The Quest For Excellence and Faculty Assessment

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A generalized definition of faculty work in higher education is unrealistic and would not achieve wide acceptance because of varied institutional missions (Al-Khafaji, et al, 1998). An ASCE Task Force proposed a "wheel" model that provides complete flexibility through interfaces that allow for scholarly work to be integrated into research, teaching, and service and professional development activities. The proposed model links scholarship, teaching, service and professional development with the equally important values of Excellence, Integrity, Leadership and Ethics. The model also provides opportunities for faculty to play an active role in the formulation and implementation of appropriate policies for assessing faculty performance. The major issues raised today in evaluating faculty scholarly contributions includes the need to have a clear awareness of institutional mission, resources, size of the institution, accreditation criteria, collective bargaining, disciplinary objectives, new technologies, and research. A fundamental objective of this article is to address these issues and to help educational institutions create an environment in which faculty are encouraged to produce their very best. However, it is the responsibility of leaders in higher education to provide a concurrent and stimulating paradigm for their own faculty assessment. Institutions need to place less emphasis on definitions and more on generation of a substantive rewards system for excellence in all areas of faculty work. The time has come to put an end to the notion that research is more important than teaching and that service is not as critical as teaching. Administrators and faculty need to recognize that excellence in all areas of faculty work is critical to the fulfillment of institutional mission. It is hoped that this article will help energize and stimulate the profession in the development of new approaches and policies in assessing faculty performance.

Key Words: Assessment, faculty, teaching

Background

The Carnegie Foundation book *Scholarship Reconsidered: Priorities of the Professorate* by Ernest Boyer, 1990 began the call for a redefinition of scholarship and faculty work throughout the academic world. Boyer proposed a new paradigm of scholarship with multiple interfacing elements. Several scholarly associations took the next step in the form of a major publication by the American Association of the Higher Education in 1995. Syracuse University initiatives launched a sweeping examination of the faculty rewards system as it related to institutional missions, a report in response to a call from Center for Instructional Development at Syracuse University. This article summarizes the conclusions and recommendations made by a task force from the American Society of Civil Engineers (ASCE) to redefine faculty work in engineering and construction.

Early in 1989, Syracuse University initiated a project to enhance the importance and quality of teaching in higher education (National Science Foundation, 1992). The project's main focus was

academic deans and department chairs because of their pivotal role in shaping the assessment and rewards system. Project activities were expanded to include faculty from across campus to help modify promotion and tenure guidelines to improve the status and rewards for good teaching. These initiatives launched a sweeping examination of the faculty rewards system as it relates to institutional mission. External funds helped extend the Syracuse University initiatives to other institutions.

The Redefinition and Assessment of Scholarship was funded by the Lilly Endowment, Inc. with support from the Fund for the Improvement of Postsecondary Education (FIPSE). The main thrust behind this project was to expand the range of activities that qualify as scholarly or creative faculty work (National Science Foundation, 1992). An expanded range of scholarly activities affects the priorities at educational institutions and would.

1. Improve teaching quality.
2. Improve the quality of graduates.
3. Improve the quality of curricula and courses.
4. Increase faculty participation in service oriented activities.

The project provided support to associations to establish task forces that would develop and disseminate definitions of scholarship for their respective disciplines. Included in these statements are lists of activities that academic departments are encouraged to consider as scholarly work when developing tenure, promotion, merit, or reward system guidelines. The reports from these groups were published in 1995 by the American Association for Higher Education. Phase II of the project extended this initiative to the American Society of Civil Engineers and other associations.

The Syracuse study for evaluating faculty scholarly contributions raised many common issues and concerns. In addition to the common threesome of scholarship, teaching and service, any assessment program must include a clear awareness of the following factors: institutional mission, departmental mission and resources, size of the Institution, accreditation criteria, professional organizations, collective bargaining, classification of the institution, disciplinary objectives, new technologies, and research (Al-Khafaji, et al, 1998). While policies vary significantly from teaching institutions to research institutions, the main factors in granting tenure appear to be based upon past performance, temperament, and long-term potential for success (National Science Foundation, 1992). Promotion, on the other hand, tends to be based solely upon past performance. In all cases, a sustained and solid performance in teaching is expected. Presently, it is obvious that institutions of higher education need to develop sound policies and procedures and that these be applied equitably and with consistency (Boyer, 1990).

