

Date: April 16, 2002

Subject: IRB #0203109 The Nature of Faculty Work and Materials for Promotion and Tenure at a Major Research University

Per your request, I am submitting the additional information for approval. I have made all necessary corrections to the cover sheet and highlighted them as requested. I have also included a copy of my cover letter to the survey, highlighting your concerns.

If you have any other comments, please do not hesitate to contact me at x8-1781, e-mail address <u>danmay@pitt.edu</u>

aa

Enclosures 2 copies of IRB proposal #0203109



University of Pittsburgh

3500 Fifth Avenue Suite 105 Pittsburgh, PA 15213 412-578-3424 Fax: 412-578-8566

Institutional Review Board

MEMORANDUM

TO: Daniel C. May
FROM: Shannon Nixon on behalf of Christopher Ryan, Ph.D., Vice Chair
DATE: March 27, 2002
SUBJECT: IRB# 0203109 The Nature of Faculty Work and Materials for Promotion and Tenure at a Major Research University

The following comment(s) will need to be addressed before final approval can be granted:

Cover Sheet:

- 1. Part A, principal investigators who are not faculty of the University (e.g., residents, fellows, students, staff) must be sponsored by a University faculty member who is also listed as a co-investigator on the research protocol. Please state if Dr. Nelson is the faculty sponsor for this PI.
- 2. Part C, state the Number of Subjects, Duration of Study Per Subject, Duration of Study, and Sites where research procedures will be performed.

Exempt Form:

Please submit the cover letter you will send with this survey when mailed. Note in this cover letter to all participants that they should not write their names anywhere on the forms so as to remain anonymous, and state assurance of the confidentiality of responses.

Please address these comments in the same format as this memo, <u>highlight the correction(s)</u>, and send 2 copies of the complete submission including Cover Sheet (marked as "Response to Comments"), Exempt Form, and any attachments to our office within the next six weeks.

If you have questions related to the above comments, please contact Teri Merolli, the Senior Coordinator for Exempt and Expedited studies at 412.578.8564.

CR/sn

APPENDIX C

University IRB Approval



Institutional Review Board

3500 Fifth Avenue Ground Level Pittsburgh, PA 15213 412-578-3424 Fax: 412-578-8559

MEMORANDUM

TO: Daniel C. May

FROM: Philip Troen, M.D., Chair F

DATE: April 17, 2002

SUBJECT: IRB #0203109

The Nature of Faculty Work and Materials for Promotion and Tenure at a Major Research University

The above-referenced protocol has been approved through an expedited review procedure by the Institutional Review Board. This protocol meets all the necessary requirements and is hereby designated as exempt under section 45 CFR 46.101(b)(2). Exempt protocols are approved for a period of three years. If you wish to continue the research after that time, a new application must be submitted.

Approval Date: 4/17/02 Expiration Date: 4/16/05

Please advise the IRB when the study has been completed so that it may be terminated in the IRB database.

Please be advised that your research study may be audited periodically by the Office of Research, Health Sciences.

PT:sn

CERTIFICATION OF INVESTIGATOR RESPONSIBILITIES

By signing below I agree/certify that:

- I have reviewed this protocol submission in its entirety and that I am fully cognizant of, and in agreement 1. with, all submitted statements.
- 2. I will conduct this research study in strict accordance with all submitted statements except where a change may be necessary to eliminate an apparent immediate hazard to a given research subject.
 - I will notify the IRB promptly of any change in the research procedures necessitated in the interest of • the safety of a given research subject.
 - I will request and obtain IRB approval of any proposed modification to the research protocol or informed consent document(s) prior to implementing such modifications.
- 3. I will ensure that all co-investigators, and other personnel assisting in the conduct of this research study have been provided a copy of the entire current version of the research protocol and are fully informed of the current (a) study procedures (including procedure modifications); (b) informed consent requirements and process; (c) potential risks associated with the study participation and the steps to be taken to prevent or minimize these potential risks; (d) adverse event reporting requirements; (e) data and record-keeping requirements; and (f) the current IRB approval status of the research study.
- 4. I will not enroll any individual into this research study: (a) until such time that the conduct of the study has been approved in writing by the IRB; (b) during any period wherein IRB renewal approval of this research study has lapsed; (c) during any period wherein IRB approval of the research study or research study enrollment has been suspended, or wherein the sponsor has suspended research study enrollment; or (d) following termination of IRB approval of the research study or following sponsor/principal investigator termination of research study enrollment.
- 5. I will respond promptly to all requests for information or materials solicited by the IRB or IRB Office.
- 6. I will submit the research study in a timely manner for IRB renewal approval.
- 7. I will not enroll any individual into this research study until such time that I obtain his/her written informed consent, or, if applicable, the written informed consent of his/her authorized representative (i.e., unless the IRB has granted a waiver of the requirement to obtain written informed consent).
 - I will employ and oversee an informed consent process that ensures that potential research subjects understand fully the purpose of the research study, the nature of the research procedures they are being asked to undergo, the potential risks of these research procedures, and their rights as a research study volunteer.
- I will ensure that research subjects are kept fully informed of any new information that may affect their 8. willingness to continue to participate in the research study.
- I will maintain adequate, current, and accurate records of research data, outcomes, and adverse events to 9. permit an ongoing assessment of the risks/benefit ratio of research study participation.
- I am cognizant of, and will comply with, current federal regulations and IRB requirements governing 10. human subject research including adverse event reporting requirements.
- I will make a reasonable effort to ensure that subjects who have suffered an adverse event associated with 11. research participation receive adequate care to correct or alleviate the consequences of the adverse event to the extent possible.

