April 12, 2010

To:
Prof. Clifford Fedler
Dean, Graduate School
Texas Tech University
Lubbock, TX 79409

Dear Prof. Fedler:

I would like to thank you for inviting me to review the PhD programs offered in your College of Business. I had a wonderful time visiting with faculty, students and the administration. I would like to commend you for ensuring complete transparency during the review process.

I am attaching herewith a report of my assessment and evaluation of the PhD program and its various aspects. If you have any questions or would like me to elaborate on any of the observations, I would be more than happy to do so.

Regards.

Yours Sincerely,

Sridhar N. Ramaswami
Heggen Professor of Marketing
Director, PhD Programs
Overview

The Graduate College at Texas Tech University conducts a comprehensive review of each graduate program once every six years. Such academic program reviews are the primary means of evaluating the program’s strengths, weaknesses, quality and contributions to the mission of the college and university. This report reviews the Ph.D. programs offered in the Rawls College of Business. The specific purpose of the current review is to comment on the quality of students produced by the Ph.D. program and how the quality can be further enhanced in the future. Three members of Texas Tech University were selected to form the internal team: namely, Dr. Steven Fraze, Department of Agricultural Education, Dr. Vickie Hampton, Department of Applied and Professional Studies, and Dr. Rashid Al-Hmoud, Department of Economics. The external candidate in the review team was Dr. Sridhar Ramaswami, Director of Ph.D. Program, the College of Business, Iowa State University. The team met with different units associated with the PhD program on March 2, 2010.

PhD Program Objectives

The review team concurs with the objectives set forth for the PhD program. At the student level, the objectives include:

- Acquire ability to effectively analyze and synthesize literature in the field of choice
- Develop expertise in the field of choice
- Acquire good grounding in theory development and research methods
- Disseminate knowledge through teaching and research publications

As will be detailed in the rest of the report, the review team finds that most of these objectives are being met currently by the program.

PhD and Concentration Fields

The PhD program at TTU’s COB offers concentrations in six primary business fields: accounting, finance, management information systems, operations management, management, and marketing. The program requires at least 60 hours of graduate work in the core, major, supporting fields and electives.
The curriculum also includes at least 9 hours of research-skills oriented coursework. Upon completion of the qualifying exams that are based on coursework and satisfaction of doctoral candidacy requirements, a student will have to complete a high quality dissertation research.

**Student Admission**

Admission into the PhD program is based upon a number of criteria: GPA, work experience, competitive test scores (GMAT or GRE), recommendation letters, research aptitude, communication skills, to name a few. The average numbers for the students enrolled in the program between 2003 and 2008 on some of these criteria are: 3.43 undergraduate GPA, 651 GMAT score and 5.7 years work experience. The average GMAT score for the 2008-09 class was lower at 608. Overall, while the undergraduate GPA and work experience numbers appear to be in the acceptable range, the trend line for the GMAT score of students enrolled in the program raises some concern. A score of 610 on the GMAT in 2009 would place a student in the 60th percentile on verbal skills and 48th percentile on quantitative skills. Although GMAT is only one criterion, the review team encourages the program to seek candidates whose score is at least in the 75th percentile in both skill areas.

**Student Enrollment**

The College of Business enrolls on the average 10 students across the six primary concentration fields. These numbers are appropriate for the current size of the faculty (a 1 to 1 ratio). Except for the top 10 programs, the remaining schools find recruitment of outstanding students as a significant challenge. Two reasons account for this challenge: first, potential PhD students typically have a graduate degree background and are able to find attractive options in the industry; second, there is significant competition among universities to recruit the best and the brightest. The recruiting challenge is made more difficult at TTU since the two competing universities in the state have programs that are better established and have good track records. The College would therefore have to find more innovative ways to recruit top quality students in the future. One recommendation is to actively promote the business PhD program among strong sister disciplines/departments within TTU such as psychology, statistics, economics, industrial engineering, and design.

**Curriculum**

In the view of the review committee, the PhD curriculum comprises of sufficient number of theoretic and methodological courses that students need to be successful teachers and researchers. The areas are offering sufficient number of doctoral level courses at this time. Comparable schools typically offer four to seven courses in the major area. The TTU academic units’ offerings are in the same range. The sample of doctoral students that the review team met expressed satisfaction with their curriculum options and strength. The pedagogical tools used in these courses directly work toward achieving the goals of the PhD program—namely, understanding and synthesis of existing literature in different areas and topics.