The pace of change in the future is bound to accelerate and academic departments must develop the appropriate environment to help the next generation of graduates understand the global context of their professional activities. A premise of our present effort is that the next few decades will be more creative, demanding and rewarding for engineers and constructors (American Society for Engineering Education, 1987). At the same time, there exists uncertainty as to an appropriate definition of the Work of the faculty. Hence, it is now necessary to reconsider and revise the conventional definitions of scholarship in light of contemporary and

steadily changing standards of assessment (Hall, Focht, Michael, Paulson, Saville and Lowe, 1998).

The State of the Profession

The profession of Construction and Civil Engineering provides opportunities unrivaled by any other in terms of its distinguished history and extraordinary future (Al-Khafaji, et al, 1998) From our well-known ancient monuments to our exciting future, the flame of mankind's hope and intellect lives on as symbols of our profession's greatest achievements.

Unlike any other engineering profession, ours has always provided mankind with enduring monuments and lasting legacies. From the 5000 years old Ziggurats of Ur, Iraq to the wall of China to the Parthenon of Greece to the Sears Towers, the Hoover Dam, the Golden Gate Bridge, and the freedom space station being built by the United States, our legacies endure as beacons of excellence and triumph. These structures reflect the exceptional skills and abilities of constructors and civil engineers throughout the ages (Al-Khafaji, et al, 1998).

Our graduates work in the smallest of towns and in the largest cities anywhere in the world and not necessarily where the big companies are. This is a profession that knows no boundaries or language barrier. Our graduates must possess vision, leadership, and skills needed to meet future challenges. Consequently, it is our responsibility to develop the proper environments in which educators excel and thrive (Taylorient, 1987). Although construction and civil engineering educators have served the nation well and contributed significantly to the global society, there is a mounting demand for change to meet future challenges.

Construction and civil engineering departments must provide their faculty and students with opportunities for intellectual development, technical capacity, teamwork, communication skills, and leadership ability. Students need to develop the appropriate understanding of the economic, cultural, environmental, and international context of their profession (Diamond and Bronwyn, 1993). Consequently, it is the responsibility of administrators that faculty must be rewarded for their effort in all appropriate areas and not in terms of the number of research dollars generated (Taylorient, 1987). Furthermore, it must be clear that service to our students organizing and helping reshape their careers is a critical activity and must be valued and rewarded (Elman and Elman, 1985).

The Philosophy of Assessment Practices

The past three decades witnessed the evolution of new technologies and advancement of civilization at a scale unmatched in human history. A thousand years from now, historians will attest to the fact that this period of remarkable progression in human civilization was led by the United States of America (Al-Khafaji, et al, 1998). From the enormous platforms used to launch the Saturn V rocket to the moon to the structural design of the Space Shuttle, the construction and civil engineering profession has played a profound role.

The successes achieved thus far would not have been possible without the solid educational foundations existing at our engineering colleges and departments (Al-Khafaji, et al, 1998). This conclusion reflects the never-ending quest to improve and question every aspect of our educational programs. With this spirit, a national debate is underway to reconsider conventional definitions of scholarship and perhaps espouse new standards for assessing faculty professional achievements. The Boyer-Rice model suggests multiple forms of scholarly work as a basis for a new paradigm (Boyer, 1990).

Unquestionably, the criteria and procedures used in assessing construction and civil engineering faculty work vary from institution to institution depending on the mission, goals, and backgrounds of the faculty. However, in all cases, tenure and promotion considerations involve committees of senior faculty (National Science Foundation, 1992). These faculty members are normally responsible for the development of the specific list of activities considered relevant in annual assessment, promotion, and tenure.

Promotion and/or tenure are normally earned by a positive demonstration of effective performance in the traditional areas of Teaching, Research, and Service (Hall, Focht, Michael, Paulson, Saville and Lowe, 1998). In some construction and civil engineering departments, mentoring and scholarship are listed as separate categories. Some institutions cited mentoring of graduate students, mentoring of faculty, service on strategic planning committee, and other hard to define areas. That is, certain departments, with justification pointed out the need for including activities that don't fit into teaching, scholarship, or service. This is appropriate to the particular mission and goals of the department and university.

Boyer maintained that it was time to move beyond the tired old teaching versus research debate and ask, *What does it mean to be a scholar* (Hall, Focht, Michael, Paulson, Saville and Lowe,1998). In response to that question he proposed a new paradigm of scholarship, with four interlocking parts. He contended that the work of the professorate involves

    a. the scholarship of *discovery*, as in research,
    b. the scholarship of *integrating* knowledge, to avoid pedantry,
    c. the scholarship of *applying* knowledge to avoid irrelevance, and
    d. the scholarship of *transmitting* knowledge, to avoid discontinuity.