ANIEL C. SMAL

Principal Investigator Name (typed)

Principal Investigator signature

3/00/02 Date

APPENDIX D

First Letter to Faculty

May 17, 2002

Dear Colleague:

As you may know, I have been encouraged by a number of faculty to complete my graduate studies. Currently I have completed my overview and the enclosed questionnaire is the primary data collection instrument to complete my dissertation. My research is focused on identifying those productivity variables that affect tenure in Schools of Education. It has long been my belief that the current variables are more appropriate for the Arts and Science model than for a professional School of Education, but I know that faculty have a wide variety of views.

In order to address this question, <u>I need your help</u>. Enclosed for your consideration is a survey which needs to be completed. The purpose of the questionnaire is first, to identify teaching, research, and service activities and projects that School of Education faculty carry out to fulfill their personal goals and work responsibilities. Second, to obtain faculty perspectives of the relative importance of teaching, research, and service and the types of materials that should be used in the promotion and tenure process. You will probably need between 45 minutes to one hour to complete the survey. Please complete by **May 31, 2002** and return to my attention at 5T01 WWPH.

In order to ensure anonymity, please do not write your name anywhere on the form when you return it. The collection and analysis of these data will be used only to complete the research component of my degree. An aggregated summary of information will be shared with the Dean and appropriate school committees, including promotion and tenure, for consideration of any changes needed in the promotion and tenure process. We need input from all faculty on this very important topic. I thank you in advance for your co-operation. If you have any questions, please do not hesitate to contact me at x8-1781 or email me at danmay@pitt.edu.

Sincerely,

Daniel C. May

R. Tony Eichelberger Research Advisor

Enclosure

APPENDIX E

Follow-up Letter to Faculty

September 19, 2002

Dear Colleague:

Previously I had requested your help in completing a questionnaire needed for data collection for my dissertation. My research is focused on identifying those productivity variables that are relevant to tenure in Schools of Education. It has long been my belief that the current variables are more appropriate for the Arts and Science model than for a professional School of Education, but I know that faculty have a wide variety of views.

Because of the timing of the mailing (distributed during the summer), the response rate was not as high as needed. Complicating the process was the University's IRB requirement of complete anonymity for all faculty who were surveyed. Therefore, I do not know which faculty <u>did</u> respond.

So again, I am requesting your assistance. If you <u>did not respond previously</u>, please complete the enclosed survey and return it to my attention by September 30, 2002 at **5T01 WWPH.**

For those of you who have previously completed the survey and for those of you completing it now, I want to thank you.

Sincerely,

Daniel C. May

R. Tony Eichelberger Research Advisor

Enclosure

APPENDIX F

Survey to Faculty

Survey of School of Education Faculty

Section I: Demographics and Involvement in Teaching, Research, and Service

- A. Demographic information
 - 1. Number of years as a faculty member at the University of Pittsburgh

_____1-5 ____6-10 ____11-20 ____over 20 years

2. Academic Rank

_____Assistant Professor _____Associate Professor _____Full Professor

3. Number of years at current rank at University of Pittsburgh

____1-5 ____6-10 ____over 10 years

B. Please indicate the relative emphasis you give to teaching, research, and service over a year. Many activities have multiple purposes. Make these estimates based on the way you view your activities in these three traditional areas.

		TL	Full	Assoc.	Ass't.
%	Teaching				
%	Research				
%	Service				
100%	Total				

Directions: Please estimate the number of hours you spend on average in each of the following teaching, research and service activities in a typical week. It might be useful to estimate the amount of time you typically spent on this activity over the last two years. Use these estimates to answer the items that follow. Please be realistic in your estimates. We assume most people would not exceed 80 hours of work time in a week.

