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ENGAGED SCHOLARSHIP AT LAND-GRANT INSTITUTIONS:
FACTORS AFFECTING FACULTY PARTICIPATION

BY

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DISSERTATION

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ABSTRACT

ENGAGED SCHOLARSHIP AT LAND-GRANT INSTITUTIONS: FACTORS AFFECTING FACULTY PARTICIPATION

by

Lisa Townson

University of New Hampshire, May, 2009

At a time when universities and their faculty are called to work in partnership with partners to address important societal issues, engaged scholarship has become an important movement in higher education. This research examines the perceptions of tenured and tenure-eligible faculty members at land-grant institutions and describes how disciplinary differences influence faculty members' expression of and likelihood to practice engaged scholarship; work with community partners; and how they perceive engaged scholarship is recognized and rewarded by their institutions. A stratified random sample of tenure-track faculty members from all 1862 land-grant institutions was surveyed via the Internet and data were analyzed using ANOVA, crosstabulations, and t-tests to examine differences based on discipline, gender, and academic rank.

Academic discipline, at least in broad categorical terms, does influence the extent to which faculty report their involvement in engaged scholarship activities and how they perceive rewards for it. Faculty that work in the applied academic disciplines such as engineering, agriculture, social work, and youth

development not only reported working more in engaged scholarship, but also were more likely to report they felt this was engrained into their work as scholars. Having mentors and colleagues, as well as concrete examples of how work with community can be scholarly seems to be an important component to encouraging engaged scholarship. In addition, these disciplines, particularly faculty from the applied/soft disciplines, such as education and social work, indicated that they had appropriate, peer-review outlets for their engaged scholarship work, making it much easier for them to be rewarded for community engaged scholarship.

Women in this study reported working in engaged scholarship more often than men, but all respondents, regardless of gender, expressed concerns about rewards and the amount of time required. Faculty rank also influenced how rewards and benefits to their career were perceived. No significant differences were found between the ranks in reporting whether or not they had been involved in engaged scholarship. Surprisingly assistant professors worked just as often in engaged scholarship as tenured faculty.

CHAPTER 1

INTRODUCTION

“We conclude that for America’s colleges and universities to remain vital a new vision of scholarship is required. What we are faced with, today, is the need to clarify campus missions and relate the work of the academy more directly to the realities of contemporary life. We need especially to ask how institutional diversity can be strengthened and how the rich array of faculty talent in our colleges and universities might be more effectively used and continuously renewed. We proceed with the conviction that if the nation’s higher learning institutions are to meet today’s urgent academic and social mandates, their missions must be carefully redefined and the meaning of scholarship creatively reconsidered.” (Boyer, 1990, p. 13)

Boyer called for visionary changes to the concept of scholarship and almost twenty years later, many institutions of higher education still struggle with how they might address the issues and problems facing society today in a more comprehensive manner. Leaders in higher education have found that scholarship and inquiry *in* communities is not the same, nor is as effective, as scholarship in true partnership *with* communities to address many of the complex societal issues they face (Sandmann, 2006). At a time when higher education is looked to in addressing societal issues (Kellogg Commission, 1999), structures and systems within the academy haven’t necessarily changed to support this work and the faculty members responsible for the work.

Historically public service is one of the three foundational ideas of public land-grant institutions and recently higher education has been criticized for their inattentiveness to serving the public good. As resources and rewards are increasingly available to faculty members with sponsored research agendas and prolific peer-reviewed publishing records, it is not surprising that activities such as community engagement and outreach are not perceived to be as important as research and teaching (Kellogg Commission, 1999).

While working in partnership with communities can be extremely successful, it often takes a great deal of time and patience. Faculty members hold the knowledge and skills necessary to address community issues in a scholarly manner, but they are often hesitant to leave their labs, libraries, and offices to engage with community members in a meaningful way. The type of work they have been prepared for in graduate school, recognized for, and promoted for may not include engaged scholarship.

Public service, outreach, engagement, community engagement, and engaged scholarship represent widely varied meanings to administrators and faculty from different institutions and academic disciplines. One of the biggest challenges in the national movement in higher education for greater engagement with communities is the variety of terms used and misunderstanding of some of the concepts of engagement (Berbert, 1999). For the purposes of this study, service or public service is defined as institutional or discipline service, such as serving on departmental or college committees, faculty senate, reviewing

presentation proposals for ones disciplinary association's annual meeting, or serving as a manuscript reviewer for a peer-reviewed journal (Lynton, 1995).

Outreach is service to the community outside of the institution, but is still related to one's academic discipline. For example, a professor in history that presents to a local Rotary Club about the historical economic impact of agriculture to the region is performing an outreach function. Engaged scholarship is mutually beneficial and occurs when a faculty member works with a community partner in a scholarly way to answer questions or develop a creative endeavor, important to both the community, and to the academic discipline of the faculty member (Sandmann, 2008). An example of engaged scholarship is a public health faculty member who has developed a community research project in conjunction with a community health center to determine the barriers experienced by Somolian immigrants in obtaining health care for their children. Although the community's need is to identify the barriers, so they can improve their services, the faculty member might also study how urban health care centers communicate with non-native speaking populations, what training health care providers need to be successful, and how non-native people view American health care, yielding data that would be shared with other academic colleagues.

For many faculty members and institutional leaders, the concept of engaged scholarship, as defined here is not understood consistently. Any type of work that involves a non-academic partner continues to be viewed as outreach or service alone and is misunderstood and confusing to some faculty (Amey, 2002).

Further, there are some faculty members and types of scholarship that just might not be interested in or appropriate for engaged scholarship as defined by this study. Research in fields such as medicine, chemistry, and physics may lead to cures for debilitating diseases, opportunities for new products or innovations that greatly improve lives, and open up new fields of research and scholarship that wouldn't be imagined with out this basic research. The inclusion of community partners may not be appropriate nor add any value to research at this level. In addition, scholarship in the arts and humanities often includes solitary research methods in exploration of historical documents, development of new techniques for artistic expression, and creation of understanding of literature. These forms of scholarship enhance the lives of people in many ways and are important contributions to society in they contribute to a great understanding and appreciation of our history and add quality of life. While community engagement is viewed as a way for institutions of higher education to respond to societal issues and problems, it should not be viewed as a replacement for other forms of scholarship (Boyer, 1990).

Significance

As one of the first large scale, empirical studies, this study examines the role of discipline in perceived barriers and facilitators to a faculty member at land-grant institutions working in engaged scholarship. The study also looks at other influences in faculty engaged scholarship such as gender and rank.

With the increased criticism from the public regarding higher education's role in working with communities to solve societal problems, institutional leaders

are examining ways to encourage faculty to engage with communities and, in some cases, making policy changes to their promotion and tenure reward system to reflect this (Kellogg Commission, 1999). At the same time, faculty demands for teaching, graduate student mentoring, sponsored research, and peer-reviewed publications are increasing as well, often making it difficult for faculty to prioritize their time and energies. A greater understanding of how faculty from various disciplines work with communities and perceive rewards, along with more information about other factors that influence a faculty member's interest and ability to do engaged scholarship will assist land-grant institutions in making future decisions about support and rewards. Efforts to promote this type of work or change promotion and tenure requirements to be more sympathetic to all types of scholarly work, including engaged scholarship, should be guided by the differences in various disciplines' practice of scholarship.

Research-based information and rigorous methodology are contributions to societal issues that are unique to higher education. While non-profit groups and governmental agencies work to address the many problems facing society, higher education has a distinctive set of skills and resources available to them that lead to answers to complex societal problems. A solid understanding of the literature surrounding an issue and relationships to colleagues at other institutions studying similar or related issues provides the necessary background and also might uncover existing solutions that a community partner hadn't considered or been aware of. Library resources have become more widely available to the general public but with the competition of Internet search engines

such as Google, it has become a challenge to wade through what is good scholarship and what is not (Dunford, 2009).

Faculty members in higher education have skills in research methodologies that are critical to examining problems and evaluating solutions in a way that provides reliable and valid results. In addition, faculty members have access to laboratory facilities and student support that many community agencies do not.

A faculty member's discipline plays an important role in how they were prepared and socialized as graduate students, the type of scholarship they are involved in, teaching loads, and often the culture of the department they are part of (Moran, 2002). Some of these factors also influence the likelihood of a faculty member to work with communities, and potentially their likelihood to work in engaged scholarship. Although there has been a great deal of research published about academic disciplinary differences in issues such as job satisfaction, compensation, and publishing habits (Lee, 2004), very little has been published regarding the influence of discipline on engaged scholarship work.

Faculty members who have not yet made tenure in their position are appropriately concerned about how their work will be viewed when they are under review for promotion and tenure (Ward, 2003). They must carefully balance their efforts to be sure they can document excellence in research, teaching, and service. However research and teaching are typically viewed to be the most important components of a tenure review and while a certain amount of

service is necessary, this isn't viewed as critically as their work in research, evidenced by peer-review journal articles, book chapters, or examples of creative, original work or their teaching record (Ward, 2003). Once a faculty member has successfully made it through the tenure review process, and particularly once they have become full professors, they enjoy more autonomy in their work and the type of work they do is less dependent upon institutional rewards and more dependent on their own interests and preferences. Given this flexibility in tenured faculty, rank may influence their conceptions or likelihood to work in engaged scholarship as well (Peters, Jordan, Adameck, & Alter, 2005).

The increased number of women in the professorate is an important consideration to examine as well. There is evidence that women are taking on more faculty positions, but not necessarily in tenure-track positions (Drago, 2007). Women are becoming a larger proportion of adjunct and part-time faculty in higher education and just 24 percent of full professors in the U.S. are women (West & Curtis, 2006). Women often report more difficulty in balancing work and family as well (Aguirre, 2000). Gender and rank have also been previously reported to influence the likelihood in whether or not a faculty member is involved in community service as part of their faculty role (Antonio, Astin, & Cress, 2000) and the extent to which they use service learning in their teaching (Abes, Jackson, & Jones, 2002).

The new elective Carnegie Classification for community engagement has spurred much interest in higher education to achieve and promote their institutional support for engaged scholarship. The Carnegie Foundation

application process for community engagement uses criterion for granting this classification based on foundational indicators including mission, recognition of community engagement, assessment of engagement, and how an institution's leadership explicitly promotes engagement as a priority. Applications can either focus on Curriculum Engagement, or Outreach and Partnership in their approaches to community engagement ("The Carnegie classification of institutions of higher education," 2007).

Research Questions

Engaged scholarship is first and foremost scholarly work. Boyer (1990) presented an expanded, broader conceptualization of scholarship in his seminal work, *Scholarship Reconsidered*. Later Glassick, Huber, and Maeroff (1997) proposed a framework for evaluating scholarship that spans research, teaching, and engagement work. These models for conceptualizing and evaluating scholarship became the theoretical basis for the survey developed and used in this study.

The overarching question for this study is: Does academic discipline influence how land-grant tenure track faculty express and experience rewards for engaged scholarship? The following sub-questions will focus the study:

1. How do faculty members practice engaged scholarship and how do their respective disciplines influence that practice?
2. What are the differences and similarities in faculty perceptions of how engaged scholarship is recognized and rewarded by their institution and within their discipline?

3. What other factors (such as gender, rank, teaching load, institutional support, etc.) influence faculty in practicing engaged scholarship work at land-grant universities?

Findings from this study are important to further understand faculty motivations and challenges in engaged scholarship. It is an important time to look more carefully at the progress made by land-grant institutions in community engagement, and particularly look at how differences in academic discipline might require individualized conceptions of engaged scholarship from academic department to department.

Several studies have begun to look at how various institutions are making progress in their efforts to support and promote engaged scholarship on their campuses (Lunsford, Church, & Zimmerman, 2007). Many institutions have made changes to their promotion and tenure process to allow for a broader definition of scholarship in review of promotion documents. Yet faculty who are serving on promotion and tenure committees still struggle to understand and view community work as scholarship. The diversity of faculty members by academic discipline, like the diversity of institutions in higher education, should not be ignored when making policy changes and judgment values about engaged scholarship.

A greater understanding of how various academic disciplines view engaged scholarship, implement it, and perceive rewards for it, will help institutions that are struggling with new ways to support faculty working with communities. In addition, this study examines other important influences to

faculty member's working in engaged scholarship, such as gender, rank and institutional support. Whether the answer is changes to promotion and tenure requirements, faculty development programs, a recognition of the need for greater release time and additional resources for engaged scholarship, or a combination of these and other support structures, recognition of the uniqueness of faculty, based on their academic discipline is important.

CHAPTER 2

REVIEW OF LITERATURE

Historical Context

The United State's land-grant system of public higher education has been a significant success over its 140-year history. During the 1800's, as the newly formed United States of America struggled to survive, higher education emerged as a means to provide more than a liberal education to wealthy young people. Universities such as Yale and Harvard altered their mission and stressed their role in promoting democracy and building businesses (Boyer, 1996). Midway through the 19th century, congress passed the Morrill Act which granted land to each state, based on the number of congressional seats held, to be used or sold to raise funds for a state land-grant college. Later, in 1890 the second Morrill Act gave states direct, annual federal appropriations to support land-grant colleges and at the same time prohibit racial discrimination in admissions. In order for states to be eligible for this annual appropriation they needed to admit students regardless of race or form an alternative institution for black students. Several southern states took advantage of the alternative provided, forming what became known as the 1890 land-grant colleges (Rasmussen, 1989).

The opportunity for a quality education offered to the "common" person was counter-cultural until Justin Morrill and Abraham Lincoln embedded the

vision in one of the most seminal pieces of legislation to impact higher education (Kerr, 2001). The creation of land-grant colleges was primarily designed to provide education and research in response to the needs of the agricultural community. This movement helped make the United States more competitive in agriculture and mechanical industries by teaching not only students, but welcoming farmers into classrooms and lectures to learn about new discoveries in agriculture and mechanization (Boyer, 1990). Public service had emerged as one of the three foundational ideals of public land-grant institutions, along with teaching and research.

Public policy also became part of land-grant work as the Wisconsin Idea took hold in the late 1800's (Witte, 2000). Faculty at the University of Wisconsin became involved in developing and writing public policies, providing agricultural information through farmer institutes and also public policy information through state policy commissions. The Wisconsin Idea was a watershed event that moved colleges and universities to address community issues using the unique skills and expertise of its faculty.

The newly created land-grant colleges soon found they had little substantive content in agricultural science and mechanization to teach, and realized new discoveries in agriculture and mechanization were needed to develop new courses and contribute to the growing American economy (Rasmussen, 1989). The Hatch Act of 1897 provided annual federal appropriations to support agriculture experiment stations and within a decade agricultural research was well underway across the nation.

Still, land-grant college leaders were concerned about future support of their colleges and experiment stations, realizing the new discoveries and innovations needed to be accepted and implemented by farmers in order to make the societal contributions expected of them. Research bulletins and leaflets became a popular method of disseminating information, but most were written for scholarly audiences, not the average farmer, and professors in some states began offering farmer institutes at various locales during the winter months to present their research to local farmers in a manner that was easily understood and applied. This type of delivery became very popular and the Smith-Lever Act was passed in 1914 establishing the national Cooperative Extension system, based out of the land-grant college in each state. Cooperative Extension had a clear purpose, "To aid in diffusing among the people of the United States useful and practical information on subjects relating to agriculture and home economics and to encourage the application of the same." (Rasmussen, 1989, p. 49). This Act complimented the colleges' and universities' mission and service was added to the already established teaching mission of land-grant colleges.

Another significant change took place toward the end of the century which led to the current tripartite higher education mission and redefined the work of the professoriate. Much of the basic scientific research of the early 1800's was done privately, outside of the academy, but influenced by the German approach to scholarship with a greater emphasis on doctoral studies; research in the academy had taken firm root in some universities by the end of the 19th century (Boyer, 1996). Although teaching and service remained the higher priority for

land-grant institutions for several decades, research emerged as a focus for higher education in response to World War II with the availability of federal dollars for scientific research (Kerr, 2001). Individual faculty members who garnered large amounts of funding to support scientific research found they were promoted faster, received more university support, and enjoyed higher status within the university (Kerr, 2001). “Thus began a subtle but pervasive transformation of faculty priorities in American higher education” (Glassick et al., 1997, p. 7).

Faculty members understandably transitioned their time and best efforts from teaching and service to specialized research projects, where publication in peer-reviewed journals made them more competitive for additional research grant funds (Votruba, 1978). This became and remains the gold standard for scholarship in higher education. However, recent growing public concern that higher education has not remained connected and relevant to societal issues has prompted discussions about how to increase the reach of universities into communities to solve contemporary problems facing society. Many faculty perceive their choices to be mutually exclusive; that their work is either scholarly research, teaching, or service, but there is a growing body of literature that suggests the integration of scholarship, teaching, and service is a viable and important focus for faculty (Colbeck, 2002; Votruba, 1978).

Highly focused research agendas and a largely decentralized academic governance structure, has created public perception that universities are “...slow and unwieldy, so intent on studying things to death that it is impossible to get

timely decisions or responses out of them.” (Kellogg Commission, 1999, p. 20). In response to public criticism that universities, particularly land-grant institutions had become less responsive and out-of-touch with societal issues, the term “engagement” was introduced by the Kellogg Commission in 1999.

Engagement Movement

Ernest Boyer, in his famous work, *Scholarship Reconsidered: Priorities of the Professorate*, (Boyer, 1990) looked carefully at all of the duties faculty members are expected to carry out. He re-defined scholarship so that a broader range of faculty work might be characterized as scholarly and brought forward as legitimate, the scholarship of discovery, integration, application, and teaching.

Boyer leads his model for scholarship with research or what he terms the scholarship of **discovery**. Boyer promotes the scholarship of discovery as central to higher education and deeply rooted into the various disciplines. He firmly acknowledges knowledge for knowledge’s sake in the form of basic research is a vital part of what universities do and important if we are to continue to solve complex problems of society.

Next Boyer defines the scholarship of **integration**. This form of scholarship uses original research (or discovery) in new and innovative ways. This type of scholarship is often multidisciplinary and connects the knowledge that is found in one discipline to new uses in others. For example, the development of the micro chip may have revolutionized the personal computer industry but researchers have found new uses for this important technology in the fields of medicine, agriculture, and space exploration.

The scholarship of **application** applies knowledge to solve the problems of society. This type of scholarship is closely connected to the mission of land-grant universities to use their resources to help improve the lives of people. Knowledge should be applied to solve the problems facing society and this is scholarly work. Partners from outside of the university are often asked to help define the problem and determine the utility of the knowledge. This type of scholarship is often called applied research, but doesn't necessarily follow discovery or integration – it's not unidirectional, but more dynamic. Sometimes new questions arise from the process of applying knowledge – leading to discovery from application.

Finally Boyer suggests the scholarship of **teaching** as a dynamic endeavor between students and teachers. Teachers become learners as they provide education to their students, often discovering concepts in new ways through their teaching. Further, it is important that scholars instill the new and creative knowledge in students so they can use it to gain more knowledge or solve problems, "... inspired teaching keeps the flame of scholarship alive." (Boyer, 1990).

Boyer recognized that different types of universities have different missions and should therefore be allowed and urged to define scholarship, reward faculty, and work with students and the public in different ways. Boyer warned that we have created boxes that various types of universities try to fit into and copy instead of each unique institution trying to carve out their own unique niche and way of doing things. He called for "diversity with dignity in American

higher education – a national network of higher learning institutions in which each college and university takes pride in its own distinctive mission and seeks to complement rather than imitate the others.” (Boyer, 1990, p. 64). His work began a movement to reexamine the role of higher education and look critically at how faculty are evaluated and rewarded, so that a broader range of scholarly activities might “count”.

In 1999 the Kellogg Commission on the Future of State and Land-Grant Universities published a report, *Returning to Our Roots - The Engaged Institution* and this report began to coin the term engagement. The Kellogg Commission defined an engaged institution as one that has “...redesigned their teaching, research, and extension and service functions to become more sympathetically and productively involved with their communities, however communities may be defined” (Kellogg Commission, 1999, p. 9). The report challenged land-grant institutions to be organized to respond to present and future students (not yesterday’s); enrich their curriculum by using research and engagement to provide practical experiences for students; and use critical resources to help solve community problems.

The Commission called for universities to organize themselves differently to work in partnership with communities and make campus resources available to address local issues. The report indicated that engagement must be mutually beneficial to both universities and communities and called for institutional change where universities would reaffirm their civic responsibilities to the public and be more responsive to the needs of society.

The Commission studied eleven land-grant institutions that were considered leaders in engagement and found several themes. These institutions were clearly committed to engagement; had strong support to infuse engagement into teaching; used diverse approaches and efforts in their engagement work; defined community in a variety of ways; had solid leadership that supported engagement; and were all concerned about the lack of stable funding for engagement efforts. Although all of the institutions recognized the need to review faculty reward guidelines, none had done so at the time of the report. The Kellogg Commission acknowledges this was likely the greatest challenge to engagement (Kellogg Commission, 1999).