Boyer stated that such a paradigm broadens the work of the professorate and recognizes the breadth of the campus mission and the breadth of talent within the academy today (Al-Khafaji, et al, 1998).

Critical Factors in Assessment

Consideration of current practices in construction and civil engineering education reveals a state of uncertainty over the appropriate definition of faculty work and especially scholarship. Administrators need to empower faculty to deliver the graduate needed to successfully compete in the international arena. The challenges ahead are enormous but the rewards are bound to be worthy of the effort.

Consideration of current practices in construction and civil engineering education reveals a state of uncertainty over the appropriate definition of faculty work (Al-Khafaji, et al, 1998). Furthermore, many departments and faculty are confounded by the many sets of mixed signals and conflicting recommendations being advanced by well-intentioned organizations and groups (Al-Khafaji, et al, 1998). These groups include administrators, parents, alumni, government, professional organizations, accrediting agencies, legislators, the National Science Foundation (Rice, 1991), the American Society of Civil Engineers (American Society for Engineering Education, 1987) and American Society for Engineering Education (Taylorient, 1987). Additionally, changing technology, budget cuts, legislative pressures, changing institutional missions, and a dubious reward system contribute to the state of uncertainty (Al-Khafaji, et al, 1998).

In construction and civil engineering, the major issues associated with faculty scholarly research, and professional activities may be summarized as follows:

a. Institutional and Departmental Mission
b. Resources and Endowment
c. Accreditation Standards
d. Size and Background of Faculty
e. Public versus Private Institution and Collective Bargaining Units
f. New and Changing Technologies

Additionally, the focus and expertise of the faculty in a given institution is extremely critical in the development of sound policies. In this context, a distinction must be made between so-called teaching and research institutions. The Carnegie Foundation classification system provides the following eight categories:

Research Universities I (research expenditures > $40 million & #Ph.D. grads> 50)
Research Universities II ($15.5 <research expenditures <$40 & #Ph.D. grads > 50)
Doctoral Universities I (#Ph.D. grads > 40)
Doctoral Universities II (#Ph.D. grads > 10)
Master's Universities I (#MS grads > 40)
Master's Universities II (#MS grads > 20)
Baccalaureate I (> 40% of degrees in liberal arts; restrictive)
Baccalaureate II (< 40% of degrees in liberal arts; less restrictive)

Irrespective of the factors involved, faculty must be willing to adapt to change and renewal. Current tendencies reveal significant external pressures being applied to affect change in faculty duties and assessment practices (Al-Khafaji, et al, 1998).

The Wheel Model

The notion of developing one model that fits all programs is not realistic, practical, nor beneficial to the construction and civil engineering professions. Instead, what is needed is the development of sound policies and procedures and applying them fairly and consistently. An ASCE Task Force developed a model that meets these requirements (Al-Khafaji, et al, 1998).

Figure 1. Faculty Work (Al-Khafaji, et al, 1998).

The wheel was selected because it symbolizes movement and action. It is one of mankind's first symbols of progress, which marked the earliest Sumerian civilization of Iraq dating to more than 6,000 years ago. The hub of the wheel gives direction and power to the wheel. So too, the mission, resources, and goals of the academic community must provide the direction and vitality to the work of the faculty (Al-Khafaji, et al, 1998). The body of the first model is composed of three sectors representing the three common area of faculty work: teaching, scholarship, and service/professional development. The tire defines the quality of the ride in the same manner that *Excellence, Integrity, Leadership, and Ethics* establish the quality of faculty work.

Ultimately, it is *Excellence* that drives institutions and faculty and not the mere definition of scholarship. It is *Excellence* in all that we do and envision that contributes to society's progress and evolution. It is the responsibility of institutional leaders to encourage and nurture change by clearly defining faculty expectations and rewards. Such institutions can achieve extraordinary results by pooling the talents of faculty, students, alumni, and professional societies (Al-Khafaji,

et al, 1998). Consequently, educational institutions and faculty have unique opportunities to provide such an environment.

In this model, the Interfaces represent areas that can be defined by individual departments based on perceived needs. In some cases, these Interfaces may designate an overlap between Teaching, Scholarship, and Service/Professional Development. Alternatively, they may represent transient or sustained discretionary activities meeting the changing demands of the profession, legislature, students, and society. An example of a sustained discretionary activity is mentoring of graduate students and/or faculty. An example of a transient discretionary activity may involve service on strategic planning committee or development of a new course.