C. Teaching		<u>hours</u>	/week		
	1. Instructional Activities	TL	Full	Assoc.	Ass't.
	a. prepare course materials				
	b. prepare for class session				
	(include reading, personal res. etc.)				
	c. develop and grade exams				
	d. meet with students concerning class				
	e. total in classroom hours				
	f. review/correct student work				
	g. other (please specify)				
	h. other (please specify)		<u> </u>		
	i. other (please specify)				
	j. other (please specify)				

			hours/	week		
	2.	Advisement/work with students	TL	Full	Assoc.	Ass't.
		a. meet with advisees on career or				
		academic issues				
		b. advise students who are not your				
		advisees on advising, academic,				
		or career				
		c. meet with advisees on thesis or				
		dissertation as committee chairperson				
		d. work with students on thesis or				
		dissertation committees but not as chair				
		e. supervising graduate assistants/				
		researchers				
		f. (Please specify):				
		other work with advisees or other				
		students not listed above			<u> </u>	
D.	Re	search and Scholarship	TL	Full	Assoc.	Ass't.
	1.	Funded research activities				
		a. develop proposals for funding				
		b. work on sponsored projects				
		c. complete all required reports for				
		sponsored projects				
		d. dissemination of results of				
		sponsored projects				
		e. other (please specify)				
		f. other (please specify)				
	2	Demonal ashalarship astivition	TT	Enll	1	1 22'+
	۷.	develop proposals for publication	.11	run	A330C.	A55 I.
		such as monograph or books				
		b prepare manuscripts for journals				
		monographs				
		books				
		c. analyze information and write up				
		reports of your research/scholarship				
		d. work on research/scholarly activities				
		e. read journals, books, etc. to stav				
		current in your field				
		f. other (please specify)				
		g. other (please specify)				

E.		Service	hours	/week		
	1.	Institutional Activities	TL	Full	Assoc.	Ass't
		a. Program service				
	1) academic program committee activ	ities				
		2) program chairperson/coordinator		·		
		3) program meetings, etc.				
		4) other (please specify)				
		b. Department service				
		1) standing committee activity				
		2) ad hoc committee				
		3) administration				
		4) other (please specify)				
		c. School of Education service				
		 standing committee activity 				
		2) ad hoc committee				
		3) administration				
		4) other (please specify)				
		d. University service				
		 standing committee activity 				
		2) ad hoc committee				
		3) administration				
		4) other (please specify)				
	2.	Service to Organizations Outside the Unive	rsitv			
		a. serve as a paid consultant				
		b. serve as a project coordinator				
		c. serve as a non-paid consultant				
		d. other service activity (please specify)				
		e. other service activity (please specify)				
			•			
	3.	Community/public service activity	2			
		a. (please specify)				
		b. (please specify)				

Total Hours

Section II: Importance of teaching, research, and service in the promotion and tenure process

A. Please indicate from your knowledge and experience with the <u>promotion and tenure</u> <u>process</u> the current importance of a faculty member's contribution in each area both in the School and in the Provost's decision-making for the University.

	Promotion/Tenure	TL	Full	Assoc	. Ass't.
Teaching					
Research					<u> </u>
Service	100%				

B. Please indicate the relative importance of each <u>that should be</u> used when assessing your contribution to the School/University for <u>promotion and tenure decisions</u>.

	Promotion/Tenure	TL	Full	Assoc	. Ass't
Teaching					
Research			_		
5011100	100%				

Section III. Importance of Indices for Promotion and Tenure

Please rate the importance of each of the following indices from 1 (essential) to 4 (not needed) as an indicator for the evaluation of faculty like yourself for promotion and tenure. Add additional categories and associated indices for other important activities that should be included.

4- esse	ential	3-important but not essential	2-sometimes	needed		1- not	needed
I. <u>Tea</u>	ching and Advi	sing Contributions			Impor Prome (Assist	tance fo otion/Te ant to A	r nure ssociate)
A.	Teaching			TL	Full	Assoc	. Ass't
	Specific court	ses taught					
	and enrollmer	nts					
	Peer review of	of teaching					
	Student evalu	ations of course (OET])				
	Materials (syl	llabus, handouts, etc.)					
	Other:			·			
	Other:						

