Spring-Fall 2006

The Journal of Academic Administration in Higher Education

Volume 1 Issue 1-2

The Journal of Academic Administration In Higher Education

Contents

Volume Two Issue One-Two

The Journal of Academic Administration in Higher Education

JW Press

Martin, Tennessee

Published by

JW Press

P.O. Box 49

Martin, Tennessee 38237

Printed in the United States of America

Gaining Competitive Advantage in University Admissions: An Application of Strategic Job Modeling to Tour Guides

Christopher R. Leupold, Ph.D.
Department of Psychology
Elon University

Emily C. McCarthy
Department of Psychology
Fairfield University

Kristin D. Smith
Department of Psychology
Elon University

Heather Stuart
Office of Admissions and Financial Planning
Elon University

Susan Klopman
Office of Admissions and Financial Planning
Elon University

ABSTRACT

A critical event for many prospective college students is the campus visit, where the ability of the university tour guide to provide an optimal experience and create a favorable yet accurate lasting impression often serves as a major determinant in visitors' decisions to ultimately apply or matriculate. As the competition among colleges and universities to attract the most desirable applicants heightens, the tour guide position should be considered a potential source of competitive advantage and a vehicle by which an institution can attain its broader goals. Strategic job modeling (SJM; Schippmann, 1999) is a popular approach that companies frequently use to precisely define work activities and the competencies required to perform them; in addition, it ensures that these are in direct alignment with the broader goals, vision, and mission of the organization. The current project traces the evolution of a SJM performed on the tour guide position at a university that seeks to leverage the tour guide as a source of competitive advantage. A methodologically sound and highly collaborative effort among multiple stakeholders on campus, the project highlights how this intervention that is typically reserved for Fortune 500 companies was applied through experiential learning opportunities for students and ultimately resulted in a viable and validated model of performance for this key position. In addition to presenting results, potential applications regarding how this output can be utilized as a framework for human resource initiatives are also discussed.

Introduction

As organizations strive to contend with today's increasingly complex business environment, they more likely than ever turn to organizational development (OD) interventions of a means of achieving competitive advantage and their business goals. Succinctly defined by Spector (2006) as "a family of techniques to help organizations change for the better,"(p. 352), OD has historically been more broadly defined as "a planned, systematic process in which applied behavioral science principles and practices are introduced into an ongoing organization towards the goals of effecting organizational improvement, greater organizational competence, and greater organizational effectiveness" (French & Bell, 1984, p. 1). Evolving from traditional job analysis and more recent competency modeling activities, strategic job modeling (SJM; Schippmann, 1999) is a fast-growing OD process for articulating an organization's business objectives and translating them into specific work requirements and the behaviors necessary to achieve them. A methodologically rigorous approach to identifying work activities and the human requirements to perform them, SJM provides the rubric for the development of an integrated human resources (HR) system. In a demonstration of how this intervention can be applied to a university setting, the present study traces the process of applying SJM techniques to a position that could legitimately serve as a genuine competitive advantage – the university tour guide. This project is fairly unique in two major ways. First, it is a manifestation of how the same scientific and research-based methodologies usually reserved for consultants and corporate HR functions in Fortune 500 companies can be applied to an academic setting. Moreover, it highlights the notion that admissions offices and universities are organizational entities that must compete and seek opportunities for strategic advantage just as any corporation would. Second, this project is an example of both a pedagogical approach that leveraged engaged and experiential learning for more than sixty undergraduate students, as well as a highly collaborative one that required the efforts of faculty, student tour guides, admissions staff, and university leadership. In short, this experience not only generated active learning experiences and cross-functional partnerships for participants, but also produced tangible outcomes to be employed as a means of helping their organization achieve true competitive advantage that is aligned with its vision and mission.

SJM and Its Antecedents

Historically, HR professionals and personnel psychologists have relied on job analysis as a mechanism for identifying the criteria for successful performance by dissecting a job into specific tasks and duties as well as the human attributes required to complete them. Harvey (1991) formally defined job analysis as "the collection of data describing (a) observable job behaviors performed by workers, including both what is accomplished as well as what technologies are employed to accomplish the end results, and (b) verifiable characteristics of the job environment with which workers interact, including physical, mechanical, social, and informational elements" (p.71). Because of its comprehensive and rigorous examination of all facets of work behavior, job analysis is often regarded as the framework for virtually all HR management activities including recruiting, selection, placement, training, performance evaluation, compensation, and job design; for its ability to precisely define and describe a job the most elemental levels job analysis has been claimed to serve as the basis of a solution to any HR issue (Brannick & Levine, 2002). Involving data gathering from a variety of perspectives (e.g., incumbent, supervisor, customer, visionary) via a variety of approaches (e.g., interviews, focus groups, observation, surveys), job analyses typically take one of two general forms. While a 'work-oriented' strategy focuses more on the specific nature of and outcomes of specific tasks, a 'worker-

oriented' approach attends more to the knowledge, skills, and abilities and other worker characteristics required to perform those tasks. One popular extension of the worker-oriented approach over the past twenty five years is competency modeling (Kurz & Bartram, 2002). As a competency is "a set of behaviors that are instrumental of desired outcomes" (Bartram, Robertson, & Callinan, 2002, p.7) or a "construct that represents a constellation of the characteristics of the person that results in effective performance on the job" (Kurz & Bartram, 2002, p. 227), modeling is the process of identifying what those requirements are or should be. While traditional job analyses tend to be more specific to a job and yield more granular descriptions of its related tasks, competency models are often construed in a more general way and highlight the common qualities by which it defines itself or desires that all of its people possess. Acknowledging their related yet distinct natures, Schippmann et al. (2000) succinctly distinguished between the two by explaining that job analysis focuses more on the 'what' and competency modeling is more on the 'how.' In a similar vein Kurz and Bartram (2002) described competency profiling as the process of identifying the requisite behaviors to perform a job or the personal specification, whereas job analysis is more of a job description that includes a compilation of tasks, roles, and responsibilities. As both competency modeling and job analysis offer rich data, an optimal approach to understanding a job would be one that leveraged the unique contributions of each.

Describing it as comprehensive system for developing integrated HR systems Schippmann (1999) proposed SJM as a highly methodologically sound, research-oriented, and quantitative approach to critically assess all facets of a given job, including not only its work activities and requisite worker competencies but also broader job, organizational, and industry contextual factors. Designed specifically as a tool to create a platform for integrated HR systems, SJM departs from its predecessors in three major ways: 1) it is decidedly more future-oriented, 2) it is directly connected with the longer-term strategies, vision, and mission of the broader organization; and 3) it is seen as a direct vehicle for achieving measurable organizational outcomes. Rather than simply describe work activities and requirements, SJM first identifies the ultimate business objectives of the organization and then attempts to prescribe the activities and requirements of a particular job that will facilitate their attainment. In short, SJM attempts to translate organizational goals directly into the daily and specific requirements of a job; stated another way, SJM facilitates overall organizational performance by ensuring that employees' work activities and performance standards are squarely aligned with the organization's vision, mission, and goals. Involving a highly intensive data collection process, many of the techniques traditionally used in job analysis and competency modeling are employed. Complementing these are supplementary higher-level organizational analyses that consider competitor activity, industry trends, customer trends, and other truly strategic variables (see Schippmann, 1999 for a more complete overview of the scope of the SJM process).

In summary, SJM shares some of the basic goals and serves the some of the same fundamental purposes as job analysis and competency modeling techniques – to create a valid and reliable platform for effective HR practices, or as Schippmann (1999) refers to it, a "horizontal fit." However, SJM transcends these basic goals by also creating "vertical fit" by aligning these activities with the organization's overall goals and strategy. In short, SJM offers itself as a truly strategic means for managing and maximizing human capital that in turn facilitates overall organizational effectiveness. HR departments are being increasingly called on to play a larger and more proactive role, namely because there is a growing body of literature that has shown a link between organizational success and specific individual HR applications such as compensation (Gerhart & Milkovich, 1993), selection (Terpestra & Rozell, 1993) and training (Bartel, 1994). On a broader level, Schippmann (1999) cites a host of empirical studies that have demonstrated that the presence of both horizontal and vertical alignment has resulted in positive organizational success factors including financial strength, technological advancement, quality, product innovation, and market breadth. To perhaps best illustrate HR's role as a strategic advantage, he cites the research of Davidson, Worrell and Fox (1996) and Huselid and Becker (1995, 1996) who found that an integrated HR system can raise its organization's market value between $15,000 and $45,000 per employee.

Such world-class HR systems are developed by using SJM-type interventions by organizations who understand that any organization's success is ultimately attributable to how well individuals are performing in their specific jobs. Regardless of whether an organization's goals are operationalized in terms of profitability, growth, efficiency, or customer satisfaction, SJM has proven itself as a means of squarely aligning HR application with them so that they may be attained. As Schippmann (1999) described it, SJM truly is the "new frontier" for developing HR systems and applications and a mechanism for achieving competitive advantage.

University Admissions and the Role of the Tour Guide

As has been recently written in academic administration trade journals, the pressure put on university and college admissions departments to fill classes by competing for the most qualified students (in addition to managing financial needs, diversity goals, and an array of other issues) continues to intensify (Glass, 2004). The intense efforts around increasing application numbers and matriculation rates have led some to lament that college admissions has indeed become a business as much as it is a profession (Jump, 2004). On the customer side of this equation are students and parents who are essentially evaluating the return on their investment of tuition dollars in the form of quality of academic, social, and personal development and fulfillment. Understanding the complexities and gravity of these decisions, countless individuals and groups offer free and fee-based 'expert' advice on managing this process and making applications look more attraction to admissions committees (Jump, 2004). While cost is often a major factor, other perceived benefits including facilities, image, and curriculum play a large role in a prospective student's decision process (Sevier, 1996). On the admissions office side, schools

invest tremendous resources in marketing and branding efforts to communicate via a variety of media to distinguish themselves from their competitors, i.e., other schools who are similarly in pursuit of the most desirable prospective students. However, as Glass (2004) and Washburn and Petronius (2004) point out, despite institutions' efforts to meld their identities into the minds of prospective students and families through brochures and websites, ultimately the most important determinant for application and matriculation is the first impression created during the campus visit. Numerous authors (e.g., Freedman, 2002; Lueck, 2002) who offer advice on college selection echo this by highlighting the importance of the campus visit, and how the importance of 'being there' is tantamount to making an optimal decision. Research has supported this, as Sevier (1987) found that 58% of respondents ranked the campus visit as being very influential in selection process. Social psychologists have long noted the prevailing impact of first impressions; thus, from the university's perspective it becomes imperative that visitors have a positive one that accurately portrays life on campus (Pearson, 2005).

Failing to recognize the profound impact of these initial impressions formulated during the visit essentially runs the risk of huge marketing budgets being wasted if they fail if they do not squarely address the basic needs and questions prospective students have during that visit (Glass, 2004). Reflecting on his observations, one administrator mused, "I've discovered, during nearly thirty years in admission marketing, that most college administrators fail to invest adequate amounts of time and money in the front line of the admission war" (Glass, 2004, p. 2). While admissions offices certainly recognize the importance of the tour by employing systems to select the best guides, developing training programs to equip them with the basic skills and knowledge they require, and collecting visitor feedback; few appear to have taken more aggressive and proactive steps to fully leverage this pivotal role. While dozens of articles have been written by people giving advice to prospective students and parents as to how to prepare for and maximize their campus visit, there are virtually none that offer the advice that would genuinely prepare tour guides or admissions offices for the very real business-like, if not Glass' (2004) 'war-like' context that the tour has become. This is clearly a missed opportunity to be competitive, particularly when one realizes the considerable attention and resources that businesses routinely invest in similar sales positions. Reflected one parent, "Why do so many colleges and universities spend large sums on slick brochures and videos, presumably to bring in applications, and they pay so little attention to their campus tours which give students and parents a lasting impression of the place?" (McGunagle, 1997). Simply put, although usually undergraduate students, tour guides are front-line salespeople who are 'selling a very expensive commodity' (Glass, 2004). When one thinks of the influx of tuition dollars and capable students a university requires to sustain its existence, the tour guide position emerges as a highly critical one. As such, the position could be argued as a tremendous potential source for competitive advantage, particularly were an in-depth approach taken to fully understanding the specific work activities and tasks, as well as the human attributes required to optimally perform them as a means of enabling an institution of achieving its vision and maintaining its brand of offering unique experiences and culture.

The Current Study: Applying SJM to the Tour Guide Position

The current study is an application of SJM methodology to the tour guide position at Elon University, a medium-sized university that has recently developed a national reputation for its emphasis on student engagement and experiential learning (Matthews, 2006; Programs, 2006). Despite this and other admissions-related successes (e.g., increase in applications, applicant SAT scores, etc.) the president and strategic administrative leaders have remained intent on continuing to be proactive in identifying ways in which the university may continue to thrive and grow in the future. A key to Elon's sustained growth and the attainment of its vision of being a model of student engagement and a model of the New American University is the strategic marketing and recruiting efforts directed at attracting not only the most academically talented students but also those who will share, thrive in, and perpetuate Elon's culture of engaged learning. As discussed earlier, while web pages and brochures might engender initial interest to further investigate or visit a particular school, it is the tour guide who is in the unique position to most persuasively communicate this information, create a memorable experience, and formulate that key lasting impression. Elon's vision of the tour guide role should not be confused with a disingenuous 'salesy' approach to solely increase the number of applications. Rather, the role is idealized as more akin to an ambassador representing the institution and providing an accurate portrayal of its unique culture so that visitors would be able to make a realistic self-assessment of fit and a more informed decision as to whether to apply or attend. In addition to reflecting the university's own code of ethics, this approach is deliberately used to avoid false advertising or failure to address cultural fit, problems which not only perpetuate concerns about the less respected 'business' of admissions (Jump, 2004) but also create unmet expectations of matriculated students (Glass, 2004; Pearson, 2005). According to Glass (2004) the most important thing for admissions offices to do for visitors is effectively and accurately communicate a school's unique culture to audiences, as in the end it is this information that carries considerable more weight than what is found in brochures or on homepages on the Internet.

While Schippmann (1999) outlines a detailed and comprehensive overview and guidelines as to how to conduct a full-fledged SJM, his general model ultimately aims to assess two elements: 1) the competencies required for successful performance on the job (as determined by the broader organization's vision, competitive strategy, and strategic business initiatives; as well the specific work activities and context of the job); and 2) the competencies available in the individual performing the job (as determined by his/her abilities, traits, motivations, training, and experience). To the extent that the sets of required competencies and available competencies overlap (defined as relevant competencies), the greater the alignment between the job and broader organizational goals and the greater the impact of per-

formance on the job on organizational effectiveness. It is this key intersection and performance standards that that were the primary focus of the current study.

Development of A SJM for Tour Guides

Method

The project evolved over the course of approximately two years, and involved the contributions of multiple parties including undergraduate students, undergraduate research assistants, tour guides, admissions office leadership, university leadership, and faculty. To ensure scientific rigor the process was conducted in accordance with many of the prescriptions outlined by Schippmann et al. (2000) including multiple methods of data collection, multiple samples at different times, trained analysts, and frequent review by administrators. Furthermore, as keys to the SJM, strategic perspectives and visitor feedback were directly incorporated into the model.

Phase 1: A Course Project. The project originated from a project in an undergraduate industrial/organizational psychology course that required student teams to conduct a SJM and create a final report that discussed work activities, competencies, future trends, training practices, and other contextual issues related to a job of their choosing; a group of ten students selected the role of tour guide. Data was gathered using multiple methods. First, each student conducted a brief literature review to become familiarized with the role and ones similar to it (e.g., tour guides at plants, front line salespersons, etc.). Then each shadowed a minimum of two tour guides conducting tours and recorded work activities and other observations on a structured observation sheet. Next, a total of fifteen individual interviews were conducted with a different set of tour guides using a structured protocol that included not only questions and follow up probes about work activities and competencies required to perform them, but also the work context, training methods, and future trends. In all data collection phases, the tour guides were specifically selected by the admissions office on the basis of their experience and knowledge of the job, factors which have been shown to yield the most accurate job analysis data (Conley & Sackett, 1987). In addition, interviews were conducted with two guide supervisors to gain an additional vantage point. All of this data was then pooled among group members and used to generate a final report that identified and defined work activities and competencies. As the importance of this position became apparent through the research, it became apparent that there was tremendous opportunity to elevate this project beyond a class exercises to a genuine organizational development intervention.

Phase 2: Creating a Stronger SJM. The following semester the first author invited the two project managers from the earlier phase to register for independent research credits and continue working on the project. The primary goal of this phase was to revisit the earlier output, which although satisfactory for a class project, was not of the quality for a bonafide SJM. The first author now took an active role in the data collection process, and among the research team twelve more independent observations and seven more interviews were conducted with a new set of guides. In addition, to better understand the institution's strategic initiatives, vision, mission, and future direction, interviews with five senior administrators (all deans or above, from academic and nonacademic functions) were conducted, as was a review of strategic documents. This step was critical, as to ensure that the final SJM for tour guide performance was indeed in direct alignment with these visionaries' perspectives. In addition, a comprehensive review of existing training and orientation materials was conducted, as was a more rigorous literature review on guide-like positions as a means of leveraging any existing empirical findings. Finally, to ensure that the voice was heard of the most important stakeholder, visitor feedback surveys were analyzed to identify themes related to satisfaction and the creation of favorable impressions, as well as performance standards that reflected superior or poor tour guide performance. After integrating and synthesizing these findings, a new set of work activities and competencies were generated. Seeking to achieve a profile that maximized inclusion of all work activities and competencies while at the same time minimize redundancy, the model went through two more iterations based on the review feedback of the Manager of Tour Guides and the Senior Director of Admissions who had ultimate responsibility for the guides. This final model contained ten work activities (each of which included a description of the specific related tasks) and thirteen competencies. The following are examples of work activities:

Sell the Elon Experience

Describe Elon's niche as a premier experiential-based liberal arts school; articulate Elon Experiences and provide examples of each; share examples of experiential learning inside and outside the classroom; describe what involvement means at Elon and the student who thrives here; share personal experiences of involvement and engagement; describe Elon faculty credentials and faculty-student ratio and interaction; discuss recent accolades and recognition (e.g., NSSE, Princeton Review, US News & World Report, etc.); discuss reasons for choosing Elon; share admirable experiences to both prospective students and parents.

Close the Tour and Follow Up

Provide suggestions for things visitors can see or do beyond the tour; refer visitors to appropriate people (e.g., athletics, Admissions Counselors, etc.) for supplemental information; provide answers to questions not answered earlier; ensure all questions have been answered; thank visitors; offer self as resource; wish visitors luck; ask visitors to complete evaluation that they will receive via mail and provide comments; sign yellow cards with a "Thank you" and name and email address.

The following are sample competencies:

Motivation

Proactively look for ways to add value; go beyond the call of duty; proactively look to take on additional tasks without being asked; seek feedback to improve own performance; engage in continuous learning about Admissions and Elon to enhance knowledge for giving tours.

Communication: Presentation Skills

Present in a clear and convincing manner; adjust communication style to meet the needs of the audience; express ideas in a concise and comprehensive manner; enunciate and pronounce words correctly; present to large groups as well as individuals; speak candidly and confidently; display appropriate non-verbal communication; tailor communication style to audience.

Phase 3: Validating the SJM. Having a rationally derived model with dimensions that appeared comprehensive and orthogonal, the next step was to validate the content and obtain quantitative data in regard to relative importance of the individual work activities and competencies. A total of fifteen tour guides were selected to participate in four-to-six-person focus groups to provide feedback on the model. Prompted to critically analyze the model and specifically look for missing or miscategorized elements, these participants offered what could be considered minor changes that were more cosmetic than substantive. In addition, they were individually asked to assess the relative importance of each work activity and competency using a four-point scale (1= Highly Critical, or *"literally a make-or break factor for a great tour; is something that is essential for making a tour outstanding;"* 4 = Minimal Impact, or *"is something that really has no bearing on whether a tour is great or even very good"*). As this procedure had taken place during a spring semester, an additional twelve tour guides completed the same procedure during the following fall semester to assess the presence of seasonal effects. T-tests detected no such differences, and as such the data gathered across all participants was aggregated.

Results

The final rank order of work activities and their respective means (lower mean indicates greater importance) and standard deviations are presented in Table 1. As expected, and in line with the admissions offices' and the institution's philosophy and strategy, the most important aspects associated with giving a tour center on providing a positive yet accurate assessment of the campus and its culture to help a prospective student assess his or her potential fit within it. In other words, echoing Jump (2004) and Pearson (2005), more than just creating a positive image, a guide's most important task is to provide a realistic and honest preview of the aspects that are most likely to create that lasting impression – the every day campus life. Considerably less important for creating a lasting impression are the historical facts and more administrative information. Such data, although interesting, is much less likely to create, for an eighteen year old and concerned parents, an emotional reaction than campus life. Selling the Elon experience involves actively communicating the aspects of engaged learning upon which the university has defined its niche or competitive advantage – this is critical not only so visitors can ascertain whether this is a place where they will be happy, but also because it reinforces Elon's core philosophy and values regarding education. This message is critical as the goal is not to increase applicants per se, but rather to more purposely encourage those students who will thrive in this environment to apply and enroll. Closing the tour was rated decidedly lower; this makes sense, as although important these tasks (e.g., asking final questions, ensuring visitors have directions where they need to go, passing out evaluation forms, etc.) are more administrative and managerial and as such do less to help visitors create a lasting impression and make an assessment of their potential fit on campus.

Table 1
Tour Guide Work Activities

1. Provide Facts and Statistics: Student Life (M=1.28, S= .46)
2. Sell the Elon Experience (1.32, .48)
3. Manage Tour Group (1.32, .63)
4. Answer Questions (1.40, .50)
5. Provide Facts and Statistics: History and Administration (2.00, .58)
6. Close the Tour and Follow Up (2.00, .82)

As seen in the Table 2, the three most important competencies related to these tasks are those which are most directly associated with providing visitors the most important and accurate information to determine fit at Elon.

Table 2
Tour Guide Competencies

1. Professionalism/Credibility (M=1.17, S=.38)
2. Elon Knowledge: Campus Life (1.21, .41)
3. Communication: Presentation Skills (1.25, .53)
4. Persuasion & Influence (1.38, .49)
5. Communication: Facilitation Skills (1.50, .59)
6. Adaptability (1.50, .66)
7. Interpersonal Skills (1.54, .83)
8. Elon Knowledge: History & Administration (1.58, .65)
9. Leadership & Integrity (1.83, .82)
10. Motivation (2.00, .66)
11. Organization & Administration (2.04, .69)
12. Technical Knowledge (2.13, .61)
13. Physical Skills (2.54, .83)

A guide must have a deep knowledge of campus life, including current events, seasonal trends, social activities and so on. Moreover, this critical information must be presented in a manner that is not just professional, but credible. Similar trends were found in visitor

feedback – they want to leave having a realistic yet memorable impression so that they can make the most well-informed decision that they can. While less applicable to a tour, the competencies of leadership and motivation were included primarily on the input from supervisors and administrators. For an admissions office to fully thrive and achieve its full competitive advantage, it requires its guides to continually add value by taking ownership and initiative to engage in activities that might be outside the scope of their immediate job. These guides are the front-line contact with visitors and as such gain tremendous knowledge about them and how their own effectiveness can be enhanced. It is the vision that for guides to provide maximal competitive advantage, such addition contributions are essential. Interestingly, the competency rated least important, physical skills, encompasses perhaps the one activity most often associated with guides – walking backwards. This in itself has implications for individuals with physical disabilities yet possess high levels of the truly important competencies; this research implies that they may make exceptional guides if provided some reasonable ambulatory accommodation.

Applications of the SJM

Method

The first application of the SJM came in the form of a training and orientation program, where the project was described and the work activities and competencies introduced as a rubric to help new guides understand the behavioral dimensions required to provide visitors an optimal tour. Sharing this information is also a means to convey just how important the guide role is to the broader university, and manifest the admissions office's commitment to play a proactive role in helping the university attain the vision by employing guides who provide the premiere campus tours. The SJM output was also incorporated into training activities such as having trainees generate tour-specific behaviors that reflected competencies, create hypothetical scenarios and critical incidents within work activities, and brainstorm solutions as to how to best handle them in the image of the Elon guide. A more complex application currently underway is the creation of a behaviorally-based interview guide to select new guides. The literature is replete with studies that demonstrate greater validity of structured, behaviorally-based interviews (e.g., Cortina, Goldstein, Payne, Davison, & Gilliland, 2000) which has led many companies to adopt this approach in favor of informal or unstructured ones. Fundamental to a competency-based interview is the assumption that the required competence for a given job can be assessed in an applicant based on how s/he demonstrated that competency in some other situation. Having already identified and mapped the key competencies to work activities, the next step was to generate questions to elicit information from applicants and behavioral anchors to assess their standing on them. The process employed to create the interview was similar to that used in the SJM development phase, in that it originated in a course-based engaged learning activity and was continually refined through follow up research.

Phase I: A Course Project. As part of a course requirement the following year in the aforementioned psychology class, a new group of thirty-two students were assigned the project of developing a behaviorally based-interview guide for the tour guide position. This class of students was given a complete overview of the entire SJM project and validated work activities and competencies, and was then instructed to design an interview guide based on this profile. At this point students had completed units on job analysis, competency modeling and SJM, as well as selection assessment techniques and their psychometric properties. Students had also been taught the basics of constructing behaviorally-based interview guides and writing performance standards. To develop a richer understanding of the job, students were also required to observe two tours. For the first part of the assignment, each student was required to generate at least one question (along with follow up prompts) for each competency, as well as a minimum of five behavioral examples that reflected "poor," "satisfactory," and "outstanding" levels of performance. Once students completed this task individually, they formed groups of four to six and pooled their individual work to create a single interview guide that captured the best items and performance standards. This collaborative effort produced five interview guides that contained three questions for each competency, as well as a much more comprehensive and well-developed list of behavioral anchors.

Phase 2: Creating a More Polished Interview Guide. Simultaneous with the class assignment, two undergraduate research assistants independently constructed their own interview guides. They then created a database by merging their output with that of the class, identified and edited the strongest questions and anchors, and produced a final polished version. This guide was then reviewed and edited by the first author who had considerable consulting experience developing interview guides and selection systems, and shared with the admissions office for feedback. While items and performance standards were created for all thirteen competencies, the practical reality of the time allotted for interviews necessitated reducing the number of questions to six. Using the importance data gathered during the SJM, as well as rational discussions with the admissions office as to which combination of items would extract the most and most important information, the six competencies retained for inclusion were Professionalism/Credibility; Elon Knowledge: Campus Life; Communication: Presentation Skills; Persuasion & Influence; Adaptability; and Motivation.

Phase 3: Implementation and Validation. The goal is to use the guide for the next round of hires to take place in April 2006. It is currently in its final review and editing phase, done in collaboration with the admissions office; once finalized, it will be jointly piloted by admissions office administrators and the research team on existing guides. An attempt will be made to pilot the tool with higher and lower performers to get a baseline assessment of concurrent validity. In addition, it will be piloted with nonguides as well to further assess the construct validity of the questions and the extent to which they elicit relevant competencies from a person who has never given a tour. From there, a series of training sessions will be conducted to teach the

interviewers the fundamentals of behavior- and competency-based interviewing. Interview scores will be a component of the selection process, and the data will be collected as the first step in a predictive validity design. Some time next year, data on guide performance will be collected and correlated with interview scores as part of a predictive validation study.

Discussion

A number of key findings can be taken from this study. First, this original class project from which this final study was completed is another example (see Washburn and Petroshius, 2004) of how experiential activities can be tailored to maximize learning in a way that can simultaneously benefit institution a university. In this case, not only did over sixty students learn skills and best practices by engaging in real-time activities that they will likely employ again in their professional careers, but it also afforded five students the chance to engage in a mentored independent research experience and present at undergraduate research conferences. Second, this study highlights the applicability of an OD initiative typically confined to major corporations to an academic institution. Throughout the study, the motto became, "Disney and Nordstrom are world-famous for providing optimal tours and service – why can't we be the same?" Schools of business and applied social science offer a host of resources and solutions that may often lie untapped by the institution. While there is often the call for scientists to bring their knowledge to business (e.g., Wasylyshyn, 2001), there is no reason that this cannot apply to universities as well. This study is a model of how the translation of broad mission and strategies ensures that specific every-day work activities are not only aligned with but intentionally support the institution's goals and contribute to its overall effectiveness and competitive standing. In this case, a model of guide performance was constructed that ensured tours simultaneously provided an accurate assessment of the institution, its culture, and its educational values and in a manner that creates the ever important lasting impression for visitors that leads them to make informed decisions regarding application and matriculation.

This project was a collaborative effort among faculty, students, and administrative staff, with each party contributing effort and expertise en route to a final product that benefits not just them but the entire university. Moreover, it highlights the synergies and possibilities when all share and carry out in their own ways the same vision and support the overall institutional plan. Looking into the future, a host of other HR-related applications of this SJM exist. For example, more specific, valid, and behaviorally-based performance evaluation and feedback is possible. This in turn could lead directly to compensation and promotion issues, and if needed more defensible terminations. In addition, the SJM provides a lexicon that facilitates more descriptive feedback and more targeted training. It could also potentially be used as a basis for future job redesign. While currently all guides are expected to perform all the work activities, a key finding was that some essentially classified themselves into what could be described as 'tour' and 'nontour' roles. Early in the SJM, when participants were asked to indicate the relative percentage of time spent on the job activities considerable variability was found between the amount of time given tours and the amount of time working in the admissions office. Focus groups confirmed this pattern, and that certain guides had stronger preferences for doing more administrative tasks like handling phones and preparing mailings than giving tours. This raises the possibility of two distinct guide positions falling under the same title, and that perhaps the job could be split into two groups of activities with different competency profiles. This could potentially lead to different selection systems and a system of job placement, as well as attracting potential applicants who would thrive in an administrative capacity but never considered applying because of their assumption of the stereotypical guide duties. In summary, as a result of employing elements of Schippmann's (1999) SJM processes and methodology, the admissions office is in a position to better leverage the tour guide as a competitive advantage by modeling performance such that it ensures optimal experiences and positive yet clear and accurate impression formations by sought after students who rely so heavily on the campus tour to make their ultimate decisions to apply to and matriculate to the university.

References

Bartel, A.P. (1994). Productivity gains from the implementation of employee training programs. Industrial Relations, 33, 411-425.

Bartram, D., Robertson, I.T., & Callinan, M. (2002). A framework for examining organizational effectiveness. In I.T. Robertson, M. Callinan & D. Bartram (Eds.), Organizational effectiveness: The role of psychology (pp.1-10). West Sussex, UK: John Wiley & Sons, Ltd.

Brannick, M.T., & Levine, E.L. (2002). Job analysis: Methods, research, and applications for human resource management in the new millennium. Thousand Oaks, CA: Sage.

Conley, P.R., & Sackett, P.R. (1987). Effects of using high-versus low-performing job incumbents as sources of job analysis information. Journal of Applied Psychology, 72, 434-437.

Cortina, J.M., Goldstein, N.B., Payne, S.C., Davison, H.K., & Gilliland, S.W. (2000). The incremental validity of interview scores over and above cognitive ability and conscientiousness scores. Personnel Psychology, 53, 325-351.

Davidson, W.N., Worrell, D.L., & Fox, J.B. (1996). Early retirement programs and firm performance. Academy of Management Journal, 39, 970-984.

Freedman, E. (2001). The campus visit. Careers & Colleges, 22, 38-42.

French, W.L., & Bell, C.H. (1984). Organizational development (4th ed.). Englewood Cliffs, NJ: Prentice Hall.