Balance to the wheel is imparted by the recognition of scholarly work at the interfaces of the other two work areas of the faculty; that is, teaching and service/professional development. Further, scholarly activities must include the four types of scholarship suggested by Ernest Boyer: *Discovery, Integration, Application, and Transmission..* All four of these types of scholarly activities can be nicely included in the three interfaces. In this complicated and interconnected world, new discoveries and breakthroughs are made at the interfaces of traditional disciplines and that interdisciplinary cooperation is necessary for these discoveries and breakthroughs (Al-Khafaji, et al, 1998).

Defining Faculty Work

The policies and procedures used in the assessment of faculty performance at several institutions were examined by an ASCE Task Force (Al-Khafaji, et al, 1998). These included Bradley University, Marquette University, Michigan State University, Ohio University, Purdue University, University of Minnesota, and Wayne State University. The selected departments were different in size, mission, and programs offered. The policies and procedures used reveal a wide range of activities with different weights applied to teaching, research, and service. A list was complied as a useful inventory of activities deemed appropriate and may provide some insights in developing policies and procedures for faculty assessments. A summary of the lists of activities and categories are shown in Table 1.

There appears to be a consensus that the principal duties of the construction and civil engineering faculty are the creation of new knowledge, transmission of knowledge, and service to the university, profession, and community. However, the relative weighting of these activities in determining promotion or tenure vary significantly from one institution to another. Generally, the principle factors used in granting *tenure* appear to be based on past accomplishments, temperament, and long-term potential for success. *Promotion* tends to be based on past accomplishments.

Table 1

List of activities defining faculty work in Engineering (Al-Khafaji, et al, 1998).

Teaching	Scholarship and Research	Service & Professional Development
Activities:	*Research:*	*Students*
Undergraduate Course Credit hours	Active grants	*Department*
Graduate Course Credit hours	Proposals funded	*College*
Undergrad. Laboratory Credit hours	Proposals submitted	*University*
Graduate Laboratory Credit hours	Interdisciplinary activities	*Profession*
Number of Students impacted	Academic year salary support	*Community and Alumni*
Independent Study Courses		
New Course Development	*Publications:*	*Consulting*
Laboratory revision	Technical reports	Professional
Teaching proposals funded	Abstracts	Expert witness
Teaching proposals submitted	Research publications	National and international media
	Refereed journal papers	Other universities
Evaluation:	Other journal papers	Short courses
Future plan	Magazine publications	
Student evaluation	Books & textbooks	*Leadership*
Peer evaluation	Book chapters	Professional organizations
Alumni evaluation	Edited books	Student organization
		Strategic planning
Honors:	*Conferences:*	New journals & editorship
University awards	Refereed conference paper	Recruiting students to major
Student awards	Other conference proceedings	Helping junior faculty
Invited lectures	Chairing sessions at conferences	Senior projects & field activities
Attitude		Alumni relations
Devotion	*Mentorship:*	New scholarships & funding
	Doctoral students supervision	Continuing education
	Masters student supervision	Professional registration
	Internships	
	Thesis advisor/co-advisor	*Vision*
	Junior faculty	Innovations in World Wide Web
		Globalization & Competition
	Honors & Awards:	Setting National Agenda
	Sabbatical activities	Study Abroad Programs
	International & national recognition	New Ideas in Construction
	Patents	
	Keynote speaker	

Interface Activities

The Interfaces in Figure 1 provide a richly diverse set of possibilities and alternatives to develop sound criteria for faculty assessment. Furthermore, these "Spokes" furnish educational institutions with the appropriate mechanism and needed flexibility to meet their dissimilar needs and missions (Al-Khafaji, et al, 1998). The three interfaces permit institutions to place less emphasis on definitions and more on rewarding substantive faculty activities.

The Interface concept permits a department to focus on setting and achieving goals rather than worrying about defining a suitable category for a useful and needed activity by faculty, students, and industry. More importantly, it provides faculty with a fair system of evaluating their work and recognizing the value of their contributions.

Teaching and Scholarship Interface

Mentoring of graduate students with thesis work and undergraduate students involved in research, the sponsorship of short courses and quality seminars are included in this interface. Additionally, one may chose to attend special seminars in new research areas of interest and develop contacts and skills needed for future research activities.

Service and Teaching Interface

Passing the AIC, FE and PE exams and other activities that will enhance faculty's understanding of his/her field. Serving the professional community through continuing education and consulting. Outreach programs with high school students provides an excellent opportunity to help high-school students achieve a higher level of competence in engineering and science.