The report offers a seven-part test meant to help administrators and faculty members define engagement on their own campuses. The test includes the following: responsiveness, respect for partners, academic neutrality, accessibility, integration, coordination, and resource partnerships. The Kellogg Commission Report began the movement in higher education for institutions to become more actively engaged with off-campus communities (Sandmann, 2008).

Although Boyer and the Kellogg Commission Reports acted as catalysts for the engagement movement, others have made important contributions, particularly in models for rewarding scholarship under a more inclusive definition. Glassick, et. al. (1997) continued Boyer's discussion with *Scholarship Assessed: Evaluation of the Professorate* and they suggested a model for evaluating scholarship that could be used by all disciplines for a variety of kinds of scholarly work, particularly engagement. Glassick, et. al. (1997) responded to the

engagement movement by proposing evaluation criteria for a broader concept of scholarship.

In addition to review of faculty handbooks and policy statements from various institutions and a thorough review of the literature, Glassick, et. al. (1997) conducted a formal survey all four-year colleges and universities in the United States in 1994, posing questions around faculty roles and rewards. Sponsored by the Carnegie Foundation, chief academic officers at all of the four-year colleges and universities were surveyed. More than 80% indicated they had recently examined faculty roles and rewards or planned to do so in the near future. Specific questions were asked about how research, teaching, and applied scholarship were evaluated and rewarded, and Glassick, et. al. proposed standards for assessing scholarship that would work across all domains of faculty scholarship.

Their criteria for quality scholarship proposed is designed to evaluate all four Boyer domains (discovery, integration, application, and teaching) with the goal that adoption of these standards would put faculty who are teaching and providing service, *in a scholarly manner*, on the same plane with those being evaluated for their research scholarship. These standards become the conceptual framework for *engaged scholarship* used in this study.

The six standards proposed were clear goals, adequate preparation, appropriate methods, significant results, effective presentation, and reflective critique. The criteria of *clear goals* refers to the need for a scholar to be clear in the basic purpose of their work and to define realistic and achievable objectives.

A scholar with clear goals will be able to clearly communicate the scope and context of their work within their discipline and to public and professional contexts. A scholar with **adequate preparation** is current in their discipline, understands the theory and other scholarly work completed, and exhibits the knowledge and competence to carry out the work. They will clearly have the skills and resources required to do the project, whether it's teaching, a research project, or project that engages with community.

A scholar that uses **appropriate methods** in their work has chosen and applied methods with the proper rigor and utility for the questions raised. The methodology should provide integrity to the project and be acceptable and justifiable to peers who are reviewing the scholarly work. The work of the scholar must also produce **significant results**. The results should be important to the field of knowledge, and stimulate additional learning or inquiry. The outcomes of the work will be measured and communicated as well. For example, if a scholar is proposing a new way of teaching, the learning outcomes for their students should be measured and compared to the outcomes of other teaching methods.

All scholarly work should be shared with others and **effective presentation** refers to the scholar's ability to do this in a clear and organized manner, appropriate to the intended audience. A scholar working in partnership with a community to address a problem, may communicate the results of their work in more than one form; through a peer-reviewed journal article, intended for scholars in their discipline; and also through a technical report written for community leaders. The language and presentation of the findings will need to

be different in order to be effective for both audiences. The final standard proposed by Glassick, et. al, (1997) refers to how a scholar thinks about their work and seeks input from others on the quality of it. **Reflective critique** refers to both a personal reflection on the work and how it might be improved or built upon as well as how a scholar asks others to review and evaluate the work, often through peer-review. Because Glassick, et. al. (1997) provide clear examples of how these criteria might be met through teaching, service, and research, their work immediately resonated with institutions hoping to update their own evaluation and rewards structure.

Lynton (1995), in *Making the Case for Professional Service*, defined professional service broadly to include technology transfer, community development, and public testimony. He concludes that professional service, can be scholarly under the Boyer definition of integration, discover, application, and teaching, but it may also describe activities that aren't related to one's discipline. He defines scholarship as having an element of discovery and originality, that the scholar learns something new and shares it in an appropriate form with colleagues. He uses five case examples of professional service from faculty in engineering, education, history, geology and philosophy to illustrate how public service can meet the tenants of scholarship. The attributes are very similar to Glassick, et. al. (1997) and include a reasoned choice of goals, choosing methods that fit the objectives, that the scholar reflect on her or his work, and reflects on the outcomes as well. Finally, the scholars in the five case studies all

share their work in some way with colleagues, either formal publications or informal, local venues.

Driscoll and Lynton (1999) later continued Lynton's previous work by presenting additional example cases from several disciplines. They don't suggest a specific criteria for evaluating engaged scholarship, but suggest institutions carefully check the alignment of their mission and priorities with expectations and criteria for faculty scholarship and professional service.

North Carolina State University (Schwab, 2003) and Oregon State University (Huber, 2002) revised promotion and tenure policies to reflect the criteria proposed by Glassick, et. al. The Clearinghouse and National Review Board for the Scholarship of Engagement ("Evaluation Criteria for the Scholarship of Engagement," 2002) developed evaluation criteria specifically for engaged scholarship, largely based on this model. Further, this model has been suggested by and used previously as a basis for inquiry into how faculty engage in outreach (Berberet, 1999; Braxton & Del Favero, 2002; Colbeck & Wharton-Michael, 2006b).

The literature suggests differences in institutional mission, along with individual values (O'Meara, 2002) has an influence over whether or not a faculty member chooses to work with community partners in outreach or engaged scholarship (Peters, et. al., 2005). O'Meara (2002) conducted a case study of colleges and universities that had revised their faculty rewards system to be consistent with Boyer's (1990) four domains of scholarship. After interviewing 12 – 15 education faculty members from four institutions (one from each Carnegie

classification: research, doctoral, masters, and baccalaureate), she found all four institutions had a strong service mission and a history of valuing teaching and service in the same manner as research. Values and beliefs about the mission of the institution, the nature of scholarship, and faculty careers were found to both support and work against engaged scholarship. For instance, the mission of the institutions indicated service to community was extremely important, but on the other hand, there was concern that by rewarding, what appeared to be a “lower” form of scholarship, the institution might lose some of its prestige.

Recently Peters and others (2005) examined faculty groups at various land-grant institutions to examine how they carried out their outreach work with the public. After conducting a series of eight in-depth case studies, Peters and his colleagues found several themes coalescing around what influenced the faculty members to engage in outreach work. The nature of the faculty members' appointment (teaching, research, clinical, extension, etc.) was predictably an important factor, along with their own individual interpretation and value of the land-grant mission. The faculty members who took part in the study had a strong sense of civic purpose and a great deal of personal investment in the land-grant mission of their institution (Peters et al., 2005). Additional, empirical data to support what influences faculty time devoted to service and engaged scholarship is important to universities hoping to become more engaged with communities. Greater understanding will enable administrators and leaders in higher education to shape policy and support faculty in their engaged scholarship efforts as well (Colbeck & Wharton-Michael, 2006a)

Service, Outreach, and Engaged Scholarship

One of the largest barriers universities confront when considering any institutional change is the inconsistent use of language. Service, public service, outreach, and engagement are often used synonymously and concepts not well defined are not likely to be taken seriously (Berberet, 1999; Finkelstein, 2001). Arriving at a common definition of terms is imperative when concepts are explored and institutional change is considered. In order to fully understand the differences between service, outreach, and engaged scholarship it is helpful to think about faculty work on a continuum (see Figure 1).

Service	Outreach	Engaged Scholarship
Includes service to institution (institutional citizenship) and service to profession (disciplinary citizenship).	One-way interaction with public or community; expert-based, not typically driven by research questions.	Mutually beneficial; Significant questions drive the work, Contributes new knowledge or application to a discipline.

Figure 1. Continuum of faculty service to engaged scholarship.

Lynton (1995) describes professional service as, “work based on the faculty member’s professional expertise that contributes to the mission of the institution” (p. 17). Service, also referred to sometimes as professional service, often includes service to the university such as serving on promotion and tenure review committees, faculty senate, or advising student clubs. Many faculty and institutions still use the term “service” as an umbrella for any work done outside of teaching and research (Amey, 2002). For the purpose of this study, the term service is used to encompass institutional service (service to the institution) such as serving on departmental committees, faculty senate, or a college-wide

strategic planning group as well as professional service such as assuming a leadership role for a disciplinary organization or providing grant or manuscript review for a government agency or professional journal (Church, Zimmerman, Bargerstock, & Kenney, 2003).

Outreach becomes service to the community outside the university or discipline, but is always connected to one's professional expertise. It is typically unidirectional, where the expertise of the university is transferred to the community, and the university or discipline often doesn't learn anything from the transaction (Kellogg Commission, 1999). Examples of outreach include much of the work done by Cooperative Extension – providing non-formal education and facilitation for community partners around a topic of interest, education faculty working with a school district to improve science curriculum, or a sociology faculty member providing program evaluation expertise to a non-profit organization. Outreach always includes an *external* audience and is related to professional expertise while service doesn't typically include an audience external to academia and may or may not relate direct to a faculty member's discipline. Both outreach and professional service refer to important faculty work, but work that is not valued as much as teaching and research when it comes to promotion and tenure decisions, because it doesn't meet criteria for peer-reviewed, scholarly work (Amey, 2002; Ward, 2003).

Engaged scholarship, also called the scholarship of engagement or outreach scholarship, is a relatively new term in higher education, born out of the challenges to higher education set forth by Boyer (1990) and the Kellogg

Commission (1999). Engaged scholarship describes the work of faculty that is mutually beneficial to the faculty member and the community. It often integrates two or all three missions (teaching, research, and service) of land-grant institutions and is bidirectional (Colbeck & Wharton-Michael, 2006b; Sandmann, 2008). Solving problems and addressing the needs of the public, while discovering new knowledge or applying knowledge in a different way in a recognizable scholarly fashion are examples of engaged scholarship. It refers to scholarly work done with (not simply for or to) the public. The work involves forging strong partnerships between faculty members and the publics with whom they are working. The end result of engaged scholarship for the faculty member is a scholarly product, creative endeavor, or new application of knowledge that can be submitted for peer review or other discipline-specific scholarly outlet.

Significance of Discipline

The significance of discipline is an important concept in how faculty work, are rewarded, how they identify themselves as part a university community, and even how they interact with students. Historically, Aristotle used the formation of disciplines to provide a sort of hierarchy between them. This century-old debate around useful or practical areas of knowledge (such as natural sciences and engineering) and the more nebulous forms of knowledge (such as ethics, sociology, and politics) has been a critical part of how academic disciplines in the modern academy formed (Moran, 2002).

Academic discipline, for the purposes of this study, comprises groups of academics closely bound by similar knowledge domains, sets of values and

beliefs, body of concepts, and fundamental aims (Becher, 1989). There is a social connectedness among faculty within an academic discipline as well and although the pattern is not standardized across all of academia, this is how most institutions categorize and compartmentalize discipline (Becher, 1987).

Biglan, (1973) proposed a clustering of academic disciplines in three different dimensions, hard versus soft sciences; life versus non-life systems; and pure versus applied methods. He surveyed faculty members from various disciplines around variables such as social connectedness, commitment to teaching, research, administration, and service, scholarly output, and the relationships among these measures. Using a multidimensional analysis, he derived the three dimensions that formed his clustering model for academic discipline.

Departments in universities almost always form around a discipline (Biglan, 1973) and because of the differences in methodologies, emphasis on research, and sometimes teaching assignments between faculty of different disciplines, scholarly work, to some extent defines certain disciplines (Lee, 2004).

Some have questioned whether academics are one “profession” or are individual disciplines that are more legitimately part of multiple “professions” (Becher, 1987). After completing more than 150 unstructured interviews with faculty members, in ten different disciplines, Becher proposed a modified model for disciplinary groupings, very similar to Biglan’s (1973). These interviews lasted about one hour and he interviewed between twenty and twenty-four respondents in each subject matter area, ranging from doctoral students to full

professors. Respondents were from three English universities and the University of California at Berkeley. He found differences between disciplines not only in the methods they used in their research, but in how knowledge is constructed and viewed. Physicists, for the most part, have a clear definition of knowledge, in that it's observable and empirical data is necessary to support new knowledge. Academics in the more soft disciplines, such as history or literature, see knowledge as a more fluid construct; still requiring data that supports knowledge, but interpretation and voice are also important components. Further, Becher found differences in how graduate students are socialized into a discipline, in that students from hard sciences often were part of a research team, provided with an appropriate-scale project for their thesis or dissertation work, and worked under close supervision with a faculty mentor. Graduate students in the soft sciences though, were allowed much more independence and autonomy, and worked with their faculty mentor only sporadically.

Further, departmental affiliations in higher education are based largely on a faculty member's discipline and these units typically provide the framework for peers to evaluate individual faculty members for promotion and tenure. According to Henkel (2000), (the discipline) "provides a physical structure and a set of accredited, collective functions, through which academics consolidate and refine their disciplinary identities" (p 19). Promotion and tenure requirements are imperative to any discussion about motivating faculty to do something different than they might already be doing and perceive recognition and rewards for (Diamond, 1999) including taking on scholarly work with communities. Diamond

(1999) goes on further to recommend that faculty reward systems must be sensitive to the differences among the disciplines; what faculty do, the language they use to communicate their work, and how their discipline defines what is considered scholarly.

There have also been reported differences based on discipline in items such as job satisfaction. Seifert and Umbach (2008), in a study that used the 1999 National Study of Postsecondary Faculty data, analyzed 4,231 responses to measure job satisfaction in full-time, tenure-track faculty at Doctoral Research-Intensive and Doctoral-Research-Extensive institutions. They also explored the effect of gender, race, and ethnicity nested within disciplinary contexts through hierarchical linear modeling. They categorized various disciplines based on the average number of articles, books, and presentations; the proportion of faculty who were either primary or co-investigators on sponsored research; and average salary for the discipline. Faculty from disciplines with higher levels of research and publication productivity were found to have greater job satisfaction than faculty from disciplines that reported fewer publications. This also held true for female faculty and faculty of color.

Role of Gender and Rank

Faculty members who have not yet made tenure in their position are appropriately concerned about how their work will be viewed when they are under review for promotion and tenure. They must carefully balance their efforts to be sure they can document excellence in research, teaching, and service. Faculty, understandably, spend their time and energy on activities that will

provide payoff – often in the form of promotion and tenure (Ward, 2003). As a result, many faculty, particularly those who haven't been awarded tenure, don't feel they will be recognized and promoted based on their outreach because it's often not perceived as scholarship. Consequently, young faculty members find it risky to support university engagement through engaged scholarship if they are hoping for a promotion (Peters et al., 2005).

Research and teaching are typically viewed to be the most important components of a tenure review and while a certain amount of service is necessary, this isn't viewed as critically as their work in research, evidenced by peer-review journal articles, book chapters, or examples of creative, original work or their teaching record. In particular, a junior faculty member who is aware that members of their promotion and review committee have a very narrow, traditional view of scholarship, would put themselves in extra jeopardy by focusing on engaged scholarship (Peters et al., 2005). Once a faculty member has successfully made it through the tenure review process, and particularly once they have become full professors, they enjoy more autonomy in their work and the type of work they do is less dependent upon institutional rewards and more dependent on their own interests and preferences. Given this flexibility in tenured faculty, rank may influence their conceptions or likelihood to work in engaged scholarship as well.

The increased number of women in the professorate is an important consideration to examine as well. The American Association of University Professors (AAUP) sponsored a study and the development of faculty gender

equity indicators in 2006. Reviewing data from a wide range of college and university campuses, they found although women were obtaining graduate degrees at record rates in the past twenty years, they are still not equally represented as tenured faculty members. There is evidence that women are taking on more faculty positions, but not necessarily in tenure-track positions (Drago, 2007). Women are becoming a larger proportion of adjunct and part-time faculty in higher education and just 24 percent of full professors in the U.S. are women (West & Curtis, 2006). In 2005-06, women held only 31 percent of the tenured positions, and men held 69 percent.

Women often report more difficulty in balancing work and family as well (Aguirre, 2000) and different professional goals. Aguirre (2000) reported that 50.3 percent of the women in the data set he used (The American College Teacher: National Norms for the 1995-96 H.E.R.I. Faculty Survey) reported they had a goal of providing services to the community, compared to 37.6 percent of the men. In addition, 57.5 percent of the men indicated engaging in research was a professional goal and 48.7 percent of the women indicated this. Gender and rank have also been previously reported to influence the likelihood in whether or not a faculty member is involved in community service as part of their faculty role (Antonio et al., 2000) and the extent to which they use service learning in their teaching (Abes et al., 2002). In both of these studies, women were more likely to be involved in community service and use service learning than men.

Previous Studies on Engaged Scholarship and Discipline

There is ample previous research examining the differences between disciplines in higher education. Disciplinary differences have been studied with respect to job satisfaction, reward structure, social connectedness, graduate student socialization, publishing habits, and political attitudes, to name a few (Lee, 2004). Using data from a national survey of teaching faculty that included more than 55,000 colleges and university faculty members, Lee (2004) compared institutional culture variables with departmental cultures across five academic disciplines (biology, English, political science, business, and education). Cultural dimensions included items such as student-centeredness, autonomy, job satisfaction, instrumental orientation, and collegiality. Her research question revolved around differences in how academic departments follow or vary their institution's culture. She found that academic departments share only some aspects of their institution's culture and for the most part, are relatively independent. She did report disciplinary differences in student centeredness and interpersonal orientations such as collegiality and commitment to teaching.

In a theoretical chapter, Braxton & Del Favero (2002) examine traditional and more contemporary assessment models for evaluating scholarship among faculty from various disciplines. The authors review Boyer's four domains of scholarship (Boyer, 1990) and suggest the traditional template for evaluation of scholarship relies heavily on publication records and doesn't fit well for some disciplines like education and the humanities. For example, faculty in the humanities tend to write more books and biologists communicate their

scholarship through journal articles. Further, faculty in applied engineering tend to enter the professorate later in their career, after working in industry, whereas faculty in chemistry and physics more often serve as post-doctoral researchers prior to obtaining a tenure-track position (Becher, 1987) . Although few studies have examined disciplinary differences with respect to engaged scholarship, there are clear disciplinary differences related to research and teaching (Becher, 1989; Lee, 2004).

In one of the very few published studies on engaged scholarship and discipline, Diamond and Adam (1995) set out to discover how various disciplines define and reward scholarship. As follow up to a study at Syracuse University with deans and department chairs, the researchers contacted disciplinary societies or accreditation groups to ask they write their current definition of scholarship. In each case, a task force was created, consisting of those recognized as disciplinary experts from a range of institutions so that statements would have credibility. The statements were to be descriptive in nature, with flexibility to recognize the differences in institutional contexts where they may be applied. In addition, the statements were to be widely circulated to faculty within the discipline, so that drafts could be revised as input was provided.

They found important differences that need to be addressed if engaged scholarship is to be rewarded. They reported there was no single conceptualization of scholarship that was shared across all disciplines; faculty in disciplines most comfortable with traditional forms of scholarship were the most

resistant to any changes to the definition of scholarship; and certain disciplines were more oriented to engaged scholarship to begin with than others.

Chang (2000) surveyed faculty at Pennsylvania State University about what evaluation criteria they felt should be used to evaluate outreach work for promotion and tenure considerations, finding differences among the disciplines in how likely they were to be involved in outreach. Chang found that faculty from the colleges of agriculture and education to be the most involved in outreach and faculty from the colleges of science and business administration to be least involved.

More recently, Lunsford, Church, & Zimmerman (2007) surveyed faculty at Michigan State University as a follow up to institutional efforts to encourage engaged scholarship. They used the current departmental structure at Michigan State University to define discipline. They found disciplinary differences that “suggest that the boundaries shaping disciplines significantly influence how faculty define and value outreach work and how they see it fitting with their other scholarly activities” (Lunsford, et. al, p. 102). Faculty in applied fields of social science such as urban planning and community psychology perceived a greater integration between their outreach work, teaching, and scholarly endeavors. Faculty in traditional social science fields such as anthropology also recognized the relationship between outreach, teaching, and research, particularly in using practical knowledge gained via outreach in their teaching, but they still considered their outreach work as a separate function. Faculty in the natural sciences did not identify outreach at all as a crosscutting scholarly activity and

reported outreach and engagement activities entirely separate from teaching and research. Lunsford and others (2007) called for academic units and disciplines to begin customizing a definition of engaged scholarship and expectations appropriate to various disciplines if engaged scholarship is to be recognized and rewarded.