4- ess	ential	3-important but not essential	2-sometimes	2-sometimes needed			1- not needed		
				TL	Full	Assoc.	Ass't		
B.	Advising								
	Number of ac	lvisees							
	Letters from	advisees							
	Number of a	lvisees							
	advanced to	o candidacy							
	Number of a	ivisees completing							
	advanced d	egrees							
	Number of S	OE students supported							
	on your res	earch and training proj	ects						
	Opinions of c	current and							
	former stud	lents							
	Other:								
	Other:								
C.	Involvement	in professional training	g/education						
	Self reports o	or evaluation by partici	pants						
	Colleague ob	servations							
	Training mat	erials							
	Other:								
	Other:								
П.	Scholarship a	and Research Contribu	<u>tions</u>						
A.	Publications	and other writing:							
	Articles publ	ished in refereed journ	als/books						
	Chapters in b	ooks/monographs							
	Books author	ed/co-authored							
	Published cri	tiques of books/monog	graphs						
	Frequency of	citation							
	Reports prod	uced for funding sourc	es						
	Single author	ed publications							
	Multiple auth	ored publications							
	Honors, awai	rds for research/scholar	rship						

12.2.2

4- ess	ential 3-important but not essential	2-sometimes needed			1- not needed	
	Judgments hy:		TL	Full	Assoc.	Ass't
	External reviewers known to you					
	External reviewers unknown to you.					
	Internal reviewers selected by you					
	Internal reviewers selected by your	dept /others		<u> </u>		
	Other	dept./others				
	Other:					
	Other:					
	Other					
в	Grants and other funded work:					
D.	Number of applications for research s	prants				
	Number of applications for non-research grants	arch grants				
	Number of grants received					
	Total amount of funding obtained					
	Other:					
	Other:					
	Other:					
	Culor					
Ш.	University and Community Service					
Δ	Service					
11.	Membership on committees at:					
	Program level					
	Department level					
	School level					
	University level	•				
	Other University contributions	$\mathcal{F}_{\mathcal{F}}$				
	Other Oniversity contributions_					
в	Service outside University					
D.	Officer in professional associations					
	Unnaid work with					
	School districts					
	Governmental bodies					
	Non-profit organizations					
	Honors awards for service to educativ	on/				
	non-profit organizations	011/				
	Other.					
	Outor.					
C. University and Community Service

Color States and States

There is some indication that the Promotion and Tenure committee views service to the program, department, and school as expected for all candidates. Absence of service is considered a negative. However, major service contributions by candidates with weak or mediocre research/scholarship does not necessarily result in promotion and tenure. Do you agree with this perspective? ____Yes No

7

If "No", please describe your view.

Section IV: Personal Feedback

- 1. Do you think criteria for promotion materials should be different for the granting of tenure (typically promotion to associate professor), than for promotion to full professor? _____Yes ____No
- 2. If yes, what are the primary differences in the criteria, or products used to assess or document that the criteria were met?

3. Are there documents or products that demonstrate the quality of your <u>teaching</u>related work that are not generally used (or valued) in the promotion and tenure process? Please describe them here.

4. Are there documents or products that demonstrate the quality of your <u>scholarship/research</u>-related work that are not generally used (or valued) in the promotion and tenure process? Please describe them here.

5. Are there documents or products that demonstrate the quality of your <u>service</u>related work that are not generally used (or valued) in the promotion and tenure process? Please describe them here.

- 6. Indicate any problems or concerns you have with the information and products required in the present P&T process.
- 7. What changes in the P&T materials would you suggest to improve promotion and tenure review of the unique roles or contributions of School of Education faculty like yourself?

APPENDIX G

All Faculty Written Responses

Assoc.	01	3. Yes, Lee Shulhman has written and talked at length about these other
6-10		documents/products.
		4. Video productions, share stories/poetry/cases/software, curricular
		materials.
Assoc.	02	7. More balanced view of scholarship than number of publications,
10+		dollars brought in. Contribution to profession.
Full	03	3. Student work, syllabi
10+		4. Grants submitted and received. Reports from granting agencies.
		6. Need for consistency across departments
		7. It's not a change in materials. It's change in monitoring of young
		faculty so they understand the requirements.
Full	04	Sec. ΠC . & This is a tricky issue. Service is necessary to keep the
1-5		institution functioning so the efforts of a few are essential. However,
		students (especially graduate students) require faculty who keep up with
		their fields and contribute outside the school/university. Also doctoral
		students require supervision by someone capable of strong
		research/scholarship.
		Sec. IV 2. The criteria needs to change from "promising" to
		"accomplished" from "show/leadership potential" to "has
		demonstrated/leadership"
	,	3. None that I can think of
		4. None that I can think of
		5. None that I can think of
		6. None
		7. None that I can think of