Scholarship and Service Interface

Reviewing journal articles, textbooks, and helping colleagues with proposals and research. Also, activities selected from Table 1 are acceptable.

It is hoped that administrators approach the task of faculty assessment with better clarity and understanding of the fundamental component involved. It is not what the activity is called that matters, it is whether the activity is critical to fulfillment of the mission of the department and university. Note that faculty may select appropriate activities for any of the three interfaces from the list of activities identified above or come up with their own. This degree of flexibility is required if educators are to be given opportunities to be creative and innovative rather than sticking to the status quo.

Feedback From the Faculty

Boyer also mentioned "*credibility of the process*" by revealing that we "must have clear standards and good documentation, but what counts the most is the degree to which professors have confidence in the arrangements, feel the process to be fair, and believe that those who make the critical decisions can be trusted."

As suggested by Dr. Robert M. Diamond, Director of the Center for Instructional Development at Syracuse University, actual data from real faculty was needed to demonstrate the validity of the proposed Wheel Model (Al-Khafaji, et al, 1998). Consequently, the Civil Engineering and Construction faculty at Bradley University was selected as the first test case. The faculty members were asked to provide the actual amount of time and the preferred amount of time spent

on Teaching, Scholarship, and Outreach, Professional Development and Service (OPS). A summary of the results is given in Table 2.

Table 2

The CEC faculty response relative to actual and preferred time spent on Teaching (T), Scholarship (S) and Outreach, Professional Development, and Service (OPS).

Faculty Name	Actual time spent			Preferred time		
	T	**S**	**OPS**	**T**	**S**	**OPS**
1	70	5	25	50	10	40
2	20	30	50	20	40	40
3	60	20	20	60	20	20
4	30	45	25	40	40	20
5	80	10	10	45	35	20
6	60	15	25	60	20	20
7	45	20	35	45	20	35
8	60	20	20	40	40	20
9	60	30	10	40	50	10
10	60	10	30	40	30	30
11	35	45	20	35	45	20
12	80	10	10	70	20	10
13	60	15	25	50	30	20
14	50	20	30	40	30	30
Averages	**55%**	**21%**	**24%**	**45%**	**31%**	**24%**

The data suggests that the faculty spend approximately 55% of their time teaching and wish to reduce it to 45%. Furthermore, they feel that spend 21% of their time on scholarly activities and 24% on service, outreach, and professional development (OPS). Based on the above data, the department adapted ranges with the following strategy to accommodate faculty interests and meet the mission of the department and University (see Table 3)

Table 3

Faculty time by factor

Teaching	45%	to	55%
Scholarship	25%	to	35%
OPS	15%	to	25%
Interfaces	0	to	15%

Clearly, it is the faculty desires to spend more time on scholarly activity but curiously enough wish to maintain their level of involvement in OPS activities. Consequently, the range between the actual and desired weights in each of the three categories defines the desired magnitude of the Interfaces. A faculty member doing predominantly teaching could use their teaching aspects of the interfaces with scholarship to essentially increase the percentage assigned to teaching oriented activities, whereas a predominantly research faculty member would do just the opposite without being penalized as much with a large percentage assigned to teaching only.

Faculty Perspective and Self-Assessment

Obviously, one advantage to the proposed model is that faculty members have a role in determining the desired weights in the categories that are used in the evaluation process. It becomes a collective effort to judge the quality of performance in the areas of teaching, scholarship, or outreach, professional development, and service. This faculty participation helps provide incentive for faculty to achieve their best rather than having a policy imposed upon them from above. Thus, it leads to greater acceptance of the process as well as promoting the esprit de corps within the department itself.

The faculty also benefit from a redefinition of scholarly activity. It has been a longstanding argument that the definition of scholarship as research that produces publication in respected journals is too narrow. Likewise, scholarship that increases the knowledge of the individual alone is of little use. A broadening of this terminology to include activities as identified in Table 1 guides the individual faculty member to endeavors that expand their opportunities and at the same time help to achieve the expectations of the department and the broader goals and mission of the institution.

Identification and definition of categories is only one step in individual faculty assessment. For the faculty member to feel a greater degree of affinity to the process and to be able to provide input, it is good for the faculty to turn in a self-assessment to the department chair. This allows the faculty member to report on areas that the chair may not even be aware of, but even more importantly puts the faculty member's mind in the framework of looking at the big picture of how he/she fits in the department. Faculty typically submit annual activity reports or prepare information that updates their resume, but by doing a self assessment in the form of the proposed model, one is forced to examine their own performance in many different areas.