Additionally, students receive significant faculty mentoring beyond the class room that contributes critically to the development of their research and teaching abilities. A number of faculty members have
received teaching awards and honors at both the college and university levels for their work with students in and outside the classroom (including, among others, Linda Nichols, COMPLETE THIS). Additionally, the faculty roster includes Professor Shelby Hunt who is the foremost exponent of theory-based research in the field of business.

Overall, the review committee opines that the program’s content is rigorous and includes important evaluation points that can ensure desirable program outcomes—namely, qualified students that have excellent research and teaching skills and are marketable.

Student Graduation

Over the last 10 years, the number of graduations from the PhD program is 95 or approximately 10 per year. More students graduated between 1999 and 2003 (53) when compared to the 2004-2008 time period (42). Of the people that start the program, the proportion graduating is 54%. While some level of attrition is to be expected, the completion rate of 54% is low. The key area where this can be controlled is student recruiting. It is important that recruitment of motivated and qualified students that have staying power be made a top priority. In addition to evaluating criteria such as test scores and academic performance, potential students could be tested on research and communication skills prior to admission. Once they are admitted, the students will need to be assigned a faculty mentor who takes responsibility for development of the student and removal of any barriers to completion.

Role of Faculty

Before examining student placement issues, the team felt it will be instructive to discuss the role that faculty plays in the development of PhD students.

In its one day of active work on campus, the review team had the opportunity to meet with both tenure-track and tenured faculty. The team also met with the doctoral coordinators from each of the seven areas. The following evaluation relates to faculty activities that influence the quality of experience PhD students undergo in the program.

The faculty-student ratio at this time is greater than one (68 faculty and 50 students). Of the 68 faculty, 49 are tenured and 19 hold the rank of assistant professor. If we consider only the tenured faculty, the student-faculty ratio is still close to one. We can infer that sufficient resources are available at this time for effective supervision of student work and research. In fact, the data shows that 76% of the current faculty has served on a dissertation committee and 47% have chaired or co-chaired one or more dissertations. With three to four exceptions, the faculty members serve, on the average, on one to three dissertation committees.

The faculty is highly qualified in the areas they teach and do research. All tenure and tenure track faculty have doctorate degrees. The research productivity of the faculty is excellent, both in terms of quality and quantity (as discussed below).

The focus on research by faculty members is an important consideration as it is likely to be one of the primary determinants of quality of student research. The premise is that if faculty is research-minded,
they are likely to transfer their culture and work ethic to the students working under them. The self-study report prepared by the college illustrates the overall research focus of the college faculty. Faculty published 560 refereed journal articles, 167 books and book chapters, and 177 other publications during the period 2003 to 2008. This works out to approximately 2.25 publications per faculty per year. In the report to the Provost, it is mentioned that the portfolio of intellectual contributions has increased from about 100 per year to about 180 per year. Faculty members across the different areas continue to publish in A and A+ journals on a periodic basis. The number in prestigious journals increased from about 25 per year to 35 per year. Due to their research efforts, 15 faculty members serve as editors or associate editors of journals; and 28 faculty members serve as members of editorial review boards of journals. As a proportion of the total faculty, these numbers are higher than in other schools and clearly suggest that TTU faculty are visible in their respective fields of expertise and are doing significant professional service to their respective disciplines.

The self study noted that 44% of the faculty had some involvement with national organizations in their respective fields. Such involvement not only brings increased visibility to the college, it also can help in placement of students in good quality academic institutions.

Second, faculty strength in research is only part of the puzzle; the other part is that they should be willing and able to communicate their knowledge and expertise to students and work with them on projects of mutual interest. From a willingness perspective, the review team found during the meeting with PhD students that faculty is willing and available to work with students on research. The willingness also appears to be broad-based. For example, a total of 51 faculty members (or 75% of the total) have served on dissertation committees of students. The self study indicates that 47% have chaired or co-chaired one or more dissertations. The review team obtained feedback from students that were positive on the willingness dimension. For example, one student observed: “The faculty I am working with is highly respected in my field, responsive, treats me as a peer, and is making great opportunities to do research available to me early in my program.”