Assoc. 10+ 05	6. Which guidelines are in force? Essential to clarify for assistant
	professor.
Full 10+ 06	2. Promotion to full professor requires demonstratedattained in
	field of specialization.
	3. Comments written by students in response to open-ended questions on
	OET forms
Assoc. 07	2. Service outside the university; awards/honors; publications such as
1-5	books
	3. No
	4. No
	5. No
	7. None
Assoc. 08	2. Full professor should be a higher standard — continued research
1-5	performance, excellence in teaching and service. Materials for full
	(professors) should demonstrate a well-established national reputation.
	3. Development and use of innovative course materials. Use of technology in
	courses.
	4. Although more credit should be given to funded grants, there should be
	some acknowledgement of the effect in writing them, whether funded or
	not.
	- more credit should be given to books and book chapters not just peer
	reviewing empirical research.
	5. Being on the editorial boards of national and well respected journals

		it takes time to write good reviews more credit for coordinating
		programs.
		7. More emphasis on teaching, innovation in teaching, program development.
Assoc.	10	2. Full national reputation, leadership, differentiate in types of
10+		publications, more work/with doctoral students.
		6. Better systematic mentoring !! especially for assistant professors
Assoc.	11	2. Promotion to assoc. professor is product oriented. Promotion to full
professor		
10+		should be process oriented
		3. Student products showing high interest and motivation in study
		4. "think pieces"
		5. No
		6. Excessive and "mind boggling" not a pleasant task to give such
		extensive evidence
		7. Excessive number of steps, arrogance of some faculty i.e., full
		professor and cognition oriented faculty.
Assoc.	13	5. It sometimes is difficult to demonstrate the quality and/or quantity of
10+		service related work.
		7. What is the "true" relative importance of teaching in the over-all
		dossier? Is the T&P (tenure and promotion) committee's interpretation of
		the weight consistent with the provost's.
Assoc.	15	2. Full professors should be concerned with scholarship products
10+		involving synthesis and analysis and understanding their field. Such
		writing may be broader than that associated with research reports.
		3. No
		4. No

`ý

	5. No
	6. No
	7. None
Full 16	3. Faculty should incorporate their published research into courses taught.
10+	4. Not in my career. PIT (promotion and tenure) may tend to down play
	the value of scholarship published in journals with ethnic/racial focus.
	5.No
	7. To be a traditionalist, I tend to support the notion of a rigorous process
	that is modeled on the arts and science standards in some universities.
	We are all big boys and girls and should not whine about rigorous standards
	and high quality in a research university. Good Luck!
Assoc. 17	4. Actual teaching materials
10+	4. No
	5. Workshops
	6. No
	7. No
Full 1-5 1 18	2. Please see promotion and tenure guidelines
Full 19	2. More focus on teaching and advising
10+	6. More focus on teaching and advising. Availability of faculty for advising,
	guiding the needs to be valued.
	7. Advising, questionnaire given to students
Full 20	2. Not applicable
6-10	3. Validated peer review system
	4. None
	5. None

6. In adequate definition of practitioner related research -

7. See item#6

6-10

Assoc.

21

faculty (pit to associate). Promotion to full (professor) should have more focus/emphasis on demonstrated research

2. I think teaching and research should be more balanced for younger

3. No

4. No

5.No

6. My only concern is that we ask candidates (or candidates come to believe) that the more they include, the greater their chance of being promoted with tenure.

8. Encourage candidates to reduce the voluminous amount of paperwork.

Full 22 2. Candidates for professor should have written at least one book, be
6-10 widely known by U.S. colleagues in specialty area, consistently contribute to the knowledge in their field, and be a good citizen in the school and university.

4. Much evaluation related work, as well as in other funded projects, demonstrates my knowledge of the field and to use it in creative and useful ways. Much of this work does not lend itself to traditional publication outlets. Perhaps more internet journals, etc. will promote such work.

5. These evaluation and other grant related products are also indicators of the types of service SUE faculty provide to various education-related organizations.

6. Selecting the array of information that P&T requires of all candidates has been a difficulty. When faculty provide every possible document the review process becomes very time-consuming. Is that good for the SOE

or university?