Meeting With the Chair

There is probably some apprehension on the part of both the department chair and the faculty member when the time comes for the annual evaluation. However, it need not be a confrontational experience if both comes into the meeting in a manner suggested in this paper. The use of the wheel model and a self-assessment as mentioned earlier is a good preparatory approach. When this is accomplished, both the faculty member and the department chair already identify issues relating to strengths and weaknesses. In addition, it is suggested that the faculty member bring with them their own scoring of their performance in the different categories in which they are being evaluated. Experience of the authors with this methodology, the comparisons between the chair assessment and the faculty self-assessment has proved to be valuable in insuring that both understand the policy and expectations. Over the years, such approach produced better understanding, trust, and a more positive environment to meet stated objectives. Furthermore, a high degree of correlation was evidenced which helped identify strengths and weaknesses. When questions of what the faculty member is going to be criticized about are removed, the meeting is a much more positive experience to go through.

With much of the groundwork prepared ahead of time, the meeting can concentrate on recognition of areas of excellence as well as an examination of weaknesses. Moreover, an examination of weaknesses is really a feedback mechanism from the chair to help the faculty identify things to address and offer suggestions on how to achieve success. The meeting offers guidance on how an individual faculty member can develop and ultimately achieve the quality and excellence identified in the outer part of the wheel model of Figure 1.

By following clear and objective guidelines, the meeting between the faculty member and the department chair becomes a time of renewal. Goals are focused on how the faculty member fits within the department and provides input on how they can help achieve departmental goals through their own actions. Finally, each faculty must develop a future plan of action that he/she can share with the chair to insure continuity of purpose and minimize misunderstanding.

Affecting Change

There must be a willingness to change. The wheel model emphasizes the quality of faculty performance in order to achieve excellence, integrity, leadership, and ethics. By being flexible, it encourages the faculty member to be creative in a manner that fits the mission of the institution. This model allows the faculty member to "buy into" the method and helps bring about change. The rewards system through the evaluation encourages them to examine future plans, and thus they participate in providing the vision and leadership for the future. This provides an enormous help to the department and the program by beginning with each individual faculty member.

The end result though, is a team effort. Each individual faculty member begins to look at the wheel model in a macro, overall sense. They look at how things will help the program and the department. They begin to look at their contribution to the goals instead of as an individual competition of trying to come out on top. By examining how they can develop, they also look to help other faculty.

In construction education, opportunities for scholarly activity have often been considered to be limited. As the discipline matures, scholarly activities will continue to expand. Such changes are expected, and indeed, should be encouraged. Expanded scholarly activity helps to improve teaching, and may positively impact the courses being taught and the quality of the graduates. When knowledge is expanded, it is integrated into the classroom and laboratory. Such changes are welcome.

Conclusion

The construction and civil engineering education in the future will require more than policy manuals and clearly defined and applied procedures, it must embody leadership throughout the ranks of the professorate (Al-Khafaji, et al, 1998). Hence, guidelines and support programs need to be put into place to foster the development of leadership among faculty in Civil Engineering and Construction.

To adopt the model proposed by the ASCE task force and presented in this article, the academic community must broaden its thinking, examine changing technologies, consider global issues, define its mission, and establish an appropriate vision. The academic community must recognize that faculty activities are varied and develop the necessary means to recognize and reward all activities equitably. The stale and archaic contention that a research faculty is better than the most outstanding teacher needs to be abandoned. Questions need to be raised whether a teacher is of a lesser value than a researcher or visa versa. We must ask if a researcher can do his/her job while serving as an advisor to AGC and become involved in community projects? As was stated in the article, Dr. Ernest Boyer maintained that it was time to move beyond the tired old teaching versus research debate and ask "What does it mean to be a scholar?"

"As educators look to a future of change and increasing internal and external pressures, new paradigms for evaluating faculty performance will be necessary. Failure to reform and redefine from within, will invite perhaps unnecessary and unwarranted change from beyond. No matter what, change is on the horizon. Faculty performance, i.e. the work of faculty, will not and should not be exempt from change. (Al-Khafaji, et al, 1998)"

The application of the proposed model is particularly appropriate for small departments because of its inherent flexibility. Larger departments may use several wheels to graphically and coherently define the work of its faculty. The model allows for the work of faculty to be considered when it satisfies the needs and mission of the department.

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