Conceptual Framework for Study

Two conceptual theories provide the framework for this study. First Glassick, et. al.'s model of criteria for quality scholarship (1997), later further developed into criteria for engaged scholarship by the Clearinghouse and National Review Board for the Scholarship of Engagement ("Evaluation Criteria for the Scholarship of Engagement," 2002) provides the conceptual framework for how engaged scholarship by faculty members is defined and measured. See Appendix B. The fact that the concept of engaged scholarship is not well defined or understood in a similar manner provided one of the greatest challenges in measuring faculty engagement efforts and their perceived barriers and facilitators to this work. Survey questions were designed to ask participants how they felt their work measured up to the criteria of clear goals, adequate preparation, appropriate methods, significant results, effective presentation, and reflective critique, reflecting the Glassick, et. al model. The definition of engaged scholarship provided to respondents is that used by the Clearinghouse and National Review Board for the Scholarship of Engagement to respondents as well, and they were asked to refer to this as they answered questions:

Engaged or outreach scholarship is defined as mutually beneficial, academically relevant work that meets community (broadly defined to include external campus audiences working collaboratively toward the public good) and faculty needs. It addresses community needs/problems through a scholarly agenda. ("Evaluation Criteria for the Scholarship of Engagement," 2002)

Academic discipline, for the purposes of this study, comprises groups of academics closely bound by similar knowledge domains, sets of values and beliefs, body of concepts, and fundamental aims (Becher, 1989). Biglan's model for categorizing academic disciplines (Biglan, 1973) provided the basic framework for creating categories of discipline that were broadly defined and yet held social connectedness, similar methodologies, and similarities in how knowledge is constructed within the disciplines.

Biglan developed a model that divides disciplines into pure and applied categories of tasks and also by "hard" (engineering, physics, agriculture, and natural resources) and "soft" (social work, health and human services, education, family studies and liberal arts) sciences. He then divides hard and soft further by identifying "applied" (education, health and human services, agriculture, and engineering) and "pure" (English, psychology, philosophy, and sociology) disciplines. Finally Biglan considers the differences in concern for life (versus non-life) systems, however for purposes of this study, life and non-life disciplines were combined according to Becher (1987; Nelson Laird, Shoup, Kuh, & Schwarz, 2008). The four broad disciplinary categories fit into the Becher model by combining life and non-life task areas and were used in this study to stratify

the sample of faculty members by academic discipline; pure /hard, applied/hard, pure/soft, and applied/soft. These four categories became the basis of the stratification for the sample selection and later the independent variable for data analysis. Pure/hard faculty are those from mathematics, physics, and biology; applied/hard faculty are from agriculture, engineering, and computer technology; pure/soft faculty are from English, humanities, and sociology; and applied/soft faculty are from education, social work, and nursing.

Research Significance and Purpose

Institutional demands for engagement with communities falls on deans, department chairs, and faculty members, creating more and often very different work than faculty were asked to do when hired (Amey, 2002; Gappa, Austin, & Trice, 2007). The demand for greater engagement comes at a time when many faculty members face diverse and often conflicting priorities: student expectations, participation in campus and departmental service, and continued pressure for scholarly work (Amey, 2002; Bloomgarden & O'Meara, 2007; Gappa et al., 2007). Faculty with research appointments, who may have historically faced only minimal competition for grant dollars, now find themselves resubmitting grants several times to multiple funders before they are funded, spending much more time developing and submitting research proposals than they may have in the past. Many faculty members today will be faced with taking on an administrative role in their department, school, or college at some point in time, facing a multitude of human resources, fiscal management and legal issues for which they may have no educational background or experience (Gappa et al.,

2007). The additional demand for increased outreach to community partners adds stress on faculty with already heavy professional responsibilities. University leaders and faculty members struggle to balance the demands of teaching, research and service with limited resources, due to decreases in public funding for higher education.

In addition, most faculty members' identity is imbedded in their discipline, although they may be institutionally aligned with a department (Lee, 2004). Faculty perceptions of scholarship are greatly influenced by what their discipline regards as high quality scholarship: which peer-reviewed journals are considered first-tier, which grant awarding agencies/organizations give faculty "more credit" in promotion and tenure, and more credit as a solo-author ("Linking scholarship and communities: Report of the Commission on Community-Engaged Scholarship in the Health Professions," 2005).

Given that, with the institutionalization of engagement as a goal of many institutions (Sandmann, 2008) if changes in the amount and nature of the outreach component of a faculty member's responsibilities are to take place, a new understanding of outreach or engaged scholarship and rewards for it must follow. Engaged scholarship needs to be recognized and rewarded, however it's important to understand first, how various disciplines define scholarship, specifically engaged scholarship. Insight into the nature and extent of engaged scholarship by faculty from various disciplines could help professional associations and disciplinary societies influence the practices and standards for excellence in their fields (Diamond & Adam, 1995). These organizations might

be more likely to include engaged scholarship in their standards if discipline-specific information existed.

There must be an institutional acknowledgement that engaged scholarship looks different from discipline-to-discipline (Diamond & Adam, 1995). It is only when disciplinary differences are recognized that similarities can be identified so that any criteria for evaluating scholarship and institutional engagement can be useful. A greater understanding of how disciplinary differences influence faculty service, outreach and engaged scholarship efforts could give university administrators and planners the ability to focus resources and effort where they might be most effective to reward faculty in all disciplines for engaged scholarship and achieve institutional engagement goals (Colbeck & Wharton-Michael, 2006a). All disciplines recognize and reward work that is considered to be scholarly, but even those disciplines that traditionally work with community partners often don't recognize outreach as scholarship because sometimes faculty members don't include a scholarly component to their outreach work or don't know how to document their outreach as scholarly work. Further, promotion and tenure review committees are typically made up of faculty who achieved promotion and tenure status by documenting a very traditional view of scholarship. They are often ill prepared or unwilling to broaden their view of scholarship to incorporate engagement.

CHAPTER 3

MATERIALS AND METHODS

This study examines perceptions and practices of faculty about the nature of engaged scholarship among land-grant faculty members. It is predominantly a quantitative, survey-based study designed to reach a large and diverse audience and provide empirical data regarding how discipline, gender, rank, and other factors affect engaged scholarship efforts.

Land-grant institutions share a similar mission to not only educate students, and conduct research, but also to provide service and access to people throughout the state. Because engaged scholarship involves partnership with community, the land-grant mission gives these institutions a similar history and presumably, a shared willingness to support engaged scholarship. There are fifty land-grant institutions in the United States, chartered by the initial 1862 legislation introduced by Morrill to create the "people's universities." Although legislation in 1890 and 1994 gave land-grant status to historically black schools and many Native American institutions, this study's focus is only on the 1862 institutions. The 1862 land-grant institutions are all research and doctoral granting institutions, while the majority of the 1890 and 1994 land-grant institutions are baccalaureate or masters-granting institutions ("The Carnegie classification of institutions of higher education," 2007). Research-intensive and doctoral granting institutions differ greatly in their faculty expectations from

baccalaureate and masters-granting institutions, and would add an additional variable to the study (O'Meara, 2006). Although this might be an interesting area of inquiry, the focus of this study is engaged scholarship, therefore the population was limited. The 1862 land-grant institutions located in all fifty states provide the research population for this study.

Several case studies have recently provided rich descriptions and insights into institutional culture change around engagement (O'Meara, 2006; Peters et al., 2005). However, in order to make broad statements about any group of faculty, a random sample of an appropriate size is required. The research aims and specific questions are suited well to survey research, using a combination of quantitative and open-ended data collection items.

While qualitative methods can fully describe situations with depth and texture, it is also important to have a broad understanding of the circumstances. Findings from this study raise additional questions and provide areas for further in-depth qualitative study. The purpose of this research project is to describe how disciplinary differences influence tenure track faculty members' expression of and likelihood to practice engaged scholarship; work with community partners; and how they perceive engaged scholarship is recognized and rewarded by their institution.

Research Questions

The overarching question for this study is: Does academic discipline influence how land-grant tenure track faculty express and experience rewards for engaged scholarship? The following sub questions will focus the study:

1. How do faculty members practice engaged scholarship and how do their respective disciplines influence that practice?
2. What are the differences and similarities in faculty perceptions of how engaged scholarship is recognized and rewarded by their institution and within their discipline?
3. What other factors (such as gender, rank, teaching load, institutional support, etc.) influence faculty in practicing engaged scholarship work at land-grant universities?

Random Selection of Research Subjects

From a list of all fifty state 1862 land-grant institutions, twenty-five were randomly selected for this study. Selection of institutions was accomplished through a simple random draw of all 1862 land-grant institutions ("NASULGC Members," 2007). Once the twenty-five institutions were selected, alphabetic faculty lists were obtained from their most-up-to-date web page listing or print faculty directory for each university. Most institutions maintain a public web-based faculty and staff directory that allow wild card searches. In this case, a letter of the alphabet was randomly selected and used in a wildcard search (i.e. D*), yielding a list of all faculty whose last name begins with that letter. From the list of faculty with last names beginning with that letter, names were selected using a table of random numbers. In three instances, print phone directories were available and participants were selected by randomly drawing a letter of the alphabet and then using the table of random numbers to select from that section of the directory. Five of the selected institutions wouldn't allow a wildcard search

using only one letter and for these institutions a randomly selected vowel was selected in addition to a letter so that two letters could be used in the search. At that point a table of random numbers was used to select the participant in a similar fashion. Two institutions neither allowed a wildcard search nor had a print directory available. For these institutions, a random selection was a bit more challenging, and departmental listings were used to identify participants. Random selection of departments in each broad discipline area preceded the selection of an individual using a similar process as described for print and wildcard searches.

Random selections were screened prior to adding to the participant list in the following manner: 1) title of the individual indicated a tenure-track faculty member (Assistant, Associate, Professor – not clinical, lecturer, or adjunct); 2) the individual was not part of the business school. Schools of business faculty were not included in this study as more often than not, faculty from schools of business do much of the work they consider engaged scholarship as paid consulting work. This is an accepted and encouraged practice within schools of business (Bost & Haddad, 1996) and doesn't match the model for engaged scholarship proposed here. Further, some research suggests business doesn't fit well in the hard/applied or soft/applied dichotomy in Biglan's model, making it difficult to categorize in the manner proposed (Lee, 2004). Although this discipline may be an interesting subject of future studies, business faculty are not included in this study.

If the selected faculty member met the criteria, they were placed on a list under one of four broad disciplinary categories:

1. Hard/Pure
2. Hard/Applied
3. Soft/Pure
4. Soft/Applied

These broad disciplinary categories follow the way many land-grant institutions are organized and also fit Becher's (1987) modification of Biglan's (1973) model for clustering disciplines. Biglan developed a model that divides disciplines into pure and applied categories of tasks and also by "hard" (engineering, physics, agriculture, and natural resources) and "soft" (social work, health and human services, education, family studies and liberal arts) sciences. He then divides hard and soft further by identifying "applied" (education, health and human services, agriculture, and engineering) and "pure" (English, psychology, philosophy, and sociology) disciplines. Finally Biglan considers the differences in concern for life (versus non-life) systems, however for purposes of this study, life and non-life disciplines were combined according to Becher (1987; Nelson Laird et al., 2008). The four broad disciplinary categories fit into the Becher model by combining life and non-life task areas and were used in this study to stratify the sample of faculty members by discipline (Table 1).

Table 1.

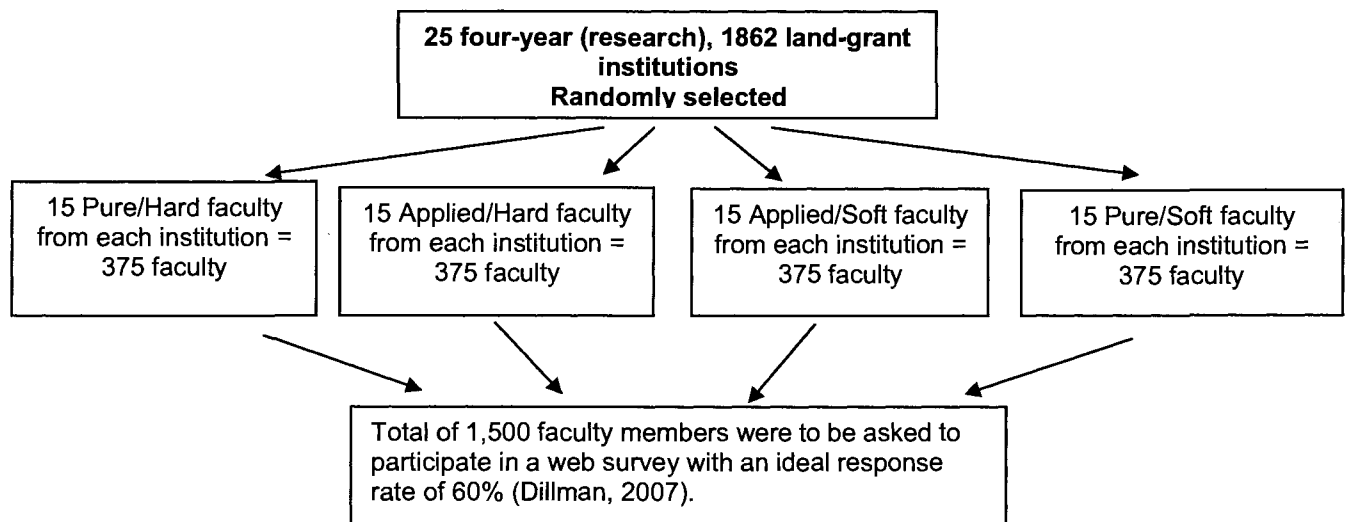
Broad Discipline Areas Based on Becher (1987) Model

Task area	Hard		Soft	
	Pure	Applied	Pure	Applied
Life and non-life systems	Physics	Life sciences	Liberal arts	Education
	Mathematics	Agriculture	History	Human
	Biology	Engineering	English	Nutrition
	Physiology	Forestry	Philosophy	Family and
	Botany	Computer science	Creative arts	youth
	Geology		Sociology	development
			Psychology	
			Political	
			Science	

Each research subject was chosen in the same manner until there were fifteen subjects from each university in every discipline list. Discipline list determination was based on the institution's designation of the faculty member's appointment. For example, if a faculty member was listed in the biology department and their discipline was dairy reproductive physiology, they were considered a hard/pure faculty member, not an agriculture or hard/applied faculty member. No selection was based on gender or faculty rank. An identical selection process continued for each of the 25 institutions, yielding 1,500 research subjects, equally distributed among the various disciplines (Figure 2).

Figure 2.

Participant Selection Process



Determination of the total number of tenure track faculty at the 50 1862 land-grant institutions (the study population) was challenging. Demographics and statistics about institutions that contain total faculty numbers are available, but not all institutions delineate the number of tenure-track, vs non-tenure track. Web sites for each land-grant institution were accessed and a search was made for the most accurate number available for total tenure track faculty members. It was determined that a total of between 40,000 and 50,000 tenure track faculty members were at the 50 institutions, meaning a random selection of 381 participants would yield a valid response (Dillman, 2007; Krejcie & Morgan, 1970). A total of 347 valid surveys out of 1,215 valid email addresses were returned and data analyzed.

Survey Instrument Development and Confidentiality

Because there have been few published studies on the nature and extent of individual faculty engaged scholarship, these measures had to be developed and pilot tested. The National Review Board for the Scholarship of Engagement has developed evaluation criteria ("Evaluation Criteria for the Scholarship of Engagement," 2002) for engaged scholarship that is based on the model proposed by Glassick, et. al. (1997). Several previous studies have used this model as a means to evaluate scholarship (Amey, 2002; Berberet, 1999). Currently the National Review Board uses these criteria to evaluate engaged scholarship dossiers when faculty members voluntarily request such a review. The measures (Appendix B) are designed for the peer-reviewer to assess the scholarly quality of an engaged scholarship dossier. The criteria evaluate the quality of a single engaged scholarship project, rather than the overall nature of faculty engaged scholarship. Measures for assessing how academic discipline influences engaged scholarship were developed based on the National Review Board criteria for use in this study. Each item was drafted to reflect current knowledge regarding successful engaged scholarship practices (such as adherence to rigorous scholarly practices, sharing results of work with community, and departmental/institutional support); barriers (lack of resources, colleague support, and rigid promotion and tenure guidelines); and other important factors (such as previous work with community partners, personal values, and nature of faculty appointment) (Driscoll & Lynton, 1999; Peters et al., 2005).

Web-based surveys have been shown to be an effective way of collecting survey data, particularly with audiences with a high rate of Internet connectivity such as university professors (Dillman, 2007). This study was conducted using Survey Monkey (www.surveymonkey.com), a commercial web-based survey service. Survey Monkey surveys are flexible by allowing various types of questions to be asked and offering a fairly quick manner for respondents to complete the survey. Further these web-based surveys appear in a consistent manner on different types of computer monitors. Web browsers and responses are also easily downloaded directly into a format easily read by statistical software, reducing data entry errors.

A draft instrument was pilot tested with nine faculty members representing various disciplines from three 1862 land-grant institutions. The instrument was developed using Survey Monkey and requests were made to pilot testers directly through the address book feature of Survey Monkey in order for the researcher to test how messages were received using different Internet browsers and platforms (PC and Mac). These faculty did not become part of the sample for the study and the data collected was not included in final results. Pilot testers were asked to complete the survey and a follow up phone call or in-person interview followed to assess content validity. They were asked about the clarity of each survey item, how long the survey took to administer, whether they had technical difficulties, and for feedback regarding the survey in general. Questions were modified based on the pilot and a final copy of the instrument was developed (see Appendix C) and served as the data collection tool for this study.

One of the faculty members who participated in the pilot study was an Extension Specialist in program evaluation with extensive experience in survey design. This individual agreed to give a critical review of the survey instrument with respect to question order, appropriateness of scales for questions, and overall survey layout. His suggestions for improving the clarity of questions and response scales were also incorporated into the final draft.

Measurement of a concept that isn't commonly understood is a challenge to validity. Many faculty aren't familiar with the term engaged scholarship, and may confuse the concept with outreach scholarship, service, or other concepts. In order to increase the validity of the survey, a definition of engaged scholarship was provided at the top of each section of the survey. The following text appeared:

For the purpose of this study, engaged scholarship is defined as mutually beneficial, academically relevant work that meets community (broadly defined to include external campus audiences working collaboratively toward the public good) and faculty needs. It addresses community needs/problems through a scholarly agenda. Examples include working with a business/community/school/agency in a scholarly way to address issues, document changes, develop policies, etc. Scholarly creative endeavors such as working with a historical society to preserve local artifacts or documenting how elementary school students experience music education in order to improve the curriculum are also defined as

engaged scholarship. (Please note -- this definition will appear at the top of several subsequent pages, for your convenience)

By including this definition of outreach or engaged scholarship at the top of the survey screen, the concept was hopefully made clearer to respondents.

Email addresses for the identified subjects were cut and pasted into the address book feature of Survey Monkey in four separate groups (Pure/Hard, Applied/Hard, Pure/Soft, Applied/Soft) and an identical email invitation was sent to all respondents. Using the address book feature in Survey Monkey allows for personal messages (a mail merge) to be sent to each research subject, along with a hyperlink to the survey. All messages appeared as personal email messages to the respondent and only their email address appeared on the message, eliminating the possibility that one might respond to all respondents or feel their confidentiality is compromised. A web address (URL) was also sent directly linking them to the survey, along with general instructions and research aims. Also included in the email was an address, phone number and email address of the researcher so they might call or email with any questions about the survey or would like to request a copy of a research results summary. Each respondent received a unique URL that is associated only with their email address, which also allows the researcher to track responses. As individuals responded to the survey, their data was recorded directly into a data base and their response was recorded in the address book. This feature allows for follow up email reminders to be sent to only those who haven't yet responded to the survey.

Once the respondents clicked on the URL, they were taken to a brief introductory message along with informed consent information and an estimate of how long it will take them to complete the survey. Respondents were informed their responses would remain confidential to the extent possible through web surveys and results would only be shared as aggregate results, not as individual responses. They were told that direct quotes may be used from open-ended questions, but only in a manner that all potential identifying information would be removed and there would be no reference made to the subject quoted. Subjects were not offered any type of monetary or other incentive to participate in the study and were asked to give consent to be included as research subjects. The opening page of the survey included information about their rights as a research subject as well as contact information for the University of New Hampshire's Institutional Review Board if they had questions about their rights as a research subject.

Data Collection

Once the initial request was sent via email to survey respondents, completed surveys were stored on the Survey Monkey server. Non-respondents were sent an email follow-up reminder with the URL for the survey one week after the first email. Thank-you email messages were sent to all respondents after they completed the survey. Expected response rate for the survey was 60%, based on use of the Tailored Design Method (Dillman, 2007). Timeliness of launching the survey was critical. Because the subjects were university faculty, it was important for them to receive the request for the survey early

enough before the end of the academic year so the request didn't interfere with typical end-of-the-year duties such as exams and class projects. The first survey request was emailed to subjects on April 23, 2008 and a follow up message was sent to non-respondents on May 1, 2008.

Pilot testing had shown that some universities have email security firewalls that block mass email messages sent from commercial web companies such as Survey Monkey, so all email messages that were returned as undeliverable through Survey Monkey were immediately resent (individually, as an identical personal message to the one sent through Survey Monkey) to potential respondents via the researcher's university email system.