		7. Although the P&T committee needs the traditional types of
		contributions, faculty makes to their specialty area, there is a need to
		obtain more dependable information on other ways a faculty carries out
		their roles as teachers, advisors, and scholars in their field.
Assoc.	23.	3. No — but documents can't demonstrate quality of teaching
610		4. No
		5. No
		7. Consistently between departmental evaluations and P&T 24
Assoc. 10+	24	7. Differentiated roles" is dead — long live the victors!
Assoc. 10+	25	2. Major research recognition
		6. Question accuracy of OMET evaluations. They are dependent upon
		whether the class is required or elected, or is in their field or not.
Full	26	Sec. Ill C. Service is never a factor
10+		3. Books published as texts
Ass't.	27	2. For full-more emphasis should be placed outside indicators rather than
1-5		inside either program/dept./SOE/university — based on contributions in the
		field. For assistant to associate should be mainly contributions inside
		program/dept/SUE/university.
		3. No
		4. No
		5. No
		6. Defined differently for people — not equally evaluated. Varies by
		program/department. Lax for some, more stringently followed by others.
		7. Make more equitable among departments. Not fair the way currently
		done.

		And hold for new hires as well - not fair to change the rules
		for those already here!! (most important)
Assoc.	28	3. Pre-post testing to measure achievement gains
10+		4. Editing textbooks — at least not always
Assoc.		2. For tenure — usefulness in attaining SO/university mission
1-5		For full professor — stature in the field, as well as above
		4.No
Full	31	2. More relevant to profession. Breadth of contributions — leadership in
		field, mentoring
		4. Evaluation reports to funding agencies.
Ass't.	33	3. Written documents from students on whom you may have had a
1-5		significant professional impact.
		4. External funding should receive more weight than internal funding
		- the size and magnitude of the grant received should be weighted. There
		is significant administrative responsibility that is hot considered at the
		department level.
		6. It appears that less productive faculty at the department level have a
		major impact on whether or not productive faculty can be promoted
		and receive tenure.
		7. The department appears to weight teaching as 75% with research and
		service receiving 25%. This is not fair or consistent with university
		policy. The teaching is also based on number of courses taught and not
		necessarily on quality of teaching.
Assoc.	34	3. Teaching is generally not valued. Grants — Grants — Grants
10+		4. Only \$ counts
		5. No one knows my service records because no one asks or verifies

6. None

7. We are not a business — outside grants \$ should not be a critical only scholarship results

Assoc. 36 Sec. III C. When these criteria are identified without the relative weight

of each, decisions of this type suggest someone has a priority that is

4. Project reports

Project planning and management

5. Representing the university and school in schools recruitment of students. Developing educational networks to support a variety of teaching and learning activities in degree programs.

6. Feedback from these documents is too general

7. If we want to create a "community of scholars" concept, have the

materials processed through the community to the Dean

Assoc. 37 See III C. The quality and scope of service is what is important. 10 +

should relate to one's area of expertise.

2. Full professor criteria should focus on depth rather than breadth

(# of things produced) of scholarship

3. Materials written for K-12 and students not taking our courses number of students (products) who do advance

number of dissertations generated as a ruse of study with an instructor

4. Edited works

5. Local and regional board participation

6. The problem is with the decision-makers (members of the committee

who may be biased against those who differ from themselves in key areas (race, age, etc.)

7. See response to item #6

Ass't

38

Service can be considered more seriously for full professor and the contribution to program/department is more significant. Full professors

put us on the map while associates ought to be gearing up to do so. Self-reflection on teaching — a detailed portfolio with student work, instructor feedback, etc. that makes a case for particular pedagogical issue -treated in a scholarly way.

4. Testimonials from participating organizations (schools) about effects of collaborative work on teacher practice.

6. Peer review of teaching should be done by a peer not a senior professor7. More emphasis on purposeful, thoughtful pedagogy and evidence of

viewing gives one's own pedagogy in a scholarly manner

- Asso 39 7. Realistic assessment of roles and functions required to keep the school
 10+ as a viable teaching learning organization and based on the relative importance of each role and function a set of criteria that reflect that relative importance.
- 12 2. Promotion to full should include a) strong evidence of national
 10+ importance, b) a steady consistent pattern of research and support of
 student development, and c) evidence of student placement
 3. Student produced papers and conference presentations
 4. The cover memo should establish a profile of coherent research not just
 opportunistic publication.

Assoc. 32 Sec. III C

I remember a chair saying — any objections to his teaching? No? Anything that can pass as service? Yes? Now then let's get to the publication. This is a naïve new of administration so is the question here. More realistic and sophisticated questions might include — How does the sum of this person's efforts contribute to instructional sustainability? What has been their impact on attracting quality students, alumni contributions, legislative support, grants and contracts, media _____, collegial respect. It is naïve because it assumes a one size fits all which may not be appropriate for successful institutional strategy.