Third, students should find the time and other resources for making progress on research projects and completing them. The review team found a problem in this area. The self-study report indicates that the total number of publications across all PhD students is eight. This number is low and indicates that there may be impediments for achieving higher research productivity. The student surveys provide possible explanations (student comments reported verbatim below):

- “Some areas are strong in research, while others are much weaker; the stronger areas attract better students and produce much better future leaders in their fields.”
- “Comparable universities are recruiting the very best graduate students to their programs because they ask less of their students, and in many cases have better scholarship programs. We will never be a Tier I research institution without treating our graduate students in a competitive manner.”
- “I would prefer to teach less.”
- “The teaching load is too much for a PhD student.”
“Provide more funding to professors so that they can do more research and students can benefit from it.”

The above comments suggest that there are opportunities for increasing research productivity of students if barriers relating to (a) teaching load, (b) financial support, and (c) research support are addressed.

**Teaching Load:** A review of the resumes of students shows that the teaching load across students is at best inconsistent. Most of the students in accounting and management teach, while the proportions appear to be smaller in other areas. Many students teach more than one section per semester and over a short time period more than one course thus involving multiple preps. The highest frequency is 12 sections and there are at least five students that have taught more than six sections (the time period is a little unclear on this). Overall, it is apparent that students spend a significant amount of time teaching during the four or five years it takes to complete the PhD program. The student evaluations indicate that PhD instructors do a good job in the class room. Both the number of courses and the quality of teaching suggest that time is expended on teaching. The issue is not one of whether time should be expended on teaching, but how much over the course of a student’s program of study. Since this is a zero sum situation, more time spent on teaching activities will mean less time spent on research activities. The program directors are entrusted with the responsibility of finding the right balance between the two sets of activities for each student. But as the comments signal above and on the basis of the interviews of the review team with students, the team concludes that teaching loads are above average and do reduce time allocated for research. **The team strongly recommends the college to review the teaching load policy and make changes to it that would be more research-friendly.**

One comment provided during the meeting with PhD students was that the higher emphasis on teaching may be appropriate if students take on positions that are more teaching-oriented. The fact that more than 50% of graduates in the time period 1999-2008 have not published even a single journal article suggests that the program and the students may be driven more by teaching requirements. This situation, however, is inconsistent with (a) the research focus of the faculty and (b) the research goals of the college and the university.

**Financial Support:** The stipend amount provided to PhD students at TTU is below that of comparable universities. The average is $1,600 per month, which is at least $400 lower than the offerings at other schools. Additionally, support is provided only for the ten month academic year and students have to find alternative ways to earn money during summer months. Although additional support is available through fellowships and scholarships, they are not available to everyone. Further, most students at research I universities may be working as RA’s and not GA’s and thus may be able to provide more time for research. The non-competitive nature of the financial support package at TTU means that (a) it becomes more difficult to attract highly qualified individuals, and (b) the recruitment committee has to work extra hard to attract good candidates to TTU. **The review team recommends to the college to conduct a study to see the impact of lower stipends on quality of students that the program is able to attract and make suitable changes that would improve the perceived attractiveness of TTU’s PhD programs.**
Research Support: The College provides $45,000 to support research-related expenses and $150,000 to support summer research stipends that are granted on a competitive basis. Assuming $10,000 as the average size of the summer stipend, the college can support approximately 15 faculty members every year (which is 22% of the total number of faculty). While these numbers are good, increasing them will allow faculty members to spend more time with PhD students mentoring and providing research inputs and support. One of the creative ways used in some schools (such as Iowa State University and Emory University) is to provide a one course release to faculty teaching PhD seminar courses. The time release given to faculty could be utilized on strengthening research efforts of PhD students.

Student Placement

One of the challenges facing any doctoral program is placement of its students at nationally renowned business schools. The performance of the TTU doctoral program on this aspect is mixed. Some of the recent graduates have been hired by excellent business schools (e.g., University of Texas at Dallas, Texas Christian University, Kansas State University, Baylor University, University of New Mexico, and University of South Florida). However, there are also equal number of placements in business schools that are lower in status than TTU (e.g., Texas State University, Otterbein College, University of Texas at Permian Basin, and Northern Illinois University, to name a few).