After four weeks, data from Survey Monkey was downloaded into an MS Excel spreadsheet and imported into SPSS for analysis. The researcher manually coded the discipline of each respondent into one of the four pre-determined categories (Hard/Pure, Hard/Applied, Soft/Pure, Soft/Applied) and numeric values were assigned to responses (i.e. 1=female, 2=male, etc.) to facilitate data analysis. Three research subjects indicated they didn't give permission for their data to be used in the research project so these responses were immediately deleted from the data. In addition, data from seven respondents who started the survey but exited when they answered they were not tenure-track faculty was deleted. Although 1,500 email addresses were uploaded to the Survey Monkey address book, 71 of these had previously "opted out" of being asked to respond to survey requests through this web site in the future. Survey Monkey provides this option to responders as a means to

increase privacy and these individuals were not sent an invitation to participate in this study. A total of 1,411 subjects were sent the initial email and 196 were returned as undeliverable. Valid requests were made to 1,215 potential participants. More than 20 respondents either emailed or indicated on their survey that they were not on the tenure track. A total of 347 survey valid responses were returned and became the basis for the research reported here. The response rate for the survey was 29%.

Data Analysis

Descriptive data analysis was performed to provide an overview of the respondents and to check for even responses from the four discipline categories, gender and faculty rank. Several analyses were performed including simple statistics to describe the respondents, the number and percentage of faculty from various disciplines, rank and gender. Table 2 shows the overall demographic of the response.

Table 2.

Demographic Summary of Respondents

Discipline	Number of Responses
Hard/Pure	81
Hard/Applied	80
Soft/Pure	91
Soft/Applied	95
Gender*	
Female	127
Male	217
Rank	
Assistant Professor	82
Associate Professor	128
Professor	137
TOTAL Response	347

Note: Three respondents opted not to indicate gender, but*

did complete the rest of the survey

A one way Analysis of Variance (ANOVA) was calculated using discipline and rank as the independent variables for ordinal responses. Cross tabulation analysis using Chi Square was used to examine mean differences in categorical questions. Similarly, t-tests were run using gender as the dependent variable for

ordinal responses. Significance was set at .05 (Minium, Clarke, & Coladarci, 1999).

Several survey items provided the respondent with the choice of either “Not applicable – I haven’t been involved in any engaged scholarship projects” or “I don’t know” as a response to how they feel engaged scholarship is perceived or rewarded. These responses (I don’t know or N/A) were not included in the t-tests or ANOVA analysis to determine significant differences, but were treated as missing data.

Open-ended questions were included on the survey to gather richer, more detailed data around faculty perceptions about rewards and incentives for engaged scholarship and the barriers they perceive hindering their ability to practice engaged scholarship. Although short answer data appears to be similar to qualitative data, the responses to these questions don’t fit easily into typical qualitative analyses associated with non-numerical data. A hybrid method was used where responses were read as a whole initially, with the researcher taking notes in the margins of text, in order to gain an overall sense of the data. An iterative, winnowing process was used to find themes in the data that exist and tentative themes were identified and data coded for each theme (Creswell, 1998). These qualitative themes were then compared to quantitative analysis findings.

Threats to Validity and Reliability

The use of an existing, reliable and valid instrument to measure faculty perceptions and practices in engaged scholarship would have added value to this

study. Although no previously-tested instrument was available, the criterion set for the by Glassick, et. al. (1997), and subsequently used by the National Clearing house for the Scholarship of Engagement ("Evaluation Criteria for the Scholarship of Engagement," 2002), has been used by others and was used as the basis for survey development. This was used to establish content and criterion validity. Face validity was established through pilot testing, and two of the pilot testers were evaluators, with extensive survey development experience.

Other threats to internal validity such as history or maturation/mortality are not applicable to this study, as it is a descriptive study, with no treatment or control group. Similarly, testing threats and regression to the mean are not applicable here because respondents only take the survey once.

Instrumentation threats to the study were minimized in that the web survey was reviewed during pilot testing on three different types of Internet browsers, Internet Explorer, Mozilla Firefox, and Safari (Macintosh/Apple) to insure the look and utility was similar for these most commonly-used browsers. Further, no changes were made to the survey during data collection, so that all participants responded to an identical survey.

External validity refers to the extent the results can be generalized to a larger population. The sample size is just short of sufficient numbers to generalize the results to all land-grant faculty. A random selection process was used to create a pool of respondents; however there were some instances where the list of faculty email addresses did not allow for a wildcard search. In most of these instances, a second letter was allowed and the researcher randomly chose

vowels as the second letter. This process may have excluded some names from the search, for example some ethnic names and those that begin with Th or Sh. In addition, because the population for this study was university faculty members, it is assumed they all have email addresses and access to the Internet. While this assumption is a valid one based on recommended practices in survey research (Dillman, 2007), it is possible that a few faculty members were unintentionally excluded.

In addition other limitations are present in the study. First, there may be important differences in perceptions about engaged scholarship based on the type of institution and only land-grant, research universities were included. No analyses were performed to examine institutional differences. Further, because of the land-grant history, the expectation is faculty at these institutions might have a greater involvement in engaged scholarship work than faculty from private or non-land-grant public institutions and this study is not designed to report on these differences. As already noted, all of the 1862 land-grant universities are doctoral-granting, research institutions ("The Carnegie classification of institutions of higher education," 2007). This study does not take into account the differences in faculty who are part of community colleges or smaller institutions with less emphasis on grant-funded research.

The reliability of the survey instrument was minimized by using both Likert-scale responses and open-ended questions that asked about similar topics. For example, one section of the survey asked respondents to rate items such as financial resources, career goals, familiarity with communities, and promotion

and tenure requirements on a Likert-scale as barriers or facilitators to their work in engaged scholarship. Later in the survey, they were asked to respond to an open-ended question, asking for their greatest barrier to becoming more involved in engaged scholarship work. The responses were both examined and compared for similar themes, however no correlation was computed using Cronbach's alpha because the questions were quantitative and quasi-quantitative.

There's no threat to inter-rater reliability, as there was only one self-administered survey. Similarly, test-retest reliability threats don't occur, as this is a snapshot, descriptive study, not based on pre- and post-test results after administering some type of intervention.

Literature suggests differences may also exist within a given discipline and sub-disciplines such as ecology, microbiology and entomology which were not examined, but just the broad discipline of biology or life sciences (Becher, 1989). Further study may be necessary to identify any significance differences in specialized sub-disciplines may have on engaged scholarship tendencies.

Self-reporting of data has its own limitations as well. Faculty participants were asked to answer questions about their work from their own perspective only, not taking into account the important perspectives of community or institutional leaders.

Summary

A stratified, random sample of land-grant faculty members provide the population of interest for this study: tenure-track faculty members from four

broad discipline categories, Hard/Pure, Hard/Applied, Soft/Pure, and Soft/Applied. The predominantly quantitative survey outlined here was designed and pilot tested, based upon evaluation criteria for engaged scholarship (Glassick et al., 1997) and current knowledge reflecting successful engaged scholarship practices, and previous work studying other factors that influence faculty work in engaged scholarship.

Data collection occurred through a web-based survey, hosted by SurveyMonkey.com and quantitative analysis was performed in order to describe differences and similarities of faculty perceptions regarding engaged scholarship between broad discipline groups, gender, and rank. Quasi-quantitative analysis occurred using a hybrid method of identifying themes and comparing these to quantitative findings.

CHAPTER 4

FINDINGS

Research Questions

The overarching question for this study is: Does academic discipline influence how land-grant tenure track faculty express and experience rewards for engaged scholarship? Quantitative and quasi-qualitative data were gathered and analyzed provided insight into the following specific phenomena:

1. A faculty member's discipline influences their likelihood to and manner in which they practice engaged scholarship. Not only are faculty from some disciplines more likely to work with communities through engaged scholarship, but the types of community partners they work with, how they engage with communities, and the extent to which they are able to share their findings in a scholarly manner differ.
2. There are differences and similarities among the disciplines in faculty perceptions of how engaged scholarship is recognized and rewarded by their institution and within their discipline. The issue of recognition for promotion and tenure is one that concerns faculty across all disciplines, but the way they perceive the value of engaged scholarship by their departments and institutions differs based on their academic discipline.

Further opportunities for peer-reviewed publication and discipline conference presentations differ from discipline to discipline.

3. Other factors including gender, rank, teaching load, financial support, and peer mentors influence faculty in their practice of engaged scholarship, however the differences between male and female faculty were very few and differences in rank yielded some interesting contrasts. For example, while others have reported assistant professors are less likely to be involved in engaged scholarship prior to making tenure, no significant differences were found among the ranks in the quantitative analysis. There were, however differences between the ranks in how they viewed support and rewards for engaged scholarship, particularly in the quasi-quantitative findings.

Demographics

Survey response was just short of the number required to generalize to the larger population of land-grant tenure track faculty. (Based on a total of 40,000 – 50,000 faculty, with a response of 347) (Dillman, 2007). The response demographic mirrored that of faculty nation-wide as well (Digest of Education Statistics, 2005) (Table 3).

Table 3.

Demographic of Survey Respondents Compared to National Statistics

Demographic	Survey response	National statistics
Assistant Professors	23.6%	34.0%
Associate Professors	36.9%	30.0%
Professors	39.5%	36.0%
Female	36.9%	36.3%
Male	63.1%	63.7%

Overall more men than women responded to the survey; 127 (36.9%) women and 217 (63.1%) men mirroring a similar demographic to gender differences within the overall professorate (Digest of Education Statistics, 2005). Males make up 63.7% of tenure track faculty nation-wide and females make up 36.3%.

Digest of Education Statistics (2005) report that 36% of full-time, tenure track faculty are professors, 30% are associate professors, and 34% are assistant professors. The demographics of respondents in this study are similar, however a slightly greater percentage of associate professors responded. See Table 3.

Because the sample was drawn as a stratified random sample to include equal numbers of faculty from each of the broad discipline categories defined as pure/hard (physics, chemistry, biology, mathematics, etc.); applied/hard (engineering, agriculture, computer technology, natural resources, etc.); pure/soft (English, psychology, philosophy, sociology, etc.); and applied/soft (social work, health and human services, education, family studies, etc.) the only comparison

made here to national statistics is the proportion of men and women in the various disciplines (Table 4).

Table 4.

Demographics of Participants by Discipline and Gender

Discipline Category	Female			Male		
	Frequency	Percent	Ntl. average	Frequency	Percent	Ntl. average
Pure/Hard	19	23.8%	24.2%	61	76.3%	75.8%
Applied/Hard	18	22.8%	26.3%	61	77.2%	73.7%
Pure/Soft	39	30.7%	43.3%	51	56.7%	69.3%
Applied Soft	51	53.7%	53.9%	44	46.3%	46.1%

The percentage of the female respondents were disproportionally from the soft disciplines (both pure and applied) where the male respondents were fairly equal in their distribution between the four discipline categories. Again, this mirrors the national distribution of faculty by discipline and gender with the exception of pure/soft faculty (Nettles, Perna, & Bradburn, 2000).

Involvement in Engaged Scholarship Efforts

The survey instrument was designed to collect data regarding individual faculty members' involvement in engaged scholarship. Specific questions were included to determine: 1) how closely they feel their engaged scholarship adheres to criteria for quality engaged scholarship ("Evaluation Criteria for the Scholarship of Engagement," 2002); 2) the manner they work with community partners; barriers and facilitators; and 3) perceived rewards and support (or lack of) from their peers, department, institution, and disciplinary associations. Each

survey item was drafted to reflect current knowledge regarding successful engaged scholarship practices (such as adherence to rigorous scholarly practices, sharing results of work with community, and departmental/institutional support); barriers (lack of resources, colleague support, and rigid promotion and tenure guidelines); and other important factors (such as previous work with community partners, personal values, and nature of faculty appointment) (Driscoll & Lynton, 1999; Peters et al., 2005).

Overall, 71% of the respondents indicated they had been involved in engaged scholarship efforts in the past. Possibly due to the natural inclination to work with community partners for the applied disciplines, the hard and soft/applied discipline categories were more likely to have participated in engaged scholarship and perceive rewards for this work. There were some interesting differences that occurred between disciplines. Crosstabulations were calculated for gender, rank, and discipline group. Both applied discipline groups, but particularly the applied/soft group was significantly ($p < .05$) more likely to have already been involved in engaged scholarship efforts. Eighty-seven percent (87.4%) of the faculty from the applied/soft discipline category indicated they had been involved in engaged scholarship efforts, compared to only 53.8% of the faculty from the pure/hard disciplines (Figure 3).

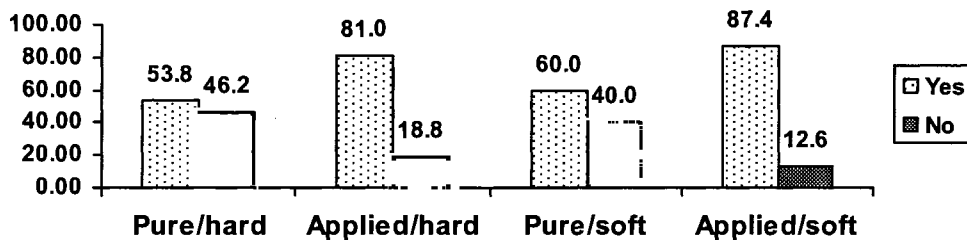


Figure 3 – Discipline group involvement in engaged scholarship efforts (n=347)

Women were significantly ($p < .05$) more likely to have been involved in engaged scholarship efforts with 77.8% of the women who responded to the survey indicating they had been involved in engaged scholarship efforts, where only 67.4% of the men did. These data mirror results found by others (Antonio et al., 2000; O'Meara, 2002) who also reported women are more likely to be involved in engaged scholarship than men.

Although literature suggests (Ward, 2003) that working in engaged scholarship prior to making tenure may be a risk for assistant professors, no significant differences were found between the three ranks in this item (Table 5).

Table 5.

Rank Differences for Involvement in Engaged Scholarship efforts

	Assistant professor	Associate professor	Professor
	N (% of total)		
Yes	60 (74.1%)	89 (69.5%)	95 (70.9%)
No	21 (25.9%)	39 (30.5%)	39 (29.1%)

Adherence to Criterion for Engaged Scholarship

The National Review Board for the Scholarship of Engagement has developed and been using a list of criteria for evaluating and reviewing faculty portfolios for the purposes of promotion and tenure (See Appendix B). These criteria are based largely on Glassik, et. al, (1997) and they became the conceptual framework for the development of survey questions that asked faculty specific information about how they go about working in engaged scholarship. The criteria to evaluate the quality of engaged scholarship work include whether the work addresses significant intellectual questions and adds existing knowledge to the discipline; seeks to address an issue or problem important to the community; uses methods recognized as the best to address the problem/issue; is carried out in the context of a conceptual theory or creative process; the community outcomes are measured, additional areas of inquiry/creativity open, and that efforts are improved by seeking appropriate critique of the work.

Almost all of the criterion are things that one would typically think of as metrics for quality scholarship, with only a couple of exceptions (evaluation of community outcomes, and inclusion of community partner perspectives in critique). The vast majority of respondents agreed or strongly agreed that their engaged scholarship work met the specified criteria. The scale was a 5-point Likert scale and the highest ranking item (agreed most upon) of the nine items, had a mean score of 4.41, "My knowledge and skills are appropriate to successfully carry out the engaged scholarship." The item that had the lowest

mean was an item that may not be typically thought of in traditional scholarship, “The community outcomes of the work are measured” ranked slightly lower than any of the other items, with a mean of 3.52. A one-way ANOVA was calculated for discipline category and rank to compare the means of responses to the criteria and an independent sample t-test was calculated for gender. No significant differences ($p < .05$) were found in how likely faculty were to incorporate the important components of engaged scholarship based on discipline, rank, or gender (Table 6).

Adherence to scholarly criteria is fundamental to engaged scholarship, however, the inclusion of community partners and stakeholders in a mutually beneficial manner is an equally important concept to engaged scholarship (Kellogg Commission, 1999; Peters et al., 2005) Findings regarding the manner in which faculty work with community partners is described in the next section.

Community Partners

Participating faculty were asked to respond to a 5-point Likert scale asking to what extent they followed important partnership practices the most recent time they had worked with an off-campus partner. Sixteen percent indicated they had not ever worked with an off-campus partner, and of the respondents who indicated they had recently worked with off-campus partners, there was little difference in how they responded. Table 7 summarizes these data.

Table 7.

Responses to Question "Think about the most recent time you worked with an off-campus partner. To what extent were...." Scale: 0 = N/A, 1=No extent, 2=Slight extent, 3=Moderate extent, 4=Great extent

	N/A – haven't worked with off- campus partner	No extent	Slight extent	Moderate extent	Great extent	M (SD)
Mutual goals were agreed upon	16.9%	4.7%	9.4%	32.6%	36.4%	2.67 (1.43)
Partners a part of the planning of the project	16.1%	5.7%	13.2%	29.0%	36.0%	2.63 (1.43)
Partners involved in evaluating the results of the project	16.2%	7.9%	20.0%	25.7%	30.2%	2.46 (1.41)
Partners involved in presenting the results of the project to others	16.8%	14.6%	19.0%	27.3%	22.2%	2.23 (1.39)

Differences between the two soft disciplinary groups were found in the manner and extent in which they work with partners when an ANOVA was calculated. Faculty from the applied/soft disciplines ($M = 3.44$, $SD = .63$) were significantly ($F(3,261) = 3.08$, $p < .05$) more likely to work with partners to agree upon mutually identified goals than faculty from the pure/soft disciplines ($M = 3.05$, $SD = 1.04$). Similarly, there was a significant difference ($F(3,262) = 3.1$, $p < .05$) between applied/soft faculty and their likelihood to make partners part of

the planning process ($M = 3.44$, $SD = .63$) and pure/soft faculty ($M = 3.05$, $SD = 1.04$).

All broad discipline groups reported similar responses when asked whether they shared results of their engaged scholarship with academic audiences, however there were significant differences in whether or not they reported sharing the results of their engaged scholarship with community partners. One third (33.7%) of the faculty in the applied/soft disciplines reported they did this, while just 14.8% of the faculty in the pure/hard discipline reported this. Further, 28% of the responses from the pure/soft disciplines indicated they hadn't ever worked with community partners, when only 9.0% of the faculty from applied/soft disciplines said this.

One of the survey items was designed to collect data about the types of community partners with whom faculty from land-grant institutions work. Respondents were asked to rate the extent they work with various types of community partners on a 4-point Likert scale, where 0 = "no extent"; 1 = "slight extent"; 2 = "moderate extent"; and 3 = "great extent". State and federal agency personnel was the category with the overall highest number of respondents to indicate they had worked with them to a great or moderate extent and farmers and ranchers ranked the lowest (as this is a very discipline-specific group). Other types of off-campus organizations that were mentioned by respondents as community partners were international agencies and organizations, other post secondary educational institutions, and health organizations.

A one-way analysis of variance (ANOVA) was calculated on the four discipline areas and their likelihood to work with various types of community partners. Table 8 summarizes these data. The analysis for faculty working with teachers and K-12 audiences was significant, $F(3, 310) = 7.14, p < .05$. Faculty from the applied/soft discipline ($M=1.36, SD=1.26$) were more likely than any other discipline group to have worked with teachers and K-12 audiences (applied/hard, $M=.72, SD=.76$; pure/soft, $M=.79, SD=.92$, pure/hard, $M=.89, SD=.9$). An independent samples t-test was calculated for gender and associated likelihood to work with various types of community partners using the same 4-point Likert scale. All significant differences were calculated based on $p < .05$.

Table 8.

Likelihood to Report Working with Types of Community Partners Reported by Discipline. Scale: 0 = no extent; 1 = slight extent; 2 = moderate extent; 3 = great extent

	Pure/Hard M (SD)	Applied/Hard M (SD)	Pure/Soft M (SD)	Applied/Soft M (SD)
Teachers – K-12	.89 (.90)	.72 (.76)	.79 (.92)	1.36 (1.26)*
Business/Industry	1.04 (1.04)	1.89 (.96)*	.68 (.96)	1.00 (.97)
Farmers	.33 (.78)	1.03 (1.21)*	.05 (.27)	.33 (.72)
State/federal agencies	1.42 (1.10)	1.99 (1.02)*	.71 (1.00)	1.42 (.99)
Local municipalities	.35 (.72)	.79 (.89)*	.54 (.89)	1.00 (1.02)*
NOGs and non-profits	.57 (.93)	1.24 (1.09)*	1.01 (1.18)	1.48 (1.15)*

Note: * $p < .05$.