Gehart, F., & Milkovich, G.T. (1993). Employee compensation: Research and practice. In M.D. Dunnette & L.M. Hough (Eds.), Handbook of industrial and organizational psychology (Vol. 3, pp. 481-569). Palo Alto, CA: Consulting Psychologists Press.

Glass, R. (2004). Marketing your institution effectively: A parent's perspective. The Journal of College Admissions, 183, 2-4.

Harvey, R.J. (1991). Job analysis. In M.D. Dunnette & L.M. Hough (Eds.), Handbook of industrial and organizational psychology (2nd ed., Vol. 2, pp. 71-163). Palo Alto, CA: Consulting Psychologists Press.

Huselid, M.A., & Becker, B. (1995, August). High performance work systems and organizational performance. Paper presented at the annual meeting of the Academy of Management, Vancouver, Canada.

Huselid, M.A., & Becker, B.E. (1996). Methodological issues in cross-sectional and panel estimates of the HR-firm performance link. Industrial Relations, 35, 400-422.

Jump, J. (2004). Admission, heal thyself: A prescription for reclaiming college admission as a profession. The Journal of College Admission, 184, 12-17.

Kurz, R., & Bartram, D. (2002). Competency and individual performance: Modelling the world of work. In I.T. Robertson, M. Callinan & D. Bartram (Eds.), Organizational effectiveness: The role of psychology (pp.259-279). West Sussex, UK: John Wiley & Sons, Ltd.

Lueck, L.A. (2002). The beginner's guide to college visits. Campus Life, 61, 48-51.

Matthews, J. (2006). America's 25 hot schools. Kaplan Newsweek America's Hottest
Colleges: 2006 Edition, p. 40-47.

McGunagle, F. (1997, November 7). 'Don't walk backwards!' and other advice for campus tour guides. The Chronicle of Higher Education, p. B7.

Pearson, L. (2005, February 25). The wrong way into the right college. The Chronicle of Higher Education, p.B35.

Programs to look for (2006). U.S. News & World Report America's Best Colleges: 2006 Edition, p. 50-51.

Schippmann, J.S. (1999). Strategic job modeling: Working at the core of integrated human resources. Mahwah, NJ: Erlbaum.

Schippmann, J.S., Ash, R.A., Battista, M, Carr, L, Eyde, L.D., Hesketh, B., et al. (2000). The practice of competency modeling. Personnel Psychology, 53,703-740.

Sevier, R.A. (1996). Those important things: What every college president needs to know about marketing and student recruiting. College and University, 71, 9-16.

Sevier, R.A. (1987). How students choose a college. Currents, 14, 20-25.

Spector, P.E. (2006). Industrial and organizational psychology: Research and practice (4th ed.). Hoboken, NJ: John Wiley & Sons, Inc.

Terpstra, D.E., & Rozell, E.J. (1993). The relationship of staffing practices to organizational level measures of performance. Personnel Psychology, 46, 27-48.

Washburn, J.H., & Petroshius, S.M. (2004). A collaborative effort at marketing the University: Detailing a student-centered approach. Journal of Education for Business, 80, 35-40.

Wasylyshyn, K.M. (2001). On the full actualization of psychology in business.

Consulting Psychology Journal: Practice and Research, 53, 10-21.

AACSB International Accreditation: An Australian Perspective

G. E. Whittenburg
Professor of Accountancy
San Diego State University

Howard Toole
Professor of Accountancy
San Diego State University

Don Sciglimpaglia
Professor of Marketing
San Diego State University

Chris Medlin
Associate Professor of Marketing
University of Adelaide

ABSTRACT

This study is a preliminary study that evaluates Australian faculty members' perception about external accreditation such as AACSB or EQUIS. Results indicate that the respondents have a good understanding of several of the major issues and constructs in the accreditation process.

INTRODUCTION

The external accreditation of university and college business programs has a long established history in the United States (accounting program accreditation was added in the 1980s). On the other hand, the process is just beginning in Australia, where a small group of universities has achieved some level of global business or accounting accreditation. The purpose of this study is to examine the attitudes of Australian business and commerce faculty towards the trend of external (international) accreditation.

Accreditation is the process by which an academic program holds itself out for review by an external organization to be measured against a set of predetermined standards. For college and university business and commerce programs there are three primary international accrediting organizations. One is the United States-based (Tampa, Florida) Association to Advance Collegiate Schools of Business (AACSB) International (www.aacsb.edu) and another is the European-headquartered (Brussels, Belgium) EQUIS (European Quality Improvement System), which is part of European Foundation for Management Development (www.efmd.org). AACSB is a mentor program based on the traditional academic PhD model. AACSB was founded in 1916, as the American Assembly of Collegiate Schools of Business, in the USA to further the interests of American university and college business schools. EFMD, founded in 1971, is an industrial accreditation model similar to International Organization for Standardization, (ISO) certification. In addition, there is the London-based Association of MBAs, founded in 1967, which does not accredit undergraduate programs (www.mbaworld.com). Although there are multiple global accrediting organizations, this paper focuses on AACSB accreditation in Australia.

One way that an accreditation agency enhances business education is through the accreditation process applied to business (and accounting) programs. When an academic business program undertakes the accreditation process, it has to evaluate if the benefits are worth the cost of gaining and keeping accreditation. The accreditation process is firmly ingrained in American academe, yet far less so in Australia. Thus, a study of the Australian experience offers an opportunity to examine the AACSB accreditation process development in a specific country. First, however, it is necessary to explain some fundamental differences between the Australian and American higher education systems in order to explain the context in which this paper exists.

STRUCTURE OF AUSTRALIAN BUSINESS SCHOOLS

Business schools (or schools of commerce as they are sometimes labeled) are located in various divisions (or faculties) of the university and there is no uniform administrative structure. In some cases, there is a separate business faculty and, in others, they are grouped with law or social sciences or some other disciplines. Similarly, there is no uniform title for business schools. Some are called schools; some are called departments; some are called divisions; some are called faculties and some are called sections. The label 'business' is not always used. In some cases, there are functional labels such as school (department) of accounting, marketing, finance etc. In several cases, the generic but old-fashioned label of 'commerce' is used. In some cases, there is no clear 'business' association and the school is lumped in with a broader category such as 'social science'. The title of the head of the business school also differs between institutions. In some cases, the person is called 'head' in others it is 'dean' and, in many, the label 'professor' is synonymous with 'head'. There is no major generally accepted accreditation process for business schools apart from accreditation by the professional accounting associations and there is nothing equivalent to an association of business schools. Recently a small number of schools have become accredited by the AACSB or have obtained European accreditation, primarily as a tool to aid in recruiting foreign students. Currently, only the Australian Graduate School of Management at the University of New South Wales, the University of Queensland, and the University of Sydney are accredited by AACSB. Other Australian universities are currently in varying stages of applying for AACSB accreditation. In addition, "Queensland University of Technology's Brisbane Graduate School of Business, the University of Sydney's faculty of economics and business, and the Macquarie Graduate School of Management have gained accreditation with EQUIS, the European Quality Improvement System, promulgated by the European Foundation for Management Development. They join Curtin University of Technology (accredited in 2001), the University of South Australia's division of business and enterprise, and the University of Queensland's business school." (O-Keefe, p. 44). The dean of business at Queensland University of Technology has stated that ... "Since we received accreditation, we've been approached by some very prestigious business schools from the northern hemisphere and other organizations and they recognize the fact that [we've] joined the EQUIS group." (O'Keefe, p. 44)

For example, the state government of South Australia and Carnegie Mellon University recently entered into an agreement whereby the American school would offer accredited business degrees in South Australia. "South Australia will spend $20 million over the next four years to support the setting up of a United States university campus in Australia. Premier Mike Rann signed a deal in Pittsburgh, US, to establish a campus of the Carnegie Mellon University in Adelaide from 2006. The funds will be used for annual scholarships to students as well as for operational grants and start-up grants. The university will initially offer post-graduate degrees and professional courses in public policy and management and information technology." (http://news.ninemsn.com.au/article.aspx?id=10424, May 29, 2005) This may perhaps be evidence of an accredited American university sensing a market niche due to the lack of many accredited business schools in Australia.

Table 1 below summarizes a comparison between Australia and the United States, based on data from the CIA World Fact Book (2005). With the exception of pure size of economy and population, they are very similar, with comparable per capita GDP, employment, population growth and age distribution. As noted, commerce programs are found in a variety of academic faculties or schools in Australia. While we identified 157 separate programs (discussed later), only three are currently accredited by AACSB, compared to 428 in the US.

Table 1
Comparison of U.S. and Australia

Measure	United States	Australia
GDP purchasing power parity	$10.99 trillion (2003)	$571.4 billion (2003)
Per capita GDP	$37,800	$29,000
Unemployment rate	6.0 %	6.0 %
Population size	293.0 million (2004)	19.9 million (2004)
Median age	36.0	36.3
Population growth rate	0.92%	0.90%
University business programs and AACSB accreditation	428 university AACSB accredited programs (2005)	41 universities with various commerce programs – 157 total programs – 3 programs accredited by AACSB

BENEFITS AND COSTS OF ACCREDITATION

What are the benefits and costs? AACSB accreditation has many potential benefits to business and accounting programs. In addition, the benefits may be characterized as internal or external to the college of business. Some of the benefits of AACSB accreditation are shown in Table 2. In addition to the benefits, there are very real costs to obtain AACSB accreditation. Some of these costs are summarized in Table 3:

THE SURVEY

This paper reports the result of a survey of Australian business and commerce academics on their attitude and perceptions of AACSB International Accreditation. An online questionnaire was prepared that solicited information from Australian faculty in three general areas. The three areas were familiarity with AACSB, internal issues and external issues.

Familiarity was measured on a four-point scale of familiar, somewhat familiar, not very familiar, and not at all familiar. Attitudes towards internal and external issues were measured on a five-point scale of strongly agree, agree, neither agree/disagree, disagree, and strongly disagree. In addition, a do not know response was also available.

An intensive analysis of Australian university web sites was undertaken in order to determine the dean or other administrator in charge of the business or commerce program. This task was much more difficult than might be expected in an American setting because of the various names, faculties, and organization of academic programs used in Australian universities. Once the dean or other administrator was identified, a letter was mailed to the dean asking their support in referring faculty to an online survey established on Survey Monkey. Subsequently an introductory e-mail message was prepared for each dean to forward to his or her faculty. In addition, to enhance response rate, numerous additional e-mails were sent to the dean and any personal contacts at each university to encourage participation. Anecdotally, we have learned that Survey Monkey is not widely known in Australia and the name may have, in fact, limited the number of responses we received.

The questionnaire was open from November 2005 thru March 2006. There were 397 responses from an estimated 1,600 business faulty from the 40 primary Australian universities (approximately a 25% response rate). An exact number of business and commerce faculty is hard to ascertain because of the various names and breakdown of academic programs used in Australian universities. In addition, the sur-

vey results included responses from fifteen deans or chief administrators of academic business programs (included in the 397 responses).

SURVEY RESULTS

The percentages of respondents with their degree of familiarity with AACSB accreditation process and standards are shown in Table 4. The percentage of respondent replying "Strongly Agree" or "Agree" to each of the internal and external issues is shown in Tables 5 and 6. Combined responses of less than 50 percent are not shown.

The Australian academics indicated that they strongly agreed or agreed over fifty percent of the time with nineteen of the items on the questionnaire. These nineteen items can be grouped into five constructs, three of which relate to internal issues (Table 5) and two of which relate to external issues (Table 6). These internal and external constructs can be labeled as follows:

Construct 1-- Cost of accreditation. Australian faculty members appear to be well aware of the resource requirements of obtaining and keeping accreditation. They gave the construct the highest average score (83%) than any other set of items in the survey.

Construct 2-- Internal Process. The respondents fully understand the accreditation process requires a strong review of internal process by the school seeking initial or continuing accreditation. They gave this construct the second highest average score (81%) in dealing with internal issues.

Table 2
Potential Benefits Of AACSB Accreditation

Benchmarking	Accreditation allows a school to determine how their program compares to other similar schools.	Internal
Internal Assessment	Accreditation makes schools reexamine how they do things and what can be done to improve.	Internal
Peer Review Consulting	As part of the accreditation process, a school gets consulting from the Peer Review Team on what it can do to improve its programs.	Internal
Examine Continuous Improvement Processes	The accreditation review causes a school to examine its internal processes for maintaining and improving its programs.	Internal
External Recognition	Accreditation gives a school external recognition among its peers and in the community it serves.	External
Competition For Students	Accreditation can give a school an advantage in attracting quality domestic and international students.	External
Fund Raising	Accreditation gives a school an edge in fund raising over its non-accredited competitors.	Internal & External

Table 3
Potential Costs Of AACSB Accreditation

Initial and Annual AACSB Fees	The fees for initial AACSB accreditation can be approximately $20,000 USD and several thousand dollars per year for continuing membership fees.
Faculty Resources	Hundreds (if not thousands) of faculty hours are required in preparation for AACSB accreditation.
Increased Need for Instructional Resource	In many cases, AACSB accreditation requires the universities to put more resources (e.g., faculty, support staff) into its business programs to meet accreditation student/faculty adequacy requirements.
Increased Demand for Research Resources	AACSB accreditation may require an increase in faculty research support in order for the faculty meet the academic requirements of accreditation.

Table 4
Familiarity With AACSB Standards And Process

	Very familiar	Somewhat familiar	Not very familiar	Not at all familiar
AACSB Process	11	30	34	25
AACSB Standards	9	33	30	28

Construct 3-- Benchmarking. Benchmarking was recognized by the respondent as a significant issue in dealing with internal matters. Although the average responses were not as high (71% average) as the other two internal constructs, the respondents indicated this was an important construct of accreditation.

Construct 4-- Attracting Students. Attracting both domestic and foreign students was ranked the highest (71% average) construct in the external items in the questionnaire. The academics indicated these items were of importance to accreditation.

Construct 5-- Obtaining Organizational Support. Australian academics are aware the external accreditation is important to improve a school's standing among in external stakeholders such as business, government, and peer institutions. Although the average response (62%) was not as high as the other constructs, the respondents agreed this was a central construct of accreditation.

CONCLUSION

The results presented in this paper show that Australian academics are aware of most the major issues in external accreditation. As a result, Australian business faculty appear to be prepared for the accreditation process over the next decade.

TABLE 5
INTERNAL ISSUES
(STRONGLY AGREE AND AGREE PERCENTAGE)

Group	Questionnaire Items	Percent
1	The accreditation process utilizes considerable faculty and support staff time to achieve initial accreditation.	88.6
1	Getting and maintaining accreditation can be expensive.	79.3
1	Substantial time is required to maintain ongoing accreditation, such as filling out periodic forms and reporting.	78.7
2	The accreditation review causes a school to examine its internal processes for maintaining and improving its programs.	77.4
2	Accreditation forces schools to examine what it can do to improve its programs.	74.9
2	Accreditation requires the school to clearly refine its mission and objectives.	73.2
2	Accreditation strengthens internal processes.	71.3
2	Accreditation requires the school to assure that its processes accomplish its mission.	63.6
2	Accreditation strengthens course offerings.	56.1
3	Accreditation strengthens the school/faculty standing within the university.	76.0
3	Accreditation allows a school to determine how its program compares to other similar schools.	66.8

TABLE 6
EXTERNAL ISSUES
(STRONGLY AGREE AND AGREE PERCENTAGE)

Group	Questionnaire Items	Percent
4	Accreditation strengthens appeal of commerce/business programs to foreign students.	85.1
4	Degrees from accredited schools are more easily recognized for transfer credit to other accredited schools and admission to graduate schools.	67.9
4	Accreditation strengthens appeal of commerce/business programs to Australian students.	60.4
5	Accreditation gives a school external recognition among its peers and in the community it serves.	75.9
5	Accreditation strengthens school/faculty appeal to business/community constituency.	62.6
5	Accreditation strengthens appeal to our government constituency.	61.6
5	Accreditation can be very helpful gaining external support for the program.	59.0
5	Some grants are limited to accredited school, therefore being accredited helps indirectly improve the grant getting ability of a school.	51.6

REFERENCES

Andrews, D. R., Roe, C. W., Tate, U.S., and Yallapragada, R., "Perceptions of Business School Deans: An Analysis of AACSB Accreditation Guidelines," Mid-American Journal of Business, 9(1), 25-30.

Association to Advance Collegiate Schools of Business (AACSB), Newsline, 24(2), 12-13.

Commonwealth of Australia, "Enterprising Nation: Renewing Australia's Managers to Meet the Challenge of the Asia-Pacific Century," 1995 (Karpin Report).

Cotton, C. C., McKenna, J. F., Van Auken, S., and Yeider, R.A., "Mission Orientations and Deans' Perceptions: Implication for the New AACSB Accreditation Standards," Journal of Organizational Change Management, 6(1), 17-27.

Henninger, E. A., "Dean's Role In Change: The Case of Professional Accreditation Reform of American Collegiate Business Education," Journal of Higher Education Policy & Management, 20(2), 203-214.

Henninger, E. A., "Perceptions Of The Impact Of The New AACSB Standards On Faculty Qualifications," Journal of Organizational Change Management, 11(5) 407-424.

Henninger, E. A., "Expanding American Collegiate Business School and Program Accreditation: Adding Value or Confusion," Academy of Educational Leadership Journal, 4(2), 96-100.

Jantzen, R. H., "AACSB Mission-Linked Standards: Effects on the Accreditation Process," Journal of Education for Business, 75(6), 343-48.

Miles, M. P., Hazeldine, M. F., Munilla, L. S., "The 2003 AACSB Accreditation Standards and Implications for Business Faculty: A Short Note, Journal of Education for Business, September/October 2004, 29-34.

O'Keefe, Brendat, "Players Pitch For Big League: Australian Business Schools are Winning Kudos Internationally," The Australian, March 16, 2005, p.44.

Roller, R H., Andrews, B. K., Bovee, S., "Specialized Accreditation of Business Schools: A Comparison of Alternative Costs, Benefits, and Motivations," March/April 2003, 197-204.

A Plan for Transitioning from Athletics to Academics in Mid-Major Colleges: Regaining Academe's Control Over Ever-Increasing Athletic Program Power and Control

John E. Knight
College of Business and Public Affairs
Department of Management, Marketing and Political Science
University of Tennessee at Martin

Daniel L. Tracy
College of Business and Public Affairs
Department of Management, Marketing and Political Science
University of Tennessee at Martin

ABSTRACT

College athletic programs are not only growing in most major colleges, but the percentage of funds dedicated to athletics continues to escalate. All but a very few of the most noteworthy colleges with enormous television contracts and huge, regularly filled football stadiums are facing increasing athletic budget deficits. This is especially the case in most Division I-AA colleges and even many I-A programs. Yet, while college presidents talk about gaining control of athletics, the trends continue to persist regardless of the rhetoric. Few college presidents wish to confront either the growing and powerful intercollegiate athletic program bureaucracies on their campuses or the vocal and enthusiastic minority of athletic college boosters. Athletic success and winning records are increasingly being equated to the academic reputation of a college. Winning records drive even more allocation to athletics to proliferate tradition, while losing programs increasingly decide to allocate even more of the primary academic mission money into athletics with hopes of becoming competitive and increasing television and media exposure. Meanwhile, the increasingly vast number of students and their academic and financial interests are overlooked, as are the desires and wishes of the vast majority of alumni and citizenry. While many good intentions to curb the growing influence of athletics over academics exist, the lack of a plan to transition back to a rational approach to academic improvement over athletic accomplishments inhibits change. This article develops the outline of a plan to transition back to academe's true mission, that being one of education rather than athletics. The plan incorporates the financial benefits of such a transition and argues for academics being the focal point of the mission of the institution. Meanwhile athletic and other student participation in auxiliary collegiate experiences is retained as merely one of the cornerstones of student growth and education. The paper also discusses some of the general steps that would be required to begin, sustain and institutionalize the mantra of academics first with athletics retaining a supplemental role in student development.

Introduction and Literature Review

The past several decades have seen an escalating increase and impact of athletics on academic institutions. In a major cover story in the USA Today, the problem was described by Sylwester and Witosky (2004). "Average athletic budgets rose at a pace more than double the increases in average university spending at Division I schools between 1995 and 2001 (25% to 10%)". These figures, which omit major capital expenditures for facilities and debt finances, also exclude a myriad of indirect costs of athletic programs including tutoring, non-allocated maintenance and operating expenses, development and marketing departments dedicated to bringing in additional alumni dollars for athletics (Hamilton, 2000), and other hidden costs. "Today most Division I-A schools have multimillion dollar facilities and huge armies of personnel in the form of advisors, counselors, and tutors to aid recruits with the scholastic endeavors. This system has complicated the academic-integrity questions enormously." (Lawry, 2005)

However, even as spending rates increase, on average most athletic programs not only lose money, but seem to be losing money at a faster rate than ever with this phenomenon being particularly acute at smaller Division I and Division II institutions. According to the authoritative Knight Commission report on Athletics in Higher Education (Knight Commission, 2001), the latest NCAA study of revenues and expenses at Divisions I and II institutions shows that only 15% operate their athletics programs in the black and for 85% of the institutions, deficits are growing every year. Clearly the rising revenues on most campuses have been overwhelmed by even higher costs. At the more than 970 NCAA member schools, revenues are just over $3 billion a year, but expenses are $4.1 billion in the same period. Additionally, the report stated that at over half of the schools competing in Division I, expenses exceeded revenues by an average of 3.3 million, an increase of 18% over the previous two years! "Nearly every midsized college in the nation doesn't make enough money from ticket or TV revenue to cover sports budgets so they use a portion of income from general student fees to avoid huge losses in athletic departments. This year, the mid-sized MAC schools in Ohio, will combine to spend about $51 million on athletics, with more than 65% of the money coming from student fees." (MacGregor, 1998) Even within that mix, some of the schools in smaller sized towns have only a limited ability to ever generate ticket revenue give the calling population of the area. Smaller schools in small towns then need to raise student fees to pay for additional athletic losses. William and Mary students pay for 52% of the athletic costs with an annual $926 dollar student fee. However, the school refuses to itemize the expense on student bills due to potential backlash about the escalating costs of attendance. (Sylwester and Witosky, 2004)

Many theories have been provided to explain the athletics "arm's race" in higher education. According to the Knight Commission special report (Frank, 2004), the two basic reasons given are that college athletic programs stimulate additional student applications (and possibly enrollment), and they also stimulate greater contributions from alumni and other donors. The basic findings regarding both of these reasons for greater expenditures on athletics cannot verify the causal links. The findings of most empirical studies can be summarized as follows: If success in athletics does generate the indirect benefits in question, the effects are very small and cannot be statistically verified. McCormick and Tinsley (1986) demonstrated a slight increase in the rate of student applications based on a school's past athletic success, but the relationship was small (3%) and statistically insignificant. Tucker and Amato (1993) and Toma and Cross (1996) used similar methodologies with slightly different assumptions, and likewise concluded that any empirical effects of athletic success on student applications were not statistically significant. As for the relationship between alumni giving and athletic success, this

relationship has been empirically studied under various assumptions and time periods, starting with Siegelman and Carter (1979). Using multivariate regression, the authors could find no significant relationship between alumni donations and football success. Grimes and Chressanthins (1994) attempted to determine the relationship by focusing on a single school rather than data from numerous NCAA institutions. They could find no statistical relationships that were significant between winning percentages of the football and basketball programs and changes in alumni donations. They noted, however, that contributions significantly fell when the school suffered a one year NCAA suspension for rules violations. Murray Sperber (1976) in his book, "Beer and Circus-How Big Time Athletics is Crippling Undergraduate Education", quotes Richard Conklin, Vice President of Notre Dame: "Repeat after me. There is no empirical evidence demonstrating a correlation between athletic department achievement and (alumni) fundraising success. The myth persists, however, aided by anecdotal evidence from sports reporters who apparently spend more time in bars than in development offices."

Several suggestions have been made by researchers and study commissions that attempt to provide a roadmap for extricating academe from the athletics arm's race. Robert Frank suggests that universities must "jointly" agree to cut back on sports spending. Without such cooperation to control athletics, Frank suggests that the winner-take-all entrapment game mentality will continue to escalate the problem. Thelin and Wiseman (1989) take a more academic view of the process suggesting that athletics be a core mission statement objective so that accreditation of the entire school is aligned with the university mission. Additionally, they suggest that universities charge overhead expenses on each dollar of sports revenue to insure that athletic fundraising is for the benefit of the entire institution. They also suggest that athletic departments be integrated into the academic affairs department. Porto (2005) suggests building an advocacy group with national reach and lobbying ability to curb the growing power of athletics. Additionally, Porto suggests that a participation model be developed for athletics rather than a commercial model. His model suggests having athletic scholarships be based on academic merit and financial need, ending autonomous athletic departments, having all coaches be teachers (master's degree or greater), and eliminating freshman eligibility.

The review of the past efforts to categorize and even quantify the problem has demonstrated a pervasive problem and some initial suggestions for change. However, no suggested plan has been proposed to transition from an intercollegiate to an intra-collegiate program to jointly curb spending growth, include athletic participation as a supplement to overall student academic achievement and growth, and to allow for the institution to build market exposure in its targeted market area. However, at least one small institution Brigham Young University – Idaho (Ricks, 2005) has begun a program that begins to incorporate changes to the traditional concept of intercollegiate athletics.

Change must first come from recognizing a problem exists and may in fact be worsening. The past research and commissions have adequately cataloged these problems. Once the problem is known and is recognized, a plan can be proposed to try to address the problem by incorporating the needs of the academic institutions, incorporating the needs and desires of the majority of the students, and fulfilling the primary educational mission to educating future leaders.

A Plan for Transitioning from Athletics to Academics and Student Participation

Mission Clarification

The development of any plan requires that several assumptions be made, accepted, and adopted by the presidents of each individual university. The basic assumption to be made is that the primary MISSION of the university is academic. This primary mission can also be supplemented by other missions that might include overall student development in areas of teamwork, communication, goal achievement, and physical exercise – all of which could be included under the umbrella of student participative activities including athletics. The famous Kepner-Tregoe management problem solving technique would also suggest that any problem definition include what the mission "is not". (Kepner, 1976) The assumption made here is that the primary mission is not to serve as a minor league training ground for professional sports teams, most notably football and basketball. Developing a clear demarcation between the IS and the IS NOT helps provide focus for the overall strategy for the manner and extent of incorporating athletics into collegiate activities.

First and foremost, universities are charged with the academic education of students and are entrusted with resources to accomplish the task by state taxpayers, alumni supporters and endowments, and student fees and tuition. Their objective is not solely the physical development of athletic success by a small fraction of the students. Each university seeks acknowledgement of its efforts through academic accrediting agencies rather than athletic associations, and receives its validation for existence partly through the rigorous evaluations of like-minded educators and academicians.

As many authors suggest, athletics can be a supplement to this overall mission, but not the financial detriment to the primary mission. Zingg (1997) supports the philosophy of athletics, but at a more participative level. He states, "There is enduring educational value in the more limited, competitive sports arena to which all intercollegiate athletes will eventually graduate. It accrues through the benefits of fair, hard play and success of our colleges and universities to teach these lessons well."

Identify Needs of Various Constituencies

The universities and colleges and their faculty and staff have some primary and secondary needs. Some primary needs include a continual source of highly qualified applicants and attendees and financial support from legislatures, alumni, and taxpayers. State financial support is often driven by per capita enrollee allocations and not winning records, while endowments for financial support are clearly not athletically driven. Secondary needs include the ability to attract highly qualified, motivated, and compensated faculty and positive media exposure in its primary student recruitment territory. The myths that expensive athletic programs substantially provide for these primary needs has been shown to be insignificant. As for the secondary needs, the recruitment of highly qualified faculty is seldom influenced by athletic success, but rather directly by academic issues. As for media exposure, for every school with positive media exposure (winning records), there is at least one other school with a negative media exposure (losing records). Thus, on average, media exposure can be considered neutral or negative for all but the most traditional, winning, big-time, TV-exposed universities. Any new "plan" for change would have to consider these factors.

Students have two primary needs to be addressed. Students in general need financial support for matriculation and meaningful academic exposure and self-development opportunities. As state budgets have increasingly become beleaguered by rising health care and K-12 educational costs, state support for individual students has decreased. Instead, colleges have been forced to raise tuition rates (frequently with double digit percentage increases) to compensate for decreases in state funding. Also, under the present trend toward increasing expenditures for athletics, the general student population has been assessed increasing "student activity" fees to support athletic programs that often have declining student participation and interest. In an effort to compensate for increased fees and tuition, many students now work part-time (defined as more than 20 hours per week) to support themselves while in school.

Another primary student need is the opportunity to engage in meaningful academic exposure and self development activities. Many articles chronicle the decreasing number of classes with qualified instructors being offered, and in many cases these limited class offerings delay the graduation of the student. Additionally, students need to have increased opportunities to engage in activities directly related to their field of study, and/or activities that build self confidence in the total person by interaction with other students and mentors.

Note that the present vested interest group of student grant-in-aid athletes is not considered. First, most of the so called minor sport scholarships are often "partial scholarships" and the record clearly indicates that the majority of those students are quite academically qualified and successful. These students are more likely a truer student/athlete model than what might occur in the major sports of football and basketball. Although modifications to the heavy travel and expense side of the ledger will be considered, students in the minor sports would most likely continue to be primary participators in the plan that is to be presented.

Recognizing Basic Financial Principles

Although the previous discussion has indicated that trends are persisting toward greater athletic expenditures and losses for the vast majority of mid-major colleges and universities, little focus has been given to a counter-veiling financial principle to reverse those trends. However, for many colleges and universities being funded by public funds, a significant financial incentive exists to move athletic scholarships in a different direction.

Consider the following logic. The total cost of a full football grant-in-aid (including other regular expenses such as coaches' salaries, travel expenses, etc.) would average in excess of $25,000 (some articles suggest $100,000 per athlete at major universities). Meanwhile, state subsidy funding for academic purposes for an enrolled full time student averages about $5,000 per student. If the $25,000 per student expenditure for a football team of about 80 students was used to provide "academic/participation" partial scholarships of $5,000 for 400 students (or $2,500 to 800 students, etc.), the university would receive extra state funding of approximately $2,000,000 (or $4,000,000) from state funds plus student tuition payments and other fees. The practice of continuing to pour huge amounts of money into a limited number of "athletes" is simply not logical when the alternative of allocating the money to "scholar/participators" in greater numbers to generate huge new cash inflows is available. The finances don't make sense and the focus on athletes rather than scholars doesn't match the academic mission of the university.

Transitioning from Full Athletic Grant-in-Aid to Partial Participation Scholarships and Academic Control of Student Activities

Philosophically, the concept of "scholarships" for football and basketball players seems at times to be misappropriating the word. The record of football and basketball players' academic success including the selected majors chosen has been spotty at best. Although a small percentage of exceptions can be noted, the literature and NCAA records indicate that academic achievement in the major sports is poor. The term "grant-in-aid" has also been used to describe the subsidized athlete but again the term implies that monetary funds are needed. If that money were needed for academic pursuits rather than athletic pursuits, then the money would be appropriately described for an academic institution.

A proposal plan for transitioning to an academically focused plan that incorporates the needs of the university (both enrollment and financially) and student body at large, including financial aid, athletics and other participatory learning activities, is founded on the principle of shifting from full "athletic grants-in-aid" to multiple student "participation scholarships". Basically, the plan involves elimi-

nating grant-in-aid football and basketball (and possibly other minor intercollegiate sports) while creating scholarship/participation financial assistance for intra-collegiate sports (with limited intercollegiate events) and other participatory learning activities (which could include dancing, music, journalism, etc.). The elimination of men's scholarship football also eliminates the need for many of the minor women sports that have been created in order to meet Title IX requirements for gender equity. However, the opportunity to play football, baseball, or soccer would not be sacrificed under the plan. Instead, the teams would focus more on an intra-collegiate team format with competitive opportunities where travel costs/time, coaches' salaries, and other expenses would be substantially eliminated.

