COLLEGE OF ENGINEERING
EXECUTIVE COMMITTEE MEETING
MINUTES

April 22, 2010

Present: Richard Brown, Patrick Tresco, Milind Deo, Michael Kay, Marilyn Davies, Rick Rabbitt, JoAnn Lighty, Paul Tikalsky, Gianluca Lazzi, Anil Virkar, Tim Ameel, Chuck Hansen (SofC), Sandy Bruhn

Excused: Martin Berzins, Vicki Jensen

Announcements/Updates

• FAR Submission - Dean Brown announced that all FARs have been submitted. He thanked the chairs/director for encouraging their faculty. The FARs collect valuable information and data will be extracted to see how the College is doing.

• Convocation - The College of Engineering Convocation will be held on May 7 at 6:45 pm. Dean Brown asked the chairs/director to remind their new faculty of the tradition at the U for all faculty to attend convocation. Sandy Bruhn is working with volunteers to organize the event. Last year the Computer Engineering graduates lined up with the Electrical Engineering graduates. This year they will line up as a separate group.

• ENAC Meeting - ENAC will be held on May 21. There will not be a May Executive Committee Meeting because the chairs/director are involved in ENAC. The focus for this meeting will be on energy and will include a tour of EGI. The Honorable Governor Herbert is scheduled to speak; the lieutenant governor, Greg Bell is the backup. There will be presentations by faculty. Marilyn Davies commented that this will be Ed Catmull’s last meeting as chair of ENAC but he will continue to participate as a member. Ted Jacobson will be the incoming chair. Dean Brown thanked Marilyn for all of her work in getting ENAC organized.

• DOE Site Visit - Dean Brown reported that on April 19 the College received a site visit from the Department of Energy. This was a result of a $122M proposal Tatjana Jevremovic, Director of the Utah Nuclear Engineering Program, submitted along with nine other universities, GE, EnergySolutions and several other companies. The only other organizations selected for site visits were two national labs. Submission of this proposal could never have happened without the help of Dawn Thorne from the VP for Research Office, who helped prepare the proposal. She is a new Grants & Contracts Officer in the new Collaborative Research Support Program. Dean Brown said this is a good example of how this new resource can help us. Our staff, led by Michael Kay, worked very hard to get the facilities in order. While our chances of being awarded this project over the national labs are slim, we made a very good impression on DOE, the partner universities, and partner companies, changing their opinions of the U and our College. Dean Brown said we need to look for more opportunities like this and not be shy.
Rankings - The new Graduate School Rankings from US News & World Report are out. Our rankings are: College 63, BIO 23, CS 39, ChE 52, ECE 53, CVEE 65, ME 67.

Dean Brown reported that the University had an Affinity Group of Deans that have been meeting to discuss the challenge and opportunity of pursuing effective approaches to rankings. A Report of their discussions has been prepared covering Smart Practices and Pressing and Ongoing Needs (Appendix A). Department rankings by US News are based entirely on the vote of peers but several metrics are used to rank colleges. There are different ranking systems for different colleges. Rankings matter, especially in recruiting faculty and graduate students. Over the past few years, the metric in which we have been lowest (in the 90s) is selectivity of graduate students -- we accept too high a percentage of those who apply. GRE test scores of those admitted is another metric used in the ranking. This is the reason we have focused on graduate student recruiting. Dean Brown said there are things we can do to help our reputation:

1. Chairs becoming involved in their own discipline chair meetings.
2. Faculty members feeling that they are ambassadors for their departments and promoting their department and the U.

Dean Brown will get the details on the rankings by US News to see where we fall in each of their metrics and send to the chairs/director. There is some question as to whether the NRC rankings will ever come out.

More PR is being generated about the research of Engineering faculty these days. We all need to continue to work on this. The University Communications Group (Mark Woodland, Assoc VP for Marketing, Public Relations, and Advertising, his group and communications representatives from each of the colleges) met in our boardroom on April 21; commented about the great stories they have been reading about engineering. Some Engineering stories have enjoyed very broad coverage lately. This is beneficial both nationally and locally.