Faculty from the applied/hard disciplines were more likely to work with audiences from business and industry. Again there was a significant difference

for this item, $F(3,312) = 21.87, p < .05$. Faculty from the applied/hard disciplines ($M=1.89, SD=.96$) were more likely to work with business and industry than all other disciplines (pure/soft, $M=.68, SD=.98$; applied/soft, $M=1.0, SD=.97$; pure/hard, $M=1.04, SD=1.01$). There is no real surprise in the data, $F(3,306) = 13.00, p < .05$ with findings that faculty from the applied/hard disciplines, which include agriculture ($M=1.03, SD=1.21$) were more likely to work with farms than other discipline groups.

Another significant difference, $F(3,311) = 21.16, p < .05$ was found in faculty discipline groups that report working with state and federal agencies. Faculty from the applied/hard disciplines ($M=1.99, SD=1.02$) were more likely than any other group to work with state and federal agencies. In addition, pure/soft faculty ($M=.71, SD=1.0$) were the least likely to work with state and federal agencies. No significant difference was found between applied/soft and pure/hard disciplines in their likelihood to work with state and federal agencies.

When it comes to working with local municipalities, although there was no significant difference between applied/hard ($M=.79, SD=.89$) and applied/soft disciplines ($M=1.00, SD=1.02$), both of the applied disciplines were significantly more likely to work with municipalities than pure/hard ($M=.35, SD=.72$) and applied/soft was more likely than pure/soft ($M=.54, SD=.89$).

Crosstabulations were calculated on gender and rank to examine whether or not results were shared with academic and then community partner audiences. There were no significant differences in how likely men and women were to share their results with community partners or through traditional peer-

review outlets. Although there were disproportionately more women from the applied/soft discipline category, which included education, there were no significant differences between men ($M=.94$, $SD=.99$) and women ($M=.98$, $SD=1.18$) who reported working with K-12 teachers.

On average, male faculty ($M=1.34$, $SD=1.10$) were more likely to work with community partners from business and industry than women ($M=.81$, $SD=.95$). Men were also more likely to work with farmers ($M=.57$, $SD=1.0$) than women ($M=.17$; $SD=.55$). Female faculty members were more likely to work with NGO's and non-profit organizations ($M=1.22$, $SD=1.24$) than male faculty members ($M=1.02$, $SD=1.07$).

No significant difference was reported in how each rank reported sharing the results of their engaged scholarship with community partners (professors = 89.1%; associate professors = 80.5%; assistant professors = 78.6%). Faculty with the rank of professor were significantly ($p<.05$) more likely to indicate they had shared the results of their engaged scholarship with academic audiences (84%) than assistant professors (69.6%). However no significant differences were found between associate professors (76.7%) and assistant professors or professors in how likely they were to share results with academic audiences.

A one-way ANOVA was calculated on the three academic ranks and their likelihood to work with various types of community partners. The analysis by rank, for faculty working with business and industry was significant, $F(2, 313) = 9.64$, $p<.05$. Professors ($M=1.44$, $SD=1.53$) were more likely to work with business and industry than associate professors ($M=1.04$, $SD=.94$) and assistant

professors ($M=.80$, $SD=1.00$). The literature suggests that access to community partners is facilitated by senior faculty peer mentors making introductions (Van De Ven, 2007). The larger number of male senior faculty members in the study may explain these higher numbers working with business and industry. No other significant differences at the .05 level were found between academic ranks working with other types of community partners.

In summary, most of the respondents in this study indicated they had recently worked with community partners (84%). Faculty from the soft/applied disciplines were most likely to report following practices true partnership practices with communities. The greatest difference in how faculty work with community partners was in the type of partners they reported working with. These differences were greatest between disciplines and occurred based on natural tendencies for some disciplines to work with particular audiences. Faculty from soft/applied (which includes education) were more likely to work with teachers and K-12 audiences, and faculty from hard/applied disciplines (including agriculture, computer technology, and engineering) were most likely to work with business and industry.

Barriers and Facilitators to Engaged Scholarship

Factors such as promotion and tenure, availability of financial resources, and personal values have been suggested as potential barriers or facilitators for faculty involved in engaged scholarship (Peters et al., 2005; Rice, 2002). This study also asked faculty about perceived facilitators and barriers to engaged scholarship. A one-way analysis of variance (ANOVA) was calculated on their

ratings of these items using an alpha level of .05 to look for rank and discipline group differences. Crosstabulations were calculated for gender using the same confidence interval. One of the questions raised in this study is what other factors (institutional mission, teaching load, gender, rank, etc.) influence faculty practicing engaged scholarship work and these data provide insight into those factors. Data on these factors are summarized below in Table 9.

Table 9.

Influences in Faculty Involvement in Engaged Scholarship, Scale: 1 = Major barrier; 2 = Partial barrier; 3 = No influence; 4 = Partially facilitates; 5 = Greatly facilitates.

	Major or partial barrier	No influence	Greatly or partially facilitates	M(SD)
Personal values	5.1%	16.0%	78.9%	4.20 (.93)
Colleagues	11%	30.5%	58.5%	3.65 (.97)
Familiarity with communities	19%	30%	51%	3.50 (1.07)
Availability of campus-based support	29.4%	27.6%	43%	3.40 (1.14)
Career goals	23.6	26.2%	50.2%	3.35 (1.19)
Departmental/ college mentors	11.7%	47.2%	41.1%	3.34 (.91)
Department/ college norms	27.4%	24.9%	47.7%	3.21 (1.13)
Financial resources	37.3%	23.1%	39.6%	3.08 (1.36)
Promotion and tenure requirements	33.4%	33.5%	33.1%	2.93 (1.17)

For all respondents, personal values and colleagues seemed to be the greatest facilitators for faculty working in engaged scholarship. Interestingly, the

influence of promotion and tenure requirements (often mentioned in the literature and in the qualitative responses to this survey) was evenly split as a barrier, no influence, or a facilitator. There were no significant differences ($F(3,316) = 2.66, p < .05$) between the discipline categories in how faculty rated promotion and tenure requirements as a barrier to engaged scholarship.

Faculty from the applied/hard disciplines were more likely to report department mentors as facilitators of engaged scholarship ($M = 3.53, SD = .97$) than faculty from the pure/hard ($M = 3.12, SD = .80$) at a significant level, $F(3,312) = 2.66, p < .05$. Departmental norms were a significantly more positive influence ($F(3,313) = 3.21, p < .05$) on faculty in the applied/soft discipline ($M = 3.48, SD = 1.04$) than for faculty in the pure/hard discipline group ($M = 3.0, SD = 1.12$) as a facilitator of engaged scholarship.

Faculty from applied/soft disciplines ($M = 4.47, SD = .83$) were significantly more likely ($F(3,310) = 4.67, p < .05$) to list personal values as a facilitator to engaged scholarship than pure/hard ($M = 4.0, SD = 1.01$) or pure/soft ($M = 4.03, SD = 1.04$) disciplines. No significant difference was found between applied/hard ($M = 4.25, SD = .75$) and other disciplines in this area. Faculty from the pure/hard disciplines ($M = 3.0, SD = 1.33$) were significantly ($F(3,313) = 3.6, p < .05$) more likely to rate career goals as a barrier than the applied/hard disciplines ($M = 3.6, SD = 1.07$).

Female respondents found several of the items in the survey to be less of a barrier to their involvement in engaged scholarship than men. Women indicated that their own career goals, availability of campus support, and their

familiarity with communities were greater facilitators to involvement in engaged scholarship than men did.

Assistant professors were more likely than associate professors to say that department mentors facilitate their work in engaged scholarship. A one-way ANOVA was calculated on academic rank and items that act as barriers and facilitators to their working in engaged scholarship. The analysis mean differences between assistant professors ($M=3.53$, $SD=.97$) and associate professors ($M=3.18$, $SD=.93$) was significant, $F(2,313)=3.60$, $p<.05$. No significant difference was found between professors ($M=3.39$, $SD=.84$) and either associate or assistant professors.

Personal and institutional influences on engaged scholarship are important to understand. Career goals, familiarity with community, and even availability of financial resources are influenced by many things, and not necessarily by a faculty member's academic discipline. In order to better understand how a faculty member's discipline influences their engaged scholarship work, questions were developed to ask them to think about influences specifically from the standpoint of their discipline. These findings are discussed in the next section.

Disciplinary View of Engaged Scholarship

Faculty were asked to think about the point of view of their academic discipline, specifically and answer questions about how engaged scholarship's value, historical prominence, and availability of peer-review outlets for this type of work. Overall, from the standpoint of their discipline, faculty felt their involvement

in engaged scholarship was fairly beneficial to their career. Only 16.3% indicated that there was no benefit at all, while 29.1% and 27.8% felt it was beneficial to a moderate or great extent (respectively).

When asked about the extent of discussion about how to include engaged scholarship within contemporary definitions of scholarship within their discipline, overall, across disciplines, rank, and gender, one quarter indicated that this hadn't occurred at all and just 7.1% indicated this had been done to a great extent.

Important differences did occur between the disciplinary categories. Faculty from the applied/soft disciplines were more likely to indicate that from the standpoint of their discipline, engaged scholarship was beneficial, had historic prominence and value, was important in promotion and tenure decisions, and that discussions had been initiated about including engaged scholarship in the traditional definition of scholarship (Table 10).

Faculty from both applied/hard and applied/soft disciplines felt that engaged scholarship was more beneficial to their career than either pure/hard or pure/soft disciplines ($F(3,302) = 8.28, p < .05$).

Table 10.

Responses by Discipline Category to Question, "From the point-of-view of your discipline, ...?";

Scale: 0=I don't know 1=No extent 2=Slight extent 3=Moderate extent 4=Great extent

	Pure/Hard	Applied/Hard	Pure/Soft	Applied/Soft
	M (SD)	M (SD)	M (SD)	M (SD)
Beneficial to career	2.33 (1.06)	2.96 (.98)*	2.47 (1.06)	2.99 (.99)*
Provides peer-review outlets for engaged scholarship	2.49 (1.04)	2.70 (1.02)	2.71 (.91)	2.92 (.90)
Has historical prominence and value	2.29 (.95)	2.70 (.94)	2.53 (.88)	2.88 (.94)*
Important in promotion and tenure decisions	2.05 (.94)	2.58 (.96)*	2.24 (.96)	2.56 (.93)*
Discussions had been initiated about including engaged scholarship in the traditional definition of scholarship	1.86 (1.01)	2.09 (.82)	2.24 (.90)	2.51 (1.0)*

*Note. * $p < .05$*

Participants were asked about their perceptions of engaged scholarship's role and prominence within their discipline. They responded to a four-point Likert scale with an option of "I don't know" as a response. After removing "I don't know" responses from the data, a one-way ANOVA was calculated on the disciplines and their perceptions. The only significant difference found between disciplinary groups in how they felt there was historical prominence and value to engaged scholarship from their discipline was between applied/soft and pure/hard faculty, $F(3,263) = 4.94, p < .05$).

No significant differences, $F(3,263) = 2.22, p < .05$, were found between the disciplines with respect to reports of peer-review outlets for engaged scholarship.

Both applied/hard and applied/soft disciplines felt that engaged scholarship was more important in promotion and tenure decisions from the standpoint of their discipline, than faculty from the pure/hard disciplines, $F(3,260) = 4.73, p < .05$.

From the standpoint of their discipline, women and men didn't differ significantly in how they felt engaged scholarship was beneficial to their career; how much engaged scholarship had historical prominence; whether or not their work was peer-reviewed outlets for their engaged scholarship work; the importance of engaged scholarship to promotion and tenure decisions; and whether or not there had been discussions about the inclusion of engaged scholarship within the definition of contemporary scholarship.

The analysis based on rank, asking faculty whether or not engaged scholarship was beneficial to their career from the standpoint of their discipline was significant, $F(2,303) = 5.21, p < .05$. Assistant professors were more likely to perceive engaged scholarship as beneficial to their careers ($M = 3.01, SD = .93$) than associate professors ($M = 2.50, SD = 1.05$) (Table 11). This finding is in conflict with previous studies (Bloomgarden & O'Meara, 2007; Ward, 2003) where assistant professors were found to be cautious about working in engaged scholarship prior to making tenure.

Table 11.

Responses by Rank Category to Question, "From the point-of-view of your discipline,...?"; Scale: 0=I don't know 1=No extent 2=Slight extent 3=Moderate extent 4=Great extent

	Assistant	Associate	Professor
	M (SD)	M (SD)	M (SD)
Beneficial to career	3.01 (.93)*	2.50 (1.05)	2.80 (1.10)
Has historical prominence and value	2.79 (.94)*	2.43 (.97)	2.68 (.91)
Provides peer-review outlets for engaged scholarship	2.98 (.99)*	2.69 (.98)	2.60 (.93)
Important in promotion and tenure decisions	2.39 (1.02)	2.34 (1.05)	2.38 (.86)
Discussions had been initiated about including engaged scholarship in the traditional definition of scholarship	2.16 (1.03)	2.19 (.96)	2.22 (.93)

Note. * $p > .05$

A significant difference was found between assistant professors and professors in their perceptions about the availability of peer reviewed outlets for engaged scholarship within their discipline, $F(2,264) = 3.26, p < .05$. Assistant professors indicated they felt there were peer-reviewed outlets for their engaged scholarship work ($M = 2.98, SD = .99$) to a greater extent than professors ($M = 2.60, SD = .93$

A significant difference was also found between assistant and associate professors when asked about the historical prominence and value of engaged scholarship by their discipline, $F(2,264) = 3.28, p < .05$. Assistant professors indicated that engaged scholarship had a greater historical prominence in their discipline ($M = 2.79, SD = .94$) than associate professors ($M = 2.43, SD = .97$) and no significant difference was found for professors ($M = 2.68, SD = .91$). No significant difference was found between professors ($M = 2.70, SD = 1.10$) and other ranks in this item and very few respondents from any rank answered with, "I don't know", (4.1% of assistant professors, 1.7% of associate professors, and 1.6% of professors).

No significant difference was found between the academic ranks in their perception about the importance of engaged scholarship to promotion and tenure decisions in their discipline, (assistant professors, $M = 2.39, SD = 1.02$; associate professors, $M = 2.34, SD = 1.05$; professors, $M = 2.38, SD = .86$). A greater number of responses to this item were "I don't know", (assistant professors, 16.4%; associate professors, 18.8%; professors, 12.2%). This was one of the most cited barriers to engaged scholarship in the open-ended responses.

While personal values, familiarity with communities, and career goals are important barriers to and/or facilitators for faculty decisions about their involvement in engaged scholarship, the larger concerns about promotion and tenure, financial resources available and departmental colleague support are fueled greatly by the climate of support felt at the institution for engaged

scholarship. The next portion of this study asked faculty to reflect on how engaged scholarship is valued at their institution.

Value of Engaged Scholarship

Respondents were asked to indicate how engaged scholarship is valued from a variety of perspectives and how they perceive getting rewarded for this type of work. The goal of this part of the research was to gain a greater knowledge of how faculty perceive they are rewarded (or not) for engaged scholarship. Both quantitative and quasi-quantitative questions were asked regarding how engaged scholarship is valued at the faculty member's institution. The quantitative data is summarized here. First, respondents were asked to consider the value of engaged scholarship from their department chair or director's perspective, then their dean's perspective and finally from the university administration's perspective. These data are summarized in Table 12.

Table 12.

Response on How Engaged Scholarship is Valued at Your Institution from Various Perspectives; Scale: 0 = I don't know; 1 = No value; 2 = Slight value; 3 = Moderate value; 4 = Great value.

Perspective	I don't know	No value	Slight value	Moderate value	Great value	Mean (SD)
Department Chair's	5.6%	8.2%	20.4%	31.7%	34.2%	2.81 (1.16)
College Dean's	11.9%	5.7%	19.8%	30.8%	31.8%	2.65 (1.30)
University administration's	14.4%	8.2%	17.2%	28.5%	31.7%	2.55 (1.38)

When asked about how the faculty respondents felt engaged scholarship was valued from their department chair's, dean's, and university administration's

perspective, significant disciplinary group differences were found when one-way ANOVA's were calculated; $F(3,297) = 8.0, p < .05$. The applied/soft faculty ($M = 3.35, SD = .79$) were more likely to feel engaged scholarship was valued by their department chair than either pure/hard ($M = 2.63, SD = 1.06$) or pure/soft ($M = 2.85, SD = .95$) disciplines. In addition, when considering their dean's perspective a significant difference ($F(3,276) = 4.33, p < .05$) was found between applied/soft faculty ($M = 3.29, SD = 7.11$) and both pure/hard ($M = 2.80, SD = 1.03$) and applied/hard ($M = 2.87, SD = .96$). No significant difference was found for this item between pure/soft ($M = 2.99, SD = .94$) and other discipline groups.

No significant differences were found between male and female faculty members in how they perceive the value of engaged scholarship from various perspectives.

While it may seem likely that faculty from different ranks might have a different understanding of the importance of engaged scholarship at their institutions from their department chair, dean, and university administration's perspectives, findings from this study did not indicate any significant differences at the .05 confidence interval. A one-way ANOVA was calculated removing the responses indicating, "I don't know".

Discussion at institutions of higher education and within disciplinary societies and associations about engaged scholarship has been encouraged by those who feel a broader definition of scholarship is necessary to reward engaged scholarship (Diamond & Adam, 1995; Sandmann, 2007; Ward, 2003). Faculty were asked whether or not there had been discussion about rewards for

engaged scholarship at several levels, their department, college, university, and within their academic discipline. Faculty were asked to rank, on a four-point Likert scale the extent to which discussion about engaged scholarship had taken place, where 1 = “no extent”, and 4 = “great extent”. Table 13 summarizes the data on the extent faculty felt there had been discussion about rewards for engaged scholarship within their department, college, university, and their academic discipline. One-way ANOVA’s and t-tests were calculated after removing the responses indicating, “I don’t know’.

Table 13.

Data Summarized for All Respondents, in Response to the Question, “To what extent has there has been discussion for engaged scholarship within ... (Department, College, University, Academic discipline?)”; Scale: 0 = I don’t know; 1 = No value; 2 = Slight value; 3 = Moderate value; 4 = Great value

	I don't know	No Extent	Slight Extent	Moderate Extent	Great Extent	M (SD)
Academic discipline	15.5%	24.4%	19.6%	23.7	16.8%	2.02 (1.33)
Department	7.2%	36.6%	25.8%	20.8%	9.7%	1.89 (1.11)
University	18.7%	19.6%	26.6%	25.3%	9.8%	1.88 (1.26)
College	15.8%	26.5%	27.8%	22.7%	7.3%	1.79 (1.17)

Faculty from the applied/soft disciplines were most likely to say there had been discussion at the department, university, and discipline level. There was a significant difference, $F(3,291) = 4.05, p < .05$) between applied/soft faculty ($M = 2.33, SD = 1.0$) and pure/hard faculty ($M = 1.78, SD = 1.07$) in the extent they felt discussion about rewards had taken place in their department (Table 14).

Table 14.

Data Summarized for All Respondents and Grouped by Discipline Group, in Response to the Question, "To what extent has there has been discussion about rewards for engaged scholarship within ... (Department, College, University, Academic discipline?)"

	Pure/Hard	Applied/Hard	Pure/Soft	Applied/Soft
	M (SD)	M (SD)	M (SD)	M (SD)
Department	1.78 (1.07)	2.07 (.98)	1.93 (.96)	2.33 (1.00)*
College	1.87 (1.05)	2.06 (.88)	2.10 (.89)	2.41 (.95)*
University	2.08 (1.02)	2.08 (.92)	2.44 (.95)	2.59 (.91)
Academic discipline	2.08 (1.06)	2.21 (1.07)	2.45 (1.14)	2.77 (1.03)*

Note. * $p < .05$

Applied/soft disciplines were more likely ($F(3,263) = 4.01, p < .05$) than both pure/hard and applied/hard disciplines to say there had been discussion about rewards for engaged scholarship at the college level and within their discipline as well ($F(3,263) = 5.73, p < .05$). No significant difference occurred between any of the discipline groups when asked about discussion at the university level. Notably, a larger percentage of faculty reported they didn't know whether discussion about rewards for engaged scholarship had taken place at this level (23%) than at the department (7.8%), college (18.7%), or discipline (18.4%) levels.

No significant differences were reported in the way men and women perceived discussion about rewards for engaged scholarship from any of the sources (department, college, institution, or discipline).

The only significant difference found between academic ranks about rewards for engaged scholarship in this area were found in how faculty perceive

the discussion about rewards within their college. There was a difference between associate professors and professors, $F(2,264)=4.31$, $p<.05$; where associate professors ($M=1.92$, $SD=.90$) felt the discussion had occurred at a lesser extent than professors ($M=2.3$; $SD=.96$). No differences were found at the .05 level between assistant professors ($M=1.26$, $SD=1.01$) and the other two ranks.

Summary of Quantitative Data

Overall, all faculty indicated they felt their engaged scholarship work currently met the criteria outlined in the survey for quality scholarship. Whether or not this was indeed the case, the item on the survey was misunderstood, or the criteria were not good indicators may require further inquiry.