As an example, consider the change from Division I-A basketball to team basketball to consider the impact of the proposed plan on academics, learning opportunities, costs, and needs of the university and students at large. Instead of the concentration of enormous expenditures on about 15 athletes, 5-6 coaches (some coaches command millions of dollars in salary), trainers, and academic advisors and playing games that incur large travel expenses and time away from classes, the intra-collegiate program would work as follows. First, an intra-collegiate conference made up of teams from different regions of the primary geographical drawing area of the university would be developed. Each region would then have a "team" with student coaches, trainers, and sports information specialists. As an example, each team would be granted funds for true scholarship players, coaches, trainers, and communication specialists. Thus, opportunities for student athletes that want competition while focusing on athletics (with limited travel time and costs) would be available along with opportunities for students interested in coaching, physical therapy, and communications to be actively engaged in practicing their studies in a real life environment. By focusing on market-based geographical teams, a logical continuity of players and associates would be engendered. Thus, a student coach would then recruit good student athletes with high academic standards for the team with partial scholarships of $2,500 or more. A conference schedule of teams with real referees, uniforms, and coaches with newspaper clippings to the local papers in the players regions would be generated by the communications scholarship major, both giving exposure and advertising to the university and its students. Student athlete recruiting by all of the students on the team and coaches would be enhanced as each team would still be interested in winning competitions. Winners of the conference could then be scheduled to meet winners of conferences from like-minded universities on a limited basis at times that don't conflict with academic learning.

Does such a plan facilitate meeting the needs of a university? Financially, the move to the intra-collegiate plan eliminates a system that generates a loss to the university in financial terms, and generates substantial additional revenue as the partial scholarships encourage enrollment of a more academically qualified and broader base of participating students. The state revenues and increased student tuition and fees would positively and significantly enhance the university. Next, student recruitment of other students would be stimulated as cohorts and friends from the service area recruit other students for a purpose – competitively winning conference championships. Naturally, big city newspapers (that are losing circulation to the internet) will no longer be solely reporting on the Division I games (losses and wins). The literature has shown that such advertising has no or minimal affect on student recruitment. Rather, local or hometown newspapers will be reporting on the exploits of well rounded scholar/athletes with hometown connections. Finally, the university will benefit by being able to recruit and retain better faculty based on additional positive university revenues and a better and broader base of more qualified students.

Are student needs facilitated and enhanced by the plan? First, student fees used exclusively for Division I athletics subsidy can be substantially reduced. The majority of students will benefit from the reductions as these subsidies are presently transferred from the many to a select few football or basketball players. The remaining student fees will be utilized to support many activities that build a broader base of collegial experiences in many different areas, e.g., participation scholarships can be given to dance students for performing at games, business students for managing the finances of the "athletic department", now conceptually run by limited full-time staff personnel and many "student managers". Students will have plenty of opportunities for attending games and events, engaging in real life learning activities (e.g. someone majoring in sports medicine might be a trainer for a team).

Once the basic concept of focusing on granting partial scholarships to above average students that have special participatory skills is accepted, the variations and options to meet the needs of the broad base of academic and student interests are limitless. The problem to date has been the relentless single-mindedness of pursuing big- time athletics in the winner-take-all game that eventually leads to obviously destructive long term consequences.

Conclusion

The relentless march to greater expenditures and emphasis on big-time college athletics can and will inevitably lead to a deteriorating academic environment for most academic institutions. The expenditures from colleges and universities already indicate that darkening future from actual data results and from many anecdotal lamentations from many in the academic arena. Changes need to be made in direction and emphasis, but the lack of a clear plan and general direction is missing. This paper has attempted to frame the discussion of a new direction by proposing a plan that not only provides financial benefits to the university, but also strengthens the academic mission of the university and benefits the students financially and academically.

References

Grimes, P. and Chressanthins, G. (1994). "Alumni Contributions to Academics: The Role of Intercollegiate Sports and NCAA Sanctions," *American Journal of Economics and Sociology*, 53 (1).

Hamilton, T. (2000, December 21). Sweating Over Cal Poly's Future. *San Luis Obisp News Times*.

Kepner, C. & Tregoe, B. (1976). *The Rational Manager*. Princeton, NJ.

Lawry, E. (2005). Academic Integrity and College Athletics. *Phi Kappa Phi Forum*, 85 (3), 20-24.

MacGregor, S. (1998, December 28). College Sports at What Cost? *The Cincinnati Enquirer*. Retrieved April 29, 2006 from http://www.enquirer.com/editions/1998/12/28/spt_college_sports_at.html

McCormick, R. & Tinsley, M. (1987). Athletes versus Academics? Evidence from SAT Scores, *Political Economy*, 95, 1103-1116.

Porto, B. (2005). Changing the Game Plan: A Participation Model of College Sports. *Phi Kappa Phi Forum*, 85 (3), 20-24.

Knight Commission Report (2001). *A Call to Action: Reconnectiong College Sports and Higher Education*. Retrieved April 29, 2006 from http://www.knightcommission.org

Frank, R.H. (2004). Knight Commission Report. *Challenging the Myth: A Review of the Links Amoung College Athletic Success, student Quality, and Alumni Donations.* Retrieved April 29, 2006 from http://www.knightcommission.org

Ricks News Release (2005). *BYU-Idaho Creates Student Athletic Program*. Retrieved April 29, 2006 from http://www.lds.org/news/archiveday/0,5287,4065,00.html

Siegelman, L. and Carter R. (1983). "Is It Whether You Win or Lose? Monetary Contributions to Big Time College Athletic Programs", *Social Science Quarterly*, 64, (2).

Sperber, M. (2000). *Beer and Circus—How Big Time Athletics is Crippling Undergraduate Education*. New York: H. Holt.

Sylwester, M. & Witosky, T. (2004, February 18). Athletic spending grows as academic funds dry up. *USA Today*, p. A1.

Thelin, J. & Wiseman, L. (1989). The Old College Try. Balancing Academics and Athletics in Higher Education. *ERIC Clearinghouse on Higher Education*, Washington, DC.

Toma, J. and Cross, M. "Intercollegiate Athletics and Student College Choice Applicants". SAHE Annual Meeting Paper. Retrieved April 29, 2006 from http://www.edrs.com.

Tucker, I., and Amato, L. (1993). "Does Big-Time Success in Football or Basketball Affect Scores," *Economics of Education Review*, 12, 177-181.

Zingg, Paul. (1997, Jan. 13). Athletics and the aims of education. *NCAA News*. Retrieved April29, 2006 from http://www.ncaa.org/news/1997/970113/comment.html.

Hedging Your Bets: Strategies for Maximizing Scholarly Productivity of Business Faculty

Kimberly Gladden Burke
Professor of Accounting
Else School of Management
Millsaps College

Susan Washburn Taylor
Professor of Economics
Else School of Management
Millsaps College

Blakely Fox Fender
Associate Professor of Economics
Else School of Management
Millsaps College

ABSTRACT

For the business school administrator, the need to effectively hire and manage faculty who will produce scholarly publications is paramount for academic prestige, accreditation, attracting quality faculty and students and funding opportunities. Accordingly, strategies that help administrators navigate the uncertainty inherent in this process are needed to reduce potential losses associated with bad hiring or mismanaging faculty, i.e. strategies that help administrators hedge their bets. This study identifies those personal, institutional and time-competitive characteristics that influence the scholarly productivity of accountants and economists.

Results of this study suggest administrators who wish to maximize the scholarly productivity of their faculty should encourage presentation activity at conferences, coauthorship and reduced teaching assignments. Results further indicate that while there are similarities between the disciplines presented in this paper, there are significant differences in the influence of some characteristics. In addition, these results suggest that the magnitude of each characteristic's influence may differ between the disciplines.

Introduction

As business school administrators grapple with complex matters such as academic prestige, accreditation, attracting quality faculty and students, and funding opportunities, one issue becomes increasingly clear. Maximizing the scholarly productivity of business school faculty is central to these endeavors. Accordingly, most administrators will attend closely to the uncertainty inherent in hiring and fostering faculty, noting that even the most promising new hire may fail to produce scholarly research and the faculty member with past publishing successes may quit producing. One way in which to decrease the uncertainty involved in managing faculty productivity is to identify strategies to maximize publication opportunities. Hedging the administrators' bets by identifying these characteristics and exploring their influence on publication in peer reviewed journals is the purpose of this study.

Using multivariate statistical techniques, this paper identifies factors which contribute to scholarly productivity amongst accountants and economists. These disciplines are well suited for joint analysis as the primary scholarly outlet for both is peer reviewed journals. Conclusions of this study may be generalized to other disciplines with similar publication outlets.

THE MODEL

Maske, Durden, and Gaynor (2003) develop a useful theoretical model recognizing the competing uses of time based on a utility maximization model presented by McDowell and Melvin (1983). The resulting theoretical model is applicable in this case: "Article production is dependent on time devoted to teaching, research, administrative duties..." and other control variables (Maske et al. 2003, p. 557). Following this logic, productivity in peer reviewed journals is theorized to be dependent upon efforts devoted to the academic's alternative uses of time (teaching and administrative service), institutional support for research and personal characteristics such as experience and coauthorship. Based upon this theoretical underpinning, the model we estimate for accountants and for economists is as follows:

$$PeerPubs = \beta_0 + \beta_1 Female + \hat{a}_2 Uload + \beta_3 Gload + \beta_4 Sumhrs + \beta_5 Committee + \beta_6 DeptChair + \beta_7 Experience + \beta_8 Experience^2 + \beta_9 Coauthors + \beta_{10} Coauthors^2 + \beta_{11} Books + \beta_{12} Chapters + \beta_{13} P\ esentations + \beta_{14} Doctoral + \varepsilon \quad (1)$$

where:

PeerPubs	Number of peer reviewed publications during the period from 1998 to 2002
Female	A dummy variable equal to 1 for females and equal to 0 for males
Uload	Number of undergraduate credit hours typically taught in the academic year
Gload	Number of graduate credit hours typically taught in the academic year
Sumhrs	Number of credit hours typically taught during the summer
Committee	The average number of committees on which an individual serves in a typical year
DeptChair	The number of years an individual has served as department chair or program director in the last five years
Experience	The number of years since completion of the Ph.D.
Coauthors	The average number of coauthors per published article
Books	The number of books an individual authored during the period from 1998 to 2002
Chapters	The number of chapters an individual authored during the period from 1998 to 2002
Presentations	The average number of presentations made at professional conferences per year
Doctoral	A dummy variable equal to 1 if the department offers the terminal degree in accounting or economics

The following section details the source of the data as well as provides descriptive statistics and anticipated signs for all variables.

The Data

Data used to estimate the model were collected from two web-based surveys that gathered information about academic accountants and economists in 2003-04. Using addresses obtained from Hasselback (2002), an e-mail was sent to accountants and economists at American colleges and universities inviting them to go to a secure web page which posted the survey. The surveys produced 712 usable responses from academic economists and 467 from academic accountants.1

While separate surveys were sent to economists and accountants, data relevant to this study was collected in a consistent manner between the disciplines. The survey asked for a variety of information related to both human capital and workplace characteristics. Many of the time-varying characteristics were limited to the five-year period from 1998 through 2002. While this time period is somewhat arbitrary, it is a sufficient period to reflect conditions over time without being so long as to make recall difficult and thus reduce the survey response rate. The remainder of this section divides the data into four categories: the measure of the dependent variable, scholarly productivity, and measures of the regressors, broadly categorized as personal characteristics, institutional characteristics, and workplace time competitors, teaching and administrative service.

Scholarly Productivity

Refereed journal articles are commonly accepted as the primary outlet for scholarly research in both accounting and economics. Several researchers (Bazley and Nikolai 1975; Andrews and McKenzie 1978; Bublitz and Kee 1984; Dwyer 1994; Hasselback and Reinstein 1995a and b; Hasselback, Reinstein and Schwan 2003; Wilkinson, and Durden and Wilkinson 2003; Maske et al. 2003; Fender, Taylor and Burke 2005; Taylor, Fender and Burke 2006 and Bodenhorn 2003) measure research productivity by counting the number of publications. Accordingly, information regarding peer-reviewed journal articles (including notes, but excluding comments and replies) for each respondent from 1998-2002 was gathered. Information for economists was collected from EconLit, widely regarded in the field as the primary database for publication information for economists. There is no corresponding single publication database for accountants. Thus, publication data for accountants was collected from three sources: EconLit, Ingenta, and EBSCO Host.

Table 1 provides the mean number of peer-reviewed publications for accountants and economists, 2.31 and 2.39, respectively over the five year period under review. A t-test indicates that there is no significant difference in mean values between the two disciplines. In all, the accountants in the sample published 1,079 articles in 526 different journals during this time period while economists published 2,010 articles in 378 different journals.

Personal Characteristics

Human capital and other individual specific variables affecting productivity were obtained from the survey respondents. Variables of interest in this study include gender, experience, partnerships with other academic authors, and involvement in scholarly activities. Each of these variables, discussed below, potentially influences research productivity.

The literature examining the gender impact on research productivity is mixed. Maske et al. 2003; Taylor et al. 2006; Broder 1993; and Rebne and Davidson 1992; and Dwyer 1994 report women publish significantly less than men. Streuly and Maranto (1994) and Rama Raghunandan, Logan and Barkman (1997) , however, find no significant differences between the research productivity of male and female accountants. Given the unresolved impact of gender on productivity, this study incorporates a dummy variable for gender equal to 1 for males and 0 for females, its sign being uncertain a priori. As seen in Table 1, there is no significant difference in the percentage of females across the two disciplines.

Gains in human capital related to time on the job are expected to generate higher levels of productivity. To reflect this anticipated increase, an experience variable, defined as the number of years since completion of the Ph.D., is included in the model. Experience squared is also included to reflect diminishing returns to experience.

Like experience on the job, working with other scholars should increase the chances of publishing scholarly work. The literature on coauthorship indicates productivity gains from coauthorship, largely based on a division of labor argument. Burke, Fender and Taylor (2006) find positive returns to coauthorship among accountants. Similarly, McDowell and Melvin (1983), Barnett, Ault, and Kaserman (1988), Davis and Patterson (2000), and Maske et al. (2003) and Taylor et al. (2006) find positive returns to coauthorship among economists. The coauthorship variable included in the model is measured as the average number of coauthors per published article in the five-year period, and the variable enters the equation both directly and squared to reflect diminishing returns to coauthorship.

The study also recognizes that business academics may engage in activities that support or enhance their research productivity. For example, many accountants and economists choose to present their work at professional conferences. These presentations are assumed to positively impact publication as they provide a valuable mechanism for pre-submission feedback and impose deadlines for completion of manuscripts. Accordingly, the Presentations variable represents the average number of presentations made at academic conferences per year. Scholars may also spend time preparing manuscripts to be published as books or chapters in books (both measured here as the

1 4,190 academic accounts received the survey and 600 responded, yielding a participation rate of 14.3%. 4,864 economists were asked to complete the survey. There were 907 responses yielding a response rate of roughly 19%. All respondents were motivated by a $10 donation to a charity included on a pull-down list in the survey.

Table 1
Descriptive Statistics

	Accountants	Economists	Sig.
Peer Publications	2.31	2.39	
	(3.25)	(3.40)	
Personal Characteristics			
Female	0.26	0.2	
	(0.44)	(0.40)	
Experience	16.43	19.31	**
	(8.98)	(9.62)	
Coauthors	0.51	0.62	**
	(0.83)	(0.65)	
Presentations	1.35	2.06	**
	(1.34)	(2.18)	
Chapters	0.18	2.37	
	(0.39)	(5.80)	
Books	0.79	1.12	
	(1.98)	(2.53)	
Institutional Characteristics			
Doctoral Granting Dept.	0.33	0.41	**
	(0.47)	(0.49)	
Teaching and Service			
Undergraduate Load	11.22	11.3	
	(7.71)	(6.62)	
Graduate Load	4.07	2.63	**
	(4.38)	(3.55)	
Summer Hours	2.23	1.43	**
	(2.66)	(2.58)	
Committee	3.56	2.35	**
	(1.94)	(1.44)	
Department Chair	1.08	1.32	
	(1.73)	(1.77)	

Notes: Standard deviation in parentheses.
** Denotes statistically different means at the 5% level.

number over a five year period). It is unclear a priori whether these activities stimulate or detract from publication in the primary outlet, peer reviewed journals

Table 1 provides means for each of the independent variables for both accountants and economists. The last column indicates whether those two means are significantly different. The mean for gender fails to be significantly different across disciplines while on average the economists have significantly more experience, coauthors, and presentations than do their accounting colleagues. Differences in means for chapters and books fail to be significantly different between accountants and economists.

Institutional Characteristics

The mission of the institution will likely influence productivity. Those departments with a heavy research focus, for example, will both expect more from the faculty member and provide a ready source of both formal and informal collaboration for the scholar. To proxy the departmental research gestalt, a binary dummy variable is included if the respondent works in a department which offers the terminal degree in the field. With the resources available to and the research expectations of faculty at doctoral granting departments, one would expect faculty in doctoral granting departments to publish more in peer reviewed journals than faculty at undergraduate departments. Several researchers (Christensen, Finger and Latham 2002; Read, Rama and Raghunandan 1998; Englebrecht, Iyer and

Patterson 1994; Schultz, Meade and Khurana 1989; Taylor et al. 2006) support this notion. As seen in Table 1, accountants in the survey are significantly more likely to work in doctoral granting departments than are economists.

Teaching and Administrative Service

The debate regarding the relation between research and teaching is an old one. In one camp, scholars argue that research and teaching are complementary, where the learning that takes place in either arena informs the other (Demski and Zimmerman 2000, Becker and Kennedy 2006). The underlying theme of the alternative position is often that research informs little in education, particularly in a professional education such as accounting (Demski and Zimmerman 2000). Although the debate has not been resolved, there is at least one point on which most can agree: Given the immutable nature of time, in the short run, research and teaching are substitutes where time spent teaching cannot be used for research. Accordingly, Cargile and Bublitz (1986) report that regardless of the type of institution at which they are employed, accounting faculty indicate that reduced teaching loads and committee assignments are among the most important facilitators of research productivity. Similarly, Manakyan and Tanner (1994) find correlation between increased research productivity and reduced teaching loads. Within the economics literature, Maske et al. (2003), Bodenhorn (1997), and Taylor et al. (2006) find a significantly negative relationship between teaching and scholarly activity. Thus research productivity and hours spent teaching are expected to be negatively related. The individual's teaching commitment is measured by three variables: number of undergraduate courses taught in the academic year (Undergraduate load), number of graduate hours taught in the year (Graduate load), and number credit hours taught in the summer (Summer hours).

While there may arguably be some synergies between teaching and scholarship, one is hard pressed to find any way in which administrative service to the department or institution could be anything other than a drain on research efforts. Accordingly, research productivity and administrative service are also expected to be negatively related. Administrative service commitment is reflected in two variables: (1) the average number of committees on which an individual serves in a typical year (Committee) and (2) the number of years during the five-year period during which the respondent has served as department chair (Department Chair).

Summary statistics reported in Table 1 suggest that undergraduate teaching load is related to productivity as anticipated for both disciplines and that there is no significant difference in undergraduate hours taught by the two sets of academics. Graduate teaching load, however, demonstrates a different result. Accounting respondents teach significantly more graduate courses than do economists, consistent with the previous result that accountants in the survey are significantly more likely to teach in Ph.D. granting departments. Accountants also teach significantly more in the summer than do their economics peers.

The mean for administrative committee service is significantly higher for accountants than for economists. Administrative service in the form of acting as department head, however, shows no significant difference.

While these t-tests in Table 1 provide some support for the importance of different personal, institutional and workload variables to peer reviewed publications, they do not provide a particularly rigorous analysis. In order to better understand the relations between each of the independent variables and quality productivity, further examination using a multivariate model is provided in the next section.

Empirical Results

Connecting information about teaching, service, institutional and personal characteristics to publication in peer reviewed journals is the primary objective of this study. To that end, the model in equation (1) is estimated by ordinary least squares. Table 2 presents regression results for accountants (column 1) and economists (column 3) with absolute t-statistics in parentheses below the coefficients. The fit for both equations is good with an adjusted R2 of .36 for accountants and .43 for economists.

Personal Characteristics

The regression results yield some striking commonalities between the business disciplines as well as some unique differences. With respect to personal characteristics, all variables are significant for both disciplines with a few exceptions. For both disciplines, peer reviewed publications significantly rise and then fall with additional years of experience. The same pattern holds true for coauthorship. Presentations at academic conferences significantly increase productivity for both. And, it is of interest that authoring chapters has no impact for either academic while book authorship significantly increases peer reviewed journal productivity of economists but shows no corresponding impact for accountants.

The role of gender merits consideration as well. The coefficient is negative for both sets of academics. For economists, the impact is significant at the 5% level while it is almost significant at the 10% level for accountants.

Institutional Effect

It comes as no surprise that both accountants and economists at Ph.D. granting institutions publish significantly more than their colleagues at other institutions. This in part reflects additional institutional expectations for research as well as a greater resource pool to fund such efforts.

Teaching and Institutional Service

The negative sign of each of the teaching coefficients support the general hypothesis that teaching and scholarly activity are substitutes for the use of the academic's time. This is most effectively seen in the undergraduate load coefficient which is significantly negative at the 5% level for both groups. Similarly, the coefficient for summer teaching hours is negative and significant at the 10% level for each. Graduate teaching, however, is significantly negative for economists but not the accountants in the sample. This result may indicate that accountants experience some synergies between graduate teaching and their research.

Table 2
Regression Results and Elasticities

	Accountants		Economists	
	Regression Results	**Elasticity**	**Regression Results**	**Elasticity**
Constant	0.33	n/a	0.95**	n/a
	(0.47)		(1.82)	
Personal Characteristics:				
Female	-0.35	n/a	-0.62**	n/a
	(1.20)		(2.48)	
Experience	0.11**	0.00	0.07**	-0.02
	(12.02)		(1.82)	
Experience Squared	-0.003**		-0.002**	
	(-2.21)		(2.20)	
Coauthors	3.53**	0.74	2.67**	0.56
	(9.52)		(10.82)	
Coauthors Squared	-0.55**		-0.33**	
	(-5.74)		(5.12)	
Presentations	0.25**	0.19	0.34**	0.23
	(2.57)		(6.10)	
Books	-0.04	0.02	0.15**	0.06
	(0.63)		(3.25)	
Chapters	-0.36	0.27	0.00	0.00
	(0.98)		(0.08)	
Institutional Characteristics				
Phd. Granting Dept.	1.04**	n/a	0.91**	n/a
	(3.63)		(3.71)	
Teaching and Service				
Undergraduate Load	-0.04**	0.19	-0.06**	0.28
	(1.91)		(3.23)	
Graduate Load	-0.02	0.03	-0.06**	0.08
	(0.58)		(1.84)	
Summer Hours	-0.06*	0.04	-0.06*	0.04
	(1.33)		(1.57)	
Committee	0.05	0.01	-0.09	0.08
	(0.80)		(1.38)	
Department Chair	-0.14**	0.07	-0.17**	0.09
	(-1.85)		(2.99)	
Adjusted R squared	0.36		0.43	

Notes: Absolute t-statistics in parentheses. ** denotes statistical significance at the 5% level, * denotes statistical significance at the 10% level. Elasticities are given in absolute form.

Finally, regression results show that committee service does not significantly impact scholarship. The more time consuming responsibility of service as department chair, however, is significantly negative across the board.

Implications for Maximizing Scholarly Productivity

While the sign and significance of the coefficients in Columns 1 and 3 of Table 2 are important, a more practical application can be found in the elasticities computed from these coefficients. These elasticities have been computed using the mean value of each variable for the combined sample and are presented in columns 2 and 4 of Table 2 for accountants and economists, respectively.

Consider first the elasticity of the undergraduate teaching load variable. This value indicates that a 1% decrease in undergraduate teaching load will increase scholarly productivity by 0.19% and 0.28% for accountants and economists, respectively. Academic courses are taught in discrete units, however, and using these figures, a 3-hour reduction in undergraduate course load (essentially a 26.5% reduction in teaching load) would increase productivity by 5% for accountants and 7.3% for economists. Similarly, reducing the summer load by one three-hour course would increase journal production by 6.9% for business faculty.

Consider also the impact of presenting on additional paper at an academic conference which translates to a 55% increase in the number of presentations. This additional presentation would yield a 10.45% increase in scholarship for the accountant and a 12.65% increase for economists.

The implications for the impact of experience are somewhat less straightforward due to its nonlinear nature in the regression estimation. Recall that both experience and experience squared are included in the model and that both are statistically significant. Since the sign of experience is positive and experience squared is negative, productivity initially rises with additional years on the job and then begins to fall. The elasticity of experience follows a similar trend. When evaluated at the average experience level for the sample, 18 years, the elasticity for both groups is approximately 0. If evaluated earlier in the career, say at 10 years, the elasticity of an additional percentage increase in experience for the accountant is .22 and .13 for the economist. If evaluated toward the end of the career, say at 30 years, the impact of additional experience actually becomes negative, reducing the elasticity to –.90 for accountants and -.63 for economists. The implication here is that "one size doesn't fit all" when evaluating the impact of experience on productivity.

Summary

For the business school administrator, the need to effectively hire and manage faculty who will produce scholarly publications is paramount, and strategies that help administrators navigate the uncertainty inherent in this process are needed to reduce potential losses associated with bad hiring or mismanaging faculty. This paper analyzes the influence of personal attributes, institutional characteristics, teaching and service on the publication record of business school faculty, specifically accountants and economists. The results of this study suggest administrators who wish to maximize the scholarly productivity of their faculty should encourage presentation activity at conferences, coauthorship and reduced teaching. Similarly, administrators should be aware of the significantly negative effects chairing a department has on scholarly productivity.

While there are similarities between the disciplines presented in this paper, the analysis indicates that a one size fits all approach to managing business faculty will not necessarily produce optimal results. For example, business school administrators must recognize the nonlinear effects of experience on scholarly productivity and must plan accordingly for the more mature member of the faculty. In addition, differences noted between accountants and economists suggest the need for flexibility and fluidity in managing faculty from different disciplines. Taken together, this study indicates that the effective administrators can best hedge their bets by identifying and understanding the influence of a variety of personal, institutional and time-competitive factors on scholarly productivity.

REFERENCES

Andrews, W.T. and McKenzie, P.B. (1978). Leading Accounting Departments Revisited. *The Accounting Review* 53(1): 135-138.

Barnett, A.H., Ault, R.W. and Kaserman, D.L.. (1988). The Rising Incidence of CoAuthorship in Economics: Further Evidence. *Review of Economics and Statistics* 70(3): 539-43.

Bazley, J. D. and Nikolai, L.A. (1975). A Comparison of Published Accounting Research and Qualities of Accounting Faculty and Doctoral Programs. *The Accounting Review* (July): 605-610.

Becker, W.E. and Kennedy, P.E. (2005). Does Teaching Enhance Research in Economics? *American Economic Review* (May): 172-76.

Bodenhorn, H. (2003). Economic Scholarship at Elite Liberal Arts Colleges: A Citation Analysis with Rankings. *Journal of Economic Education* (Fall): 341-359.

Broder, I. E.(1993). Professional Achievements and Gender Differences Among American Economists. *Economic Inquiry* (January): 116-27.

Bublitz, B. and Kee, R. (1984). Measures of Research Productivity. *Issues in Accounting Education*: 39-60.

Burke, K.G., Fender, B.F. and Taylor, S.W. (2006). Walking the Academic Tightrope: Evidence on the Impact of Teaching and Service on Scholarly Productivity. Working Paper.

Cargile, B.R. and Bublitz, B. (1986). Factors Contributing to Published Research by Accounting Faculties. *The Accounting Review* (January): 158-178.

Christensen, A.L., Finger, C.A. and Latham, C.K. (2002). New Accounting Scholars' Publications in Accounting and Nonaccounting Journals. *Issues in Accounting Education* (August): 233-251.

Chow, C.W. and Harrison, P. (1998). Factors Contributing to Success in Research and Publications: Insights of 'Influential' Accounting Authors. *Journal of Accounting Education*: 463-472.

Davis, J.C. and Patterson, D.M. (2000). Determinants of Variations in Journal Publication Rates of Economists. *The American Economist* (Spring): 86-91.

Demski, J.S. and Zimmerman, J.L. (2000). On 'Research vs. Teaching': A Long-Term Perspective. *Accounting Horizons* (September): 343-352.

Dwyer, P.D. (1994). Gender Differences in the Scholarly Activities of Accounting Academics: An Empirical Investigation. *Issues in Accounting Education* (Fall): 231-246.

Englebrecht, T.D., Iyer, G.S. and Patterson, D.M. (1994). An Empirical Investigation of the Productivity of Promoted Accounting Faculty. *Accounting Horizons* (March): 45-68.

Fender, B.F., Taylor, S.W. and Burke, K.G. (2005) "Making the Big Leagues: Factors Contributing to Publication in Elite Economics Journals," *Atlantic Economic Journal* (March): 93-103.

Hasselback, J.R.. (2002). Prentice Hall Accounting Faculty Directory 2002-2003. Prentice Hall.

_____ and Reinstein, A. (1995a). A Proposal for Measuring the Scholarly Productivity of Accounting Faculty. *Issues in Accounting Education*, (Fall): 269-306.

_____ and _____. (1995b). Assessing Accounting Doctoral Programs by Their Graduates' Research Productivity. *Advances in Accounting*: 61-86.

_____, _____ and Schwan, E.S. (2003). Prolific Authors of Accounting Literature. *Advances in Accounting*: 95-125.

Manakyan, H. and Tanner, J.R. (1994). Research Productivity and Teaching Effectiveness: Accounting Faculty Perspective. *Accounting Educators' Journal* (Fall): 1-21.

Maske, K.L., Durden, G.C. and Gaynor, P.E. (2003). Determinants of Scholarly Productivity Among Male and Female Economists. *Economic Inquiry* (October): 555-564.

McDowell, J. M. and Melvin, M. (1983). The Determinants of Co-Authorship: an Analysis of the Economic Literature. *Review of Economics and Statistics* (February): 155-160.

Rama, D. V., Raghunandan K., Logan, L.B. and Barkman, B.V. (1997). Gender Differences in Publications by Promoted Faculty. *Issues in Accounting Education* (Fall): 353-365.

Read, W.J., Rama, D.V. and Raghunandan, K. (1998). Are Publication Requirements for Accounting Faculty Promotions Still Increasing? *Issues in Accounting Education* (May): 327-339.

Rebne, D.S. and Davidson, N.B. (1992). Understanding Patterns of Publishing Activity in Academic Research Occupations. *Decisions Sciences* (Jul/Aug): 944-956.

Schultz Jr., J. J., Meade, J.A.and Khurana, I. (1989). The Changing Roles of Teaching, Research and Service in the Promotion and Tenure Decisions for Accounting Faculty. *Issues in Accounting Education* (Spring): 109-119.

Streuly, C.A. and Maranto, C.L. (1994). Accounting Faculty Research Productivity and Citations: Are There Gender Differences? *Issues in Accounting Education* (Fall): 247-258.

Taylor, S.W., Fender, B.F. and Burke, K.G. (2006). Unraveling the Academic Productivity of Economists: The Opportunity Costs of Teaching and Service. *The Southern Economic Journal* (April): 846-859.

Wilkinson, B.R., Durden, C.H. and Wilkinson, K.J. (2003). A Tobit Analysis of Accounting Faculty Publishing Productivity in Australian and New Zealand Universities. Advances in Accounting Behavioral Research 6: 173-186.