Discussion Items

Building Security
Dean Brown received an email from one of our researchers who had a hard drive stolen from his office in MEB and suggested that the buildings be locked at 5 or 6 pm. This would be tricky to do because MEB and WEB are connected and Meldrum will also be connected once completed. The thief was eventually found to be living in MEB. He is 40 years old, a sex offender, had a police record going back to when he was 12, and he was in violation of parole. He would advertise the stolen goods on Craig’s List. The person buying the item would come to MEB and make the purchase, unaware that the item was stolen. One step being taken to improve security is that Rod Mitchell, our facilities person, is taking control of the lockers in room 1004R MEB. An email has been sent to faculty, staff and students to notify him if they are using one of the lockers. Any lock not accounted for by the week after commencement will be removed.
Transparency Policy
A state transparency law goes into effect in June. Thereafter, every financial transaction at the University will be posted on the web. Drill-down on individual transactions will not be available on most posted information. Salary information will be available.

Changes to U Regulation on Instruction and Evaluation
A major re-write of the policy on teaching and evaluation is in the works, including such issues as attendance policy. Each department should have someone, ideally who has been involved in policy development, read through these changes to see whether the department has any concerns with the changes.

Teaching Buy Out
It is important that department and college policies be applied to all faculty and staff uniformly. Departments need to have a standard teaching buy-out cost, that is a percentage of the faculty member’s salary (typically 1.5 months per course). A faculty member provides these funds from a research account to offset their academic-year salary, and department uses the state funds that would have gone to their salary to hire an adjunct faculty member to cover the course and for other departmental needs. In the case of USTAR faculty, the USTAR authority does not allow salary money to be diverted to the department. To enable USTAR faculty to participate in teaching buy-out, their salary funds displaced by research dollars will go into a USTAR account to be spent for research, and an equal amount of overhead-return funds that would have come to the faculty member’s discretionary research account will go to the department to cover the cost of the adjunct faculty member and for other departmental needs.

When faculty members cover part of their academic year salary without a buy-out of teaching, a similar mechanism will be used for USTAR faculty, allowing them to have an arrangement that is equivalent to that of the rest of the faculty, and meets the USTAR restrictions on use of funds.

ARCS Fellowships
We have received three $15,000 fellowships for new Ph.D. students to be awarded for the 2010-11 academic year. One has been allocated, two remain. If you have a good candidate (high GPA, high GRE) please let Sandy Bruhn know. This fellowship is to be used to recruit the “best and brightest.”

Auxiliary Faculty Guidelines
The College Council has the role of defining the boundaries on auxiliary faculty involvement in department and college governance. The Ad Hoc Auxiliary Guidelines Committee encouraged the College Council to approve broad participation and leave it to the departments to narrow the scope of participation if they so choose. (The College Council will meet on April 28.) University policy prohibits auxiliary faculty members from voting on appointments, retention, tenure or promotion of tenure-track faculty, but allows them to have a voice in matters related to research or teaching if approved by the College Council and the department’s regular faculty. The proposed policy would change the terminology of “clinical faculty” to Lecturing Faculty, which is a better definition of their work. The wording in the proposal regarding appointment length will be altered to be consistent with University Policy 6-310, which talks about encouraging the best auxiliary faculty through the use of promotion and longer appointments (as long as 5 years).
The guidelines incorporate a two-year grandfathering feature for existing Assistant Professor auxiliary faculty. The policy represents a move to “up or title change.” The required reviews will encourage auxiliary faculty to become closer to the academic mission of the institution.

The intent of the proposed policy is to bring the College of Engineering into compliance with the requirements of the Northwest Accreditation Board, to set clear standards for use of the term ‘professor,’ and to bring more respect to the auxiliary faculty roles.

Freshman Experience
There is broad support for making some changes to the Engineering freshman experience. The committee supported having a college-wide introductory course that includes an overview of the various engineering disciplines, but leaving freshman projects in the departmental freshman courses. These projects are important to the retention of students; an excellent model is what Patrick Kiser has done in Bioengineering.

Meeting adjourned at 12:00
Appendix A

RANKINGS AFFINITY GROUP
REPORT

March 9, 2010

The Rankings Affinity Group (Deans Brown, Brown, Graves, Keefe, Mather, Randall, Rudd, Scheer, Wight, and Chodosh, convener) held three meetings during the Spring 2010 semester to discuss the challenge and opportunity of pursuing effective approaches to rankings. From these three sessions, the Group developed a number of points that may be valuable to other university leaders concerned with rankings. The Group has memorialized these points below in two general categories: (1) smart practices (including philosophy, policy, process, strategy, and tactics), and (2) pressing and ongoing needs.