For quality placement, students need to be not only engaged in high quality research, they also need to show evidence of research. Evidence usually comes in the form of accepted journal publications, a strong pipeline of projects at different phases of research, and leadership role in a research stream. Interestingly, in the current job market, evidence such as the above is only a necessary condition, but not sufficient for quality placements.

The review team found a few warning signs that may have negative portent for future placements. Although each academic area has placed increased emphasis on its doctoral students having publications in high quality journals prior to their graduation, achievement of this goal is likely to be hindered by the substantially higher emphasis placed on teaching. As discussed earlier, most PhD students have teaching responsibilities that are challenging (multiple preps and multiple sections) and that may have contributed to lower research productivity of its students. The total number of research publications in all journals (and not just the top quality journals) by current doctoral students is only eight. This publication record implies a student: publication ratio of 6:1, which is low and has to be increased at least to a 1:1 ratio to achieve the dream set forth by the academic areas. A second warning sign came during the discussion of the review team with the PhD students. The students do not seem to fully understand the importance of time as a critical resource for publishing in top quality journals.

The review team would like to make the following recommendations to the academic areas to enhance student research records that will help in their placement. The recommendations given below will primarily be based upon students having more time for their research programs. First, the number of course preps in any year for a student should not be greater than one. Most schools manage to provide their tenure track faculty hires with a one prep load for the first three years at least. The same standard should be applied to PhD students who are going through the process of learning how to do quality
research. Second, the number of courses taught by a student in any semester should not be greater than one. Third, students should be employed as research assistants during the summer time and work with faculty on research. In addition to giving more time for research, all three of these recommendations will reinforce a culture of research among PhD students.

The above recommendations have resource implications for the College of Business. They will result in lower teaching loads for PhD students and consequent shortfall in the number of courses that can be taught with current students. To teach the same number of courses, the college will have to either add new faculty lines or increase the number of graduate students. The latter option will be the cheaper and appropriate option at this time. The increased number of students will not place a significant burden on faculty supervision and mentoring as the student to faculty ratio at this time is still 1:1. This number can be increased to 1.5:1 without major burden on faculty. Additionally, increased funding is necessary to employ students as research assistants during summer.

Students that follow the teaching track (and would like placement in teaching schools) are better placed at this time. One area where the faculty and the college received meritorious comments from PhD students pertains to the quality of mentoring received by students in the area of teaching. Students were impressed with the focus on teaching and with the efforts taken by the college to train them on the art of teaching. Students can teach well and teach a variety of courses. These are strengths that can help student placement in teaching institutions.

GRADE ASSESSMENT

Based on the above discussion, the review committee provides the following grade assessment for different parts of the PhD program.

Program Overview and Vision            Excellent
Faculty Productivity                   Excellent
Quality of Graduate Students and
Graduates                              Good
Quantity                                Excellent
Curriculum and Programs of Study       Excellent
Facilities and Resources               Good; but can improve

SUMMARY

The team found the PhD program at the Rawls College of Business to be outstanding on many dimensions. The program has good balance between teaching and research. This balance has contributed to significant strengths over other programs on preparing students to become good teachers. Students receive excellent mentoring on teaching and sufficient opportunities to work on
their teaching pedagogy. The faculty is research oriented and has shown high research productivity. The faculty is also visible in their respective professional fields through participation in journal editorships. The College is at the cusp of building a new $70 million facility. This event will bring about a lot of excitement about the college and its future and should facilitate generation of funds for its different programs, including the PhD program.

The team did find some serious challenges that the college must address if it is to sustain the momentum that it has developed. The current compensation level will likely make it difficult to recruit high quality students and the competition for quality students will only become more intense in the future. The college is somewhat a victim of the expansion of its MSA, MBA and MS graduate programs, which have taken resources away from the PhD program.

The college should explore the design of two independent tracks in the PhD program, one being research-oriented and the other teaching-oriented. The relative emphasis on research and teaching could vary between the two tracks. Such a step will bring greater efficiency and effectiveness on desired program outcomes.

The review team acknowledges that the PhD program has established legitimacy, but is at an important crossroad which will shape its future. The team believes that the program’s future can be controlled if the concerns expressed in this report can be addressed.