Kimberly Gladden Burke, **Susan Washburn Taylor, and Blakely Fox Fender,**

Presiding in the Carnival of Ideas: Are Innovative College and University Presidents Following the Lead of Corporate Executives into The Blogosphere?

David C. Wyld
Maurin Professor of Management and
Director of the Strategic e-Commerce Initiative
Department of Management
Southeastern Louisiana University

ABSTRACT

This article examines the rise of blogging and the new phenomenon of top executives who are using blogs as both a communications tool and a means for self-analysis and revelation. This research examines the present status of blogging amongst college and university presidents, drawing parallels and distinguishing unique benefits and differences to the blogging of top corporate executives. While the research finds limited blogging amongst top academic officers at present, the projections are that this will grow exponentially in the future as blogs become a common part of the Internet and organizations. The legal and practical ramifications for top university officials are explored as they prepare for a future in a "carnival of ideas."

Introduction

What is a blog? According to a recent report from The Pew Internet & American Life Project, well over half of the American adult population do not know what a blog is (Rainie, 2005). In a nutshell, a blog is a "do-it-yourself" website. Gone are the days (of say 2003) when one would have to be knowledgeable in html or xml programming or make use of complex, and often expensive, web creation software to create or update a website. With a blog, your website can be constantly added to and updated, without having to do anything more than typing (or cutting and pasting) into a text box. Through posting links, you can link your blog to any other site on the web. You can even add audio/visual material to your blog site by uploading them, much as you would add an attachment to an email. Others who find your site of interest can use RSS (Really Simple Syndcation) or sign-up for email alerts to be notified when you post or add material to your blog. In sum, a blog is "an easy-to-use content management tool," one that enables you to instantly add new content to you're the blog, and best of all, "no technical or programming skills are necessary." (Weil, 2004, n.p.). In fact, the vast majority of blogs are created and maintained by individuals making use of a variety of free or low-cost software and/or hosting services, such as those listed in Table 1.

Table 1
Major Blog Software/Hosting Providers

Service Provider	URL
Blogger	www.blogger.com
LiveJournal	www.livejournal.com
Moveable Type	www.sixapart.com/movabletype/
MSN Spaces	www.spaces.msn.com
Radio Userland	www.radio.userland.com
TypePad	www.typepad.com
Word Press	www.wordpress.org
Xanga	www.xanga.com

Blogging – the act of creating and maintaining a blog – has been characterized in nothing less than laudatory terms, hailed as:

- "the 'next big thing' on the Internet" (Gallo, 2004)
- "the next killer app" (Weil, 2003, n.p.),
- "the web's coup de grace, the heart of a personal publishing revolution to rival desktop publishing' (Johnson, 2005, n.p.),
- "the most profound revolution in publishing since the printing press" (Sullivan, 2005, n.p.).

On the other hand, many people associate blogs as a phenomenon of teenagers and college students. When they do think about them, they think of either the folks who blog about their cats, dogs, or hamsters (Butler, 2006) or the "bad" news stories about blogs, such as when a blogger – the person creating and maintaining the blog - named his murderer in his last, dying entry in his blog (Wikipedia, 2005).

Undoubtedly however, blogging is fast-changing the way many of us interact with the Internet. Mortensen (2004) chronicled that blogging is now following the same development pattern as the Internet itself. Whereas in the early days of the Internet, access was difficult and limited to academicians, researchers, government officials, and other elites, the rise of the World Wide Web and the development of browser technologies enabled the Internet to widen its audience and reach, while greatly changing – and perhaps decreasing – the quality of the content and interactions online. With the wide availability of blog creation software tools and blog hosting services, no longer does one need specialized computer knowledge and resources to create content online. Indeed, blogs have been categorized as the rise of easily self-created web content. As reported in a report from the Pew Internet & American Life Project: "One of the earliest observations about the Internet turns out to be true: anyone can be a publisher on the Web. The online commons is full of virtual chatter and teeming with self-made content. It ranges from the simplest vanities like pictures of 'me and my puppy' to the most profound kinds of political argument – and everything in between" (Lenhart, Fallows, and Horrigan, 2004, n.p.). According to Dan Hunter of the University of Pennsylvania, blogging 'is not a fad...It's the rise of amateur content, which is replacing the centralized, controlled content done by professionals" (quoted in Knowledge@Wharton, 2005, n.p.).

The statistics on blogging are indeed mind-boggling. According to the blog analyst firm Technorati, a new blog is created every second of every day. Every hour, 50,000 posts are made to blogs, meaning that there are 1.2 million new blog posts each day (see Figure 1). All told, the blogosphere – the totality of all blogs – continues to double in size every six months. With approximately 30 million blogs in existence today, the blogosphere is an astonishing sixty times larger in size than it was a mere three years ago (Sifry, 2006) (see Figure 2). Approximately half of all blogs are 'active,' in that they have been updated in the last 90 days, with approximately 13% having been updated to on a weekly basis (Perrone, 2005).

Writing in the journal, Foreign Policy, Drezner and Farrell (2004) commented that: "Although the blogosphere remains cluttered with the teenage angst of high school students, blogs increasingly serve as a conduit through which ordinary and not-so-ordinary citizens express their views...and influence a policymaker's decision making" (n.p.). According to Mort Zuckerman (2005), Editor-in-Chief of U.S. News & World Report" "Blogs are transforming the way Americans get information and think about important issues. It's a revolutionary change – and there's no turning back" (n.p.).

In this article, we will examine how and why blogging is taking hold amongst top corporate executives, and how innovative college presidents are likewise joining the blogosphere. We will see that both categories of leaders can find the practice beneficial, both as a direct line of communication to their internal and external constituencies and as means of self-reflection and self-revelation. Through blogging, university leaders can better stay in-touch with their campuses and their stakeholders – and themselves. This article contains a survey of college and university weblogs, showing the present state of college and university presidential blogging and discussing several examples. The article concludes with a look ahead to the benefits and pitfalls of blogging for college and university officials, including the potential legal issues that can arise.

The Blogging Executive

Seth Godin (2004) observed that blogs work because they are based on: candor, urgency, timeliness, pithiness, controversy, and utility. Unfortunately, as Godin pointedly reminded us: "Does this sound like a CEO to you?" (n.p.).

For blogging executives, the activity asks them to be spontaneous, raw, and controversial, adjectives not typically associated with corporate success. From the perspective of Michael Smith, Professor of Communication at La Salle University, "In some respects, the image of an executive blogging is akin to the image of a portly person in a Speedo bathing suit--something doesn't quite fit" (op. cited in Larson, 2005, n.p.).

Bob Parsons, CEO of GoDaddy.com, an Internet domain name registration firm, believes that blogging is antithetical to the executive mind. He commented that: "The blog is unsanitized. Most executives are too conservative, and too play-it-safe to do this" (quoted in (Graybow, 2005, n.p.). Indeed, Bob Lutz, Vice Chairman of Global Product Development for General Motors, who blogs about the GM cars he drives and designs on his executive blog at http://www.fastlane.gmblogs.com, has recently weighed in that while blogging seems right for him personally, the activity is not for every executive. Lutz observed that : "Most senior executives rise to the top by being very analytical and buttoned up and left-brained. That very careful execu-

Figure 1

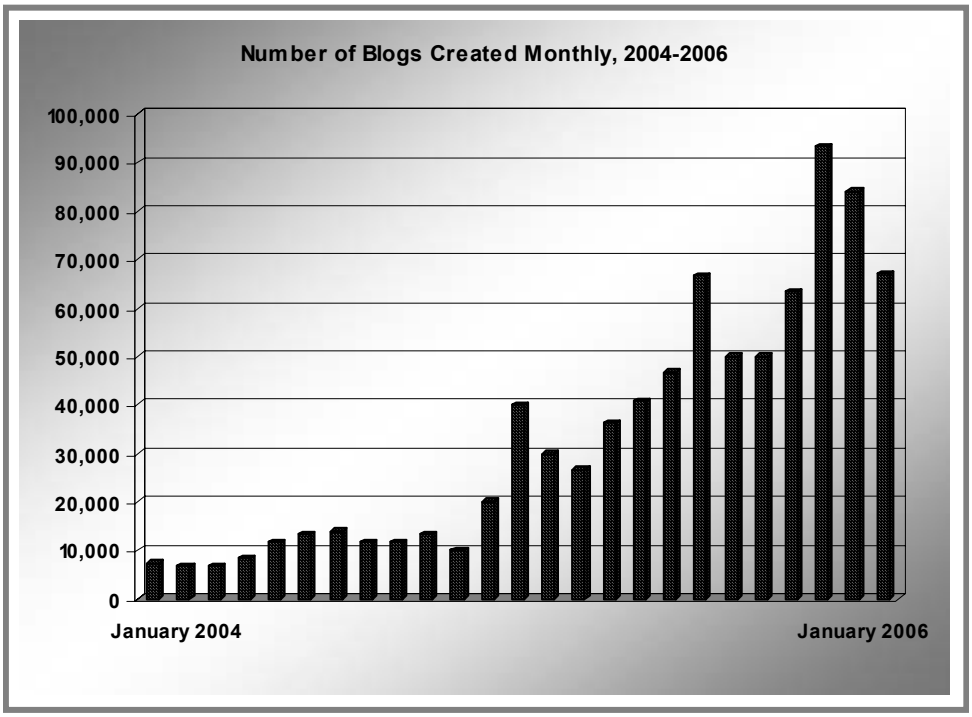
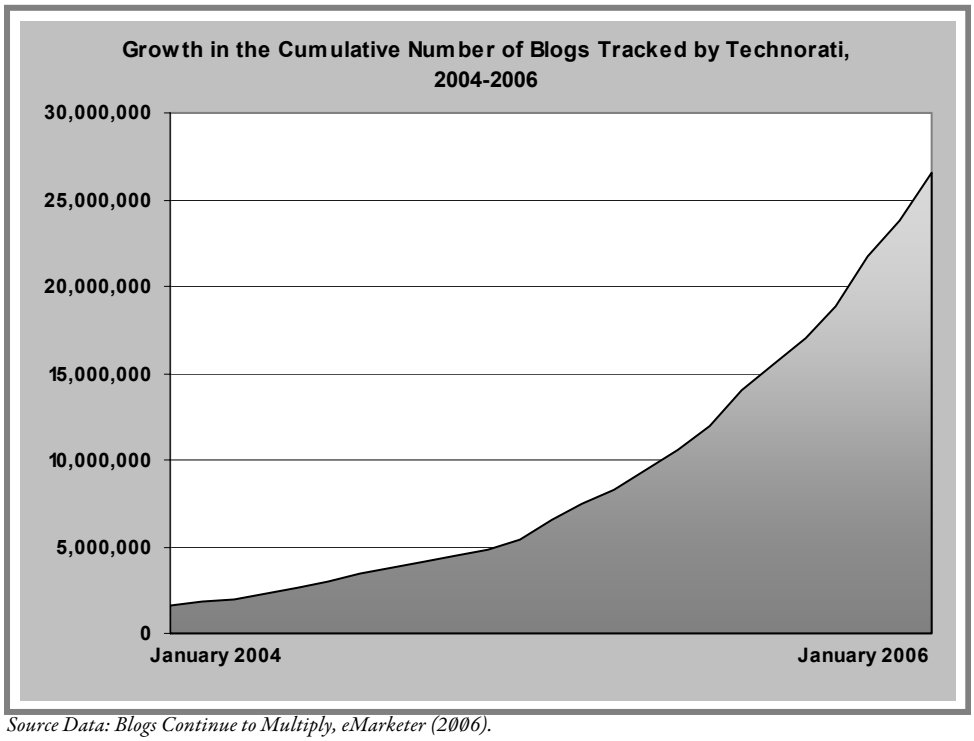


Figure 2



Source Data: Blogs Continue to Multiply, eMarketer (2006).

tive is probably not going to be a good blogger" (op. cited in Larson, 2005, n.p.).

Yet, despite this hesitancy, more and more top executives, both in the United States and around the world, are launching their own blogs (a compilation of top blogging U.S. executives is provided in Table 2). For companies and other large organizations, government agencies and non-profit groups, including universities, blogging promotes a new sense of openness with an organization's stakeholders – including employees, customers, the public, and the media. Such an environment of openness and Perestroika is especially valuable in an era of intense scrutiny and an age of mistrust of large institutions.

According to a November 2005 report from eMarketer (2005a), blogging executives are still relatively rare. In a survey of 131 prominent CEOs, researchers found that only 7% of them currently had an executive blog and only 8% of their firms had a blog at all. This was despite the fact that approximately two-thirds of the surveyed CEOs reported that they had a familiarity with blogs. As can be seen in Table 3, top executives recognize the power of blogs for their organizations.

Yet, the most important part of blogging may not be obvious to the blogger himself, as the very exercise of writing the blog raises one's self-awareness. According to a recent survey of bloggers, approximately half of them view their blogging activity as a form of therapy (eMarketer, 2005b). Indeed, writing has been shown to be an extremely powerful activity, and the more one writes, the better one thinks (Manjoo, 2002). Thus, as an executive can use the blog as a means of self-analysis, the organization's stakeholders can, at the same time, gain a better awareness of the individual in the office. In the view of Dave Sifry, CEO of Technorati, a blog can thus be looked upon as: "the record of the exhaust of a person's attention stream over time," he said. "You actually feel like you know the person. You see their style, the words they use, their kids, whatever there is" (quoted in Penenberg, 2005, n.p.).

The University President as Blogger

In this project, the researcher sought to identify the current state of blogging amongst college and university presidents. As of May 2006, the author identified a total of eight college and/or university presidents who had active blog sites. These are enumerated in Table 4.

How successful have university presidents been as bloggers? Overall, a review of the eight blogs identified through this research show that they have all been kept updated (new entries within the past month) and are well-presented. While three (37.5%) are hosted on the university's principal website, the remainder (62.5%) are hosted by commercial blog sites or on the officer's personal website (outside of the university). Take the blog of President Bill Brown of Cedarville University for instance. A screenshot of President Brown's blog is provid-

Table 2
Top Corporate Executives with Blogs

Company	Executive	Blog Site
Advanced Human Technologies	Ross Dawson, CEO	http://www.rossdawsonblog.com/
Berkshire Publishing Group	Karen Christensen, CEO	www.berkshirepublishing.com/blog
BetterPPC	Joe Agliozzo, CEO	www.disruptivebusiness.blogspot.com/
Bluebill Advisors, Inc.	Frank Gilbane, President and CEO	www.gilbane.com/blog/
Boeing Commercial Airplanes	Randy Baseler, VP of Marketing	www.boeing.com/randy/
Cheskin	Darrel Rhea, CEO	http://weblog.cheskin.net/perspectives/rhea.html
Dallas Mavericks	Mark Cuban, Owner	http://www.blogmaverick.com
EVDB, Inc.	*Brian Dear*, CEO	www.brianstorms.com/
Exodus Capital Advisors	Tom O'Neill, CEO	www.buyoutblog.com
General Motors	Bob Lutz, Vice Chairman	www.fastlane.gmblogs.com
Godaddy.com	Bob Parsons, President	www.godaddy.com/gdshop/blogredirect.asp
Macmillan Publishers Ltd.	Richard Charkin, CEO	www.charkinblog.macmillan.com
The Norwich Group	Anne Stanton, President and CEO	www.thenorwichgroup.blogs.com
Pheedo	Bill Flitter, CEO	www.pheedo.com
The Staubach Company	Roger T. Staubach, Chairman of the Board and CEO	www.roger.staubach.com
Sun Microsystems	Jonathan Schwartz, CEO	www.blogs.sun.com/jonathan
Technorati	David Sifry, CEO	www.sifry.com/alerts/
UserLand Software	Scott Young, President and CEO	www.scott.userland.com
WhatCounts	David Geller, CEO	www.whatcounts.com/companyblog/
Whole Foods Market	John Mackey, CEO	www.wholefoodsmarket.com/blogs/jm/

ed in Figure 3. President Brown recently commented that: "It's (Blogging) been a very positive experience, and that's why I keep doing it. When I first started, I thought I'd have to come up with a treatise each time, but that's not what people want to read. They want to hear about my family, about what I'm doing, about what I'm thinking" (quoted from Fisher, 2006, n.p.). Debbie Weil, a corporate blogging consultant, pointed out that: "Bill's blog is great! He's got just the right bloggy touch - informal, authentic, and an interesting glimpse into the thinking of a university president" (quoted from Cedarville University, Public Relations Office, 2006, n.p.). President Brown's blog is drawing positive responses from students and their parents as well. The parent of a Cedarville student recently commented that: "I am impressed at your joining the blog family. What an excellent way to know the hearts of your students" (quoted from Fisher, 2006, n.p.). Likewise, who could look at the blog of Towson University President Robert Caret and not get a sense of the man behind the office when he's hugging the school's mascot (as can be seen in Figure 4).

Table 3
CEO Views on the Benefits of Blogging

Benefit	Percentage
Enables quick communication of new ideas and recent news	40.5%
Provides a more informal venue to communicate	39.7%
Enables immediate feedback from own company	35.9%
Promotes regular readership/traffic to company Web site	29.8%
Provides a forum for innovation and thought leadership	29.0%
Promotes a culture of transparency	28.2%
Provides material to encourage links from other bloggers	18.3%
There are no benefits	16.0%
Other	3.1%

Conclusion

Like their counterparts in the private sector, blogging offers college presidents and other senior university administrators an unprecedented opportunity to communicate directly with their constituencies. In the higher education setting, this includes students, faculty and staff, alumni, prospective students, the community, public officials, etc. However, blogging offers unique benefits to the scholar who is also an executive. Writing in *The Chronicle of Higher Education*, Rita Bornstein (2004), the former president of Rollins College and the author of *Legitimacy in the Academic Presidency: From Entrance to Exit*, observed that "From the moment new presidents are selected, their utterances and decisions are scrutinized for meaning, and they quickly learn to tailor their

remarks to the expectations of different groups." Dr. Bornstein surmised that: "After observing and studying successful presidents, I have concluded that, at every stage of

their tenure, presidents who are aware of the challenges to their authenticity retain a clear-eyed view of who they are as individuals...and fight the temptations of self-importance and stay connected to their authentic selves" (p. B16). Blogging gives all academics a unique opportunity to do just that. Henry Farrell (2005) commented that:

"Academic blogs offer the kind of intellectual excitement and engagement that attracted many scholars to the academic life in the first place, but which often get lost in the hustle.... Academic blogs also provide a carnival of ideas, a lively and exciting interchange of argument and debate that makes many scholarly conversations seem drab and desiccated in comparison. Over the next 10 years, blogs and blog-like forms of exchange are likely to transform how we think of ourselves as scholars. While blogging won't replace academic publishing, it builds a space for serious conversation around and between the more considered articles and monographs that we write" (n.p.).

Figure 3
Blog of Cedarville University President Bill Brown (www.xanga.com/billbrown)

Table 4
College and University Presidents with Blogs

Institution	Official	Blog Site
Arizona State University	President Michael Crow	www.michaelcrow.net
Cedarville University (Iowa)	President Bill Brown	www.xanga.com/billbrown
Colorado College	President Dick Celeste	www.coloradocollege.edu/welcome/presidentsoffice/blog/
Michigan State University	President Lou Anna K. Simon	www.president.msu.edu/blog
Red River College	President Jeff Zabudsky	www.connectrrc.net/president
Towson University	President Robert Caret	http://presidentcaret.org/blog
Trinity University (D.C.)	President Patricia McGuire	www.trinitydc.edu/about/president/blog
Wenatchee Valley College	President Jim Richardson	www.wvcpresident.blogspot.com/

Figure 4
Blog of Towson University President Robert Caret
(www.presidentcaret.org/blog)

There are many legal issues to be considered as we see the growth of blogging in general and the rise of blogging amongst academic officers. Certainly, there are legal issues to be considered, as there have been several high profile cases already involving bloggers who have run afoul of their employers for what they wrote in their blogs (Gilbert, 2005) and executives who have been accused of making improper disclosures or misrepresentations on their blogs (Vaas, 2005). In the higher ed setting, one's blog becomes a virtual paper trail that may indeed help or hinder one's success. Already, Tribble (2005) reported that search committees were routinely "Googling" applicants to determine which of them had blogs – and not considering those that did any further in the search process. Likewise, one scholar noted in this article, Daniel Drezner, believes that his own well-known blog (which can be found at www.danieldrezner.com), may have indeed played a role in his being denied tenure at the University of Chicago (Butler, 2006). Since blogging is such a new activity, there are very few standards or best practices to call upon, let alone intellectual protections for an activity that some academics frown upon due to the unfiltered, non peer-reviewed nature of the medium.

The one certainty is the need to be honest in one's blogging activities. As in the private sector (McConnell and Huba, 2004), under no circumstances should a university president's blog be written by a school's public relations office or delegated to an assistant. As Steve Hayden, Vice Chairman of Ogilvy & Mather, the advertising giant that is now advising its corporate clients on blogging, recently remarked: "If you fudge or lie on a blog, you are biting the karmic weenie. The negative reaction will be so great that, whatever your intention was, it will be overwhelmed and crushed like a bug. You're fighting with very powerful forces because it's real people's opinions" (opinion cited in Graves, 2006, p. 12).

Over time, blogging college and university presidents will likely become normal, if not "the norm," and as with their private sector top executive counterparts, this will be an area ripe for practical advice and research as higher education administrators learn to thrive – both professionally and personally – in a "carnival of ideas."

References

Bornstein, Rita (2004). The authentic, and effective, college president. The Chronicle of Higher Education, (50)47, B16.

Butler, Carolyn Kleiner (2006). Blogging their way through academe. U.S. News & World Report, 140(13): 48-51.

Cedarville University, Public Relations Office (2006). Press Release: University president's blog a hit. Retrieved May 10, 2006, from http://www.cedarville.edu/departments/marketing/publicrelations/newsarticle.cfm?id=2132271424.

Drezner, Daniel W. and Henry Farrell (2004). Web of influence. Foreign Policy, November/December 2004. Retrieved July 20, 2005, from http://www.foreignpolicy.com/story/cms.php?story_id=2707.

eMarketer (2006). Blogs continue to multiply. eMarketer Report, April 20, 2006. Retrieved April 24, 2006, from http://www.emarketer.com/Articles/Print.aspx?1003930.

eMarketer (2005a). Blogs and business . eMarketer Report, November 4, 2005. Retrieved November 6, 2005, from http://www.emarketer.com/Article.aspx?1003661.

eMarketer (2005b). Bloggers in the corner office. eMarketer Report, November 11, 2005. Retrieved November 20, 2005, from http://www.emarketer.com/Article.aspx?1003678.

Farrell, Henry (2005). The blogosphere as a carnival of ideas. The Chronicle of Higher Education, October 7, 2005. Retrieved October 21, 2005, from http://chronicle.com/free/v52/i07/07b01401.htm.

Fisher, Mark (2006). University president blogs, and the hits keep coming. Dayton Daily News, April 30, 2006. Retrieved May 10, 2006, from http://www.daytondailynews.com/localnews/content/localnews/daily/0430prezblog.html.

Gallo, Jason (2004). Weblog journalism: Between infiltration and integration. In L.J. Gurak, S. Antonijevic, L. Johnson, C. Ratliff, & J. Reyman (Eds.), Into the blogosphere: Rhetoric, community, and culture of weblogs. Retrieved July 30, 2005, from http://blog.lib.umn.edu/blogosphere/weblog_journalism.html.

Gilbert, Alorie (2005). FAQ: Blogging on the job. News.com, March 8, 2005. Retrieved October 30, 2005, from http://news.com.com/FAQ+Blogging+on+the+job/2100-1030_3-5597010.html?tag=nl.

Godin, Seth (2004). Beware the CEO blog. Seth Godin's Blog, October 26, 2004. Retrieved November 1, 2005, from http://sethgodin.typepad.com/seths_blog/2004/10/beware_the_ceo_.html.

Goral, Tim (2006). Calling all bloggers. University Business, February 2006. Retrieved May 10, 2006, from http://www.universitybusiness.com/page.cfm?p=1217.

Graves, Christopher (2006). The executive blogger's guide to building a nest of Blogs, Wikis & RSS. Retrieved May 3, 2006, from http://www.ogilvypr.com/pdf/bloggers-guide.pdf.

Graybow, Martha (2005). As blogging grows, companies eye legal pitfalls. Yahoo News, August 26, 2005. Retrieved September 7, 2005, from http://news.yahoo.com/s/nm/20050826/us_nm/bizfeature_blogging_dc.

Johnson, Bobbie (2005). Posting for profit. The Guardian, February 24, 2005. Retrieved September 8, 2005, from http://www.guardian.co.uk/online/weblogs/story/0,14024,1423493,00.html.

Knowledge@Wharton (2005). The future of blogging. CNET News.com, April 5, 2005. Retrieved October 30, 2005, from http://news.com.com/The%20future%20of%20blogging/2030-1069_3-5654288.html.

Larson, Christine (2005). Blogging bosses. U.S. News & World Report, July 25, 2005. Retrieved October 16, 2005, from www.usnews.com/usnews/biztech/articles/050725.

Lenhart, Amanda, Fallows, Deborah and John Horrigan (2004). Content creation online: 44% of U.S. Internet users have contributed their thoughts and their files to the online world. The Pew Internet & American Life Project, February 29, 2004. Retrieved July 30, 2005, from http://www.pewinternet.org/pdfs/PIP_Content_Creation_Report.pdf.

Manjoo, Farhad (2002a). Blah, blah, blah and blog. Wired, February 18, 2002. Retrieved October 3, 2005, from http://www.wired.com/news/print/0,1294,50443,00.html.

McConnell, Ben and Jackie Huba (2004). Seven reasons why businesses should blog now. Marketingprofs.com, September 28, 2004. Retrieved August 30, 2005, from http://www.marketingprofs.com/4/huba11.asp.

Mortensen, Torill Elvira (2004). Personal publication and public attention. In L.J. Gurak, S. Antonijevic, L. Johnson, C. Ratliff, & J. Reyman (Eds.), Into the blogosphere: Rhetoric, community, and culture of weblogs. Retrieved July 30, 2005, from http://blog.lib.umn.edu/blogosphere/personal_publication.html.

Penenberg, Adam (2005). Technorati: A new public utility. Wired, July 14, 2005. Retrieved October 1, 2005, from http://www.wired.com/news/culture/0,1284,68204,00.html.

Perrone, Jane (2005). Every second a blog - but not for the long slog. The Guardian, August 3, 2005. Retrieved September 5, 2005, from http://www.guardian.co.uk/online/weblogs/story/0,14024,1541407,00.html.

Rainie, Lee (2005). The state of blogging. The Pew Internet & American Life Project, January 2005. Retrieved July 30, 2005, from http://www.pewinternet.org/pdfs/PIP_blogging_data.pdf.

Sifry, Dave (2006). State of the blogosphere, April 2006. Technorati, April 17, 2006. Retrieved April 20, 2006, from http://www.sifry.com/alerts/archives/000432.html.

Sullivan, Andrew (2005). The blogging revolution: Weblogs are to words what Napster was to music. Wired, October 2005. Retrieved October 3, 2005, from http://www.wired.com/wired/archive/10.05/mustread.html?pg=2.

Tribble, Ivan (2005). Bloggers need not apply. The Chronicle of Higher Education, July 8, 2005. Retrieved April 10, 2006, from http://chronicle.com/jobs/2005/07/2005070801c.htm.

Vaas, Lisa (2005). What blogs, podcasts, feeds mean to bottom line. eWeek, August 25, 2005. Retrieved September 21, 2005, from http://www.eweek.com/article2/0,1895,1852423,00.asp.

Weil, Debbie (2004). Three reasons to publish an e-newsletter AND a blog. Marketingprofs.com, April 13, 2004. Retrieved August 29, 2005, from http://www.marketingprofs.com/4/weil11.asp.

Weil, Debbie (2003). 5 key questions (you've been dying) to ask about business blogs. Marketingprofs.com, July 8, 2003. Retrieved August 30, 2005, from http://www.marketingprofs.com/3/weil7.asp

Wikipedia (2005). Weblog. Retrieved October 15, 2005, from http://en.wikipedia.org/wiki/Blog.

Zuckerman, Mortimer B. (2005). The wild, wild web. U.S. News & World Report, December 5, 2005. Retrieved December 15, 2005, from http://www.usnews.com/usnews/opinion/articles/051205/5edit.htm.

A Multivariate Methodology for The Selection Of Accreditation Peers

Jacob V. Simons, Jr.
Department of Finance & Quantitative Analysis
Georgia Southern University

Michael Reksulak
School of Economic Development
Georgia Southern University

ABSTRACT

This paper describes one college's effort to identify peer institutions for accreditation comparisons. Previously, peers had been chosen subjectively. A cross-disciplinary faculty team first identified relevant data that could serve as the basis for a more objective method. The authors then constructed a spreadsheet that allowed exploration of alternative models evaluated according to a multivariate, phi-square performance measure.

Background

The most prestigious accrediting organization for colleges of business is AACSB International – The Association to Advance Collegiate Schools of Business. Georgia Southern University has AACSB accreditations for the programs offered by both its College of Business Administration and its School of Accountancy. A combination of internal and external review processes must be accomplished on a five-year cycle to maintain these accreditations.

As part of its accreditation maintenance process, each AACSB-accredited school is required to identify a list of at least six "comparable peers", which are defined as: "schools considered similar in mission and assumed appropriate for performance comparison. ... The schools should be chosen carefully to match key characteristics of the applicant. In addition to mission, some features that might be salient when choosing comparison schools include student populations served, size, degree levels, and primary funding source" (AACSB International, 2005). However, AACSB International neither mandates nor suggests a methodology for selecting peers.

Prior to the time of this study, peer schools had been chosen at Georgia Southern subjectively. While the characteristics suggested in the AACSB handbook were considered, geographical proximity had been one of the most significant factors. Similarly, comparability of perceived image and personal familiarity were also factors. Typically, the Dean would solicit prospective peers from groups of stakeholders, such as the college's Business Advisory Council, Strategic Planning Committee, faculty, and alumni. An initial list would be synthesized, consisting of candidate peer schools that had been nominated by multiple stakeholder groups. The list would then be refined through iterative Delphi-style reviews.

As part of a periodic self-assessment, Dean Ron Shiffler formed an ad hoc, cross-disciplinary faculty team for the purposes of determining the best way to identify peers and "aspirants" [sic] and to suggest a possible list. (As will be described, the project's focus was ultimately limited to identification of peers.) The remainder of this paper describes that research effort, emphasizing the measurement aspects of the project. The methodology used was an exploratory, holistic single-case study design, in which the authors were central participants (McCutcheon & Meredith, 1993; Yin, 1994). The contribution of the case lies in its revelatory value. In section 2, we present the relevant literature, followed by an explanation of the project team's initial conceptualizations. The subsequent section describes the data sources as well as the data selection process. We then report the results of our empirical models and offer our conclusions.

Relevant Literature

The literature on benchmarking would seem relevant, because peer selection is often an initial step in a benchmarking effort. However, the literature pertaining to benchmarking emphasizes a comparison of performance with organizations, processes, and/or practices that have been or will be determined to be "the best" (Evans & Lindsay, 2002). To be sure, AACSB-International encourages continuous improvement, including the sharing of best practices. Yet, as previously cited, AACSB's definition of peer schools (AACSB International, 2005) is a less restrictive set of guidelines pertaining to mission and certain other (suggested) characteristics. In other words, the AACSB notion of peers is more descriptive and less prescriptive, with peers providing known points of comparison, irrespective of value judgments. Consequently, the objectives of this study differ from those used as the basis for benchmarking studies.