SMART PRACTICES

Philosophy

Rankings are an important and imperfect reflection of quality: important based on their use by external and peer groups as a proxy for value in the absence of alternative short-hand measures, and imperfect in their varied and frequently skewed methodological choices. Whether any particular unit or college goes up or down in rankings, we need to be even-tempered and consistent in this general attitude and responsive communications so that we avoid the frequent hypocrisy of championing them when we go up and hypocritically trashing them when we go down.

Policy

Effort directed at rankings should be proportional to their perceived value, and rankings strategy and investments should optimally be aligned with programmatic goals and objectives so that we avoid pursuing rankings strategies that are overly costly or have a negative impact on our cherished programs. Accordingly, making investments only to satisfy rankings methodology should be carefully considered in
terms of the comparative cost and potentially positive or negative impact rankings have on other important strategic interests (e.g., ability to attract faculty, students, donors, etc.). Furthermore, over-internalization of rankings is both a common problem and perfectly avoidable with greater understanding of the precise ways in which rankings are calculated. For example, test score or GPA metrics tend to measure medians or percentiles, which means that they do not measure anything below those thresholds, thus giving room for schools to take risks on large numbers of students with a weak statistical index without any immediate impact on rankings.

Disaggregation of Measures

Many rankings systems (e.g., US News) rely on individual measurements that are then weighted (e.g., 25% for student selectivity, 30% for reputation, and so on). It is useful to break down each measurement and evaluate the comparative weight of that particular measure in the overall ranking. Further, it is useful to understand how the empirics for that particular measurement are gathered: for example, who precisely is surveyed in reputational surveys, where statistics are gathered, and whether there are ways to ensure accurate information is transferred. Getting a sense of weight also helps administrators to make judgments about the amount of time and energy to spend on that particular index.

Diversification of Measures

Diversification of measurements beyond those used in any particular ranking is well-advised as both a way to ensuring that rankings measurements do not dictate a narrow range of performance indicators and as a way of developing more proactive communication strategies on programmatic strengths. Measurements should be value-driven, and we all should be active in deciding which values matter more than others and publicizing the results. For example, if a school cares about its commitment to public service as part of its core mission, it should develop metrics for calculating hours of student service or community contacts or impacts. Generally, the use of smart goals provides an institutional foundation for developing a broader set of institutional objectives, empirics, and metrics. External communication of accomplishments along these alternative metrics can thus help (1) take
pressure off of the tendency to collapse into recognized rankings metrics alone, (2) create more pro-active accountability for outcomes and performance within departments or colleges, and (3) publicize success in a way that can have a virtuously cyclical impact on reputation and engaged interest in what we are achieving.

*Open Discussion and Education*

Rankings are opaque, and very few constituents have a mastery of how they work, what they measure, or what they miss. Accordingly, open discussion should be encouraged with colleagues and important external constituencies about rankings—that is, where any particular school is on which index and why that matters (or not) *in advance* of when rankings are publicized. Open discussion helps to demystify the rankings and to develop more accurate and reflective understanding of their strengths and weaknesses. Where we perform poorly along certain metrics, this should be acknowledged and countered with a plan to improve, instead of just dismissed as meaningless or methodologically shoddy. Direct discussions with publishers of rankings can also help to clarify misunderstanding, advance concerns about the ways in which methodological choices can skew results, and establish modest and long-term responsiveness and accountability. Advance, open, non-result oriented discussion within departments and colleges helps to establish healthy, constructively critical, and productive attitudes toward rankings. (For those schools where students or young alums are surveyed, it may make sense to extend this conversation to them so that they are more in tune with and supportive of the surveys they are asked to answer.)

*Strategy*

Through the articulation of goals to position departments or schools according to a vision for the future, academic leaders may identify areas of improvement in student selectivity, research, and reputation (some of which may or may not be reflected in specific rankings methodologies). It is important that rankings strategy is developed in a broader context of institutional strategy: what are we trying to achieve may be different in many respects than what the rankings would prefer us to focus on. Whether a measure is derived from a rankings publication or developed
for our own purposes, we must be mindful of Einstein’s admonition that we tend to measure what we can count, but cannot always count what matters most.