It is important to note that even though statistically significant differences were found regarding the perceived value of engaged scholarship by department chairs, deans, and university administration, the average ratings were still only slight to moderately valued. A large portion of the faculty indicated they didn't know how engaged scholarship was valued at some of these levels, particularly at the college and university level.

Faculty from both of the applied disciplines were more likely to have reported being involved in engaged scholarship work and to see this type of work as a benefit to their career than faculty from the pure disciplines. Faculty from the applied/hard disciplines were most likely to report department mentors as facilitators of their work in engaged scholarship.

Faculty from the applied/soft disciplines were more likely to indicate their own personal values and department norms facilitated their engaged scholarship work and that it had historical prominence within their discipline. They were more likely to indicate that their discipline had initiated conversations about engaged scholarship within the traditional definition of scholarship as well and that engaged scholarship was important in promotion and tenure decisions. Further, faculty from the applied/soft disciplines were more likely to indicate their department chair and college dean valued engaged scholarship than faculty from the other broad discipline groups. Although respondents indicated discussion about rewards for engaged scholarship had taken place at the college level to a slight to moderate extent, it was significantly greater than what faculty from the other disciplines indicated. Faculty from the pure/hard disciplines were most likely to indicate career goals were a barrier to their working in engaged scholarship.

Few significant differences emerged as a result of quantitative analysis between male and female faculty members. While female faculty members were more likely to have reported their involvement in engaged scholarship work, there were no significant differences in how men and women perceive the value given to engaged scholarship by department chairs, deans, or their institution. Women were more likely to cite career goals, the availability of campus support, and familiarity with community partners as facilitators to engaged scholarship than men. Further men and women didn't report different perceptions of how their disciplines support engaged scholarship through peer-review outlines, its

importance in promotion and tenure decisions, or the historical significance of engaged scholarship.

There were differences in the types of community partners men and women worked with, but not in the way that one might predict. Men reported working with K-12 audiences as often as women did, but women were more likely to have worked with NGO's and non-profit organizations. Men were more likely to have reported working with business and industry (including farmers).

Differences among the ranks in faculty members did occur. There was no significant difference between ranks in reporting whether or not they had been involved in engaged scholarship. It was surprising that assistant professors didn't work less in engaged scholarship than tenured faculty, as had been reported by previous research. However assistant professors didn't indicate engaged scholarship was important in promotion and tenure decisions. This may be a truly realistic view, that engaged scholarship is beneficial in the long run for their careers, but faculty realize they may not be rewarded greatly in terms of promotion and tenure for this type of scholarship.

Quasi-Quantitative Findings

Four open-ended questions were included on the survey to gather richer, more detailed data around faculty perceptions. Specific questions were asked regarding barriers faculty perceive hindering as well as facilitating their ability to practice engaged scholarship; and on how engaged scholarship is valued by their institution and discipline. These questions were:

- Please provide additional explanation as to what you see as the greatest barrier or facilitator to your involvement to engaged scholarship.
- How is engaged scholarship valued at your institution?
- How does your discipline support engaged scholarship?
- What barriers does your academic discipline present to engaged scholarship work?

Although short answer data is essentially qualitative data, the responses to these questions didn't fit easily into typical qualitative analyses associated with non-numerical data. Therefore, a hybrid method was used where responses were read as a whole initially, with the researcher taking notes in the margins of text, in order to gain an overall sense of the data. A data coding technique, similar to techniques associated with qualitative data analysis was used. An iterative, winnowing process identified themes in the data that existed and tentative themes were identified and data coded for each theme (Creswell, 1998; DeMitchell, Kossakoski, & Baldasaro, 2008).

Responses within the same theme were counted and percentages were calculated for each theme, based on the total number of open-ended responses to the question. These themes, in most cases, support findings from the quantitative data analysis. Several of the themes that became obvious, emerged in more than one of the open-ended responses, so the data are summarized in the following section, based on those themes, instead of organized by the questions themselves.

Time and funding - The first open-ended question on the survey asked, “What is the greatest barrier or facilitator influencing your involvement in engaged scholarship?” Although the question could have been answered from either perspective (barrier or facilitator), almost all of the responses (154 out of 179 open-ended responses) were about barriers, not facilitators. Lack of time was listed most often as the greatest barrier to faculty participation in engaged scholarship, and lack of funding was the second most common response (Table 15).

Similarly, open-ended responses (n=158) were collected to answer the question about what barriers one's academic discipline presented to engaged scholarship. Although the question directly asked about the affect of discipline, these are very similar to the barriers listed overall to working in engaged scholarship. Barriers most often mentioned were lack of funding, the need to publish, and time available to work in engaged scholarship.

Pure/hard faculty were much more likely to cite lack of time (44.2%) as a barrier than their applied/hard counterparts, who only cited lack of time in 23.5% of their responses. Faculty from the soft/applied disciplines mentioned heavy teaching responsibilities more (in 14.0% of their responses about barriers) than faculty from other discipline groups (hard/pure, 7.0%; hard/applied, 5.9%; soft/pure, 4.4%).

Lack of funding was mentioned in 20.9% of the open-ended responses and faculty from the hard/applied disciplines said this most often (31.3%). Just 13.5% of the faculty from hard/pure disciplines cited lack of funding as a barrier to engaged scholarship while 23.8% of faculty from soft/pure disciplines, and 17.0% of the responses from soft/applied faculty indicated inadequate funding as a barrier. Some faculty (three out of 40 responses) from the hard/pure disciplines (which include chemistry, mathematics, physics, and biology) specifically mentioned the fact that the National Science Foundation though, through its attention to broader impacts, supported their work in engaged scholarship. This finding suggests an area of further study, in more closely

examining how federal research funding requests for proposals may affect faculty work in engaged scholarship.

Both men and women faculty felt that lack of time was a great barrier, with 33.8% of the responses from women and 30.3% of the responses from men listing this. However, women were much more likely to mention heavy teaching loads (13.8% of responses) as a barrier than men, who only cited this 4% of the time. Women and men both mentioned lack of funding in virtually equal proportions (21.2% and 20.7%, respectively), but women were more positive about obtaining grants through their discipline (7.8% felt there were grants from within their discipline to support engaged scholarship, and only 3.2% of the men said this).

Lack of time was cited by full professors (39.7%) more than either assistant (33.3%) or associate professors (23.1%) as a barrier to engaged scholarship. Assistant (25.0%) and full professors (25.4%) indicated that funding through their discipline was a barrier and only 14.3% of the associate professors said this. Conversely though, associate professors said there were grants available through their discipline only 2.9% of the time and assistant professors said this 10.0% of the time.

Rewards, promotion, publication opportunities - Respondents describe the greatest barrier or facilitator to their involvement in engaged scholarship, 17.9% indicated that lack of promotion/tenure recognition and rewards were a barrier to engaged scholarship; a male Associate professor in chemistry wrote, *"It is considered a form of academic service, which is viewed positively in terms of*

promotion and tenure, but far below traditional research or teaching.” The greatest number of faculty who responded to the question on specifically how engaged scholarship is valued at their institution (60 or 31.9%) indicated that engaged scholarship was only valued or “counted” as service when it came to promotion and tenure decisions and that it didn’t count as much as “traditional” scholarship.

Another open-ended question sought more detail as to how faculty perceived support or barriers from their academic discipline to engaged scholarship by asking, how one’s discipline supports engaged scholarship. One-hundred seventy-two respondents provided answers to the question. Responses to the type of support provided by one’s discipline included that disciplinary conferences, meetings, or newsletters highlighted engaged scholarship (9.3% of responses) and availability of publication outlets through the discipline (8.1%). Barriers reported that relate to this theme were the lack of promotion and tenure rewards (15.8% of responses), the need to publish (17.7% of responses) and the discipline’s historical definition of scholarship (9.5% of responses)

Pure/hard faculty listed lack of promotion/tenure recognition and rewards as a barrier only 11.6% of the time compared to applied/hard faculty who cited this in 26.5% of their open-ended responses. Twenty percent of the open-ended responses from pure/soft faculty and 21.1% from applied/soft disciplines indicated this as the greatest barrier. Closely related, availability of peer-reviewed publishing venues was also often cited as a barrier to working in engaged scholarship. Faculty from the soft/applied disciplines were most likely

to indicate the lack of publishing venues (19.3%) as a barrier and that the need to publish overall was a barrier through their academic discipline (25.5% of responses). Faculty from hard/pure disciplines cited lack of publishing venues in only 7.0% of their responses and the need to publish in 13.5% of their responses about barriers of their academic discipline.

When asked how their discipline supports engaged scholarship, 16.7% of the responses in faculty from the applied/soft disciplines indicated their discipline did provide publication venues and 14.6% reported engaged scholarship was a topic at conferences and national meetings. No faculty from the pure/hard disciplines reported publication venues from within their disciplines and only 7.5% reported engaged scholarship topics at conferences and national meetings. Faculty from the applied/hard disciplines mentioned the availability of publication venues in 11.1% of their open-ended responses and 8.3% mentioned this had been part of national meetings and conferences. Faculty from the pure/soft disciplines only mentioned publication venues in 4.2% of their comments and 6.3% of the comments said engaged scholarship was part of conferences.

Unlike the quantitative findings, quasi-quantitative responses did indicate women see lack of promotion and tenure as a greater barrier than their male counterparts. Women were twice as likely (25.0%) to cite lack of promotion rewards as a barrier than men (12.1%) when asked about the greatest barrier or facilitator to their involvement in engaged scholarship. Women also cited the need to publish as a barrier in their discipline in 22.7% of their responses where men indicated this in just 14.1% of their responses regarding barriers. Both men

and women mentioned lack of publishing venues as barriers, with men citing this in 14.1% of their open-ended responses and women in 17.5% of theirs. Women and men cited disciplinary support for engaged scholarship through publication outlets similarly, (9.1% and 7.4% respectively) and both women (11.7%) and men (7.4%) indicated some opportunity for presentations at scholarly conferences for engaged scholarship. Women and men cited the fact that engaged scholarship is counted only as service, but not as “traditional scholarship” in virtually equal percentages (32.9% and 31.1% respectively).

Because full professors aren't concerned with tenure, it was not surprising they didn't see lack of rewards to be as great of a barrier as associate or assistant professors. Assistant and associate professors noted concerns about rewards and promotion 23.5% and 23.1% of the time, respectively, while only 7.9% of the professors cited this. The concern about lack of publishing venues followed a similar pattern between ranks. Assistant professors, however were much more likely to say engaged scholarship was only valued as service, but not for promotion and tenure as associate and full professors (Table 16).

Although, as previously noted, assistant professors felt they may not be rewarded for engaged scholarship, they were more likely to say their discipline provided publication outlets (12.5% of the responses) than associate (8.8%) and full professors (4.7%). This may be due to lack of experience in publishing in peer reviewed articles, or they could simply be more optimistic.

Table 16.

Open-ended Responses to How Engaged Scholarship is Valued at Your Institution

	ALL	Assistant	Associate	Professor
	N=188	N=42	N=74	N=72
	N (%)	N (%)	N (%)	N (%)
Greatly/high	33 (17.6%)	7 (16.7%)	11 (14.9%)	15 (20.8%)
Moderately/slight	14 (7.4%)	5 (11.9%)	1 (1.4%)	8 (11.1%)
Lip service	28 (14.9%)	7 (16.7%)	12 (16.2%)	9 (12.5%)
Only if grant funding is involved	30 (16.0%)	1 (2.4%)	18 (24.3%)	11 (15.3%)
Variable by dept/institution	26 (3.2%)	9 (21.4%)	9 (12.2%)	8 (11.1%)
Not at all	10 (5.3%)	3 (7.1%)	4 (5.4%)	3 (4.2%)
Only valued as service or PR - Not for P/T or as much as "traditional" scholarship	60 (31.9%)	19 (45.2%)	21 (28.4%)	20 (27.8%)
Don't know	6 (3.2%)	0	4 (5.4%)	2 (2.8%)
Depends on appointment	10 (5.3%)	0	6 (8.1%)	4 (5.6%)

Peer influence - Ten out of 13 respondents indicated peers or mentors influenced their engaged scholarship work as facilitators, not barriers. Quantitative data suggested that faculty from the applied/hard disciplines were significantly more likely to report mentors as facilitators than faculty from other disciplines. Open-ended data followed a similar theme with respect to departmental peers. Neither the pure/hard or pure/soft discipline categories included positive responses regarding peers or mentors facilitating their work in engaged scholarship; when both the applied/hard (8.8%) and applied/soft

(10.5%) disciplines cited peers and mentors as a facilitator to engaged scholarship rather than a barrier. Men and women spoke of mentors as barriers and facilitators to engaged scholarship in similar patterns. Women cited mentors as facilitators in three out of seven open-ended responses, and men did in four out of six open-ended responses. Almost all of the responses that listed mentors as barriers were from assistant professors, indicating that junior faculty may still be unsure about how their work in engaged scholarship will be perceived by their colleagues. A female assistant professor in social work stated, “ (engaged scholarship)... *is not necessarily appreciated by those not doing this type of work. I’m not sure if this will be considered in tenure decisions.*”

Personal values and interest in engaged scholarship - In open-ended responses, faculty from the pure/soft disciplines cited personal interest in 11.1% of their responses (only one of these cited personal interest as a facilitator). In fact, one female Associate Professor in English and Women’s studies stated, “*I am just not interested, I am an academic; my job is to do scholarly research. My interests are more abstract and theoretical, so engaged community is not one of my priorities.*” Faculty from the applied/soft disciplines listed personal interest as a factor in 5.3% of their open-ended responses, but two of the three responses listed this as a facilitator, not a barrier to their work in engaged scholarship.

Men were twice as likely (7.0%) to list personal interests and values as barriers than women (3.8% of the responses), and the percentage of faculty by rank who listed personal values was similar across all ranks.

Institutional value and support for engaged scholarship - One of the most common open-ended responses to this question, about how engaged scholarship is valued at one's institution, was that engaged scholarship was given "lip service" but not truly valued. Of 188 open-ended responses, 28 (14.9%) specifically indicated they felt the institution highly valued engaged scholarship in theory, but didn't recognize it when it came time for rewards.

Faculty from the applied/soft disciplines noted lack of institutional values and support as a barrier in six out of 11 of their responses, however the other five of the 11 comments regarding institutional values indicated this was a facilitator. Faculty from the pure/hard disciplines cited this as a barrier in seven out of eight open-ended responses about institutional values and support. Variations on department, college, and university differences in how respondents felt engaged scholarship was valued occurred at different rates among the disciplines. Faculty from the pure/soft disciplines mentioned this variability in 20.4% of the qualitative responses to this question, applied/soft, 15.3%, pure/hard, and applied/hard 7.9% of the time. A male professor in agriculture (applied/hard discipline) said faculty are, *"very involved in certain areas and almost no involvement in other areas. This depends on who your chair and Academic Dean is at the time of annual review."* Another faculty member from the applied/soft discipline (female Assistant Professor in Social Work) said, *"It (engaged scholarship) is promoted by a central office at the university and encouraged. Rewards such as pay increases and tenure vary on individuals in charge at the moment. Our current*

dean thinks it is very important. Our last one did not. So faculty are not sure how much time they should invest."

Faculty from applied/hard disciplines hardly ever (only one out of 38 responses) said that engaged scholarship was only given "lip service" (valued in word, but not in policies and rewards) when faculty from all other categories cited "lip service" more often; pure/hard (16.7%), pure/soft (16.3%), and applied/soft (20.3%).

Men and women mentioned institutional values and support as a barrier or facilitator in virtually equal proportions. There was less variation in the percentage of respondents indicating their institution gave engaged scholarship "lip service" between men (16.5%) and women (12.9%)

There was a higher percentage of associate professors who listed institutional values and support as a barrier (24.6%) compared to assistant professors (11.8%) and professors (9.5%). There was less variation between the academic ranks in perception that their institution gave engaged scholarship, "lip service" (associate professors said this 16.7% of the time, associate professors 16.2%, and professors 12.5%).

Although the quantitative data suggested individual departments may have had less discussion of engaged scholarship and how it might be rewarded than broader college or university entities, responses from the open-ended data indicate that this is variable, by department. In some cases, departments are doing a better job of discussing engaged scholarship than the institutions at large. One comment from a male Associate Professor in geoscience/geology

said, regarding how engaged scholarship is valued, *“The Department is amenable, but I just don’t know how the upper administration feels.”* Another female English Assistant Professor indicated, *“At the department level, it is HIGHLY valued. At other levels there is very little information.”* Variations in how departments view and reward efforts in engaged scholarship are important in that often promotion and tenure decisions are made at the department and college level. It does appear that faculty recognize their academic disciplines are having conversation about rewards for engaged scholarship.

Imbedded in discipline - One quarter of the open ended responses from faculty in the applied/soft disciplines indicated that engaged scholarship was embedded in their discipline and was considered a norm for them, compared to only 5.0% of the responses from pure/hard faculty. One female Assistant Professor in mathematics education said, *“Scholarship, broadly speaking, is indistinguishable from engaged scholarship for academics in education.”* Similarly, a female Assistant nursing Professor said, *“From my perspective, all nursing research is engaged scholarship. Therefore, it is the expected professional norm.”*

No great difference was found in how often men and women indicated engaged scholarship was embedded in their discipline (10.5% and 13.0%, respectively), however assistant professors (20.0%) were twice as likely to say this as associate professors (10.3%) or full professors (7.8%).

In responses to what barriers faculty perceive from their academic discipline to engaged scholarship, a small number (7.6%) indicated that engaged scholarship simply doesn’t fit within their discipline. The largest percentage of

these responses came from faculty in the soft/pure disciplines (14.2% of their responses). No one from the hard/applied disciplines indicated a misfit, 2.7% from the hard/pure disciplines did, and 6.4% of the faculty from the soft/applied disciplines didn't see a fit for engaged scholarship within their discipline. One male, religious studies Associate Professor said, *"I can give public lectures on the history of philosophy in [a] particular denomination and then I would get close to my area of scholarship but it would still have to be delivered on a level that would leave it a far cry from anything that could be published in a scholarly journal. The area I work in, in my discipline does not lend itself to public engagement as research but it does as outreach."*

Summary of Quasi-Quantitative Data - Lack of time and funding and a perceived lack of rewards for engaged scholarship were clearly barriers to faculty working in engaged scholarship based on the quasi-quantitative data. This is interesting considering that both financial resources and promotion and tenure requirements were split almost equally as barriers and facilitators to engaged scholarship in the quantitative findings (Table 9).

Beliefs about publication venues were viewed differently between faculty from various disciplines in the qualitative findings, where faculty from the applied/soft disciplines were more likely to report the availability of publication and presentation venues than faculty from other disciplines. No such differences were found in the quantitative data regarding publication opportunities.

Quantitative analysis showed that assistant professors were more likely to perceive engaged scholarship as beneficial to their careers than associate

professors, however qualitative findings were in conflict with this, as assistant professors were much more likely to indicate that engaged scholarship was only rewarded as service, and was not as important as “traditional” scholarship in promotion and tenure rewards. It’s not clear why these findings are in conflict, but it’s possible that while associate professors believe that engaged scholarship is good for their careers in the long run, they also understand it might be risky for them prior to making tenure.

The influence of peers in providing encouragement for engaged scholarship, seen as mainly facilitators in the quantitative data, was supported in the qualitative findings. More faculty, particularly in hard/applied disciplines such as engineering and natural resources, cited mentors as facilitators than barriers.

Women were twice as likely to cite lack of promotion rewards as a barrier than men in the open-ended findings. Quantitative findings suggested that assistant professors were more likely than associate professors to say department mentors facilitate their work. In a few of the open-ended responses, assistant professors communicated uncertainty about the support of their peers.

Findings from the quantitative analysis indicate faculty view the value given to engaged scholarship as slight to moderate and quasi-quantitative findings support that. Many respondents describe the value from their institution as “lip service”. Further, there was a fair amount of variability in the manner in which faculty describe the institutional value for engaged scholarship. Some respondents indicated departments highly value engaged scholarship, but university administration doesn’t, while others describe the situation as just the

opposite. This suggests that mixed messages are being sent to faculty about engaged scholarship.

Promotion and Tenure

Promotion and tenure requirements remain one of the most important elements faculty members consider as they make decisions about their careers (Ward, 2003). In addition, promotion and tenure requirements have been cited as one of the greatest barriers to faculty (junior faculty in particular) engaging with communities in a scholarly manner (Diamond, 1999, 2002; Lynton, 1995; Ward, 2003). Because faculty who serve on promotion and tenure committees are in a unique position to either encourage or discourage the inclusion of engaged scholarship favorably in faculty tenure cases, this study asked faculty respondents about their experiences on promotion and tenure committees and how much engaged scholarship was considered when reviewing faculty cases for promotion and tenure. Just over half of the respondents ($n = 176$) indicated they had served on a department or college promotion and tenure review committee within the past five years.