An article by Fairbank and Labianca (2003) in one of AACSB's own publications at precisely the time this project was initiated seemed to have been directed at the very question of how to choose an appropriate set of peers. Yet, the authors' focus was really on classic benchmarking ideas and included recommendations such as the need to think broadly, boldly, and true to the goals of benchmarking. They advocated willingness to look at schools and even at non-academic institutions with innovative practices – not just schools that look like you do. In sum, their article was more concerned with the choice of what the AACSB calls an "aspirant group", i.e. "a list of schools that provides a developmental goal for the applicant, represents management education programs or features that the applicant hopes to em-

ulates, and places the vision and strategy of the applicant in context" (AACSB International, 2005).

In summary, we found no prior research that dealt with the objective selection of peer schools as we had been asked to do.

Initial Conceptualizations

The task force began by deciding to focus first on understanding and identifying peers before proceeding to aspirants. The rational was that either aspirant schools might be determined to be a subset of peers *or* that the *data needed to identify* peers would be a subset of what would be needed to identify aspirants.

Similarity of mission was deemed to be imperative, so we decided to treat this as a subjective screening requirement. However, once a pool of prospective peers had been identified, we were committed to a more objective, data-based approach to decision making, in keeping with the precepts of Total Quality Management (Hanna & Newman, 2001).

Subsequent meetings of the task force focused on specific measures that should be considered in the identification of prospective peer schools. Brainstorming and discussion led to the conclusion that most data/measures could reasonably be viewed primarily as indicators of either inputs (what the college has to work with) or outputs (what the college has produced). As a result, an attempt was made to classify measures of interest, as shown in Table 1.

Table 1
Input/Output Measures of Interest

Inputs	Outputs
# of students	graduation rate
SAT/GMAT scores	% grads employed
# of faculty	starting salaries
budget	employer satisfaction
endowment	exit surveys
average class size	alumni giving rate
teaching load	national rankings
etc.	etc.

In subsequent discussions, the task force concluded that the selection of peers should be based primarily on inputs, since peers are schools whose current intentions and resources are most comparable to one's own. By contrast, it might later be determined that the selection of aspirants would be based more on output measures that reveal the school's effectiveness at accomplishing its mission. Alternatively, the selection of aspirants might be based on some ratio of outputs to inputs (i.e. some measure of efficiency).

Data Gathering

In its next step, the team polled its members in order to synthesize a list of data measures that would describe the key resources available to the college, i.e. its inputs. Some measures assessed quantity, while others sought to assess quality. Generally speaking, measures pertained to students, faculty, staff, funding, and/or the physical facility.

The resulting list was then reviewed and pared down by the team. Redundant data elements were eliminated. Some data elements were determined to be "nice to have", but probably not worth the effort to obtain, and were also removed. Finally, a few data elements were removed that the team would have liked to incorporate, but doubted it would ever be able to obtain (either because it's not collected or would be too expensive).

The remaining data elements included some that were easily accessible, some that would take work to get, and some that might still prove to be impossible to obtain. After reviewing several potential data sources, the team concluded that AACSB Knowledge Sources was the repository that had the greatest number of data elements judged to be necessary for the analysis. (Many of the desired data elements are submitted by member schools via the Annual and Key Data Survey processes.) We proposed to pay for a custom query of the AACSB member database and have one of our internal staff agencies gather any remaining data elements that were not available from AACSB but could be found in the public domain. Our request made it clear that we had no desire to associate school names with protected data. (We suggested that the data be masked with aliases.)

The reader will recall that one of the initial decisions had been to use mission similarity as a screening criterion. Although this had not been part of the request, AACSB Knowledge Services personnel reviewed the mission statements submitted by its members and used their experience and judgment as the basis for determining which schools to include in the candidate database that was ultimately made available to the task force. While this approach prevented the team from exercising its own judgment about similarity of missions, it also served as a time-efficient screening tool. In addition, the screening of missions is a largely subjective process. Therefore, we believed the use of AACSB's expertise in this activity increased the likelihood of judgments that were both more valid and more acceptable to the external AACSB reviewers.

In our initial request, we had asked for a fairly comprehensive set of data elements, with confidentiality protected through the use of aliases. However, AACSB chose to send a database that included only publicly releasable data elements, along with the associated school of origin. Therefore, we asked our in-house staff agency to gather the missing data elements we desired. They attempted to do so, primarily via web sites. However, as described in the next section, missing values continued to be a problem, so that we were more or less restricted to the data we originally received from AACSB.

The Modeling Effort

Cluster analysis seeks to group cases, based on simultaneous similarity with respect to multiple measures or dimensions. Our original

concept was to apply a cluster analysis methodology, such that the cluster within which Georgia Southern fell would represent a possible group of peer schools. Different models (formed by different combinations of input measures and relative weights) would produce different clusters and thereby give alternative solutions for comparison.

The cluster analyses were performed in SPSS using a hierarchical, agglomerative approach. According to this method, all cases are separate in the beginning and clusters are gradually formed by merging cases determined to be the closest according to a chosen measure of distance. Initially, we use the squared Euclidean distance measure, because it is the default for interval data in SPSS. We later changed to the use of the Phi-square distance measure, in order to avoid the possibility that differences in the scales of different variables might distort our results. There are also numerous alternatives for determining the point within a cluster from which its distance will be measured. The most obvious is median clustering, because it can be viewed as being a moderately conservative approach, which seeks to capture the central tendencies of the cases comprising a cluster.

We undertook an extensive series of exploratory runs. During these analyses, we experimented with different combinations of variables, various weighting schemes, a range of measures of distance, various clustering algorithms, and different mandated numbers of clusters in the final solutions. After each run, we would review the dendrograms and the final clusters to determine the similarity of the schools remaining in the same cluster as Georgia Southern. The remaining clusters were scrutinized as well, in order to assess how dissimilar they were. We also performed numerous forms of sensitivity analysis. The purpose of this process was to identify which decisions and choices we could make with reasonable defensibility from those which would be more or less arbitrary. While the mathematics of cluster formation may have been objective, the application of cluster analysis to problem of peer selection required many subjective decisions.

In the initial stages of the cluster analysis, there were still several data elements whose values were missing for many of the schools in the database. This obviously proved problematic, especially when testing models that included more than one such variable. The solutions would reflect not so much similar schools as simply the schools that did not fall out of the analysis. We eventually arrived at the decision that even though a variable might be useful to include, we were better off dropping it if too many potential peers had missing values.

On the other hand, there was still the question of how to deal with missing values for the variables that remained under consideration. We were guided, in this regard, by our recognition that the project's focus was the selection of peers, rather than maximizing the use of statistics. Consequently, we decided against the various methods of substitution for missing values, because it might cause us to treat a school as a peer on the basis of fictitious data. We chose the more conservative approach of not permitting the selection of a peer without confirmatory evidence on each variable. Accordingly, we used the "pairwise deletion" approach, in which cases were deleted from consideration only when the model being run required data that was missing for that case (Tsikriktsis, 2005).

We also came to realize that trying to include too many variables in the same model simply caused the creation of too many small clusters. The reason is that when one looks at enough dimensions simultaneously, every school is different in some way. Consequently, we switched to a multi-step approach, in which we first ran multiple, smaller models and then focused our attention on those schools that showed up in the home-institution cluster for more than one model specification. Unfortunately, this increased the work-load enormously and was thus likely to prove unwieldy as a standard approach. It also made the process much more subjective. Assume, for example, that we ran three models, containing different combinations of variables. School A might appear in the home-institution cluster on one of the three models, but in clusters that were very distant from the home-institution on the other two. By contrast, analysis of the dendrograms might reveal a School B that never appeared in the home-institution cluster, but that was in the nearest adjacent cluster on two or all three of the models. Would School A or School B be a better choice as a peer?

Eventually, our thinking about how to use the analysis began to change somewhat. On one hand, we did not know how many schools would eventually end up in the same cluster as Georgia Southern. On the other hand, we had a reasonable idea of a numerical size range that a peer set would need to be to be of much use. With that in mind, we had been attempting to "force" (by manipulating algorithmic parameters) cluster sizes that would produce a reasonable number of peers.

We ultimately realized that although the basic notion of measuring similarity or "nearness" based on multiple input measures is sound, we did not actually require multiple clusters. Instead, it would be sufficient to have a single cluster that contains Georgia Southern and its peers. In addition, while clustering algorithms are based on varying concepts of the centroid of a cluster, it was advantageous and logical for us to always treat Georgia Southern as being the center/reference point of its own cluster.

Consequently, we revised our analysis to borrow sufficiently from the mathematical logic of cluster analysis to determine the multi-dimensional "distance" (still based on the Phi-Square measure) of all potential peers from Georgia Southern. To achieve this, we first normalized the squared differences according to the following formula for each school i and all variables k:

$$SD_{ik} = \left(V_k - V_{ik}\right)^2 / V_k \qquad \forall i,k$$

where V_k represents the k^{th} variable value for the home institution and V_{ik} the respective value for prospective peer i. We combined the resulting values with their respective relative weights (to be specified

by the decision makers) to obtain a "distance" of each candidate's values from those of the home institution. Because of its similarity to the traditional Phi-Square measure, we used that name for our result, which we calculated as follows:

$$Phi - Square_i = \sqrt{\frac{\sum_k \left(SD_{ik} \times w_k\right)}{\sum_k w_k}}$$

where w_k represents the relative weight assigned to variable k.

We implemented this logic in a simple spreadsheet containing the data of Georgia Southern and its potential peers (see Figures 1 and 2). The user selects the data elements to be included in the model and assigns relative weights. The spreadsheet then calculates the weighted distance of each candidate from the point representing Georgia Southern. After sorting the $Phi\text{-}Square_i$ values from lowest to highest, we added another measure: "additional distance from home institution." This represents the marginal increase in the Phi-Square distance to each successively lower-ranked (in terms of proximity) school, while moving "away" from the home institution. The user may then form a peer set of the desired size by choosing the top n

Figure 1
Peer Calculator
Hypothetical Input Data (Excel file is available from the authors upon request)

Most similar to Home Institution	Phi-Square ("Distance" from Home Institution)	*Additional* "Distance" from Home Institution	PEER CALCULATOR, BASED ON SIMILARITY OF INPUTS (To use, first change the relative weights in the gray cells, as desired. Then, select the entire light yellow area and sort ascending, based on column B.)	SIZE VARIABLES (Missing values were replaced by "1" to avoid division by zero.)				RESOURCE VARIABLES (Missing values were replaced by "1" to avoid division by zero.)				PROGRAM MIX	
				FTUGENR	PTUGENR	FTMBAENR	PTMBAENR	OBUDGET	FTTENBOT	OBUDGET/ FTUGENR	FTTENBOT/ FTUGENR	FTUGENR/ PTUGENR	FTMBAENR/ PTMBAENR
			Home Institution	**1,234**	**567**	**89**	**12**	**12,345,678**	**38**	**10,004.601**	**0.031**	**2.176**	**7.417**
			(Adjust relative weights in gray cells, as desired...) -->	1	0	0	0.5	0	0	1	1	1	0.5
1	8.73	8.73	School R	557	877	116	8	5,457,330	26	9797.720	0.047	0.635	14.500
2	10.91	2.18	School W	508	194	123	75	5,110,824	38	10060.677	0.075	2.619	1.640
3	11.14	0.23	School Z	1,466	131	1	30	11,314,016	11	7717.610	0.008	11.191	0.033
4	19.77	8.63	School Y	1,052	287	48	82	6,161,981	13	5857.396	0.012	3.666	0.585
5	21.72	1.95	School B	868	752	60	156	11,912,122	43	13723.643	0.050	1.154	0.385
6	23.55	1.83	School S	880	254	49	70	4,379,063	28	4976.208	0.032	3.465	0.700
7	23.87	0.32	School U	1,128	52	42	116	5,979,797	22	5301.238	0.020	21.692	0.362
8	24.48	0.60	School X	707	199	78	61	3,421,462	31	4839.409	0.044	3.553	1.279
9	25.35	0.87	School L	1,127	280	42	32	4,915,840	23	4361.881	0.020	4.025	1.313
10	25.89	0.54	School J	1,121	102	43	41	4,805,000	24	4286.351	0.021	10.990	1.049
11	26.38	0.49	School G	1,059	680	48	64	4,473,644	25	4224.404	0.024	1.557	0.750
12	27.67	1.29	School N	1,451	130	1	85	5,896,349	31	4063.645	0.021	11.162	0.012
13	27.87	0.20	School O	1,369	370	21	113	5,666,046	19	4138.821	0.014	3.700	0.186
14	28.10	0.23	School H	718	156	70	127	3,136,878	20	4368.911	0.028	4.603	0.551
15	28.37	0.28	School V	789	184	69	215	4,240,776	23	5374.875	0.029	4.288	0.321
16	28.79	0.41	School M	2,297	301	1	38	10,018,812	23	4361.694	0.010	7.631	0.026
17	29.05	0.27	School I	1,410	98	1	69	5,200,000	30	3687.943	0.021	14.388	0.014
18	29.35	0.29	School D	1,256	110	34	77	4,533,368	24	3609.369	0.019	11.418	0.442
19	29.35	0.00	School K	1,349	309	26	118	5,153,918	25	3820.547	0.019	4.366	0.220
20	30.67	1.32	School F	1,174	126	37	154	4,475,566	21	3812.237	0.018	9.317	0.240
21	39.69	9.02	School T	1,272	208	9	151	2,035,475	20	1600.216	0.016	6.115	0.060
22	43.43	3.74	School A	2,049	449	1	288	5,011,352	49	2445.755	0.024	4.563	0.003
23	43.89	0.47	School E	3,522	937	1	195	12,982,721	47	3686.179	0.013	3.759	0.005
24	44.89	1.00	School C	3,332	921	1	152	8,202,299	78	2461.674	0.023	3.618	0.007
25	50.82	5.94	School P	3,754	1,200	1	340	16,044,345	43	4273.933	0.011	3.128	0.003

Figure 2
Peer Calculator
Normalized Squared Differences (Excel file is available from the authors upon request)

Most similar to Home Institution	Phi-Square ("Distance" from Home Institution)	*Additional* "Distance" from Home Institution	PEER CALCULATOR, BASED ON SIMILARITY OF INPUTS (To use, first change the relative weights in the gray cells, as desired. Then, select the entire light yellow area and sort ascending, based on column B.)	NORMALIZED SQUARED DIFFERENCES									
			Home Institution										
			(Adjust relative weights in gray cells, as desired...) -->	FTUGENR	PTUGENR	FTMBAENR	PTMBAENR	OBUDGET	FTTENBOT	OBUDGET/ FTUGENR	FTTENBOT/ FTUGENR	FTUGENR/P TUGENR	FTMBAENR/ PTMBAENR
1	8.73	8.73	School R	371.417	169.489	8.191	1.333	3,843,396.707	3.789	4.278	0.008	1.091	6.765
2	10.91	2.18	School W	427.128	245.377	12.989	330.750	4,239,792.452	0.000	0.314	0.063	0.090	4.499
3	11.14	0.23	School Z	43.618	335.266	87.011	27.000	86,210.452	19.184	522.792	0.018	37.338	7.350
4	19.77	8.63	School Y	26.843	138.272	18.888	408.333	3,097,287.050	16.447	1,719.140	0.011	1.019	6.292
5	21.72	1.95	School B	108.554	60.362	9.449	1,728.000	15,225.636	0.658	1,382.491	0.011	0.480	6.667
6	23.55	1.83	School S	101.553	172.785	17.978	280.333	5,140,823.741	2.632	2,527.311	0.000	0.762	6.083
7	23.87	0.32	School U	9.105	467.769	24.820	901.333	3,282,479.983	6.737	2,211.145	0.004	175.004	6.710
8	24.48	0.60	School X	225.064	238.843	1.360	200.083	6,450,972.657	1.289	2,666.694	0.006	0.870	5.080
9	25.35	0.87	School L	9.278	145.272	24.820	33.333	4,471,402.276	5.921	3,182.565	0.004	1.570	5.024
10	25.89	0.54	School J	10.348	381.349	23.775	70.083	4,605,808.178	5.158	3,268.334	0.003	35.694	5.467
11	26.38	0.49	School G	24.818	22.520	18.888	225.333	5,019,482.875	4.447	3,339.531	0.002	0.176	5.993
12	27.67	1.29	School N	38.160	336.806	87.011	444.083	3,369,101.685	1.289	3,527.873	0.003	37.095	7.393
13	27.87	0.20	School O	14.769	68.446	51.955	850.083	3,614,016.472	9.500	3,439.155	0.009	1.067	7.050
14	28.10	0.23	School H	215.767	297.921	4.056	1,102.083	6,868,962.356	8.526	3,174.640	0.000	2.705	6.355
15	28.37	0.28	School V	160.474	258.711	4.494	3,434.083	5,320,844.787	5.921	2,142.451	0.000	2.049	6.789
16	28.79	0.41	School M	915.696	124.790	87.011	56.333	438,558.772	5.921	3,182.775	0.014	13.672	7.364
17	29.05	0.27	School I	25.102	387.938	87.011	270.750	4,135,918.180	1.684	3,988.182	0.003	68.517	7.388
18	29.35	0.29	School D	0.392	368.340	33.989	352.083	4,943,607.596	5.158	4,088.018	0.004	39.245	6.560
19	29.35	0.00	School K	10.717	117.397	44.596	936.333	4,189,434.707	4.447	3,822.494	0.005	2.202	6.983
20	30.67	1.32	School F	2.917	343.000	30.382	1,680.333	5,017,032.106	7.605	3,832.774	0.005	23.431	6.944
21	39.69	9.02	School T	1.170	227.303	71.910	1,610.083	8,610,323.864	8.526	7,060.120	0.007	7.129	7.298
22	43.43	3.74	School A	538.270	24.557	87.011	6,348.000	4,357,179.725	3.184	5,710.988	0.002	2.618	7.410
23	43.89	0.47	School E	4,242.256	241.446	87.011	2,790.750	32,871.729	2.132	3,990.410	0.010	1.151	7.406
24	44.89	1.00	School C	3,566.940	221.016	87.011	1,633.333	1,390,574.867	42.105	5,686.958	0.002	0.955	7.404
25	50.82	5.94	School P	5,146.191	706.683	87.011	8,965.333	1,108,091.235	0.658	3,282.545	0.012	0.416	7.411

candidates. Alternatively, a peer group could be formed by starting at the top and going down the list, including schools as peers as long as either the total or "additional" (marginal) Phi-Square distance does not exceed a specified threshold.

Conclusions

Once this data-analysis tool was presented to the Dean, he shared it with his Administrative Council (Associate/Assistant Deans, School Directors, and Department Chairs). They approved of the general approach and used the initial model suggested by the analysis subcommittee of the task force to identify several peer schools. They then augmented this set with other schools selected on the basis of rational, but more subjective criteria to obtain the final peer group submitted to AACSB.

Several avenues remain for future research. First, there are various modifications that can be accommodated in the current tool. For example, constraints may be added to ensure that certain minima/maxima are honored in the selection of peers. Second, there are several questions faced by decision makers in applying the tool, e.g. selecting the variables to include, choosing relative weights, and determining the best size of the peer group. Finally, the question of a methodology for "aspirant" schools remains open. This promises to be a more complex project, since it will involve philosophical as well as analytical issues.

Acknowledgements

The authors wish to thank Dean Ron Shiffler for the opportunity to participate in this project. They also acknowledge the contribution of AACSB's Knowledge Services Division for their screening of mission statements and extraction of key data. Finally, the first author wishes to include the acknowledgement "Soli Deo Gloria" with respect to whatever contributions he has made.

References

AACSB International. (2005, January 1). *Maintenance of Accreditation Handbook*. Retrieved October 18, 2005 from http://www.aacsb.edu/accreditation/process/process-toc.asp

Evans, J. R. & Lindsay, W. H. (2002). *The management and control of quality* (5th ed., pp. 413-414). Cincinnati, OH: South-Western.

Fairbank, J. F. & Labianca, G. (2003, November/December). Picking the perfect peers. *BizEd*, *III,* 36–41.

McCutcheon, D. M. & Meredith, J. R. (1993). Conducting case study research in operations management. *Journal of Operations Management*, *11,* 239–256.

Tsikriktsis, N. (2005). A review of techniques for treating missing data in OM survey research. *Journal of Operations Management, 24,* 53–62.

Yin, R. K. (1994). *Case study research* (39-40). Thousand Oaks, CA: Sage.

On Some of the Consequences of the Neglect of Economic Principles in Public Colleges of Higher Education

Adil H. Mouhammed
University of Illinois at Springfield

ABSTRACT:

This paper aims at applying some of the principles of economics to public institutions of higher education. It is argued that some public colleges of higher learning have ignored some important economics principles, which has led to rapid increases in costs of public higher education; a rise that has been translated into higher tuition and more wasting of public funds. Higher costs and lower revenues due to lower enrolment have forced some public colleges to resort to the use of online education to enhance enrolment. This type of education, however, may eventually lead to the abolishment of some of these colleges in order to save costs. The paper concludes that efficient management and reasonable market strategy are essential means for the survival of public colleges of higher education in a competitive market environment.

Introduction

Many public colleges and universities of higher education have been facing a rise in overhead and variable costs of production. Costs of power, water, insurance, maintenance, legal fees, salaries of CEOs, and the like have increased over time. Similarly, salaries of faculty members have gone up and have made it very difficult for these colleges to retain high quality faculty members due to higher pay being offered at other universities. Given these higher costs, public funding has not increased significantly over time. Accordingly, these higher costs have forced many public universities to increase tuition. Higher tuition, accompanied by a higher poverty rate in the country, will make it hard for many families to send their young women and men to public colleges.

This paper aims at making some contribution by contending that some public universities of higher education have ignored the value of principles of economics. These principles, if they are properly used by university administrators, will enable many public colleges to cut their costs and increase enrolment (or revenues). Hence, tuition can be kept reasonable and affordable for many families.

Section 2 analyzes the issue of subsidies used by public universities to enhance faculty scholarship, teaching, and service. Section 3 tackles the use of the principle of opportunity cost for explaining the waste of time that could have been used efficiently for cutting costs. Section 4 analyzes the law of diminishing returns (or increasing cost) and how this law can be reversed by using efficient management and marketing. Section 5 explains the negative effects of collusion between some administrators and faculty members on efficiency and costs. Section 6, which deals with pure application of economic principles, contends that online education creates a catastrophic point according to which some of these public colleges will collapse completely and will take another form. This point is reached when revenues from on campus education will be less than overhead and variable costs. The last section is devoted to a summary and conclusions.

Subsidies: NIAs and Extra Funds

Subsidies increase the supply of any product and service. Farm subsidies in America increase farm products and reduce prices. Eventually, many farmers will receive lower revenues, which will force them to sell their land to various corporations. At any given college, some of the faculty members are subsidized by the dean to provide service and to publish scholarly articles at the expense of other faculty members. These subsidies will damage all faculty as they discourage them from working productively. Generally, Stigler (in Leube and Moore 1986: 251) states: "When an industry receives a grant of power from the state, the benefits to the industry will fall short of the damage to the rest of the community." He also argues, "The state's support of special groups will be helpless to protect themselves." (in Leube and Moore 1986: 260).

I have known some faculty members in a public college who have received many non-instructional assignments (or NIAs) to provide services to the college. For sure, NIAs will compensate the recipients for time spent for the provision of services. In fact, those recipients may end up using less NIA's time for the services they provide; and therefore the remaining time of the NIAs is spent for providing more services and for accomplishing other activities. Consequently, these NIAs will enhance the recipients' provision of services compared to other faculty members who receive nothing for providing services. Those faculty members, working without NIAs, will have to reallocate time from the production of scholarly activities to the provision of services. Hence, the provision of services for them implies less time available for scholarship. They will lose in both categories: scholarship and services. In short, NIAs are subsidies for some faculty at the expense of others, which create a less competitive environment for all and more vested interests in the college.

NIAs can be abused by faculty members and by faculty in higher positions. Not surprisingly, some of these NIAs and extra funds are given by the dean to some faculty members in order to bribe them to do some of his works that he cannot do. For example, some of these subsidies go to some faculty members who can vote in affirmative for the dean's annual performance. Some of these subsidies go to some

faculty members who can testify for the dean when problems with other faculty members occur. In other words, some of these subsidies represent a clear case of corruption.

Similarly, some faculty members receive NIAs and extra funds to publish articles. Sometimes and in some cases the cost of presenting these papers in conferences are paid for by the college. The subsidized faculty members will be able to write more papers. This allows these faculties to present more papers in scholarly conferences and to publish more papers in scholarly journals. They will in turn receive more awards and funds from the university. In other words, subsidies do increase the supply of scholarly work for some faculty, and the result is very positive for them from many aspects such as retention, tenure, and promotion. A significant issue has been noticed, a low level scholarship is ranked as an excellent scholarship by university administrators and some of the faculty members, in order to justify the funds and time given to generate that scholarship. Certainly, one can conclude that subsidies have downgraded scholarship.

In contrast, unsubsidized faculty members will be able to provide fewer published and presented papers. Their scholarly work is quantitatively less relative to the subsidized faculty members. Usually, the unsubsidized faculty members receive less awards and funds. In addition, those unsubsidized faculty may be discouraged to continue their scholarly work due to unfairness of the distribution of NIAs and funds, or the subsidies. The result is bad for these faculty members in many aspects of retention, tenure, and promotion. That is to say, the unsubsidized faculty members will be outperformed by the subsidized faculty members. Eventually, the college will lose more because faculty development is uneven. The college loses high-quality unsubsidized faculty, as a large number of them leave. In fact, Gresham's Law also works at this level: bad scholarship drives out good scholarship.

The conclusion is very simple. There are two ways to create a competitive environment. The first way is the elimination of subsidies (or NIAs and funds) given to faculty members. This may not be acceptable to many who are enjoying the benefits of the NIAs and the extra funds. Hence, many recipients of subsidies will not support the elimination of subsidies, because they have become vested interests. The second way is to provide equal amount of NIAs and extra funds for every faculty member who needs them. The second way is more appealing, because it reflects democracy and promotes competition. Both of these ways can destroy vested interests and cronyism. Democracy and competition are the best institutions for the development of the college, because they create excellent faculty and students.

The Opportunity Cost: An Alternative Utilization of Faculty Time

Opportunity cost is a very crucial variable in a college's competitive advantage (Baldwin 1982, Schumpeter 1951, and Ingram 1970). Consider this case, where an ignorance of opportunity cost has increased the college's cost, negatively affecting other academic divisions. If you are a physician, it becomes very difficult for you to go for lunch due to a cost reason. If the lunch costs you 10 dollars, then there is an additional cost, which is the amount of revenue, say $500, you could have earned if you had stayed in your office for the hour instead of having lunch. This means that the price of lunch may be more than $510, assuming the restaurant is 20 feet away from your office: "Every one would agree that the theatre and even dining take time, just as schooling does, time that often could have been used productively" (Becker 1965: 494). Indeed, this is a very expensive lunch; hence, if I were a physician, I would not go out for lunch and instead take a bite to eat each time in between writing prescriptions.

Let us apply this proposition to the college under consideration. If I go to 15 meetings during an academic year, I will be spending about 50 hours at least in meetings. Other faculty members may spend more, less, or the same amount of time. If I am on two committees I will be spending a total of 100 hours. These hours could have been used on teaching and scholarship. If I use these hours for scholarship I may be able to write two scholarly articles. Other faculty members with Ph.Ds and high salaries will be able to produce the same number of articles or more. If we are 35 faculty members in the college, our college will lose 70 journal articles a year. This is the cost of our traditional concept of service.

The college is interested in becoming accredited in order to be at par with the other business colleges in the nation. The accreditation process essentially requires scholarship and good curriculum. Faculty members have to publish articles in a variety of journals, some of them are good and others are not. The college spends huge money (cost) for hiring scholarly faculty members and for providing NIAs and other extra funds for producing these articles. This money comes from the college, whose source is mostly the state, or the public. Now, the trade off can be easily seen. If you obtain a temporary exemption from the college by not spending your time on providing service in the traditional way and use your time for publishing journal articles, over the last four years every faculty member could have had a good record of publication: eight journal articles. This record, which amounts to about [(35)(8) = 280] journal articles, can make all faculty members of the college academically qualified. Accordingly, the college could have been accredited last year. This accreditation could have been materialized without spending huge money (1) for hiring expensive faculty members, (2) for giving NIAs, (3) for hiring very expensive CEOs, and (4) for providing extra funds for other mysterious individuals and activities. All these costs of thousands (may be millions) of dollars could have been saved.

This however did not happen and the college has not been accredited yet, given it has the most expensive dean. In fact, the college requires faculty members to do many things by which they waste their time for providing unproductive services. Some faculty members waste their time by writings letters for defending themselves due to the dean's adversarial managerial style that is incompatible with academic freedom. In addition, faculty members are being asked whether the service they provide is good, very good, or excellent by filling forms

similar to the ones used by the IRS. The irony is this. Assume I go to my meetings and do nothing and my service is poor. Then my presence in those meetings will cost me 100 hours a year, which could have been used to write two articles, which could have been used to contribute to the accreditation of the college, which could have been used to cut the college cost. Now assume my service was excellent because I did excellent work during my committee meetings, what would the cost of my excellent service be? It is basically the same cost which is 100 hours or two scholarly articles, or useful contribution to the accreditation of the college, or saving the university huge cost (funds). In other words, whether my service was excellent or not, the college will lose the alternative good things that I was not able to accomplish which could have led to accreditation of the program.

CEOs who really like to use the market model do not ask their employees to waste their time; rather, typical CEOs want their employees to perform productive work in order to cut cost and increase productivity and revenue. Simply, during periods of shortage of funds we can do better in that college by performing our best work as faculty members: teaching and scholarship. This effective utilization of our skills will make the college more reputable and efficient, and will attract more students. It will also reduce the college cost. In fairness, without logical contradiction, I have to call this new way of serving the college the innovative approach to service, which provides excellent service to the college and the community. This proposition does not need an expensive CEO to implement it; rather, it requires non-sabotaging and honest free market oriented CEOs.

Decreasing Returns (or Increasing Costs)

In 2003 the college under consideration had 1087 students and about 37 low cost faculty members. Say, for the sake of simplicity, that the expenditure on faculty was $2 million dollars. This means that faculty cost per student was 2000000/1087 which is $1840. In 2005 the enrollment of the same college was 864 students with about 37 high-cost faculty members. Say the current expenditure on faculty has increased by 50 percent, which means that faculty cost has increased to 3 million dollars. (Do not forget this is for simplicity). This new cost makes faculty cost per student to be 3000000/864 which is $3472.

Alfred Marshall (1920) argued that this decreasing return per expenditure (or inefficiency) is due to bad management and lousy marketing (Ijiri and Simon 1967: 348 and Schumpeter 1951). Rima (1986: 298) interpreted Marshall by stating, "Marshall [thinks] that the growth of individual enterprises is likely to be limited by the probably inferior business talents of the descendents of present business leaders" and by "the difficulty of extending its market" (Marshall 1920: 808-9n).

For a small college that was reorganized with a dean, associate dean, and several directors, coordination and controlling become a very difficult task. These administrators have also outsourced their duties to others. The resulting outcome was the difficulty of communicating and coordinating activities of all these interdependent components. It has become extremely difficult to communicate with students about their academic needs. When students are ignored they start departing and convey negative information about the college to other students who have planned to study at the college. Enrollment has declined, and cost per credit has increased.

Associated with low enrollment and high costs of various administrative positions, many faculty members are alienated and have lost incentive to work efficiently. Some of them have tended to shirk by scheduling classes during time expected not to draw students to their classes. A large percentage of these faculty members who shirk are pro-administration faculty members and are interested in taking NIAs when their classes are cancelled due to lack of enrollment. Cancellation is the worst administrative policy because it increases cost per credit. In addition, other faculty members who are pro-administration try to make it very difficult on students such that students drop courses and many of them will not take a course from a particular instructor. In short, all these factors have increased cost per credit in the long run, which have resulted in diminishing returns, or decreasing returns to scale: increasing cost per unit.