**Tactics**

In general terms, not much can be said about smart tactics, as specific measures will depend on the specific context and measurement used in any particular ranking. However, as a starting point we have tried to break down a few key, fairly common areas where sharing smart tactics might be useful.

**Reputation:**

Many rankings have a reputational component, and reputation is measured in some form of survey. Identifying who is surveyed (or who typically responds) can be difficult; however, we generally know the groups of professionals, peers, or students who receive surveys. It is therefore important to (1) identify an approach to each group surveyed to maximize the accuracy of contact information and management; (2) increase their response and awareness of our programs being ranked, (3) identify ways to engage them, without making the engagement about rankings per se, including social activity in which we are engaged with those peer or professional groups, and (4) to see in retrospect or in comparative examples whether any such tactic seems to work in the short or long-term.

Generally, we believe that the mere dissemination of glossy brochures and other publications (particularly around survey time) is insufficiently effective. Further, we think that communications that offer help and assistance, create social contact, and are spread throughout the year tend to be more effective. We suggest, accordingly, that academic leaders focus on what they can offer a designated audience, e.g., opportunities to view or use web-casting, video-conferencing, videography (which are available on campus and can be shared without major investments), or opportunities to attend conferences or give lectures here. We also suggest that these communications use multi-media, cultivate third-party channels, such as news and blogging and other institutional partnerships or
communications. Finally, we suggest that these communications provide drips of information throughout the year, instead of one shot that may be discarded or not read more easily.

**Student Selectivity:** Attracting the students we want is a function of them choosing us. Thus, we have to think through the relationship between our programs and student preferences. Beyond this connection, we believe there are certain basic, smart practices in admissions that can help with selectivity:

1. personal contact and individual service and attention;
2. customized communication based on student interests or decisional drivers;
3. strong financial aid advising;
4. both off- and on-site outreach.

**Research Impact:** This requires an understanding of the particular methodology for measuring research productivity and impact. It is disturbingly frequent to learn that organizations with ranking responsibility lack accurate data, and communicating with those organizations in advance of a particular ranking to make sure they have complete information is a good practice. When citation counts are used, some faculties have developed a cross-citation practice to build up their numbers. In any case, it may be useful to understand the specific methodology and coming up with a specific, low-cost way of improving performance in addition to longer-term strategies to improve.

**Pressing and Ongoing Needs**

In addition to the foregoing observations and recommendations, we have identified a few major, shared needs. We urge exploration of multiple means of satisfying them, including the creation of peer-to-peer collaboration and sharing of resources among departments and colleges without necessarily require central administrative time or money. We also urge that university leaders at all levels develop their own approach to rankings in the context of additional metrics or smart goals. It may be worth exploring how to build rankings expertise into institutional assessment or to set up a rankings consulting service. (These are matters for further discussion.) Finally, we urge that
university leaders focus on developing the following capacities we believe would help with institutional performance and the reflection of that performance in various rankings publications:

*Market Research*: one of the pressing needs at this university (and nearly every other) is a sophisticated and empirically based sense of what drives the different segments of our educational markets: why do students select or reject our offers of admission; why do our friends and alumni donate (or refuse to do so); why do employers hire or reject our students’ job applications; why do our peers or professions think highly or not about us? We believe that further investments in market research would help us answer these questions and thus either directly or indirectly help with our rankings strategies.

*Communications*: in part because we do not have high quality market research, it is hard to make decisions about how to communicate (both in message and medium). At the most basic level, one of the pressing needs in many areas is contact management. If we do not have accurate information on potential students, employers, peers, professionals, donors, we can hardly be expected to communicate with them effectively. Beyond the need for market research and contact management, it would also be beneficial to share approaches to technology in communications, e.g., interactive emails, videography, electronic newsletters, engagement in the blogosphere, to see where we can learn from what works or not. We believe that further discussions in the tools available and the impact of their use would be helpful on a university-wide basis.

*Financial Aid Advising*: especially in times of economic crisis and understandable concerns about jobs, debt, and credit, we believe that we need more robust and responsive financial aid advising, in the form of materials, videography (presentations by admissions or financial aid officers on issues of interest, see, e.g., Reyes Aguilar’s sample of presentations at [http://www.ulaw.tv/collections/admissions/](http://www.ulaw.tv/collections/admissions/)), and other electronic media, as well as professionals with sufficient expertise and customer service experience to perform this function.