Men were significantly ($p < .05$) more likely to have reported serving on promotion and tenure committees (60.5%) than women (45%). Of this 176 faculty members, 96 (54.55%) were professors, 76 (43.18%) were associate professors, and only four (2.27%) assistant professors indicated they had served on a promotion and tenure review committee (Table 17).

Table 17.

Faculty Who Served on Promotion and Tenure Review Committees Recently

	N (% of total)
Total faculty	176
<i>Discipline</i>	
Pure/Hard	36 (20.5%)
Applied/Hard	48 (27.3%)
Pure/Soft	47 (26.6%)
Applied/Soft	45 (25.6%)
<i>Rank</i>	
Assistant Professor	4 (2.3%)
Associate Professor	76 (43.2%)
Professor	96 (54.6%)
<i>Gender</i>	
Female	54 (30.9%)
Male	121 (69.1%)

Further analyses were performed using data just from faculty who had indicated they had served on a promotion and tenure committee. Faculty were asked to respond to a 5 point Likert scale where 0 = "I don't know"; 1 = No extent; 2 = "Slight extent"; 3 = "Moderate extent"; 4 = "Great extent" to respond to the question, "To what extent did the committee have written guidelines for reviewing and rewarding engaged scholarship as part of the review process?" Applied/hard faculty (M = 2.48, SD = 1.13) were significantly more likely, $F(3,167)$

= 3.23, $p < .05$, than pure/hard faculty ($M = 1.83$, $SD = 1.04$) to indicate there were written guidelines. Applied/soft ($M = 2.34$, $SD = 1.14$) and pure/soft ($M = 1.95$, $SD = 1.20$) were not significantly different than other discipline groups at the .05 confidence level.

Professors ($M = 2.42$, $SD = 1.15$) were significantly more likely, $F(2,186) = 5.20$, $p < .05$, than associate professors ($M = 1.91$, $SD = 1.08$) to report there were written guidelines that included engaged scholarship. No significant differences were found between males and females in this area.

Faculty were asked to report how often the committee they served on review cases that included engaged scholarship work. Responses were collected on a 4 point Likert scale where 0 = "Never"; 1 = "Only once or twice"; 2 = "Occasionally"; and 3 = "Regularly". Applied/soft ($M=1.98$, $SD = .84$) and applied/hard ($M=1.90$, $SD 1.02$) were significantly (at .05 confidence level) more likely to report they had reviewed cases that included engaged scholarship than both pure/soft ($M = 1.36$; $SD = .98$) and pure/hard ($M = 1.28$, $SD = 1.03$) faculty, although there was no significant differences between the two pure disciplines. No significant differences ($F(2,171) = 1.47$, $p < .05$) were found between associate professors and professors in how often they reported reviewing cases that included engaged scholarship, and no significant differences were found between male and female faculty members.

Finally, respondents were asked to answer a question about the extent they believed the committee perceived the importance of engaged scholarship as a component of scholarly work on a 4 point Likert scale, where 0 = "Did not come

up”; 1 = “Not important”; 2 = “Important”; 3 = “Very important”. Again, the only significant differences found occurred among the various discipline groups, not between rank or gender. Both applied/hard ($M = 1.67$, $SD = .91$) and applied/soft ($M = 1.60$, $SD = .86$) rated the importance of engaged scholarship to the committees they served on higher than pure/hard ($M = 1.03$, $SD = .95$). No significant differences were found for pure/soft ($M = 1.22$, $SD = 1.02$) faculty.

Summary

The discipline of a faculty member influences the likelihood and manner in which they practice engaged scholarship. Faculty from both of the applied disciplines were more likely to have reported being involved in engaged scholarship work and to see this type of work as a benefit to their career than faculty from the pure disciplines. Faculty from the applied/hard disciplines more often reported colleagues and peers facilitated or supported their work with community than faculty from any other broad discipline group.

Overall, faculty from the applied/soft disciplines indicated more acceptance, rewards, and meaningful partnerships in engaged scholarship than faculty from other disciplines. They were most likely to say they had engaged in a meaningful way with the community partners they work with, by identifying mutual goals and making the partners part of the planning process. Further, they were more likely to share the results of their engaged scholarship with their community partners, and not just with academic audiences. Although no significant differences were found between the discipline groups regarding the availability of peer-reviewed publishing opportunities, this issue was often raised

in open-ended responses. Faculty from the soft/applied disciplines were most likely to indicate they did have venues for publishing engaged scholarship work, which is likely related to the fact this group also felt as though they were more rewarded for the work.

Perceived barriers and facilitators to engaged scholarship varied across the disciplines as well. Faculty from the hard/pure disciplines were most likely to indicate their career goals were a barrier to their work in engaged scholarship and faculty from the pure/soft disciplines indicated more often in quasi-quantitative responses their own personal interests didn't include engaged scholarship with community partners.

In addition to the influence on the manner and likelihood of working in engaged scholarship, discipline is also related to faculty perceptions about how it is recognized and rewarded by their institution and disciplinary organizations. Once again, faculty from the applied/soft disciplines were less likely to cite institutional values as a barrier. In fact, they were just as likely to say their institutional values were a facilitator for their engaged scholarship. They also indicated their discipline was more likely to provide opportunities to share engaged scholarship through conference venues and felt as though there was support for engaged scholarship by their dean and department chair.

Other factors were identified that influenced faculty work in engaged scholarship. The lack of time and financial resources were found to be barriers identified by most of the respondents. While women were more likely than men to work in engaged scholarship, quantitative findings found few other differences.

In both qualitative and quasi-quantitative findings women listed personal interests as less of a barrier than men did to engaged scholarship. However findings were different with respect to gender in how they reported feeling rewarded for engaged scholarship. Quantitative analysis showed no statistically significant differences between men and women in how they perceive rewards for engaged scholarship, but women were twice as likely to cite lack of promotion rewards as a barrier than men in the quasi-quantitative findings.

Faculty rank also influenced how rewards and benefits to their career were perceived. There was no significant difference between the ranks in reporting whether or not they had been involved in engaged scholarship. It was surprising that assistant professors didn't work less in engaged scholarship than tenured faculty, as had been reported by previous research. It seems assistant professors are more optimistic about the benefits to their career and availability of peer-review outlets for engaged scholarship work than associate or full professors. However assistant professors didn't go so far as to indicate engaged scholarship was important in promotion and tenure decisions. This may be a truly realistic view, that engaged scholarship is beneficial in the long run for their careers, but faculty realize they may not be rewarded greatly in terms of promotion and tenure for it.

CHAPTER 5

CONCLUSION

The overarching question for this study is: Does academic discipline influence how land-grant tenure track faculty express and experience rewards for engaged scholarship? Academic discipline, at least in broad categorical terms, does influence the extent to which faculty report their involvement in engaged scholarship activities and how they perceive rewards for this type of scholarship. Faculty that work in the applied academic disciplines such as engineering, agriculture, social work, and youth development not only reported working more in engaged scholarship, but also were more likely to report they felt this was engrained into their work as scholars. Having mentors and colleagues, as well as concrete examples of how work with community can be scholarly seems to be an important component to encouraging engaged scholarship. In addition, these disciplines, particularly faculty from the applied/soft disciplines indicated that they had appropriate, peer-review outlets for their engaged scholarship work, making it much easier for them to be rewarded for community engaged scholarship.

Findings

Disciplinary influences on practice - The discipline of a faculty member does influence their likelihood and manner in which they practice engaged scholarship.

Faculty from both of the applied disciplines were more likely to have reported being involved in engaged scholarship work and to see this type of work as a benefit to their career than faculty from the pure disciplines. Faculty from the applied/hard disciplines (such as agriculture, engineering, and natural resources) more often reported colleagues and peers to be facilitators or supporters to their work with community than faculty from any other broad discipline group (Table 9).

Overall, faculty from the applied/soft disciplines (such as education, social work, and family studies) indicated more acceptance, rewards, and meaningful partnerships in engaged scholarship than faculty from other disciplines. They were most likely to say they had engaged in a meaningful way with the community partners they work with, by identifying mutual goals and making the partners part of the planning process. Further, they were more likely to share the results of their engaged scholarship with their community partners, and not just with academic audiences. Faculty from the applied/soft disciplines were significantly more likely to work with partners to agree upon mutually identified goals than faculty from the pure/soft disciplines, such as sociology, English, and the arts. Similarly, there was a significant difference between applied/soft faculty and their likelihood to make partners part of the planning process and pure/soft faculty.

Perceived barriers and facilitators to engaged scholarship varied across the disciplines. Faculty from the hard/pure disciplines (such as physics, biology, and mathematics) were most likely to indicate their career goals were a barrier to

their work in engaged scholarship and faculty from the pure/soft disciplines indicated more often in open-ended responses their own personal interests often didn't include engaged scholarship and working with community partners.

Although no significant differences were found between the discipline groups regarding the availability of peer-reviewed publishing opportunities in responses to a Likert-scale survey question, this issue was raised in 28% of the responses to open-ended responses regarding barriers to engaged scholarship. Faculty from the soft/applied disciplines were most likely to indicate they did have venues for publishing engaged scholarship work , which may relate to the fact this group also felt as though they were more rewarded for the work.

Faculty from the soft/pure disciplines were less likely to see engaged scholarship or work with communities ingrained within their discipline than faculty from either of the applied disciplines. They were also more likely to indicate this type of work was considered service. Some faculty, particularly those from the pure/soft disciplines like English and humanities, simply were not able to see how their scholarship could ever be done within a community setting, and if it was, it would be far below the standards of the scholarship for which they were rewarded.

Faculty from the applied/soft disciplines were the most likely to indicate discussions about engaged scholarship had occurred and they were more likely to feel rewarded. Faculty from the applied/soft disciplines were more likely than both pure/hard and applied/hard disciplines to say there had been discussion about rewards for engaged scholarship at the college level and within their

discipline. No significant difference occurred between any of the discipline groups when asked about discussion of engaged scholarship at the university level.

Faculty perceptions about institutional recognition and rewards - In addition to the influence on the manner and likelihood of working in engaged scholarship, discipline is also related to faculty perceptions about how it is recognized and rewarded by their institution and disciplinary organizations. Once again, faculty from the applied/soft disciplines were less likely to cite institutional values as a barrier, and in fact, just as likely to say their institutional values were a facilitator to their engaged scholarship. They also indicated their discipline was more likely to provide opportunities to share engaged scholarship through conference venues and felt as though there was support for engaged scholarship by their dean and department chair.

Overall 32 percent of the open-ended responses (from all respondents) about how engaged scholarship is valued at their institution indicated this work was valued as service, but not as much as “traditional” scholarship. Most of the faculty surveyed for this research indicated they believed there was support, but that the support was given in words more than deeds. While faculty from all disciplines indicated their institutions gave lip service to engaged scholarship, faculty from the applied disciplines (both hard and soft) were more likely to genuinely feel as though their institution provided support (Table 15).

Other factors influencing faculty - Other factors were identified that influenced faculty work in engaged scholarship. The lack of time and financial resources

were found to be barriers identified most by respondents. Overall 32 percent indicated lack of time and 22 percent indicated lack of funding or financial support was a barrier to their work in engaged scholarship. While women were significantly more likely than men to work in engaged scholarship, quantitative analysis yielded few other significant differences. Women were more likely to cite career goals, the availability of campus support, and familiarity with community partners as facilitators to engaged scholarship than men. Quantitative analysis showed no statistically significant differences between men and women in how they perceive rewards for engaged scholarship, but women were twice as likely to cite lack of promotion rewards as a barrier than men in the open-ended questions.

Faculty rank also influenced how rewards and benefits to career were perceived. There was no significant difference between the ranks in their reporting whether or not they had been involved in engaged scholarship. However, the analysis based on rank, asking faculty whether or not engaged scholarship was beneficial to their career from the standpoint of their discipline was significant. Assistant professors were more likely to perceive engaged scholarship as beneficial to their careers than associate professors. This finding is in conflict with previous studies (Bloomgarden & O'Meara, 2007; Ward, 2003) where assistant professors were found to be cautious about working in engaged scholarship prior to making tenure. There is no apparent explanation for the differences in findings but further inquiry may provide answers.

Conclusions

Specific questions that guided the research were answered and have important implications to higher education and the engaged scholarship movement.

Disciplinary influences on practice - For the first question, “How do faculty members practice engaged scholarship and how do their respective disciplines influence that practice?” it is concluded that the discipline of a faculty member does influence the likelihood and manner in which they practice engaged scholarship. Discipline, perhaps socialization and support from colleagues affects the likelihood faculty will work with partners in a mutually beneficial way. Faculty from the applied disciplines seem more comfortable working in engaged scholarship and know how to work with community partners in a meaningful and effective way. They also understand how to effectively communicate their work to community partners. Applied disciplines focus on an external application of their research, therefore faculty expect their activities will be used by non-academics. Consequently, it is reasonable these disciplines will accept the community as a legitimate and appropriate partner for their scholarship.

Faculty from all of the disciplines, but particularly the pure disciplines, may still not understand what engaged scholarship might look like. There continues to be some confusion between service, outreach, and engaged scholarship, as defined by this study. Some faculty aren't able to conceptualize work within their discipline that is with a community partner as scholarly. Faculty from the applied/soft disciplines were more likely to report discussion about the concept of

engaged scholarship in their departments and colleges, as well as within their discipline and they were more likely to feel rewarded for the work. If faculty from pure disciplines primarily see the recipients of their scholarship as other scholars, a non-scholar will not be perceived as a legitimate or viable recipient/partner. However, discussion about engaged scholarship may broaden the legitimate recipients of their scholarship, and lead to a greater appreciation of the work and likelihood for acceptance and rewards.

It is important to acknowledge that faculty from some disciplines and those involved in basic research are just not going to work with communities in engaged scholarship. If faculty don't have a personal or scholarly interest in community work, then their expertise and scholarship isn't any more or less important, but if it fits a broader definition of high quality scholarship, then the rewards should be similar.

Faculty perceptions about institutional recognition and rewards - The next underlying question answered by this research is, "What are the differences and similarities in faculty perceptions of how engaged scholarship is recognized and rewarded by their institution and within their discipline?".

In addition to the influence on the manner and likelihood of working in engaged scholarship, discipline is also related to faculty perceptions about how it is recognized and rewarded by their institution and disciplinary organizations. Engaged or community-based scholarship continues to be valued less overall than research or teaching by land-grant institutions, when it comes to rewards for faculty members (Ward, 2003).

Clearly there have been advances in institutional support for engaged scholarship as 25% of the total respondents indicated engaged scholarship was valued highly or slightly by their institution. Some institutions have changed promotion and tenure requirements to be more inclusive of engaged scholarship, such as Portland State University and South Dakota State University, (O'Meara & Rice, 2005). However, recognition of engaged scholarship in promotion and tenure review remains a barrier for faculty, particularly those from the pure/soft and pure/hard disciplines. If peer-review publications continue to be a measure of scholarly output for all academic disciplines, then venues for publishing engaged scholarship must be available and recognized as well.

Policy changes are important, but equally important are actions taken by institutions to be sure policies to support and encourage engaged scholarship are implemented. Faculty members are aware of differences between rhetoric and reality with respect to institutional values.

Other factors influencing faculty - Finally the question, "What other factors (such as gender, rank, teaching load, institutional support, etc.) influence faculty in practicing engaged scholarship work at land-grant universities?" was answered. Time and financial support are two of the most critical influences on a faculty member's decision to work with communities on engaged scholarship.

If faculty find engaged scholarship to be a fundable research agenda, they may be more likely to pursue it (Votruba, 1978). Federal grant opportunities that reflect the importance of engaged scholarship promote a traditionally recognized avenue (sponsored research awards) for faculty. The National Science

Foundation's requirement to articulate and measure broader impacts in all of their funded proposals is one such example. Further inquiry into the success of these funding endeavors in promoting engaged scholarship is necessary.

It is difficult to draw conclusions about gender differences, based on data from this study. While it appears women are more likely to be involved in engaged scholarship than men, the differences in how men and women perceive rewards for and support of engaged scholarship are less distinct as results from quantitative and quasi-quantitative are sometimes in conflict. However, as previous studies have shown (Antonio et al., 2000; O'Meara, 2002), women may feel less rewarded than men with respect to promotion and tenure for their work, regardless of whether it is engaged scholarship or other forms. Additional study is required in order to make conclusions about the affect of gender with respect to engaged scholarship work. It is not known how gender affects predispositions toward engaged scholarship when the training and socialization is the same for both genders. Future inquiry into these differences through a conceptual feminist theory or other lens may provide explanation.

It was surprising that assistant professors didn't work less in engaged scholarship than tenured faculty, as had been reported by previous research (Chang, 2000). It seems assistant professors are more optimistic about the benefits to their career and availability of peer-review outlets for engaged scholarship work than associate or full professors. This may be a truly realistic view, that engaged scholarship is beneficial in the long run for their careers, but

faculty realize they may not be rewarded greatly in terms of promotion and tenure for this type of scholarship.

Recommendations

Disciplinary influences on practice - Knowing there are already differences in how faculty from the various academic disciplines express their traditional scholarship, it will be particularly challenging, but very important to communicate examples of how faculty from the pure disciplines such as humanities, physics, botany, sociology, and the arts might work in engaged scholarship.

If some faculty from the pure disciplines do not understand what engaged scholarship might look like, then additional exemplars are needed. Perhaps some disciplines need to find successful examples of engaged scholarship as a means to illustrate how it might be ingrained into their own discipline. Providing faculty from different disciplines with exemplars will not only help them understand how engaged scholarship might be expressed within their discipline but may also teach them how to effectively document engaged scholarship for the purposes of promotion and tenure review.

Professional development opportunities for faculty and institutional leaders may provide avenues for discussion and a broader understanding of engaged scholarship across an institution. There is a trend in this direction. For example, The Engagement Academy for University Leaders hosted by Virginia Polytechnic Institute and State University will be held for the second time in 2009. This Academy bring provosts, deans, and department chairs together for several days of lectures from national leaders in the engagement movement, group

discussions, and the opportunity to reflect on their own institution's commitment to engaged scholarship. The University of New Hampshire will be holding its fifth Outreach Scholars Academy in 2009; a semester-long faculty development program that focuses on defining engaged scholarship, working successfully with community partners, identifying funding sources, and documenting engaged scholarship for promotion and tenure review (Abrams, Townson, Williams, & Sandmann, 2006). Other institutions, such as the University of North Carolina-Chapel Hill, are developing similar faculty development programs to encourage and support engaged scholarship.

Considerations in socializing and preparation of graduate students might include opportunities for work in and discussion about engaged scholarship (O'Meara & Jaeger, 1006). These opportunities could be made available through campus Preparing Future Faculty (PPF) programs or professional development programs such as the Emerging Engagement Scholars Workshop, held in conjunction with the National Outreach Scholarship Conference for advanced graduate students and junior faculty members.

Increased discussion at institutions regarding the use of terms such as public service, outreach, engagement, and engaged scholarship is needed. A common language will facilitate a common understanding. These terms are still not understood in the same way across and within institutions. Perhaps the more important discussion is around the broader topic of what high quality scholarship means. As Boyer put forth almost twenty years ago, scholarship can take many forms (Boyer, 1990). A healthy and open discussion on campuses about how

various disciplines express their scholarly work not only will increase an understanding about what scholarship looks like across disciplines, but also increase the appreciation of various forms of scholarship, such as engaged scholarship, as well. This kind of discussion, particularly if lead by department chairs and deans, would lend credibility to engaged scholarship and perhaps develop departmental mentors/supporters for younger faculty members.

Because the problems facing society that might be addressed through engaged scholarship are complex, interdisciplinary teams of faculty are needed. By providing opportunities for faculty meeting and working in teams on projects, faculty from the applied disciplines could share their expertise in engaged scholarship as well as access to community partners with faculty from the pure disciplines. Further, partnerships between applied and pure disciplines might provide the access faculty from the pure disciplines need to community partners. It's less daunting (and time consuming) to take on an engaged scholarship project in partnership with someone else who has more experience. Providing vehicles to match faculty across disciplinary lines might help facilitates these partnerships.

Faculty learning groups could be formed around societal issues such as sustainability or health and wellness. Faculty from across the disciplines would meet, along with external partners, and discuss the issue, hear the community perspective, and begin to determine how an interdisciplinary scholarly approach might address the issue.

Faculty perceptions about institutional recognition and rewards - Institutions

who are working to increase their faculty's engaged scholarship work must look carefully at their words, but more importantly, the actions they take to support faculty. For example, if university-wide changes in promotion and tenure policy have been made official, are they being implemented appropriately and consistently? Are faculty working in communities in a scholarly manner recognized by faculty excellence awards similarly to faculty who are not?

Institutions that truly want to encourage engaged scholarship work among their faculty need to move from words to action. Inclusion of language about engaged scholarship in a mission statement and in speeches is important, but until engaged scholarship is rewarded in a similar manner as research and teaching, faculty will not devote the time and effort required to work in partnership in a scholarly way with communities. If engaged scholarship is perceived or actually only counted as service for promotion and tenure, then it is not something faculty will put their efforts toward.