At any rate, there are three implications of this example. First, to reverse the disastrous trend, the college needs to have a total of 1630 students. Put differently, it needs to increase enrollment by 766 students to be at the same rate of faculty cost per student during 2003. Second, some new degrees and efficient marketing become the most important forces to reverse the declining trend. Third, these forces cannot be understood without having efficient management.

Collusion

Brue and McConnell define collusion in their well-know *Principles of Economics* as "a situation in which firms act together and in agreement (collude) to fix prices, divide a market, or otherwise restrict competition—that is, cooperation with rivals." The agreement does not have to be in writing, and collusion leads to higher prices, monopolistic power, inefficiency, higher inequality of income distribution, retarded growth, rising of incompetent social groups, and to the ultimate point of systemic break down and collapse (See also Salvatori 1992). Collusion cannot be practiced under free market capitalism, because prices are determined by unplanned actions of people who buy and sell products freely: free choices. But when the free market capitalism is replaced by monopoly capitalism, collusion becomes the landmark of economic culture.

Collusion may be perfect and imperfect. This latter case is related to price leadership model, where a tacit agreement can be used, under which the leader is the dominant firm. In addition recognition of interdependence of firms may create an understanding for doing something without collusion

Collusion can be used in higher education where a dean and some faculty members collude. In the college, there are various commit-

tees, including the CPC, or the College Personnel Committee, where faculty members of each department must vote for one tenured faculty to represent them on that committee. This committee must have one student elected by the student body to represent them on that committee. Faculty members who serve on the CPC are those who are not applying for retention, promotion, and tenure. Essentially, this process reflects the principle of shared governance and a crystal-clear manifestation of the democratic process the college has had. Through this process faculty will make their decisions, and the CEOs will make their own decisions freely.

Some faculty members, who want to be powerful but without a good record of scholarship, are colluding with the dean and have become vested interests (Veblen 1957 and 1964). Those faculty members are usually occupying the leading positions in the college and receive more resources than others. A subset of this group evaluates the dean's performance annually; hence the mutual cooperation is clear. In economic theory it is called bribe and corruption. This is a really unfair practice and fraud, because faculty members applying for retention, tenure, and promotion do not appoint their friends on committees to receive positive votes. It is also true that faculty members are evaluated by all the students taking courses from them.

I conclude from these facts that the dean of the college has been trying to fix some of these committees, particularly CPC, in order to achieve the following two goals. First, he can argue that faculty members want him to stay as dean of the college because the CPC votes positively on his performance. The CPC does that each year, and this explains why the dean becomes involved in who should be on the CPC. The dean is not interested in bringing faculty members on the CPC who can inform the higher ranks about the dean's inefficient methods of management which has really damaged the college from various aspects such as high cost, low college enrollment, misallocation of funds, to mention a few. Second, he can terminate faculty members who oppose his style, decisions, and his corruption.

The upshot of this condition of collusion is that some faculty members obtain most of the funds available, NIAs, and other forms of advancement at the expense of the others. Indeed, and in most cases, vested interests can make advancement, given their fragile and unproductive performance. This condition kills initiatives of new faculty members. Those faculty cannot provide solid opinions because they know the consequence: the fear factor becomes apparent. This condition of collusion impedes productivity of faculty and destroys morale and incentive to produce (Olson 2000). The basic effect of collusion on the college is low enrollment, higher costs, and slowdown in the process of accreditation.

The Effects Of Online Education

I would like to use the University of Illinois at Springfield (UIS) as a special case to analyze the effects of online education. It should be noted that this section is different from the previous ones because its outcome is a pure application of economics to reality: benefits against costs. The online education has been a very important source for increasing enrollment for several colleges and universities, including UIS. Online education compensates for the decline in enrollment, and in other cases it enforces the rise in enrollment. For UIS, this source has been a compensatory source for the decline in enrollment. I have heard that the online enrollment is about 2000 students or less, or about 44 percent of the total enrollment. The university does indeed generate credits and revenues. For simplicity, I am assuming that online education is as good as offline education.

Let us investigate the negative effects of online education on the local community and the university, by assuming that the online enrollment is 2000 students. Let us add another assumption in that all the 2000 students are from other locations or cities. Stated differently, the previous assumption means that the university has exchanged 2000 local (on campus) students for 2000 not local (on campus) students. This exchange is not beneficial to the local community. A simple calculation suggests that if you exchange two thousands on campus students for two thousands online students, the community will lose the following. For each single student, not living in a dorm, a spending amount of at least $600 will be required to live in an apartment, eat, commute, and the like. If the 600 is multiplied by 2000 students, we obtain $1,200,000.00 as a total monthly spending. If the outcome is multiplied by nine months, the result is $10,800,000.00. But this spending is subject to what economic theory calls the multiplier (Leontief 1941). Usually, a local multiplier (magnification) of at least (2) is used. For this value of the multiplier, the community will lose about $21.6 million annually; an amount that could have been obtained had students studied on campus. If the multiplier is one, then the total loss is $10.8 million. It follows that the estimated loss to the community will be between those two values.

Think about a situation where all 4000 students chose to have online education. In this case, the local community will be losing $43.2 million a year, but the university will receive its normal revenues from the 4000 students. This revenue however may be lower because online students do not pay some fees.

If you think deeper about this case, the situation becomes a calamity for the future of the university, because the overhead cost and other costs of many employees will be paid by the university, given there are no students on campus. This is indeed a very high total cost. For example, the university has to pay for power, insurance, salaries for sport activities, high salaries for administrative positions, maintenance, and the like. These costs are usually not paid by online universities, because they do not have these activities anyway. In addition, what will the university do with many employees on campus? What will the university do with many administrators and CEOs on campus? Are we going to keep these buildings and sophisticated technologies idle? Who will pay the cost of maintenance? It is indeed true that if all students are on line students, then all these costly elements will not be needed. Simply, this university (students and faculty) can be an appendage to other campuses, and instructors can teach their courses from homes and receive their checks through automatic de-

posits. In other words, the university will become a historical case of high-tech public higher education. The university will take a different form.

Let us make advantage of the analysis of the previous extreme case by making the assumption that 50 percent of the students are online and the other 50 percent are on campus. This situation makes little difference compared to the previous case. This is because all the on campus employees and supporting cast of the educational process, including buildings and land, will not be fully utilized. The cost of all these elements per student on campus will be very high. In such a condition it can be rationally argued in the future that if the university cuts the 50 percent on campus students and keeps the 50 percent on line students, the university will cut its cost tremendously or may even make profits. This is because the cost the university pays will be greater than the revenues obtained from the 50 percent of on campus students. Market-oriented CEOs have been habituated to cut such programs and colleges. In sum, the prosperity of online education will generate negative effects on the future existence of UIS.

Summary and Conclusions

This paper suggests that adoption of economic principles can save cost for many public colleges, making them very efficient and reputable. Several conclusions regarding the college under consideration can be stated. The first conclusion is that the college needs to use its resources to establish new degrees (majors) in order to make the university modern and vital. This task is actually called restructuring. Having established these degrees, the college has to launch a marketing strategy to inform all communities that the college has many degrees that young women and man can attend. Online enrollment must be kept at a minimum in order to provide some additional revenues. Moreover, administrative downsizing is required to cut cost and increase coordination and communication.

The second conclusion is that the college has to redirect faculty's time from providing wasteful service to provide solid research. Research will do two things for the college. It will attract more students and will reduce cost of education. These two outcomes can keep tuition affordable.

The third conclusion is to control CEOs power by adhering to rules and policies established by faculty members and administrators: shared governance. These rules create democratic institutions where power becomes weak and efficiency is high. This environment fosters competition and pushes administrators to do things good for colleges such as collection of dominations and grants, attraction of students, and retention of good faculty members.

References

Baldwin, Robert E. (1982). "Gottfried Haberler's Contribution to International Trade Theory and Policy, ***The Quarterly Journal of Economics***, 97, 1, 141-148

Becker, Gary, (1965). "A Theory of the Allocation of Time," ***The Economic Journal***, 75, 299, 493-517.

Brue, Stanley and C. McConnell. (2005), ***Economics: Principles, Problems, and Policies***, 16th edition, New York: McGraw-Hill/ Irwin.

Friedman, Milton and Rose (1980). ***Free to Choose***, New York: Avon.

Gregory, Paul R. and Robert C. Stuart. (2004). ***Comparing Economic Systems in the Twenty-First Century***, 7th edition, New York: Houghton Mifflin Company

Ingram, James C. (1970). ***International Economic Problem***, New York: Wiley.

Leontief, Wassily. (1941). ***Structure of the American Economy, 1919-1929***, Cambridge, Mass: Harvard University Press.

Leube, Kurt and Thomas G. Moore. (1986). ***The Essence of Stigler***. Hoover Institution, Stanford University, Stanford: CA.

Marshall, Alfred. (1920) ***Principles of Economics***, 8th edition. London: Macmillan.

Olson, Mancur. (2000). ***Power and Prosperity: Outgrowing Communist and Capitalist Dictatorships***, New York: Basic Books

Rima, Ingrid Hahne.(1986). ***Development of Economic Analysis***,. 4th edition. Homewood, Illinois.

Salvatori, Dominick. (1992). ***Microeconomic Theory***, 3th edition, New York: McGraw- Hill.

Schumpeter, Joseph. (1951). ***Ten Great Economists From Marx to Keynes***, New York: Oxford University Press.

Veblen, Thorstein. (1957). ***The Higher Learning in America: A Memorandum on the Conduct of Universities by Business Men***, New York: Hill and WANG.

Veblen, Thorstein. (1964). ***The Vested Interests And the Common Man***, New York: Kelley

A Model of Engaged Learning For the 21st Century

Matthew Valle
Department of Business Administration
Martha and Spencer Love School of Business
Elon University

ABSTRACT

There is a long list of articles detailing the faults of business education – this is not one of them. This article departs from that trend to offer a "green field" model of business education for the 21st Century. The Business Academy is presented as a comprehensive, structured simulation that engages students and faculty in an ongoing enterprise that combines knowledge acquisition with skill building and character development in order to educate and train students for their future professional business responsibilities.

Introduction

Business education, in its many forms, presents itself as an easy target for a host of willing detractors. Practicing managers, politicians, students... even parents can be easily coaxed into berating business education. In the scholarly equivalent of "piling on", there is no shortage of articles in business journals detailing the failings of business education. Floating around the garbage can of discourse, the causes and consequences of these failings ebb and flow as the participants, problems and solutions enter and depart the discussion. Our current business education models repeatedly come under attack for what Pearce (1999) and others continue to describe as problems with cost, delivery methods, relevance, timeliness and value (Bilimoria, 1998; Cabrera, 2003; Clegg & Ross-Smith, 2003; Conger & Xin, 2000; Hamilton, McFarland, & Mirchandani, 2000; Kedia & Harveston, 1998; Mintzberg, 1996; Olian, 2002; Pfeffer & Fong, 2002; Schlossman, Sedlak, & Wechsler, 1998; Thurston, 2000; Trank & Rynes, 2003; Witt, 1994). Of course, that list is not exhaustive.

Seemingly content to scurry about rearranging the deck chairs on the floundering *S.S. B-School*, business educators scramble to keep their programs in sync with the ebb and flow of discourse by devoting effort and attention to curricular and programmatic innovation (Bilimoria, 1998; Hamilton, McFarland, & Mirchandani, 2000). Isolated, incremental adjustments, in the spirit of continuous improvement (a good thing, yes?), are often the result. Sometimes, changes that are mere fads (Birnbaum, 2001) are employed in order to remain "cutting edge." Lost in the discourse are a host of basic unanswered questions regarding the true value of business education as it is currently practiced, chief among which is this: are current models of business education educationally effective (Barber, Borin, Cerf & Swartz, 2003; Loewenstein, Thompson & Gentner, 2003; Pfeffer & Fong, 2002; Porter & McKibbin, 1988)? In other words, do these current models focus student energies on appropriate activities and then engage them at a high level in these activities (Education Commission of the States, 1995; Kuh, 2001)? Do these models promote long term retention (learning) and transfer (Loewenstein, Thompson & Gentner, 2003)? Top business schools revel in the rankings awarded them by the popular press, but those rankings measure, for the most part, inputs to the educational process (Trieschmann, Dennis, Northcraft & Niemi, 2000). What should be measured is the transformation process itself (Lengnick-Hall & Sanders, 1997), or more specifically, the change in the personal epistemologies of students through transformative learning (Robertson, 1997). I realize it is difficult to stop our rearranging for a moment, but I would like a "time out", if only to consider alternative methods of business education delivery. The recent growth of alternative forms of education delivery (e.g., computer mediated and distance learning, Webster & Hackley, 1997) and the rise of for-profit educational models (Grossman, 1999; Stamps, 1998) suggest that there is room, interest, and marketable value (heaven forbid) in considering other ways to conduct management education. In this article, I present just one alternative method for business education.

Foundations of the Brown Field Business School

The business school of today has been built upon the "brown field"[1] of traditional academe, where the "science" of management is a relative newcomer (Clegg & Ross-Smith, 2003; Crainer & Dearlove, 1999; Pfeffer & Wong, 2002). In fact, management as science (or as *applied* science) is a view borrowed from whole cloth by business schools in the 1950's and 1960's as they attempted to gain the respect of their natural science peers (Pfeffer & Wong, 2002). Even though business education providers offer a diverse array of formats, schedules, locations, flexibility and modes of delivery (Olian, 2002), in most business schools, functionally structured programs and pooled-interdependent curricula remain much the same as when they were developed in the 1950's and 1960's (Hyslop & Parsons, 1995). In most business schools, students learn theory and practice antiseptic analysis, far removed from the process of managing in the complex organizations we inhabit and depend on in our daily lives (Aram & Noble, 1999). The primary model-in-use seems to suggest that it is far better to learn business as one would learn mathematics, by taking a collection of courses which, over time, impart an understanding of increasingly complex mathematical manipulations. Take a moment to consider why subject matter so complex and so fluid (business) is taught so often in such a metered, static way. Clegg and Ross-Smith (2003) offer a number of compelling reasons for the development of this American model of management education, and Pfeffer and Wong (2002) summarize the recurring criticism of management education as "...teaching the wrong things in the wrong ways (and perhaps to the wrong people...)" (p. 80).

With a functional approach to education, learning a body of knowledge that is discrete and builds upon itself, like mathematics, is much easier to manage pedagogically and administratively. It is much more difficult to construct an educational model which mirrors and trains students for the actual complexities of contemporary organizational life, where the subject matter is more "pragmatic, variable, context dependent and based on practical rationality" (Clegg & Ross-Smith, 2003: 86). The fundamental difference between "business" and mathematics, it seems, is that business is not a discipline, a basic science or a coherent whole from which to disaggregate parts. Business education requires more than a modest amount of "contextualization and integration" (Cabrera, 2003: 41) in order to make it relevant and in-demand (Olian, 2002). Context and integration are excellent starting points for a renewed discourse.

Responding to an identified need (Livingstone & Bluedorn, 2000), educators have recently focused their efforts on making programs more interdisciplinary (Stover & Byers, 2002) and more in step with real world practice (Hamilton, McFarland, & Mirchan-

1 The brown field/green field analogy used in this paper refers to the difference between an organization making use of pre-existing land, plant and equipment for operations versus building anew on a clean site.

dani, 2000; Luse, 1999; Michaelsen, 1999; Pearce, 1999; Porter, 1997; Reece, 1999; Schmotter, 1998). Some schools have tried implementing interdisciplinary programs with a strong technology-assisted pedagogical focus (Alavi, Yoo, & Vogel, 1997; Bilimoria, 1999; Cohen & Lippert, 1999; Pearce, 1999; Porter & Mckibbin, 1988; Webster & Hackley, 1997). Some have concentrated on instituting group level interdisciplinary interventions, such as team learning (Hancock, 1998; Michaelsen, 1999; Roebuck, 1998). And others still have concentrated on restructuring individual courses along interdisciplinary lines (Luse, 1999; McKinney & Yoos, 1998; Michaelsen, 1999). In each case, however, the overall framework for education delivery is based on a brown field model, and that framework constrains context and integration in numerous subtle ways. In the student's mind, much of the integration must still be accomplished outside the classroom, and within the context of a "real" job. This is a strange business, business education. It is one of fitting square pegs into the round holes of class times, school semesters and narrowly focused faculty specialties. Rather than detail the ways in which we may incrementally whittle away at the pegs or holes through continuous improvement initiatives, I would like to present an alternative model of integrated business education: "The Business Academy".

The Academy Model

The academy concept is not new to the field of education. Since 1969, when the concept of "Career Academies" was introduced, K-12 educators have been exposed to the idea of integrating vocational and academic educational systems within one school (Burnett, 1992). In fact, the coordination of curricula and pedagogy is one of the strongest features of the career academy, allowing for an uncommon measure of collaboration between teachers (Burnett, 1992). Since academy students progress as a group or organized cohort, classes can be designed as a sequence rather than as a grab-bag of unrelated units (Stern, Raby, & Dayton, 1992). Teachers are able to share resources, plan collaboratively, design inter-related lesson plans, and coordinate team-teaching (Burnett, 1992). In addition, these career academies have been found to positively affect attendance and performance rates for various at-risk students in traditional high school settings (Archer, Weinbaum, & Montesano, 1989). Students attend these career academies by choice, and they tend to develop a strong sense of pride in, and commitment to, the academy (Burnett, 1992). These academies have also begun to attract a broader cross-section of students interested in careers. Originally intended as a dropout prevention measure, the career academy is proving that it has potential beyond its original design expectations. Of course, you have probably guessed where I am going with this line of thinking...

Business schools are professional schools, much as medical schools train future doctors and law schools train future lawyers. If we let go of the "traditional" brown field model of baccalaureate business education a moment, we might come to consider how this model may be employed in the service of business education. By extension then, the Business Academy model is proposed as an integrated system which combines academic preparation and vocational training for the purpose of providing students with the knowledge, skills and character essential to future business excellence. It is the combination of academic preparation (imparting instruction and providing students with knowledge, etc.) and vocational and skills training (providing hard and soft skills training in concepts like financial and strategic analysis, problem solving, teambuilding, leadership in an organizational context, etc. or what Hogan and Warrenfeltz, 2003, refer to as intrapersonal skills, interpersonal skills, leadership skills and business skills) packaged together that acts as the vehicle for the development of future business professionals. The Business Academy model rests somewhere between the static, functional business education format with which we are all familiar, beyond the single classroom-as-organization (Frost & Fukami, 1997) approach, and up to, but just shy of, the active and experiential learning format associated with a cooperative education and training program (such as those conducted with engineering students, for instance).

An Engaged Education

There is a growing consensus in higher education that what students do is more important than who they are or where they go to school (Kuh, 2001). Astin (1993) suggests that what is important is the amount of time and energy students devote to educationally purposeful activities. Here we are more concerned with the process of education than with the inputs. The list of best practices for effective undergraduate education includes student-faculty contact, cooperation among students, active learning, prompt feedback, time on task, high expectations, and supportive learning environments (Chickering & Gamson, 1987). These practices have been causally related to improved student satisfaction and achievement on a variety of dimensions of student performance (Astin, 1993; Bruffee, 1993; Kuh, 2001; McKeachie, Pintrich, Lin & Smith, 1986; Pascarella, 2001). In order to measure the concept of engagement, the National Survey of Student Engagement (NSSE) was designed to assess the degree to which students are involved, or engaged, in these educational best practices (Kuh, 2001). Survey items are intended to tap student experiences with these best practices, and those items are subsumed within five benchmarks of effective educational practice: level of academic challenge, active and collaborative learning, student-faculty interactions, enriching educational experiences, and supportive campus environment. Since these benchmarks have been empirically linked to effective outcomes, Kuh (2001) suggests that faculty and administrators arrange the curricular and extracurricular activities so that they flow from these best practices. The Business Academy concept is an attempt to do just that.

Building the Business Academy

Imagine what your business school would look like if you got approval from the university president and board of trustees to raze your existing programs and curricula and build anew from the ground up, with an entirely new framework, mission and purpose. Buildings and equipment are expensive, so we will imagine a figurative green field. I have always marveled at how, on the popular PBS television

series "This Old House", the crew goes to great lengths to keep the façade of the house intact while gutting and replacing practically everything inside. Rest assured, the Business Academy will look like a business school from the outside, but this model intends to gut, rework, rebuild and replace most of the inside.

Our current "one-model-fits-all" approach remains essentially unaltered, regardless of the level of student taught, undergraduate or graduate. That must change. It seems almost trite to suggest that undergraduates need different *things* in their education than MBA or graduate students. The trick, as I see it, is to offer the proper education to the proper students at the proper time in their development (...the *right* things in the *right* way to the *right* people). And so, we should start the demolition and rebuilding process at the undergraduate level.

Mission/Vision

If business were a science, business schools would teach the science of business. But we know that successful business is a combination of science and art, offered and executed in varying proportions depending on the nature of the problem. As such, the Business Academy must teach the science and the art of business. To that end, the Business Academy should "*provide instruction and experiences for all students so they graduate with the knowledge, skills and character essential for business leadership*". As a professional school, the Business Academy should exist to educate and train business professionals. (The concept of professionalism as it relates to business education is well presented by Trank and Rynes, 2003, and I echo their call for business educators to develop a set of core beliefs and standards to guide future business professionals). In addition, as a school to educate and train business professionals, I believe that the Business Academy should not focus on the production of management, marketing, accounting, etc. professionals, but well-rounded, highly trained general management business school graduates who are ethically developed critical thinkers. A solid foundation for the development of future professionals can be laid with courses in the liberal arts, where philosophy, literature, history and science add form, beauty, value and context to our cooperative and competitive business endeavors. In addition to knowledge and skills in general and management specific areas, the Business Academy should infuse operations with character development opportunities, foremost among which is a strong and viable honor code. Of that need, we have ample recent motivation.

The academy model borrows from the K-12 academy concept, wherein class work is combined with vocational training. I do not mean to imply that the Business Academy should be a vocational school in the traditional sense, but an experience-based educational environment. The essence of imparting knowledge and experience is the intention to provide science and art, learning and practice. Just as medical school or law school (e.g., as professional schools) provide classroom learning with in situ training, the Business Academy is structured as an operational business. As an aside, think for a moment of an interesting, and instructive, analogical example – we pack our business students full of knowledge, and then unleash them upon the world. Imagine the same process now with doctors – "You've sat through the lectures, Doc, now here's your scalpel. Get to it!" The Business Academy should be a place where students can learn the science of business (functional subject matter), while practicing the art of management (applying what they have learned in a complex, fluid, day-to-day operational environment). It should include academically challenging coursework and faculty directed, student-initiated active learning, all with an eye toward producing enriching educational experiences in a supportive campus environment.

Some schools have entrepreneurship or integrated business programs that seek to provide these things to some degree, but the major drawback with such approaches is that the context of education depends upon the situation inherent in the particular business studied or framework used. Training entrepreneurs for software firms is contextually different than training entrepreneurs for family-run restaurants. Entrepreneurship programs have as a primary focus self-initiated businesses, yet the majority of our business school students will never start their own business or participate in a start up. The entrepreneurship focus, however, is a useful lens with which to view and conduct business education, and as such, an intrapreneurship philosophy will permeate Business Academy operations.

If you have ever taught management using the case study method, you know that it is difficult for students to learn general principles inductively and carry those principles over to other uses in other situations. A deductive approach (Locke, 2002), where students learn principles which can be applied across many situations, is prescribed for a more effective transfer of training. You are familiar with training transfers in other areas – the more you practice your golf swing, the better (lower) your score. In order for such transfers to occur, it is necessary to structure the Business Academy as an ongoing, instructor-controlled simulation. By controlling the subject matter in the classroom, and the experiences initiated as part of Academy operations, the future professional can practice applying learned principles to changing operational situations, and the instructors can guide the development of the future professional through a program built with the goals of developing student mastery of knowledge and skills through repeated practice.

Business Academy Operations

The Business Academy should be run as one large (simulated) business, or as a corporation with separate, but integrated strategic business units. Doing so would allow the faculty to set the external conditions for operation, much like they do now in the various capstone strategy simulations in use at universities (e.g., The Business Strategy Game, Thompson & Stappenbeck, 1998). Operating as a controlled business allows the faculty to set, and then manipulate, external and internal conditions to suit the educational aims of the class in progress. This is essential – uncontrolled enterprises are difficult to standardize, difficult to replicate, and most importantly, difficult to assess. For instance, class work may consist of learning basic, funda-

mental accounting principles, while the ongoing simulation would have the students set up the accounts essential to effective financial reporting for the operation of the Business Academy. An operations class may discuss generic forecasting approaches and MRP software, while the active portion of the class may involve having the students develop a demand forecast for the (fictitious) product that is part of the Academy operation. In each case, standardized and replicable class work (science) is followed by, or in some cases preceded by, engaged learning and practice (art). In this way, the students are engaged in the subject matter, and must learn to integrate the effects of demand forecasts with the effect on inventory management and working capital (for example).

In the initial phases of the Business Academy, the foundation material is stressed and the applications are limited. As time and learning progresses, more elements can be added to simulate complexity and force the students to integrate, synthesize and evaluate (higher level cognitive skills). The building block approach is developed with reference to Bloom's (1956) work on a hierarchy of educational learning objectives. Students should know and understand the material before they are asked to apply it, integrate it, synthesize and/or evaluate it. Class work and testing should revolve around knowledge acquisition, concept understanding and the simple application of concepts to in-class exercises. It is the larger and more complex activities and context of Business Academy operations which will stimulate integration, and force students to synthesize and evaluate the work processes they engage in and the work "products" they produce.

It is quite possible for the Business Academy to stand alone as an educational unit. Since business courses tend to be upper-level undergraduate classes, it is possible to complete general studies requirements prior to entry into the Business Academy. That would open Academy admissions to the widest possible source list (e.g., community college graduates, transfer students, students who have completed their general studies requirements, etc.). It would also be possible to integrate Business Academy operations into the general course offering structure in use at most universities. However, scheduling Academy operations in blocks would support more efficient academic and student load scheduling, and contribute to operational integration, so that entry cohorts could progress through the Academy as learning groups. It would be possible to set up operations so that a senior group of students is responsible for the leadership duties of the Academy, while the junior students would be responsible for the line and middle management duties associated with Academy operations. As a significant part of the practice of management, students should be consistently and purposefully actively engaged in making decisions, solving problems, handling conflicts, building teams, allocating resources and any number of other requisite managerial activities.

The Faculty

It has always seemed to me to be a particular failure of the application of resources that faculty are all trained using what is basically the same doctoral education model, yet required to teach different groups of (business) students with differing needs. Add to that misguided focus and the waste associated with funding basic research activities for faculty at non-Carnegie 1 institutions (e.g., "The Impression Management Propensities of East-Asian Management Trainees in the Semi-Conductor Industry", by I. M. Faculty, East Bumdazzle State University, *Journal of Inconsequential Statistics*). Let's face it, most business school faculty do not teach at doctoral granting, flagship institutions, and it does not suit our fundamental duties as faculty (to educate and train our students for their professional business responsibilities) to spend an inordinate amount of time executing basic research (like we were trained). I humbly, though not happily, concede that most of us (myself included) are not capable of consistently producing cutting edge basic research. Perhaps, then, we should be more honest with ourselves and our constituencies about the nature and purpose of current doctoral education programs in business disciplines in light of the positions most graduates of those programs will occupy.

Given that the Business Academy detailed thus far has an undergraduate educational mission, I am calling for a renewed classification (and training) of Business Academy faculty. The first faculty classification, which I will call "research professors", consists of Ph.D. qualified and credentialed faculty members who excel at the scholarship of integration and the scholarship of application (Boyer, 1990). They should be the subject matter experts in their field. They are the faculty who should be preparing curriculum, devising course structure, scanning the literature for effective practices and incorporating changes to the curricula. These are the professors who should be directing the content of the educational experience. The second faculty classification, clinical professors, should excel at the scholarship of teaching (Boyer, 1990; Frost & Fukami, 1997). These are the faculty who should be skilled at the application of the subject matter, skilled in their ability to apply deductively produced knowledge, and capable of imparting instruction and guidance as a trusted coach and mentor. Telemachus had Mentor to teach him how to be a leader in his fathers' (Odysseus) absence, yet I often wonder whether or not business school students look upon their faculty as trusted guides and advisors ("Don't bother me kid, I have a manuscript to get out!") Schlee (2000) found that only 41% of the schools surveyed in her study had mentorship programs, and only 28% used faculty mentors. Ideally, clinical faculty should have a broad base of knowledge in the various business disciplines and an appreciation for the origins of management theory, but they should also have an operational focus honed through personal operational experience in the area in which they will teach. Experience mentoring management accession candidates would be a plus.

Therefore, two faculty classifications are created, but only one rank – professor. Any other distinctions, I believe, would be meaningless. And while I am on the subject of meaningless distinctions, let me deal quickly with the concept of tenure within the Business Academy. Faculty should be hired as the long term intellectual capital of the Business Academy, and care should be taken to attract, develop and maintain the best faculty complement possible. Beyond what

tenure says to our constituents about our willingness to risk our professional and financial well-being in the endeavor in which we mutually engage, I believe it artificially insulates (business school) faculty from the necessity of exhibiting sustained superior performance. The tenure process as it is practiced in most universities effectively dilutes responsibility for personnel decisions (including the determination of the need to fire an inadequately performing faculty member) among an anonymous "body", rather than with the supervisor whose duty it is to guide and help develop the faculty member. As for academic freedom, or the "right" of academics to discover true knowledge, however inconsequential, one would expect that the faculty of the business academy could be meaningfully engaged in scholarship, broadly defined, in service of our collective aspirations. Given that perspective, the concept of tenure becomes irrelevant to our collective purpose. Faculty can be hired for initial three year contracts, with development and evaluation focusing on follow-on, extended terms based upon merit.

One path, through traditional doctoral education, results in a professor who understands research and can translate it effectively for instruction. The other, through applied doctoral education such as a DBA (or an Executive DBA, as many universities have discussed but not yet implemented), or through master's level graduate education (e.g., the MBA) combined with significant operational experience, results in a professor who appreciates research and its applications, and can impart instruction and experience effectively as the curriculum dictates. The clinical professor classification would open up a large number of positions within the Business Academy to mid and late-career business professionals. A professional teaching preparation program (such as a structured DBA program) could provide a pool of interested, capable and motivated business professionals as instructors.

The Students

The students of the Business Academy should be prepared to "work" at their education. Unlike a co-operative arrangement, where the student attends class and simultaneously works with a company offsite, the students of the Business Academy would study and work at the same place. Class work and applied work would be conducted within the confines of the Business Academy. For example, if the Business Academy is set up as one large organization, the students would take on the positions within that organization, and see to the day-to-day running of the business entity. Business Academy operations should run 9-5, and weeknights as well to accommodate adult learners – sorry folks, but we should practice like we will play in the big game. An expanded schedule also allows for more efficient use of facilities.

Positions within the organization would be based upon progression through class work and demonstrated excellence in academy operations. Students would progress from line employee to manager to organizational leader depending on educational progress and merit. Entering students would be assigned to line positions within the organization. In short, students would take an active interest in their education and progression within the Business Academy. Perhaps then businesses will be more likely to hire graduates for the depth and breadth of their educational experiences.