32 Sec.IVC

I believe that academic faculty need to be much more realistic in terms of their responsibilities for institutional survival — where do we ask about the faculty members! Contribution to 1) safe places for the next generation of children to learn; 2) professional standards and ethics; creativity that is both important and annoying; 4) innovation measurable; 5) institutional capacity building; 6) demonstrations of respectful relationships with students and pure civility — sense of fair play — humanity Sony to be so puckish about this — I'm having fun playing godfey — these are great questions and if I had a few days off to work on giving you the quality responses you deserve — I would! I guess I am just slow.

BIBLIOGRAPHY

- Allard, S., (1982). <u>A Summary of Institutional Policies Affecting Outside and Offload</u> <u>Employment For Faculty at Maryland Public Higher Education Institutions</u>. Maryland State Board For Higher Education. (ERIC Document Reproduction Service ED 221 127).
- Anderson, M. (1996). <u>Imposters in the Temple, A Blueprint For Improving Higher Education In</u> <u>America</u>. Stanford: Hoover Institution Press, No. 436.
- Biglan, A. (1973). The Characteristics of Subject Matter in Different Academic Areas. Journal of Applied Psychology, 57 (3), 195-203.
- Bok, D. (1990). Universities and the Future of America. Durham: Duke University Press.
- Boyer, E.L. (1990). <u>Scholarship Reconsidered: Priorities of the Professoriate</u>. Lawrenceville: Princeton University Press.
- Braxton, J. & Hargens, L.L. (1996). Variation Among Academic Disciplines: Analytical Frameworks and Research. In J. Smart (Ed). <u>Higher Education: Handbook of Theory and Research, Vol. XI</u>, Edison: Agathon.
- Benditt, T.M. (1990). The Research Demands of Teaching in Modern Higher Education. In S. Cahn (Ed). <u>Morality, Responsibility and the University: Studies in Academic Ethics</u>. Philadelphia: Temple University Press, 152-175.
- Cambell, J.R. (2000). <u>Dry Rot in the Ivory Tower</u>. Lanham/New York/Oxford: University Press of America Inc.
- Carnegie Foundation for the Advancement of Teaching (1989). The Condition of the Professoriate: Attitudes and Trends 1989. Princeton.
- Columbia University (1994). <u>Principles Governing the Reappointment of Full-time Members of</u> <u>the Faculty, Promotion in Academic Rank, and the Award of Tenure at Teachers College.</u> Columbia University Faculty Handbook, New York.
- Cowley, W.H. (1981). Presidents, Professors and Trustees, San Francisco: Jossey-Bass.

- Cowley and Williams (1975). <u>More Than Survival: Prospects for Higher Education in a Period</u> <u>of Uncertainty</u>. The Carnegie Foundation for the Advancement of Teaching. San Francisco: Jossey-Bass Publishers.
- Creamer, E. (1998). <u>Assessing Faculty Publication Productivity: Issues of Equity</u>. Washington: ASHE-ERIC Higher Education Report, Volume 26, No. 2.
- Creswell, J.W. (1985). <u>Faculty Research Performance</u>. Washington: ASHE-ERIC Higher Education Report, No. 4.
- Diamond, R.M. & Adam, B.E. (1997). <u>Changing Priorities at Research Universities</u>, <u>1991-</u> <u>1996</u>. Syracuse: Center for Instructional Development, Syracuse University.
- Drucker, P. (1999). <u>Peter Drucker on the Profession of Management</u>. Boston: Harvard Business Review Book.
- Fairweather, J.S. (1993). Faculty Reward Structures: Toward Institutional and Professional Homogenization, <u>Research in Higher Education</u>, <u>34</u>, (5), 603-622.
- Fallon, D. (1980). <u>The German University: A Heroic Ideal in Conflict with the Modern World</u>, Boulder: Associated University Press.
- Gaston, J. (1978). <u>The Reward System in British and American Sciences</u>. New York: John Wiley and Sons.
- Gay, L.R. (1996). <u>Educational Research, Competencies for Analysis and Application, Fifth</u> <u>Edition</u>. Saddle River: Prentice Hall.
- Gray, P. J., Froh, R.C., & Diamond, R.M. (1992). <u>The National Study of Research Universities</u> <u>on the Balance Between Research and Undergraduate Teaching</u>, 1992. Syracuse: Center for Instructional Development, Syracuse University.
- Hargens, L.L. (1990). Variation in Journal Peer Review Systems. Possible Causes and Consequences. Journal of the American Medical Association, 263 (10), 102-114.
- Hargens, L.L. (1988). Scholarly Consensus and Journal Rejection Rates. <u>American Sociological</u> <u>Review, 53</u> (1) 139-151.
- Heydinger, R.B. & Simek, H. (1992). <u>An Agenda for Reshaping Faculty Productivity, State</u> <u>Policy and College Learning.</u> Colorado: State Higher Education Executive Officers and the Education Commission of the States.
- Legislative Office of Educational Oversight (1993). <u>The Faculty Reward System in Public</u> <u>Universities</u>. Columbus.