Promotion and tenure requirements clearly must be examined and the disciplinary differences accounted for if engaged scholarship is to be institutionalized. Faculty who serve as peer reviewers for dossiers might have conversations about what high quality engaged scholarship looks like. The Clearinghouse & National Review Board for the Scholarship of Engagement provides expert review (for promotion and tenure purposes) for dossiers of faculty working in engaged scholarship, and these efforts should be promoted within the disciplines and expanded.

Clearly if peer-review publications continue to be the preferred measure of scholarly output for all academic disciplines, then venues for publishing engaged scholarship must be made available and recognized within disciplines and institutions of higher education. While some journals have existed for some time and are widely recognized, such as the *Michigan Journal of Community Service Learning*, the *Journal of Higher Education, Outreach, and Engagement*, and the *Journal of Extension*, new journals that highlight community engaged scholarship are also being released. In 2008, the *Journal of Community Engagement and Scholarship* published its inaugural issue and the *Journal of Community Engagement and Higher Education* will soon release its first issue. However, these journals aren't based in the academic disciplines most faculty associate with, with the exception of higher education and extension. Faculty, particularly from the pure disciplines (physics, mathematics, sociology, and political science) may not be aware of these venues, and their acceptance for promotion and tenure dossiers would likely be questioned in comparison to other top-tier journals from the discipline.

Journal editors should reach out to faculty to encourage submission of articles that reflect examples of quality scholarly work from all disciplines. Further, scholars that do read and submit work to these journals should share copies with colleagues and their campus libraries, even requesting that campus libraries subscribe to journals that focus on engaged scholarship.

Other factors influencing faculty - If time and financial support are two of the most critical influences on a faculty member's decision to work with communities

on engaged scholarship, then faculty release time and access to additional funds to conduct engaged scholarship should be considered, but with realistic expectations for assistant professors who haven't made tenure yet. These newer faculty members are clearly interested in community work, and even see it as beneficial to their careers, but it's important to make them successful in the short- as well as the long-term.

Simply encouraging and supporting faculty grant proposals that fund engaged scholarship is something institutions might consider. Sharing requests for proposals that provide funding for community work and encouraging interdisciplinary teams of faculty to apply for sponsored research is another avenue for promoting engaged scholarship. Institutions that want to encourage engaged scholarship could make financial resources available in a competitive process for engaged scholarship projects. For example, the University of New Hampshire has, on several occasions, awarded seed money to faculty who are working with communities in a scholarly manner, with the expectation that small, pilot projects could be developed into larger grant proposals.

If graduate classes or Preparing Future Faculty (PFF) sessions focus on publishing scholarly work they should also include examples of engaged scholarship-focused journals. Graduate students may be more inclined to consider community work if they know there's a venue for peer-review publication.

Implications for Current Literature on Engaged Scholarship

Findings from this study provide insight into how disciplines might affect faculty work in engaged scholarship, and little had been previously reported. This study represents the first large-scale empirical study on faculty engagement with respect to discipline. Previous case studies on discipline at a single university, (Chang, 2000; Lunsford, et. al, 2007) have suggested disciplinary differences and empirical data from this study provides further explanation of and significance for discipline in engaged scholarship work.

Further, the model for evaluating scholarship used by many (Glassick, et al, 1997) may need further refining as a measure of engaged scholarship. This study found no significant differences among the measures based on Glassick, et al (1997) between faculty from various discipline groups, however based on responses to other survey items, there are significant disciplinary differences, particularly in how faculty work with non-academic community partners. Currently the National Review Board Criteria ("Evaluation Criteria for the Scholarship of Engagement," 2002) is a good measure of scholarship, but may need additional measures or criteria to measure **engaged** scholarship. Several questions within the current criteria combine discipline and community into one question, "Does the scholar's work add consequentially to the discipline and to the community?" A reviewer might see ample evidence that the work adds to the discipline, but not necessarily the community. The importance of community in engaged scholarship work might be strengthened if this were asked as two separate questions, "Does the scholar's work add consequentially to the

discipline?” and “How does the scholar’s work improve the community?” The addition of criteria specifically regarding community would improve the measure as a means of measuring engaged scholarship. For example, a new question regarding goals could be added, “Does the scholar seek meaningful input from community partners in developing questions?”

Finally, the fact that important disciplinary differences exist between faculty regarding their perceptions about rewards and support for engaged scholarship supports furthering the work of Diamond and Adam (1995) in developing examples of engaged scholarship from various disciplines. This study shows that further discussions within departments and colleges around what constitutes engaged scholarship and how it should be recognized and rewarded are still necessary for institutions who want to further their engagement efforts.

Recommendations for Further Research

Like many research projects, findings from this research raise many new questions. The data presented here suggest disciplinary differences in how faculty understand, express, and perceive rewards for engaged scholarship, however, this study looked at disciplines quite broadly, with only four categories. Further study within each of these categories to see if there are differences between specific academic disciplines or sub-disciplines (i.e. public sociology, rural sociology, and sociology) would further the understanding of the effect of discipline on engaged scholarship work.

There is a need for deeper understanding of gender differences with respect to engaged scholarship. Are there differences between male and female faculty that are somehow influenced by discipline as well? Does the difference expressed between genders in this study in likelihood to work in engaged scholarship have any thing to do with how men and women are socialized as graduate students and junior faculty or are there other explanations? In addition, this study did not look at the effects of race and ethnicity in engaged scholarship. Previous studies have shown differences between faculty of different ethnicities in their likelihood to perform community service (Antonio et al, 2000) but few studies have examined how faculty with different ethnicities work with community in a scholarly manner.

Further study is needed to gather additional exemplars in various disciplines of engaged scholarship work. The work of Diamond and Adam (1995) with various disciplinary associations provided an impetus to begin conversations and articulate what engaged scholarship looks like for various disciplines. Additional publication of exemplars and success stories would help faculty who may be interested in community work, but simply don't have a notion of how it might be expressed within their field or academic discipline, might provide them with the confidence to proceed.

Because decisions about promotion and tenure are typically made by peer reviewers within a college or department, it is important to understand more about how faculty on promotion and tenure committees interpret engaged scholarship. Findings from this study found some differences between

disciplines, with respect to the likelihood that written guidelines were available that included engaged scholarship and how often they reviewed cases including engaged scholarship, but further study is warranted. What other factors (institutional support, faculty development programs, changes to promotion and tenure policies that reflect engaged community work as scholarship) influence members of promotion and tenure review committees? Is there a correlation between promotion and tenure guidelines at institutions and the disciplinary differences? That is, if an institution has written guidelines for promotion and tenure that clearly reward engaged scholarship, are the disciplinary differences as apparent?

The new elective Carnegie Classification for community engagement has spurred much interest in higher education to achieve and promote their institutional support for engaged scholarship. The Carnegie Foundation application process for community engagement uses the same criterion for granting this classification whether an institution is a private college or a land-grant institution, typically, two very different missions, but allows each individual institution to “make the case” that they are community engaged by telling their own story (“The Carnegie classification of institutions of higher education,” 2007). Applications can either focus on Curriculum Engagement, or Outreach and Partnership in their approaches to community engagement. Further inquiry, mining data from the applications submitted to Carnegie for Community Engaged Institution may provide best practices on how institutions support engagement successfully.

Finally, this study was limited to institutions, given land-grant status in 1862. All were categorized as research universities with very high or high research activity by the Carnegie Foundation and as land-grant institutions and have public service within their charter. Even within this focused group of institutions, funding, attention to engaged scholarship in policies, and the distribution of faculty from different disciplines varies. Further study to correlate these institutional attributes along with the disciplines of faculty may reveal new insights in how faculty work and perceive rewards for engaged scholarship. There may be regional differences in engaged scholarship work that were not measured in this study as well and there are quite likely important differences between urban-based institutions and campuses in smaller towns.

Summary

Given the fact that faculty from different disciplines understand and work in community engaged scholarship in different ways, just as they express their individual forms of scholarship often in different ways, it is important to continue, and in some instances, initiate dialogue about engaged scholarship on campuses that want to promote community engagement. This is especially important for the distinctive mission of land grant universities.

Policy changes are important, but equally important are actions taken by institutions to be sure policies to support and encourage engaged scholarship are implemented. The provision of faculty release time and financial support for engaged scholarship are visible actions that an institution can offer to faculty that indicate the institution takes engagement seriously.

Finding ways to connect faculty from various disciplines to work on community projects as a team seems like a promising practice, allowing faculty who have experience in engaged scholarship to provide the entrée to community partners and illustrating to their colleagues how the work might be viewed as scholarly.

Finally, the identification and recognition of new peer-review outlets and funding opportunities for engaged scholarship will assist faculty in providing scholarly documentation to their colleagues for promotion and tenure. Promotion and tenure review procedures that allow for multiple forms of scholarship are best implemented when consideration of all disciplinary forms of scholarship are taken into account. Continued conversations and research in engaged scholarship will surely take place at more institutions in the coming years.

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APPENDIX A

INSTITUTIONAL REVIEW BOARD APPROVAL

University of New Hampshire

Research Conduct and Compliance Services, Office of Sponsored Research
Service Building, 51 College Road, Durham, NH 03824-3585
Fax: 603-862-3564

20-Feb-2008

Townson, Lisa
201 A Taylor Hall
59 College Rd
Durham, NH 03824

IRB #: 4175

Study: Disciplinary influence on faculty engaged scholarship in the land-grant institutions

Approval Date: 20-Feb-2008

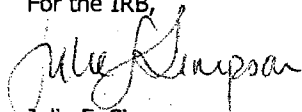
The Institutional Review Board for the Protection of Human Subjects in Research (IRB) has reviewed and approved the protocol for your study as Exempt as described in Title 45, Code of Federal Regulations (CFR), Part 46, Subsection 101(b). Approval is granted to conduct your study as described in your protocol.

Researchers who conduct studies involving human subjects have responsibilities as outlined in the attached document, *Responsibilities of Directors of Research Studies Involving Human Subjects*. (This document is also available at <http://www.unh.edu/osr/compliance/irb.html>.) Please read this document carefully before commencing your work involving human subjects.

Upon completion of your study, please complete the enclosed pink Exempt Study Final Report form and return it to this office along with a report of your findings.

If you have questions or concerns about your study or this approval, please feel free to contact me at 603-862-2003 or Julie.simpson@unh.edu. Please refer to the IRB # above in all correspondence related to this study. The IRB wishes you success with your research.

For the IRB,



Julie F. Simpson
Manager

cc: File
Demitchell, Todd

APPENDIX B

NATIONAL REVIEW BOARD CRITERIA

These criteria are used by the National Review Board to assess and evaluate the Scholarship of Engagement. Drawing from the criteria presented in *Scholarship Assessed: A Special Report on Faculty Evaluation*, (Glassick, Huber & Maeroff, 1997), they have been adapted to more closely reflect the unique fit with the Scholarship of Engagement.

The Scholarship of Engagement is a term that captures scholarship in the areas of teaching, research, and/or service. It engages faculty in academically relevant work that simultaneously meets campus mission and goals as well as community needs. In essence, it is a scholarly agenda that integrates community issues. In this definition, community is broadly defined to include audiences external to the campus that are part of a collaborative process to contribute to the public good.

In applying these criteria, the National Review Board for the Scholarship of Engagement is mindful of the variation in institutional contexts, the breadth of faculty work, and individual promotion and tenure guidelines.

Goals/Questions

- Does the scholar state the basic purpose of the work and its value for public good?
- Is there an “academic fit” with the scholar’s role, departmental and university mission?
- Does the scholar define objectives that are realistic and achievable?
- Does the scholar identify intellectual and significant questions in the discipline and in the community?

Context of theory, literature, “best practices”

- Does the scholar show an understanding of relevant existing scholarship?
- Does the scholar bring the necessary skills to the collaboration?
- Does the scholar make significant contributions to the work?
- Is the work intellectually compelling?

Methods

- Does the scholar use methods appropriate to the goals, questions and context of the work?
- Does the scholar describe rationale for election of methods in relation to context and issue?
- Does the scholar apply effectively the methods selected?

- Does the scholar modify procedures in response to changing circumstances?

Results

- Does the scholar achieve the goals?
- Does the scholar's work add consequentially to the discipline and to the community?
- Does the scholar's work open additional areas for further exploration and collaboration?
- Does the scholar's work achieve impact or change? Are those outcomes evaluated and by whom?

Communication/Dissemination

- Does the scholar use a suitable styles and effective organization to present the work?
- Does the scholar communicate/disseminate to appropriate academic and public audiences consistent with the mission of the institution?
- Does the scholar use appropriate forums for communicating work to the intended audience?
- Does the scholar present information with clarity and integrity?

Reflective Critique

- Does the scholar critically evaluate the work?
- What are the sources of evidence informing the critique?
- Does the scholar bring an appropriate breadth of evidence to the critique?
- In what way has the community perspective informed the critique?
- Does the scholar use evaluation to learn from the work and to direct future work?
- Is the scholar involved in a local, state and national dialogue related to the work?

Modified March 2002

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Engagement
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APPENDIX C

INSTRUMENT

Funding organizations, policy makers, and the general public have increasingly called on institutions of higher education to be more accountable, relevant and accessible. This is particularly the case with land-grant institutions whose critics have charged that the institution has strayed from their original mission of service to the public through education and research. This national study is designed to provide insights into how disciplinary differences influence faculty engaged scholarship.

The findings from this study will be shared with institutional leaders, researchers in higher education, and others interested in engaged or outreach scholarship. Knowledge of the differences and similarities among the disciplines will help guide future faculty development programs, assist in university policy development to support faculty involved in engaged scholarship, and provide information for the various disciplines to encourage recognition, documentation, and rewards for engaged scholarship.

You are invited to participate in an Internet survey that will take about 15 minutes of your time. There are four sections and a status bar will appear at the bottom of the screen to let you know how much of the survey you've completed. You may go back and change responses until you have finished the last page, but if you exit the survey you will not be allowed to go back and make changes.

I am asking permission to use your survey responses in my dissertation research. Your identity will be protected throughout my research and the presentation of aggregate data to the extent possible through web-surveys. Raw data from this survey will be shared only with my faculty advisor. Direct quotations may be used, however all identifying information will be removed. This project is not expected to present any greater risk of loss of your personal privacy than you would encounter in everyday life when sending and/or receiving information over the Internet. Further, you should understand that any form of communication over the Internet does carry a minimal risk of loss of confidentiality.

If you have any questions about this research study do not hesitate to contact me, Lisa Townson, lisa.townson@unh.edu, (603) 862-1031.

1. I understand that my consent to participate in this project is completely voluntary and that I may discontinue my participation at any time.
2. I understand that if I have questions about my rights as a participant in this study I may discuss those issues with a member of UNH's Institutional Review Board -- Julie Simpson, (603) 862-2003 or email julie.simpson@unh.edu.

*** 1. Please click yes if you certify that you have read and fully understand the purpose of this research. By checking yes, you indicate your consent/agreement to participate in this research project.**

- yes
- no, exit survey

*** 2. Are you a tenure-track faculty member?**

yes

no -- If no, thank-you for your time. No further information is required. Please Click on Exit survey at the top right of the page.

*** 3. What is your current title?**

Assistant Professor

Associate Professor

Professor

Other (please specify)

4. Do you currently have a formal outreach appointment (such as a Cooperative Extension, clinical, or other type of appointment)?

yes

no (if no, skip next question)

5. If yes, please specify what type of outreach appointment you have. (you may select more than one)

Cooperative Extension

Clinical

Outreach Office

Other (please specify)

*** 6. What is your discipline (this is a required answer as it is an important variable to this study)?**

7. What is your sex?

female

male

For the purpose of this study, engaged scholarship is defined as mutually beneficial, academically relevant work that meets community (broadly defined to include external campus audiences working collaboratively toward the public good) and faculty needs. It addresses community needs/problems through a scholarly agenda. Examples include working with a business/community/school/agency in a scholarly way to address issues, document changes, develop policies, etc. Scholarly creative endeavors such as working with a historical society to preserve local artifacts or documenting how elementary school students experience music education in order to improve the curriculum are also defined as engaged scholarship. (Please note -- this definition will appear at the top of several subsequent pages, for your convenience)

8. Have you ever been involved in engaged scholarship efforts?

Yes

No

For the purpose of this study, engaged scholarship is defined as mutually beneficial, academically relevant work that meets community (broadly defined to include external campus audiences working collaboratively toward the public good) and faculty needs. It addresses community needs/problems through a scholarly agenda. Examples include working with a business/community/school/agency in a scholarly way to address issues, document changes, develop policies, etc. Scholarly creative endeavors such as working with a historical society to preserve local artifacts or documenting how elementary school students experience music education in order to improve the curriculum are also defined as engaged scholarship.

9. As you think about your engaged scholarship efforts (refer to definition), please check the box that best describes how you agree/disagree with the statement.

Engaged scholarship

	Strongly disagree	Disagree	No opinion	Agree	Strongly agree
Addresses significant intellectual questions that relate to my discipline.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Seeks to address an issue or problem important to the community I am working with.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My knowledge and skills are appropriate to successfully carry out the engaged scholarship.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The methods used to carry out the work are recognized as the best to address the objective/issue/question.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The work is carried out in the context of a conceptual theory or creative process.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The results of the work add to the existing knowledge in my discipline.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The community outcomes of the work are measured.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Additional areas of inquiry/creativity open up as a result of the work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Efforts are improved by seeking critique about the project from the community partners I work with.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

10. Please answer the following regarding how results of your engaged scholarship were shared?

	yes	no
The results of my engaged scholarship were shared with an academic audience (via a traditional scholarly venue such as peer review publication, symposium, book publication, etc.)	<input type="radio"/>	<input type="radio"/>
The results of my engaged scholarship were shared with appropriate community partners in a formal way (public presentation, news article, web page, new curriculum, etc.)	<input type="radio"/>	<input type="radio"/>

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11. To what extent do you work with the following types of off-campus organizations, community groups, or governmental agencies?

	No extent	Slight extent	Moderate extent	Great extent
Teachers - K-12/Schools?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Business/industry?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Farmers/ranchers?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
State/Federal agency personnel?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Local municipalities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
NGO's/Non profits	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please specify)				

12. What type of influences do the following have on your involvement in engaged scholarship?

	Major barrier	Partial barrier	No influence	Partially facilitates	Greatly facilitates
Financial resources for engaged scholarship	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Career goals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Department/college norms	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Availability of campus-based support for engaged scholarship work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Familiarity with communities in my region/state	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Colleagues	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Departmental/college mentors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Promotion and tenure requirements	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Personal values	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

13. Please provide additional explanation as to what you see as the greatest barrier or facilitator to your involvement in engaged scholarship.

**14. Think about the most recent time you worked with an off-campus partner.
To what extent were...**

	N/A (haven't worked with off campus partners)	No extent	Slight extent	Moderate extent	Great extent
Mutual goals were agreed upon?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Partners a part of the planning of the project?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Partners involved in evaluating the results of the project?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Partners involved in presenting the results of the project to others?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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15. From the following perspectives, how is engaged scholarship valued at your institution?

	No value	Slight value	Moderate value	Great value	I don't know
Your department chair/director's perspective	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your college dean's perspective	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your university's administration's perspective	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

16. From your perspective, how is engaged scholarship valued at your institution?

17. To what extent has there been discussion about rewards for engaged scholarship within,

	No extent	Slight extent	Moderate extent	Great extent	I don't know
Your department	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your college	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your university	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your academic discipline	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 18. Have you served on a departmental or college promotion and tenure review committee within the past five years?**

- yes
- no

19. To what extent did the committee have written guidelines for reviewing and rewarding engaged scholarship as part of the review process?

- No extent
- Slight extent
- Moderate extent
- Great extent
- I don't know

20. During the time you served on a promotion and tenure review committee, how often did the committee review cases that included engaged scholarship work?

- Never
- Only once or twice
- Occasionally
- Regularly

21. During the time you served on a promotion and tenure review committee, to what extent do you believe the committee perceived the importance of engaged scholarship as a component of scholarly work?

- Did not come up
- Not important
- Important
- Very important

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22. From the point of view of your discipline,

	No extent	Slight extent	Moderate extent	Great extent	I don't know
How beneficial is it to your career to be involved in engaged scholarship?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How much does engaged scholarship have historical prominence and value?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Are there peer-reviewed outlets for the results of engaged scholarship projects?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is engaged scholarship important in promotion and tenure decisions at peer institutions of higher education?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Has there been discussion about how to include engaged scholarship within contemporary definitions of scholarship?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

23. How does your academic discipline support engaged scholarship?

24. What barriers does your academic discipline present to engaged scholarship work?

Thank-you for your time and thoughtful input. If you would like a copy of the results of this study, please contact Lisa Townson at the University of New Hampshire, lisa.townson@unh.edu.