The "Class" Work

Much as management training programs rotate prospective managers through various departments, Academy students would be rotated through the various departments in the Academy organization (in sync with the educational material being covered by the cohort at the time). Majors, as we know them, would be replaced with a general business administration bachelor's degree, with the option to concentrate through elective work in staff positions in an area of specialty (finance, HR, marketing, etc.). The benefit of a general program is that it would teach general education and management-specific content and skills with an eye toward an effective transfer of training. AACSB-International recently revised their standards for accreditation regarding the management of curricula to include general and management-specific knowledge and skill goals (www.aacsb.edu). A general, fundamental education is preferable - employers will continue to provide the bulk of the job-specific training to their employees. I should not have to remind the reader that numerous studies (e.g., Bigelow, 1995) continue to emphasize that the skills sets needed initially by employers are general in nature (i.e., communication skills, team skills, conflict management, etc.) – the so-called "soft skills". The operations of the Academy will create the conditions where students will be engaged in their studies, and forced to be engaged with their fellow students where the soft skills can be practiced and enhanced.

"Classes" will consist of blocks of time, and "subjects" will be guided by the standard credit hour system (such and such hours of instruction per credit hour), however, students will alternate between in-class sessions, or what we traditionally think of as academics, and operational sessions where the students "work" the day to day issues of the business. Rather than "covering" financial accounting, principles of management, and principles of marketing one term, and operations management, finance and economics another term, foundation material from these functional areas should be presented in integrated blocks of subject matter guided by progressively detailed, and progressively difficult, learning goals. The ongoing simulation will necessarily be complex, but will be broken down into manageable modules that can be integrated through an enterprise information system. Watching over operations will be the faculty (research and clinical), who will monitor the operations and manipulate the overall simulations, or separate modules, based upon the needs of the students and the curriculum.

The Simulation

The simulation is the integrating mechanism for all of the course work in the Business Academy. The overall simulation should be composed of various scenarios that the faculty can "plug in" to test

the students and provide the students with opportunities to learn the subject matter. Some of the simulation scenarios could stand alone, while some must be integrated within the overall operations of the Business Academy. In the first few blocks of instruction, the scenarios will necessarily be fairly simple. For instance, in a management block, the class work may cover conflict management, while "on the floor", the students will be presented with a role-play (with faculty and staff as the "actors") of conflict among some of the workers. The students would work through the conflict and try out various interventions. The faculty would provide the debriefing at the conclusion of the role play so that lessons learned can be reinforced, and mistakes made critiqued.

In senior level classes, the scenarios will necessarily be more complex, and more integrative. In a senior level finance block, for instance, the students may learn about debt financing, while "on the floor" they may be exposed to changes in market interest rates which affect the operations of the Business Academy and for which they must work through the necessary options to adjust the capital financing structure.

One of the essential, but as yet un-built features of this integrated educational system is an information system which provides both data (for student activities) and information (for faculty planning and control). Essential as well is information to guide student learning and development. Given a hierarchical, nested set of learning goals and outcomes, it would be more effective to have an information system that could collect, process and report assessment data on each of the many requisite goals, objectives and outcomes associated with programs and curricula. A strength of this system would be the ability of faculty to access student performance information in real-time, so that adequate interventions can be commenced. In fact, valid and reliable assessment data would support the development of individualized student development plans which could guide coursework. A central database of assessment data could also be augmented by 360 evaluations from peers, "customers" and (junior) subordinate students. Assessment center approaches to student evaluations, as an adjunct to survey feedback data, would be useful in training students to evaluate behaviors that contribute to effective organizational work. Access to, and work with, assessment information would serve to further develop the managerial and decision making skills of these future managers. Faculty evaluations would also be a part of the information system, delivered in real time throughout the course of operations. "Rewards" for students (developmental and evaluative performance reports) would be based on a comprehensive performance measurement system, while "rewards" for faculty (raises and bonuses linked to performance reports) would be linked to the system, as well.

Graduate Education

No, I have not forgotten graduate education. The MBA cash cow will not be slaughtered (trimmed, perhaps). It is possible to envision a graduate component of the Business Academy. At the master's level, the MBA (as a general management post-baccalaureate degree) would consist of elements similar to the undergraduate Business Academy, but the knowledge acquired and the degree to which the students engage in Academy operations will necessarily be more advanced. Entry into the graduate programs of the Business Academy will be restricted to individuals who are "seasoned" by at least 3-5 years on the job (following graduation from a baccalaureate program). As such, Academy class work and operational activities will be advanced enough to encourage personal growth and advancement in preparation for assuming leadership positions in organizations. The emphasis will be on developing the advanced conceptual and interpersonal skills (e.g., see Boyatzis, Stubbs & Taylor, 2002) necessary for the leadership of organizations.

Doctoral education could also become a component of the Business Academy. Research and clinical professors could create and staff a doctoral program (e.g., a structured, or Executive DBA for the Business Academy) for the purpose of educating and training clinical faculty in the Academy concept and operations, along with instruction in functional subject areas. In addition to functional business subjects, however, students in a clinical doctoral program should receive instruction in educational theory and effective practice. Such an approach would obviate much of the need for faculty training in effective instructional practices, as is now common in most universities. It is true – biology Ph.D.'s are not trained to teach biology, but to understand biology. If we are to teach business subjects for the purpose of educating business students, perhaps we should also spend some time and energy teaching the teachers how to teach the students.

Conclusion

I should have warned you that this article was bound to gore an ox or two. Just thinking about the possibilities a business education model like this presents makes my mouth water. But most particularly, the Business Academy idea gets really interesting in terms of curricula, for this is the area where innovation in instruction can play out on numerous stages, large and small. Faculty who previously worked, ala Don Quixote, on tilting at the windmills of the basic science of management (I count myself among that group) might now find a whole new outlet for the creation and delivery of valid and impactful business education, where context and integration are woven seamlessly together. Journals could be created solely for the benefit (and love?) of teaching business within the Business Academy. "So, you earned your Ph.D. ... what good have you done with it?" Will you be remembered more for the article you have written investigating the impression management propensities of East-Asian management trainees..., or for the students whose determination, skill and success you had a hand in creating? If it is true that faculty envy their students, it may be because they envy the opportunity those students have to approach their education with open minds and a fresh perspective. I would envy a student a Business Academy experience.

Trust your feelings – the idea appeals to you, doesn't it? It may be okay to admit (quietly) to yourself that you didn't get into academics

to toil in the brown field of your academic forefathers. Perhaps you just didn't have much of a choice (until now). The Business Academy idea presented here is, at this point, nothing more than one person's description of an ideal type. It is one of many that could be put into practice. As such, it is a concept in search of a champion (or twenty) in order to flesh it out fully. For my part, I honestly believe it is one of the business schools we would choose to build if we had the wherewithal.

And so, my question is – do we?

I am not naïve. I realize that inertia favors those who have no compelling reason to change (i.e., the top business schools), and that the nature of this kind of change is so creatively destructive and core-rattling that it would probably be easier to let it lie. I realize that there are many questions still unanswered about structure and process, but I am confident that those questions could be worked out if we put our minds to it. What I have presented is intended to whet your appetite for the idea – as big and bold as I could make it. We have seldom been encouraged to think big in academics – you probably remember your dissertation advisor saying "My, that's a nice model, but you had better test just these few variables here if you want to graduate sometime in the near future." If the answer to the question "Are current models of business education educationally effective?" leaves you uneasy, take a "time out" for a moment to consider what is possible upon the green field of our future in business education...

References

Alavi, M., Yoo, Y., & Vogel, D. R. (1997). Using information technology to add value to management education. Academy of Management Journal, 40(6), 1310-1333.

Aram, E., & Noble, D. (1999). Educating prospective managers in the complexity of organizational life. Management Learning, 30(3), 321-342.

Archer, E., Weinbaum, S., & Montesano, P. (1989). Partnerships for learning: School completion and employment preparation in the high school academies. New York: Academy for Educational Development.

Astin, A. W. (1993). What matters in college? Four critical years revisited. San Francisco: Jossey-Bass.

Barber, C. S., Borin, N., Cerf, D. C., & Swartz, T. A. (2003). Measuring the Effectiveness of innovative business programs. Journal of the Academy of Business Education, 4, 41-53.

Bigelow, J. D. (1995). Teaching managerial skills: A critique and future directions. Journal of Management Education, 19, 305-316.

Bilimoria, D. 1998. The editor's corner: Transforming undergraduate management education. Journal of Management Education, 22(5), 565-566.

Bilimoria, D. (1999). The editor's corner: Emerging information technologies and management education. Journal of Management Education, 23(3), 229-232.

Birnbaum, R. (2001). Management fads in higher education: Where they come from, what they do, why they fail. San Francisco: Jossey-Bass.

Bloom, B. (1956). Taxonomy of educational objectives: The classification of educational goals. London: Longmans, Green.

Boyatzis, R. E., Stubbs, E. C., & Taylor, S. N. (2002). Learning cognitive and emotional intelligence competencies through graduate management education. Academy of Management Learning & Education, 1(2), 150-162.

Boyer, E. L. (1990). Scholarship reconsidered: Priorities of the professorate. Princeton, NJ: Carnegie Foundation for the Advancement of Teaching.

Bruffee, K. A. (1993). Collaborative learning: Higher education, interdependence, and the authority of knowledge. Baltimore: The Johns Hopkins University Press.

Burnett, G. (1992). Career Academies: Educating urban students for career success. New York: Columbia University.

Cabrera, A. (2003). Trials and trends. BizEd Magazine (May/June), 38-41.

Chickering, A. W., & Gamson, Z. F. (1987). Seven principles for good practice in undergraduate education. AAHE Bulletin, 39(7), 3-7.

Clegg, S. R., & Ross-Smith, A. (2003). Revising the boundaries: Management education and learning in a postpositivist world. Academy of Management Learning & Education, 2(1), 85-98.

Cohen, D. J., & Lippert, S. K. (1999). The lure of technology: Panacea or pariah? Journal of Management Education, 23(6), 743-746.

Conger, J. A., & Xin, K. (2000). Executive education in the 21st century. Journal of Management Education, 24(1), 73-101.

Crainer, S., & Dearlove, D. (1999). Gravy training: Inside the business of business schools. San Francisco: Jossey-Bass.

Education Commission of the States. (1995). Making quality count in undergraduate education. Denver, CO: Education Commission of the States.

Frost, P. J., & Fukami, C. V. (1997). Teaching effectiveness in the organizational sciences: Recognizing and enhancing the scholarship of teaching. Academy of Management Journal, 40(6), 1271-1281.

Grossman, W. M. (1999). On-line U. Scientific American, 281, 41.

Hamilton, D., McFarland, D., & Mirchandani, D. (2000). A decision model for integration across the business curriculum in the 21st century. Journal of Management Education, 24(1), 102-126.

Hancock, T. (1998). The new MBA: Flies in the paradigm. Business Horizons, 41(4), 41-44.

Hogan, R., & Warrenfeltz, R. (2003). Educating the modern manager. Academy of Management Learning & Education, 2(1), 74-84.

Hyslop, C., & Parsons, M. H. (1995). Curriculum as a path to convergence. New Directions for Community Colleges, 91(2), 41-49.

Kedia, B. L., & Harveston, P. D. (1998). Transformation of MBA programs: Meeting the challenge of international competition. Journal of World Business, 33(2), 203-217.

Kuh, G.D. (2001). The National Survey of Student Engagement: Conceptual framework and overview of psychometric properties. Bloomington, IN: Indiana University Center for Postsecondary Research.

Lengnick-Hall, C. A., & Sanders, M. M. (1997). Designing effective learning systems for management education: Student roles, requisite variety, and practicing what we preach. Academy of Management Journal, 40(6), 1334-1368.

Livingstone, L., & Bluedorn, A. (2000). The editor's corner (Challenges and frontiers for the 21st Century: Management education in universities and corporations). Journal of Management Education, 24(1), 6-9.

Locke, E. A. (2002). The epistemological side of teaching management: Teaching through principles. Academy of Management Learning & Education, 1(2), 195-205.

Loewenstein, J., Thompson, L., & Gentner, D. (2003). Analogical learning in negotiation teams: Comparing cases promotes learning and transfer. Academy of Management Learning & Education, 2(2), 119-127.

Luse, D. W. (1999). Incorporating business communication in an integrative business seminar. Business Communication Quarterly, 62(1), 96-100.

McKeachie, W.J., Pintrich, P. R., Lin, Y., & Smith, D. (1986). Teaching and learning in the college classroom: A review of the research literature. Ann Arbor: National Center for Research to Improve Postsecondary Teaching and Learning, University of Michigan.

McKinney, E. H., & Yoos, C. J. (1998). The one school roomhouse: An information and learning approach to curriculum integration. Journal of Management Education, 22(5), 618-636.

Michaelsen, L. K. (1999). Integrating the core business curriculum: An experience-based solution. Selections, 15(2), 9-17.

Mintzberg, H. (1996). Ten ideas designed to rile everyone who cares about management. Harvard Business Review, July/August, 61-68.

Olian, J. D. (2002). Management education at risk. Report of the Management Education Task Force to the AACSB-International Board of Directors. St. Louis: AACSB.

Pascarella, E. T. (2001). Identifying excellence in undergraduate education: Are we even close? Change, 33(1), 18-23.

Pearce, J. A. (1999). Faculty survey on business education reform. Academy of Management Executive, 13(2), 105-109.

Pfeffer, J., & Fong, C. T. (2002). The end of business schools? Less success than meets the eye. Academy of Management Learning & Education, 1(1), 78-95.

Porter, L. W. (1997). A decade of change in the business school: From complacency to tomorrow. Selections, 13(2), 1-8.

Porter, L. W., & McKibbin, L. E. (1988). Management education and development: Drift or thrust into the 21st century? New York: McGraw-Hill.

Reece, J. W. (1999). Workout accounting: The critical factor. Secured Lender, 55(3), 66-70.

Robertson, D. L. (1997). Transformative learning and transition theory: Toward developing the ability to facilitate insight. Journal on Excellence in College Teaching, 8(1), 105-125.

Roebuck, D. B. (1998). Using team learning in business and organizational communication classes. Business Communication Quarterly, 61 (3), 35-49.

Schlee, R. P. (2000). Mentoring and the professional development of business students. Journal of Management Education, 24(3), 322-337.

Schlossman, S., Sedlak, M., & Wechsler, H. (1998). The "new look": The Ford Foundation and the revolution in business education. Selections, 14 (3), 8-28.

Schmotter, J. W. (1998). An interview with professor James G. March. Selections, 14 (3), 56-62.

Stamps, D. (1998). The for-profit future of higher education. Training, 35 (8), 22-30.

Stern, D., Raby, M., & Dayton, C. (1992). Career academies: Partnerships for reconstructing American high schools. San Francisco: Jossey-Bass.

Stover, D., & Byers, C. R. (2002). Integrated business curriculums do work: Assessing effectiveness five years later. Journal of the Academy of Business Education, 3, 26-35.

Thompson, A. A., & Stappenbeck, G. J. (1998). The business strategy game – A global industry simulation. Irwin/McGraw-Hill.

Thurston, E. K. (2000). Enabling systems thinking in the "Mesonic Millennium". Journal of Management Education, 24(1), 10-31.

Trank, C. Q., & Rynes, S. L. (2003). Who moved our cheese? Reclaiming professionalism in business education. Academy of Management Learning & Education, 2(2), 189-205.

Trieschmann, J. S., Dennis, A. R., Northcraft, G. B., & Niemi, A. W. (2000). Serving multiple constituencies in business schools: M.B.A. program versus research performance. Academy of Management Journal, 43(6), 1130-1141.

Webster, J., & Hackley, P. (1997). Teaching effectiveness in technology-mediated distance learning. Academy of Management Journal, 40 (6), 1282-1309.

Witt, R. E.(1994). Reengineering the MBA. Directors and boards, 19 (1), 43-45.

Instilling Organizational Commitment: A Look at Student Orientation Programs

Paula Potter
Western Kentucky University
Robert Wharton
University of South Dakota
Linda Parry
Western Kentucky University

ABSTRACT

Over one-third of all freshmen do not return to the same institution one year later. Faced with these alarming statistics, universities are now spending significant resources in programs aimed at retaining students. In this study, four hundred and sixty-seven students respond to a self-report questionnaire designed to measure their socialization and commitment to the university. Results indicate that attendance at either freshman seminar or the pre-enrollment program has no impact on socialization or commitment for low or high-risk students. Mentoring and involvement in school activities does have an impact on student attitudes

Introduction

Turnover impacts all organizations. Approximately one-third of full-time entering freshmen do not return to the same institution one year later (Levitz & Noel, 1989). This statistic is alarming not just from an educational point of view but also from an organizational point of view. Operating with increasingly tightened budgets, administrators are facing a freshmen turnover challenge that is costing their institutions both financial and human resources.

Although freshmen turnover is not new, socio-cultural factors have altered the academic landscape to exacerbate the problem. Originally, colleges primarily served white, male, Christian teenagers. Now women represent the majority of enrollment numbers at US colleges. This has made the environment less nurturing for males. The student body has gone from the traditional eighteen to twenty-two years to an average of twenty-six years as the proportion of adults returning to college increases. At the same time, the number of minorities has increased both in the population and also, in higher education. In addition, the socioeconomic base of the students has changed to reflect the increase in available student aid. Attendance patterns are changing. Currently about half of all college enrollments are part time students. Finally, colleges are finding themselves in competition with other institutions such as corporations and the military as the number of young people declines and organizations search for new employees (Levine, 1989). Consequently, nontraditional students are increasingly becoming part of the university environment.

Since being male, older, racially and ethnically diverse, and/or coming from a low-income household have been shown to contribute to high attrition rates, many institutions have employed a variety of strategies to increase student retention and completion rates (Laden, 1999). Among the most popular initiatives are freshmen orientation and summer pre-enrollment programs. These programs are designed to socialize freshmen and ultimately get them more committed to the institution so that they do not drop out.

There have not been many studies to observe if these programs are doing what they set out to do – increase freshmen socialization and commitment. This study focuses on this issue. Specifically, we look at one university to see if their freshmen orientation and summer pre-enrollment programs have resulted in greater student socialization and commitment.

Literature Review and Hypothesis

Schein (1968) defined socialization as the process through which an individual acquires the norms, values, beliefs, attitudes, and language characteristics of his or her group. Since many students enter college with only vague notions of what undergraduate education is all about, universities develop programs, such as freshmen orientation and pre-enrollment programs. These programs foster student adjustment by collecting the newcomers together and giving them a structured program. Such experiences are considered collective, formal, sequential, and fixed and emphasize an investiture in the college. They give students a supportive environment. This enables students to communicate more readily with each other and with those people who are leading the program. As a result students are better able to obtain information about the university and reduce the uncertainty associated with the assimilation of the new college experience (Louis, 198Ø; Van Maanen, 1978).

Jones (1986) found socialization tactics to be significantly related to organizational commitment. Louis (198Ø) argued that socialization practices facilitate sense making, enable newcomer adaptation, and influence organizational commitment. Socialization researchers have also suggested that organizational commitment is increased with organizational entry (Feldman, 1981). Berger and Calabrese (1975) proposed that a decrease in the initial uncertainty levels produces an increase in liking the institution. Students exposed to orientation programs are more apt to feel committed to the school, feel more satisfied with communication and experience less ambiguity about their role at the university. In addition, commitment to organizations is positively related to such desirable outcomes as job satisfaction and attendance and negatively related to outcomes such as

absenteeism and turnover (Mowday, Steers & Porter, 1979; Mathieu & Zajac, 1990). As a result many educators argue that socialization makes a student more committed to the university, and therefore, less likely to leave. In support of this philosophy, Pascarella and Terenzini (1977) hypothesized that faculty and student interaction were important predictors of student retention.

This study focuses on the impact that two programs have on freshmen socialization and commitment. One program, Master Plan, is a one-week pre-enrollment orientation that takes place one week before academic classes start. During Master Plan new students spend time getting to know the campus through a variety of activities that range from financial counseling to picnics. The purpose is to give the students a shared, focused learning experience that removes some of their uncertainty and helps build a sense of community. Attendance at Master Plan is voluntary and does cost money. Consequently, not all freshmen participate. All students, however, do participate in Freshmen Seminar, a semester long course in which students receive academic credit. Freshmen Seminar attempts to develop student knowledge about the institution. It also helps students understand the connection between their course experiences and their personal development. For example, some of the topics covered in Freshmen Seminar include time management, course registration, tutoring, career counseling, and on-campus jobs.

In other words, Master Plan and Freshmen Seminar helps students "learn the ropes" on how to be successful at the university. The university has devoted considerable resources to develop these programs. Not only do these programs take money but they also require human resources which may be needed elsewhere. In the university used in this study, every department is expected to provide at least one faculty member to teach Freshmen Seminar. This can be an incredible hardship on a department that is already trying to cover required courses. Nonetheless, if these programs result in more socialization, more commitment, and ultimately more retention, the resource expense can be justified. The question remains do these programs really promote more socialization?

Master Plan and Freshmen Orientation provide two types of socialization. First, they provide contextual information. Both programs provide information to newcomers that range from formal reports such as college newsletters and catalogs to informal anecdotal stories about the history of the institution. Second, they provide collective socialization. By giving freshmen a shared, focused learning experience, students are given a sense of community and assisted in becoming comfortable with their environment. With this approach, newcomers are expected to enter into the university with the intent to conform their conduct to an image of what is desirable and proper organizationally. In other words, newcomers are expected to fit into a distinct homogeneous environment where they learn how to act in certain accepted ways.

However, most students do not fit into a homogeneous profile. Diverse students, either because of ethnicity, age, or socio-economic background, bring with them individual differences and experience that color the way they receive the cultural messages sent to socialize them (Laden, 1999). As a result, experiences with other students while in Master Plan or Freshmen Orientation may cause them not to feel a greater fit with the organization but instead cause them to feel an even greater lack of fit within the community. Moreover, research has also shown that diverse students may experience high communication apprehension that will make them less likely to seek feedback to reduce their uncertainty or feedback on how to improve their performance (Richmond, 1984). Scott et al. (1978) also found that high communication apprehension individuals are also likely to experience low levels of job satisfaction, organizational commitment, and other negative reactions to the organizational environment. Diverse students are considered to be at a higher risk for leaving the university than traditional students. Therefore, even though high-risk students attended Master Plan and Freshmen Seminar, we hypothesize that:

H1: High-risk students will report being less socialized than low-risk students.

H2: High-risk students will report being less committed than low-risk students.

Socialization involves the internalization of an institution's culture and values. Master Plan and Freshmen Seminar provide a way in which students can interact with each other. This may build up feelings toward each other but they do not necessarily provide a means for increasing student commitment to the institution. Research also shows that any feelings that build up upon entry into an organization will decline quickly. Both Freshmen Seminar and Master Plan occur within the first fifteen weeks of a student's introduction to college. Without any reinforcement, we hypothesize that:

H3: College students who have attended Master Plan and Freshmen Seminar will not report higher commitment to the university than students who have not participated in the programs.

Some universities have used mentoring as an alternative strategy to the traditional freshmen orientation or pre-enrollment programs. A mentor is someone who can provide advice that a student can use immediately to help navigate the college environment. In adopting a mentoring program, universities have imitated the business world that has gained success over the decades by having influential people share their knowledge and resources to help novices climb the corporate ladder. Indeed, there has been reported success among universities that have used mentoring as a way to increase socialization and commitment particularly among non-traditional and high-risk students (Laden, 1999). Part of the reason for this success may be the result of using mentors who come from a student's own ethnic, minority, or gender groups, and therefore, provide visible role models for students (Yoder, Adams, Grove & Priest, 1985). In addition, Chatman (1991) found that students who spend social time with mentors are more likely to internalize the values of their organization. Furthermore, researchers have found that newcomers to organizations who are exposed to veteran members of the organization

will be given more information as to the requirements and norms of their organization (Louis, Posner, & Powell, 1983).

The university in this study does not have a formal mentoring program. Nonetheless, some students have used informal mentors, either externally, such as family and friends, or internally, such as advisors or faculty, during their residence at the university. Given the success of other mentoring programs, we hypothesize:

H4a: Both low-risk and high-risk students who have had internal mentoring will report more socialization and commitment to the university than students who have had no mentoring.

H4b: Both low-risk and high-risk students who have had external mentoring will report more socialization and commitment to the university than students who have had no mentoring.

Method

In fall 2001, we distributed a questionnaire to 467 students from a regional, public university in south-central United States. We distributed the survey to randomly selected classes during a two-week period. Although participation was voluntary, we had perfect compliance. We attribute the high response rate to distributing and collecting the survey at the beginning of the class period.

The questionnaire had 87 items and included the organizational commitment scale developed by Mowdy at al (1979) and the organization socialization scale developed by Chao et al (1994) as well as demographic questions on gender, class status, age, number of years at the university, and number of years at other higher education institutions. Students were also asked if they attended Master Plan and/or Freshmen Seminar classes.

Analysis and Results

The demographic and background characteristics of respondents in the study are presented in Table 1. The group is broadly representative of the university as a whole. Females outnumber males, as has become common at many institutions of higher education. Less than ten percent describe themselves as ethnic minorities and over eighty percent are in the traditional college age group. A large majority (82%) describes their families as middle class, and two-thirds live off-campus.

Students from first-semester freshman to graduating seniors are represented in the survey, and with 75 completed credits, the average respondent would have completed five full-time semesters. About a quarter (27%) are the first in their families to attend college. Over half of these students have two or more of the risk factors associated in the literature with higher rates of turnover (i.e., male, minority, non-traditional age, lower social class, or non-residential). Nearly half (48%) had taken advantage of Master Plan activities after admission, and 78% also participated in Freshman Seminar.

Table 1
Sample Demographic Characteristics

Gender		
Male	n = 145	44%
Female	n = 185	56%
Ethnicity		
Minority	n = 31	9%
Non-minority	n = 295	91%
Age		
Traditional (17-22)	n = 272	82%
Non-traditional	n = 58	18%
SES		
Lower class	n = 19	6%
Middle Class	n = 267	82%
Upper class	n = 38	12%
Residence		
On-campus	n = 111	34%
Off-campus	n = 219	66%
Credits Earned	**mean = 74.8**	**s.d. = 44.1**
First to Attend College	n = 88	27%
Attended Master Plan	n = 159	48%
Attended Freshman Seminar	n = 256	78%
At Risk Students		
High risk	n = 183	56%
Low risk	n = 147	44%

What are the commitment and socialization differences between high and low risk students? Table 2 presents mean comparisons and t-tests for the two groups. As expected, lower-risk students report significantly higher levels of commitment to the institution – although commitment is very high overall.

Socialization, though, is more difficult. On the general index of socialization, there is no difference between the two risk groups. Chao, et al (1994) identified six subscales of the socialization index:

1. awareness of the history, traditions, customs, and rituals of the organization;
2. facility with the language, vocabulary, and specialized terms used in the organization;
3. an appreciation of political processes, power and patterns of influence in the organization;
4. the development of bonds of friendship with people in the organization;
5. internalized acceptance of the values and goals of the organization, and;
6. an understanding of the performance norms of the organization.

Isolating these subscales, it appears that the main socialization difference between high and low risk students revolves around the issues of language and values. As a group, low-risk students report a greater level of acceptance of the organizations goals and values – a critical factor at an institution of higher learning, and consistent with our expectations.

Table 2
Means and t-tests for Commitment and Socialization by High and Low Risk Factors

	RISK	N	Mean	Std. Deviation	t	sig.
COMMITMENT	low	147	4.7640	.7368	2.23	.027
	high	183	4.5576	.9480		
SOCIALIZATION	low	147	3.5306	.4889	.187	.852
	high	183	3.5207	.4707		
HISTORY	low	147	3.1684	.7457	1.21	.228
	high	183	3.0678	.7573		
LANGUAGE	low	147	3.8190	.7459	-2.68	.008
	high	183	4.0205	.5848		
POLITICS	low	147	3.3974	.5621	.831	.407
	high	183	3.3448	.5788		
PEOPLE	low	147	3.5058	.6479	.217	.828
	high	183	3.4893	.7108		
VALUES	low	147	3.4182	.5726	2.15	.032
	high	183	3.2745	.6271		
PERFORMANCE	low	147	3.8748	.6452	-.775	.439
	high	183	3.9271	.5786		

However, there is among high-risk students a significantly higher percentage reported a level of familiarity with the specialized language and terms of the university. This is somewhat surprising and it is not clear why that should be the case. On the other socialization subscales, the two groups are indistinguishable.

Does attendance at formal programs such as Master Plan or Freshman Seminar have a positive impact on students? Our expectation was that such programs would not be effective, and Table 3 presents Pearson correlation coefficients between these formal interventions and reported levels of commitment and socialization.

Those students that attended Master Plan were no more committed to the institution than those that had not participated. There was some positive impact on socialization, however, and in particular, participants in Master Plan seemed to build more personal ties and friendships with their schoolmates.

Freshman Seminar had more modest impacts on these students, though. There is a modest but positive association with organizational commitment – but essentially there is no socialization benefits reported in this survey (except, again, for building people-oriented contacts and friendships).

Table 3 also presents correlations with other potential developers of commitment and socialization. Mentoring, both internal (faculty, advisement, tutoring) and external (friends, families) is used in many organizations to help smooth the transition for new members. In addition, some students become more engaged in the life of the institution, either actively (clubs, teams, sororities) or even passively (reading the campus newspaper, attending athletic events). All these activities are potential socializers and commitment builders, though not under the formal auspices of the organization.

Indeed, the coefficients suggest that both mentoring and engagement are far more effective at building commitment and socialization than either of the two formal programs – and the effect of engagement is particularly strong and positive. But, do any of these activities mitigate the challenges faced by high-risk students? Tables 4 and 5 present the beta coefficients for the effects of risk, formal interventions, and unofficial interventions on commitment and socialization. Model 2 in both tables indicates that neither Master Plan nor Freshman Seminar has any real effect on the commitment levels or socialization of high-risk students. Nor, in Model 3 does mentoring seem particularly effective. However, there are broad and significant benefits among those students who have become engaged in the life of the organization in some way – whether actively or passively.

Discussion

Universities are facing a major challenge. One-third of new students do not return a year later. Such turnover would not be considered acceptable in almost any other organization other than fast food establishments. In the short-term such turnover rates are expensive for universities. Students represent tuition dollars and it takes time, money and people to recruit students. Nevertheless, turnover may actually be more expensive in the long term. High turnover does not lend itself to developing a strong culture. It is difficult to pass

Table 3
Correlations for Risk Factors and Mentoring Sources with Commitment and Socialization

		Risk Factors	Master Plan	Freshman Seminar	Internal Mentors	External Mentors	Active Engage	Passive Engage
Commitment	Correlation	-.124(*)	.060	.094(*)	.198(**)	.178(**)	.229(**)	.218(**)
	Sig.	.012	.139	.044	.000	.001	.000	.000
	N	330	329	330	329	328	329	329
Socialization	Correlation	.004	.124(*)	.026	.171(**)	.198(**)	.402(**)	.317(**)
	Sig.	.471	.012	.318	.001	.000	.000	.000
	N	330	329	330	329	328	329	329
History	Correlation	-.034	.125(*)	.054	.180(**)	.206(**)	.366(**)	.240(**)
	Sig.	.271	.012	.162	.001	.000	.000	.000
	N	330	329	330	329	328	329	329
Language	Correlation	.180(**)	-.118(*)	-.126(*)	-.045	-.009	.024	.078
	Sig.	.001	.016	.011	.209	.437	.330	.079
	N	330	329	330	329	328	329	329
Politics	Correlation	-.059	.140(**)	.036	.248(**)	.181(**)	.355(**)	.300(**)
	Sig.	.144	.005	.258	.000	.001	.000	.000
	N	330	329	330	329	328	329	329
People	Correlation	-.036	.216(**)	.098(*)	.104(*)	.174(**)	.461(**)	.213(**)
	Sig.	.257	.000	.038	.029	.001	.000	.000
	N	330	329	330	329	328	329	329
Values	Correlation	-.110(*)	.146(**)	.088	.251(**)	.212(**)	.399(**)	.323(**)
	Sig.	.023	.004	.055	.000	.000	.000	.000
	N	330	329	330	329	328	329	329
Performance	Correlation	.068	.040	-.037	.032	.110(*)	.166(**)	.269(**)
	Sig.	.110	.233	.250	.284	.023	.001	.000
	N	330	329	330	329	328	329	329

*coefficient is significant at 0.05 level.
**coefficient is significant at 0.01 level.