- Lidstone, J.E., Hacker, P.E. & Oien, F.M. (1996). Where the Rubber Meets the Road: Revising Promotion and Tenure Standards According to Boyer." <u>Quest, 48</u>, 200-210.
- Lodahl, J.B. & Gordon, G. (Feb. 1972). The Structure of Scientific Fields and the Functioning of University Graduate Departments. <u>American Sociological Review</u> <u>37</u> (2), 57-72.
- Lorents, A.C. (1971). Faculty Activity Analysis and Planning Models in Higher Education. St. Paul: Higher Education Coordinating Commission, Project Prime Report Number 6.
- Marchant, G.J. & Newman, I. (1991). <u>Faculty Evaluation and Reward Procedures: Views from</u> <u>Education Administrators</u>. Paper presented at the Annual Meeting of the American Educational Research Association, Chicago, IL, April 3-7. (ERIC Document Reproduction Service No. ED441377).
- McShane, K. & Douzenis, C. (1987). Evaluation and Reward: Is Research the Only Way? Paper presented at the annual meeting of the Mid-month Educational Research Association, Mobile, AL, November 11-13. (ERIC Document Reproduction Service ED 290 374).
- National Endowment for the Humanities (1990). <u>Tyrannical Machines --A Report on</u> <u>Educational Practices Gone Wrong and Our Best Hopes for Setting Them Right</u>. Washington: 25-61.
- Pellino, G.R., Blackburn, R.T., & Boberg, A.L. (1984). The Dimensions of Academic Scholarship: Faculty and Administrator Views. <u>Research in Higher Education</u>, 20 (1), 103-115.
- Pennsylvania State University, College of Education (1995). <u>Promotion and Tenure Guidelines</u>. University Park.
- Schuster, J.H. & Wheeler, D.W. (1990). <u>Enhancing Faculty Careers: Strategies for Development</u> <u>and Renewal.</u> San Francisco: Jossey-Bass Publications.
- Sid W. Richardson Foundation Forum (1997). <u>Restructuring the University Reward System</u>. Fort Worth: Sid W. Richardson Foundation Task Force.
- Soder, R. (1990). Viewing the Now-Distant Past: How Faculty Members feel when the Reward Structure Changes. <u>Phi Delta Kappan</u>. May 1990, p702-709.

Stanford University (2001). Faculty Handbook, Stanford.

University of Nebraska-Lincoln, (1989). <u>Guidelines for the Evaluation of Faculty: Annual</u> <u>Evaluations, Promotion and Tenure</u>. Lincoln.

University of Pittsburgh (1998). Average Salary of Full Time Employees. Pittsburgh.

- University of Pittsburgh, Faculty of Arts and Sciences (1998). <u>Bylaws of the Faculty of Arts and Sciences</u>, Pittsburgh.
- University of Pittsburgh, Faculty of Arts and Sciences (1997). <u>Implementation of Policy on</u> <u>Differential Teaching Loads</u>, Pittsburgh.

University of Pittsburgh (1995). Faculty Handbook, Pittsburgh.

- University of Pittsburgh, School of Education (1989). <u>Guidelines for Decisions on Faculty</u> <u>Promotion and Tenure</u>, Pittsburgh.
- University of Pittsburgh, School of Education (1999). <u>Policy and Procedures for Tenure-Stream</u> <u>Faculty Merit and Compensation Review</u>, Pittsburgh.

University of Pittsburgh, School of Education (1997). <u>Teaching Load Policy</u>, Pittsburgh.

- Ward, K.B. & Grant (1996). Gender and Academic Publishing. In J. Smart (Ed.), <u>Higher</u> <u>Education: Handbook of Theory and Research, Vol. XI</u>. Edison: AGAT.
- Watkins, B.T. (1990). 'Practices Gone Wrong' Pervade Education, Humanities-Fund Chief Says. <u>The Chronicle of Higher Education</u>. Nov. 14,A1.
- Yuker, H.E. (1984). <u>Faculty Work Load: Research Theory and Interpretation</u>. Washington: ASHE-ERIC Higher Education Research Report No. 10.
- Zuckerman, H. & Merton, R.K. (1973). Age, Aging and Age Structure in Science. <u>Sociology of</u> <u>Science</u>. Robert K. Merton (Ed). Chicago: The University of Chicago Press.