Table 4
Master Plan and Predictors of Commitment and Socialization: Standardized Beta Coefficients

	Model 1	Model 2		Model 3					
	Risk	Risk	Master Plan	Risk	Master Plan	Internal Mentors	External Mentors	Active Engage	Passive Engage
Commitment	-.12*	-.12*	.03	-.08	-.05	.08	.08	.16**	.11
Socialization	-.02	.04	.14*	.10	.00	-.05	.13*	.32**	.21**
History	-.04	-.00	.13*	.05	.01	.01	.13*	.29**	.12*
Language	.18**	.16**	-.07	.18**	-.10	-.12	.04	.05	.14*
Politics	-.07	-.03	.14*	.01	.02	.09	.06	.25**	.17**
People	-.03	.03	.23**	.08	.08	-.09	.11*	.44**	.06
Values	-.11*	-.08	.13*	-.03	-.00	.07	.09	.29**	.17**
Performance	.06	.08	.07	.13*	-.00	-.15*	.11	.10	.29**

*coefficient is significant at 0.05 level.
**coefficient is significant at 0.01 level.

Table 5
Freshman Seminar and Predictors of Commitment and Socialization: Standardized Beta Coefficients

	Model 1	Model 2		Model 3					
	Risk	Risk	Freshman Seminar	Risk	Freshman Seminar	Internal Mentors	External Mentors	Active Engage.	Passive Engage.
Commitment	-.12*	-.10	.05	-.06	.01	.09	.08	.14*	.11
Socialization	-.00	.01	.04	.08	-.06	-.05	.12*	.34**	.22**
History	-.04	-.02	.06	.04	-.01	.01	.13*	.30**	.12*
Language	.17**	.15*	-.06	.17**	-.09	-.12*	.04	.04	.14*
Politics	-.07	-.06	.02	-.01	-.05	.08	.07	.27**	.17**
People	-.03	.00	.09	.06	-.02	-.09	.11*	.46**	.07
Values	-.12*	-.09	.06	-.04	-.02	.07	.09	.30**	.18**
Performance	.06	.06	-.01	.11	-.06	-.15*	.11	.11	.30**

*coefficient is significant at 0.05 level.
**coefficient is significant at 0.01 level.

down the traditions, values, and norms to temporary organizational members. In addition, universities are increasingly looking to their alumni to contribute to endowments that will help finance future expansion. Obviously, students who leave the campus after a semester have little desire to support the institution fifteen or twenty years after graduation. However, even putting financial considerations aside, there are important questions that universities face. Are they providing the environment that newcomers expect in a college community? If a university is losing one-third of its members and a disproportionate number of its diverse students, the answer is "no". As educators, such a negative response is unacceptable. Consequently, colleges continue to spend enormous resources to support programs that may increase retention.

Many retention programs begin with good intentions. In this study, the university adopted Master Plan and Freshman Seminar. As in many similar projects, the ultimate goal is to increase student retention. The immediate goals are to increase student socialization and commitment toward the institution. However, once these programs gain momentum, little research is actually done to observe if the programs are achieving the original objectives.

In this study, we looked at high-risk and low-risk students. We hypothesized that high-risk or diverse students who had gone through Master Plan and Freshman Seminar would not feel as committed or socialized as their traditional counterparts. These hypotheses proved accurate. We also hypothesized that Master Plan and Freshman Seminar would not contribute towards increased organizational commitment. This hypothesis was also supported. Internal and external mentoring did somewhat contribute to socialization and commitment. However, involvement in student activities appeared to have the greatest impact on socialization.

There are several reasons why mentoring is successful in socialization. Mentoring provides an opportunity for individual counseling. Not every student has the same questions about college. Students come from a wide variety of backgrounds and experiences, and consequently, their needs and concerns are different. Moreover, some students feel too intimidated to ask questions in a group setting such as Freshman Seminar and Master Plan. Furthermore, mentoring can also last longer than the first semester allowing the student to have feedback throughout their academic career. This could help both the student and the institution since researchers have found that students who maintain communication and interaction with faculty members are more likely to remain in college (Tinto, 1975; Pascarella & Terenzini, 1977).

If mentoring appears to be positively related to student socialization and commitment, why is it not an integral part of every student's experience? One reason is that students take advantage of student services differently. Not all students want to have a mentor. In addition, faculty often find it difficult to find the time to be a mentor given the other demands on their time for teaching, research, and service. This is not a relationship that can be "forced" by the institution. As valuable as mentoring may be for the incoming student, there is substantial evidence that the participants should enter into the relationship by mutual choice (Otto, 1994). In this way, both participants can agree to goals and build upon mutual respect for each other.

On a positive note, most students do graduate from college. It is also encouraging that many universities realize that there are things they can do to influence student success. The real need is to have formal assessments of retention programs to determine best practices and unintended consequences. Attendance patterns will continue to shift in higher education. This will call for innovative programs. Universities that adopt successful retention strategies could experience a wave of growth in the future.

One unintended finding in this study was the role that activities play in increasing socialization and commitment. Further research needs

to be conducted to determine if certain activities have more of an influence than others. Also, if engaging in activities are related to mentor support.

This study focuses on commitment. There is evidence that researchers need to take a multidimensional view of commitment (Becker & Billings, 1996). Future research should see if either forms of commitment are more directly related to socialization and retention.

In addition, although this study did not focus specifically on individual demographic variables, research indicates that demographic variables such as gender are significantly related to job satisfaction and commitment (Fogarty, 1994). Finally, this research looked at how organizations affected students, future research should look at the impact that students have had on academic organizations.

As with any self-report questionnaire, there were limitations to this study. Although all the scale items used in this study came from valid and reliable instruments, students still make choices on five and seven-point scales. These scales may not completely capture the nuances of their feelings. In addition, students were also making choices that could reflect what they considered to be socially correct responses as opposed to their own values. Finally, although retention is not just a higher education concern, it would be problematic to generalize across other organizations given the sample size, time frame, and idiosyncrasies of a public university.

References

Becker, T. E., & Billings, R. S. (1996). Foci and bases of employee commitment: Implications for job performance. Academy of Management Journal, 39:2, 464-474.

Berger, C. R., & Calabrese, R. (1975). Some explanations in initial interaction and beyond: Toward a developmental theory of interpersonal communication. Human Communication Research, 1,99-112.

Chatman, J. A. (1991). Matching people and organizations: Selection and socialization in public accounting firms. Administrative Science Quarterly, 36, 459-484.

Chao, G., O'Leary-Kelly, A.., Wolf, S., Klein, H., & Gardner, P. (1994). Organizational socialization: Its content and consequences. Journal of Applied Psychology, 79(5), 730-743.

Fogarty, T . A. (1994). Public accounting work experience: The influence of demographic and organizational attributes', Managerial Auditing Journal, 9(7): 12-20.

Jones, G. R. (1986). Socialization tactics, self-efficacy and newcomers' adjustments to organizations. Academy of Management Journal, 29, 262-279.

Laden, B. V. (1999). Socializing and mentoring college students of color: The puente project as an exemplary celebratory socialization model. Peabody Journal of Education. 74 (2), 55-68.

Levitz, R., & Noel, L. (1989). Connecting students to institutions: Keys to retention and success. In M. L. Upcraft & J. Gardner (Eds.) The Freshman Year Experience (pp. 65-81). San Francisco: Jossey-Bass.

Louis, M. R. (1980). Surprise and sense making: What newcomers experience in entering unfamiliar organizational settings. Administrative Science Quarterly, 25, 226-251.

Louis, M. R., Posner, B. Z., & Powell, G. N. (1983). The availability and helpfulness of organizational practices. Personal Psychology, 36, 857-866.

Mowday, R., Steers, R. & Porter, L. (1979). The measurement of organizational commitment. Journal of Vocational Behavior, 14, 224-247.

Otto, M. L. (1994). Mentoring: An adult developmental perspective. In M.A. Wunsch (Ed.), Mentoring revisited: Making an impact on individuals and institutions (pp. 15-24). San Francisco: Jossey-Bass.

Pascarella, E. T. & Terenzini, P. T. (1977). Patterns of student-faculty interactions beyond the classroom and voluntary freshman attrition. Journal of Higher Education, 48, 540-552.

Pepper, G. L. (1995). Communicating in organizations: A cultural approach. New York: McGraw-Hill.

Schein, E. H. (1968). Organizational socialization and the profession of management. Industrial Management Review, 9, 1-16.

Taormina, R. J. (1999). Predicting employee commitment and satisfaction: the relative effects of socialization and demographics. International Journal of Human Resource Management, 10:6, 1060-1076.

Tinto, V. (1975). Dropout from higher education: A theoretical synthesis of recent research. Review of Educational Research, 45, 89-125.

Upcraft, M. L. & Gardner, J. (1989). The Freshman Year Experience. San Francisco: Jossey-Bass.

Van Maanen, J. (1978). People processing: Strategies of organizational socializing. Organizational Dynamics, 7, 18-36.

Yoder, J. D., Adams, J., Grove, S., & Priest, R. F. (1985). To teach us to learn: Overcoming tokenism with mentors. Psychology of Women Quarterly, 9, 119-131.

Scholarly Productivity: Another Piece in the Gender Puzzle

Susan Washburn Taylor
Associate Professor of Economics
Else School of Management
Millsaps College

Kimberly Gladden Burke
Associate Professor of Accounting
Else School of Management
Millsaps College

Blakely Fox Fender
Assistant Professor of Economics
Else School of Management
Millsaps College

ABSTRACT

Previous research has identified the gender gap in economists' scholarly productivity wherein male economists publish more than do their female counterparts. Using individual-specific information obtained from 712 economists, this study investigates the effects of teaching and service commitments on scholarly productivity, focusing specifically on the ability of differences in teaching and service commitments to explain the gender gap.

Regression results indicate that women publish fewer articles than men. In addition, these results reveal that teaching and service commitments do, in fact, negatively affect scholarly production for both genders. Further analysis of gender interaction terms, however, suggests that teaching and service commitments do not negatively affect female economists more than men as previous research has posited. While these results clarify the role of teaching and service in scholarly production, more research is needed to better understand the gender gap.

Introduction

In piecing together the picture of scholarly productivity of economists, researchers often discover the significant influence of what many outside of the discipline might assume is no longer a relevant variable – gender. Numerous studies, however, have found that female economists publish at lower rates than do their male peers. Broder (1993), Fish and Gibbons (1989), Barbezat (1992), McDowell and Smith (1992), Maske, Durden and Gaynor (2003), Fender, Taylor and Burke (2005) and Taylor, Fender, and Burke (2006) all report that women publish significantly less than men. In addition to the significance of gender as an indicator of productivity, the resultant gender gap has serious implications for the careers of women economists.

It is generally accepted in the academic community that publication records have a tremendous impact on career advancement, and thus one of the more pragmatic implications of this research is that the gender differential may affect women's success rate in attaining tenure and promotion. Both Ginther and Khan (2004) and McDowell, Singell and Ziliak (2001) find that women are less likely to receive tenure and promotion than are men in large measure due to lower scholarly productivity.

Admittedly, while the existence of a gender gap in productivity is well documented, the causes for this observed gap remain a puzzle. Using the Oxaca-Blinder decomposition technique, Maske, Durden and Gaynor (2003) find that more than half of the difference between male and female article production cannot be explained by their model, findings consistent with those of McDowell and Smith (1992). They posit that "unmeasured choice factors" may explain the output differential, citing as an example that women may be more involved in service activities at the expense of research. Similarly, in a study of gender differences in accounting academics, Dwyer (1994) notes the "disproportionate participation in service and teaching activities" of women as a possible explanation for lower productivity.

Using a uniquely rich data set, the current paper adds a new piece to this gender puzzle, clarifying the role of teaching and service in scholarly productivity and examining whether they contribute to the gender gap. Based on individual-specific data collected from 712 economists, this study examines extensive information regarding teaching and service commitments as well as personal and institutional information. By matching each respondent's data to his or her publication record, this paper quantifies gender-related differences in response to teaching and service commitments which may contribute to the productivity differential, a puzzle piece which other researchers have been unable to provide due to data limitations.

Section II of the paper presents a model of research productivity and the data used in our analysis. Section III provides the empirical evidence, and Section IV presents our summary and conclusions.

The Model and the Data

Taylor, Fender and Burke (2006) model academic scholarship as a utility maximization problem, where scholars maximize the production of articles subject to the constraint of time. Thus productivity (P) may be expressed as a function of the alternative use of the academic's time (teaching and service), institutional support for research, and other individual-specific factors.[1] Productivity can thus be modeled as:

$$P = f(\text{Teaching, Service, Institutional, Personal}) \quad (1)$$

where Teaching, Service, Institutional and Personal are each vectors that contain variables related to teaching load, service commitments, departmental/institutional characteristics, and personal demo-

1 For additional information on modeling scholarly productivity, see Maske, Durden and Gaynor (2003) and McDowell and Melvin (1983).

graphics, specifically. The measure of productivity and regressors are described below.

To estimate the theoretical model, data was gathered from a web-based survey conducted in spring 2003. The survey produced 712 usable responses from academic economists in the U.S.[2] Respondents provided a variety of information related to economists' human capital and workplace characteristics, including teaching and service commitments. Many of the time-varying characteristics elicited in the survey were limited to the five year period from 1998-2002. While this time period is somewhat arbitrary, it is a sufficient period to reflect conditions over time without being so long as to make recall difficult and thus reduce the survey response rate.

Scholarly Productivity

Refereed journal articles are commonly accepted as the primary outlet for scholarly research in the field. Accordingly, information regarding peer-reviewed journal articles (including notes, but excluding comments and replies) from 1998-2002 for each respondent was gathered from the EconLit database.3 In total, the individuals in the sample published 2,010 articles in 378 different journals during this time period. Of these, 212 articles were published in the top ten economics journals,4 with more articles (73) appearing in The American Economic Review (AER) than any other journal. The number of journal articles was used as the baseline to create an index of each respondent's research productivity.

Baseline articles were adjusted for the quality of the journal in which they were published. While accounting for quality is essential, it is also quite slippery as there is no commonly acknowledged scale of scholarly excellence This study uses the quality weighting derived from Laband and Piette's ranking of 130 journals (1994, Table A2, Rankings Based on Impact Adjusted Citations Per Character), calculated from articles indexed in the *Social Science Citation Index*. One adjustment was necessary to Laband and Piette's ratings because that system includes several 0 values which essentially would render publications in these journals as equivalent to no publication at all. In addition, there are more than 300 journals in the data set which are not included in Laband and Piette's study and which would implicitly have received a 0 value, also rendering them equivalent to no publication. To recognize the publication value of these articles while conservatively weighting the quality of these journals, a nominal value was assigned to these data points. Based on the arguments of Bodenhorn (1997), the quality weighting used in this study was the square root of the modified Laband and Piette adjustment factors.

The productivity index (PI) is thus calculated as:

$$\boldsymbol{P}_{i} = \sum_{j=1}^{n} (P * q_{j})$$

where:

P = the number of publications
q = the square root of impact adjusted citations per character
i = individual
j = journal

Table 1 provides the mean for both the dependent and independent variables for the overall sample (column 1), for women (column 2) and for men (column 3). Column 4 indicates whether the means are significantly different for women and men. Consistent with much of the previous research, the mean of the productivity index for women, 3.03, is significantly lower than that for men, 4.57.

Teaching and Service Commitments

Professional responsibilities that compete for an academic's time are expected to influence productivity. In particular, those responsibilities that are scheduled periods of time over which the researcher has little control may dilute the blocks of time available and needed to conduct quality research. As a result, quality research production is expected to be negatively related to a scholar's two largest time competitors, teaching and service.

The individual's teaching commitment is measured by three variables. Undergraduate and graduate teaching during the regular academic term are included separately, each measured as the total number of credit hours taught during the year. Teaching in the summer (measured here in the number of credit hours taught in the summer session(s)) is typically viewed as an optional activity. As many academics use the summer as a block of time which can be dedicated to scholarship, summer teaching is hypothesized to be negatively related to research productivity.

Service commitment is measured by three increasingly time consuming activities. Committee is the average number of committees on which a person serves in a typical year, exclusive of the average number of committees an individual chairs. Committee Chair is the average number of committees a person chairs in a typical year. And Department Chair is the number of years an individual has served as department chair or program director in the five-year period under review.

The second and third columns of Table 1 present the mean values of these workplace variables which compete with research for the academic's time. With regard to teaching, the average graduate and

2 E-mail addresses were obtained from Hasselback (2002). 4,864 economists were asked to complete the survey. There were 907 responses yielding a participation rate of roughly 19%.

3 The online EconLit search was conducted in May, 2003. The database covers all journals catalogued by Journal of Economic Literature. It is possible that articles in journals not included in EconLit have been omitted, but short of having a vitae for each respondent, this is the most comprehensive source of publication data available.

4 The top ten journals are defined as American Economic Review, Journal of Political Economy, Quarterly Journal of Economics, Review of Economics and Statistics, Review of Economic Studies, Econometrica, Economic Journal, Journal of Monetary Economics, Journal of Economic Theory, and International Economic Review.

Table 1
Summary Statistics

	Overall Sample (n=712)	Female (n=148)	Male (n=564)	Sig
Productivity Index	4.25	3.03	4.57	**
	(8.72)	(6.43)	(9.20)	
Teaching and Service				
undergraduate load	11.31	13.1	10.86	**
	(6.62)	(6.42)	(6.60)	
graduate load	2.63	2.21	2.75	*
	(3.55)	(3.07)	(3.66)	
summer hours	1.4	1.26	1.44	*
	(2.56)	(2.58)	(2.56)	
committee member	2.36	2.54	2.31	*
	(1.44)	(1.48)	(1.43)	
committee chair	0.82	0.73	0.85	*
	(0.90)	(0.90)	(0.90)	
department chair	1.35	0.92	1.47	**
	(1.79)	(1.44)	(1.86)	
Institutional Characteristics				
private support	0.41	0.45	0.4	
	(0.49)	(.50)	(0.49)	
doctoral degree	0.4	0.36	0.42	
	(0.49)	(0.48)	(0.49)	**
summer stipend	1.17	1.11	1.19	
	(1.69)	(1.51)	(1.73)	
Personal Characteristics				
Review	0.55	0.5	0.57	
	(0.94)	(0.87)	(0.96)	
Presentations	1.98	1.83	2.03	
	(2.04)	(1.34)	(2.19)	
Books	1.14	0.4	1.35	
	(2.50)	(0.94)	(2.74)	**
Chapters	2.34	0.78	2.77	
	(5.72)	(1.90)	(6.30)	
average coauthors	0.57	0.56	0.57	
	(.66)	(0.61)	(0.67)	
Experience	19.43	13.86	20.92	**
	(9.61)	(7.70)	(9.52)	

Notes: * denotes statistical significance at the 10 percent level. ** denotes statistical significance at the 5 percent level. The summer stipend and department chair variables have been averaged for the 5 year time frame.

summer hours taught by women are significantly lower, while the average undergraduate hours taught by women are significantly higher than for men. Similarly, while women devote significantly more time to committee service, they spend less time chairing committees or acting as department chair than do men.

Institutional Variables

Institutional attributes, such as degrees offered, departmental environment and support, are characteristics of the department or institution in which the respondent works that may influence productivity. To reflect the highest degree in economics offered by the respondent's department, a binary dummy is included which takes the value of one (1) if the institution offers a Ph.D in economics and zero (0) otherwise. With the resources available to and the research expectations of faculty at doctoral granting departments, one would expect these faculty members to publish more than their peers at master's or baccalaureate-granting departments.

Beyond the type of degree offered by the department, the research climate of the department is also expected to influence quality publication as well. This effect is proxied by summer stipends to support research activities and is measured as the number of stipends received over the five year period under review. Such grants reduce the need to teach in the summer for supplemental income and are an indication of departmental research support.

A final descriptor of the institution used as a regressor is whether the institution is publicly or privately funded. The sign of Support, which takes a 1 if privately funded and 0 otherwise, is uncertain *a priori*, though Maske, Durden, and Gaynor (2003) find a similar variable negative. As seen in Table 1, neither private support nor summer stipend show any significant difference in means between gender.

Personal Attributes

As previously noted, although prior research has produced some mixed results (Davis and Patterson, 2000; Bodenhorn, 1997), numerous studies (Broder, 1993; Fish and Gibbons, 1989; Barbezat 1992; McDowell and Smith 1992; Maske, Durden and Gaynor 2003; Fender, Taylor and Burke 2005; and Taylor, Fender and Burke 2006) of research productivity find evidence that women are less likely to publish than men. Accordingly, a dummy variable for gender equal to 1 for females and 0 for males is included in the initial regression.

Gains in human capital related to time on the job are expected to generate higher levels of productivity, (Maske, Durden, and Gaynor, 2003; Bodenhorn, 1997, Taylor, Fender and Burke (2006). To reflect this anticipated increase in publications, the experience variable, defined as the number of years since completion of the Ph.D., is included in the model. The likely effects of diminishing returns to experience is accounted for by including experience squared as well.

Like experience on the job, working with other scholars should increase the odds of creating publishable research. The literature on co-authorship indicates productivity gains from joint endeavors, largely based on a division of labor argument. Accordingly, McDowell and Melvin (1983), Barnett, Ault, and Kaseman (1988), Davis and Patterson (2000), and Maske, Durden and Gaynor (2003), Fender, Taylor and Burke (2005) and Taylor, Fender and Burke (2006) all find positive returns to co-authorship. The co-authorship variable included in the model is measured as the average number of coauthors per published article and enters the equation both directly and squared to reflect diminishing returns to coauthorship.

Table 2. Regression Results

	(1)	(2)	
	Basic Regression	(Interaction Terms in Second Column)	
Constant	1.13	1.63	
	(0.46)	(0.93)	
Teaching and Service			
Undergraduate Hours	-0.15 **	-0.16 **	0.06
	(2.90)	(2.8)	(0.47
Graduate Hours	-0.03	-0.04	0.09
	(0.35)	(0.47)	(0.36)
Summer Hours	-0.16 *	-0.16	0.02
	(1.40)	(1.25)	(0.09)
Committee Member	-0.29 *	-0.37 **	0.3
	(1.52)	(1.72)	(0.64)
Committee Chair	-0.47 *	-0.59 *	0.2
	(1.47)	(1.60)	(0.25)
Department Chair	-0.55 **	-0.56 **	0.26
	(3.37)	(0.23)	(0.53)
Institutional Characteristics			
Public Institution	0.94 **	0.65	0.41
	(1.64)	(0.99)	(0.28)
Doctoral Granting	1.81 **	2.4 **	-2.81 *
	(2.65)	(3.14)	(1.58)
Summer Stipend	2.21 **	2.5 **	-0.83
	(2.62)	(2.69)	(0.35)
Personal Characteristics			
Review	1.03 **	0.84 **	1.11 *
	(3.55)	(2.62)	(1.41)
Presentations	1.12 **	1.19 **	-0.76 *
	(7.03)	(7.04)	(1.37)
Books	-0.43 **	-0.42 **	0.27
	(3.01)	(2.90)	(0.36)
Chapters	0.29 **	0.28 **	-0.39
	(4.83)	(4.45)	(1.05)
Coauthors	4.43 **	4.1 **	3.43
	(5.37)	(4.54)	(1.18)
Coauthors Squared	-1.43 **	-1.31 **	-1.95
	(4.07)	(3.59)	(1.20)
Experience	0.16 *	0.16	0.01
	(1.44)	(1.25)	(0.32)
Experience Squared	-0.01 **	-0.01 **	-0.01
	(1.67)	(1.51)	(0.27)
Female	-1.14 **	-2.67	
	(1.65)	(0.71)	
Adj. R squared	0.39	0.38	

Notes: Absolute t-statistics reported in parentheses. * denotes statistical significance at the 10 percent level. ** denotes statistical significance at the 5 percent level. The summer stipend and department chair variables have been averaged for the 5 year time frame.

The study also recognizes the potential effects of certain professional activities on productivity. In essence, these activities reflect one's motivation and ambition to succeed. Submissions early in one's career (here measured as the number of articles under review before taking the first full-time academic job) should be a positive predictor of future publication success. Similarly, many economists choose to present their work at professional conferences. These presentations are assumed to positively impact publication as they provide a valuable mechanism for pre-submission feedback and impose deadlines for completion of manuscripts. Finally, many academics choose to present their work in chapter or book form. It is unclear *a priori* whether such activities would add to or detract from scholarly publication in peer-reviewed journals.

As can be seen from Table 1, the men in the sample have significantly more experience and more books published.

The Regression Results

Two important questions are addressed in this study. First, to what extent do teaching and institutional service commitments influence scholarly publication? Second, does the impact of these activities vary by gender, and if so, how different is the effect? The answers to both questions have potentially important implications for both faculty and administrators.

Table 2 provides results of two different regression models, both estimated by ordinary least squares. Regression (1) includes as independent variables all those regressors described in the previous section with absolute t-statistics in parentheses below the coefficient estimates. To examine whether or not teaching and service affect productivity differently across genders (as is implied by Maske, Durden and Gaynor 2003 and Dwyer 1994), regression (2) includes a series of interaction terms between the female dummy variable and the regressors in Column 1.

The results of the basic regression (1) provide several interesting conclusions. With the exception of graduate hours taught, all coefficients are statistically significant and all have the anticipated sign. In addition, the adjusted R^2 term is a respectable 0.39.

As expected, service commitments significantly decrease the productivity index with service as committee chair or departmental chair have larger negative impacts. The impact of teaching, however, is two-fold. While undergraduate and summer teaching significantly reduce productivity, the coefficient for graduate teaching load is negative but statistically insignificant. This may imply that the intellectual stimulation of teaching at the graduate level compensates for the potential research time lost in a way which does not apply to undergraduate teaching.

The environment in which one works influences the individual's scholarly productivity. As compared to peers at institutions which offer only the undergraduate or master's degree in economics, col-

leagues at doctoral granting departments publish significantly more. Departmental support in the form of summer stipends frees the individual to work on research projects and significantly increases scholarly productivity. Similar to the findings of Maske, Durden and Gaynor (2003), individuals at publicly funded institutions publish less than those at privately funded institutions.

Consistent with previous findings of Taylor, Fender and Burke (2006), Fender, Taylor and Burke (2005), Maske Durden, and Gaynor (2003), Broder (1993), Fish and Gibbons (1989), Barbezat (1992) and McDowell and Smith (1992), men publish significantly more than women. Experience also plays the expected role with significantly positive but diminishing returns to time on the job. Similar results are found for co-authorship suggesting that working with coauthors pays off in terms of significantly higher productivity though again with diminishing impact.

The other personal characteristics are measures of how aggressively one pursues the scholarly career, and all are significant with the exception of books published. The number of articles under review before accepting the first job significantly increases productivity as do presentations at professional meetings and chapters published. Effort spent authoring book, however, reduces the productivity index.

Gender Effects

The gender coefficient in the basic regression is statistically significant, supporting the findings of others that *ceteris paribus*, women publish less than men. Given the propositions that this gender gap may result from differences in teaching and service between men and women (Maske, Durden, and Gaynor 2003; Dwyer 1994), it is useful to examine this proposition empirically.

Accordingly, regression (2) includes a series of interaction terms to the model where each of the explanatory variables in the basic regression (1) is interacted with the female dummy variable. The inclusion of the interaction term allows us to determine whether or not a particular characteristic affects the productivity of women differently than for men. Only three of the interaction terms (presented in the right hand portion of column 2) are statistically significant.

First and foremost, regression results do not indicate that teaching and service responsibilities impact women's scholarly productivity any differently than male's scholarly productivity. The results further indicate that women at doctoral granting institutions publish significantly less than their male counterparts. In addition, the benefit to women of an additional presentation at a conference is smaller than for men, perhaps indicating that men benefit more from the networking opportunities of conferences. Finally, the benefit to women of having an article under review before accepting the first academic position is larger relative to men. This result may support the need for women to enter their academic career from a relative position of strength in order to sustain their scholarly success.

Summary

Using a rich data set, this article has examined the effect that workplace variables, institutional characteristics and personal attributes have on the scholarly productivity of academic economists. Overall, the results support the hypothesis that additional teaching and service commitments vie for the researcher's time and thus reduce scholarly work in peer reviewed journals. The analysis also shows that women publish significantly less than men, while dispelling the idea that gender responses to teaching and service explain the gender gap. In addition, this research begins the process of highlighting some of those institutional and personal characteristics that contribute to the gender gap. While this research clarifies the role of teaching and service in the gender puzzle, much more research is needed to make the picture clear.

References

Barbezat, Debra A., "The Market for New PhD Economists," *Journal of Economic Education* 23 (Summer 1992): 262-76.

Barnett, Andy H., Richard W. Ault, and David L. Wassermann, "The Rising Incidence of Coauthor ship in Economics: Further Evidence," *Review of Economics and Statistics* 70 (August 1988): 539-43.

Bodenhorn, Howard, "Teachers, and Scholars Too: Economic Scholarship at Elite Liberal Arts Colleges," *Journal of Economic Education* (Fall 1997): 323-536.

Broder, Ivy E., "Professional Achievements and Gender Differences among American Economists," *Economic Inquiry* 31 (January 1993): 116-27.

Davis, Joe C. and Debra Moore Patterson. "Determinants of Variations in Journal Publication Rates of Economists," *The American Economist* 45:1 (Spring 2000): 86-91.

Dwyer, P.D. "Gender Differences in the Scholarly Activities of Accounting Academics: An Empirical Investigation," *Issues in Accounting Education* 9:2 (1994): 231-246.

Fish, Mary and Jean D. Gibbons, "A Comparison of the Publications of Female and Male Economists," *Journal of Economic Education*, 20 (Winter 1989): 93-105.

Fender, Blakely F., Susan W. Taylor, and Kimberly G. Burke, "Making the Big Leagues: Factors Contributing to Publication in Elite Economics Journals," *Atlantic Economic Journal* 33:1 (March 2005).

Ginther, Donna K., and Shulamit Kahn, "Women in Economics: Moving Up or Falling Off the Academic Career Ladder?" *Journal of Economic Perspectives* 18:3 (Summer 2004): 193-214.

Hasselback, James R., 2002 Prentice Hall Guide to Economics Faculty. Prentice Hall, 2002.

Laband, David N. and Michael J. Piette, "The Relative Impacts of Economics Journals: 1970-1990." *Journal of Economic Literature* 32: (1994) 32:640-66.

Maske, Kellie L., Garey C. Durden, and Patricia E. Gaynor, "Determinants of Scholarly Productivity Among Male and Female Economists," *Economic Inquiry* 41 (October 2003): 555-564.

McDowell, John M., Larry D. Singell Jr. and James P. Ziliak, "Gender and Promotion in the Economics Profession," *Industrial and Labor Relations Review* 54:2 (2001): 224-44.

McDowell, John M. and Michael Melvin, "The Determinants of Co-Authorship: an Analysis of the Economic Literature," *Review of Economics and Statistics* 65 (February 1983): 155-160.

McDowell, John M. and Janet Kiholm Smith, "The Effect of Gender Sorting on Propensity to Coauthor: Implications for Academic Promotion," *Economic Inquiry* 30 (January 1992): 68-82.

Taylor, Susan W., Blakely F. Fender, and Kimberly G. Burke. "Unraveling the Academic Productivity of Economists: The Opportunity Costs of Teaching and Service," *Southern Economic Journal* (2006 forthcoming).